Focal Length 25mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	33'5.54"	29'10.94"	26'8.98"	23'11.2"	21'5.09"	19'2.28"	17'2.38"	15'5.08"	13'10.1"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	33'4.01"	Infinity	29'9.43"	Infinity	26'7.49"	Infinity	23'9.69"	Infinity	21'3.58"	Infinity	19'0.76"	Infinity	17'0.86"	Infinity	15'3.57"	Infinity	13'8.6"	Infinity
100'0''	25'3.91"	Infinity	23'3.08"	Infinity	21'3.76"	Infinity	19'5.98"	Infinity	17'9.7"	Infinity	16'2.91"	Infinity	14'9.55"	Infinity	13'5.57"	Infinity	12'2.92"	Infinity
50'0''	20'5.02"	Infinity	19'0.88"	Infinity	17'9.21"	Infinity	16'6.09"	Infinity	15'3.59"	Infinity	14'1.77"	Infinity	13'0.65"	Infinity	12'0.27"	Infinity	11'0.65"	Infinity
30'0''	16'2.69"	275'2.92"	15'4.58"	Infinity	14'6.48"	Infinity	13'8.44"	Infinity	12'10.54"	Infinity	12'0.83"	Infinity	11'3.38"	Infinity	10'6.23"	Infinity	9'9.43"	Infinity
20'0''	12'10.89"	47'2.23"	12'4.61"	56'11.03"	11'10.17"	74'2.55"	11'3.62"	113'0.42"	10'9"	276'11.96"	10'2.35"	Infinity	9'7.71"	Infinity	9'1.14"	Infinity	8'6.67"	Infinity
15'0''	10'8.59"	25'9.77"	10'4.35"	28'4.65"	9'11.94"	31'11.88"	9'7.37"	37'4.16"	9'2.68"	46'0.91"	8'9.88"	62'7.95"	8'5.02"	105'10.5"	8'0.11"	487'7.76"	7'7.19"	Infinity
12'0''	9'1.91"	17'9.26"	8'10.89"	18'10.98"	8'7.7"	20'4.76"	8'4.37"	22'4.54"	8'0.9"	25'1.71"	7'9.31"	29'2.75"	7'5.62"	35'9.99"	7'1.84"	48'2.26"	6'10.01"	79'3.01"
10'0''	7'11.96"	13'6.63"	7'9.71"	14'2.22"	7'7.33"	14'11.7"	7'4.81"	15'11.77"	7'2.17"	17'3.54"	6'11.4"	19'0.84"	6'8.52"	21'6.95"	6'5.55"	25'4.42"	6'2.49"	31'8.31"
9'0''	7'4.47"	11'8.42"	7'2.6"	12'1.92"	7'0.6"	12'8.67"	6'10.48"	13'5.1"	6'8.23"	14'3.82"	6'5.88"	15'5.83"	6'3.41"	17'0.74"	6'0.85"	19'3.46"	5'10.2"	22'7.77"
8'0''	6'8.6"	9'11.95"	6'7.08"	10'3.83"	6'5.45"	10'8.52"	6'3.72"	11'2.27"	6'1.87"	11'9.43"	5'11.92"	12'6.51"	5'9.86"	13'6.31"	5'7.71"	14'10.16"	5'5.47"	16'8.39"
7'6''	6'4.51"	9'2.31"	6'3.17"	9'5.53"	6'1.72"	9'9.39"	6'0.17"	10'2.09"	5'10.51"	10'7.87"	5'8.76"	11'3.11"	5'6.9"	12'0.38"	5'4.96"	13'0.56"	5'2.92"	14'5.15"
7'0''	6'0.32"	8'5.03"	5'11.14"	8'7.67"	5'9.86"	8'10.82"	5'8.49"	9'2.62"	5'7.03"	9'7.25"	5'5.47"	10'0.98"	5'3.81"	10'8.2"	5'2.07"	11'5.52"	5'0.25"	12'5.88"
6'6''	5'8.02"	7'8.1"	5'6.99"	7'10.24"	5'5.89"	8'0.77"	5'4.69"	8'3.81"	5'3.41"	8'7.47"	5'2.04"	8'11.96"	5'0.58"	9'5.54"	4'11.04"	10'0.61"	4'9.42"	10'9.78"
6'0''	5'3.6"	6'11.49"	5'2.73"	7'1.2"	5'1.78"	7'3.21"	5'0.75"	7'5.6"	4'11.65"	7'8.46"	4'10.47"	7'11.93"	4'9.2"	8'4.19"	4'7.86"	8'9.5"	4'6.44"	9'4.25"
5'6''	4'11.07"	6'3.19"	4'10.34"	6'4.53"	4'9.54"	6'6.1"	4'8.67"	6'7.95"	4'7.74"	6'10.14"	4'6.73"	7'0.78"	4'5.66"	7'3.98"	4'4.51"	7'7.91"	4'3.29"	8'0.82"
5'0''	4'6.41"	5'7.19"	4'5.81"	5'8.21"	4'5.16"	5'9.4"	4'4.44"	5'10.8"	4'3.67"	6'0.45"	4'2.84"	6'2.42"	4'1.94"	6'4.77"	4'0.98"	6'7.62"	3'11.95"	6'11.13"
4'9''	4'4.03"	5'3.29"	4'3.5"	5'4.17"	4'2.91"	5'5.21"	4'2.27"	5'6.41"	4'1.57"	5'7.83"	4'0.82"	5'9.5"	4'0.01"	5'11.5"	3'11.14"	6'1.91"	3'10.21"	6'4.85"
4'6''	4'1.62"	4'11.46"	4'1.15"	5'0.22"	4'0.62"	5'1.1"	4'0.05"	5'2.13"	3'11.43"	5'3.34"	3'10.76"	5'4.76"	3'10.03"	5'6.44"	3'9.25"	5'8.46"	3'8.41"	5'10.91"
4'3''	3'11.18"	4'7.69"	3'10.76"	4'8.34"	3'10.3"	4'9.09"	3'9.8"	4'9.96"	3'9.25"	4'10.98"	3'8.65"	5'0.17"	3'8"	5'1.58"	3'7.31"	5'3.26"	3'6.56"	5'5.28"
4'0''	3'8.7"	4'3.99"	3'8.34"	4'4.53"	3'7.93"	4'5.16"	3'7.49"	4'5.89"	3'7.01"	4'6.74"	3'6.49"	4'7.73"	3'5.92"	4'8.9"	3'5.31"	4'10.28"	3'4.65"	4'11.93"
3'9''	3'6.19"	4'0.35"	3'5.87"	4'0.8"	3'5.53"	4'1.32"	3'5.15"	4'1.93"	3'4.73"	4'2.63"	3'4.28"	4'3.44"	3'3.79"	4'4.39"	3'3.26"	4'5.52"	3'2.68"	4'6.85"
3'6''	3'3.64"	3'8.77"	3'3.37"	3'9.14"	3'3.08"	3'9.57"	3'2.76"	3'10.06"	3'2.4"	3'10.62"	3'2.02"	3'11.28"	3'1.6"	4'0.05"	3'1.14"	4'0.95"	3'0.64"	4'2.02"
3'3''	3'1.05"	3'5.25"	3'0.83"	3'5.55"	3'0.59"	3'5.89"	3'0.32"	3'6.28"	3'0.02"	3'6.73"	2'11.7"	3'7.26"	2'11.35"	3'7.87"	2'10.96"	3'8.58"	2'10.54"	3'9.41"
3'0''	2'10.43"	3'1.78"	2'10.25"	3'2.02"	2'10.05"	3'2.29"	2'9.83"	3'2.6"	2'9.59"	3'2.95"	2'9.33"	3'3.36"	2'9.04"	3'3.83"	2'8.72"	3'4.37"	2'8.37"	3'5.01"

8	9	10	11	13	14	16	18	20	22
12'5.21"	11'2.13"	10'0.75"	9'0.78"	8'2.15"	7'4.66"	6'8.2"	6'0.68"	5'5.98"	5'0"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
12'3.7"	Infinity	11'0.64"	Infinity	9'11.23"	Infinity	8'11.28"	Infinity	8'0.63"	Infinity	7'3.15"	Infinity	6'6.7"	Infinity	5'11.17"	Infinity	5'4.47"	Infinity	4'10.49"	Infinity
11'1.5"	Infinity	10'1.26"	Infinity	9'2.12"	Infinity	8'3.99"	Infinity	7'6.81"	Infinity	6'10.5"	Infinity	6'3"	Infinity	5'8.22"	Infinity	5'2.12"	Infinity	4'8.63"	Infinity
10'1.78"	Infinity	9'3.67"	Infinity	8'6.29"	Infinity	7'9.62"	Infinity	7'1.64"	Infinity	6'6.32"	Infinity	5'11.62"	Infinity	5'5.5"	Infinity	4'11.93"	Infinity	4'6.87"	Infinity
9'1"	Infinity	8'4.99"	Infinity	7'9.41"	Infinity	7'2.28"	Infinity	6'7.59"	Infinity	6'1.35"	Infinity	5'7.55"	Infinity	5'2.19"	Infinity	4'9.24"	Infinity	4'4.69"	Infinity
8'0.35"	Infinity	7'6.2"	Infinity	7'0.26"	Infinity	6'6.56"	Infinity	6'1.11"	Infinity	5'7.94"	Infinity	5'3.06"	Infinity	4'10.47"	Infinity	4'6.18"	Infinity	4'2.18"	Infinity
7'2.3"	Infinity	6'9.47"	Infinity	6'4.72"	Infinity	6'0.09"	Infinity	5'7.59"	Infinity	5'3.26"	Infinity	4'11.12"	Infinity	4'7.16"	Infinity	4'3.42"	Infinity	3'11.89"	Infinity
6'6.14"	297'9.77"	6'2.26"	Infinity	5'10.4"	Infinity	5'6.59"	Infinity	5'2.83"	Infinity	4'11.17"	Infinity	4'7.62"	Infinity	4'4.2"	Infinity	4'0.91"	Infinity	3'9.79"	Infinity
5'11.38"	44'2.97"	5'8.22"	80'8.41"	5'5.04"	1377'8.63"	5'1.85"	Infinity	4'10.69"	Infinity	4'7.57"	Infinity	4'4.51"	Infinity	4'1.52"	Infinity	3'10.63"	Infinity	3'7.85"	Infinity
5'7.48"	28'2.95"	5'4.7"	39'3.94"	5'1.88"	71'3.38"	4'11.05"	1023'7.86"	4'8.21"	Infinity	4'5.39"	Infinity	4'2.61"	Infinity	3'11.88"	Infinity	3'9.22"	Infinity	3'6.64"	Infinity
5'3.15"	19'5.55"	5'0.77"	23'11.85"	4'10.34"	32'7.9"	4'7.87"	55'8.54"	4'5.39"	293'6.76"	4'2.9"	Infinity	4'0.42"	Infinity	3'9.97"	Infinity	3'7.57"	Infinity	3'5.22"	Infinity
5'0.81"	16'4.88"	4'10.64"	19'5.33"	4'8.4"	24'7.89"	4'6.13"	35'6.89"	4'3.82"	72'3.74"	4'1.5"	Infinity	3'11.19"	Infinity	3'8.89"	Infinity	3'6.63"	Infinity	3'4.41"	Infinity
4'10.34"	13'10.96"	4'8.37"	15'11.86"	4'6.33"	19'3.25"	4'4.25"	25'2.26"	4'2.14"	38'10.63"	4'	103'10.91"	3'9.86"	Infinity	3'7.72"	Infinity	3'5.6"	Infinity	3'3.52"	Infinity
4'7.72"	11'10.08"	4'5.96"	13'3.26"	4'4.13"	15'4.76"	4'2.25"	18'10.21"	4'0.32"	25'4.57"	3'10.37"	42'2.33"	3'8.4"	179'2.46"	3'6.43"	Infinity	3'4.47"	Infinity	3'2.53"	Infinity
4'4.95"	10'1.06"	4'3.39"	11'0.95"	4'1.76"	12'5.72"	4'0.08"	14'6.97"	3'10.36"	18'0.92"	3'8.6"	24'11.47"	3'6.82"	44'5.82"	3'5.02"	474'7.8"	3'3.22"	Infinity	3'1.44"	Infinity
4'2"	8'7.08"	4'0.64"	9'3.27"	3'11.23"	10'2.37"	3'9.75"	11'6.11"	3'8.23"	13'6"	3'6.67"	16'10.2"	3'5.08"	23'7.23"	3'3.47"	44'0.28"	3'1.84"	Infinity	3'0.22"	Infinity
3'10.86"	7'3.52"	3'9.71"	7'9.1"	3'8.5"	8'4.41"	3'7.23"	9'2.31"	3'5.92"	10'4.36"	3'4.56"	12'1.67"	3'3.16"	15'1.5"	3'1.74"	21'1.67"	3'0.3"	39'3.34"	2'10.85"	Infinity
3'9.21"	6'8.49"	3'8.16"	7'1.08"	3'7.05"	7'6.99"	3'5.89"	8'2.83"	3'4.68"	9'1.66"	3'3.42"	10'5.44"	3'2.13"	12'6.36"	3'0.81"	16'3.2"	2'11.46"	24'10.57"	2'10.1"	65'0.95"
3'7.51"	6'1.91"	3'6.56"	6'5.66"	3'5.55"	6'10.41"	3'4.49"	7'4.61"	3'3.39"	8'0.96"	3'2.23"	9'0.71"	3'1.04"	10'6.36"	2'11.82"	12'11.53"	2'10.57"	17'8.42"	2'9.3"	30'10.39"
3'5.76"	5'7.74"	3'4.9"	5'10.77"	3'3.99"	6'2.57"	3'3.04"	6'7.44"	3'2.03"	7'1.87"	3'0.98"	7'10.65"	2'11.89"	8'11.28"	2'10.77"	10'6.83"	2'9.62"	13'4.81"	2'8.45"	19'5.78"
3'3.94"	5'1.93"	3'3.18"	5'4.36"	3'2.37"	5'7.38"	3'1.51"	5'11.19"	3'0.61"	6'4.11"	2'11.66"	6'10.67"	2'10.68"	7'7.76"	2'9.66"	8'9.12"	2'8.61"	10'6.44"	2'7.53"	13'9.52"
3'2.06"	4'8.45"	3'1.39"	4'10.38"	3'0.68"	5'0.75"	2'11.92"	5'3.7"	2'11.12"	5'7.45"	2'10.28"	6'0.33"	2'9.39"	6'6.89"	2'8.48"	7'4.11"	2'7.53"	8'5.9"	2'6.55"	10'4.57"
3'0.11"	4'3.28"	2'11.53"	4'4.8"	2'10.91"	4'6.63"	2'10.25"	4'8.89"	2'9.55"	4'11.72"	2'8.81"	5'3.32"	2'8.03"	5'8.04"	2'7.22"	6'2.43"	2'6.37"	6'11.5"	2'5.5"	8'1.29"
2'10.09"	3'10.39"	2'9.6"	3'11.56"	2'9.07"	4'0.96"	2'8.5"	4'2.67"	2'7.9"	4'4.77"	2'7.26"	4'7.4"	2'6.59"	4'10.77"	2'5.88"	5'3.19"	2'5.14"	5'9.2"	2'4.37"	6'5.8"
2'7.99"	3'5.76"	2'7.59"	3'6.64"	2'7.15"	3'7.7"	2'6.67"	3'8.96"	2'6.16"	3'10.5"	2'5.62"	4'0.39"	2'5.05"	4'2.75"	2'4.44"	4'5.78"	2'3.8"	4'9.76"	2'3.14"	5'3.18"

Focal Length 26mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	10.399	9.295	8.312	7.436	6.656	5.961	5.342	4.79	4.298

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	10.36	Infinity	9.257	Infinity	8.274	Infinity	7.398	Infinity	6.618	Infinity	5.923	Infinity	5.303	Infinity	4.752	Infinity	4.26	Infinity
30.00	7.802	Infinity	7.169	Infinity	6.575	Infinity	6.018	Infinity	5.5	Infinity	5.018	Infinity	4.573	Infinity	4.164	Infinity	3.787	Infinity
15.00	6.256	Infinity	5.849	Infinity	5.454	Infinity	5.072	Infinity	4.704	Infinity	4.353	Infinity	4.02	Infinity	3.705	Infinity	3.408	Infinity
10.00	5.221	247.706	4.94	Infinity	4.659	Infinity	4.382	Infinity	4.109	Infinity	3.843	Infinity	3.585	Infinity	3.336	Infinity	3.098	Infinity
9.00	4.948	63.548	4.696	267.47	4.443	Infinity	4.192	Infinity	3.943	Infinity	3.699	Infinity	3.46	Infinity	3.229	Infinity	3.006	Infinity
8.00	4.645	32.941	4.423	54.191	4.2	199.693	3.976	Infinity	3.753	Infinity	3.533	Infinity	3.316	Infinity	3.105	Infinity	2.9	Infinity
7.00	4.305	20.345	4.116	26.761	3.924	41.568	3.729	110.966	3.534	Infinity	3.34	Infinity	3.147	Infinity	2.958	Infinity	2.773	Infinity
6.00	3.923	13.476	3.767	15.98	3.607	20.224	3.444	28.897	3.279	56.133	3.113	Infinity	2.947	Infinity	2.782	Infinity	2.62	Infinity
5.50	3.713	11.094	3.574	12.72	3.431	15.244	3.284	19.652	3.135	29.204	2.984	64.962	2.833	Infinity	2.681	Infinity	2.531	Infinity
5.00	3.488	9.152	3.367	10.219	3.241	11.768	3.111	14.201	2.978	18.537	2.843	28.331	2.706	70.639	2.569	Infinity	2.432	Infinity
4.50	3.249	7.54	3.144	8.24	3.035	9.204	2.923	10.607	2.806	12.817	2.687	16.775	2.566	25.809	2.444	66.383	2.321	Infinity
4.00	2.991	6.18	2.904	6.634	2.812	7.235	2.717	8.059	2.617	9.251	2.515	11.113	2.41	14.397	2.303	21.66	2.196	50.768
3.80	2.883	5.693	2.803	6.074	2.718	6.569	2.629	7.236	2.536	8.175	2.441	9.582	2.343	11.905	2.242	16.423	2.141	28.876
3.60	2.772	5.236	2.698	5.552	2.62	5.96	2.538	6.499	2.452	7.239	2.363	8.31	2.272	9.985	2.178	12.946	2.083	19.526
3.40	2.657	4.804	2.59	5.067	2.518	5.4	2.443	5.834	2.364	6.418	2.282	7.237	2.198	8.461	2.111	10.47	2.022	14.339
3.20	2.539	4.396	2.478	4.613	2.413	4.885	2.345	5.233	2.273	5.692	2.198	6.319	2.12	7.221	2.04	8.617	1.957	11.042
3.00	2.417	4.011	2.362	4.188	2.304	4.408	2.242	4.686	2.177	5.045	2.109	5.526	2.038	6.194	1.964	7.178	1.889	8.76
2.90	2.355	3.826	2.303	3.985	2.248	4.183	2.189	4.43	2.128	4.748	2.063	5.168	1.995	5.743	1.925	6.573	1.853	7.864
2.80	2.291	3.645	2.243	3.789	2.191	3.965	2.135	4.186	2.077	4.466	2.016	4.832	1.952	5.328	1.885	6.029	1.816	7.088
2.70	2.227	3.47	2.181	3.599	2.132	3.756	2.08	3.951	2.025	4.198	1.968	4.518	1.907	4.944	1.844	5.536	1.778	6.409
2.60	2.162	3.299	2.119	3.414	2.073	3.554	2.024	3.727	1.973	3.944	1.918	4.222	1.861	4.588	1.801	5.089	1.739	5.809
2.50	2.095	3.132	2.055	3.235	2.013	3.359	1.967	3.512	1.919	3.702	1.867	3.943	1.813	4.257	1.757	4.681	1.698	5.277
2.40	2.027	2.97	1.99	3.061	1.951	3.171	1.908	3.305	1.863	3.471	1.815	3.68	1.765	3.949	1.712	4.307	1.657	4.8
2.30	1.959	2.811	1.925	2.892	1.888	2.989	1.848	3.106	1.806	3.25	1.762	3.431	1.715	3.661	1.665	3.963	1.613	4.372
2.20	1.889	2.656	1.857	2.727	1.824	2.812	1.787	2.915	1.748	3.04	1.707	3.195	1.663	3.391	1.617	3.645	1.569	3.984
2.10	1.818	2.506	1.789	2.568	1.758	2.642	1.725	2.731	1.689	2.839	1.651	2.972	1.61	3.138	1.568	3.351	1.523	3.631
2.00	1.746	2.358	1.719	2.412	1.691	2.477	1.661	2.553	1.628	2.646	1.593	2.76	1.556	2.9	1.516	3.079	1.475	3.309
1.95	1.709	2.286	1.684	2.336	1.657	2.396	1.628	2.467	1.597	2.553	1.563	2.658	1.528	2.787	1.49	2.949	1.45	3.158
1.90	1.672	2.214	1.649	2.261	1.623	2.317	1.595	2.383	1.565	2.462	1.534	2.558	1.5	2.676	1.463	2.825	1.425	3.014
1.85	1.635	2.144	1.613	2.187	1.588	2.239	1.562	2.299	1.534	2.372	1.503	2.461	1.471	2.569	1.436	2.704	1.4	2.876
1.80	1.598	2.074	1.576	2.114	1.553	2.162	1.528	2.218	1.501	2.285	1.473	2.366	1.442	2.465	1.409	2.588	1.374	2.743
1.75	1.56	2.005	1.54	2.042	1.518	2.086	1.494	2.138	1.469	2.199	1.441	2.273	1.412	2.364	1.381	2.475	1.348	2.615
1.70	1.522	1.937	1.503	1.971	1.482	2.011	1.46	2.059	1.436	2.115	1.41	2.183	1.382	2.265	1.352	2.366	1.321	2.492
1.65	1.483	1.869	1.465	1.901	1.446	1.938	1.425	1.981	1.402	2.033	1.378	2.095	1.352	2.169	1.323	2.261	1.294	2.374
1.60	1.444	1.802	1.428	1.831	1.409	1.865	1.39	1.905	1.368	1.952	1.345	2.008	1.321	2.076	1.294	2.158	1.266	2.26
1.55	1.405	1.736	1.389	1.763	1.372	1.794	1.354	1.83	1.334	1.873	1.312	1.924	1.289	1.985	1.264	2.059	1.237	2.15
1.50	1.365	1.671	1.351	1.696	1.335	1.724	1.318	1.757	1.299	1.796	1.279	1.842	1.257	1.897	1.234	1.963	1.209	2.045
1.45	1.326	1.607	1.312	1.629	1.297	1.654	1.281	1.684	1.264	1.72	1.245	1.761	1.225	1.811	1.203	1.87	1.179	1.943
1.40	1.285	1.543	1.273	1.563	1.259	1.586	1.244	1.613	1.228	1.645	1.21	1.682	1.191	1.727	1.171	1.78	1.149	1.844
1.35	1.245	1.48	1.233	1.498	1.221	1.519	1.207	1.543	1.192	1.572	1.176	1.605	1.158	1.645	1.139	1.692	1.118	1.749
1.30	1.204	1.418	1.193	1.434	1.182	1.453	1.169	1.474	1.155	1.5	1.14	1.53	1.124	1.565	1.106	1.607	1.087	1.657
1.25	1.163	1.356	1.153	1.37	1.142	1.387	1.131	1.407	1.118	1.429	1.104	1.456	1.089	1.487	1.073	1.524	1.055	1.568
1.20	1.121	1.295	1.112	1.308	1.102	1.323	1.092	1.34	1.08	1.36	1.068	1.383	1.054	1.411	1.039	1.443	1.023	1.482
1.15	1.079	1.235	1.071	1.246	1.062	1.259	1.052	1.274	1.042	1.292	1.03	1.313	1.018	1.337	1.004	1.365	0.99	1.398
1.10	1.036	1.175	1.029	1.185	1.021	1.197	1.013	1.21	1.003	1.225	0.993	1.243	0.981	1.264	0.969	1.289	0.956	1.318
1.05	0.993	1.116	0.987	1.125	0.98	1.135	0.972	1.146	0.964	1.16	0.954	1.175	0.944	1.193	0.933	1.215	0.921	1.239
1.00	0.95	1.057	0.945	1.065	0.938	1.074	0.931	1.084	0.924	1.095	0.916	1.109	0.907	1.124	0.897	1.142	0.886	1.164
0.95	0.907	1	0.902	1.006	0.896	1.014	0.89	1.022	0.883	1.032	0.876	1.043	0.868	1.057	0.859	1.072	0.85	1.09
0.91	0.871	0.954	0.867	0.96	0.862	0.966	0.857	0.974	0.851	0.982	0.844	0.992	0.837	1.004	0.829	1.017	0.82	1.033

8	9	10	11	13	14	16	18	20	22
3.86	3.47	3.123	2.813	2.537	2.291	2.072	1.877	1.703	1.549

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
3.822	Infinity	3.432	Infinity	3.084	Infinity	2.775	Infinity	2.499	Infinity	2.253	Infinity	2.034	Infinity	1.839	Infinity	1.665	Infinity	1.511	Infinity
3.442	Infinity	3.127	Infinity	2.84	Infinity	2.58	Infinity	2.343	Infinity	2.129	Infinity	1.935	Infinity	1.76	Infinity	1.602	Infinity	1.46	Infinity
3.131	Infinity	2.872	Infinity	2.632	Infinity	2.41	Infinity	2.205	Infinity	2.017	Infinity	1.845	Infinity	1.687	Infinity	1.544	Infinity	1.414	Infinity
2.87	Infinity	2.655	Infinity	2.451	Infinity	2.261	Infinity	2.082	Infinity	1.916	Infinity	1.762	Infinity	1.62	Infinity	1.489	Infinity	1.369	Infinity
2.793	Infinity	2.589	Infinity	2.397	Infinity	2.215	Infinity	2.044	Infinity	1.885	Infinity	1.736	Infinity	1.599	Infinity	1.472	Infinity	1.355	Infinity
2.702	Infinity	2.512	Infinity	2.331	Infinity	2.16	Infinity	1.998	Infinity	1.847	Infinity	1.705	Infinity	1.573	Infinity	1.451	Infinity	1.338	Infinity
2.593	Infinity	2.419	Infinity	2.253	Infinity	2.094	Infinity	1.943	Infinity	1.8	Infinity	1.666	Infinity	1.541	Infinity	1.424	Infinity	1.316	Infinity
2.461	Infinity	2.306	Infinity	2.155	Infinity	2.011	Infinity	1.873	Infinity	1.742	Infinity	1.617	Infinity	1.5	Infinity	1.391	Infinity	1.288	Infinity
2.383	Infinity	2.238	Infinity	2.098	Infinity	1.962	Infinity	1.831	Infinity	1.706	Infinity	1.587	Infinity	1.475	Infinity	1.37	Infinity	1.271	Infinity
2.296	Infinity	2.163	Infinity	2.032	Infinity	1.906	Infinity	1.783	Infinity	1.665	Infinity	1.553	Infinity	1.447	Infinity	1.346	Infinity	1.251	Infinity
2.199	Infinity	2.077	Infinity	1.958	Infinity	1.841	Infinity	1.728	Infinity	1.618	Infinity	1.513	Infinity	1.413	Infinity	1.318	Infinity	1.228	Infinity
2.087	Infinity	1.979	Infinity	1.872	Infinity	1.766	Infinity	1.663	Infinity	1.563	Infinity	1.466	Infinity	1.373	Infinity	1.284	Infinity	1.199	Infinity
2.038	210.943	1.936	Infinity	1.834	Infinity	1.733	Infinity	1.634	Infinity	1.538	Infinity	1.444	Infinity	1.354	Infinity	1.268	Infinity	1.186	Infinity
1.986	46.317	1.89	Infinity	1.793	Infinity	1.697	Infinity	1.603	Infinity	1.511	Infinity	1.421	Infinity	1.335	Infinity	1.251	Infinity	1.172	Infinity
1.932	24.746	1.841	143.421	1.75	Infinity	1.659	Infinity	1.57	Infinity	1.482	Infinity	1.396	Infinity	1.313	Infinity	1.233	Infinity	1.157	Infinity
1.873	16.242	1.789	35.076	1.703	Infinity	1.618	Infinity	1.534	Infinity	1.45	Infinity	1.369	Infinity	1.29	Infinity	1.213	Infinity	1.14	Infinity
1.811	11.692	1.733	18.905	1.654	63.997	1.574	Infinity	1.495	Infinity	1.417	Infinity	1.34	Infinity	1.264	Infinity	1.191	Infinity	1.121	Infinity
1.779	10.128	1.704	15.074	1.627	34.083	1.551	Infinity	1.474	Infinity	1.398	Infinity	1.324	Infinity	1.251	Infinity	1.18	Infinity	1.111	Infinity
1.745	8.859	1.673	12.386	1.6	22.714	1.526	499.05	1.453	Infinity	1.38	Infinity	1.307	Infinity	1.236	Infinity	1.167	Infinity	1.1	Infinity
1.711	7.808	1.642	10.396	1.572	16.726	1.501	55.18	1.43	Infinity	1.36	Infinity	1.29	Infinity	1.221	Infinity	1.154	Infinity	1.089	Infinity
1.675	6.925	1.609	8.864	1.542	13.029	1.475	28.195	1.407	Infinity	1.339	Infinity	1.272	Infinity	1.206	Infinity	1.141	Infinity	1.078	Infinity
1.638	6.171	1.576	7.647	1.512	10.52	1.447	18.456	1.382	137.184	1.317	Infinity	1.253	Infinity	1.189	Infinity	1.126	Infinity	1.065	Infinity
1.599	5.52	1.541	6.658	1.48	8.706	1.419	13.434	1.357	35.641	1.295	Infinity	1.233	Infinity	1.171	Infinity	1.111	Infinity	1.052	Infinity
1.56	4.953	1.504	5.838	1.447	7.332	1.389	10.37	1.33	19.761	1.271	Infinity	1.212	Infinity	1.153	Infinity	1.095	Infinity	1.038	Infinity
1.518	4.454	1.466	5.147	1.413	6.257	1.358	8.306	1.302	13.303	1.246	43.192	1.189	Infinity	1.133	Infinity	1.078	Infinity	1.023	Infinity
1.476	4.012	1.427	4.556	1.377	5.391	1.325	6.821	1.273	9.801	1.22	19.694	1.166	Infinity	1.113	Infinity	1.06	Infinity	1.007	Infinity
1.431	3.617	1.386	4.047	1.339	4.68	1.291	5.701	1.242	7.602	1.192	12.329	1.141	43.59	1.091	Infinity	1.04	Infinity	0.99	Infinity
1.409	3.436	1.365	3.817	1.32	4.37	1.273	5.239	1.226	6.784	1.177	10.265	1.128	25.145	1.079	Infinity	1.03	Infinity	0.981	Infinity
1.385	3.263	1.344	3.602	1.3	4.085	1.255	4.827	1.209	6.094	1.162	8.728	1.115	17.403	1.067	Infinity	1.02	Infinity	0.972	Infinity
1.362	3.099	1.322	3.4	1.28	3.823	1.237	4.457	1.192	5.504	1.147	7.54	1.101	13.143	1.055	93.909	1.009	Infinity	0.963	Infinity
1.337	2.943	1.299	3.21	1.259	3.581	1.218	4.125	1.175	4.995	1.131	6.593	1.087	10.447	1.042	32.275	0.998	Infinity	0.953	Infinity
1.313	2.794	1.276	3.031	1.238	3.356	1.198	3.823	1.157	4.55	1.115	5.822	1.073	8.587	1.029	19.066	0.986	Infinity	0.943	Infinity
1.288	2.653	1.253	2.863	1.216	3.147	1.178	3.549	1.139	4.159	1.099	5.18	1.058	7.227	1.016	13.309	0.974	591.861	0.932	Infinity
1.262	2.517	1.229	2.703	1.194	2.952	1.158	3.298	1.12	3.811	1.082	4.639	1.042	6.189	1.002	10.085	0.962	37.49	0.921	Infinity
1.236	2.388	1.204	2.552	1.171	2.77	1.137	3.068	1.101	3.501	1.064	4.176	1.026	5.371	0.988	8.023	0.949	18.81	0.91	Infinity
1.209	2.264	1.179	2.409	1.148	2.599	1.115	2.857	1.081	3.222	1.046	3.776	1.01	4.709	0.973	6.592	0.935	12.3	0.898	Infinity
1.182	2.146	1.154	2.274	1.124	2.439	1.093	2.661	1.061	2.97	1.027	3.426	0.993	4.163	0.957	5.54	0.922	8.99	0.885	32.821
1.154	2.032	1.128	2.145	1.1	2.289	1.07	2.479	1.04	2.741	1.008	3.118	0.975	3.705	0.941	4.734	0.907	6.985	0.873	15.672
1.126	1.923	1.101	2.022	1.074	2.147	1.047	2.311	1.018	2.532	0.988	2.844	0.957	3.314	0.925	4.097	0.892	5.641	0.859	10.058
1.097	1.819	1.073	1.905	1.049	2.014	1.023	2.154	0.996	2.341	0.967	2.6	0.938	2.978	0.908	3.581	0.877	4.677	0.845	7.271
1.067	1.718	1.045	1.793	1.022	1.887	0.998	2.007	0.973	2.165	0.946	2.38	0.918	2.686	0.89	3.154	0.86	3.952	0.831	5.604
1.037	1.621	1.017	1.687	0.995	1.768	0.973	1.87	0.949	2.003	0.924	2.181	0.898	2.429	0.871	2.795	0.844	3.387	0.815	4.495
1.006	1.528	0.987	1.585	0.967	1.654	0.946	1.741	0.924	1.853	0.901	2	0.877	2.201	0.852	2.489	0.826	2.934	0.799	3.705
0.974	1.439	0.957	1.487	0.939	1.547	0.92	1.62	0.899	1.714	0.878	1.835	0.855	1.998	0.832	2.226	0.808	2.563	0.783	3.112
0.941	1.352	0.926	1.394	0.909	1.444	0.892	1.507	0.873	1.585	0.853	1.685	0.833	1.816	0.811	1.996	0.788	2.254	0.765	2.652
0.908	1.269	0.894	1.304	0.879	1.347	0.863	1.399	0.846	1.464	0.828	1.546	0.809	1.652	0.789	1.794	0.768	1.992	0.747	2.284
0.874	1.189	0.862	1.218	0.848	1.254	0.834	1.298	0.818	1.351	0.802	1.418	0.785	1.503	0.766	1.615	0.747	1.767	0.728	1.983
0.84	1.111	0.828	1.136	0.816	1.166	0.803	1.201	0.789	1.245	0.775	1.299	0.759	1.367	0.743	1.455	0.725	1.572	0.707	1.732
0.811	1.051	0.801	1.072	0.79	1.098	0.778	1.128	0.766	1.165	0.752	1.211	0.738	1.267	0.723	1.339	0.707	1.433	0.69	1.56

Focal Length 26mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	34'1.41"	30'5.94"	27'3.24"	24'4.76"	21'10.05"	19'6.69"	17'6.31"	15'8.58"	14'1.21"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	33'11.89"	Infinity	30'4.45"	Infinity	27'1.74"	Infinity	24'3.26"	Infinity	21'8.54"	Infinity	19'5.18"	Infinity	17'4.79"	Infinity	15'7.07"	Infinity	13'11.72"	Infinity
100'0''	25'8.36"	Infinity	23'7.26"	Infinity	21'7.68"	Infinity	19'9.63"	Infinity	18'1.1"	Infinity	16'6.05"	Infinity	15'0.45"	Infinity	13'8.24"	Infinity	12'5.36"	Infinity
50'0''	20'7.85"	Infinity	19'3.64"	Infinity	17'11.88"	Infinity	16'8.66"	Infinity	15'6.05"	Infinity	14'4.1"	Infinity	13'2.86"	Infinity	12'2.36"	Infinity	11'2.6"	Infinity
30'0''	16'4.43"	236'1.64"	15'6.33"	1740'9.33"	14'8.22"	Infinity	13'10.17"	Infinity	13'0.24"	Infinity	12'2.49"	Infinity	11'4.99"	Infinity	10'7.78"	Infinity	9'10.92"	Infinity
20'0''	12'11.96"	45'11.07"	12'5.7"	54'10.37"	11'11.29"	70'3.97"	11'4.75"	103'2.65"	10'10.14"	219'2.19"	10'3.49"	Infinity	9'8.85"	Infinity	9'2.27"	Infinity	8'7.78"	Infinity
15'0''	10'9.3"	25'5.32"	10'5.09"	27'10.6"	10'0.71"	31'3.24"	9'8.17"	36'2.94"	9'3.5"	44'2.39"	8'10.72"	58'9.77"	8'5.86"	94'0.91"	8'0.96"	294'5.01"	7'8.04"	Infinity
12'0''	9'2.41"	17'7.21"	8'11.42"	18'8.36"	8'8.26"	20'1.33"	8'4.96"	21'11.9"	8'1.51"	24'7.1"	7'9.94"	28'4.7"	7'6.26"	34'5.04"	7'2.5"	45'4.15"	6'10.67"	70'11.18"
10'0''	8'0.33"	13'5.47"	7'10.11"	14'0.8"	7'7.75"	14'9.91"	7'5.26"	15'9.47"	7'2.63"	17'0.49"	6'11.88"	18'8.66"	6'9.02"	21'0.91"	6'6.06"	24'7.02"	6'3.02"	30'3.83"
9'0''	7'4.78"	11'7.57"	7'2.93"	12'0.89"	7'0.95"	12'7.4"	6'10.85"	13'3.5"	6'8.63"	14'1.78"	6'6.29"	15'3.12"	6'3.84"	16'9.03"	6'1.29"	18'10.11"	5'10.66"	21'11.44"
8'0''	6'8.85"	9'11.35"	6'7.35"	10'3.11"	6'5.74"	10'7.65"	6'4.02"	11'1.2"	6'2.19"	11'8.08"	6'0.26"	12'4.78"	5'10.22"	13'4.04"	5'8.08"	14'7.06"	5'5.86"	16'3.96"
7'6''	6'4.73"	9'1.81"	6'3.4"	9'4.93"	6'1.97"	9'8.67"	6'0.44"	10'1.21"	5'10.8"	10'6.78"	5'9.06"	11'1.74"	5'7.23"	11'10.61"	5'5.3"	12'10.2"	5'3.28"	14'1.88"
7'0''	6'0.51"	8'4.63"	5'11.35"	8'7.19"	5'10.09"	8'10.24"	5'8.73"	9'1.91"	5'7.29"	9'6.38"	5'5.74"	9'11.9"	5'4.1"	10'6.83"	5'2.38"	11'3.73"	5'0.56"	12'3.48"
6'6''	5'8.19"	7'7.77"	5'7.18"	7'9.85"	5'6.08"	8'0.31"	5'4.9"	8'3.25"	5'3.64"	8'6.79"	5'2.28"	8'11.12"	5'0.84"	9'4.49"	4'11.31"	9'11.27"	4'9.7"	10'8.02"
6'0''	5'3.75"	6'11.23"	5'2.88"	7'0.89"	5'1.95"	7'2.84"	5'0.93"	7'5.16"	4'11.84"	7'7.93"	4'10.67"	7'11.29"	4'9.42"	8'3.39"	4'8.09"	8'8.5"	4'6.69"	9'2.97"
5'6''	4'11.19"	6'2.99"	4'10.47"	6'4.29"	4'9.68"	6'5.81"	4'8.83"	6'7.61"	4'7.9"	6'9.74"	4'6.91"	7'0.29"	4'5.85"	7'3.38"	4'4.71"	7'7.17"	4'3.5"	7'11.89"
5'0''	4'6.51"	5'7.03"	4'5.92"	5'8.02"	4'5.27"	5'9.19"	4'4.57"	5'10.55"	4'3.81"	6'0.15"	4'2.98"	6'2.06"	4'2.1"	6'4.34"	4'1.15"	6'7.09"	4'0.13"	6'10.48"
4'9''	4'4.12"	5'3.15"	4'3.59"	5'4.01"	4'3.01"	5'5.02"	4'2.38"	5'6.19"	4'1.7"	5'7.57"	4'0.95"	5'9.19"	4'0.15"	5'11.13"	3'11.29"	6'1.47"	3'10.37"	6'4.31"
4'6''	4'1.7"	4'11.34"	4'1.23"	5'0.08"	4'0.72"	5'0.94"	4'0.15"	5'1.94"	3'11.54"	5'3.12"	3'10.88"	5'4.5"	3'10.16"	5'6.13"	3'9.39"	5'8.09"	3'8.56"	5'10.46"
4'3''	3'11.25"	4'7.59"	3'10.83"	4'8.22"	3'10.38"	4'8.95"	3'9.88"	4'9.8"	3'9.34"	4'10.79"	3'8.76"	4'11.95"	3'8.12"	5'1.32"	3'7.43"	5'2.95"	3'6.69"	5'4.91"
4'0''	3'8.76"	4'3.9"	3'8.4"	4'4.43"	3'8"	4'5.05"	3'7.57"	4'5.76"	3'7.1"	4'6.59"	3'6.58"	4'7.55"	3'6.02"	4'8.69"	3'5.42"	4'10.03"	3'4.76"	4'11.63"
3'9''	3'6.24"	4'0.28"	3'5.93"	4'0.72"	3'5.59"	4'1.23"	3'5.22"	4'1.82"	3'4.81"	4'2.5"	3'4.36"	4'3.29"	3'3.88"	4'4.22"	3'3.35"	4'5.31"	3'2.78"	4'6.61"
3'6''	3'3.68"	3'8.71"	3'3.42"	3'9.07"	3'3.13"	3'9.49"	3'2.81"	3'9.97"	3'2.47"	3'10.52"	3'2.09"	3'11.16"	3'1.67"	3'11.91"	3'1.22"	4'0.79"	3'0.73"	4'1.82"
3'3''	3'1.09"	3'5.2"	3'0.87"	3'5.49"	3'0.63"	3'5.83"	3'0.37"	3'6.21"	3'0.08"	3'6.65"	2'11.76"	3'7.16"	2'11.41"	3'7.76"	2'11.03"	3'8.45"	2'10.62"	3'9.26"
3'0''	2'10.46"	3'1.75"	2'10.28"	3'1.98"	2'10.09"	3'2.24"	2'9.87"	3'2.54"	2'9.63"	3'2.89"	2'9.37"	3'3.28"	2'9.09"	3'3.74"	2'8.77"	3'4.28"	2'8.43"	3'4.9"

8	9	10	11	13	14	16	18	20	22
12'7.97"	11'4.61"	10'2.95"	9'2.75"	8'3.88"	7'6.2"	6'9.57"	6'1.9"	5'7.05"	5'0.98"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
12'6.48"	Infinity	11'3.12"	Infinity	10'1.44"	Infinity	9'1.24"	Infinity	8'2.38"	Infinity	7'4.71"	Infinity	6'8.09"	Infinity	6'0.41"	Infinity	5'5.57"	Infinity	4'11.47"	Infinity
11'3.73"	Infinity	10'3.29"	Infinity	9'3.96"	Infinity	8'5.67"	Infinity	7'8.33"	Infinity	6'11.88"	Infinity	6'4.24"	Infinity	5'9.34"	Infinity	5'3.12"	Infinity	4'9.53"	Infinity
10'3.6"	Infinity	9'5.36"	Infinity	8'7.85"	Infinity	7'11.06"	Infinity	7'2.97"	Infinity	6'7.54"	Infinity	6'0.73"	Infinity	5'6.52"	Infinity	5'0.85"	Infinity	4'7.71"	Infinity
9'2.43"	Infinity	8'6.34"	Infinity	7'10.69"	Infinity	7'3.47"	Infinity	6'8.71"	Infinity	6'2.39"	Infinity	5'8.52"	Infinity	5'3.08"	Infinity	4'10.06"	Infinity	4'5.44"	Infinity
8'1.42"	Infinity	7'7.24"	Infinity	7'1.26"	Infinity	6'7.52"	Infinity	6'2.03"	Infinity	5'8.81"	Infinity	5'3.88"	Infinity	4'11.24"	Infinity	4'6.89"	Infinity	4'2.84"	Infinity
7'3.14"	Infinity	6'10.29"	Infinity	6'5.53"	Infinity	6'0.87"	Infinity	5'8.35"	Infinity	5'3.99"	Infinity	4'11.81"	Infinity	4'7.83"	Infinity	4'4.05"	Infinity	4'0.48"	Infinity
6'6.81"	198'2.88"	6'2.93"	Infinity	5'11.06"	Infinity	5'7.24"	Infinity	5'3.47"	Infinity	4'11.79"	Infinity	4'8.22"	Infinity	4'4.77"	Infinity	4'1.47"	Infinity	3'10.31"	Infinity
5'11.91"	41'3.28"	5'8.76"	70'2.08"	5'5.58"	350'6.38"	5'2.4"	Infinity	4'11.23"	Infinity	4'8.1"	Infinity	4'5.03"	Infinity	4'2.03"	Infinity	3'11.12"	Infinity	3'8.32"	Infinity
5'7.95"	27'0.37"	5'5.18"	36'8.49"	5'2.37"	62'1.1"	4'11.53"	297'9.67"	4'8.7"	Infinity	4'5.87"	Infinity	4'3.08"	Infinity	4'0.34"	Infinity	3'9.67"	Infinity	3'7.08"	Infinity
5'3.56"	18'10.74"	5'1.19"	23'0.18"	4'10.76"	30'7.71"	4'8.3"	49'4.34"	4'5.81"	164'11.99"	4'3.32"	Infinity	4'0.84"	Infinity	3'10.39"	Infinity	3'7.97"	Infinity	3'5.62"	Infinity
5'1.18"	16'0.1"	4'11.01"	18'9.74"	4'8.79"	23'6.14"	4'6.52"	32'11.04"	4'4.22"	60'10.21"	4'1.9"	2533'6.52"	3'11.58"	Infinity	3'9.28"	Infinity	3'7.01"	Infinity	3'4.78"	Infinity
4'10.67"	13'7.58"	4'8.71"	15'6.81"	4'6.69"	18'6.94"	4'4.61"	23'10.26"	4'2.5"	35'4.56"	4'0.37"	79'7.3"	3'10.22"	Infinity	3'8.08"	Infinity	3'5.96"	Infinity	3'3.87"	Infinity
4'8.02"	11'7.68"	4'6.26"	12'11.84"	4'4.44"	14'11.54"	4'2.57"	18'1.35"	4'0.65"	23'10.5"	3'10.71"	37'7.75"	3'8.74"	112'5.63"	3'6.77"	Infinity	3'4.8"	Infinity	3'2.86"	Infinity
4'5.21"	9'11.37"	4'3.66"	10'10.63"	4'2.04"	12'2.37"	4'0.37"	14'1.78"	3'10.66"	17'3.86"	3'8.9"	23'4.05"	3'7.12"	38'11.11"	3'5.33"	171'5.08"	3'3.53"	Infinity	3'1.74"	Infinity
4'2.22"	8'5.89"	4'0.88"	9'1.69"	3'11.47"	10'0.2"	3'10.01"	11'2.96"	3'8.5"	13'1.07"	3'6.94"	16'1.46"	3'5.35"	21'11.95"	3'3.74"	38'0.19"	3'2.12"	246'7.56"	3'0.49"	Infinity
3'11.05"	7'2.69"	3'9.91"	7'8.04"	3'8.71"	8'3.01"	3'7.45"	9'0.38"	3'6.14"	10'1.55"	3'4.79"	11'9.27"	3'3.4"	14'5.72"	3'1.98"	19'8.52"	3'0.55"	33'11.43"	2'11.1"	215'8.76"
3'9.39"	6'7.81"	3'8.35"	7'0.21"	3'7.25"	7'5.86"	3'6.09"	8'1.32"	3'4.89"	8'11.53"	3'3.64"	10'2.25"	3'2.35"	12'1.12"	3'1.03"	15'5.15"	2'11.69"	22'8.25"	2'10.33"	50'2.67"
3'7.67"	6'1.36"	3'6.73"	6'4.95"	3'5.73"	6'9.51"	3'4.68"	7'3.42"	3'3.58"	7'11.33"	3'2.43"	8'10.38"	3'1.25"	10'2.74"	3'0.03"	12'5.26"	2'10.78"	16'7.14"	2'9.52"	27'2.05"
3'5.9"	5'7.28"	3'5.05"	5'10.2"	3'4.15"	6'1.85"	3'3.2"	6'6.52"	3'2.2"	7'0.63"	3'1.16"	7'8.93"	3'0.08"	8'8.75"	2'10.96"	10'2.77"	2'9.82"	12'9.33"	2'8.65"	17'11.89"
3'4.06"	5'1.56"	3'3.31"	5'3.91"	3'2.51"	5'6.81"	3'1.66"	5'10.47"	3'0.77"	6'3.17"	2'11.83"	6'9.4"	2'10.85"	7'5.97"	2'9.83"	8'6.41"	2'8.79"	10'1.94"	2'7.72"	13'0.69"
3'2.16"	4'8.16"	3'1.5"	4'10.03"	3'0.8"	5'0.31"	3'0.05"	5'3.15"	2'11.26"	5'6.74"	2'10.42"	5'11.4"	2'9.55"	6'5.62"	2'8.63"	7'2.28"	2'7.69"	8'3.08"	2'6.72"	9'11.73"
3'0.2"	4'3.05"	2'11.63"	4'4.52"	2'11.02"	4'6.3"	2'10.37"	4'8.48"	2'9.67"	4'11.19"	2'8.94"	5'2.64"	2'8.17"	5'7.14"	2'7.36"	6'1.19"	2'6.52"	6'9.7"	2'5.65"	7'10.46"
2'10.17"	3'10.21"	2'9.68"	3'11.35"	2'9.16"	4'0.71"	2'8.6"	4'2.36"	2'8.01"	4'4.38"	2'7.37"	4'6.91"	2'6.7"	4'10.13"	2'6"	5'2.34"	2'5.26"	5'8.03"	2'4.5"	6'4.09"
2'8.06"	3'5.63"	2'7.66"	3'6.48"	2'7.22"	3'7.51"	2'6.75"	3'8.73"	2'6.25"	3'10.21"	2'5.72"	4'0.04"	2'5.15"	4'2.31"	2'4.54"	4'5.21"	2'3.91"	4'9"	2'3.25"	5'2.13"

Focal Length 27mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	11.186	9.997	8.937	7.993	7.152	6.403	5.735	5.14	4.61

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	11.148	Infinity	9.959	Infinity	8.899	Infinity	7.955	Infinity	7.114	Infinity	6.364	Infinity	5.697	Infinity	5.102	Infinity	4.572	Infinity
30.00	8.232	Infinity	7.575	Infinity	6.956	Infinity	6.375	Infinity	5.832	Infinity	5.326	Infinity	4.858	Infinity	4.425	Infinity	4.027	Infinity
15.00	6.525	Infinity	6.112	Infinity	5.709	Infinity	5.318	Infinity	4.94	Infinity	4.579	Infinity	4.234	Infinity	3.907	Infinity	3.598	Infinity
10.00	5.403	89.892	5.122	Infinity	4.841	Infinity	4.561	Infinity	4.285	Infinity	4.015	Infinity	3.751	Infinity	3.496	Infinity	3.251	Infinity
9.00	5.111	43.902	4.86	85.55	4.607	Infinity	4.354	Infinity	4.104	Infinity	3.856	Infinity	3.614	Infinity	3.378	Infinity	3.15	Infinity
8.00	4.786	26.779	4.567	37.966	4.345	71.852	4.121	Infinity	3.897	Infinity	3.675	Infinity	3.456	Infinity	3.241	Infinity	3.031	Infinity
7.00	4.425	17.837	4.239	22.138	4.048	30.419	3.855	52.685	3.661	305.639	3.466	Infinity	3.272	Infinity	3.08	Infinity	2.892	Infinity
6.00	4.021	12.343	3.868	14.23	3.711	17.2	3.55	22.505	3.386	34.556	3.221	87.71	3.054	Infinity	2.889	Infinity	2.725	Infinity
5.50	3.8	10.32	3.664	11.595	3.524	13.474	3.379	16.494	3.232	22.092	3.082	35.868	2.931	122.137	2.779	Infinity	2.628	Infinity
5.00	3.564	8.625	3.446	9.488	3.323	10.695	3.195	12.492	3.064	15.42	2.93	20.987	2.795	35.509	2.658	164.886	2.52	Infinity
4.50	3.314	7.183	3.212	7.763	3.106	8.543	2.996	9.635	2.882	11.264	2.764	13.928	2.645	19.025	2.523	32.518	2.4	167.001
4.00	3.046	5.942	2.961	6.327	2.872	6.826	2.779	7.494	2.682	8.427	2.581	9.807	2.478	12.042	2.372	16.237	2.265	26.859
3.80	2.933	5.492	2.855	5.817	2.773	6.233	2.687	6.781	2.596	7.529	2.503	8.602	2.406	10.259	2.307	13.126	2.206	19.223
3.60	2.818	5.066	2.746	5.339	2.671	5.684	2.591	6.132	2.508	6.732	2.421	7.569	2.331	8.811	2.239	10.823	2.144	14.61
3.40	2.699	4.663	2.634	4.89	2.565	5.175	2.492	5.54	2.415	6.02	2.336	6.674	2.253	7.61	2.167	9.049	2.079	11.522
3.20	2.576	4.279	2.518	4.468	2.455	4.702	2.389	4.998	2.319	5.38	2.246	5.89	2.17	6.599	2.092	7.641	2.01	9.309
3.00	2.451	3.914	2.398	4.069	2.342	4.26	2.282	4.498	2.219	4.802	2.153	5.199	2.084	5.736	2.012	6.496	1.938	7.646
2.90	2.386	3.738	2.337	3.879	2.284	4.05	2.227	4.264	2.168	4.533	2.105	4.883	2.039	5.35	1.971	6	1.9	6.96
2.80	2.321	3.566	2.274	3.693	2.225	3.847	2.171	4.038	2.115	4.277	2.056	4.584	1.993	4.99	1.928	5.547	1.861	6.351
2.70	2.255	3.399	2.211	3.513	2.164	3.651	2.114	3.82	2.061	4.032	2.005	4.302	1.946	4.654	1.885	5.13	1.82	5.804
2.60	2.187	3.235	2.147	3.337	2.103	3.461	2.056	3.611	2.006	3.798	1.953	4.034	1.898	4.34	1.84	4.747	1.779	5.313
2.50	2.119	3.075	2.081	3.166	2.04	3.276	1.997	3.41	1.95	3.574	1.901	3.78	1.848	4.045	1.794	4.392	1.736	4.868
2.40	2.05	2.919	2.015	3	1.977	3.097	1.936	3.215	1.893	3.36	1.846	3.539	1.797	3.767	1.746	4.064	1.692	4.463
2.30	1.979	2.766	1.947	2.838	1.912	2.924	1.874	3.028	1.834	3.154	1.791	3.31	1.745	3.506	1.697	3.758	1.647	4.093
2.20	1.908	2.617	1.878	2.68	1.846	2.756	1.811	2.847	1.774	2.956	1.734	3.091	1.692	3.26	1.647	3.474	1.6	3.754
2.10	1.835	2.471	1.808	2.527	1.778	2.593	1.746	2.672	1.712	2.767	1.676	2.883	1.637	3.027	1.595	3.208	1.552	3.442
2.00	1.761	2.328	1.737	2.377	1.71	2.434	1.681	2.502	1.649	2.584	1.616	2.684	1.58	2.806	1.542	2.959	1.502	3.154
1.95	1.724	2.258	1.7	2.303	1.675	2.356	1.647	2.42	1.617	2.496	1.585	2.588	1.551	2.7	1.515	2.84	1.476	3.018
1.90	1.686	2.188	1.664	2.23	1.64	2.28	1.613	2.339	1.585	2.409	1.554	2.494	1.522	2.597	1.487	2.725	1.45	2.887
1.85	1.648	2.119	1.627	2.158	1.604	2.205	1.579	2.259	1.552	2.324	1.523	2.402	1.492	2.497	1.459	2.614	1.424	2.76
1.80	1.61	2.051	1.59	2.088	1.568	2.13	1.545	2.181	1.519	2.24	1.491	2.312	1.462	2.399	1.43	2.506	1.397	2.639
1.75	1.572	1.984	1.553	2.017	1.532	2.057	1.51	2.103	1.485	2.158	1.459	2.224	1.431	2.304	1.401	2.401	1.369	2.521
1.70	1.533	1.917	1.515	1.948	1.495	1.985	1.474	2.027	1.451	2.078	1.427	2.138	1.4	2.211	1.372	2.299	1.341	2.408
1.65	1.494	1.851	1.477	1.88	1.458	1.913	1.439	1.953	1.417	1.999	1.394	2.054	1.369	2.12	1.342	2.2	1.313	2.298
1.60	1.454	1.786	1.438	1.812	1.421	1.843	1.402	1.879	1.382	1.921	1.36	1.971	1.337	2.031	1.311	2.104	1.284	2.192
1.55	1.414	1.721	1.4	1.746	1.383	1.774	1.366	1.806	1.347	1.845	1.326	1.89	1.304	1.945	1.28	2.01	1.255	2.09
1.50	1.374	1.658	1.36	1.68	1.345	1.705	1.329	1.735	1.311	1.77	1.292	1.811	1.271	1.86	1.249	1.919	1.225	1.991
1.45	1.334	1.594	1.321	1.614	1.307	1.638	1.292	1.665	1.275	1.696	1.257	1.734	1.238	1.778	1.217	1.831	1.194	1.894
1.40	1.293	1.532	1.281	1.55	1.268	1.571	1.254	1.595	1.239	1.624	1.222	1.658	1.204	1.697	1.184	1.745	1.163	1.801
1.35	1.252	1.47	1.241	1.486	1.229	1.505	1.216	1.527	1.202	1.553	1.186	1.583	1.169	1.619	1.151	1.661	1.132	1.711
1.30	1.21	1.408	1.2	1.423	1.189	1.44	1.177	1.46	1.164	1.483	1.15	1.51	1.134	1.542	1.118	1.579	1.099	1.624
1.25	1.168	1.348	1.159	1.361	1.149	1.376	1.138	1.394	1.126	1.414	1.113	1.438	1.099	1.466	1.083	1.5	1.067	1.539
1.20	1.126	1.288	1.118	1.299	1.109	1.313	1.099	1.329	1.088	1.347	1.076	1.368	1.063	1.393	1.049	1.422	1.033	1.456
1.15	1.083	1.228	1.076	1.239	1.068	1.251	1.059	1.265	1.049	1.281	1.038	1.299	1.026	1.321	1.013	1.346	0.999	1.376
1.10	1.04	1.169	1.034	1.178	1.026	1.189	1.018	1.201	1.009	1.215	0.999	1.232	0.989	1.25	0.977	1.273	0.964	1.299
1.05	0.997	1.111	0.991	1.119	0.985	1.128	0.977	1.139	0.969	1.151	0.96	1.165	0.951	1.182	0.94	1.201	0.929	1.223
1.00	0.953	1.053	0.948	1.06	0.942	1.068	0.936	1.077	0.929	1.088	0.921	1.1	0.912	1.114	0.903	1.131	0.893	1.15
0.95	0.909	0.996	0.905	1.002	0.9	1.009	0.894	1.017	0.888	1.026	0.881	1.036	0.873	1.048	0.865	1.062	0.856	1.078
0.91	0.874	0.95	0.87	0.956	0.865	0.962	0.86	0.969	0.854	0.977	0.848	0.986	0.842	0.996	0.834	1.008	0.826	1.022

8	9	10	11	13	14	16	18	20	22
4.138	3.718	3.343	3.009	2.712	2.447	2.211	2.001	1.813	1.647

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
4.1	Infinity	3.68	Infinity	3.305	Infinity	2.971	Infinity	2.674	Infinity	2.409	Infinity	2.173	Infinity	1.963	Infinity	1.775	Infinity	1.608	Infinity
3.662	Infinity	3.328	Infinity	3.023	Infinity	2.745	Infinity	2.493	Infinity	2.265	Infinity	2.058	Infinity	1.871	Infinity	1.702	Infinity	1.55	Infinity
3.308	Infinity	3.037	Infinity	2.785	Infinity	2.551	Infinity	2.335	Infinity	2.137	Infinity	1.954	Infinity	1.787	Infinity	1.635	Infinity	1.496	Infinity
3.016	Infinity	2.793	Infinity	2.581	Infinity	2.382	Infinity	2.196	Infinity	2.022	Infinity	1.86	Infinity	1.71	Infinity	1.572	Infinity	1.445	Infinity
2.93	Infinity	2.72	Infinity	2.52	Infinity	2.331	Infinity	2.153	Infinity	1.986	Infinity	1.831	Infinity	1.686	Infinity	1.553	Infinity	1.429	Infinity
2.829	Infinity	2.634	Infinity	2.447	Infinity	2.27	Infinity	2.102	Infinity	1.944	Infinity	1.795	Infinity	1.657	Infinity	1.528	Infinity	1.41	Infinity
2.709	Infinity	2.531	Infinity	2.359	Infinity	2.195	Infinity	2.039	Infinity	1.891	Infinity	1.752	Infinity	1.621	Infinity	1.499	Infinity	1.385	Infinity
2.563	Infinity	2.405	Infinity	2.252	Infinity	2.103	Infinity	1.961	Infinity	1.825	Infinity	1.697	Infinity	1.575	Infinity	1.46	Infinity	1.353	Infinity
2.478	Infinity	2.331	Infinity	2.188	Infinity	2.049	Infinity	1.915	Infinity	1.786	Infinity	1.663	Infinity	1.547	Infinity	1.437	Infinity	1.334	Infinity
2.384	Infinity	2.249	Infinity	2.116	Infinity	1.987	Infinity	1.861	Infinity	1.741	Infinity	1.625	Infinity	1.515	Infinity	1.41	Infinity	1.311	Infinity
2.277	Infinity	2.155	Infinity	2.035	Infinity	1.916	Infinity	1.8	Infinity	1.688	Infinity	1.58	Infinity	1.477	Infinity	1.378	Infinity	1.285	Infinity
2.157	104.86	2.049	Infinity	1.941	Infinity	1.834	Infinity	1.729	Infinity	1.627	Infinity	1.528	Infinity	1.432	Infinity	1.34	Infinity	1.253	Infinity
2.104	40.741	2.002	Infinity	1.899	Infinity	1.798	Infinity	1.697	Infinity	1.599	Infinity	1.504	Infinity	1.412	Infinity	1.323	Infinity	1.238	Infinity
2.049	24.264	1.952	98.044	1.855	Infinity	1.759	Infinity	1.663	Infinity	1.57	Infinity	1.478	Infinity	1.39	Infinity	1.304	Infinity	1.223	Infinity
1.99	16.714	1.899	34.333	1.808	Infinity	1.717	Infinity	1.627	Infinity	1.538	Infinity	1.451	Infinity	1.366	Infinity	1.284	Infinity	1.205	Infinity
1.927	12.382	1.843	19.84	1.758	63.401	1.673	Infinity	1.588	Infinity	1.504	Infinity	1.421	Infinity	1.34	Infinity	1.262	Infinity	1.186	Infinity
1.861	9.573	1.784	13.424	1.705	24.806	1.625	804.733	1.546	Infinity	1.467	Infinity	1.389	Infinity	1.312	Infinity	1.238	Infinity	1.166	Infinity
1.827	8.508	1.752	11.392	1.676	18.573	1.6	66.421	1.523	Infinity	1.447	Infinity	1.372	Infinity	1.297	Infinity	1.225	Infinity	1.155	Infinity
1.791	7.603	1.72	9.804	1.647	14.635	1.574	33.506	1.5	Infinity	1.426	Infinity	1.353	Infinity	1.282	Infinity	1.211	Infinity	1.143	Infinity
1.754	6.823	1.686	8.527	1.617	11.922	1.547	21.873	1.476	498.616	1.405	Infinity	1.335	Infinity	1.265	Infinity	1.197	Infinity	1.131	Infinity
1.716	6.145	1.652	7.479	1.586	9.939	1.518	15.923	1.451	51.311	1.383	Infinity	1.315	Infinity	1.248	Infinity	1.182	Infinity	1.118	Infinity
1.677	5.55	1.616	6.603	1.553	8.426	1.489	12.31	1.424	26.073	1.359	Infinity	1.294	Infinity	1.23	Infinity	1.166	Infinity	1.104	Infinity
1.636	5.023	1.579	5.86	1.519	7.235	1.458	9.883	1.397	17.016	1.335	99.35	1.272	Infinity	1.211	Infinity	1.149	Infinity	1.089	Infinity
1.594	4.553	1.54	5.222	1.484	6.271	1.426	8.14	1.368	12.355	1.309	30.474	1.25	Infinity	1.19	Infinity	1.132	Infinity	1.074	Infinity
1.551	4.132	1.5	4.668	1.447	5.476	1.393	6.828	1.338	9.516	1.282	17.362	1.226	342.542	1.169	Infinity	1.113	Infinity	1.058	Infinity
1.506	3.752	1.458	4.182	1.409	4.81	1.358	5.804	1.306	7.604	1.254	11.806	1.2	32.444	1.147	Infinity	1.093	Infinity	1.041	Infinity
1.459	3.408	1.415	3.753	1.369	4.242	1.322	4.983	1.273	6.229	1.224	8.736	1.174	16.271	1.123	4125.637	1.072	Infinity	1.022	Infinity
1.436	3.248	1.393	3.557	1.349	3.989	1.303	4.631	1.256	5.677	1.208	7.664	1.16	12.832	1.111	57.936	1.061	Infinity	1.012	Infinity
1.411	3.095	1.371	3.371	1.328	3.753	1.284	4.311	1.239	5.193	1.192	6.788	1.145	10.498	1.098	28.448	1.05	Infinity	1.002	Infinity
1.386	2.948	1.347	3.195	1.307	3.533	1.264	4.018	1.221	4.766	1.176	6.059	1.131	8.811	1.085	18.523	1.038	Infinity	0.992	Infinity
1.361	2.808	1.324	3.029	1.285	3.327	1.244	3.749	1.202	4.385	1.159	5.443	1.116	7.535	1.071	13.542	1.026	177.74	0.981	Infinity
1.335	2.674	1.3	2.871	1.263	3.135	1.224	3.502	1.184	4.043	1.142	4.915	1.1	6.535	1.057	10.548	1.014	36.547	0.97	Infinity
1.309	2.545	1.275	2.721	1.24	2.954	1.203	3.273	1.164	3.736	1.125	4.458	1.084	5.731	1.043	8.55	1.001	19.866	0.959	Infinity
1.282	2.421	1.25	2.578	1.216	2.783	1.181	3.062	1.144	3.457	1.106	4.058	1.067	5.071	1.028	7.121	0.987	13.394	0.947	Infinity
1.255	2.302	1.225	2.442	1.193	2.623	1.159	2.865	1.124	3.203	1.088	3.705	1.05	4.518	1.012	6.049	0.974	9.955	0.935	39.94
1.227	2.188	1.199	2.312	1.168	2.471	1.136	2.682	1.103	2.972	1.068	3.391	1.033	4.049	0.996	5.215	0.959	7.821	0.922	18.667
1.199	2.078	1.172	2.188	1.143	2.328	1.113	2.511	1.081	2.759	1.049	3.111	1.015	3.646	0.98	4.547	0.944	6.369	0.908	11.915
1.17	1.973	1.145	2.069	1.118	2.192	1.089	2.351	1.059	2.563	1.028	2.859	0.996	3.296	0.963	4.001	0.929	5.316	0.895	8.599
1.141	1.871	1.117	1.956	1.091	2.063	1.065	2.201	1.036	2.382	1.007	2.631	0.977	2.989	0.945	3.545	0.913	4.517	0.88	6.628
1.111	1.772	1.088	1.847	1.065	1.941	1.039	2.06	1.013	2.215	0.985	2.424	0.957	2.718	0.927	3.16	0.896	3.891	0.865	5.322
1.08	1.678	1.059	1.743	1.037	1.825	1.014	1.927	0.989	2.059	0.963	2.234	0.936	2.476	0.908	2.829	0.879	3.387	0.85	4.393
1.049	1.586	1.029	1.643	1.009	1.714	0.987	1.802	0.964	1.914	0.94	2.061	0.915	2.26	0.888	2.543	0.861	2.973	0.833	3.698
1.017	1.498	0.999	1.547	0.98	1.608	0.96	1.683	0.939	1.778	0.916	1.901	0.892	2.065	0.868	2.292	0.842	2.626	0.816	3.159
0.984	1.412	0.968	1.455	0.95	1.507	0.932	1.571	0.912	1.652	0.891	1.754	0.87	1.889	0.847	2.071	0.823	2.331	0.798	2.728
0.951	1.33	0.936	1.366	0.92	1.411	0.903	1.465	0.885	1.533	0.866	1.618	0.846	1.728	0.825	1.874	0.803	2.078	0.78	2.376
0.917	1.25	0.903	1.281	0.889	1.319	0.873	1.365	0.857	1.421	0.84	1.491	0.821	1.581	0.802	1.698	0.782	1.858	0.76	2.083
0.882	1.172	0.87	1.199	0.857	1.231	0.843	1.269	0.828	1.316	0.812	1.373	0.796	1.446	0.778	1.54	0.759	1.664	0.74	1.836
0.846	1.097	0.836	1.12	0.824	1.146	0.812	1.178	0.798	1.216	0.784	1.264	0.769	1.322	0.753	1.397	0.736	1.494	0.719	1.624
0.817	1.039	0.808	1.058	0.797	1.081	0.786	1.108	0.774	1.141	0.761	1.181	0.747	1.23	0.732	1.292	0.717	1.371	0.701	1.475

Focal Length 27mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	36'8.39"	32'9.58"	29'3.85"	26'2.69"	23'5.57"	21'0.09"	18'9.79"	16'10.36"	15'1.5"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	36'6.9"	Infinity	32'8.07"	Infinity	29'2.35"	Infinity	26'1.18"	Infinity	23'4.07"	Infinity	20'10.57"	Infinity	18'8.28"	Infinity	16'8.87"	Infinity	15'0.01"	Infinity
100'0''	27'1.44"	Infinity	24'11.37"	Infinity	22'10.8"	Infinity	20'11.76"	Infinity	19'2.24"	Infinity	17'6.23"	Infinity	15'11.7"	Infinity	14'6.59"	Infinity	13'2.85"	Infinity
50'0''	21'6.56"	Infinity	20'2.1"	Infinity	18'10.04"	Infinity	17'6.46"	Infinity	16'3.45"	Infinity	15'1.06"	Infinity	13'11.36"	Infinity	12'10.37"	Infinity	11'10.13"	Infinity
30'0''	16'10.94"	156'7.88"	16'0.88"	333'3.76"	15'2.76"	Infinity	14'4.67"	Infinity	13'6.65"	Infinity	12'8.78"	Infinity	11'11.11"	Infinity	11'1.71"	Infinity	10'4.61"	Infinity
20'0''	13'3.91"	41'11"	12'9.77"	48'7.2"	12'3.45"	59'3.21"	11'8.99"	78'9.73"	11'2.42"	125'7.89"	10'7.79"	383'10.89"	10'1.14"	Infinity	9'6.52"	Infinity	8'11.96"	Infinity
15'0''	10'11.92"	24'2.43"	10'7.83"	26'2.65"	10'3.56"	28'11.34"	9'11.12"	32'9.52"	9'6.53"	38'7.13"	9'1.81"	48'3.02"	8'9"	67'4.07"	8'4.13"	122'1.43"	7'11.21"	1600'7.79"
12'0''	9'4.25"	17'0.2"	9'1.37"	17'11.5"	8'10.32"	19'1.85"	8'7.11"	20'8.54"	8'3.75"	22'9.71"	8'0.26"	25'9.11"	7'8.64"	30'2.17"	7'4.93"	37'5.69"	7'1.14"	51'7.69"
10'0''	8'1.68"	13'1.48"	7'11.56"	13'7.89"	7'9.29"	14'3.79"	7'6.88"	15'1.68"	7'4.34"	16'2.32"	7'1.67"	17'6.92"	6'10.88"	19'5.51"	6'7.98"	22'1.77"	6'4.99"	26'3.21"
9'0''	7'5.9"	11'4.64"	7'4.13"	11'9.34"	7'2.24"	12'3.05"	7'0.22"	12'10.07"	6'10.07"	13'6.86"	6'7.81"	14'6.09"	6'5.43"	15'8.84"	6'2.94"	17'4.9"	6'0.36"	19'9.53"
8'0''	6'9.75"	9'9.26"	6'8.33"	10'0.61"	6'6.79"	10'4.62"	6'5.14"	10'9.49"	6'3.38"	11'3.47"	6'1.52"	11'10.93"	5'11.54"	12'8.43"	5'9.47"	13'8.85"	5'7.3"	15'1.65"
7'6''	6'5.54"	9'0.07"	6'4.27"	9'2.86"	6'2.9"	9'6.18"	6'1.44"	9'10.19"	5'11.87"	10'3.06"	5'10.19"	10'9.07"	5'8.42"	11'4.64"	5'6.55"	12'2.36"	5'4.58"	13'3.2"
7'0''	6'1.22"	8'3.19"	6'0.11"	8'5.49"	5'10.91"	8'8.21"	5'9.61"	8'11.47"	5'8.23"	9'3.4"	5'6.74"	9'8.21"	5'5.17"	10'2.18"	5'3.5"	10'9.74"	5'1.74"	11'7.52"
6'6''	5'8.79"	7'6.6"	5'7.83"	7'8.47"	5'6.79"	7'10.68"	5'5.67"	8'1.29"	5'4.46"	8'4.43"	5'3.16"	8'8.24"	5'1.77"	9'0.9"	5'0.3"	9'6.72"	4'10.74"	10'2.12"
6'0''	5'4.26"	6'10.29"	5'3.45"	6'11.79"	5'2.56"	7'1.55"	5'1.59"	7'3.62"	5'0.55"	7'6.09"	4'11.43"	7'9.06"	4'10.23"	8'0.66"	4'8.96"	8'5.08"	4'7.6"	8'10.62"
5'6''	4'11.62"	6'2.25"	4'10.94"	6'3.43"	4'10.19"	6'4.81"	4'9.38"	6'6.42"	4'8.5"	6'8.33"	4'7.56"	6'10.6"	4'6.54"	7'1.33"	4'5.45"	7'4.65"	4'4.28"	7'8.74"
5'0''	4'6.86"	5'6.46"	4'6.3"	5'7.37"	4'5.69"	5'8.42"	4'5.02"	5'9.65"	4'4.3"	5'11.09"	4'3.52"	6'0.8"	4'2.67"	6'2.83"	4'1.76"	6'5.26"	4'0.79"	6'8.23"
4'9''	4'4.43"	5'2.66"	4'3.93"	5'3.45"	4'3.39"	5'4.36"	4'2.79"	5'5.42"	4'2.14"	5'6.66"	4'1.43"	5'8.12"	4'0.67"	5'9.85"	3'11.85"	5'11.92"	3'10.96"	6'2.42"
4'6''	4'1.98"	4'10.91"	4'1.53"	4'11.59"	4'1.05"	5'0.38"	4'0.52"	5'1.28"	3'11.94"	5'2.34"	3'11.31"	5'3.59"	3'10.62"	5'5.05"	3'9.89"	5'6.8"	3'9.09"	5'8.89"
4'3''	3'11.49"	4'7.23"	3'11.1"	4'7.81"	3'10.67"	4'8.47"	3'10.2"	4'9.24"	3'9.69"	4'10.14"	3'9.14"	4'11.19"	3'8.53"	5'0.42"	3'7.87"	5'1.88"	3'7.17"	5'3.61"
4'0''	3'8.97"	4'3.6"	3'8.63"	4'4.09"	3'8.26"	4'4.65"	3'7.85"	4'5.29"	3'7.4"	4'6.04"	3'6.92"	4'6.92"	3'6.39"	4'7.94"	3'5.81"	4'9.15"	3'5.19"	4'10.57"
3'9''	3'6.42"	4'0.02"	3'6.13"	4'0.43"	3'5.81"	4'0.9"	3'5.46"	4'1.43"	3'5.07"	4'2.05"	3'4.65"	4'2.77"	3'4.19"	4'3.61"	3'3.69"	4'4.6"	3'3.15"	4'5.76"
3'6''	3'3.83"	3'8.5"	3'3.59"	3'8.84"	3'3.32"	3'9.22"	3'3.02"	3'9.66"	3'2.69"	3'10.16"	3'2.33"	3'10.75"	3'1.94"	3'11.42"	3'1.51"	4'0.22"	3'1.04"	4'1.15"
3'3''	3'1.21"	3'5.03"	3'1.01"	3'5.3"	3'0.78"	3'5.61"	3'0.54"	3'5.96"	3'0.26"	3'6.37"	2'11.96"	3'6.83"	2'11.63"	3'7.37"	2'11.27"	3'8"	2'10.88"	3'8.73"
3'0''	2'10.56"	3'1.62"	2'10.39"	3'1.83"	2'10.21"	3'2.07"	2'10.01"	3'2.35"	2'9.79"	3'2.66"	2'9.54"	3'3.03"	2'9.27"	3'3.45"	2'8.97"	3'3.93"	2'8.65"	3'4.49"

8	9	10	11	13	14	16	18	20	22
13'6.91"	12'2.38"	10'11.61"	9'10.46"	8'10.77"	8'0.34"	7'3.05"	6'6.78"	5'11.38"	5'4.84"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
13'5.43"	Infinity	12'0.87"	Infinity	10'10.12"	Infinity	9'8.98"	Infinity	8'9.27"	Infinity	7'10.84"	Infinity	7'1.55"	Infinity	6'5.27"	Infinity	5'9.89"	Infinity	5'3.32"	Infinity
12'0.42"	Infinity	10'11.22"	Infinity	9'11.17"	Infinity	9'0.22"	Infinity	8'2.27"	Infinity	7'5.25"	Infinity	6'9.08"	Infinity	6'1.71"	Infinity	5'7.06"	Infinity	5'1.07"	Infinity
10'10.64"	Infinity	9'11.9"	Infinity	9'1.92"	Infinity	8'4.67"	Infinity	7'8.13"	Infinity	7'0.27"	Infinity	6'5.06"	Infinity	5'10.46"	Infinity	5'4.44"	Infinity	4'10.97"	Infinity
9'7.87"	Infinity	8'11.52"	Infinity	8'3.59"	Infinity	7'8.08"	Infinity	7'1.03"	Infinity	6'6.42"	Infinity	6'0.26"	Infinity	5'6.54"	Infinity	5'1.25"	Infinity	4'8.37"	Infinity
8'5.51"	Infinity	7'11.21"	Infinity	7'5.1"	Infinity	6'11.2"	Infinity	6'5.54"	Infinity	6'0.14"	Infinity	5'7.02"	Infinity	5'2.19"	Infinity	4'9.66"	Infinity	4'5.42"	Infinity
7'6.3"	Infinity	7'1.41"	Infinity	6'8.59"	Infinity	6'3.86"	Infinity	5'11.25"	Infinity	5'6.78"	Infinity	5'2.48"	Infinity	4'10.37"	Infinity	4'6.45"	Infinity	4'2.74"	Infinity
6'9.3"	90'6.78"	6'5.43"	639'6.12"	6'1.55"	Infinity	5'9.7"	Infinity	5'5.89"	Infinity	5'2.15"	Infinity	4'10.51"	Infinity	4'6.97"	Infinity	4'3.57"	Infinity	4'0.32"	Infinity
6'1.92"	33'3.73"	5'10.79"	47'11.36"	5'7.63"	96'1.46"	5'4.45"	Infinity	5'1.26"	Infinity	4'10.11"	Infinity	4'6.99"	Infinity	4'3.94"	Infinity	4'0.97"	Infinity	3'10.1"	Infinity
5'9.7"	23'5.35"	5'6.96"	29'8.16"	5'4.18"	42'7.14"	5'1.36"	84'8.77"	4'10.52"	Infinity	4'7.68"	Infinity	4'4.87"	Infinity	4'2.09"	Infinity	3'11.37"	Infinity	3'8.73"	Infinity
5'5.04"	17'1.43"	5'2.72"	20'1.4"	5'0.32"	25'1.61"	4'9.88"	35'1.82"	4'7.41"	64'8.01"	4'4.92"	1804'3.69"	4'2.43"	Infinity	3'11.95"	Infinity	3'9.51"	Infinity	3'7.12"	Infinity
5'2.54"	14'8.84"	5'0.41"	16'10.34"	4'10.22"	20'2.16"	4'7.98"	26'0.38"	4'5.7"	38'11.62"	4'3.39"	90'8.9"	4'1.07"	Infinity	3'10.75"	Infinity	3'8.46"	Infinity	3'6.2"	Infinity
4'11.89"	12'8.59"	4'9.98"	14'2.8"	4'7.99"	16'5.69"	4'5.95"	20'1.02"	4'3.86"	26'9.76"	4'1.74"	43'6.73"	3'11.6"	155'0.51"	3'9.45"	Infinity	3'7.31"	Infinity	3'5.2"	Infinity
4'9.11"	10'11.77"	4'7.4"	12'0.8"	4'5.62"	13'7.17"	4'3.78"	15'10.82"	4'1.89"	19'8.73"	3'11.96"	27'3.01"	3'10"	48'6.76"	3'8.03"	501'5.35"	3'6.06"	Infinity	3'4.1"	Infinity
4'6.16"	9'5.7"	4'4.66"	10'2.99"	4'3.08"	11'3.6"	4'1.45"	12'9.58"	3'11.76"	15'1.05"	3'10.03"	18'11.79"	3'8.26"	26'11.99"	3'6.48"	52'8.18"	3'4.68"	Infinity	3'2.88"	Infinity
4'3.05"	8'1.87"	4'1.75"	8'8.43"	4'0.38"	9'5.07"	3'10.95"	10'4.86"	3'9.47"	11'9.76"	3'7.94"	13'11.81"	3'6.37"	17'8.76"	3'4.77"	25'7.9"	3'3.15"	53'2.69"	3'1.53"	Infinity
3'11.75"	6'11.88"	3'10.64"	7'4.46"	3'9.48"	7'10.32"	3'8.26"	8'6.03"	3'6.98"	9'4.55"	3'5.66"	10'7.64"	3'4.29"	12'6.87"	3'2.89"	15'10.95"	3'1.46"	22'11.72"	3'0.02"	47'5.62"
3'10.02"	6'5.48"	3'9.02"	6'9.27"	3'7.95"	7'2.07"	3'6.83"	7'8.29"	3'5.66"	8'4.59"	3'4.44"	9'4.14"	3'3.18"	10'9.2"	3'1.88"	13'0.65"	3'0.55"	17'3.72"	2'11.19"	27'10.31"
3'8.24"	5'11.43"	3'7.33"	6'2.56"	3'6.37"	6'6.46"	3'5.35"	6'11.45"	3'4.28"	7'5.98"	3'3.17"	8'2.85"	3'2"	9'3.46"	3'0.81"	10'10.66"	2'11.57"	13'7.17"	2'10.32"	19'1.45"
3'6.41"	5'5.71"	3'5.59"	5'8.26"	3'4.73"	5'11.42"	3'3.81"	6'3.4"	3'2.84"	6'8.52"	3'1.83"	7'3.31"	3'0.77"	8'0.67"	2'11.68"	9'2.29"	2'10.55"	10'11.73"	2'9.39"	14'2.1"
3'4.51"	5'0.28"	3'3.79"	5'2.35"	3'3.02"	5'4.88"	3'2.2"	5'8.03"	3'1.34"	6'0.02"	3'0.43"	6'5.21"	2'11.47"	7'0.16"	2'10.48"	7'9.89"	2'9.45"	9'0.35"	2'8.4"	10'11.93"
3'2.56"	4'7.14"	3'1.93"	4'8.79"	3'1.25"	4'10.8"	3'0.53"	5'1.27"	2'11.76"	5'4.35"	2'10.96"	5'8.28"	2'10.1"	6'1.43"	2'9.22"	6'8.4"	2'8.29"	7'6.29"	2'7.34"	8'9.3"
3'0.54"	4'2.24"	3'	4'3.55"	2'11.41"	4'5.12"	2'10.78"	4'7.03"	2'10.12"	4'9.39"	2'9.41"	5'0.35"	2'8.66"	5'4.13"	2'7.87"	5'9.11"	2'7.05"	6'3.91"	2'6.2"	7'1.68"
2'10.45"	3'9.59"	2'9.99"	3'10.6"	2'9.49"	3'11.81"	2'8.96"	4'1.27"	2'8.39"	4'3.05"	2'7.78"	4'5.24"	2'7.13"	4'7.99"	2'6.45"	4'11.53"	2'5.73"	5'4.2"	2'4.98"	5'10.61"
2'8.3"	3'5.15"	2'7.91"	3'5.92"	2'7.5"	3'6.84"	2'7.05"	3'7.93"	2'6.57"	3'9.24"	2'6.06"	3'10.84"	2'5.51"	4'0.81"	2'4.93"	4'3.29"	2'4.31"	4'6.47"	2'3.67"	4'10.69"

Focal Length 28mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	12.006	10.727	9.588	8.573	7.668	6.862	6.145	5.505	4.935

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	11.968	Infinity	10.689	Infinity	9.55	Infinity	8.534	Infinity	7.63	Infinity	6.824	Infinity	6.106	Infinity	5.467	Infinity	4.897	Infinity
30.00	8.662	Infinity	7.983	Infinity	7.34	Infinity	6.735	Infinity	6.168	Infinity	5.639	Infinity	5.147	Infinity	4.692	Infinity	4.273	Infinity
15.00	6.787	Infinity	6.37	Infinity	5.96	Infinity	5.561	Infinity	5.175	Infinity	4.803	Infinity	4.448	Infinity	4.109	Infinity	3.789	Infinity
10.00	5.579	57.247	5.298	140.338	5.017	Infinity	4.736	Infinity	4.457	Infinity	4.183	Infinity	3.915	Infinity	3.655	Infinity	3.403	Infinity
9.00	5.266	34.387	5.017	53.185	4.765	138.843	4.512	Infinity	4.26	Infinity	4.011	Infinity	3.765	Infinity	3.525	Infinity	3.291	Infinity
8.00	4.921	22.938	4.705	29.944	4.484	45.693	4.261	112.517	4.037	Infinity	3.814	Infinity	3.593	Infinity	3.375	Infinity	3.162	Infinity
7.00	4.539	16.064	4.356	19.174	4.168	24.534	3.976	35.854	3.782	74.907	3.587	Infinity	3.393	Infinity	3.199	Infinity	3.009	Infinity
6.00	4.113	11.478	3.964	12.96	3.81	15.171	3.651	18.79	3.489	25.724	3.324	44.151	3.158	233.523	2.992	Infinity	2.827	Infinity
5.50	3.882	9.714	3.749	10.745	3.612	12.207	3.47	14.423	3.324	18.145	3.176	25.623	3.025	48.032	2.874	5386.918	2.722	Infinity
5.00	3.636	8.202	3.521	8.916	3.4	9.889	3.275	11.279	3.147	13.407	3.014	17.044	2.88	24.597	2.743	49.409	2.606	Infinity
4.50	3.374	6.891	3.276	7.382	3.173	8.027	3.065	8.906	2.953	10.164	2.838	12.096	2.72	15.411	2.599	22.354	2.477	45.719
4.00	3.096	5.743	3.014	6.075	2.928	6.498	2.837	7.053	2.743	7.805	2.644	8.876	2.543	10.509	2.439	13.274	2.332	18.923
3.80	2.98	5.324	2.904	5.605	2.825	5.96	2.741	6.42	2.653	7.033	2.562	7.883	2.467	9.133	2.369	11.133	2.269	14.813
3.60	2.86	4.924	2.791	5.162	2.718	5.459	2.641	5.838	2.56	6.336	2.475	7.011	2.387	7.974	2.297	9.442	2.203	11.935
3.40	2.737	4.543	2.675	4.742	2.608	4.989	2.538	5.301	2.464	5.704	2.386	6.241	2.305	6.983	2.221	8.072	2.134	9.806
3.20	2.611	4.179	2.555	4.345	2.495	4.55	2.431	4.805	2.363	5.129	2.292	5.554	2.218	6.128	2.141	6.94	2.061	8.168
3.00	2.482	3.831	2.431	3.969	2.377	4.136	2.32	4.343	2.259	4.604	2.195	4.938	2.127	5.381	2.057	5.988	1.984	6.868
2.90	2.415	3.663	2.368	3.788	2.317	3.939	2.263	4.125	2.205	4.357	2.144	4.654	2.08	5.042	2.014	5.567	1.944	6.314
2.80	2.348	3.499	2.304	3.611	2.256	3.748	2.205	3.914	2.15	4.121	2.093	4.383	2.032	4.723	1.969	5.178	1.903	5.812
2.70	2.28	3.338	2.239	3.439	2.194	3.562	2.146	3.711	2.095	3.894	2.04	4.126	1.983	4.423	1.923	4.816	1.861	5.355
2.60	2.211	3.18	2.172	3.271	2.13	3.381	2.085	3.514	2.038	3.677	1.987	3.88	1.933	4.14	1.876	4.479	1.817	4.937
2.50	2.141	3.026	2.105	3.108	2.066	3.205	2.024	3.323	1.979	3.467	1.932	3.646	1.881	3.872	1.828	4.164	1.772	4.553
2.40	2.07	2.875	2.037	2.948	2.001	3.035	1.962	3.139	1.92	3.266	1.875	3.422	1.828	3.618	1.778	3.869	1.726	4.2
2.30	1.998	2.727	1.967	2.792	1.934	2.869	1.898	2.961	1.859	3.072	1.818	3.209	1.774	3.378	1.727	3.593	1.678	3.873
2.20	1.925	2.582	1.897	2.64	1.866	2.707	1.833	2.788	1.797	2.885	1.759	3.004	1.718	3.15	1.675	3.334	1.629	3.57
2.10	1.851	2.44	1.825	2.491	1.797	2.55	1.766	2.621	1.734	2.705	1.699	2.808	1.661	2.933	1.621	3.09	1.579	3.289
2.00	1.776	2.301	1.752	2.345	1.727	2.397	1.699	2.459	1.669	2.532	1.637	2.62	1.602	2.727	1.566	2.86	1.527	3.027
1.95	1.738	2.233	1.715	2.274	1.691	2.322	1.664	2.379	1.636	2.447	1.605	2.529	1.572	2.628	1.537	2.75	1.5	2.902
1.90	1.699	2.165	1.678	2.203	1.655	2.248	1.63	2.301	1.603	2.364	1.573	2.439	1.542	2.531	1.509	2.642	1.473	2.782
1.85	1.661	2.098	1.641	2.133	1.619	2.175	1.595	2.224	1.569	2.282	1.541	2.352	1.511	2.436	1.479	2.538	1.446	2.665
1.80	1.622	2.031	1.603	2.064	1.582	2.103	1.559	2.148	1.535	2.202	1.509	2.266	1.48	2.343	1.45	2.437	1.418	2.553
1.75	1.583	1.965	1.565	1.996	1.545	2.032	1.524	2.074	1.501	2.123	1.476	2.182	1.449	2.253	1.42	2.338	1.389	2.443
1.70	1.543	1.9	1.526	1.928	1.508	1.961	1.488	2	1.466	2.046	1.442	2.099	1.417	2.164	1.389	2.242	1.36	2.337
1.65	1.503	1.835	1.487	1.862	1.47	1.892	1.451	1.928	1.431	1.969	1.408	2.019	1.384	2.077	1.358	2.148	1.331	2.235
1.60	1.463	1.772	1.448	1.796	1.432	1.823	1.414	1.856	1.395	1.894	1.374	1.939	1.351	1.993	1.327	2.057	1.301	2.135
1.55	1.423	1.708	1.409	1.73	1.394	1.756	1.377	1.786	1.359	1.82	1.339	1.861	1.318	1.91	1.295	1.968	1.271	2.039
1.50	1.382	1.645	1.369	1.666	1.355	1.689	1.339	1.716	1.322	1.748	1.304	1.785	1.284	1.829	1.263	1.881	1.24	1.945
1.45	1.341	1.583	1.329	1.602	1.316	1.623	1.301	1.647	1.286	1.676	1.268	1.71	1.25	1.75	1.23	1.797	1.208	1.854
1.40	1.299	1.522	1.288	1.538	1.276	1.558	1.263	1.58	1.248	1.606	1.232	1.636	1.215	1.672	1.196	1.714	1.176	1.765
1.35	1.258	1.461	1.248	1.476	1.236	1.493	1.224	1.513	1.21	1.537	1.196	1.564	1.18	1.596	1.162	1.634	1.144	1.679
1.30	1.216	1.4	1.206	1.414	1.196	1.429	1.185	1.448	1.172	1.469	1.159	1.493	1.144	1.522	1.128	1.555	1.111	1.595
1.25	1.173	1.34	1.165	1.353	1.155	1.367	1.145	1.383	1.134	1.401	1.121	1.423	1.108	1.449	1.093	1.478	1.077	1.514
1.20	1.131	1.281	1.123	1.292	1.114	1.304	1.105	1.319	1.094	1.335	1.083	1.355	1.071	1.377	1.057	1.403	1.043	1.435
1.15	1.088	1.222	1.081	1.232	1.073	1.243	1.064	1.256	1.055	1.27	1.045	1.287	1.033	1.307	1.021	1.33	1.008	1.357
1.10	1.044	1.164	1.038	1.173	1.031	1.182	1.023	1.194	1.015	1.206	1.006	1.221	0.995	1.239	0.984	1.259	0.972	1.282
1.05	1.001	1.106	0.995	1.114	0.989	1.122	0.982	1.132	0.974	1.143	0.966	1.156	0.957	1.171	0.947	1.189	0.936	1.209
1.00	0.956	1.049	0.951	1.056	0.946	1.063	0.94	1.072	0.933	1.081	0.926	1.092	0.918	1.105	0.909	1.12	0.899	1.138
0.95	0.912	0.993	0.908	0.998	0.903	1.004	0.897	1.012	0.892	1.02	0.885	1.03	0.878	1.041	0.87	1.053	0.862	1.068
0.91	0.876	0.948	0.872	0.952	0.868	0.958	0.863	0.964	0.858	0.972	0.852	0.98	0.846	0.99	0.839	1.001	0.831	1.014

8	9	10	11	13	14	16	18	20	22
4.428	3.976	3.573	3.214	2.894	2.609	2.355	2.129	1.928	1.748

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
4.39	Infinity	3.937	Infinity	3.535	Infinity	3.176	Infinity	2.856	Infinity	2.571	Infinity	2.317	Infinity	2.091	Infinity	1.89	Infinity	1.71	Infinity
3.887	Infinity	3.534	Infinity	3.21	Infinity	2.916	Infinity	2.648	Infinity	2.405	Infinity	2.185	Infinity	1.985	Infinity	1.805	Infinity	1.643	Infinity
3.487	Infinity	3.204	Infinity	2.94	Infinity	2.695	Infinity	2.468	Infinity	2.259	Infinity	2.066	Infinity	1.89	Infinity	1.728	Infinity	1.581	Infinity
3.162	Infinity	2.931	Infinity	2.712	Infinity	2.505	Infinity	2.311	Infinity	2.129	Infinity	1.96	Infinity	1.802	Infinity	1.657	Infinity	1.523	Infinity
3.066	Infinity	2.85	Infinity	2.644	Infinity	2.448	Infinity	2.263	Infinity	2.089	Infinity	1.926	Infinity	1.775	Infinity	1.635	Infinity	1.505	Infinity
2.955	Infinity	2.755	Infinity	2.563	Infinity	2.379	Infinity	2.205	Infinity	2.041	Infinity	1.887	Infinity	1.742	Infinity	1.607	Infinity	1.482	Infinity
2.823	Infinity	2.641	Infinity	2.466	Infinity	2.297	Infinity	2.136	Infinity	1.982	Infinity	1.838	Infinity	1.701	Infinity	1.574	Infinity	1.455	Infinity
2.664	Infinity	2.503	Infinity	2.347	Infinity	2.195	Infinity	2.049	Infinity	1.909	Infinity	1.776	Infinity	1.65	Infinity	1.531	Infinity	1.419	Infinity
2.571	Infinity	2.423	Infinity	2.277	Infinity	2.135	Infinity	1.998	Infinity	1.865	Infinity	1.739	Infinity	1.618	Infinity	1.505	Infinity	1.397	Infinity
2.469	Infinity	2.333	Infinity	2.199	Infinity	2.067	Infinity	1.939	Infinity	1.815	Infinity	1.696	Infinity	1.582	Infinity	1.474	Infinity	1.372	Infinity
2.354	Infinity	2.231	Infinity	2.11	Infinity	1.99	Infinity	1.872	Infinity	1.758	Infinity	1.647	Infinity	1.541	Infinity	1.439	Infinity	1.342	Infinity
2.225	36.632	2.116	Infinity	2.008	Infinity	1.9	Infinity	1.794	Infinity	1.69	Infinity	1.589	Infinity	1.491	Infinity	1.397	Infinity	1.307	Infinity
2.168	23.718	2.066	75.027	1.963	Infinity	1.861	Infinity	1.76	Infinity	1.66	Infinity	1.563	Infinity	1.469	Infinity	1.378	Infinity	1.29	Infinity
2.108	17.045	2.012	33.235	1.915	Infinity	1.819	Infinity	1.723	Infinity	1.628	Infinity	1.535	Infinity	1.445	Infinity	1.357	Infinity	1.273	Infinity
2.046	12.969	1.956	20.488	1.865	60.356	1.774	Infinity	1.683	Infinity	1.593	Infinity	1.505	Infinity	1.418	Infinity	1.335	Infinity	1.254	Infinity
1.979	10.221	1.896	14.316	1.811	26.332	1.726	629.683	1.641	Infinity	1.556	Infinity	1.472	Infinity	1.39	Infinity	1.31	Infinity	1.233	Infinity
1.909	8.243	1.832	10.674	1.754	16.072	1.675	38.021	1.595	Infinity	1.516	Infinity	1.437	Infinity	1.36	Infinity	1.284	Infinity	1.21	Infinity
1.872	7.448	1.799	9.361	1.724	13.23	1.647	25.047	1.571	Infinity	1.494	Infinity	1.418	Infinity	1.343	Infinity	1.27	Infinity	1.198	Infinity
1.835	6.751	1.764	8.271	1.692	11.124	1.619	18.345	1.546	71.222	1.472	Infinity	1.399	Infinity	1.326	Infinity	1.255	Infinity	1.185	Infinity
1.796	6.135	1.729	7.352	1.66	9.5	1.59	14.251	1.52	33.29	1.449	Infinity	1.378	Infinity	1.308	Infinity	1.239	Infinity	1.171	Infinity
1.755	5.586	1.692	6.567	1.627	8.211	1.56	11.492	1.493	21.162	1.425	600.545	1.357	Infinity	1.289	Infinity	1.223	Infinity	1.157	Infinity
1.714	5.094	1.654	5.889	1.592	7.161	1.529	9.505	1.464	15.19	1.399	48.319	1.334	Infinity	1.27	Infinity	1.205	Infinity	1.142	Infinity
1.671	4.65	1.615	5.296	1.556	6.291	1.496	8.007	1.435	11.636	1.373	24.218	1.311	Infinity	1.249	Infinity	1.187	Infinity	1.126	Infinity
1.627	4.248	1.574	4.774	1.519	5.557	1.462	6.837	1.404	9.279	1.346	15.711	1.286	77.22	1.227	Infinity	1.168	Infinity	1.11	Infinity
1.582	3.883	1.532	4.311	1.48	4.931	1.427	5.897	1.372	7.601	1.317	11.362	1.26	26.331	1.204	Infinity	1.148	Infinity	1.092	Infinity
1.535	3.548	1.488	3.897	1.44	4.389	1.39	5.127	1.339	6.346	1.286	8.721	1.233	15.303	1.18	117.436	1.126	Infinity	1.073	Infinity
1.486	3.241	1.443	3.526	1.398	3.916	1.352	4.483	1.304	5.371	1.255	6.948	1.205	10.482	1.154	25.322	1.104	Infinity	1.053	Infinity
1.461	3.097	1.42	3.353	1.377	3.702	1.332	4.199	1.286	4.961	1.238	6.263	1.19	8.963	1.141	17.811	1.092	Infinity	1.043	Infinity
1.435	2.959	1.396	3.19	1.355	3.5	1.311	3.937	1.267	4.593	1.221	5.675	1.175	7.778	1.127	13.577	1.079	98.208	1.032	Infinity
1.41	2.826	1.372	3.033	1.332	3.31	1.291	3.695	1.248	4.26	1.204	5.164	1.159	6.828	1.113	10.859	1.067	34.186	1.02	Infinity
1.383	2.698	1.347	2.885	1.309	3.131	1.27	3.469	1.228	3.957	1.186	4.716	1.143	6.049	1.099	8.966	1.054	20.263	1.009	Infinity
1.357	2.575	1.322	2.742	1.286	2.962	1.248	3.259	1.209	3.68	1.168	4.32	1.126	5.398	1.084	7.573	1.04	14.171	0.997	Infinity
1.329	2.456	1.296	2.606	1.262	2.801	1.226	3.062	1.188	3.427	1.149	3.968	1.109	4.847	1.068	6.504	1.027	10.753	0.985	44.366
1.301	2.342	1.27	2.476	1.237	2.649	1.203	2.878	1.167	3.194	1.13	3.653	1.091	4.374	1.052	5.659	1.012	8.565	0.972	21.186
1.273	2.231	1.244	2.351	1.213	2.505	1.18	2.706	1.146	2.979	1.11	3.369	1.073	3.963	1.036	4.973	0.997	7.045	0.959	13.633
1.244	2.125	1.217	2.232	1.187	2.368	1.156	2.544	1.124	2.781	1.09	3.112	1.055	3.604	1.019	4.405	0.982	5.928	0.945	9.889
1.215	2.022	1.189	2.117	1.161	2.237	1.132	2.391	1.101	2.596	1.069	2.877	1.036	3.286	1.001	3.928	0.966	5.071	0.93	7.652
1.185	1.922	1.161	2.007	1.134	2.113	1.107	2.248	1.078	2.424	1.047	2.664	1.016	3.004	0.983	3.521	0.95	4.394	0.916	6.165
1.155	1.826	1.132	1.901	1.107	1.994	1.081	2.111	1.054	2.264	1.025	2.467	0.995	2.751	0.965	3.17	0.933	3.845	0.9	5.105
1.124	1.733	1.102	1.799	1.079	1.881	1.055	1.983	1.029	2.114	1.002	2.287	0.974	2.523	0.945	2.864	0.915	3.391	0.884	4.311
1.092	1.643	1.072	1.701	1.051	1.772	1.028	1.861	1.004	1.973	0.979	2.12	0.953	2.317	0.925	2.594	0.897	3.01	0.868	3.694
1.06	1.556	1.041	1.607	1.022	1.669	1.001	1.745	0.978	1.841	0.955	1.965	0.93	2.129	0.904	2.356	0.878	2.684	0.85	3.201
1.027	1.471	1.01	1.516	0.992	1.569	0.972	1.635	0.952	1.717	0.93	1.822	0.907	1.958	0.883	2.143	0.858	2.404	0.832	2.798
0.993	1.389	0.978	1.428	0.961	1.474	0.943	1.53	0.924	1.6	0.904	1.688	0.883	1.801	0.861	1.952	0.838	2.159	0.813	2.462
0.959	1.31	0.945	1.343	0.93	1.383	0.914	1.431	0.896	1.49	0.878	1.563	0.858	1.657	0.838	1.779	0.816	1.944	0.794	2.178
0.924	1.233	0.911	1.261	0.898	1.295	0.883	1.335	0.867	1.385	0.85	1.446	0.832	1.523	0.814	1.622	0.794	1.754	0.773	1.935
0.889	1.158	0.877	1.182	0.865	1.211	0.852	1.245	0.837	1.286	0.822	1.337	0.806	1.4	0.789	1.48	0.771	1.584	0.752	1.724
0.852	1.085	0.842	1.105	0.831	1.129	0.819	1.158	0.806	1.192	0.793	1.234	0.778	1.285	0.763	1.349	0.747	1.431	0.729	1.539
0.823	1.029	0.813	1.046	0.803	1.067	0.793	1.091	0.781	1.12	0.769	1.156	0.755	1.199	0.741	1.252	0.726	1.32	0.711	1.408

Focal Length 28mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	39'4.68"	35'2.32"	31'5.48"	28'1.52"	25'1.89"	22'6.16"	20'1.93"	18'0.73"	16'2.29"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	39'3.18"	Infinity	35'0.83"	Infinity	31'3.97"	Infinity	28'	Infinity	25'0.39"	Infinity	22'4.67"	Infinity	20'0.41"	Infinity	17'11.23"	Infinity	16'0.8"	Infinity
100'0''	28'6.53"	Infinity	26'3.55"	Infinity	24'2.03"	Infinity	22'2.03"	Infinity	20'3.55"	Infinity	18'6.6"	Infinity	16'11.14"	Infinity	15'5.14"	Infinity	14'0.55"	Infinity
50'0''	22'5.04"	Infinity	21'0.38"	Infinity	19'8.05"	Infinity	18'4.16"	Infinity	17'0.78"	Infinity	15'10"	Infinity	14'7.86"	Infinity	13'6.42"	Infinity	12'5.7"	Infinity
30'0''	17'5.18"	120'4.64"	16'7.19"	193'4.86"	15'9.1"	612'11.67"	14'10.98"	Infinity	14'0.91"	Infinity	13'2.93"	Infinity	12'5.13"	Infinity	11'7.55"	Infinity	10'10.26"	Infinity
20'0''	13'7.64"	38'10.57"	13'1.63"	44'1.15"	12'7.42"	51'11.51"	12'1.05"	65'0.71"	11'6.54"	90'11.75"	10'11.94"	165'7.17"	10'5.3"	2315'5.62"	9'10.65"	Infinity	9'4.04"	Infinity
15'0''	11'2.37"	23'2.29"	10'10.41"	24'10.71"	10'6.25"	27'1.68"	10'1.91"	30'2.65"	9'9.41"	34'8"	9'4.77"	41'7.02"	9'0.02"	53'8.64"	8'7.18"	80'3.1"	8'2.28"	182'7.03"
12'0''	9'5.97"	16'6.31"	9'3.19"	17'4.14"	9'0.24"	18'4.46"	8'9.13"	19'8.25"	8'5.86"	21'5.06"	8'2.45"	23'9.48"	7'10.91"	27'2.32"	7'7.26"	32'5.43"	7'3.51"	41'6.87"
10'0''	8'2.94"	12'10.06"	8'0.9"	13'3.74"	7'10.72"	13'10.66"	7'8.4"	14'7.24"	7'5.94"	15'6.05"	7'3.34"	16'8"	7'0.63"	18'2.55"	6'9.79"	20'4.2"	6'6.86"	23'5.69"
9'0''	7'6.94"	11'2.13"	7'5.25"	11'6.31"	7'3.43"	11'11.36"	7'1.49"	12'5.51"	6'11.42"	13'1.14"	6'9.23"	13'10.75"	6'6.92"	14'11.15"	6'4.5"	16'3.62"	6'1.98"	18'2.39"
8'0''	6'10.59"	9'7.46"	6'9.23"	9'10.46"	6'7.76"	10'2.04"	6'6.18"	10'6.35"	6'4.49"	10'11.6"	6'2.69"	11'6.08"	6'0.78"	12'2.23"	5'10.77"	13'0.7"	5'8.66"	14'2.55"
7'6''	6'6.27"	8'10.56"	6'5.07"	9'1.07"	6'3.76"	9'4.05"	6'2.36"	9'7.61"	6'0.85"	9'11.91"	5'11.24"	10'5.17"	5'9.53"	10'11.72"	5'7.72"	11'8.01"	5'5.81"	12'6.76"
7'0''	6'1.86"	8'1.94"	6'0.81"	8'4.01"	5'11.66"	8'6.46"	5'10.43"	8'9.37"	5'9.1"	9'0.87"	5'7.68"	9'5.1"	5'6.16"	9'10.31"	5'4.54"	10'4.82"	5'2.84"	11'1.12"
6'6''	5'9.35"	7'5.58"	5'8.44"	7'7.27"	5'7.45"	7'9.26"	5'6.38"	7'11.61"	5'5.22"	8'2.42"	5'3.97"	8'5.78"	5'2.64"	8'9.89"	5'1.22"	9'2.95"	4'11.72"	9'9.3"
6'0''	5'4.73"	6'9.47"	5'3.96"	6'10.83"	5'3.12"	7'0.43"	5'2.2"	7'2.3"	5'1.21"	7'4.51"	5'0.14"	7'7.15"	4'10.99"	7'10.34"	4'9.76"	8'2.22"	4'8.45"	8'7.03"
5'6''	5'0.01"	6'1.6"	4'11.37"	6'2.68"	4'10.66"	6'3.93"	4'9.89"	6'5.39"	4'9.05"	6'7.11"	4'8.15"	6'9.14"	4'7.17"	6'11.58"	4'6.13"	7'2.51"	4'5.01"	7'6.1"
5'0''	4'7.18"	5'5.96"	4'6.65"	5'6.79"	4'6.07"	5'7.75"	4'5.44"	5'8.87"	4'4.75"	5'10.17"	4'4.01"	5'11.71"	4'3.2"	6'1.53"	4'2.33"	6'3.7"	4'1.39"	6'6.32"
4'9''	4'4.72"	5'2.23"	4'4.25"	5'2.95"	4'3.73"	5'3.78"	4'3.16"	5'4.74"	4'2.55"	5'5.87"	4'1.88"	5'7.19"	4'1.15"	5'8.75"	4'0.36"	5'10.6"	3'11.52"	6'0.82"
4'6''	4'2.23"	4'10.54"	4'1.81"	4'11.16"	4'1.35"	4'11.88"	4'0.85"	5'0.71"	4'0.3"	5'1.67"	3'11.7"	5'2.8"	3'11.05"	5'4.12"	3'10.35"	5'5.68"	3'9.59"	5'7.55"
4'3''	3'11.71"	4'6.91"	3'11.34"	4'7.44"	3'10.94"	4'8.05"	3'10.5"	4'8.75"	3'10.01"	4'9.57"	3'9.48"	4'10.52"	3'8.91"	4'11.64"	3'8.28"	5'0.95"	3'7.61"	5'2.51"
4'0''	3'9.16"	4'3.33"	3'8.84"	4'3.78"	3'8.49"	4'4.29"	3'8.11"	4'4.88"	3'7.68"	4'5.57"	3'7.22"	4'6.36"	3'6.72"	4'7.29"	3'6.17"	4'8.38"	3'5.57"	4'9.67"
3'9''	3'6.58"	3'11.8"	3'6.31"	4'0.17"	3'6.01"	4'0.6"	3'5.68"	4'1.09"	3'5.31"	4'1.66"	3'4.91"	4'2.32"	3'4.48"	4'3.08"	3'4"	4'3.97"	3'3.48"	4'5.02"
3'6''	3'3.97"	3'8.32"	3'3.74"	3'8.63"	3'3.49"	3'8.98"	3'3.2"	3'9.38"	3'2.89"	3'9.84"	3'2.55"	3'10.38"	3'2.18"	3'11"	3'1.78"	3'11.72"	3'1.33"	4'0.56"
3'3''	3'1.33"	3'4.89"	3'1.14"	3'5.13"	3'0.92"	3'5.42"	3'0.69"	3'5.74"	3'0.43"	3'6.11"	3'0.15"	3'6.54"	2'11.84"	3'7.03"	2'11.5"	3'7.6"	2'11.12"	3'8.27"
3'0''	2'10.65"	3'1.5"	2'10.5"	3'1.7"	2'10.32"	3'1.92"	2'10.13"	3'2.17"	2'9.92"	3'2.46"	2'9.69"	3'2.8"	2'9.44"	3'3.18"	2'9.16"	3'3.63"	2'8.85"	3'4.14"

8	9	10	11	13	14	16	18	20	22
14'6.33"	13'0.54"	11'8.67"	10'6.54"	9'5.94"	8'6.72"	7'8.72"	6'11.82"	6'3.91"	5'8.82"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
14'4.82"	Infinity	12'11.02"	Infinity	11'7.16"	Infinity	10'5.02"	Infinity	9'4.44"	Infinity	8'5.22"	Infinity	7'7.23"	Infinity	6'10.33"	Infinity	6'2.4"	Infinity	5'7.33"	Infinity
12'9.31"	Infinity	11'7.34"	Infinity	10'6.58"	Infinity	9'6.95"	Infinity	8'8.37"	Infinity	7'10.78"	Infinity	7'2.09"	Infinity	6'6.23"	Infinity	5'11.13"	Infinity	5'4.73"	Infinity
11'5.74"	Infinity	10'6.53"	Infinity	9'8.08"	Infinity	8'10.37"	Infinity	8'1.38"	Infinity	7'5.1"	Infinity	6'9.48"	Infinity	6'2.5"	Infinity	5'8.13"	Infinity	5'2.32"	Infinity
10'1.29"	Infinity	9'4.7"	Infinity	8'8.5"	Infinity	8'0.72"	Infinity	7'5.38"	Infinity	6'10.49"	Infinity	6'4.05"	Infinity	5'10.05"	Infinity	5'4.49"	Infinity	4'11.36"	Infinity
8'9.52"	Infinity	8'3.12"	Infinity	7'8.89"	Infinity	7'2.85"	Infinity	6'9.04"	Infinity	6'3.47"	Infinity	5'10.18"	Infinity	5'5.17"	Infinity	5'0.44"	Infinity	4'8.02"	Infinity
7'9.36"	Infinity	7'4.45"	Infinity	6'11.59"	Infinity	6'6.79"	Infinity	6'2.1"	Infinity	5'9.54"	Infinity	5'5.14"	Infinity	5'0.9"	Infinity	4'8.86"	Infinity	4'5.02"	Infinity
6'11.7"	61'0.75"	6'7.84"	130'10.11"	6'3.96"	Infinity	6'0.09"	Infinity	5'8.25"	Infinity	5'4.46"	Infinity	5'0.76"	Infinity	4'9.15"	Infinity	4'5.67"	Infinity	4'2.32"	Infinity
6'3.84"	28'5.17"	6'0.74"	37'5"	5'9.6"	58'5.62"	5'6.42"	163'4.99"	5'3.24"	Infinity	5'0.06"	Infinity	4'8.92"	Infinity	4'5.82"	Infinity	4'2.8"	Infinity	3'11.87"	Infinity
5'11.36"	20'11.66"	5'8.67"	25'4.37"	5'5.91"	33'3.75"	5'3.11"	51'10.28"	5'0.28"	142'8.78"	4'9.44"	Infinity	4'6.61"	Infinity	4'3.81"	Infinity	4'1.05"	Infinity	3'10.35"	Infinity
5'6.45"	15'9.58"	5'4.17"	18'1.1"	5'1.81"	21'8.12"	4'11.4"	28'0.09"	4'8.95"	42'0.59"	4'6.46"	98'10.37"	4'3.97"	Infinity	4'1.48"	Infinity	3'11.02"	Infinity	3'8.59"	Infinity
5'3.82"	13'9.16"	5'1.74"	15'5.28"	4'11.59"	17'11.11"	4'9.37"	21'11.51"	4'7.11"	29'6.76"	4'4.82"	49'0.18"	4'2.5"	200'11.76"	4'0.18"	Infinity	3'9.87"	Infinity	3'7.59"	Infinity
5'1.05"	11'11.99"	4'11.17"	13'2.72"	4'9.23"	14'11.63"	4'7.22"	17'7.41"	4'5.16"	22'0.99"	4'3.05"	31'1.41"	4'0.92"	58'8.67"	3'10.77"	Infinity	3'8.63"	Infinity	3'6.5"	Infinity
4'10.13"	10'5.45"	4'8.46"	11'4.21"	4'6.72"	12'6.95"	4'4.92"	14'4.19"	4'3.06"	17'1.19"	4'1.15"	21'10.89"	3'11.21"	32'4.32"	3'9.25"	71'10.31"	3'7.27"	Infinity	3'5.3"	Infinity
4'7.06"	9'1.09"	4'5.6"	9'8.91"	4'4.06"	10'7.28"	4'2.47"	11'9.61"	4'0.81"	13'6.51"	3'11.1"	16'3.55"	3'9.36"	21'3.1"	3'7.58"	32'8.9"	3'5.79"	87'1.88"	3'3.99"	Infinity
4'3.82"	7'10.55"	4'2.56"	8'4.16"	4'1.23"	8'11.42"	3'11.84"	9'9.09"	3'10.39"	10'10.51"	3'8.89"	12'6.21"	3'7.34"	15'1.68"	3'5.76"	19'11.45"	3'4.15"	31'6.43"	3'2.53"	96'5.86"
4'0.39"	6'9.53"	3'11.33"	7'1.5"	3'10.2"	7'6.51"	3'9.02"	8'0.99"	3'7.77"	8'9.62"	3'6.48"	9'9.6"	3'5.14"	11'3.19"	3'3.75"	13'7.28"	3'2.34"	17'10.8"	3'0.91"	28'2.63"
3'10.61"	6'3.51"	3'9.64"	6'6.83"	3'8.61"	6'10.97"	3'7.53"	7'4.24"	3'6.39"	7'11.15"	3'5.2"	8'8.51"	3'3.96"	9'9.79"	3'2.68"	11'5.97"	3'1.36"	14'3.95"	3'0.02"	20'0.58"
3'8.77"	5'9.8"	3'7.9"	6'0.55"	3'6.97"	6'3.94"	3'5.98"	6'8.22"	3'4.95"	7'1.72"	3'3.86"	7'9.03"	3'2.72"	8'7.1"	3'1.54"	9'9.75"	3'0.33"	11'8.84"	2'11.09"	15'2.2"
3'6.88"	5'4.37"	3'6.1"	5'6.63"	3'5.27"	5'9.39"	3'4.38"	6'0.83"	3'3.44"	6'5.2"	3'2.46"	6'10.88"	3'1.42"	7'6.51"	3'0.35"	8'5.23"	2'11.24"	9'9.22"	2'10.1"	11'11.46"
3'4.93"	4'11.19"	3'4.24"	5'1.03"	3'3.5"	5'3.26"	3'2.71"	5'6.01"	3'1.87"	5'9.45"	3'0.99"	6'1.84"	3'0.06"	6'7.62"	2'11.09"	7'3.47"	2'10.08"	8'2.69"	2'9.04"	9'7.88"
3'2.92"	4'6.26"	3'2.32"	4'7.74"	3'1.67"	4'9.52"	3'0.98"	4'11.69"	3'0.24"	5'2.37"	2'11.45"	5'5.75"	2'10.63"	5'10.09"	2'9.76"	6'3.84"	2'8.86"	6'11.76"	2'7.92"	7'11.25"
3'0.85"	4'1.55"	3'0.33"	4'2.72"	2'11.77"	4'4.12"	2'11.17"	4'5.82"	2'10.53"	4'7.88"	2'9.84"	4'10.45"	2'9.12"	5'1.69"	2'8.35"	5'5.88"	2'7.55"	5'11.46"	2'6.72"	6'7.22"
2'10.72"	3'9.05"	2'10.28"	3'9.96"	2'9.8"	3'11.05"	2'9.29"	4'0.35"	2'8.74"	4'1.92"	2'8.15"	4'3.84"	2'7.53"	4'6.23"	2'6.86"	4'9.25"	2'6.17"	5'1.17"	2'5.44"	5'6.42"
2'8.51"	3'4.74"	2'8.15"	3'5.44"	2'7.75"	3'6.26"	2'7.33"	3'7.24"	2'6.87"	3'8.41"	2'6.37"	3'9.82"	2'5.84"	3'11.55"	2'5.28"	4'1.7"	2'4.69"	4'4.43"	2'4.06"	4'7.96"

Focal Length 29mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	12.858	11.486	10.264	9.175	8.204	7.34	6.57	5.884	5.273

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	12.82	Infinity	11.448	Infinity	10.225	Infinity	9.136	Infinity	8.166	Infinity	7.302	Infinity	6.532	Infinity	5.846	Infinity	5.235	Infinity
30.00	9.092	Infinity	8.391	Infinity	7.725	Infinity	7.097	Infinity	6.507	Infinity	5.955	Infinity	5.44	Infinity	4.963	Infinity	4.523	Infinity
15.00	7.043	Infinity	6.622	Infinity	6.207	Infinity	5.802	Infinity	5.407	Infinity	5.027	Infinity	4.661	Infinity	4.312	Infinity	3.981	Infinity
10.00	5.747	43.173	5.468	73.804	5.187	369.705	4.906	Infinity	4.625	Infinity	4.349	Infinity	4.077	Infinity	3.811	Infinity	3.554	Infinity
9.00	5.415	28.786	5.168	39.707	4.918	69.411	4.665	446.245	4.413	Infinity	4.161	Infinity	3.913	Infinity	3.669	Infinity	3.432	Infinity
8.00	5.05	20.322	4.836	25.172	4.618	34.445	4.396	58.963	4.173	300.861	3.949	Infinity	3.726	Infinity	3.506	Infinity	3.29	Infinity
7.00	4.648	14.748	4.468	17.118	4.282	20.907	4.093	27.871	3.9	44.684	3.705	140.464	3.51	Infinity	3.316	Infinity	3.124	Infinity
6.00	4.201	10.799	4.055	11.999	3.904	13.719	3.747	16.367	3.587	20.93	3.424	30.56	3.259	63.738	3.092	Infinity	2.927	Infinity
5.50	3.959	9.227	3.83	10.082	3.696	11.257	3.556	12.964	3.413	15.641	3.266	20.405	3.116	31.131	2.965	76.919	2.814	Infinity
5.00	3.703	7.856	3.591	8.46	3.474	9.263	3.351	10.375	3.225	12.002	3.095	14.589	2.961	19.292	2.826	30.383	2.689	87.243
4.50	3.431	6.648	3.336	7.07	3.236	7.615	3.131	8.34	3.021	9.346	2.908	10.821	2.791	13.172	2.672	17.471	2.551	27.728
4.00	3.143	5.576	3.064	5.865	2.981	6.229	2.893	6.699	2.8	7.321	2.704	8.181	2.604	9.434	2.502	11.412	2.396	14.971
3.80	3.023	5.181	2.95	5.428	2.873	5.735	2.792	6.128	2.707	6.64	2.617	7.334	2.524	8.316	2.428	9.803	2.33	12.294
3.60	2.899	4.803	2.833	5.012	2.763	5.271	2.688	5.597	2.609	6.018	2.527	6.577	2.441	7.349	2.352	8.475	2.26	10.256
3.40	2.773	4.44	2.713	4.617	2.649	4.834	2.581	5.104	2.509	5.448	2.433	5.897	2.354	6.504	2.272	7.361	2.186	8.654
3.20	2.643	4.093	2.589	4.241	2.531	4.421	2.47	4.644	2.404	4.924	2.335	5.283	2.263	5.759	2.188	6.414	2.109	7.361
3.00	2.51	3.76	2.462	3.883	2.41	4.031	2.355	4.213	2.296	4.439	2.234	4.726	2.168	5.098	2.1	5.597	2.028	6.296
2.90	2.442	3.598	2.397	3.71	2.348	3.844	2.296	4.008	2.24	4.211	2.181	4.466	2.119	4.795	2.054	5.23	1.986	5.83
2.80	2.374	3.44	2.331	3.541	2.285	3.662	2.236	3.81	2.184	3.991	2.128	4.218	2.069	4.507	2.007	4.887	1.943	5.403
2.70	2.304	3.285	2.264	3.376	2.221	3.485	2.175	3.617	2.126	3.779	2.073	3.98	2.018	4.234	1.96	4.565	1.898	5.008
2.60	2.233	3.132	2.196	3.215	2.156	3.313	2.113	3.431	2.067	3.574	2.018	3.752	1.965	3.976	1.91	4.263	1.853	4.643
2.50	2.162	2.983	2.127	3.057	2.09	3.145	2.05	3.25	2.007	3.377	1.961	3.534	1.912	3.729	1.86	3.979	1.806	4.305
2.40	2.089	2.837	2.057	2.903	2.023	2.981	1.985	3.074	1.945	3.187	1.902	3.324	1.857	3.495	1.809	3.711	1.758	3.989
2.30	2.016	2.693	1.986	2.752	1.954	2.821	1.92	2.904	1.883	3.003	1.843	3.123	1.8	3.272	1.756	3.458	1.708	3.696
2.20	1.941	2.552	1.914	2.604	1.885	2.665	1.853	2.738	1.819	2.825	1.782	2.93	1.743	3.058	1.701	3.218	1.657	3.421
2.10	1.866	2.414	1.841	2.459	1.814	2.513	1.785	2.577	1.754	2.653	1.72	2.744	1.684	2.855	1.645	2.992	1.604	3.163
2.00	1.789	2.278	1.767	2.318	1.742	2.365	1.716	2.42	1.687	2.486	1.656	2.565	1.623	2.66	1.588	2.777	1.55	2.922
1.95	1.75	2.211	1.729	2.248	1.706	2.292	1.681	2.344	1.653	2.405	1.624	2.478	1.592	2.566	1.559	2.673	1.523	2.806
1.90	1.711	2.145	1.691	2.18	1.669	2.22	1.645	2.268	1.619	2.325	1.591	2.393	1.561	2.474	1.529	2.573	1.495	2.694
1.85	1.672	2.079	1.653	2.111	1.632	2.149	1.609	2.194	1.585	2.246	1.558	2.309	1.529	2.383	1.499	2.474	1.466	2.586
1.80	1.632	2.014	1.614	2.044	1.595	2.079	1.573	2.12	1.55	2.169	1.525	2.226	1.497	2.295	1.468	2.378	1.437	2.48
1.75	1.593	1.949	1.576	1.977	1.557	2.01	1.537	2.048	1.515	2.093	1.491	2.145	1.465	2.209	1.437	2.285	1.408	2.378
1.70	1.552	1.885	1.536	1.911	1.519	1.941	1.5	1.976	1.479	2.017	1.456	2.066	1.432	2.124	1.406	2.193	1.378	2.278
1.65	1.512	1.822	1.497	1.846	1.481	1.873	1.463	1.906	1.443	1.943	1.422	1.988	1.399	2.041	1.374	2.104	1.348	2.181
1.60	1.471	1.759	1.457	1.781	1.442	1.806	1.425	1.836	1.407	1.871	1.387	1.911	1.365	1.96	1.342	2.017	1.317	2.087
1.55	1.43	1.696	1.417	1.717	1.403	1.74	1.387	1.767	1.37	1.799	1.351	1.836	1.331	1.88	1.309	1.932	1.285	1.995
1.50	1.389	1.635	1.377	1.653	1.363	1.675	1.349	1.699	1.333	1.728	1.315	1.762	1.296	1.802	1.276	1.849	1.254	1.905
1.45	1.348	1.573	1.336	1.59	1.324	1.61	1.31	1.632	1.295	1.659	1.279	1.689	1.261	1.725	1.242	1.768	1.221	1.818
1.40	1.306	1.513	1.295	1.528	1.284	1.546	1.271	1.566	1.257	1.59	1.242	1.618	1.225	1.65	1.208	1.688	1.188	1.734
1.35	1.263	1.453	1.254	1.467	1.243	1.483	1.231	1.501	1.219	1.522	1.205	1.547	1.189	1.576	1.173	1.611	1.155	1.651
1.30	1.221	1.393	1.212	1.406	1.202	1.42	1.192	1.437	1.18	1.456	1.167	1.478	1.153	1.504	1.138	1.534	1.121	1.571
1.25	1.178	1.334	1.17	1.345	1.161	1.358	1.151	1.373	1.14	1.39	1.129	1.41	1.116	1.433	1.102	1.46	1.087	1.492
1.20	1.135	1.275	1.128	1.285	1.119	1.297	1.111	1.31	1.101	1.325	1.09	1.343	1.078	1.363	1.065	1.387	1.051	1.415
1.15	1.092	1.217	1.085	1.226	1.078	1.236	1.069	1.248	1.061	1.261	1.051	1.277	1.04	1.295	1.028	1.316	1.016	1.341
1.10	1.048	1.16	1.042	1.167	1.035	1.176	1.028	1.187	1.02	1.199	1.011	1.212	1.001	1.228	0.991	1.246	0.979	1.268
1.05	1.004	1.102	0.998	1.109	0.992	1.117	0.986	1.126	0.979	1.137	0.971	1.148	0.962	1.162	0.953	1.178	0.943	1.197
1.00	0.959	1.046	0.954	1.052	0.949	1.059	0.944	1.066	0.937	1.075	0.93	1.086	0.923	1.097	0.914	1.111	0.905	1.127
0.95	0.914	0.99	0.91	0.995	0.906	1.001	0.901	1.007	0.895	1.015	0.889	1.024	0.882	1.034	0.875	1.046	0.867	1.059
0.91	0.878	0.945	0.875	0.95	0.871	0.955	0.866	0.961	0.861	0.967	0.856	0.975	0.85	0.984	0.843	0.994	0.836	1.006

8	9	10	11	13	14	16	18	20	22
4.728	4.243	3.811	3.426	3.083	2.777	2.505	2.263	2.047	1.854

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
4.69	Infinity	4.205	Infinity	3.773	Infinity	3.388	Infinity	3.045	Infinity	2.739	Infinity	2.467	Infinity	2.225	Infinity	2.008	Infinity	1.816	Infinity
4.117	Infinity	3.744	Infinity	3.402	Infinity	3.091	Infinity	2.807	Infinity	2.549	Infinity	2.315	Infinity	2.103	Infinity	1.912	Infinity	1.739	Infinity
3.667	Infinity	3.373	Infinity	3.098	Infinity	2.841	Infinity	2.603	Infinity	2.383	Infinity	2.18	Infinity	1.994	Infinity	1.824	Infinity	1.668	Infinity
3.306	Infinity	3.069	Infinity	2.843	Infinity	2.629	Infinity	2.427	Infinity	2.237	Infinity	2.06	Infinity	1.896	Infinity	1.743	Infinity	1.602	Infinity
3.201	Infinity	2.98	Infinity	2.767	Infinity	2.565	Infinity	2.373	Infinity	2.193	Infinity	2.023	Infinity	1.865	Infinity	1.718	Infinity	1.582	Infinity
3.079	Infinity	2.875	Infinity	2.678	Infinity	2.489	Infinity	2.309	Infinity	2.139	Infinity	1.978	Infinity	1.828	Infinity	1.687	Infinity	1.556	Infinity
2.935	Infinity	2.75	Infinity	2.571	Infinity	2.398	Infinity	2.232	Infinity	2.074	Infinity	1.924	Infinity	1.782	Infinity	1.649	Infinity	1.525	Infinity
2.762	Infinity	2.6	Infinity	2.441	Infinity	2.286	Infinity	2.137	Infinity	1.993	Infinity	1.855	Infinity	1.725	Infinity	1.601	Infinity	1.485	Infinity
2.662	Infinity	2.512	Infinity	2.365	Infinity	2.22	Infinity	2.08	Infinity	1.944	Infinity	1.814	Infinity	1.69	Infinity	1.572	Infinity	1.461	Infinity
2.551	Infinity	2.415	Infinity	2.279	Infinity	2.146	Infinity	2.016	Infinity	1.889	Infinity	1.767	Infinity	1.65	Infinity	1.539	Infinity	1.433	Infinity
2.428	83.119	2.305	Infinity	2.183	Infinity	2.062	Infinity	1.942	Infinity	1.826	Infinity	1.713	Infinity	1.604	Infinity	1.499	Infinity	1.4	Infinity
2.29	23.173	2.181	61.409	2.073	Infinity	1.965	Infinity	1.858	Infinity	1.752	Infinity	1.649	Infinity	1.549	Infinity	1.453	Infinity	1.36	Infinity
2.229	17.275	2.127	32.023	2.025	1132.894	1.922	Infinity	1.82	Infinity	1.72	Infinity	1.621	Infinity	1.525	Infinity	1.432	Infinity	1.342	Infinity
2.166	13.468	2.07	20.911	1.974	56.353	1.877	Infinity	1.78	Infinity	1.685	Infinity	1.59	Infinity	1.498	Infinity	1.409	Infinity	1.323	Infinity
2.099	10.808	2.01	15.069	1.92	27.337	1.829	380.959	1.737	Infinity	1.647	Infinity	1.558	Infinity	1.47	Infinity	1.385	Infinity	1.302	Infinity
2.029	8.844	1.946	11.468	1.862	17.315	1.777	41.355	1.692	Infinity	1.607	Infinity	1.522	Infinity	1.439	Infinity	1.358	Infinity	1.279	Infinity
1.954	7.334	1.878	9.025	1.801	12.235	1.722	20.581	1.643	93.192	1.563	Infinity	1.484	Infinity	1.406	Infinity	1.329	Infinity	1.254	Infinity
1.916	6.703	1.843	8.076	1.769	10.532	1.693	16.117	1.617	40.885	1.54	Infinity	1.464	Infinity	1.388	Infinity	1.313	Infinity	1.24	Infinity
1.876	6.138	1.807	7.259	1.736	9.165	1.663	13.08	1.59	25.537	1.516	Infinity	1.443	Infinity	1.369	Infinity	1.297	Infinity	1.226	Infinity
1.835	5.628	1.769	6.548	1.701	8.045	1.632	10.879	1.562	18.203	1.491	79.361	1.42	Infinity	1.35	Infinity	1.28	Infinity	1.212	Infinity
1.793	5.166	1.73	5.923	1.666	7.109	1.6	9.211	1.533	13.905	1.465	33.373	1.397	Infinity	1.33	Infinity	1.262	Infinity	1.196	Infinity
1.749	4.745	1.69	5.37	1.629	6.316	1.567	7.903	1.503	11.082	1.438	20.534	1.373	961.874	1.308	Infinity	1.244	Infinity	1.18	Infinity
1.704	4.361	1.649	4.877	1.591	5.636	1.532	6.85	1.472	9.085	1.41	14.497	1.348	45.799	1.286	Infinity	1.224	Infinity	1.162	Infinity
1.658	4.009	1.606	4.435	1.552	5.046	1.496	5.984	1.439	7.598	1.381	10.989	1.322	22.517	1.262	Infinity	1.203	Infinity	1.144	Infinity
1.611	3.684	1.562	4.036	1.511	4.529	1.459	5.26	1.405	6.448	1.35	8.696	1.294	14.491	1.238	62.061	1.181	Infinity	1.125	Infinity
1.561	3.384	1.516	3.674	1.469	4.072	1.42	4.644	1.369	5.532	1.318	7.08	1.265	10.427	1.212	22.842	1.158	Infinity	1.105	Infinity
1.511	3.106	1.469	3.345	1.425	3.666	1.38	4.115	1.332	4.785	1.284	5.88	1.235	7.971	1.184	13.485	1.134	66.754	1.083	Infinity
1.485	2.974	1.444	3.191	1.402	3.479	1.359	3.878	1.313	4.461	1.267	5.389	1.219	7.075	1.17	11.051	1.121	31.411	1.072	Infinity
1.458	2.847	1.42	3.043	1.379	3.302	1.337	3.656	1.294	4.165	1.249	4.953	1.202	6.327	1.155	9.288	1.108	20.178	1.06	Infinity
1.431	2.725	1.395	2.902	1.356	3.134	1.316	3.448	1.274	3.892	1.23	4.565	1.186	5.693	1.14	7.952	1.094	14.659	1.048	619.286
1.404	2.607	1.369	2.767	1.332	2.974	1.293	3.253	1.253	3.641	1.211	4.216	1.169	5.149	1.125	6.905	1.08	11.378	1.036	45.476
1.376	2.492	1.343	2.637	1.308	2.823	1.271	3.069	1.232	3.408	1.192	3.902	1.151	4.677	1.109	6.062	1.066	9.204	1.023	22.991
1.348	2.382	1.316	2.512	1.283	2.678	1.247	2.896	1.211	3.193	1.172	3.616	1.133	4.264	1.093	5.369	1.051	7.657	1.01	15.099
1.319	2.275	1.289	2.392	1.257	2.54	1.224	2.733	1.189	2.992	1.152	3.356	1.114	3.899	1.076	4.789	1.036	6.5	0.996	11.074
1.29	2.171	1.261	2.276	1.231	2.408	1.199	2.579	1.166	2.805	1.131	3.118	1.095	3.574	1.058	4.297	1.02	5.602	0.982	8.634
1.26	2.071	1.233	2.165	1.205	2.282	1.175	2.433	1.143	2.63	1.11	2.899	1.076	3.284	1.04	3.874	1.004	4.885	0.967	6.996
1.23	1.974	1.205	2.058	1.178	2.162	1.149	2.294	1.119	2.466	1.088	2.697	1.055	3.022	1.022	3.506	0.987	4.299	0.952	5.82
1.199	1.88	1.175	1.954	1.15	2.047	1.123	2.163	1.095	2.313	1.066	2.511	1.035	2.785	1.003	3.183	0.97	3.811	0.936	4.936
1.168	1.788	1.146	1.855	1.122	1.936	1.097	2.038	1.07	2.168	1.042	2.338	1.013	2.569	0.983	2.898	0.952	3.399	0.92	4.246
1.136	1.7	1.115	1.758	1.093	1.83	1.07	1.919	1.045	2.032	1.019	2.177	0.991	2.372	0.963	2.644	0.933	3.046	0.903	3.693
1.103	1.614	1.084	1.665	1.064	1.728	1.042	1.806	1.019	1.903	0.994	2.028	0.968	2.192	0.942	2.417	0.914	2.74	0.885	3.24
1.07	1.53	1.052	1.575	1.033	1.63	1.013	1.697	0.992	1.781	0.969	1.887	0.945	2.026	0.92	2.212	0.894	2.472	0.867	2.862
1.036	1.449	1.02	1.488	1.003	1.536	0.984	1.594	0.964	1.666	0.943	1.756	0.921	1.872	0.897	2.026	0.873	2.237	0.848	2.542
1.002	1.37	0.987	1.404	0.971	1.445	0.954	1.495	0.936	1.557	0.916	1.633	0.896	1.73	0.874	1.857	0.851	2.027	0.828	2.267
0.967	1.293	0.953	1.323	0.939	1.358	0.923	1.401	0.907	1.453	0.889	1.517	0.87	1.598	0.85	1.702	0.829	1.84	0.807	2.028
0.931	1.218	0.919	1.244	0.906	1.274	0.892	1.31	0.877	1.354	0.86	1.408	0.843	1.475	0.825	1.56	0.806	1.671	0.785	1.82
0.895	1.146	0.884	1.167	0.872	1.193	0.859	1.224	0.846	1.261	0.831	1.305	0.815	1.361	0.799	1.43	0.781	1.519	0.763	1.635
0.858	1.075	0.848	1.093	0.838	1.115	0.826	1.14	0.814	1.171	0.801	1.208	0.787	1.253	0.772	1.309	0.756	1.38	0.739	1.472
0.828	1.02	0.819	1.035	0.809	1.054	0.799	1.076	0.788	1.102	0.776	1.134	0.763	1.172	0.75	1.219	0.735	1.278	0.72	1.353

Focal Length 29mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	42'2.22"	37'8.2"	33'8.09"	30'1.22"	26'10.99"	24'0.98"	21'6.66"	19'3.65"	17'3.6"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	42'0.71"	Infinity	37'6.7"	Infinity	33'6.57"	Infinity	29'11.7"	Infinity	26'9.5"	Infinity	23'11.48"	Infinity	21'5.16"	Infinity	19'2.15"	Infinity	17'2.09"	Infinity
100'0''	29'11.59"	Infinity	27'7.74"	Infinity	25'5.33"	Infinity	23'4.4"	Infinity	21'5"	Infinity	19'7.12"	Infinity	17'10.76"	Infinity	16'3.88"	Infinity	14'10.44"	Infinity
50'0''	23'3.26"	Infinity	21'10.44"	Infinity	20'5.9"	Infinity	19'1.73"	Infinity	17'10.03"	Infinity	16'6.88"	Infinity	15'4.34"	Infinity	14'2.47"	Infinity	13'1.31"	Infinity
30'0''	17'11.15"	99'8.08"	17'1.25"	140'5.9"	16'3.21"	261'1.53"	15'5.1"	8491'9.76"	14'6.99"	Infinity	13'8.95"	Infinity	12'11.04"	Infinity	12'1.31"	Infinity	11'3.84"	Infinity
20'0''	13'11.16"	36'6.09"	13'5.29"	40'8.52"	12'11.2"	46'9.41"	12'4.92"	56'3.1"	11'10.48"	72'11.31"	11'3.94"	109'8.71"	10'9.31"	255'5.75"	10'2.66"	Infinity	9'8.03"	Infinity
15'0''	11'4.66"	22'4.22"	11'0.82"	23'9.73"	10'8.78"	25'8.43"	10'4.55"	28'2.82"	10'0.14"	31'9.24"	9'7.58"	37'0.08"	9'2.9"	45'5.85"	8'10.1"	61'5.14"	8'5.24"	101'11.01"
12'0''	9'7.56"	16'1.31"	9'4.88"	16'9.95"	9'2.04"	17'8.67"	8'11.02"	18'10.23"	8'7.85"	20'3.77"	8'4.52"	22'3.19"	8'1.05"	24'11.76"	7'9.47"	28'11.76"	7'5.78"	35'4.86"
10'0''	8'4.1"	12'7.13"	8'2.14"	13'0.19"	8'0.05"	13'6.32"	7'9.81"	14'1.84"	7'7.43"	14'11.22"	7'4.92"	15'11.14"	7'2.27"	17'2.69"	6'11.51"	18'11.67"	6'8.63"	21'5.24"
9'0''	7'7.9"	10'11.94"	7'6.28"	11'3.7"	7'4.54"	11'8.2"	7'2.67"	12'1.65"	7'0.68"	12'8.34"	6'10.56"	13'4.68"	6'8.32"	14'3.28"	6'5.97"	15'5.1"	6'3.5"	16'11.73"
8'0''	6'11.35"	9'5.88"	6'10.06"	9'8.59"	6'8.65"	9'11.81"	6'7.14"	10'3.66"	6'5.52"	10'8.31"	6'3.78"	11'2.01"	6'1.94"	11'9.09"	5'11.99"	12'6.07"	5'9.93"	13'5.73"
7'6''	6'6.95"	8'9.24"	6'5.8"	8'11.51"	6'4.56"	9'2.19"	6'3.21"	9'5.39"	6'1.77"	9'9.22"	6'0.22"	10'1.88"	5'10.57"	10'7.61"	5'8.82"	11'2.78"	5'6.97"	11'11.94"
7'0''	6'2.45"	8'0.84"	6'1.45"	8'2.73"	6'0.36"	8'4.94"	5'11.18"	8'7.56"	5'9.91"	8'10.69"	5'8.54"	9'2.46"	5'7.08"	9'7.05"	5'5.52"	10'0.73"	5'3.87"	10'7.88"
6'6''	5'9.86"	7'4.68"	5'8.99"	7'6.23"	5'8.05"	7'8.03"	5'7.03"	7'10.16"	5'5.92"	8'0.67"	5'4.73"	8'3.69"	5'3.45"	8'7.32"	5'2.08"	8'11.78"	5'0.63"	9'5.3"
6'0''	5'5.17"	6'8.75"	5'4.43"	6'9.99"	5'3.63"	6'11.44"	5'2.76"	7'1.14"	5'1.81"	7'3.14"	5'0.78"	7'5.51"	4'11.68"	7'8.35"	4'10.5"	7'11.8"	4'9.24"	8'4.02"
5'6''	5'0.37"	6'1.03"	4'11.76"	6'2.02"	4'11.09"	6'3.16"	4'10.36"	6'4.49"	4'9.56"	6'6.05"	4'8.7"	6'7.88"	4'7.76"	6'10.07"	4'6.76"	7'0.69"	4'5.69"	7'3.86"
5'0''	4'7.47"	5'5.52"	4'6.97"	5'6.28"	4'6.42"	5'7.16"	4'5.82"	5'8.18"	4'5.17"	5'9.37"	4'4.46"	5'10.76"	4'3.69"	6'0.4"	4'2.86"	6'2.35"	4'1.96"	6'4.69"
4'9''	4'4.98"	5'1.84"	4'4.53"	5'2.5"	4'4.04"	5'3.27"	4'3.51"	5'4.15"	4'2.92"	5'5.18"	4'2.28"	5'6.38"	4'1.59"	5'7.79"	4'0.84"	5'9.45"	4'0.03"	5'11.44"
4'6''	4'2.46"	4'10.21"	4'2.07"	4'10.78"	4'1.63"	4'11.44"	4'1.15"	5'0.2"	4'0.63"	5'1.08"	4'0.06"	5'2.1"	3'11.44"	5'3.3"	3'10.77"	5'4.72"	3'10.04"	5'6.4"
4'3''	3'11.91"	4'6.63"	3'11.57"	4'7.12"	3'11.18"	4'7.68"	3'10.77"	4'8.32"	3'10.31"	4'9.07"	3'9.8"	4'9.94"	3'9.26"	4'10.95"	3'8.66"	5'0.14"	3'8.01"	5'1.55"
4'0''	3'9.34"	4'3.09"	3'9.04"	4'3.5"	3'8.7"	4'3.98"	3'8.34"	4'4.52"	3'7.94"	4'5.15"	3'7.5"	4'5.88"	3'7.02"	4'6.72"	3'6.5"	4'7.71"	3'5.93"	4'8.88"
3'9''	3'6.73"	3'11.6"	3'6.47"	3'11.95"	3'6.19"	4'0.34"	3'5.88"	4'0.79"	3'5.53"	4'1.32"	3'5.15"	4'1.92"	3'4.74"	4'2.61"	3'4.29"	4'3.43"	3'3.79"	4'4.38"
3'6''	3'4.1"	3'8.16"	3'3.88"	3'8.44"	3'3.64"	3'8.76"	3'3.37"	3'9.14"	3'3.08"	3'9.56"	3'2.76"	3'10.05"	3'2.41"	3'10.62"	3'2.02"	3'11.28"	3'1.6"	4'0.04"
3'3''	3'1.43"	3'4.75"	3'1.25"	3'4.98"	3'1.05"	3'5.25"	3'0.83"	3'5.54"	3'0.59"	3'5.89"	3'0.32"	3'6.28"	3'0.02"	3'6.73"	2'11.7"	3'7.26"	2'11.35"	3'7.86"
3'0''	2'10.74"	3'1.4"	2'10.59"	3'1.58"	2'10.43"	3'1.79"	2'10.25"	3'2.02"	2'10.05"	3'2.29"	2'9.83"	3'2.6"	2'9.59"	3'2.95"	2'9.32"	3'3.36"	2'9.03"	3'3.83"

8	9	10	11	13	14	16	18	20	22
15'6.14"	13'11.05"	12'6.04"	11'2.88"	10'1.38"	9'1.33"	8'2.62"	7'5.09"	6'8.59"	6'0.99"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
15'4.65"	Infinity	13'9.56"	Infinity	12'4.54"	Infinity	11'1.38"	Infinity	9'11.88"	Infinity	8'11.85"	Infinity	8'1.13"	Infinity	7'3.58"	Infinity	6'7.07"	Infinity	5'11.49"	Infinity
13'6.38"	Infinity	12'3.65"	Infinity	11'2.16"	Infinity	10'1.85"	Infinity	9'2.65"	Infinity	8'4.46"	Infinity	7'7.23"	Infinity	6'10.87"	Infinity	6'3.32"	Infinity	5'8.51"	Infinity
12'0.89"	Infinity	11'1.22"	Infinity	10'2.31"	Infinity	9'4.15"	Infinity	8'6.72"	Infinity	7'10.02"	Infinity	7'2"	Infinity	6'6.64"	Infinity	5'11.9"	Infinity	5'5.75"	Infinity
10'6.67"	Infinity	9'9.85"	Infinity	9'1.4"	Infinity	8'5.36"	Infinity	7'9.76"	Infinity	7'2.59"	Infinity	6'7.88"	Infinity	6'1.61"	Infinity	5'7.79"	Infinity	5'2.4"	Infinity
9'1.45"	Infinity	8'6.97"	Infinity	8'0.63"	Infinity	7'6.47"	Infinity	7'0.51"	Infinity	6'6.8"	Infinity	6'1.33"	Infinity	5'8.15"	Infinity	5'3.25"	Infinity	4'10.64"	Infinity
8'0.33"	404'7.65"	7'7.41"	Infinity	7'2.51"	Infinity	6'9.67"	Infinity	6'4.91"	Infinity	6'0.27"	Infinity	5'7.77"	Infinity	5'3.43"	Infinity	4'11.27"	Infinity	4'7.3"	Infinity
7'2"	47'3.68"	6'10.17"	76'6.62"	6'6.3"	258'3.77"	6'2.42"	Infinity	5'10.55"	Infinity	5'6.73"	Infinity	5'2.97"	Infinity	4'11.3"	Infinity	4'7.74"	Infinity	4'4.31"	Infinity
6'5.66"	25'1.71"	6'2.61"	31'3.46"	5'11.49"	43'4.14"	5'8.33"	77'3.65"	5'5.15"	735'11.19"	5'1.96"	Infinity	4'10.8"	Infinity	4'7.67"	Infinity	4'4.6"	Infinity	4'1.61"	Infinity
6'0.94"	19'1.99"	5'10.29"	22'5.44"	5'7.57"	27'10.77"	5'4.8"	38'6.62"	5'1.98"	68'4.55"	4'11.14"	597'11.57"	4'8.3"	Infinity	4'5.48"	Infinity	4'2.69"	Infinity	3'11.96"	Infinity
5'7.78"	14'9.35"	5'5.55"	16'7.22"	5'3.23"	19'3.72"	5'0.85"	23'8.62"	4'10.42"	32'0.98"	4'7.95"	53'9.44"	4'5.46"	240'4.18"	4'2.97"	Infinity	4'0.49"	Infinity	3'10.03"	Infinity
5'5.02"	12'11.96"	5'2.99"	14'4.31"	5'0.88"	16'3.64"	4'10.7"	19'3.31"	4'8.47"	24'4.12"	4'6.19"	34'9.8"	4'3.89"	68'8.91"	4'1.57"	Infinity	3'11.25"	Infinity	3'8.95"	Infinity
5'2.13"	11'5.09"	5'0.3"	12'5.29"	4'10.4"	13'10.11"	4'8.43"	15'10.57"	4'6.39"	19'1.08"	4'4.31"	24'9.93"	4'2.2"	37'10.66"	4'0.06"	95'11.19"	3'9.91"	Infinity	3'7.77"	Infinity
4'11.09"	10'0.3"	4'9.47"	10'9.37"	4'7.77"	11'9.51"	4'6"	13'2.43"	4'4.18"	15'3.47"	4'2.29"	18'7.94"	4'0.37"	24'11.77"	3'10.42"	40'10.87"	3'8.45"	154'7.27"	3'6.47"	Infinity
4'7.9"	8'9.28"	4'6.48"	9'3.97"	4'4.99"	10'0.68"	4'3.43"	11'0.42"	4'1.8"	12'4.94"	4'0.12"	14'5.73"	3'10.4"	17'10.67"	3'8.64"	24'6.43"	3'6.85"	42'11.12"	3'5.06"	324'1.75"
4'4.54"	7'7.76"	4'3.32"	8'0.63"	4'2.03"	8'6.84"	4'0.67"	9'2.94"	3'11.26"	10'1.9"	3'9.78"	11'5.41"	3'8.26"	13'4.87"	3'6.7"	16'8.12"	3'5.11"	23'2.41"	3'3.49"	42'4.55"
4'1"	6'7.53"	3'11.97"	6'11.02"	3'10.88"	7'3.36"	3'9.73"	7'8.9"	3'8.52"	8'4.14"	3'7.25"	9'1.93"	3'5.94"	10'3.78"	3'4.58"	12'0.73"	3'3.18"	14'11.76"	3'1.76"	20'9.61"
3'11.16"	6'1.84"	3'10.22"	6'4.76"	3'9.23"	6'8.38"	3'8.18"	7'0.93"	3'7.07"	7'6.79"	3'5.91"	8'2.55"	3'4.7"	9'1.25"	3'3.44"	10'4.8"	3'2.15"	12'5.27"	3'0.82"	16'0.99"
3'9.26"	5'8.41"	3'8.42"	5'10.84"	3'7.53"	6'1.83"	3'6.57"	6'5.54"	3'5.57"	6'10.26"	3'4.51"	7'4.4"	3'3.4"	8'0.67"	3'2.25"	9'0.28"	3'1.05"	10'5.66"	2'11.83"	12'10.25"
3'7.32"	5'3.22"	3'6.57"	5'5.23"	3'5.77"	5'7.67"	3'4.91"	5'10.69"	3'4"	6'2.46"	3'3.05"	6'7.3"	3'2.04"	7'1.67"	3'0.99"	7'10.36"	2'11.9"	8'10.84"	2'10.78"	10'6.08"
3'5.32"	4'10.25"	3'4.65"	4'11.9"	3'3.94"	5'1.88"	3'3.18"	5'4.3"	3'2.37"	5'7.3"	3'1.52"	5'11.09"	3'0.61"	6'3.98"	2'11.67"	6'10.48"	2'10.68"	7'7.49"	2'9.66"	8'8.67"
3'3.26"	4'5.5"	3'2.68"	4'6.83"	3'2.06"	4'8.42"	3'1.39"	4'10.35"	3'0.68"	5'0.71"	2'11.92"	5'3.64"	2'11.12"	5'7.37"	2'10.28"	6'0.21"	2'9.39"	6'6.72"	2'8.48"	7'3.85"
3'1.14"	4'0.94"	3'0.64"	4'2"	3'0.11"	4'3.26"	2'11.53"	4'4.77"	2'10.91"	4'6.61"	2'10.25"	4'8.86"	2'9.55"	4'11.67"	2'8.81"	5'3.26"	2'8.03"	5'7.94"	2'7.21"	6'2.29"
2'10.96"	3'8.57"	2'10.54"	3'9.4"	2'10.09"	3'10.38"	2'9.59"	3'11.55"	2'9.07"	4'0.95"	2'8.5"	4'2.66"	2'7.9"	4'4.75"	2'7.26"	4'7.37"	2'6.58"	4'10.72"	2'5.87"	5'3.12"
2'8.71"	3'4.38"	2'8.37"	3'5.01"	2'7.99"	3'5.76"	2'7.58"	3'6.64"	2'7.14"	3'7.7"	2'6.66"	3'8.96"	2'6.16"	3'10.49"	2'5.61"	4'0.38"	2'5.04"	4'2.74"	2'4.43"	4'5.76"

Focal Length 30mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	13.741	12.272	10.964	9.799	8.76	7.835	7.011	6.277	5.623

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	13.703	Infinity	12.234	Infinity	10.926	Infinity	9.76	Infinity	8.722	Infinity	7.797	Infinity	6.973	Infinity	6.239	Infinity	5.585	Infinity
30.00	9.519	Infinity	8.798	Infinity	8.111	Infinity	7.461	Infinity	6.848	Infinity	6.274	Infinity	5.737	Infinity	5.239	Infinity	4.777	Infinity
15.00	7.292	Infinity	6.868	Infinity	6.449	Infinity	6.038	Infinity	5.637	Infinity	5.248	Infinity	4.873	Infinity	4.514	Infinity	4.172	Infinity
10.00	5.909	35.349	5.632	51.729	5.352	108.352	5.07	Infinity	4.789	Infinity	4.51	Infinity	4.235	Infinity	3.966	Infinity	3.704	Infinity
9.00	5.557	25.105	5.313	32.331	5.065	47.872	4.813	104.602	4.561	Infinity	4.308	Infinity	4.058	Infinity	3.811	Infinity	3.57	Infinity
8.00	5.173	18.429	4.962	22.014	4.746	28.199	4.526	41.289	4.304	86.754	4.08	Infinity	3.856	Infinity	3.634	Infinity	3.416	Infinity
7.00	4.75	13.735	4.574	15.61	4.391	18.452	4.204	23.221	4.013	32.79	3.819	61.356	3.624	4118.004	3.429	Infinity	3.236	Infinity
6.00	4.283	10.253	4.141	11.249	3.993	12.632	3.839	14.667	3.681	17.927	3.52	23.939	3.355	38.563	3.19	124.932	3.023	Infinity
5.50	4.031	8.829	3.906	9.551	3.775	10.521	3.638	11.882	3.497	13.915	3.352	17.248	3.204	23.656	3.054	40.816	2.902	229.106
5.00	3.765	7.568	3.657	8.087	3.543	8.764	3.423	9.678	3.299	10.969	3.171	12.917	3.039	16.162	2.905	22.58	2.769	41.048
4.50	3.484	6.443	3.392	6.811	3.295	7.278	3.193	7.889	3.086	8.715	2.975	9.885	2.86	11.652	2.742	14.607	2.622	20.496
4.00	3.187	5.434	3.111	5.689	3.03	6.006	2.944	6.409	2.855	6.935	2.761	7.643	2.663	8.64	2.562	10.136	2.458	12.61
3.80	3.063	5.059	2.993	5.277	2.919	5.547	2.84	5.886	2.757	6.323	2.67	6.902	2.579	7.698	2.485	8.853	2.387	10.667
3.60	2.936	4.699	2.872	4.885	2.804	5.113	2.732	5.397	2.656	5.759	2.575	6.23	2.491	6.866	2.404	7.762	2.314	9.108
3.40	2.806	4.352	2.748	4.51	2.687	4.702	2.621	4.939	2.551	5.237	2.478	5.62	2.4	6.126	2.32	6.822	2.236	7.83
3.20	2.673	4.019	2.621	4.151	2.565	4.312	2.506	4.508	2.443	4.752	2.376	5.062	2.306	5.465	2.232	6.005	2.155	6.762
3.00	2.537	3.698	2.49	3.808	2.441	3.941	2.387	4.102	2.331	4.301	2.27	4.55	2.207	4.869	2.14	5.287	2.07	5.858
2.90	2.467	3.542	2.424	3.642	2.377	3.763	2.327	3.909	2.273	4.087	2.216	4.31	2.156	4.592	2.092	4.96	2.026	5.455
2.80	2.397	3.389	2.356	3.48	2.312	3.589	2.265	3.72	2.214	3.881	2.161	4.079	2.104	4.329	2.044	4.652	1.981	5.082
2.70	2.326	3.238	2.288	3.321	2.246	3.419	2.202	3.537	2.155	3.681	2.104	3.857	2.05	4.078	1.994	4.361	1.934	4.733
2.60	2.254	3.091	2.218	3.165	2.18	3.253	2.138	3.359	2.094	3.487	2.046	3.644	1.996	3.839	1.943	4.086	1.887	4.408
2.50	2.181	2.945	2.148	3.012	2.112	3.092	2.073	3.186	2.032	3.3	1.988	3.439	1.94	3.61	1.89	3.826	1.838	4.104
2.40	2.107	2.803	2.076	2.863	2.043	2.934	2.007	3.018	1.969	3.119	1.928	3.241	1.884	3.391	1.837	3.579	1.787	3.818
2.30	2.032	2.663	2.004	2.716	1.973	2.779	1.94	2.854	1.904	2.943	1.866	3.05	1.825	3.181	1.782	3.344	1.736	3.55
2.20	1.956	2.525	1.93	2.573	1.902	2.628	1.872	2.694	1.839	2.772	1.804	2.866	1.766	2.98	1.726	3.121	1.683	3.297
2.10	1.879	2.39	1.855	2.432	1.83	2.481	1.802	2.539	1.772	2.607	1.74	2.689	1.705	2.788	1.668	2.909	1.628	3.059
2.00	1.801	2.257	1.78	2.294	1.757	2.337	1.731	2.387	1.704	2.447	1.674	2.517	1.643	2.603	1.609	2.706	1.572	2.834
1.95	1.762	2.192	1.741	2.226	1.719	2.266	1.695	2.313	1.669	2.368	1.641	2.434	1.611	2.513	1.578	2.608	1.544	2.726
1.90	1.722	2.127	1.703	2.159	1.682	2.196	1.659	2.24	1.634	2.291	1.608	2.352	1.579	2.425	1.548	2.513	1.515	2.62
1.85	1.682	2.062	1.664	2.092	1.644	2.127	1.623	2.167	1.599	2.215	1.574	2.271	1.546	2.338	1.517	2.419	1.485	2.518
1.80	1.642	1.998	1.625	2.026	1.606	2.058	1.586	2.096	1.563	2.14	1.539	2.192	1.513	2.254	1.485	2.328	1.455	2.419
1.75	1.602	1.935	1.586	1.96	1.568	1.99	1.549	2.025	1.528	2.066	1.505	2.114	1.48	2.171	1.453	2.239	1.425	2.321
1.70	1.561	1.872	1.546	1.896	1.529	1.923	1.511	1.955	1.491	1.993	1.47	2.037	1.446	2.089	1.421	2.152	1.394	2.227
1.65	1.52	1.809	1.506	1.831	1.49	1.857	1.473	1.886	1.454	1.921	1.434	1.961	1.412	2.009	1.389	2.066	1.363	2.135
1.60	1.479	1.747	1.466	1.768	1.451	1.791	1.435	1.818	1.417	1.85	1.398	1.887	1.378	1.931	1.355	1.983	1.331	2.045
1.55	1.437	1.686	1.425	1.705	1.411	1.726	1.396	1.751	1.38	1.78	1.362	1.814	1.343	1.854	1.322	1.901	1.299	1.957
1.50	1.396	1.625	1.384	1.642	1.371	1.662	1.357	1.685	1.342	1.711	1.325	1.742	1.307	1.778	1.288	1.821	1.266	1.872
1.45	1.354	1.565	1.343	1.58	1.331	1.598	1.318	1.619	1.304	1.643	1.288	1.671	1.271	1.704	1.253	1.742	1.233	1.788
1.40	1.311	1.505	1.301	1.519	1.29	1.535	1.278	1.554	1.265	1.576	1.251	1.601	1.235	1.631	1.218	1.665	1.2	1.706
1.35	1.269	1.445	1.259	1.458	1.249	1.473	1.238	1.49	1.226	1.51	1.213	1.532	1.198	1.559	1.183	1.59	1.165	1.627
1.30	1.226	1.387	1.217	1.398	1.208	1.411	1.198	1.427	1.187	1.444	1.174	1.465	1.161	1.489	1.147	1.516	1.131	1.549
1.25	1.182	1.328	1.175	1.338	1.166	1.35	1.157	1.364	1.147	1.38	1.136	1.398	1.123	1.419	1.11	1.444	1.095	1.473
1.20	1.139	1.27	1.132	1.279	1.124	1.29	1.116	1.302	1.106	1.316	1.096	1.332	1.085	1.351	1.073	1.373	1.06	1.399
1.15	1.095	1.213	1.089	1.221	1.082	1.23	1.074	1.241	1.066	1.254	1.056	1.268	1.046	1.284	1.035	1.304	1.023	1.326
1.10	1.051	1.155	1.045	1.163	1.039	1.171	1.032	1.181	1.025	1.192	1.016	1.204	1.007	1.219	0.997	1.236	0.986	1.255
1.05	1.006	1.099	1.001	1.105	0.996	1.113	0.99	1.121	0.983	1.13	0.975	1.141	0.967	1.154	0.958	1.169	0.948	1.186
1.00	0.962	1.043	0.957	1.048	0.952	1.055	0.947	1.062	0.941	1.07	0.934	1.08	0.927	1.091	0.919	1.103	0.91	1.118
0.95	0.917	0.987	0.913	0.992	0.908	0.997	0.904	1.003	0.898	1.011	0.893	1.019	0.886	1.028	0.879	1.039	0.871	1.051
0.91	0.88	0.943	0.877	0.947	0.873	0.952	0.869	0.957	0.864	0.963	0.859	0.971	0.853	0.979	0.847	0.988	0.84	0.999

8	9	10	11	13	14	16	18	20	22
5.04	4.521	4.058	3.646	3.279	2.952	2.661	2.401	2.17	1.964

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
5.002	Infinity	4.483	Infinity	4.02	Infinity	3.608	Infinity	3.241	Infinity	2.914	Infinity	2.622	Infinity	2.363	Infinity	2.132	Infinity	1.926	Infinity
4.35	Infinity	3.958	Infinity	3.599	Infinity	3.27	Infinity	2.97	Infinity	2.697	Infinity	2.449	Infinity	2.224	Infinity	2.021	Infinity	1.837	Infinity
3.848	Infinity	3.543	Infinity	3.257	Infinity	2.989	Infinity	2.74	Infinity	2.51	Infinity	2.297	Infinity	2.101	Infinity	1.921	Infinity	1.757	Infinity
3.45	Infinity	3.207	Infinity	2.974	Infinity	2.752	Infinity	2.543	Infinity	2.346	Infinity	2.162	Infinity	1.99	Infinity	1.831	Infinity	1.683	Infinity
3.335	Infinity	3.108	Infinity	2.89	Infinity	2.682	Infinity	2.484	Infinity	2.297	Infinity	2.121	Infinity	1.956	Infinity	1.802	Infinity	1.66	Infinity
3.201	Infinity	2.993	Infinity	2.792	Infinity	2.598	Infinity	2.413	Infinity	2.237	Infinity	2.071	Infinity	1.914	Infinity	1.768	Infinity	1.631	Infinity
3.045	Infinity	2.857	Infinity	2.675	Infinity	2.498	Infinity	2.328	Infinity	2.165	Infinity	2.01	Infinity	1.864	Infinity	1.726	Infinity	1.596	Infinity
2.858	Infinity	2.694	Infinity	2.533	Infinity	2.376	Infinity	2.223	Infinity	2.076	Infinity	1.935	Infinity	1.8	Infinity	1.672	Infinity	1.552	Infinity
2.75	Infinity	2.599	Infinity	2.45	Infinity	2.304	Infinity	2.161	Infinity	2.023	Infinity	1.889	Infinity	1.762	Infinity	1.64	Infinity	1.525	Infinity
2.632	567.115	2.494	Infinity	2.358	Infinity	2.223	Infinity	2.091	Infinity	1.962	Infinity	1.838	Infinity	1.718	Infinity	1.603	Infinity	1.493	Infinity
2.5	37.761	2.377	869.818	2.254	Infinity	2.132	Infinity	2.011	Infinity	1.893	Infinity	1.778	Infinity	1.667	Infinity	1.559	Infinity	1.457	Infinity
2.352	17.434	2.244	30.828	2.136	243.973	2.028	Infinity	1.92	Infinity	1.813	Infinity	1.709	Infinity	1.607	Infinity	1.508	Infinity	1.413	Infinity
2.288	13.894	2.187	21.165	2.085	52.27	1.982	Infinity	1.879	Infinity	1.778	Infinity	1.678	Infinity	1.58	Infinity	1.485	Infinity	1.394	Infinity
2.221	11.337	2.126	15.699	2.03	27.913	1.933	245.019	1.836	Infinity	1.74	Infinity	1.645	Infinity	1.552	Infinity	1.461	Infinity	1.372	Infinity
2.15	9.404	2.062	12.185	1.972	18.358	1.881	43.399	1.79	Infinity	1.699	Infinity	1.609	Infinity	1.521	Infinity	1.434	Infinity	1.349	Infinity
2.076	7.891	1.994	9.734	1.911	13.256	1.827	22.544	1.741	112.401	1.656	Infinity	1.571	Infinity	1.487	Infinity	1.405	Infinity	1.324	Infinity
1.998	6.674	1.923	7.929	1.846	10.083	1.768	14.6	1.689	29.862	1.609	Infinity	1.53	Infinity	1.451	Infinity	1.373	Infinity	1.297	Infinity
1.957	6.151	1.886	7.193	1.812	8.907	1.737	12.225	1.661	21.256	1.585	136.779	1.508	Infinity	1.432	Infinity	1.356	Infinity	1.282	Infinity
1.915	5.675	1.847	6.543	1.777	7.918	1.705	10.411	1.633	16.244	1.559	45.178	1.485	Infinity	1.412	Infinity	1.339	Infinity	1.267	Infinity
1.872	5.24	1.807	5.964	1.741	7.075	1.673	8.981	1.603	12.963	1.532	26.284	1.461	Infinity	1.391	Infinity	1.32	Infinity	1.251	Infinity
1.828	4.84	1.767	5.445	1.703	6.348	1.638	7.824	1.572	10.648	1.505	18.127	1.437	92.795	1.369	Infinity	1.301	Infinity	1.234	Infinity
1.782	4.471	1.725	4.978	1.665	5.714	1.603	6.869	1.54	8.928	1.476	13.579	1.411	33.681	1.346	Infinity	1.281	Infinity	1.216	Infinity
1.736	4.131	1.681	4.555	1.625	5.156	1.567	6.067	1.507	7.599	1.446	10.679	1.384	19.937	1.322	4563.962	1.26	Infinity	1.198	Infinity
1.687	3.815	1.637	4.17	1.584	4.662	1.529	5.385	1.472	6.541	1.415	8.669	1.356	13.815	1.297	43.411	1.237	Infinity	1.178	Infinity
1.638	3.522	1.59	3.818	1.541	4.221	1.489	4.796	1.436	5.68	1.382	7.193	1.326	10.352	1.27	20.88	1.214	Infinity	1.157	Infinity
1.587	3.249	1.543	3.495	1.496	3.825	1.448	4.284	1.399	4.964	1.348	6.064	1.296	8.124	1.243	13.32	1.189	50.529	1.135	Infinity
1.534	2.993	1.493	3.198	1.451	3.467	1.406	3.834	1.36	4.361	1.312	5.172	1.263	6.571	1.213	9.53	1.163	19.79	1.112	Infinity
1.507	2.872	1.468	3.058	1.427	3.301	1.384	3.629	1.34	4.093	1.294	4.793	1.246	5.958	1.198	8.266	1.149	14.913	1.1	209.887
1.479	2.754	1.442	2.923	1.403	3.143	1.362	3.436	1.319	3.845	1.275	4.45	1.229	5.426	1.183	7.253	1.135	11.843	1.088	44.006
1.452	2.64	1.416	2.794	1.378	2.992	1.339	3.253	1.298	3.614	1.255	4.138	1.212	4.96	1.167	6.425	1.121	9.734	1.075	24.021
1.423	2.53	1.389	2.669	1.354	2.847	1.316	3.081	1.276	3.399	1.236	3.853	1.193	4.548	1.15	5.734	1.106	8.195	1.061	16.244
1.395	2.423	1.362	2.549	1.328	2.709	1.292	2.917	1.254	3.197	1.215	3.591	1.175	4.181	1.133	5.15	1.091	7.023	1.048	12.107
1.365	2.319	1.335	2.433	1.302	2.576	1.268	2.762	1.232	3.009	1.195	3.351	1.156	3.852	1.116	4.649	1.075	6.1	1.034	9.538
1.336	2.218	1.307	2.321	1.276	2.45	1.243	2.615	1.209	2.832	1.173	3.129	1.136	3.555	1.098	4.214	1.059	5.355	1.019	7.789
1.306	2.12	1.278	2.213	1.249	2.328	1.218	2.475	1.185	2.666	1.151	2.924	1.116	3.287	1.08	3.834	1.042	4.741	1.004	6.52
1.275	2.025	1.249	2.108	1.221	2.211	1.192	2.341	1.161	2.509	1.129	2.733	1.095	3.043	1.061	3.498	1.025	4.225	0.988	5.558
1.244	1.933	1.219	2.007	1.193	2.099	1.166	2.214	1.137	2.361	1.106	2.555	1.074	2.82	1.041	3.2	1.007	3.787	0.972	4.803
1.212	1.843	1.189	1.909	1.165	1.991	1.139	2.092	1.111	2.221	1.083	2.389	1.052	2.615	1.021	2.933	0.989	3.41	0.955	4.196
1.18	1.756	1.158	1.815	1.136	1.887	1.111	1.976	1.086	2.089	1.058	2.234	1.03	2.427	1	2.693	0.97	3.081	0.938	3.696
1.147	1.671	1.127	1.723	1.106	1.787	1.083	1.865	1.059	1.963	1.034	2.088	1.007	2.253	0.979	2.476	0.95	2.793	0.92	3.278
1.114	1.588	1.095	1.634	1.075	1.69	1.054	1.759	1.032	1.844	1.008	1.952	0.983	2.091	0.957	2.278	0.93	2.538	0.901	2.922
1.08	1.507	1.063	1.548	1.044	1.597	1.025	1.657	1.004	1.731	0.982	1.823	0.959	1.941	0.934	2.097	0.909	2.311	0.882	2.617
1.045	1.429	1.03	1.465	1.013	1.508	0.995	1.559	0.976	1.623	0.955	1.702	0.933	1.802	0.911	1.932	0.887	2.107	0.862	2.351
1.01	1.353	0.996	1.384	0.98	1.421	0.964	1.466	0.946	1.52	0.927	1.587	0.907	1.672	0.886	1.78	0.864	1.923	0.841	2.118
0.974	1.278	0.961	1.305	0.947	1.337	0.932	1.376	0.916	1.422	0.899	1.479	0.881	1.55	0.861	1.639	0.841	1.756	0.82	1.912
0.938	1.205	0.926	1.229	0.914	1.256	0.9	1.289	0.885	1.328	0.87	1.376	0.853	1.435	0.835	1.509	0.817	1.604	0.797	1.729
0.901	1.135	0.89	1.155	0.879	1.178	0.867	1.206	0.854	1.239	0.84	1.279	0.824	1.328	0.808	1.388	0.791	1.465	0.773	1.564
0.863	1.066	0.854	1.082	0.844	1.102	0.833	1.125	0.821	1.153	0.808	1.186	0.795	1.226	0.78	1.276	0.765	1.338	0.749	1.416
0.832	1.012	0.824	1.026	0.815	1.043	0.805	1.063	0.794	1.087	0.783	1.115	0.771	1.15	0.757	1.191	0.743	1.243	0.729	1.308

Focal Length 30mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	45'0.98"	40'3.15"	35'11.65"	32'1.79"	28'8.88"	25'8.46"	23'0.02"	20'7.13"	18'5.38"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	44'11.47"	Infinity	40'1.66"	Infinity	35'10.15"	Infinity	32'0.27"	Infinity	28'7.39"	Infinity	25'6.97"	Infinity	22'10.52"	Infinity	20'5.62"	Infinity	18'3.86"	Infinity
100'0''	31'4.57"	Infinity	28'11.91"	Infinity	26'8.65"	Infinity	24'6.84"	Infinity	22'6.54"	Infinity	20'7.76"	Infinity	18'10.51"	Infinity	17'2.77"	Infinity	15'8.48"	Infinity
50'0''	24'1.21"	Infinity	22'8.28"	Infinity	21'3.56"	Infinity	19'11.16"	Infinity	18'7.17"	Infinity	17'3.69"	Infinity	16'0.78"	Infinity	14'10.51"	Infinity	13'8.93"	Infinity
30'0''	18'4.87"	86'3.63"	17'7.07"	112'8.77"	16'9.1"	172'2.34"	15'11.03"	425'4.4"	15'0.91"	Infinity	14'2.82"	Infinity	13'4.82"	Infinity	12'6.98"	Infinity	11'9.35"	Infinity
20'0''	14'2.48"	34'7.27"	13'8.75"	38'0.94"	13'2.78"	42'11.24"	12'8.61"	50'1.87"	12'2.26"	61'10.91"	11'7.77"	84'2.41"	11'1.19"	142'0.28"	10'6.55"	637'6.28"	9'11.9"	Infinity
15'0''	11'6.8"	21'7.76"	11'3.09"	22'10.96"	10'11.16"	24'6.4"	10'7.04"	26'7.91"	10'2.73"	29'6.6"	9'10.26"	33'8.09"	9'5.65"	39'11.82"	9'0.91"	50'8.94"	8'8.08"	72'11.98"
12'0''	9'9.04"	15'9.01"	9'6.47"	16'4.69"	9'3.72"	17'2.12"	9'0.8"	18'1.91"	8'9.72"	19'4.95"	8'6.48"	21'0.65"	8'3.09"	23'3.35"	7'11.57"	26'5.29"	7'7.94"	31'2.97"
10'0''	8'5.17"	12'4.57"	8'3.3"	12'9.12"	8'1.28"	13'2.6"	7'11.13"	13'9.26"	7'8.83"	14'5.49"	7'6.4"	15'3.82"	7'3.83"	16'5.09"	7'1.13"	17'10.63"	6'10.32"	19'10.67"
9'0''	7'8.78"	10'10.03"	7'7.23"	11'1.43"	7'5.57"	11'5.48"	7'3.77"	11'10.35"	7'1.85"	12'4.27"	6'11.81"	12'11.59"	6'9.64"	13'8.78"	6'7.35"	14'8.58"	6'4.95"	16'0.16"
8'0''	7'0.06"	9'4.5"	6'10.82"	9'6.96"	6'9.48"	9'9.87"	6'8.03"	10'1.33"	6'6.47"	10'5.49"	6'4.8"	10'10.55"	6'3.02"	11'4.77"	6'1.13"	12'0.57"	5'11.14"	12'10.55"
7'6''	6'7.57"	8'8.08"	6'6.48"	8'10.15"	6'5.29"	9'0.58"	6'4.01"	9'3.46"	6'2.62"	9'6.9"	6'1.13"	9'11.06"	5'11.54"	10'4.12"	5'9.85"	10'10.4"	5'8.05"	11'6.32"
7'0''	6'3"	7'11.88"	6'2.04"	8'1.6"	6'1"	8'3.61"	5'11.87"	8'5.99"	5'10.66"	8'8.8"	5'9.34"	9'0.18"	5'7.94"	9'4.27"	5'6.43"	9'9.28"	5'4.84"	10'3.51"
6'6''	5'10.33"	7'3.89"	5'9.5"	7'5.3"	5'8.61"	7'6.95"	5'7.63"	7'8.88"	5'6.57"	7'11.16"	5'5.43"	8'1.87"	5'4.2"	8'5.13"	5'2.88"	8'9.08"	5'1.48"	9'1.94"
6'0''	5'5.56"	6'8.11"	5'4.86"	6'9.25"	5'4.1"	6'10.58"	5'3.27"	7'0.12"	5'2.36"	7'1.94"	5'1.39"	7'4.08"	5'0.33"	7'6.64"	4'11.19"	7'9.72"	4'9.98"	8'1.46"
5'6''	5'0.7"	6'0.53"	5'0.12"	6'1.43"	4'11.48"	6'2.48"	4'10.79"	6'3.69"	4'10.03"	6'5.11"	4'9.2"	6'6.78"	4'8.31"	6'8.76"	4'7.35"	6'11.11"	4'6.31"	7'1.95"
5'0''	4'7.74"	5'5.13"	4'7.26"	5'5.83"	4'6.74"	5'6.64"	4'6.18"	5'7.57"	4'5.55"	5'8.66"	4'4.88"	5'9.93"	4'4.14"	5'11.42"	4'3.34"	6'1.19"	4'2.48"	6'3.29"
4'9''	4'5.22"	5'1.5"	4'4.8"	5'2.11"	4'4.33"	5'2.81"	4'3.82"	5'3.63"	4'3.26"	5'4.57"	4'2.66"	5'5.66"	4'1.99"	5'6.95"	4'1.28"	5'8.46"	4'0.5"	5'10.25"
4'6''	4'2.67"	4'9.92"	4'2.3"	4'10.44"	4'1.89"	4'11.05"	4'1.43"	4'11.75"	4'0.94"	5'0.56"	4'0.4"	5'1.49"	3'11.81"	5'2.59"	3'11.16"	5'3.88"	3'10.47"	5'5.4"
4'3''	4'0.1"	4'6.38"	3'11.77"	4'6.83"	3'11.41"	4'7.35"	3'11.01"	4'7.94"	3'10.57"	4'8.63"	3'10.1"	4'9.42"	3'9.57"	4'10.35"	3'9.01"	4'11.43"	3'8.39"	5'0.71"
4'0''	3'9.5"	4'2.88"	3'9.21"	4'3.26"	3'8.9"	4'3.7"	3'8.55"	4'4.2"	3'8.17"	4'4.78"	3'7.76"	4'5.45"	3'7.3"	4'6.22"	3'6.8"	4'7.13"	3'6.26"	4'8.19"
3'9''	3'6.87"	3'11.42"	3'6.62"	3'11.74"	3'6.36"	4'0.11"	3'6.06"	4'0.53"	3'5.73"	4'1.01"	3'5.37"	4'1.56"	3'4.98"	4'2.2"	3'4.55"	4'2.95"	3'4.08"	4'3.82"
3'6''	3'4.21"	3'8.01"	3'4.01"	3'8.27"	3'3.78"	3'8.57"	3'3.53"	3'8.92"	3'3.25"	3'9.31"	3'2.95"	3'9.76"	3'2.61"	3'10.29"	3'2.24"	3'10.89"	3'1.84"	3'11.59"
3'3''	3'1.53"	3'4.64"	3'1.36"	3'4.85"	3'1.17"	3'5.09"	3'0.96"	3'5.37"	3'0.73"	3'5.69"	3'0.47"	3'6.05"	3'0.19"	3'6.47"	2'11.89"	3'6.95"	2'11.55"	3'7.51"
3'0''	2'10.81"	3'1.3"	2'10.67"	3'1.47"	2'10.52"	3'1.67"	2'10.35"	3'1.88"	2'10.16"	3'2.13"	2'9.96"	3'2.42"	2'9.73"	3'2.74"	2'9.48"	3'3.12"	2'9.2"	3'3.55"

8	9	10	11	13	14	16	18	20	22
16'6.43"	14'9.99"	13'3.76"	11'11.54"	10'9.09"	9'8.22"	8'8.76"	7'10.53"	7'1.43"	6'5.32"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
16'4.92"	Infinity	14'8.48"	Infinity	13'2.27"	Infinity	11'10.05"	Infinity	10'7.59"	Infinity	9'6.72"	Infinity	8'7.25"	Infinity	7'9.03"	Infinity	6'11.92"	Infinity	6'3.81"	Infinity
14'3.62"	Infinity	13'0.12"	Infinity	11'9.91"	Infinity	10'8.92"	Infinity	9'9.07"	Infinity	8'10.3"	Infinity	8'0.51"	Infinity	7'3.65"	Infinity	6'7.63"	Infinity	6'0.39"	Infinity
12'8.07"	Infinity	11'7.95"	Infinity	10'8.6"	Infinity	9'10"	Infinity	9'0.14"	Infinity	8'3.02"	Infinity	7'6.6"	Infinity	6'10.85"	Infinity	6'3.76"	Infinity	5'9.27"	Infinity
11'	Infinity	10'2.96"	Infinity	9'6.29"	Infinity	8'10.01"	Infinity	8'2.14"	Infinity	7'6.72"	Infinity	6'11.74"	Infinity	6'5.21"	Infinity	5'11.13"	Infinity	5'5.48"	Infinity
9'5.28"	Infinity	8'10.73"	Infinity	8'4.31"	Infinity	7'10.04"	Infinity	7'3.96"	Infinity	6'10.1"	Infinity	6'4.48"	Infinity	5'11.13"	Infinity	5'6.06"	Infinity	5'1.28"	Infinity
8'3.19"	145'2.76"	7'10.27"	Infinity	7'5.36"	Infinity	7'0.48"	Infinity	6'7.67"	Infinity	6'2.96"	Infinity	5'10.37"	Infinity	5'5.93"	Infinity	5'1.66"	Infinity	4'9.58"	Infinity
7'4.21"	39'4.34"	7'0.4"	55'9.83"	6'8.55"	106'4.94"	6'4.67"	Infinity	6'0.79"	Infinity	5'8.94"	Infinity	5'5.14"	Infinity	5'1.42"	Infinity	4'9.79"	Infinity	4'6.28"	Infinity
6'7.4"	22'9.38"	6'4.39"	27'3.45"	6'1.31"	35'2.44"	5'10.17"	52'6.79"	5'7"	120'2.44"	5'3.81"	Infinity	5'0.63"	Infinity	4'9.48"	Infinity	4'6.37"	Infinity	4'3.33"	Infinity
6'2.44"	17'9.51"	5'11.84"	20'4.32"	5'9.16"	24'4.27"	5'6.41"	31'4.37"	5'3.62"	46'8.24"	5'0.79"	105'8.73"	4'9.95"	Infinity	4'7.11"	Infinity	4'4.3"	Infinity	4'1.53"	Infinity
5'9.04"	13'11.66"	5'6.85"	15'5.53"	5'4.58"	17'7.1"	5'2.24"	20'10.37"	4'11.83"	26'5.78"	4'9.38"	38'3.02"	4'6.9"	77'11.09"	4'4.41"	Infinity	4'1.92"	Infinity	3'11.44"	Infinity
5'6.16"	12'4.55"	5'4.18"	13'6.15"	5'2.11"	15'0.98"	4'11.97"	17'4.54"	4'9.77"	21'0.37"	4'7.51"	27'8.11"	4'5.22"	43'4.44"	4'2.91"	124'4.05"	4'0.59"	Infinity	3'10.27"	Infinity
5'3.15"	10'11.44"	5'1.37"	11'9.75"	4'11.51"	12'11.63"	4'9.57"	14'7.15"	4'7.57"	17'0.36"	4'5.52"	21'0.46"	4'3.42"	28'9.61"	4'1.29"	49'11.58"	3'11.15"	324'11.41"	3'9"	Infinity
4'11.99"	9'8.03"	4'10.42"	10'3.8"	4'8.76"	11'2.01"	4'7.03"	12'3.87"	4'5.24"	13'11.63"	4'3.39"	16'5.83"	4'1.48"	20'9.22"	3'11.55"	29'7.09"	3'9.58"	57'10.99"	3'7.61"	Infinity
4'8.68"	8'6.09"	4'7.31"	8'11.89"	4'5.86"	9'7.33"	4'4.33"	10'5.16"	4'2.75"	11'6.62"	4'1.1"	13'2.02"	3'11.4"	15'8.15"	3'9.66"	20'0.84"	3'7.88"	29'7.37"	3'6.09"	65'8.17"	
4'5.21"	7'5.41"	4'4.03"	7'9.68"	4'2.78"	8'3.05"	4'1.46"	8'9.97"	4'0.08"	9'7.12"	3'10.64"	10'7.72"	3'9.14"	12'1.99"	3'7.6"	14'6.65"	3'6.02"	18'9.58"	3'4.42"	28'4.02"	
4'1.56"	6'5.82"	4'0.57"	6'8.91"	3'11.52"	7'0.73"	3'10.4"	7'5.53"	3'9.22"	7'11.71"	3'7.99"	8'7.89"	3'6.7"	9'7.14"	3'5.36"	10'11.46"	3'3.99"	13'1.05"	3'2.58"	16'10.53"	
3'11.66"	6'0.4"	3'10.77"	6'3"	3'9.81"	6'6.19"	3'8.79"	6'10.17"	3'7.71"	7'3.21"	3'6.58"	7'9.78"	3'5.4"	8'6.62"	3'4.16"	9'7.04"	3'2.89"	11'1.64"	3'1.58"	13'8.24"	
3'9.72"	5'7.21"	3'8.91"	5'9.38"	3'8.05"	6'0.03"	3'7.13"	6'3.3"	3'6.15"	6'7.4"	3'5.12"	7'0.65"	3'4.04"	7'7.58"	3'2.91"	8'5.06"	3'1.74"	9'6.69"	3'0.53"	11'3.81"	
3'7.72"	5'2.22"	3'7"	5'4.03"	3'6.23"	5'6.21"	3'5.41"	5'8.87"	3'4.53"	6'0.18"	3'3.6"	6'4.36"	3'2.62"	6'9.78"	3'1.59"	7'5"	3'0.53"	8'3.05"	2'11.42"	9'5.87"	
3'5.67"	4'9.43"	3'5.04"	4'10.92"	3'4.36"	5'0.7"	3'3.62"	5'2.85"	3'2.84"	5'5.5"	3'2.01"	5'8.8"	3'1.13"	6'1.01"	3'0.21"	6'6.5"	2'11.25"	7'1.92"	2'10.25"	8'0.41"	
3'3.57"	4'4.83"	3'3.02"	4'6.04"	3'2.42"	4'7.47"	3'1.78"	4'9.2"	3'1.09"	4'11.29"	3'0.36"	5'1.88"	2'11.58"	5'5.12"	2'10.76"	5'9.27"	2'9.9"	6'2.74"	2'9"	6'10.2"	
3'1.41"	4'0.41"	3'0.93"	4'1.38"	3'0.42"	4'2.52"	2'11.86"	4'3.88"	2'11.27"	4'5.51"	2'10.63"	4'7.51"	2'9.95"	4'9.98"	2'9.23"	5'1.09"	2'8.47"	5'5.1"	2'7.68"	5'10.4"	
2'11.18"	3'8.16"	2'10.78"	3'8.91"	2'10.35"	3'9.8"	2'9.88"	3'10.86"	2'9.37"	4'0.12"	2'8.82"	4'1.64"	2'8.24"	4'3.5"	2'7.62"	4'5.8"	2'6.96"	4'8.7"	2'6.27"	5'0.45"	
2'8.9"	3'4.06"	2'8.57"	3'4.64"	2'8.21"	3'5.32"	2'7.81"	3'6.13"	2'7.39"	3'7.08"	2'6.94"	3'8.21"	2'6.45"	3'9.58"	2'5.92"	3'11.26"	2'5.36"	4'1.33"	2'4.77"	4'3.95"	

Focal Length 31mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	14.655	13.086	11.689	10.445	9.336	8.348	7.468	6.683	5.985

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	14.616	Infinity	13.048	Infinity	11.651	Infinity	10.406	Infinity	9.297	Infinity	8.31	Infinity	7.429	Infinity	6.645	Infinity	5.947	Infinity
30.00	9.943	Infinity	9.203	Infinity	8.497	Infinity	7.826	Infinity	7.192	Infinity	6.595	Infinity	6.037	Infinity	5.517	Infinity	5.034	Infinity
15.00	7.534	Infinity	7.108	Infinity	6.686	Infinity	6.27	Infinity	5.863	Infinity	5.467	Infinity	5.084	Infinity	4.716	Infinity	4.364	Infinity
10.00	6.064	30.375	5.79	40.728	5.511	66.143	5.23	223.337	4.948	Infinity	4.668	Infinity	4.39	Infinity	4.118	Infinity	3.851	Infinity
9.00	5.693	22.505	5.452	27.687	5.206	37.396	4.956	61.863	4.704	236.52	4.451	Infinity	4.199	Infinity	3.95	Infinity	3.706	Infinity
8.00	5.289	16.999	5.082	19.774	4.869	24.233	4.651	32.498	4.43	52.838	4.207	180.238	3.983	Infinity	3.76	Infinity	3.539	Infinity
7.00	4.847	12.932	4.674	14.461	4.495	16.684	4.31	20.183	4.121	26.442	3.929	40.694	3.735	104.123	3.54	Infinity	3.345	Infinity
6.00	4.361	9.805	4.222	10.647	4.077	11.788	3.927	13.41	3.771	15.873	3.611	20.027	3.448	28.44	3.283	54.187	3.117	Infinity
5.50	4.099	8.498	3.978	9.117	3.85	9.934	3.716	11.05	3.578	12.655	3.435	15.137	3.288	19.448	3.139	28.69	2.988	62.103
5.00	3.824	7.326	3.719	7.777	3.608	8.357	3.491	9.124	3.37	10.179	3.244	11.708	3.114	14.1	2.981	18.339	2.846	27.8
4.50	3.534	6.269	3.445	6.592	3.35	6.999	3.251	7.522	3.147	8.215	3.038	9.169	2.925	10.554	2.809	12.728	2.69	16.6
4.00	3.228	5.312	3.154	5.538	3.076	5.818	2.993	6.169	2.906	6.62	2.814	7.215	2.718	8.031	2.619	9.209	2.517	11.042
3.80	3.1	4.954	3.033	5.148	2.961	5.387	2.885	5.685	2.804	6.062	2.719	6.553	2.63	7.214	2.538	8.143	2.442	9.531
3.60	2.97	4.608	2.909	4.775	2.843	4.978	2.773	5.229	2.699	5.543	2.621	5.948	2.539	6.482	2.454	7.215	2.365	8.274
3.40	2.837	4.275	2.781	4.417	2.722	4.588	2.658	4.798	2.591	5.06	2.519	5.391	2.444	5.822	2.366	6.4	2.284	7.211
3.20	2.701	3.954	2.651	4.073	2.597	4.217	2.54	4.392	2.479	4.607	2.414	4.878	2.346	5.224	2.274	5.679	2.199	6.301
3.00	2.561	3.644	2.517	3.744	2.469	3.863	2.418	4.007	2.363	4.184	2.305	4.402	2.243	4.679	2.178	5.036	2.11	5.513
2.90	2.49	3.492	2.449	3.583	2.404	3.692	2.355	3.823	2.304	3.982	2.249	4.178	2.19	4.424	2.128	4.74	2.064	5.157
2.80	2.419	3.344	2.379	3.427	2.337	3.525	2.292	3.643	2.243	3.786	2.191	3.962	2.136	4.181	2.078	4.459	2.016	4.823
2.70	2.346	3.197	2.309	3.273	2.27	3.362	2.227	3.468	2.182	3.596	2.133	3.753	2.081	3.947	2.026	4.193	1.968	4.51
2.60	2.272	3.054	2.238	3.122	2.202	3.202	2.162	3.297	2.119	3.412	2.073	3.552	2.025	3.724	1.973	3.939	1.918	4.216
2.50	2.198	2.912	2.166	2.973	2.132	3.045	2.095	3.131	2.056	3.233	2.013	3.357	1.967	3.509	1.919	3.698	1.868	3.938
2.40	2.123	2.773	2.094	2.828	2.062	2.892	2.028	2.969	1.991	3.059	1.951	3.169	1.909	3.303	1.863	3.468	1.815	3.676
2.30	2.047	2.636	2.02	2.685	1.991	2.743	1.959	2.81	1.925	2.891	1.888	2.987	1.849	3.104	1.807	3.248	1.762	3.428
2.20	1.969	2.502	1.945	2.545	1.918	2.596	1.889	2.656	1.858	2.727	1.824	2.811	1.787	2.913	1.748	3.038	1.707	3.193
2.10	1.891	2.369	1.869	2.408	1.844	2.453	1.818	2.505	1.789	2.567	1.758	2.641	1.725	2.73	1.689	2.838	1.651	2.97
2.00	1.812	2.239	1.792	2.273	1.77	2.312	1.746	2.358	1.719	2.412	1.691	2.476	1.661	2.553	1.628	2.645	1.593	2.759
1.95	1.772	2.174	1.753	2.206	1.732	2.243	1.709	2.286	1.684	2.336	1.657	2.396	1.628	2.467	1.597	2.552	1.563	2.657
1.90	1.732	2.111	1.714	2.14	1.694	2.174	1.672	2.214	1.648	2.261	1.623	2.316	1.595	2.382	1.565	2.461	1.533	2.557
1.85	1.692	2.047	1.674	2.075	1.656	2.106	1.635	2.144	1.612	2.187	1.588	2.238	1.562	2.299	1.533	2.372	1.503	2.46
1.80	1.651	1.984	1.635	2.01	1.617	2.039	1.597	2.074	1.576	2.114	1.553	2.162	1.528	2.218	1.501	2.285	1.472	2.366
1.75	1.61	1.922	1.595	1.945	1.578	1.973	1.56	2.005	1.539	2.042	1.518	2.086	1.494	2.138	1.469	2.199	1.441	2.273
1.70	1.569	1.86	1.555	1.882	1.539	1.907	1.521	1.937	1.502	1.971	1.482	2.011	1.46	2.059	1.435	2.115	1.41	2.183
1.65	1.528	1.798	1.514	1.819	1.499	1.842	1.483	1.869	1.465	1.901	1.446	1.938	1.425	1.981	1.402	2.033	1.377	2.095
1.60	1.486	1.737	1.473	1.756	1.459	1.778	1.444	1.803	1.427	1.832	1.409	1.866	1.389	1.905	1.368	1.952	1.345	2.009
1.55	1.444	1.677	1.432	1.694	1.419	1.714	1.405	1.737	1.389	1.763	1.372	1.794	1.354	1.831	1.334	1.873	1.312	1.924
1.50	1.402	1.617	1.391	1.632	1.379	1.651	1.365	1.671	1.351	1.696	1.335	1.724	1.318	1.757	1.299	1.796	1.278	1.842
1.45	1.359	1.557	1.349	1.571	1.338	1.588	1.325	1.607	1.312	1.629	1.297	1.655	1.281	1.685	1.263	1.72	1.245	1.761
1.40	1.316	1.498	1.307	1.511	1.297	1.526	1.285	1.543	1.273	1.563	1.259	1.587	1.244	1.614	1.228	1.645	1.21	1.683
1.35	1.273	1.439	1.265	1.451	1.255	1.465	1.245	1.48	1.233	1.498	1.22	1.519	1.206	1.544	1.191	1.572	1.175	1.606
1.30	1.23	1.381	1.222	1.392	1.213	1.404	1.204	1.418	1.193	1.434	1.181	1.453	1.169	1.475	1.155	1.5	1.14	1.53
1.25	1.186	1.323	1.179	1.333	1.171	1.344	1.162	1.356	1.153	1.371	1.142	1.388	1.13	1.407	1.117	1.43	1.104	1.456
1.20	1.142	1.265	1.136	1.274	1.129	1.284	1.121	1.295	1.112	1.308	1.102	1.323	1.091	1.341	1.08	1.361	1.067	1.384
1.15	1.098	1.208	1.092	1.216	1.086	1.225	1.078	1.235	1.07	1.246	1.062	1.26	1.052	1.275	1.041	1.293	1.03	1.313
1.10	1.054	1.152	1.048	1.159	1.043	1.166	1.036	1.175	1.029	1.185	1.021	1.197	1.012	1.21	1.003	1.226	0.992	1.244
1.05	1.009	1.096	1.004	1.102	0.999	1.108	0.993	1.116	0.987	1.125	0.98	1.135	0.972	1.147	0.963	1.16	0.954	1.176
1.00	0.964	1.04	0.96	1.045	0.955	1.051	0.95	1.058	0.944	1.065	0.938	1.074	0.931	1.084	0.923	1.096	0.915	1.109
0.95	0.918	0.985	0.915	0.989	0.911	0.994	0.906	1	0.901	1.007	0.896	1.014	0.89	1.023	0.883	1.033	0.876	1.044
0.91	0.882	0.941	0.879	0.945	0.875	0.949	0.871	0.954	0.867	0.96	0.862	0.967	0.856	0.974	0.85	0.983	0.844	0.993

8	9	10	11	13	14	16	18	20	22
5.362	4.808	4.314	3.874	3.482	3.133	2.821	2.544	2.297	2.077

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
5.324	Infinity	4.77	Infinity	4.276	Infinity	3.836	Infinity	3.444	Infinity	3.094	Infinity	2.783	Infinity	2.506	Infinity	2.259	Infinity	2.039	Infinity
4.588	Infinity	4.176	Infinity	3.798	Infinity	3.452	Infinity	3.136	Infinity	2.848	Infinity	2.586	Infinity	2.349	Infinity	2.133	Infinity	1.939	Infinity
4.03	Infinity	3.714	Infinity	3.417	Infinity	3.138	Infinity	2.879	Infinity	2.638	Infinity	2.415	Infinity	2.209	Infinity	2.021	Infinity	1.848	Infinity
3.593	Infinity	3.343	Infinity	3.104	Infinity	2.876	Infinity	2.66	Infinity	2.456	Infinity	2.265	Infinity	2.086	Infinity	1.919	Infinity	1.765	Infinity
3.467	Infinity	3.235	Infinity	3.012	Infinity	2.798	Infinity	2.594	Infinity	2.401	Infinity	2.219	Infinity	2.047	Infinity	1.887	Infinity	1.739	Infinity
3.322	Infinity	3.11	Infinity	2.905	Infinity	2.706	Infinity	2.516	Infinity	2.335	Infinity	2.163	Infinity	2.001	Infinity	1.849	Infinity	1.707	Infinity
3.152	Infinity	2.963	Infinity	2.777	Infinity	2.597	Infinity	2.423	Infinity	2.256	Infinity	2.097	Infinity	1.945	Infinity	1.802	Infinity	1.668	Infinity
2.951	Infinity	2.786	Infinity	2.623	Infinity	2.464	Infinity	2.309	Infinity	2.158	Infinity	2.013	Infinity	1.875	Infinity	1.743	Infinity	1.619	Infinity
2.836	Infinity	2.685	Infinity	2.534	Infinity	2.386	Infinity	2.241	Infinity	2.1	Infinity	1.964	Infinity	1.833	Infinity	1.708	Infinity	1.589	Infinity
2.709	66.949	2.572	Infinity	2.435	Infinity	2.299	Infinity	2.165	Infinity	2.034	Infinity	1.907	Infinity	1.785	Infinity	1.667	Infinity	1.554	Infinity
2.569	25.331	2.446	62.829	2.323	Infinity	2.201	Infinity	2.079	Infinity	1.96	Infinity	1.843	Infinity	1.729	Infinity	1.619	Infinity	1.514	Infinity
2.412	14.259	2.305	21.298	2.197	48.508	2.089	Infinity	1.98	Infinity	1.873	Infinity	1.767	Infinity	1.664	Infinity	1.563	Infinity	1.466	Infinity
2.344	11.814	2.244	16.222	2.142	28.16	2.04	173.097	1.937	Infinity	1.835	Infinity	1.734	Infinity	1.635	Infinity	1.538	Infinity	1.445	Infinity
2.273	9.924	2.18	12.827	2.084	19.21	1.988	44.286	1.891	Infinity	1.794	Infinity	1.698	Infinity	1.604	Infinity	1.511	Infinity	1.421	Infinity
2.199	8.42	2.112	10.396	2.023	14.177	1.933	24.184	1.842	123.681	1.75	Infinity	1.66	Infinity	1.57	Infinity	1.482	Infinity	1.396	Infinity
2.121	7.193	2.04	8.57	1.958	10.951	1.874	16.013	1.789	33.833	1.704	Infinity	1.619	Infinity	1.534	Infinity	1.451	Infinity	1.369	Infinity
2.039	6.175	1.965	7.148	1.889	8.708	1.812	11.582	1.733	18.563	1.654	59.557	1.574	Infinity	1.495	Infinity	1.417	Infinity	1.339	Infinity
1.996	5.727	1.926	6.549	1.854	7.824	1.779	10.048	1.704	14.865	1.628	32.831	1.551	Infinity	1.474	Infinity	1.398	Infinity	1.324	Infinity
1.952	5.315	1.886	6.009	1.817	7.056	1.746	8.801	1.674	12.251	1.6	22.176	1.527	303.543	1.453	Infinity	1.379	Infinity	1.307	Infinity
1.907	4.934	1.844	5.521	1.778	6.384	1.711	7.766	1.642	10.306	1.572	16.446	1.501	51.673	1.43	Infinity	1.36	Infinity	1.29	Infinity
1.861	4.58	1.801	5.077	1.739	5.791	1.675	6.893	1.609	8.801	1.543	12.868	1.475	27.299	1.407	Infinity	1.339	Infinity	1.271	Infinity
1.814	4.251	1.757	4.671	1.699	5.263	1.638	6.147	1.576	7.604	1.512	10.422	1.447	18.091	1.382	115.884	1.317	Infinity	1.252	Infinity
1.765	3.944	1.712	4.299	1.657	4.789	1.599	5.503	1.54	6.627	1.48	8.643	1.419	13.253	1.357	34.117	1.294	Infinity	1.232	Infinity
1.715	3.657	1.665	3.957	1.613	4.363	1.56	4.94	1.504	5.816	1.447	7.291	1.389	10.27	1.33	19.318	1.27	Infinity	1.211	Infinity
1.663	3.388	1.617	3.641	1.569	3.978	1.518	4.445	1.466	5.132	1.412	6.23	1.358	8.248	1.302	13.118	1.245	40.859	1.189	Infinity
1.61	3.136	1.567	3.348	1.522	3.627	1.476	4.006	1.427	4.546	1.376	5.374	1.325	6.786	1.272	9.71	1.219	19.241	1.165	Infinity
1.556	2.899	1.516	3.076	1.475	3.306	1.431	3.613	1.386	4.04	1.339	4.669	1.291	5.68	1.241	7.554	1.191	12.17	1.14	41.166
1.528	2.786	1.49	2.948	1.45	3.156	1.408	3.432	1.365	3.811	1.319	4.361	1.273	5.222	1.225	6.749	1.177	10.162	1.127	24.37
1.499	2.675	1.463	2.823	1.425	3.012	1.385	3.26	1.343	3.597	1.3	4.078	1.255	4.814	1.209	6.068	1.162	8.659	1.114	17.054
1.471	2.568	1.436	2.703	1.4	2.874	1.361	3.097	1.321	3.396	1.279	3.817	1.236	4.448	1.192	5.485	1.146	7.493	1.1	12.958
1.441	2.464	1.409	2.587	1.374	2.742	1.337	2.941	1.299	3.207	1.259	3.576	1.217	4.117	1.174	4.981	1.131	6.561	1.086	10.34
1.412	2.363	1.381	2.475	1.347	2.614	1.312	2.793	1.276	3.029	1.237	3.353	1.198	3.818	1.156	4.54	1.114	5.799	1.072	8.523
1.382	2.265	1.352	2.366	1.321	2.492	1.287	2.652	1.252	2.861	1.216	3.145	1.178	3.545	1.138	4.151	1.098	5.165	1.057	7.187
1.351	2.169	1.323	2.261	1.293	2.374	1.262	2.517	1.228	2.702	1.193	2.95	1.157	3.296	1.119	3.806	1.081	4.629	1.041	6.164
1.32	2.076	1.294	2.159	1.265	2.26	1.235	2.388	1.204	2.552	1.171	2.769	1.136	3.067	1.1	3.498	1.063	4.17	1.025	5.355
1.289	1.985	1.264	2.06	1.237	2.151	1.209	2.264	1.179	2.409	1.147	2.599	1.114	2.856	1.08	3.22	1.045	3.772	1.009	4.699
1.257	1.897	1.233	1.964	1.208	2.045	1.181	2.146	1.153	2.274	1.123	2.44	1.092	2.661	1.06	2.969	1.026	3.424	0.991	4.158
1.224	1.811	1.202	1.871	1.179	1.943	1.153	2.033	1.127	2.145	1.099	2.29	1.069	2.48	1.039	2.741	1.007	3.117	0.974	3.702
1.191	1.727	1.17	1.78	1.148	1.845	1.125	1.924	1.1	2.023	1.074	2.148	1.046	2.312	1.017	2.533	0.987	2.845	0.956	3.314
1.157	1.645	1.138	1.693	1.118	1.75	1.096	1.819	1.073	1.906	1.048	2.015	1.022	2.155	0.995	2.342	0.966	2.601	0.937	2.979
1.123	1.565	1.106	1.607	1.087	1.658	1.066	1.719	1.045	1.794	1.021	1.888	0.997	2.009	0.972	2.167	0.945	2.381	0.917	2.688
1.089	1.488	1.072	1.525	1.055	1.569	1.036	1.622	1.016	1.688	0.994	1.769	0.972	1.872	0.948	2.005	0.923	2.183	0.897	2.431
1.053	1.412	1.038	1.444	1.022	1.483	1.005	1.529	0.986	1.586	0.966	1.656	0.945	1.743	0.923	1.855	0.9	2.003	0.876	2.204
1.017	1.337	1.004	1.366	0.989	1.399	0.973	1.44	0.956	1.489	0.938	1.548	0.919	1.622	0.898	1.716	0.877	1.838	0.854	2.001
0.981	1.265	0.969	1.29	0.955	1.319	0.941	1.353	0.925	1.395	0.909	1.446	0.891	1.508	0.872	1.587	0.852	1.687	0.831	1.819
0.944	1.194	0.933	1.215	0.921	1.24	0.908	1.27	0.893	1.306	0.878	1.348	0.862	1.401	0.845	1.466	0.827	1.548	0.808	1.655
0.906	1.125	0.896	1.143	0.885	1.165	0.874	1.19	0.861	1.22	0.847	1.256	0.833	1.299	0.817	1.353	0.801	1.42	0.783	1.506
0.868	1.057	0.859	1.073	0.849	1.091	0.839	1.112	0.828	1.137	0.815	1.167	0.802	1.203	0.788	1.247	0.774	1.302	0.758	1.37
0.836	1.004	0.828	1.018	0.82	1.034	0.81	1.052	0.8	1.073	0.789	1.099	0.777	1.13	0.765	1.167	0.751	1.213	0.737	1.27

Focal Length 31mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	48'0.97"	42'11.2"	38'4.2"	34'3.22"	30'7.56"	27'4.66"	24'6.02"	21'11.11"	19'7.63"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	47'11.45"	Infinity	42'9.71"	Infinity	38'2.7"	Infinity	34'1.7"	Infinity	30'6.04"	Infinity	27'3.15"	Infinity	24'4.49"	Infinity	21'9.62"	Infinity	19'6.12"	Infinity
100'0''	32'9.44"	Infinity	30'4.03"	Infinity	27'11.96"	Infinity	25'9.31"	Infinity	23'8.15"	Infinity	21'8.51"	Infinity	19'10.39"	Infinity	18'1.79"	Infinity	16'6.68"	Infinity
50'0''	24'10.88"	Infinity	23'5.87"	Infinity	22'1.01"	Infinity	20'8.42"	Infinity	19'4.18"	Infinity	18'0.4"	Infinity	16'9.16"	Infinity	15'6.52"	Infinity	14'4.54"	Infinity
30'0''	18'10.32"	76'11.7"	18'0.65"	95'7.93"	17'2.77"	131'8.44"	16'4.75"	229'0.48"	15'6.64"	1380'9.62"	14'8.53"	Infinity	13'10.47"	Infinity	13'0.53"	Infinity	12'2.77"	Infinity
20'0''	14'5.62"	33'0.6"	14'0.03"	35'11.73"	13'6.19"	39'11.62"	13'0.13"	45'8.21"	12'5.87"	54'5.71"	11'11.46"	69'7.23"	11'4.92"	101'5.2"	10'10.31"	210'1.66"	10'3.66"	Infinity
15'0''	11'8.81"	21'0.56"	11'5.21"	22'1.92"	11'1.41"	23'6.79"	10'9.39"	25'4.57"	10'5.19"	27'9.57"	10'0.81"	31'1.75"	9'8.27"	36'0.65"	9'3.6"	43'10.48"	8'10.82"	58'1.79"
12'0''	9'10.42"	15'5.29"	9'7.94"	16'0.16"	9'5.29"	16'8.54"	9'2.47"	17'6.91"	8'11.47"	18'7.98"	8'8.32"	20'0.82"	8'5.02"	21'11.19"	8'1.57"	24'6.08"	7'10"	28'3.13"
10'0''	8'6.17"	12'2.34"	8'4.37"	12'6.45"	8'2.44"	12'11.38"	8'0.36"	13'5.33"	7'10.14"	14'0.62"	7'7.78"	14'9.69"	7'5.29"	15'9.17"	7'2.66"	17'0.09"	6'11.91"	18'8.1"
9'0''	7'9.6"	10'8.36"	7'8.12"	10'11.44"	7'6.52"	11'3.11"	7'4.8"	11'7.49"	7'2.95"	12'0.78"	7'0.97"	12'7.27"	6'10.87"	13'3.33"	6'8.65"	14'1.54"	6'6.31"	15'2.81"
8'0''	7'0.71"	9'3.27"	6'11.53"	9'5.52"	6'10.25"	9'8.17"	6'8.86"	9'11.31"	6'7.36"	10'3.05"	6'5.75"	10'7.58"	6'4.03"	11'1.1"	6'2.21"	11'7.95"	6'0.27"	12'4.61"
7'6''	6'8.15"	8'7.05"	6'7.1"	8'8.94"	6'5.97"	8'11.16"	6'4.74"	9'1.78"	6'3.41"	9'4.89"	6'1.98"	9'8.62"	6'0.45"	10'1.14"	5'10.81"	10'6.7"	5'9.07"	11'1.63"
7'0''	6'3.5"	7'11.02"	6'2.59"	8'0.6"	6'1.59"	8'2.44"	6'0.52"	8'4.6"	5'11.35"	8'7.16"	5'10.09"	8'10.21"	5'8.74"	9'1.87"	5'7.29"	9'6.33"	5'5.74"	9'11.83"
6'6''	5'10.76"	7'3.19"	5'9.97"	7'4.49"	5'9.12"	7'5.99"	5'8.19"	7'7.76"	5'7.17"	7'9.83"	5'6.08"	8'0.29"	5'4.9"	8'3.22"	5'3.63"	8'6.76"	5'2.28"	8'11.08"
6'0''	5'5.93"	6'7.54"	5'5.26"	6'8.59"	5'4.54"	6'9.81"	5'3.74"	6'11.23"	5'2.88"	7'0.88"	5'1.94"	7'2.84"	5'0.93"	7'5.15"	4'11.84"	7'7.92"	4'10.66"	7'11.27"
5'6''	5'1"	6'0.07"	5'0.45"	6'0.91"	4'11.84"	6'1.87"	4'11.18"	6'2.99"	4'10.46"	6'4.29"	4'9.67"	6'5.82"	4'8.82"	6'7.61"	4'7.89"	6'9.74"	4'6.9"	7'0.29"
5'0''	4'7.98"	5'4.78"	4'7.53"	5'5.43"	4'7.04"	5'6.17"	4'6.5"	5'7.03"	4'5.91"	5'8.03"	4'5.26"	5'9.2"	4'4.56"	5'10.56"	4'3.79"	6'0.16"	4'2.97"	6'2.07"
4'9''	4'5.43"	5'1.2"	4'5.03"	5'1.76"	4'4.59"	5'2.41"	4'4.11"	5'3.16"	4'3.58"	5'4.02"	4'3"	5'5.03"	4'2.37"	5'6.2"	4'1.68"	5'7.58"	4'0.94"	5'9.21"
4'6''	4'2.86"	4'9.65"	4'2.51"	4'10.14"	4'2.12"	4'10.7"	4'1.69"	4'11.35"	4'1.22"	5'0.09"	4'0.7"	5'0.95"	4'0.14"	5'1.96"	3'11.53"	5'3.13"	3'10.86"	5'4.52"
4'3''	4'0.27"	4'6.15"	3'11.96"	4'6.57"	3'11.61"	4'7.05"	3'11.24"	4'7.6"	3'10.82"	4'8.23"	3'10.37"	4'8.97"	3'9.87"	4'9.82"	3'9.33"	4'10.81"	3'8.74"	4'11.97"
4'0''	3'9.64"	4'2.69"	3'9.37"	4'3.04"	3'9.08"	4'3.45"	3'8.75"	4'3.91"	3'8.39"	4'4.45"	3'7.99"	4'5.07"	3'7.56"	4'5.78"	3'7.08"	4'6.61"	3'6.56"	4'7.58"
3'9''	3'6.99"	3'11.26"	3'6.76"	3'11.56"	3'6.51"	3'11.9"	3'6.23"	4'0.29"	3'5.92"	4'0.73"	3'5.57"	4'1.25"	3'5.2"	4'1.84"	3'4.79"	4'2.52"	3'4.34"	4'3.32"
3'6''	3'4.32"	3'7.88"	3'4.12"	3'8.12"	3'3.91"	3'8.4"	3'3.67"	3'8.72"	3'3.41"	3'9.09"	3'3.12"	3'9.51"	3'2.8"	3'9.99"	3'2.45"	3'10.55"	3'2.07"	3'11.19"
3'3''	3'1.61"	3'4.53"	3'1.45"	3'4.73"	3'1.27"	3'4.96"	3'1.08"	3'5.21"	3'0.86"	3'5.51"	3'0.62"	3'5.84"	3'0.35"	3'6.23"	3'0.06"	3'6.68"	2'11.74"	3'7.19"
3'0''	2'10.88"	3'1.22"	2'10.75"	3'1.38"	2'10.61"	3'1.56"	2'10.45"	3'1.76"	2'10.27"	3'1.99"	2'10.07"	3'2.26"	2'9.85"	3'2.56"	2'9.62"	3'2.91"	2'9.35"	3'3.31"

8	9	10	11	13	14	16	18	20	22
17'7.1"	15'9.29"	14'1.84"	12'8.52"	11'5.09"	10'3.35"	9'3.06"	8'4.16"	7'6.43"	6'9.77"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
17'5.62"	Infinity	15'7.79"	Infinity	14'0.34"	Infinity	12'7.02"	Infinity	11'3.58"	Infinity	10'1.83"	Infinity	9'1.58"	Infinity	8'2.66"	Infinity	7'4.94"	Infinity	6'8.28"	Infinity
15'1.02"	Infinity	13'8.75"	Infinity	12'5.81"	Infinity	11'4.13"	Infinity	10'3.64"	Infinity	9'4.27"	Infinity	8'5.93"	Infinity	7'8.55"	Infinity	7'0.06"	Infinity	6'4.39"	Infinity
13'3.26"	Infinity	12'2.72"	Infinity	11'2.94"	Infinity	10'3.9"	Infinity	9'5.63"	Infinity	8'8.09"	Infinity	7'11.27"	Infinity	7'3.15"	Infinity	6'7.69"	Infinity	6'0.85"	Infinity
11'5.25"	Infinity	10'8.03"	Infinity	9'11.15"	Infinity	9'2.64"	Infinity	8'6.53"	Infinity	7'10.86"	Infinity	7'3.62"	Infinity	6'8.84"	Infinity	6'2.5"	Infinity	5'8.61"	Infinity
9'9.01"	Infinity	9'2.42"	Infinity	8'7.92"	Infinity	8'1.56"	Infinity	7'7.36"	Infinity	7'1.37"	Infinity	6'7.62"	Infinity	6'2.11"	Infinity	5'8.88"	Infinity	5'3.93"	Infinity
8'5.96"	92'1.47"	8'1.05"	273'3.68"	7'8.13"	Infinity	7'3.22"	Infinity	6'10.37"	Infinity	6'5.6"	Infinity	6'0.93"	Infinity	5'8.4"	Infinity	5'4.04"	Infinity	4'11.84"	Infinity
7'6.32"	34'2.36"	7'2.55"	44'10.73"	6'10.72"	69'7.77"	6'6.86"	186'10.81"	6'2.97"	Infinity	5'11.1"	Infinity	5'7.27"	Infinity	5'3.5"	Infinity	4'11.81"	Infinity	4'8.23"	Infinity
6'9.05"	21'0.09"	6'6.09"	24'5.7"	6'3.05"	30'1.47"	5'11.94"	40'10.13"	5'8.78"	68'8.58"	5'5.6"	311'1.24"	5'2.41"	Infinity	4'11.24"	Infinity	4'8.1"	Infinity	4'5.02"	Infinity
6'3.86"	16'8.58"	6'1.31"	18'9.44"	5'10.67"	21'10.37"	5'7.96"	26'10.45"	5'5.19"	36'4.27"	5'2.38"	60'10.72"	4'11.54"	267'3.81"	4'8.7"	Infinity	4'5.87"	Infinity	4'3.07"	Infinity
5'10.23"	13'3.81"	5'8.09"	14'6.74"	5'5.86"	16'3.48"	5'3.56"	18'9.97"	5'1.19"	22'10.81"	4'10.76"	30'4.78"	4'8.29"	48'7.13"	4'5.8"	154'11.62"	4'3.31"	Infinity	4'0.82"	Infinity
5'7.23"	11'10.45"	5'5.3"	12'9.99"	5'3.28"	14'1.57"	5'1.18"	15'11.62"	4'11.01"	18'8.94"	4'8.78"	23'4.61"	4'6.51"	32'7.4"	4'4.2"	59'7.01"	4'1.88"	1206'10.46"	3'11.56"	Infinity
5'4.1"	10'6.74"	5'2.37"	11'3.6"	5'0.56"	12'3.29"	4'10.67"	13'7.29"	4'8.7"	15'6.35"	4'6.67"	18'6.13"	4'4.6"	23'8.62"	4'2.48"	35'0.08"	4'0.34"	77'3.42"	3'10.19"	Infinity
5'0.83"	9'4.44"	4'11.3"	9'11.19"	4'9.69"	10'7.91"	4'8.01"	11'7.52"	4'6.25"	12'11.59"	4'4.43"	14'11.13"	4'2.55"	18'0.58"	4'0.63"	23'8.82"	3'10.68"	37'2.47"	3'8.71"	107'7.26"
4'9.41"	8'3.37"	4'8.08"	8'8.46"	4'6.67"	9'2.92"	4'5.19"	9'11.29"	4'3.64"	10'10.51"	4'2.02"	12'2.18"	4'0.35"	14'1.44"	3'10.63"	17'3.19"	3'8.87"	23'2.48"	3'7.09"	38'5.4"
4'5.83"	7'3.38"	4'4.69"	7'7.17"	4'3.48"	7'11.88"	4'2.2"	8'5.87"	4'0.86"	9'1.66"	3'11.45"	10'0.13"	3'9.98"	11'2.84"	3'8.46"	13'0.83"	3'6.9"	16'0.97"	3'5.31"	21'10.67"
4'2.08"	6'4.35"	4'1.13"	6'7.11"	4'0.11"	6'10.49"	3'11.03"	7'2.7"	3'9.88"	7'8.05"	3'8.68"	8'3.01"	3'7.42"	9'0.37"	3'6.11"	10'1.51"	3'4.75"	11'9.16"	3'3.36"	14'5.45"
4'0.13"	5'11.15"	3'11.27"	6'1.49"	3'10.35"	6'4.33"	3'9.36"	6'7.84"	3'8.32"	7'0.24"	3'7.22"	7'5.89"	3'6.06"	8'1.34"	3'4.85"	8'11.54"	3'3.6"	10'2.23"	3'2.31"	12'1.04"
3'10.14"	5'6.16"	3'9.37"	5'8.12"	3'8.53"	5'10.49"	3'7.64"	6'1.39"	3'6.7"	6'4.99"	3'5.7"	6'9.55"	3'4.64"	7'3.46"	3'3.54"	7'11.38"	3'2.39"	8'10.42"	3'1.2"	10'2.76"
3'8.1"	5'1.35"	3'7.41"	5'2.98"	3'6.66"	5'4.94"	3'5.87"	5'7.32"	3'5.02"	5'10.25"	3'4.12"	6'1.91"	3'3.17"	6'6.58"	3'2.16"	7'0.7"	3'1.12"	7'9.01"	3'0.03"	8'8.83"
3'6"	4'8.72"	3'5.39"	4'10.06"	3'4.74"	4'11.67"	3'4.03"	5'1.6"	3'3.28"	5'3.96"	3'2.48"	5'6.87"	3'1.62"	5'10.54"	3'0.73"	6'3.25"	2'11.78"	6'9.5"	2'10.8"	7'6.09"
3'3.85"	4'4.25"	3'3.32"	4'5.35"	3'2.75"	4'6.65"	3'2.14"	4'8.2"	3'1.47"	4'10.08"	3'0.77"	5'0.37"	3'0.01"	5'3.23"	2'11.22"	5'6.83"	2'10.38"	5'11.5"	2'9.5"	6'5.75"
3'1.65"	3'11.94"	3'1.2"	4'0.82"	3'0.7"	4'1.86"	3'0.17"	4'3.09"	2'11.6"	4'4.57"	2'10.98"	4'6.36"	2'10.33"	4'8.55"	2'9.63"	4'11.28"	2'8.89"	5'2.75"	2'8.12"	5'7.27"
2'11.39"	3'7.79"	2'11.01"	3'8.48"	2'10.59"	3'9.3"	2'10.14"	3'10.26"	2'9.65"	3'11.4"	2'9.13"	4'0.77"	2'8.56"	4'2.43"	2'7.96"	4'4.47"	2'7.33"	4'7.01"	2'6.65"	4'10.26"
2'9.06"	3'3.77"	2'8.75"	3'4.31"	2'8.41"	3'4.94"	2'8.03"	3'5.67"	2'7.63"	3'6.53"	2'7.19"	3'7.56"	2'6.72"	3'8.8"	2'6.21"	3'10.29"	2'5.67"	4'0.13"	2'5.1"	4'2.43"

Focal Length 32mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	15.599	13.928	12.439	11.112	9.93	8.877	7.939	7.104	6.359

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	15.561	Infinity	13.889	Infinity	12.4	Infinity	11.074	Infinity	9.892	Infinity	8.839	Infinity	7.901	Infinity	7.065	Infinity	6.321	Infinity
30.00	10.363	Infinity	9.606	Infinity	8.881	Infinity	8.191	Infinity	7.536	Infinity	6.919	Infinity	6.339	Infinity	5.798	Infinity	5.295	Infinity
15.00	7.768	377.635	7.342	Infinity	6.918	Infinity	6.498	Infinity	6.086	Infinity	5.683	Infinity	5.293	Infinity	4.916	Infinity	4.555	Infinity
10.00	6.212	26.942	5.941	34.151	5.665	48.898	5.385	95.297	5.103	Infinity	4.822	Infinity	4.542	Infinity	4.266	Infinity	3.996	Infinity
9.00	5.823	20.574	5.585	24.5	5.342	31.212	5.094	45.163	4.842	91.107	4.59	Infinity	4.337	Infinity	4.086	Infinity	3.839	Infinity
8.00	5.4	15.883	5.197	18.105	4.987	21.495	4.771	27.248	4.552	39.033	4.329	76.275	4.105	Infinity	3.882	Infinity	3.659	Infinity
7.00	4.939	12.282	4.77	13.556	4.594	15.352	4.412	18.046	4.226	22.501	4.035	31.195	3.841	55.356	3.647	445.394	3.451	Infinity
6.00	4.434	9.432	4.299	10.155	4.158	11.116	4.01	12.444	3.857	14.382	3.699	17.449	3.538	22.987	3.374	35.849	3.208	97.738
5.50	4.163	8.218	4.045	8.757	3.92	9.456	3.79	10.392	3.654	11.697	3.513	13.628	3.369	16.754	3.221	22.619	3.071	37.455
5.00	3.879	7.119	3.777	7.516	3.669	8.02	3.556	8.675	3.437	9.556	3.313	10.793	3.186	12.642	3.054	15.678	2.92	21.528
4.50	3.58	6.119	3.494	6.406	3.403	6.764	3.306	7.218	3.204	7.81	3.098	8.606	2.987	9.726	2.873	11.403	2.755	14.168
4.00	3.266	5.206	3.195	5.409	3.119	5.657	3.039	5.966	2.954	6.358	2.865	6.867	2.771	7.55	2.674	8.506	2.573	9.928
3.80	3.135	4.862	3.07	5.037	3.001	5.25	2.927	5.513	2.849	5.844	2.766	6.267	2.679	6.827	2.589	7.592	2.495	8.696
3.60	3.002	4.529	2.943	4.68	2.88	4.862	2.812	5.085	2.74	5.362	2.664	5.713	2.584	6.17	2.501	6.783	2.414	7.642
3.40	2.865	4.208	2.812	4.336	2.755	4.49	2.694	4.678	2.628	4.909	2.559	5.199	2.486	5.571	2.409	6.061	2.329	6.731
3.20	2.726	3.897	2.678	4.005	2.627	4.135	2.572	4.292	2.513	4.484	2.45	4.722	2.383	5.023	2.313	5.413	2.24	5.935
3.00	2.584	3.596	2.542	3.687	2.496	3.795	2.446	3.925	2.393	4.083	2.337	4.277	2.277	4.519	2.214	4.829	2.147	5.234
2.90	2.512	3.449	2.472	3.532	2.429	3.63	2.382	3.748	2.332	3.891	2.279	4.066	2.222	4.283	2.162	4.557	2.099	4.914
2.80	2.439	3.304	2.401	3.38	2.361	3.469	2.317	3.576	2.27	3.704	2.22	3.861	2.167	4.055	2.11	4.299	2.05	4.612
2.70	2.365	3.161	2.33	3.23	2.292	3.311	2.251	3.407	2.207	3.523	2.16	3.663	2.11	3.836	2.056	4.051	2	4.326
2.60	2.29	3.021	2.257	3.083	2.222	3.156	2.184	3.243	2.143	3.347	2.099	3.472	2.052	3.625	2.001	3.815	1.948	4.056
2.50	2.214	2.883	2.184	2.939	2.151	3.005	2.116	3.082	2.078	3.175	2.036	3.286	1.992	3.422	1.945	3.589	1.896	3.8
2.40	2.138	2.747	2.11	2.797	2.079	2.856	2.047	2.925	2.011	3.008	1.973	3.107	1.932	3.226	1.888	3.373	1.842	3.556
2.30	2.06	2.613	2.035	2.658	2.007	2.71	1.976	2.772	1.944	2.845	1.908	2.932	1.87	3.038	1.83	3.166	1.786	3.325
2.20	1.982	2.481	1.958	2.521	1.933	2.567	1.905	2.622	1.875	2.687	1.842	2.763	1.807	2.855	1.77	2.967	1.73	3.104
2.10	1.903	2.351	1.881	2.386	1.858	2.427	1.833	2.475	1.805	2.532	1.775	2.599	1.743	2.679	1.709	2.776	1.672	2.894
2.00	1.822	2.222	1.803	2.254	1.782	2.29	1.759	2.332	1.734	2.382	1.707	2.44	1.677	2.509	1.646	2.593	1.612	2.694
1.95	1.782	2.159	1.764	2.188	1.744	2.222	1.722	2.262	1.698	2.308	1.672	2.362	1.644	2.427	1.614	2.504	1.582	2.597
1.90	1.741	2.096	1.724	2.123	1.705	2.155	1.684	2.192	1.662	2.235	1.637	2.285	1.61	2.345	1.582	2.417	1.551	2.503
1.85	1.7	2.034	1.684	2.059	1.666	2.089	1.646	2.123	1.625	2.163	1.602	2.209	1.576	2.265	1.549	2.331	1.52	2.41
1.80	1.659	1.972	1.644	1.995	1.627	2.023	1.608	2.054	1.588	2.091	1.566	2.135	1.542	2.186	1.516	2.247	1.488	2.32
1.75	1.618	1.91	1.603	1.932	1.587	1.958	1.57	1.987	1.551	2.021	1.53	2.061	1.507	2.108	1.483	2.164	1.456	2.231
1.70	1.576	1.849	1.562	1.869	1.547	1.893	1.531	1.92	1.513	1.952	1.493	1.989	1.472	2.032	1.449	2.083	1.424	2.145
1.65	1.534	1.788	1.521	1.807	1.507	1.829	1.492	1.854	1.475	1.883	1.456	1.917	1.436	1.957	1.414	2.004	1.391	2.06
1.60	1.492	1.728	1.48	1.746	1.467	1.766	1.452	1.789	1.436	1.815	1.419	1.847	1.4	1.883	1.38	1.926	1.358	1.977
1.55	1.45	1.668	1.439	1.684	1.426	1.703	1.413	1.724	1.398	1.748	1.382	1.777	1.364	1.81	1.345	1.849	1.324	1.896
1.50	1.407	1.609	1.397	1.624	1.385	1.64	1.373	1.66	1.359	1.682	1.344	1.708	1.327	1.739	1.309	1.774	1.29	1.816
1.45	1.364	1.55	1.355	1.563	1.344	1.579	1.332	1.596	1.319	1.617	1.305	1.64	1.29	1.668	1.273	1.7	1.255	1.738
1.40	1.321	1.491	1.312	1.504	1.302	1.518	1.291	1.534	1.279	1.552	1.266	1.574	1.252	1.599	1.237	1.628	1.22	1.662
1.35	1.278	1.433	1.269	1.444	1.26	1.457	1.25	1.472	1.239	1.488	1.227	1.508	1.214	1.53	1.2	1.556	1.184	1.587
1.30	1.234	1.376	1.226	1.386	1.218	1.397	1.209	1.41	1.199	1.425	1.188	1.443	1.176	1.463	1.162	1.486	1.148	1.514
1.25	1.19	1.318	1.183	1.327	1.175	1.337	1.167	1.349	1.158	1.363	1.148	1.378	1.137	1.396	1.124	1.417	1.111	1.442
1.20	1.146	1.261	1.139	1.269	1.133	1.279	1.125	1.289	1.117	1.301	1.107	1.315	1.097	1.331	1.086	1.349	1.074	1.371
1.15	1.101	1.205	1.096	1.212	1.089	1.22	1.082	1.229	1.075	1.24	1.066	1.252	1.057	1.266	1.047	1.283	1.036	1.302
1.10	1.056	1.149	1.051	1.155	1.046	1.162	1.04	1.17	1.033	1.18	1.025	1.191	1.017	1.203	1.008	1.217	0.998	1.234
1.05	1.011	1.093	1.007	1.098	1.002	1.105	0.996	1.112	0.99	1.12	0.983	1.13	0.976	1.14	0.968	1.153	0.959	1.167
1.00	0.966	1.037	0.962	1.042	0.958	1.048	0.953	1.054	0.947	1.061	0.941	1.069	0.935	1.079	0.928	1.09	0.92	1.102
0.95	0.92	0.982	0.917	0.987	0.913	0.991	0.909	0.997	0.904	1.003	0.899	1.01	0.893	1.018	0.887	1.027	0.88	1.038
0.91	0.884	0.939	0.88	0.942	0.877	0.947	0.873	0.951	0.869	0.957	0.864	0.963	0.859	0.97	0.853	0.978	0.847	0.987

8	9	10	11	13	14	16	18	20	22
5.696	5.105	4.578	4.109	3.692	3.319	2.988	2.692	2.429	2.194

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
5.658	Infinity	5.067	Infinity	4.54	Infinity	4.071	Infinity	3.653	Infinity	3.281	Infinity	2.95	Infinity	2.654	Infinity	2.391	Infinity	2.156	Infinity
4.829	Infinity	4.398	Infinity	4.002	Infinity	3.638	Infinity	3.306	Infinity	3.003	Infinity	2.727	Infinity	2.476	Infinity	2.248	Infinity	2.043	Infinity
4.211	Infinity	3.885	Infinity	3.577	Infinity	3.288	Infinity	3.019	Infinity	2.767	Infinity	2.535	Infinity	2.32	Infinity	2.122	Infinity	1.94	Infinity
3.733	Infinity	3.479	Infinity	3.234	Infinity	3	Infinity	2.777	Infinity	2.566	Infinity	2.368	Infinity	2.182	Infinity	2.009	Infinity	1.847	Infinity
3.597	Infinity	3.361	Infinity	3.133	Infinity	2.914	Infinity	2.705	Infinity	2.505	Infinity	2.317	Infinity	2.139	Infinity	1.973	Infinity	1.818	Infinity
3.44	Infinity	3.225	Infinity	3.016	Infinity	2.814	Infinity	2.619	Infinity	2.433	Infinity	2.256	Infinity	2.089	Infinity	1.931	Infinity	1.783	Infinity
3.258	Infinity	3.066	Infinity	2.878	Infinity	2.695	Infinity	2.517	Infinity	2.346	Infinity	2.183	Infinity	2.027	Infinity	1.879	Infinity	1.74	Infinity
3.042	Infinity	2.876	Infinity	2.712	Infinity	2.551	Infinity	2.393	Infinity	2.24	Infinity	2.092	Infinity	1.95	Infinity	1.814	Infinity	1.686	Infinity
2.919	145.708	2.767	Infinity	2.616	Infinity	2.467	Infinity	2.32	Infinity	2.177	Infinity	2.038	Infinity	1.904	Infinity	1.775	Infinity	1.653	Infinity
2.784	37.284	2.647	219.19	2.509	Infinity	2.373	Infinity	2.238	Infinity	2.105	Infinity	1.976	Infinity	1.851	Infinity	1.73	Infinity	1.615	Infinity
2.635	19.531	2.513	34.214	2.39	233.694	2.267	Infinity	2.145	Infinity	2.024	Infinity	1.906	Infinity	1.79	Infinity	1.678	Infinity	1.571	Infinity
2.469	12.246	2.364	16.657	2.256	28.176	2.148	131.82	2.039	Infinity	1.931	Infinity	1.825	Infinity	1.72	Infinity	1.618	Infinity	1.519	Infinity
2.398	10.408	2.299	13.401	2.198	19.894	2.096	44.291	1.993	Infinity	1.89	Infinity	1.789	Infinity	1.688	Infinity	1.59	Infinity	1.495	Infinity
2.324	8.921	2.231	11.011	2.136	14.998	2.04	25.493	1.944	125.408	1.847	Infinity	1.75	Infinity	1.655	Infinity	1.561	Infinity	1.47	Infinity
2.245	7.693	2.16	9.181	2.072	11.764	1.982	17.294	1.891	37.206	1.8	Infinity	1.709	Infinity	1.619	Infinity	1.53	Infinity	1.443	Infinity
2.164	6.662	2.084	7.736	2.003	9.468	1.92	12.701	1.836	20.778	1.75	75.629	1.665	Infinity	1.58	Infinity	1.496	Infinity	1.413	Infinity
2.078	5.784	2.005	6.565	1.931	7.755	1.854	9.765	1.776	13.852	1.697	26.504	1.618	Infinity	1.538	Infinity	1.459	Infinity	1.381	Infinity
2.033	5.392	1.964	6.06	1.893	7.051	1.82	8.661	1.745	11.702	1.669	19.516	1.593	82.384	1.516	Infinity	1.439	Infinity	1.364	Infinity
1.987	5.027	1.922	5.598	1.854	6.426	1.784	7.725	1.713	10.033	1.64	15.219	1.567	37.167	1.493	Infinity	1.419	Infinity	1.346	Infinity
1.941	4.686	1.879	5.175	1.814	5.868	1.748	6.922	1.68	8.702	1.61	12.309	1.54	23.388	1.469	Infinity	1.398	Infinity	1.327	Infinity
1.893	4.368	1.834	4.785	1.773	5.366	1.71	6.226	1.645	7.614	1.579	10.209	1.512	16.719	1.444	61.969	1.376	Infinity	1.308	Infinity
1.843	4.069	1.788	4.425	1.731	4.913	1.671	5.616	1.61	6.709	1.547	8.621	1.482	12.784	1.418	28.595	1.352	Infinity	1.287	Infinity
1.793	3.789	1.741	4.092	1.687	4.501	1.631	5.078	1.573	5.944	1.513	7.379	1.452	10.189	1.39	18.066	1.328	160.444	1.266	Infinity
1.741	3.525	1.692	3.783	1.642	4.126	1.589	4.599	1.534	5.289	1.478	6.381	1.42	8.349	1.362	12.906	1.303	34.553	1.243	Infinity
1.687	3.276	1.642	3.495	1.595	3.782	1.546	4.17	1.495	4.722	1.442	5.561	1.387	6.976	1.332	9.842	1.276	18.629	1.219	Infinity
1.632	3.041	1.591	3.226	1.547	3.465	1.501	3.784	1.453	4.226	1.404	4.875	1.353	5.912	1.301	7.814	1.248	12.386	1.194	37.923
1.576	2.819	1.538	2.974	1.497	3.173	1.455	3.434	1.41	3.789	1.364	4.293	1.317	5.064	1.268	6.371	1.218	9.054	1.168	17.56
1.547	2.712	1.511	2.855	1.472	3.036	1.431	3.272	1.388	3.589	1.344	4.034	1.298	4.701	1.251	5.796	1.203	7.909	1.154	13.626
1.518	2.608	1.483	2.739	1.446	2.903	1.407	3.117	1.366	3.4	1.323	3.794	1.279	4.371	1.234	5.293	1.187	6.981	1.14	11.028
1.488	2.507	1.455	2.626	1.42	2.776	1.382	2.968	1.343	3.222	1.302	3.569	1.26	4.071	1.216	4.85	1.171	6.214	1.125	9.184
1.458	2.408	1.427	2.517	1.393	2.653	1.357	2.826	1.32	3.053	1.28	3.36	1.24	3.795	1.197	4.456	1.154	5.568	1.11	7.808
1.428	2.312	1.398	2.411	1.365	2.534	1.331	2.69	1.296	2.893	1.258	3.164	1.219	3.542	1.179	4.105	1.137	5.017	1.095	6.741
1.397	2.219	1.368	2.309	1.338	2.42	1.305	2.56	1.271	2.74	1.235	2.98	1.198	3.309	1.159	3.788	1.12	4.542	1.079	5.89
1.366	2.127	1.338	2.209	1.309	2.309	1.279	2.435	1.246	2.596	1.212	2.806	1.177	3.093	1.14	3.502	1.102	4.128	1.062	5.196
1.334	2.038	1.308	2.112	1.281	2.202	1.252	2.315	1.221	2.458	1.189	2.643	1.155	2.893	1.119	3.243	1.083	3.764	1.046	4.618
1.301	1.951	1.277	2.018	1.251	2.099	1.224	2.2	1.195	2.326	1.164	2.49	1.132	2.706	1.099	3.006	1.064	3.442	1.028	4.13
1.269	1.866	1.246	1.926	1.222	1.999	1.196	2.089	1.168	2.201	1.139	2.344	1.109	2.533	1.077	2.788	1.044	3.154	1.01	3.712
1.235	1.783	1.214	1.837	1.191	1.902	1.167	1.982	1.141	2.081	1.114	2.207	1.085	2.37	1.055	2.589	1.024	2.895	0.991	3.35
1.201	1.702	1.182	1.75	1.16	1.808	1.138	1.879	1.114	1.967	1.088	2.076	1.061	2.218	1.033	2.405	1.003	2.662	0.972	3.034
1.167	1.623	1.149	1.666	1.129	1.718	1.108	1.78	1.085	1.857	1.061	1.953	1.036	2.075	1.009	2.234	0.981	2.45	0.952	2.755
1.132	1.546	1.115	1.584	1.097	1.63	1.077	1.685	1.056	1.752	1.034	1.835	1.01	1.94	0.985	2.076	0.959	2.257	0.932	2.508
1.097	1.47	1.081	1.504	1.064	1.544	1.046	1.592	1.027	1.651	1.006	1.723	0.984	1.813	0.961	1.929	0.936	2.08	0.911	2.286
1.061	1.396	1.046	1.426	1.031	1.461	1.014	1.503	0.996	1.554	0.977	1.616	0.957	1.694	0.935	1.791	0.913	1.918	0.889	2.087
1.024	1.324	1.011	1.35	0.997	1.381	0.982	1.417	0.965	1.461	0.948	1.515	0.929	1.58	0.909	1.663	0.888	1.768	0.866	1.907
0.987	1.253	0.975	1.276	0.962	1.303	0.949	1.334	0.934	1.372	0.918	1.417	0.9	1.473	0.882	1.542	0.863	1.63	0.842	1.744
0.949	1.184	0.939	1.204	0.927	1.227	0.915	1.254	0.901	1.286	0.886	1.325	0.871	1.372	0.854	1.429	0.837	1.502	0.818	1.594
0.911	1.116	0.901	1.133	0.891	1.153	0.88	1.176	0.868	1.203	0.855	1.236	0.841	1.275	0.826	1.323	0.81	1.383	0.793	1.458
0.872	1.05	0.864	1.064	0.854	1.081	0.844	1.1	0.834	1.123	0.822	1.151	0.809	1.183	0.796	1.223	0.782	1.271	0.766	1.332
0.84	0.998	0.833	1.01	0.824	1.025	0.815	1.042	0.806	1.062	0.795	1.085	0.784	1.113	0.771	1.147	0.758	1.188	0.744	1.238

Focal Length 32mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	51'2.13"	45'8.35"	40'9.72"	36'5.48"	32'6.94"	29'1.49"	26'0.56"	23'3.69"	20'10.35"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	51'0.63"	Infinity	45'6.83"	Infinity	40'8.21"	Infinity	36'3.98"	Infinity	32'5.45"	Infinity	29'	Infinity	25'11.07"	Infinity	23'2.17"	Infinity	20'8.86"	Infinity
100'0''	34'2.16"	Infinity	31'8.05"	Infinity	29'3.23"	Infinity	26'11.79"	Infinity	24'9.8"	Infinity	22'9.32"	Infinity	20'10.36"	Infinity	19'0.93"	Infinity	17'5"	Infinity
50'0''	25'8.25"	2100'0.78"	24'3.21"	Infinity	22'10.25"	Infinity	21'5.5"	Infinity	20'1.05"	Infinity	18'9.01"	Infinity	17'5.46"	Infinity	16'2.48"	Infinity	15'0.13"	Infinity
30'0''	19'3.53"	70'1.32"	18'5.99"	84'1.49"	17'8.22"	108'7.03"	16'10.26"	161'6.67"	16'0.19"	359'3.67"	15'2.08"	Infinity	14'3.98"	Infinity	13'5.96"	Infinity	12'8.09"	Infinity
20'0''	14'8.57"	31'9.08"	14'3.12"	34'3.19"	13'9.42"	37'7.37"	13'3.47"	42'3.28"	12'9.32"	49'1.66"	12'2.99"	60'2.03"	11'8.52"	80'7.33"	11'1.94"	130'10.56"	10'7.3"	444'7.91"
15'0''	11'10.68"	20'6.37"	11'7.21"	21'6.23"	11'3.51"	22'9.03"	10'11.61"	24'3.9"	10'7.51"	26'4.59"	10'3.22"	29'1.99"	9'10.77"	33'1.34"	9'6.17"	39'1.09"	9'1.44"	49'1.52"
12'0''	9'11.7"	15'2.05"	9'9.32"	15'8.24"	9'6.76"	16'3.74"	9'4.03"	17'0.95"	9'1.13"	18'0.43"	8'10.06"	19'3.04"	8'6.84"	20'10.11"	8'3.47"	22'11.85"	7'11.96"	26'0.18"
10'0''	8'7.09"	12'0.37"	8'5.37"	12'4.12"	8'3.51"	12'8.58"	8'1.51"	13'1.93"	7'11.37"	13'8.45"	7'9.09"	14'4.48"	7'6.67"	15'2.54"	7'4.11"	16'3.43"	7'1.43"	17'8.39"
9'0''	7'10.35"	10'6.88"	7'8.94"	10'9.7"	7'7.41"	11'1.03"	7'5.75"	11'5"	7'3.97"	11'9.76"	7'2.06"	12'3.56"	7'0.03"	12'10.7"	6'9.87"	13'7.65"	6'7.6"	14'7.11"
8'0''	7'1.32"	9'2.19"	7'0.19"	9'4.25"	6'10.96"	9'6.67"	6'9.63"	9'9.53"	6'8.19"	10'0.93"	6'6.64"	10'5"	6'4.98"	10'9.95"	6'3.21"	11'4.03"	6'1.33"	11'11.63"
7'6''	6'8.68"	8'6.13"	6'7.68"	8'7.87"	6'6.6"	8'9.91"	6'5.42"	9'0.3"	6'4.14"	9'3.13"	6'2.77"	9'6.5"	6'1.29"	9'10.57"	5'11.71"	10'3.53"	5'10.03"	10'9.65"
7'0''	6'3.96"	7'10.26"	6'3.09"	7'11.71"	6'2.14"	8'1.4"	6'1.11"	8'3.38"	6'	8'5.72"	5'10.78"	8'8.48"	5'9.48"	8'11.79"	5'8.08"	9'3.79"	5'6.59"	9'8.69"
6'6''	5'11.15"	7'2.56"	5'10.41"	7'3.76"	5'9.59"	7'5.15"	5'8.7"	7'6.77"	5'7.73"	7'8.66"	5'6.68"	7'10.9"	5'5.55"	8'1.56"	5'4.33"	8'4.76"	5'3.02"	8'8.62"
6'0''	5'6.26"	6'7.03"	5'5.63"	6'8"	5'4.94"	6'9.13"	5'4.18"	6'10.43"	5'3.35"	6'11.95"	5'2.46"	7'1.74"	5'1.49"	7'3.85"	5'0.44"	7'6.36"	4'11.31"	7'9.37"
5'6''	5'1.28"	5'11.67"	5'0.75"	6'0.44"	5'0.18"	6'1.33"	4'11.55"	6'2.36"	4'10.86"	6'3.56"	4'10.1"	6'4.96"	4'9.29"	6'6.6"	4'8.4"	6'8.54"	4'7.44"	6'10.85"
5'0''	4'8.21"	5'4.46"	4'7.78"	5'5.07"	4'7.31"	5'5.76"	4'6.8"	5'6.55"	4'6.23"	5'7.48"	4'5.62"	5'8.55"	4'4.94"	5'9.8"	4'4.21"	5'11.26"	4'3.42"	6'1"
4'9''	4'5.63"	5'0.92"	4'5.25"	5'1.45"	4'4.84"	5'2.05"	4'4.38"	5'2.74"	4'3.87"	5'3.54"	4'3.32"	5'4.47"	4'2.71"	5'5.55"	4'2.06"	5'6.81"	4'1.34"	5'8.3"
4'6''	4'3.04"	4'9.42"	4'2.7"	4'9.87"	4'2.33"	4'10.39"	4'1.92"	4'10.99"	4'1.48"	4'11.68"	4'0.99"	5'0.47"	4'0.45"	5'1.4"	3'11.86"	5'2.48"	3'11.22"	5'3.74"
4'3''	4'0.42"	4'5.95"	4'0.13"	4'6.34"	3'11.8"	4'6.78"	3'11.44"	4'7.29"	3'11.05"	4'7.88"	3'10.61"	4'8.56"	3'10.14"	4'9.35"	3'9.62"	4'10.26"	3'9.06"	4'11.33"
4'0''	3'9.78"	4'2.52"	3'9.52"	4'2.85"	3'9.24"	4'3.22"	3'8.93"	4'3.66"	3'8.58"	4'4.15"	3'8.21"	4'4.72"	3'7.79"	4'5.38"	3'7.34"	4'6.15"	3'6.85"	4'7.04"
3'9''	3'7.11"	3'11.12"	3'6.89"	3'11.4"	3'6.65"	3'11.71"	3'6.38"	4'0.07"	3'6.08"	4'0.49"	3'5.76"	4'0.96"	3'5.4"	4'1.51"	3'5.01"	4'2.14"	3'4.59"	4'2.88"
3'6''	3'4.41"	3'7.76"	3'4.23"	3'7.99"	3'4.02"	3'8.25"	3'3.8"	3'8.55"	3'3.55"	3'8.89"	3'3.27"	3'9.28"	3'2.97"	3'9.72"	3'2.64"	3'10.24"	3'2.27"	3'10.83"
3'3''	3'1.69"	3'4.44"	3'1.54"	3'4.62"	3'1.37"	3'4.83"	3'1.18"	3'5.07"	3'0.98"	3'5.35"	3'0.75"	3'5.66"	3'0.49"	3'6.02"	3'0.22"	3'6.43"	2'11.91"	3'6.91"
3'0''	2'10.95"	3'1.15"	2'10.82"	3'1.29"	2'10.69"	3'1.46"	2'10.53"	3'1.65"	2'10.36"	3'1.87"	2'10.18"	3'2.11"	2'9.97"	3'2.39"	2'9.74"	3'2.72"	2'9.49"	3'3.09"

8	9	10	11	13	14	16	18	20	22
18'8.25"	16'8.98"	15'0.24"	13'5.77"	12'1.35"	10'10.67"	9'9.64"	8'9.98"	7'11.63"	7'2.38"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
18'6.74"	Infinity	16'7.48"	Infinity	14'10.75"	Infinity	13'4.29"	Infinity	11'11.84"	Infinity	10'9.18"	Infinity	9'8.12"	Infinity	8'8.49"	Infinity	7'10.13"	Infinity	7'0.89"	Infinity
15'10.54"	Infinity	14'5.51"	Infinity	13'1.85"	Infinity	11'11.49"	Infinity	10'10.35"	Infinity	9'10.37"	Infinity	8'11.47"	Infinity	8'1.57"	Infinity	7'4.6"	Infinity	6'8.49"	Infinity
13'10.46"	Infinity	12'9.51"	Infinity	11'9.31"	Infinity	10'9.86"	Infinity	9'11.17"	Infinity	9'1.22"	Infinity	8'4.01"	Infinity	7'7.51"	Infinity	6'11.69"	Infinity	6'4.51"	Infinity
11'10.44"	Infinity	11'1.05"	Infinity	10'3.97"	Infinity	9'7.25"	Infinity	8'10.92"	Infinity	8'3"	Infinity	7'7.52"	Infinity	7'0.49"	Infinity	6'5.91"	Infinity	5'11.77"	Infinity
10'0.65"	Infinity	9'6.02"	Infinity	8'11.46"	Infinity	8'5.02"	Infinity	7'10.72"	Infinity	7'4.62"	Infinity	6'10.73"	Infinity	6'5.08"	Infinity	5'11.7"	Infinity	5'6.59"	Infinity
8'8.62"	69'3.23"	8'3.73"	129'5.41"	7'10.82"	9514'0.49"	7'5.9"	Infinity	7'1.01"	Infinity	6'8.19"	Infinity	6'3.46"	Infinity	5'10.85"	Infinity	5'6.39"	Infinity	5'2.1"	Infinity
7'8.34"	30'6.91"	7'4.62"	38'1.93"	7'0.82"	53'1.41"	6'8.97"	95'9.62"	6'5.09"	1127'0.2"	6'1.21"	Infinity	5'9.35"	Infinity	5'5.54"	Infinity	5'1.8"	Infinity	4'10.16"	Infinity
6'10.62"	19'7.53"	6'7.72"	22'4.73"	6'4.72"	26'7.89"	6'1.64"	34'0.21"	5'10.5"	49'7.34"	5'7.33"	103'11.58"	5'4.14"	Infinity	5'0.96"	Infinity	4'9.8"	Infinity	4'6.68"	Infinity
6'5.2"	15'10.19"	6'2.71"	17'6.75"	6'0.12"	20'0.23"	5'9.44"	23'9.62"	5'6.7"	30'3.88"	5'3.91"	44'1.22"	5'1.08"	91'8.69"	4'10.24"	Infinity	4'7.4"	Infinity	4'4.58"	Infinity
5'11.35"	12'9.33"	5'9.26"	13'10.03"	5'7.08"	15'3.26"	5'4.82"	17'3.75"	5'2.48"	20'5.01"	5'0.08"	25'7.99"	4'9.63"	36'3.98"	4'7.15"	69'3.8"	4'4.66"	Infinity	4'2.16"	Infinity
5'8.24"	11'5.37"	5'6.36"	12'3.3"	5'4.38"	13'4.46"	5'2.33"	14'10.58"	5'0.19"	17'0.91"	4'9.99"	20'6.31"	4'7.74"	26'8.19"	4'5.45"	40'7.64"	4'3.14"	101'7.78"	4'0.81"	Infinity
5'5"	10'2.77"	5'3.32"	10'10.49"	5'1.55"	11'8.5"	4'11.7"	12'9.91"	4'9.77"	14'4.66"	4'7.78"	16'8.49"	4'5.72"	20'5.73"	4'3.63"	27'7.27"	4'1.5"	45'11.64"	3'11.35"	196'1.77"
5'1.62"	9'1.38"	5'0.14"	9'7.32"	4'10.58"	10'2.88"	4'8.93"	11'0.77"	4'7.21"	12'2.15"	4'5.42"	13'9.11"	4'3.57"	16'1.81"	4'1.67"	20'1.94"	3'11.73"	28'2.32"	3'9.77"	52'0.58"
4'10.1"	8'1.04"	4'8.81"	8'5.56"	4'7.44"	8'11.21"	4'6"	9'6.46"	4'4.48"	10'3.98"	4'2.9"	11'4.96"	4'1.26"	12'11.55"	3'11.56"	15'4.15"	3'9.82"	19'5.33"	3'8.05"	28'0.8"
4'6.42"	7'1.63"	4'5.32"	7'5.02"	4'4.14"	7'9.19"	4'2.9"	8'2.44"	4'1.59"	8'9.16"	4'0.21"	9'6.04"	3'10.77"	10'6.19"	3'9.28"	11'11.69"	3'7.75"	14'2.87"	3'6.17"	18'2.34"
4'2.57"	6'3.06"	4'1.65"	6'5.55"	4'0.66"	6'8.57"	3'11.62"	7'0.31"	3'10.5"	7'4.99"	3'9.33"	7'11"	3'8.1"	8'6.94"	3'6.82"	9'5.8"	3'5.48"	10'9.44"	3'4.11"	12'9.73"
4'0.57"	5'10.06"	3'11.74"	6'0.17"	3'10.85"	6'2.72"	3'9.9"	6'5.85"	3'8.89"	6'9.73"	3'7.81"	7'2.65"	3'6.69"	7'9.04"	3'5.5"	8'5.59"	3'4.27"	9'5.56"	3'3"	10'11.32"
3'10.53"	5'5.24"	3'9.79"	5'7.02"	3'8.99"	5'9.15"	3'8.13"	5'11.75"	3'7.21"	6'2.95"	3'6.24"	6'6.95"	3'5.21"	7'0.07"	3'4.13"	7'6.8"	3'3.01"	8'3.96"	3'1.84"	9'5.06"
3'8.45"	5'0.58"	3'7.78"	5'2.07"	3'7.07"	5'3.84"	3'6.3"	5'5.98"	3'5.48"	5'8.59"	3'4.61"	5'11.83"	3'3.68"	6'3.91"	3'2.7"	6'9.18"	3'1.68"	7'4.19"	3'0.62"	8'1.89"
3'6.31"	4'8.08"	3'5.73"	4'9.31"	3'5.09"	4'10.77"	3'4.42"	5'0.52"	3'3.69"	5'2.63"	3'2.91"	5'5.23"	3'2.08"	5'8.46"	3'1.21"	6'0.56"	3'0.29"	6'5.9"	2'11.33"	7'1.09"
3'4.12"	4'3.73"	3'3.61"	4'4.74"	3'3.06"	4'5.92"	3'2.47"	4'7.33"	3'1.83"	4'9.03"	3'1.15"	4'11.08"	3'0.42"	5'1.62"	2'11.64"	5'4.79"	2'10.83"	5'8.84"	2'9.97"	6'2.15"
3'1.88"	3'11.53"	3'1.44"	4'0.34"	3'0.97"	4'1.29"	3'0.46"	4'2.41"	2'11.91"	4'3.75"	2'11.31"	4'5.36"	2'10.68"	4'7.32"	2'10"	4'9.74"	2'9.29"	5'0.78"	2'8.53"	5'4.69"
2'11.58"	3'7.46"	2'11.21"	3'8.1"	2'10.81"	3'8.85"	2'10.38"	3'9.73"	2'9.91"	3'10.77"	2'9.41"	4'0.01"	2'8.87"	4'1.5"	2'8.29"	4'3.33"	2'7.67"	4'5.58"	2'7.01"	4'8.42"
2'9.22"	3'3.52"	2'8.92"	3'4.01"	2'8.59"	3'4.59"	2'8.23"	3'5.27"	2'7.84"	3'6.06"	2'7.42"	3'7"	2'6.97"	3'8.11"	2'6.48"	3'9.46"	2'5.96"	3'11.11"	2'5.4"	4'1.14"

Focal Length 33mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	16.574	14.796	13.212	11.801	10.544	9.424	8.426	7.537	6.745

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	16.535	Infinity	14.758	Infinity	13.174	Infinity	11.763	Infinity	10.506	Infinity	9.386	Infinity	8.388	Infinity	7.499	Infinity	6.707	Infinity
30.00	10.779	Infinity	10.006	Infinity	9.264	Infinity	8.555	Infinity	7.88	Infinity	7.243	Infinity	6.643	Infinity	6.082	Infinity	5.558	Infinity
15.00	7.995	153.063	7.569	Infinity	7.143	Infinity	6.721	Infinity	6.304	Infinity	5.896	Infinity	5.499	Infinity	5.115	Infinity	4.745	Infinity
10.00	6.353	24.432	6.086	29.782	5.812	39.537	5.534	62.679	5.253	184.429	4.971	Infinity	4.69	Infinity	4.413	Infinity	4.139	Infinity
9.00	5.946	19.087	5.713	22.181	5.472	27.137	5.226	36.274	4.976	58.481	4.724	189.192	4.471	Infinity	4.219	Infinity	3.97	Infinity
8.00	5.505	14.988	5.306	16.816	5.099	19.495	4.887	23.763	4.669	31.552	4.448	50.076	4.224	148.579	4	Infinity	3.777	Infinity
7.00	5.026	11.746	4.861	12.828	4.688	14.314	4.51	16.463	4.325	19.82	4.137	25.743	3.944	38.856	3.75	91.561	3.555	Infinity
6.00	4.503	9.116	4.372	9.746	4.234	10.569	4.089	11.68	3.939	13.252	3.783	15.624	3.624	19.582	3.461	27.435	3.296	50.21
5.50	4.224	7.98	4.109	8.454	3.987	9.061	3.86	9.858	3.727	10.945	3.589	12.499	3.446	14.885	3.3	18.98	3.15	27.552
5.00	3.931	6.942	3.832	7.294	3.727	7.736	3.617	8.304	3.501	9.053	3.379	10.079	3.254	11.559	3.124	13.857	2.991	17.875
4.50	3.624	5.989	3.54	6.246	3.452	6.564	3.358	6.963	3.259	7.475	3.155	8.152	3.046	9.08	2.934	10.42	2.818	12.508
4.00	3.301	5.113	3.233	5.296	3.16	5.519	3.082	5.793	3	6.138	2.913	6.579	2.821	7.161	2.726	7.955	2.627	9.096
3.80	3.167	4.781	3.105	4.94	3.038	5.132	2.967	5.367	2.891	5.659	2.81	6.029	2.726	6.509	2.637	7.154	2.545	8.056
3.60	3.031	4.46	2.974	4.597	2.914	4.761	2.848	4.961	2.779	5.207	2.705	5.516	2.627	5.912	2.545	6.434	2.46	7.148
3.40	2.892	4.149	2.841	4.265	2.786	4.405	2.727	4.574	2.663	4.78	2.596	5.037	2.525	5.362	2.45	5.784	2.371	6.348
3.20	2.75	3.846	2.704	3.946	2.655	4.064	2.601	4.205	2.544	4.377	2.483	4.589	2.419	4.854	2.351	5.193	2.279	5.639
3.00	2.605	3.553	2.564	3.637	2.52	3.735	2.473	3.853	2.422	3.995	2.367	4.169	2.309	4.384	2.248	4.655	2.183	5.005
2.90	2.531	3.41	2.493	3.486	2.452	3.576	2.407	3.683	2.359	3.812	2.308	3.969	2.253	4.162	2.194	4.403	2.133	4.713
2.80	2.457	3.269	2.421	3.338	2.382	3.42	2.34	3.517	2.295	3.633	2.247	3.774	2.195	3.947	2.14	4.162	2.082	4.436
2.70	2.382	3.129	2.348	3.192	2.312	3.267	2.273	3.354	2.231	3.459	2.185	3.586	2.137	3.74	2.085	3.931	2.03	4.172
2.60	2.306	2.992	2.275	3.049	2.241	3.116	2.204	3.195	2.165	3.29	2.122	3.403	2.077	3.54	2.028	3.709	1.977	3.921
2.50	2.229	2.857	2.2	2.908	2.169	2.969	2.135	3.04	2.098	3.124	2.058	3.225	2.016	3.347	1.971	3.496	1.922	3.682
2.40	2.151	2.723	2.125	2.77	2.096	2.824	2.064	2.887	2.03	2.963	1.993	3.052	1.954	3.16	1.912	3.292	1.867	3.454
2.30	2.073	2.592	2.048	2.633	2.022	2.682	1.993	2.738	1.961	2.805	1.927	2.884	1.891	2.98	1.851	3.095	1.81	3.236
2.20	1.993	2.462	1.971	2.499	1.947	2.542	1.92	2.592	1.891	2.651	1.86	2.721	1.826	2.805	1.79	2.905	1.751	3.028
2.10	1.913	2.334	1.893	2.367	1.87	2.405	1.846	2.449	1.82	2.501	1.791	2.562	1.76	2.635	1.727	2.723	1.691	2.829
2.00	1.832	2.208	1.813	2.237	1.793	2.27	1.771	2.309	1.747	2.354	1.721	2.408	1.693	2.471	1.663	2.547	1.63	2.638
1.95	1.791	2.145	1.774	2.172	1.754	2.204	1.733	2.24	1.711	2.282	1.686	2.332	1.659	2.391	1.63	2.461	1.599	2.546
1.90	1.75	2.083	1.733	2.109	1.715	2.138	1.695	2.172	1.674	2.211	1.65	2.258	1.625	2.312	1.597	2.377	1.567	2.455
1.85	1.708	2.022	1.693	2.045	1.676	2.073	1.657	2.104	1.636	2.141	1.614	2.184	1.59	2.235	1.564	2.295	1.535	2.367
1.80	1.667	1.961	1.652	1.983	1.636	2.008	1.618	2.037	1.599	2.071	1.578	2.111	1.555	2.158	1.53	2.214	1.503	2.28
1.75	1.625	1.9	1.611	1.92	1.596	1.944	1.579	1.971	1.561	2.003	1.541	2.039	1.519	2.083	1.496	2.134	1.47	2.195
1.70	1.583	1.839	1.57	1.858	1.555	1.88	1.54	1.905	1.522	1.935	1.504	1.969	1.483	2.008	1.461	2.055	1.437	2.111
1.65	1.541	1.78	1.528	1.797	1.515	1.817	1.5	1.84	1.484	1.867	1.466	1.899	1.447	1.935	1.426	1.978	1.403	2.029
1.60	1.498	1.72	1.487	1.736	1.474	1.755	1.46	1.776	1.445	1.801	1.428	1.83	1.41	1.863	1.391	1.903	1.369	1.949
1.55	1.455	1.661	1.445	1.676	1.433	1.693	1.42	1.712	1.406	1.735	1.39	1.761	1.373	1.792	1.355	1.828	1.335	1.87
1.50	1.412	1.602	1.402	1.616	1.391	1.631	1.379	1.649	1.366	1.67	1.352	1.694	1.336	1.722	1.319	1.755	1.3	1.793
1.45	1.369	1.544	1.36	1.556	1.35	1.57	1.338	1.587	1.326	1.606	1.313	1.628	1.298	1.653	1.282	1.683	1.265	1.718
1.40	1.325	1.486	1.317	1.497	1.307	1.51	1.297	1.525	1.286	1.542	1.273	1.562	1.26	1.585	1.245	1.612	1.229	1.643
1.35	1.282	1.428	1.274	1.438	1.265	1.45	1.256	1.464	1.245	1.479	1.234	1.497	1.221	1.518	1.207	1.542	1.192	1.57
1.30	1.238	1.371	1.23	1.38	1.222	1.391	1.214	1.403	1.204	1.417	1.194	1.433	1.182	1.452	1.169	1.474	1.155	1.499
1.25	1.193	1.314	1.187	1.322	1.179	1.332	1.172	1.343	1.163	1.356	1.153	1.37	1.142	1.387	1.131	1.406	1.118	1.428
1.20	1.149	1.258	1.143	1.265	1.136	1.274	1.129	1.283	1.121	1.295	1.112	1.308	1.103	1.322	1.092	1.34	1.08	1.359
1.15	1.104	1.201	1.098	1.208	1.093	1.216	1.086	1.224	1.079	1.234	1.071	1.246	1.062	1.259	1.053	1.274	1.042	1.292
1.10	1.059	1.146	1.054	1.152	1.049	1.158	1.043	1.166	1.036	1.175	1.029	1.185	1.021	1.196	1.013	1.21	1.003	1.225
1.05	1.013	1.09	1.009	1.095	1.004	1.101	0.999	1.108	0.993	1.116	0.987	1.125	0.98	1.135	0.972	1.146	0.964	1.16
1.00	0.968	1.035	0.964	1.04	0.96	1.045	0.955	1.051	0.95	1.057	0.944	1.065	0.938	1.074	0.931	1.084	0.924	1.095
0.95	0.922	0.98	0.919	0.984	0.915	0.989	0.911	0.994	0.906	1	0.901	1.006	0.896	1.014	0.89	1.022	0.883	1.032
0.91	0.885	0.937	0.882	0.94	0.879	0.944	0.875	0.949	0.871	0.954	0.867	0.96	0.862	0.966	0.856	0.974	0.85	0.982

8	9	10	11	13	14	16	18	20	22
6.04	5.411	4.851	4.352	3.908	3.512	3.159	2.845	2.565	2.316

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
6.002	Infinity	5.373	Infinity	4.813	Infinity	4.314	Infinity	3.87	Infinity	3.474	Infinity	3.121	Infinity	2.807	Infinity	2.527	Infinity	2.277	Infinity
5.072	Infinity	4.623	Infinity	4.209	Infinity	3.828	Infinity	3.479	Infinity	3.16	Infinity	2.87	Infinity	2.606	Infinity	2.366	Infinity	2.149	Infinity
4.392	Infinity	4.056	Infinity	3.738	Infinity	3.44	Infinity	3.16	Infinity	2.898	Infinity	2.656	Infinity	2.432	Infinity	2.225	Infinity	2.034	Infinity
3.872	Infinity	3.613	Infinity	3.363	Infinity	3.123	Infinity	2.894	Infinity	2.676	Infinity	2.471	Infinity	2.279	Infinity	2.099	Infinity	1.931	Infinity
3.725	Infinity	3.486	Infinity	3.253	Infinity	3.029	Infinity	2.815	Infinity	2.61	Infinity	2.415	Infinity	2.232	Infinity	2.06	Infinity	1.899	Infinity
3.556	Infinity	3.339	Infinity	3.127	Infinity	2.92	Infinity	2.722	Infinity	2.531	Infinity	2.349	Infinity	2.176	Infinity	2.013	Infinity	1.86	Infinity
3.36	Infinity	3.167	Infinity	2.977	Infinity	2.791	Infinity	2.611	Infinity	2.436	Infinity	2.268	Infinity	2.108	Infinity	1.956	Infinity	1.813	Infinity
3.13	833.453	2.964	Infinity	2.799	Infinity	2.636	Infinity	2.476	Infinity	2.32	Infinity	2.169	Infinity	2.024	Infinity	1.885	Infinity	1.753	Infinity
3	56.372	2.848	Infinity	2.696	Infinity	2.546	Infinity	2.397	Infinity	2.252	Infinity	2.11	Infinity	1.974	Infinity	1.842	Infinity	1.716	Infinity
2.856	26.611	2.72	59.639	2.582	Infinity	2.445	Infinity	2.309	Infinity	2.175	Infinity	2.044	Infinity	1.917	Infinity	1.793	Infinity	1.675	Infinity
2.699	16.177	2.578	24.232	2.455	55.686	2.332	Infinity	2.21	Infinity	2.088	Infinity	1.968	Infinity	1.851	Infinity	1.737	Infinity	1.627	Infinity
2.525	10.859	2.42	13.913	2.313	20.435	2.205	43.7	2.097	Infinity	1.988	Infinity	1.881	Infinity	1.775	Infinity	1.671	Infinity	1.57	Infinity
2.45	9.396	2.352	11.579	2.251	15.723	2.15	26.491	2.047	119.915	1.944	Infinity	1.842	Infinity	1.741	Infinity	1.642	Infinity	1.545	Infinity
2.371	8.173	2.28	9.76	2.187	12.517	2.091	18.43	1.995	39.834	1.898	Infinity	1.801	Infinity	1.705	Infinity	1.61	Infinity	1.518	Infinity
2.29	7.136	2.205	8.303	2.118	10.195	2.029	13.755	1.939	22.815	1.848	91.468	1.757	Infinity	1.666	Infinity	1.576	Infinity	1.488	Infinity
2.204	6.245	2.127	7.11	2.046	8.436	1.964	10.702	1.88	15.413	1.795	30.913	1.71	Infinity	1.625	Infinity	1.54	Infinity	1.456	Infinity
2.115	5.47	2.044	6.114	1.97	7.056	1.895	8.553	1.818	11.271	1.739	17.668	1.659	50.166	1.58	Infinity	1.5	Infinity	1.422	Infinity
2.068	5.12	2.001	5.676	1.931	6.473	1.859	7.7	1.785	9.817	1.709	14.292	1.633	29.795	1.556	Infinity	1.479	Infinity	1.403	Infinity
2.021	4.792	1.957	5.271	1.89	5.946	1.821	6.957	1.751	8.625	1.679	11.864	1.605	20.765	1.532	146.403	1.458	Infinity	1.384	Infinity
1.972	4.483	1.912	4.897	1.849	5.468	1.783	6.304	1.716	7.63	1.647	10.034	1.577	15.669	1.506	43.789	1.435	Infinity	1.364	Infinity
1.922	4.192	1.865	4.548	1.805	5.033	1.744	5.726	1.68	6.788	1.614	8.606	1.547	12.395	1.479	24.962	1.411	Infinity	1.343	Infinity
1.871	3.918	1.817	4.224	1.761	4.635	1.703	5.21	1.642	6.065	1.58	7.46	1.516	10.114	1.452	17.051	1.387	79.778	1.321	Infinity
1.819	3.659	1.768	3.921	1.716	4.269	1.661	4.746	1.603	5.438	1.544	6.52	1.484	8.434	1.423	12.696	1.361	30.173	1.298	Infinity
1.765	3.413	1.718	3.638	1.669	3.932	1.617	4.328	1.563	4.889	1.508	5.735	1.451	7.145	1.393	9.939	1.334	18.013	1.274	270.748
1.71	3.181	1.666	3.372	1.62	3.62	1.572	3.949	1.522	4.404	1.47	5.07	1.416	6.125	1.361	8.038	1.305	12.516	1.249	34.795
1.653	2.96	1.613	3.123	1.57	3.331	1.525	3.604	1.479	3.973	1.43	4.499	1.38	5.298	1.328	6.647	1.275	9.384	1.222	17.816
1.595	2.75	1.558	2.888	1.519	3.062	1.477	3.288	1.434	3.587	1.389	4.003	1.342	4.613	1.294	5.585	1.244	7.361	1.194	11.6
1.566	2.649	1.53	2.775	1.492	2.935	1.453	3.139	1.411	3.409	1.367	3.779	1.322	4.313	1.276	5.143	1.228	6.596	1.179	9.767
1.536	2.55	1.502	2.666	1.466	2.812	1.428	2.997	1.388	3.24	1.346	3.569	1.302	4.037	1.257	4.747	1.211	5.946	1.164	8.376
1.505	2.454	1.473	2.56	1.438	2.693	1.402	2.861	1.364	3.079	1.324	3.372	1.282	3.782	1.239	4.392	1.194	5.388	1.149	7.283
1.474	2.36	1.443	2.457	1.411	2.578	1.376	2.73	1.339	2.926	1.301	3.186	1.261	3.546	1.22	4.071	1.177	4.902	1.133	6.402
1.443	2.268	1.414	2.357	1.383	2.466	1.349	2.603	1.315	2.779	1.278	3.011	1.24	3.326	1.2	3.778	1.159	4.475	1.117	5.678
1.411	2.178	1.383	2.259	1.354	2.358	1.322	2.482	1.289	2.64	1.254	2.845	1.218	3.122	1.18	3.512	1.14	4.098	1.1	5.07
1.379	2.09	1.353	2.164	1.325	2.254	1.295	2.365	1.263	2.506	1.23	2.688	1.195	2.931	1.159	3.268	1.122	3.763	1.083	4.555
1.346	2.005	1.322	2.071	1.295	2.153	1.267	2.253	1.237	2.378	1.206	2.54	1.172	2.752	1.138	3.043	1.102	3.462	1.065	4.111
1.313	1.921	1.29	1.981	1.265	2.054	1.239	2.144	1.21	2.256	1.18	2.399	1.149	2.585	1.116	2.836	1.082	3.19	1.047	3.725
1.28	1.839	1.258	1.893	1.234	1.959	1.209	2.039	1.183	2.139	1.155	2.265	1.125	2.427	1.094	2.644	1.061	2.945	1.028	3.386
1.246	1.759	1.225	1.808	1.203	1.867	1.18	1.938	1.155	2.026	1.128	2.137	1.1	2.279	1.071	2.466	1.04	2.721	1.008	3.087
1.211	1.68	1.192	1.724	1.172	1.777	1.15	1.84	1.126	1.918	1.101	2.016	1.075	2.139	1.047	2.3	1.018	2.516	0.988	2.82
1.176	1.603	1.158	1.643	1.139	1.69	1.119	1.746	1.097	1.815	1.074	1.9	1.049	2.007	1.023	2.145	0.996	2.328	0.968	2.581
1.14	1.528	1.124	1.563	1.107	1.605	1.088	1.655	1.067	1.715	1.046	1.789	1.023	1.882	0.998	2	0.973	2.156	0.946	2.366
1.104	1.455	1.089	1.486	1.073	1.522	1.056	1.566	1.037	1.619	1.017	1.684	0.995	1.764	0.973	1.865	0.949	1.996	0.924	2.17
1.068	1.383	1.054	1.41	1.039	1.442	1.023	1.48	1.006	1.526	0.987	1.582	0.967	1.651	0.947	1.737	0.924	1.848	0.901	1.993
1.031	1.312	1.018	1.336	1.004	1.364	0.99	1.397	0.974	1.437	0.957	1.486	0.939	1.544	0.919	1.618	0.899	1.71	0.877	1.83
0.993	1.243	0.981	1.264	0.969	1.288	0.956	1.317	0.941	1.351	0.926	1.393	0.909	1.443	0.892	1.505	0.873	1.582	0.853	1.681
0.954	1.175	0.944	1.193	0.933	1.214	0.921	1.239	0.908	1.268	0.894	1.304	0.879	1.346	0.863	1.398	0.846	1.462	0.828	1.543
0.915	1.109	0.906	1.124	0.897	1.142	0.886	1.163	0.874	1.188	0.861	1.218	0.848	1.254	0.833	1.297	0.818	1.35	0.801	1.416
0.876	1.044	0.868	1.057	0.859	1.072	0.85	1.09	0.839	1.111	0.828	1.136	0.816	1.166	0.803	1.201	0.789	1.245	0.774	1.299
0.844	0.992	0.837	1.004	0.829	1.017	0.82	1.033	0.811	1.051	0.801	1.072	0.79	1.098	0.778	1.128	0.765	1.165	0.752	1.211

Focal Length 33mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	54'4.52"	48'6.52"	43'4.16"	38'8.61"	34'7.12"	30'11.02"	27'7.73"	24'8.73"	22'1.55"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	54'3"	Infinity	48'5.01"	Infinity	43'2.65"	Infinity	38'7.1"	Infinity	34'5.61"	Infinity	30'9.52"	Infinity	27'6.24"	Infinity	24'7.24"	Infinity	22'0.06"	Infinity
100'0''	35'6.7"	Infinity	32'11.96"	Infinity	30'6.44"	Infinity	28'2.24"	Infinity	25'11.47"	Infinity	23'10.18"	Infinity	21'10.41"	Infinity	20'0.16"	Infinity	18'3.43"	Infinity
50'0''	26'5.33"	602'0.16"	25'0.29"	Infinity	23'7.27"	Infinity	22'2.39"	Infinity	20'9.77"	Infinity	19'5.5"	Infinity	18'1.67"	Infinity	16'10.38"	Infinity	15'7.68"	Infinity
30'0''	19'8.49"	64'10.26"	18'11.1"	75'9.83"	18'1.44"	93'7.9"	17'3.58"	127'5.57"	16'5.56"	214'11.83"	15'7.46"	954'11.93"	14'9.34"	Infinity	13'11.27"	Infinity	13'1.31"	Infinity
20'0''	14'11.35"	30'7.99"	14'6.05"	32'10.15"	14'0.48"	35'8.46"	13'6.66"	39'7.07"	13'0.61"	45'1.51"	12'6.37"	53'6.98"	11'11.97"	67'11.53"	11'5.44"	97'6.48"	10'10.83"	192'1.27"
15'0''	12'0.44"	20'1"	11'9.08"	20'11.61"	11'5.5"	22'0.74"	11'1.71"	23'5.28"	10'9.71"	25'2.6"	10'5.52"	27'6.9"	10'1.15"	30'9.96"	9'8.62"	35'6.91"	9'3.96"	43'0.88"
12'0''	10'0.89"	14'11.19"	9'10.6"	15'4.81"	9'8.13"	15'11.58"	9'5.49"	16'7.82"	9'2.68"	17'6.01"	8'11.7"	18'6.83"	8'8.56"	19'11.33"	8'5.27"	21'9.17"	8'1.83"	24'3.22"
10'0''	8'7.94"	11'10.63"	8'6.29"	12'2.06"	8'4.51"	12'6.12"	8'2.58"	12'10.97"	8'0.52"	13'4.84"	7'10.31"	14'0.01"	7'7.96"	14'8.92"	7'5.48"	15'8.19"	7'2.86"	16'10.79"
9'0''	7'11.06"	10'5.56"	7'9.7"	10'8.15"	7'8.23"	10'11.2"	7'6.64"	11'2.81"	7'4.92"	11'7.13"	7'3.08"	12'0.35"	7'1.12"	12'6.73"	6'11.02"	13'2.65"	6'8.81"	14'0.68"
8'0''	7'1.87"	9'1.22"	7'0.79"	9'3.12"	6'11.62"	9'5.35"	6'10.34"	9'7.96"	6'8.96"	9'11.06"	6'7.47"	10'2.75"	6'5.87"	10'7.21"	6'4.16"	11'0.65"	6'2.34"	11'7.39"
7'6''	6'9.17"	8'5.31"	6'8.22"	8'6.92"	6'7.18"	8'8.8"	6'6.05"	8'10.99"	6'4.83"	9'1.58"	6'3.51"	9'4.65"	6'2.08"	9'8.33"	6'0.55"	10'0.78"	5'10.92"	10'6.25"
7'0''	6'4.38"	7'9.57"	6'3.56"	7'10.92"	6'2.65"	8'0.48"	6'1.66"	8'2.3"	6'0.59"	8'4.44"	5'11.43"	8'6.96"	5'10.18"	8'9.97"	5'8.83"	9'1.59"	5'7.39"	9'5.98"
6'6''	5'11.52"	7'2"	5'10.81"	7'3.11"	5'10.03"	7'4.39"	5'9.18"	7'5.88"	5'8.25"	7'7.63"	5'7.24"	7'9.68"	5'6.15"	8'0.1"	5'4.98"	8'3"	5'3.72"	8'6.49"
6'0''	5'6.57"	6'6.57"	5'5.97"	6'7.48"	5'5.31"	6'8.52"	5'4.58"	6'9.72"	5'3.8"	6'11.12"	5'2.94"	7'0.76"	5'2"	7'2.69"	5'1"	7'4.98"	4'11.91"	7'7.72"
5'6''	5'1.53"	5'11.3"	5'1.03"	6'0.02"	5'0.49"	6'0.85"	4'11.88"	6'1.8"	4'11.22"	6'2.91"	4'10.51"	6'4.2"	4'9.72"	6'5.71"	4'8.87"	6'7.48"	4'7.95"	6'9.59"
5'0''	4'8.41"	5'4.18"	4'8.01"	5'4.74"	4'7.56"	5'5.38"	4'7.07"	5'6.12"	4'6.53"	5'6.98"	4'5.94"	5'7.97"	4'5.3"	5'9.12"	4'4.6"	5'10.47"	4'3.84"	6'0.05"
4'9''	4'5.82"	5'0.67"	4'5.46"	5'1.16"	4'5.06"	5'1.72"	4'4.62"	5'2.37"	4'4.14"	5'3.11"	4'3.61"	5'3.97"	4'3.04"	5'4.96"	4'2.41"	5'6.13"	4'1.72"	5'7.49"
4'6''	4'3.2"	4'9.2"	4'2.88"	4'9.63"	4'2.53"	4'10.11"	4'2.14"	4'10.67"	4'1.71"	4'11.31"	4'1.25"	5'0.04"	4'0.73"	5'0.9"	4'0.17"	5'1.89"	3'11.56"	5'3.06"
4'3''	4'0.56"	4'5.76"	4'0.28"	4'6.13"	3'11.97"	4'6.54"	3'11.63"	4'7.02"	3'11.26"	4'7.57"	3'10.84"	4'8.2"	3'10.39"	4'8.92"	3'9.9"	4'9.77"	3'9.36"	4'10.75"
4'0''	3'9.9"	4'2.36"	3'9.66"	4'2.67"	3'9.39"	4'3.02"	3'9.09"	4'3.42"	3'8.77"	4'3.89"	3'8.41"	4'4.42"	3'8.01"	4'5.03"	3'7.58"	4'5.74"	3'7.11"	4'6.56"
3'9''	3'7.21"	3'10.99"	3'7"	3'11.25"	3'6.77"	3'11.54"	3'6.52"	3'11.88"	3'6.24"	4'0.27"	3'5.93"	4'0.71"	3'5.59"	4'1.22"	3'5.22"	4'1.8"	3'4.81"	4'2.48"
3'6''	3'4.5"	3'7.65"	3'4.32"	3'7.87"	3'4.13"	3'8.11"	3'3.92"	3'8.39"	3'3.68"	3'8.71"	3'3.42"	3'9.07"	3'3.13"	3'9.48"	3'2.81"	3'9.96"	3'2.47"	3'10.52"
3'3''	3'1.76"	3'4.35"	3'1.62"	3'4.52"	3'1.46"	3'4.72"	3'1.28"	3'4.95"	3'1.08"	3'5.2"	3'0.87"	3'5.49"	3'0.63"	3'5.83"	3'0.36"	3'6.21"	3'0.07"	3'6.65"
3'0''	2'11"	3'1.08"	2'10.89"	3'1.22"	2'10.76"	3'1.37"	2'10.61"	3'1.55"	2'10.45"	3'1.75"	2'10.28"	3'1.98"	2'10.08"	3'2.25"	2'9.86"	3'2.55"	2'9.62"	3'2.89"

8	9	10	11	13	14	16	18	20	22
19'9.8"	17'9.03"	15'10.98"	14'3.34"	12'9.86"	11'6.27"	10'4.37"	9'4.01"	8'4.98"	7'7.18"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
19'8.29"	Infinity	17'7.54"	Infinity	15'9.49"	Infinity	14'1.85"	Infinity	12'8.35"	Infinity	11'4.77"	Infinity	10'2.88"	Infinity	9'2.5"	Infinity	8'3.48"	Infinity	7'5.66"	Infinity
16'8.19"	Infinity	15'2.41"	Infinity	13'10.02"	Infinity	12'6.97"	Infinity	11'5.19"	Infinity	10'4.6"	Infinity	9'5.13"	Infinity	8'6.71"	Infinity	7'9.25"	Infinity	7'0.69"	Infinity
14'5.65"	Infinity	13'4.31"	Infinity	12'3.7"	Infinity	11'3.85"	Infinity	10'4.75"	Infinity	9'6.41"	Infinity	8'8.81"	Infinity	7'11.93"	Infinity	7'3.75"	Infinity	6'8.23"	Infinity
12'3.54"	Infinity	11'6"	Infinity	10'8.75"	Infinity	9'11.83"	Infinity	9'3.29"	Infinity	8'7.15"	Infinity	7'11.43"	Infinity	7'4.16"	Infinity	6'9.33"	Infinity	6'2.96"	Infinity
10'4.17"	Infinity	9'9.53"	Infinity	9'2.93"	Infinity	8'8.42"	Infinity	8'2.04"	Infinity	7'7.83"	Infinity	7'1.82"	Infinity	6'8.04"	Infinity	6'2.51"	Infinity	5'9.25"	Infinity
8'11.18"	56'6.81"	8'6.33"	87'8.38"	8'1.42"	233'5.51"	7'8.5"	Infinity	7'3.59"	Infinity	6'10.73"	Infinity	6'5.94"	Infinity	6'1.27"	Infinity	5'8.72"	Infinity	5'4.34"	Infinity
7'10.27"	27'10.82"	7'6.59"	33'7.22"	7'2.83"	43'8.82"	6'11.01"	66'6.26"	6'7.14"	163'3.8"	6'3.25"	Infinity	5'11.38"	Infinity	5'7.54"	Infinity	5'3.76"	Infinity	5'0.07"	Infinity
7'0.12"	18'6.31"	6'9.26"	20'9.53"	6'6.31"	24'1.75"	6'3.27"	29'6.67"	6'0.16"	39'7.96"	5'9.01"	64'11.73"	5'5.82"	239'4.31"	5'2.63"	Infinity	4'11.45"	Infinity	4'8.31"	Infinity
6'6.48"	15'1.66"	6'4.04"	16'7.02"	6'1.49"	18'7.19"	5'10.86"	21'6.91"	5'8.15"	26'4.49"	5'5.38"	35'3.88"	5'2.57"	57'7.73"	4'11.73"	207'10.87"	4'8.89"	Infinity	4'6.05"	Infinity
6'0.41"	12'3.89"	5'10.37"	13'2.87"	5'8.24"	14'5.46"	5'6.02"	16'1.64"	5'3.72"	18'7.18"	5'1.35"	22'6.08"	4'10.92"	29'7.28"	4'8.46"	46'3.71"	4'5.97"	131'0.81"	4'3.47"	Infinity
5'9.19"	11'1.07"	5'7.36"	11'9.73"	5'5.43"	12'9.02"	5'3.42"	14'0.23"	5'1.32"	15'9.67"	4'11.15"	18'5.86"	4'8.93"	22'11.13"	4'6.65"	31'7.22"	4'4.35"	55'9.52"	4'2.03"	464'0.48"
5'5.85"	9'11.39"	5'4.21"	10'6.18"	5'2.49"	11'2.87"	5'0.68"	12'2.31"	4'10.79"	13'5.92"	4'8.83"	15'4.3"	4'6.8"	18'2.8"	4'4.73"	23'2.36"	4'2.62"	33'8.52"	4'0.48"	70'4.03"
5'2.37"	8'10.75"	5'0.93"	9'4.02"	4'11.41"	9'10.65"	4'9.8"	10'7.21"	4'8.12"	11'6.56"	4'6.36"	12'10.22"	4'4.54"	14'9.05"	4'2.67"	17'9.09"	4'0.75"	23'1.88"	3'10.8"	35'7.02"
4'10.74"	7'11.02"	4'9.49"	8'3.06"	4'8.17"	8'8.07"	4'6.76"	9'2.41"	4'5.28"	9'10.62"	4'3.74"	10'9.59"	4'2.12"	12'0.86"	4'0.45"	13'11.4"	3'10.73"	16'11.68"	3'8.98"	22'7.17"
4'6.96"	7'0.11"	4'5.9"	7'3.16"	4'4.76"	7'6.89"	4'3.56"	7'11.53"	4'2.28"	8'5.41"	4'0.94"	9'1.05"	3'11.53"	9'11.29"	3'10.07"	11'1.62"	3'8.55"	12'10.93"	3'6.99"	15'9.64"
4'3.02"	6'1.94"	4'2.13"	6'4.19"	4'1.18"	6'6.91"	4'0.17"	6'10.25"	3'11.09"	7'2.4"	3'9.95"	7'7.66"	3'8.75"	8'2.49"	3'7.49"	8'11.64"	3'6.18"	10'0.46"	3'4.83"	11'7.51"
4'0.98"	5'9.1"	4'0.18"	5'11.02"	3'11.32"	6'1.33"	3'10.4"	6'4.13"	3'9.42"	6'7.59"	3'8.38"	6'11.92"	3'7.28"	7'5.47"	3'6.12"	8'0.78"	3'4.92"	8'10.75"	3'3.67"	10'1.05"
3'10.9"	5'4.43"	3'10.18"	5'6.05"	3'9.41"	5'7.99"	3'8.58"	5'10.33"	3'7.69"	6'1.19"	3'6.75"	6'4.74"	3'5.75"	6'9.23"	3'4.7"	7'3.04"	3'3.6"	7'10.79"	3'2.45"	8'9.57"
3'8.77"	4'11.9"	3'8.13"	5'1.26"	3'7.44"	5'2.88"	3'6.7"	5'4.81"	3'5.91"	5'7.16"	3'5.06"	5'10.05"	3'4.16"	6'1.66"	3'3.21"	6'6.25"	3'2.22"	7'0.26"	3'1.17"	7'8.4"
3'6.59"	4'7.52"	3'6.03"	4'8.65"	3'5.43"	4'9.98"	3'4.77"	4'11.57"	3'4.07"	5'1.48"	3'3.32"	5'3.81"	3'2.52"	5'6.68"	3'1.67"	5'10.29"	3'0.77"	6'2.93"	2'11.83"	6'9.06"
3'4.36"	4'3.27"	3'3.88"	4'4.2"	3'3.35"	4'5.28"	3'2.78"	4'6.57"	3'2.17"	4'8.11"	3'1.5"	4'9.96"	3'0.8"	5'0.23"	3'0.05"	5'3.05"	2'11.25"	5'6.6"	2'10.41"	5'11.19"
3'2.08"	3'11.16"	3'1.67"	3'11.9"	3'1.22"	4'0.78"	3'0.73"	4'1.8"	3'0.2"	4'3.02"	2'11.62"	4'4.49"	2'11.01"	4'6.25"	2'10.36"	4'8.42"	2'9.66"	4'11.12"	2'8.92"	5'2.53"
2'11.75"	3'7.16"	2'11.4"	3'7.76"	2'11.02"	3'8.45"	2'10.61"	3'9.25"	2'10.16"	3'10.21"	2'9.67"	3'11.34"	2'9.15"	4'0.7"	2'8.59"	4'2.34"	2'7.99"	4'4.36"	2'7.35"	4'6.87"
2'9.36"	3'3.29"	2'9.08"	3'3.75"	2'8.76"	3'4.28"	2'8.42"	3'4.91"	2'8.04"	3'5.63"	2'7.64"	3'6.49"	2'7.2"	3'7.51"	2'6.73"	3'8.74"	2'6.23"	3'10.22"	2'5.69"	4'0.04"

Focal Length 34mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	17.579	15.691	14.009	12.511	11.177	9.987	8.928	7.984	7.144

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	17.54	Infinity	15.653	Infinity	13.971	Infinity	12.473	Infinity	11.138	Infinity	9.949	Infinity	8.89	Infinity	7.946	Infinity	7.105	Infinity
30.00	11.189	Infinity	10.402	Infinity	9.644	Infinity	8.917	Infinity	8.224	Infinity	7.568	Infinity	6.949	Infinity	6.367	Infinity	5.824	Infinity
15.00	8.214	99.275	7.789	329.474	7.363	Infinity	6.938	Infinity	6.518	Infinity	6.106	Infinity	5.703	Infinity	5.311	Infinity	4.934	Infinity
10.00	6.488	22.521	6.225	26.674	5.954	33.668	5.678	47.787	5.398	90.653	5.117	Infinity	4.835	Infinity	4.555	Infinity	4.279	Infinity
9.00	6.064	17.907	5.834	20.42	5.597	24.253	5.354	30.762	5.106	44.106	4.854	86.379	4.602	Infinity	4.349	Infinity	4.098	Infinity
8.00	5.605	14.256	5.41	15.792	5.207	17.972	4.997	21.284	4.782	26.866	4.562	38.153	4.34	72.568	4.116	Infinity	3.892	Infinity
7.00	5.108	11.296	4.947	12.229	4.778	13.483	4.603	15.246	4.421	17.881	4.234	22.212	4.044	30.57	3.85	53.167	3.656	323.566
6.00	4.568	8.847	4.44	9.401	4.306	10.116	4.164	11.062	4.017	12.368	3.864	14.267	3.707	17.257	3.545	22.611	3.381	34.825
5.50	4.28	7.774	4.169	8.196	4.051	8.728	3.926	9.418	3.796	10.339	3.66	11.622	3.52	13.514	3.375	16.558	3.227	22.215
5.00	3.979	6.787	3.884	7.103	3.782	7.495	3.674	7.993	3.561	8.64	3.442	9.507	3.319	10.723	3.191	12.533	3.06	15.487
4.50	3.664	5.875	3.584	6.107	3.498	6.392	3.407	6.745	3.31	7.194	3.209	7.778	3.103	8.562	2.992	9.663	2.878	11.305
4.00	3.334	5.031	3.269	5.197	3.198	5.398	3.123	5.645	3.043	5.95	2.958	6.338	2.869	6.84	2.775	7.513	2.678	8.453
3.80	3.198	4.71	3.138	4.855	3.073	5.028	3.004	5.24	2.93	5.5	2.852	5.827	2.77	6.245	2.683	6.797	2.593	7.551
3.60	3.059	4.399	3.004	4.523	2.945	4.673	2.882	4.853	2.815	5.074	2.743	5.348	2.668	5.695	2.588	6.146	2.504	6.751
3.40	2.917	4.096	2.868	4.203	2.815	4.33	2.757	4.483	2.696	4.669	2.631	4.898	2.562	5.185	2.489	5.552	2.412	6.036
3.20	2.772	3.802	2.728	3.893	2.681	4	2.629	4.129	2.574	4.285	2.515	4.475	2.452	4.71	2.386	5.008	2.316	5.394
3.00	2.625	3.515	2.586	3.592	2.543	3.683	2.498	3.79	2.448	3.919	2.396	4.075	2.339	4.268	2.279	4.508	2.216	4.814
2.90	2.55	3.375	2.513	3.445	2.473	3.528	2.43	3.626	2.384	3.743	2.334	3.884	2.281	4.057	2.225	4.272	2.165	4.544
2.80	2.474	3.237	2.44	3.301	2.403	3.376	2.362	3.465	2.319	3.571	2.272	3.699	2.222	3.854	2.169	4.046	2.112	4.287
2.70	2.398	3.101	2.366	3.159	2.331	3.227	2.293	3.307	2.253	3.403	2.209	3.518	2.162	3.657	2.112	3.828	2.058	4.041
2.60	2.321	2.966	2.291	3.019	2.259	3.08	2.223	3.153	2.185	3.239	2.144	3.342	2.1	3.466	2.053	3.618	2.003	3.806
2.50	2.243	2.833	2.215	2.881	2.185	2.936	2.153	3.002	2.117	3.079	2.079	3.171	2.038	3.281	1.994	3.416	1.947	3.582
2.40	2.164	2.702	2.139	2.745	2.111	2.795	2.081	2.853	2.048	2.922	2.012	3.004	1.974	3.102	1.934	3.221	1.89	3.367
2.30	2.084	2.573	2.061	2.611	2.036	2.656	2.008	2.708	1.978	2.769	1.945	2.842	1.91	2.929	1.872	3.033	1.831	3.16
2.20	2.004	2.445	1.983	2.479	1.959	2.519	1.934	2.565	1.906	2.62	1.876	2.684	1.844	2.76	1.809	2.851	1.771	2.962
2.10	1.923	2.319	1.903	2.349	1.882	2.385	1.859	2.426	1.833	2.474	1.806	2.53	1.776	2.597	1.744	2.676	1.71	2.772
2.00	1.841	2.195	1.823	2.221	1.804	2.252	1.783	2.288	1.76	2.33	1.735	2.38	1.708	2.438	1.678	2.507	1.647	2.589
1.95	1.799	2.133	1.783	2.158	1.764	2.187	1.744	2.221	1.722	2.26	1.699	2.306	1.673	2.36	1.645	2.424	1.615	2.501
1.90	1.758	2.072	1.742	2.095	1.725	2.122	1.706	2.154	1.685	2.19	1.662	2.233	1.638	2.283	1.611	2.343	1.583	2.414
1.85	1.716	2.011	1.701	2.033	1.685	2.058	1.667	2.087	1.647	2.121	1.626	2.161	1.602	2.208	1.577	2.263	1.55	2.328
1.80	1.674	1.951	1.66	1.971	1.644	1.995	1.627	2.022	1.609	2.053	1.589	2.09	1.566	2.133	1.543	2.184	1.517	2.245
1.75	1.632	1.89	1.618	1.91	1.604	1.931	1.588	1.957	1.57	1.986	1.551	2.02	1.53	2.06	1.508	2.107	1.483	2.162
1.70	1.589	1.831	1.577	1.848	1.563	1.869	1.548	1.892	1.531	1.919	1.513	1.951	1.494	1.987	1.472	2.031	1.449	2.082
1.65	1.546	1.772	1.535	1.788	1.522	1.807	1.508	1.828	1.492	1.853	1.475	1.882	1.457	1.916	1.437	1.956	1.415	2.002
1.60	1.503	1.713	1.493	1.728	1.481	1.745	1.467	1.765	1.453	1.788	1.437	1.814	1.42	1.845	1.401	1.882	1.38	1.924
1.55	1.46	1.654	1.45	1.668	1.439	1.684	1.427	1.702	1.413	1.723	1.398	1.748	1.382	1.776	1.364	1.809	1.345	1.848
1.50	1.417	1.596	1.407	1.609	1.397	1.623	1.386	1.64	1.373	1.659	1.359	1.682	1.344	1.707	1.327	1.738	1.31	1.773
1.45	1.373	1.538	1.364	1.55	1.355	1.563	1.344	1.578	1.332	1.596	1.32	1.616	1.306	1.64	1.29	1.667	1.273	1.699
1.40	1.329	1.48	1.321	1.491	1.312	1.503	1.302	1.517	1.292	1.533	1.28	1.552	1.267	1.573	1.252	1.598	1.237	1.627
1.35	1.285	1.423	1.278	1.433	1.27	1.444	1.261	1.457	1.251	1.471	1.24	1.488	1.228	1.507	1.214	1.529	1.2	1.556
1.30	1.241	1.367	1.234	1.375	1.227	1.385	1.218	1.397	1.209	1.41	1.199	1.425	1.188	1.442	1.176	1.462	1.163	1.486
1.25	1.196	1.31	1.19	1.318	1.183	1.327	1.176	1.337	1.167	1.349	1.158	1.362	1.148	1.378	1.137	1.396	1.125	1.417
1.20	1.151	1.254	1.146	1.261	1.14	1.269	1.133	1.278	1.125	1.289	1.117	1.301	1.107	1.315	1.097	1.331	1.086	1.349
1.15	1.106	1.198	1.101	1.205	1.096	1.212	1.089	1.22	1.083	1.229	1.075	1.24	1.067	1.252	1.057	1.266	1.047	1.282
1.10	1.061	1.143	1.056	1.148	1.051	1.155	1.046	1.162	1.04	1.17	1.033	1.18	1.025	1.19	1.017	1.203	1.008	1.217
1.05	1.015	1.088	1.011	1.093	1.007	1.098	1.002	1.105	0.996	1.112	0.99	1.12	0.984	1.129	0.976	1.14	0.968	1.153
1.00	0.97	1.033	0.966	1.037	0.962	1.042	0.958	1.048	0.953	1.054	0.947	1.061	0.941	1.069	0.935	1.079	0.928	1.089
0.95	0.923	0.979	0.92	0.982	0.917	0.987	0.913	0.991	0.909	0.997	0.904	1.003	0.899	1.01	0.893	1.018	0.887	1.027
0.91	0.886	0.935	0.884	0.939	0.88	0.942	0.877	0.947	0.873	0.951	0.869	0.957	0.864	0.963	0.859	0.97	0.853	0.978

8	9	10	11	13	14	16	18	20	22
6.394	5.727	5.133	4.603	4.131	3.711	3.336	3.002	2.705	2.44

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
6.356	Infinity	5.689	Infinity	5.094	Infinity	4.565	Infinity	4.093	Infinity	3.672	Infinity	3.298	Infinity	2.964	Infinity	2.667	Infinity	2.402	Infinity
5.319	Infinity	4.851	Infinity	4.418	Infinity	4.02	Infinity	3.655	Infinity	3.321	Infinity	3.016	Infinity	2.739	Infinity	2.487	Infinity	2.258	Infinity
4.572	Infinity	4.227	Infinity	3.9	Infinity	3.591	Infinity	3.301	Infinity	3.031	Infinity	2.778	Infinity	2.545	Infinity	2.329	Infinity	2.13	Infinity
4.009	Infinity	3.745	Infinity	3.49	Infinity	3.245	Infinity	3.01	Infinity	2.787	Infinity	2.575	Infinity	2.376	Infinity	2.19	Infinity	2.016	Infinity
3.851	Infinity	3.608	Infinity	3.372	Infinity	3.144	Infinity	2.924	Infinity	2.714	Infinity	2.514	Infinity	2.325	Infinity	2.147	Infinity	1.98	Infinity
3.67	Infinity	3.45	Infinity	3.235	Infinity	3.026	Infinity	2.823	Infinity	2.628	Infinity	2.441	Infinity	2.264	Infinity	2.096	Infinity	1.937	Infinity
3.46	Infinity	3.266	Infinity	3.075	Infinity	2.886	Infinity	2.703	Infinity	2.525	Infinity	2.354	Infinity	2.189	Infinity	2.033	Infinity	1.885	Infinity
3.216	89.559	3.049	Infinity	2.884	Infinity	2.719	Infinity	2.558	Infinity	2.4	Infinity	2.246	Infinity	2.098	Infinity	1.955	Infinity	1.82	Infinity
3.077	36.212	2.926	126.447	2.774	Infinity	2.623	Infinity	2.473	Infinity	2.326	Infinity	2.182	Infinity	2.043	Infinity	1.909	Infinity	1.78	Infinity
2.926	21.121	2.79	35.916	2.653	174.536	2.515	Infinity	2.379	Infinity	2.243	Infinity	2.111	Infinity	1.981	Infinity	1.856	Infinity	1.735	Infinity
2.76	13.995	2.64	19.159	2.518	32.936	2.395	179.279	2.272	Infinity	2.15	Infinity	2.029	Infinity	1.911	Infinity	1.795	Infinity	1.683	Infinity
2.577	9.846	2.474	12.104	2.368	16.359	2.261	27.216	2.152	110.82	2.044	Infinity	1.936	Infinity	1.829	Infinity	1.724	Infinity	1.621	Infinity
2.499	8.634	2.402	10.307	2.303	13.211	2.202	19.419	2.1	41.683	1.997	Infinity	1.894	Infinity	1.793	Infinity	1.692	Infinity	1.594	Infinity
2.417	7.595	2.327	8.848	2.235	10.885	2.14	14.732	2.044	24.624	1.947	104.512	1.85	Infinity	1.754	Infinity	1.658	Infinity	1.565	Infinity
2.332	6.695	2.249	7.64	2.163	9.095	2.075	11.603	1.985	16.898	1.895	35.166	1.803	Infinity	1.712	Infinity	1.622	Infinity	1.533	Infinity
2.243	5.908	2.167	6.623	2.088	7.676	2.006	9.367	1.923	12.492	1.839	20.142	1.753	66.766	1.668	Infinity	1.583	Infinity	1.499	Infinity
2.15	5.214	2.08	5.756	2.008	6.524	1.934	7.688	1.857	9.644	1.779	13.575	1.7	25.359	1.62	3104.307	1.541	Infinity	1.462	Infinity
2.102	4.896	2.036	5.368	1.967	6.025	1.896	6.997	1.823	8.567	1.748	11.506	1.672	18.897	1.595	71.013	1.518	Infinity	1.442	Infinity
2.052	4.597	1.99	5.006	1.925	5.569	1.857	6.382	1.787	7.652	1.716	9.892	1.643	14.847	1.569	34.704	1.495	Infinity	1.422	Infinity
2.002	4.313	1.943	4.669	1.881	5.15	1.817	5.832	1.75	6.865	1.682	8.597	1.613	12.069	1.542	22.407	1.471	1159.207	1.4	Infinity
1.95	4.045	1.895	4.353	1.836	4.764	1.775	5.337	1.712	6.18	1.648	7.536	1.581	10.047	1.514	16.221	1.446	54.729	1.378	Infinity
1.898	3.79	1.845	4.057	1.79	4.408	1.733	4.889	1.673	5.58	1.612	6.649	1.549	8.508	1.485	12.498	1.42	26.986	1.354	Infinity
1.844	3.548	1.794	3.778	1.743	4.078	1.689	4.481	1.633	5.049	1.575	5.898	1.515	7.298	1.454	10.011	1.392	17.425	1.33	116.127
1.788	3.318	1.742	3.516	1.694	3.771	1.644	4.109	1.591	4.576	1.536	5.254	1.48	6.322	1.422	8.232	1.364	12.584	1.304	31.995
1.731	3.098	1.689	3.268	1.644	3.485	1.597	3.768	1.548	4.152	1.496	4.695	1.443	5.517	1.389	6.896	1.334	9.66	1.277	17.881
1.673	2.889	1.634	3.035	1.592	3.218	1.549	3.455	1.503	3.769	1.455	4.205	1.405	4.843	1.354	5.857	1.302	7.702	1.249	12.062
1.613	2.69	1.577	2.813	1.539	2.968	1.499	3.165	1.456	3.423	1.412	3.772	1.366	4.269	1.318	5.025	1.269	6.3	1.22	8.886
1.583	2.594	1.548	2.707	1.512	2.849	1.473	3.028	1.432	3.261	1.39	3.575	1.345	4.014	1.299	4.668	1.252	5.738	1.204	7.784
1.552	2.499	1.519	2.604	1.484	2.733	1.447	2.897	1.408	3.107	1.367	3.388	1.325	3.776	1.28	4.343	1.235	5.246	1.188	6.885
1.521	2.407	1.489	2.503	1.456	2.621	1.421	2.77	1.383	2.96	1.344	3.211	1.303	3.554	1.261	4.047	1.217	4.811	1.172	6.139
1.489	2.317	1.459	2.405	1.428	2.513	1.394	2.647	1.358	2.819	1.321	3.043	1.281	3.346	1.241	3.776	1.199	4.424	1.155	5.51
1.457	2.229	1.429	2.309	1.399	2.407	1.366	2.529	1.332	2.684	1.297	2.884	1.259	3.152	1.22	3.526	1.18	4.078	1.138	4.971
1.424	2.142	1.398	2.216	1.369	2.305	1.339	2.416	1.306	2.554	1.272	2.733	1.236	2.97	1.199	3.295	1.16	3.766	1.121	4.506
1.392	2.058	1.366	2.125	1.339	2.206	1.31	2.305	1.28	2.43	1.247	2.589	1.213	2.798	1.178	3.081	1.141	3.484	1.102	4.099
1.358	1.975	1.334	2.036	1.309	2.109	1.281	2.199	1.252	2.311	1.222	2.452	1.189	2.636	1.156	2.883	1.12	3.228	1.084	3.741
1.324	1.894	1.302	1.949	1.278	2.015	1.252	2.096	1.225	2.196	1.196	2.322	1.165	2.483	1.133	2.698	1.099	2.993	1.065	3.423
1.29	1.815	1.269	1.864	1.246	1.924	1.222	1.996	1.196	2.086	1.169	2.197	1.14	2.339	1.11	2.525	1.078	2.778	1.045	3.138
1.255	1.737	1.236	1.782	1.215	1.835	1.192	1.9	1.168	1.979	1.142	2.078	1.115	2.202	1.086	2.364	1.056	2.581	1.025	2.883
1.22	1.661	1.202	1.701	1.182	1.749	1.161	1.807	1.138	1.877	1.114	1.964	1.088	2.073	1.061	2.213	1.033	2.398	1.004	2.652
1.184	1.586	1.167	1.622	1.149	1.665	1.129	1.716	1.108	1.778	1.086	1.854	1.062	1.95	1.036	2.071	1.01	2.229	0.982	2.442
1.148	1.513	1.132	1.545	1.116	1.583	1.097	1.628	1.078	1.683	1.057	1.75	1.034	1.832	1.011	1.937	0.986	2.071	0.96	2.251
1.111	1.441	1.097	1.469	1.081	1.503	1.065	1.543	1.046	1.591	1.027	1.649	1.006	1.721	0.984	1.811	0.961	1.925	0.937	2.075
1.074	1.371	1.061	1.396	1.047	1.425	1.031	1.46	1.015	1.502	0.997	1.553	0.977	1.615	0.957	1.691	0.936	1.788	0.913	1.914
1.036	1.301	1.024	1.324	1.011	1.349	0.997	1.38	0.982	1.416	0.966	1.46	0.948	1.513	0.929	1.579	0.909	1.661	0.888	1.765
0.998	1.234	0.987	1.253	0.975	1.275	0.963	1.302	0.949	1.333	0.934	1.371	0.918	1.416	0.901	1.472	0.882	1.541	0.863	1.628
0.959	1.167	0.949	1.184	0.939	1.203	0.927	1.226	0.915	1.253	0.901	1.285	0.887	1.324	0.871	1.371	0.854	1.428	0.837	1.5
0.92	1.102	0.911	1.116	0.902	1.133	0.891	1.152	0.88	1.175	0.868	1.203	0.855	1.235	0.841	1.274	0.826	1.322	0.81	1.381
0.88	1.038	0.872	1.05	0.864	1.064	0.854	1.081	0.844	1.1	0.834	1.123	0.822	1.15	0.809	1.183	0.796	1.222	0.782	1.27
0.847	0.987	0.84	0.998	0.833	1.01	0.824	1.025	0.815	1.042	0.806	1.061	0.795	1.085	0.784	1.113	0.771	1.146	0.758	1.187

Focal Length 34mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	57'8.09"	51'5.76"	45'11.54"	41'0.56"	36'8.04"	32'9.19"	29'3.5"	26'2.33"	23'5.26"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	57'6.56"	Infinity	51'4.25"	Infinity	45'10.04"	Infinity	40'11.06"	Infinity	36'6.52"	Infinity	32'7.7"	Infinity	29'2"	Infinity	26'0.84"	Infinity	23'3.74"	Infinity
100'0''	36'11.04"	Infinity	34'3.72"	Infinity	31'9.55"	Infinity	29'4.65"	Infinity	27'1.14"	Infinity	24'11.07"	Infinity	22'10.51"	Infinity	20'11.47"	Infinity	19'1.95"	Infinity
50'0''	27'2.12"	364'10.49"	25'9.1"	1682'7.8"	24'4.05"	Infinity	22'11.09"	Infinity	21'6.32"	Infinity	20'1.85"	Infinity	18'9.78"	Infinity	17'6.2"	Infinity	16'3.19"	Infinity
30'0''	20'1.22"	60'8.51"	19'3.98"	69'6.76"	18'6.46"	83'2.84"	17'8.69"	106'11.07"	16'10.74"	157'5.22"	16'0.68"	337'0.99"	15'2.56"	Infinity	14'4.45"	Infinity	13'6.43"	Infinity
20'0''	15'1.97"	29'8.83"	14'8.82"	31'7.81"	14'3.38"	34'1.52"	13'9.69"	37'5.11"	13'3.75"	42'0.05"	12'9.61"	48'8.73"	12'3.28"	59'5.67"	11'8.81"	79'2.41"	11'2.24"	126'8.61"
15'0''	12'2.08"	19'8.32"	11'10.83"	20'5.88"	11'7.37"	21'5.61"	11'3.68"	22'8.26"	10'11.79"	24'2.9"	10'7.7"	26'3.25"	10'3.42"	29'0.15"	9'10.97"	32'10.65"	9'6.37"	38'8.83"
12'0''	10'2.01"	14'8.67"	9'11.8"	15'1.8"	9'9.42"	15'7.94"	9'6.87"	16'3.37"	9'4.15"	17'0.49"	9'1.25"	17'11.85"	8'10.19"	19'2.3"	8'6.98"	20'9.12"	8'3.61"	22'10.47"
10'0''	8'8.74"	11'9.08"	8'7.15"	12'0.23"	8'5.44"	12'3.94"	8'3.58"	12'8.37"	8'1.59"	13'1.68"	7'11.46"	13'8.14"	7'9.18"	14'4.09"	7'6.76"	15'2.05"	7'4.21"	16'2.79"
9'0''	7'11.71"	10'4.38"	7'10.41"	10'6.77"	7'9"	10'9.57"	7'7.47"	11'0.88"	7'5.82"	11'4.82"	7'4.04"	11'9.55"	7'2.14"	12'3.29"	7'0.11"	12'10.37"	6'9.96"	13'7.23"
8'0''	7'2.39"	9'0.35"	7'1.36"	9'2.11"	7'0.23"	9'4.17"	6'11.01"	9'6.57"	6'9.68"	9'9.41"	6'8.24"	10'0.78"	6'6.7"	10'4.82"	6'5.04"	10'9.73"	6'3.28"	11'3.75"
7'6''	6'9.62"	8'4.58"	6'8.71"	8'6.07"	6'7.72"	8'7.8"	6'6.64"	8'9.82"	6'5.46"	9'0.2"	6'4.19"	9'3.01"	6'2.82"	9'6.36"	6'1.34"	9'10.39"	5'11.77"	10'3.31"
7'0''	6'4.78"	7'8.96"	6'3.99"	7'10.21"	6'3.12"	7'11.65"	6'2.18"	8'1.34"	6'1.15"	8'3.3"	6'0.03"	8'5.62"	5'10.83"	8'8.37"	5'9.53"	8'11.65"	5'8.13"	9'3.62"
6'6''	5'11.85"	7'1.49"	5'11.18"	7'2.52"	5'10.43"	7'3.71"	5'9.62"	7'5.09"	5'8.73"	7'6.7"	5'7.77"	7'8.59"	5'6.72"	7'10.81"	5'5.59"	8'1.46"	5'4.37"	8'4.63"
6'0''	5'6.85"	6'6.16"	5'6.28"	6'7"	5'5.65"	6'7.97"	5'4.96"	6'9.08"	5'4.2"	6'10.38"	5'3.38"	6'11.9"	5'2.49"	7'1.67"	5'1.52"	7'3.77"	5'0.47"	7'6.26"
5'6''	5'1.77"	5'10.98"	5'1.29"	5'11.65"	5'0.77"	6'0.42"	5'0.2"	6'1.3"	4'11.57"	6'2.33"	4'10.88"	6'3.52"	4'10.13"	6'4.91"	4'9.31"	6'6.54"	4'8.43"	6'8.47"
5'0''	4'8.6"	5'3.93"	4'8.22"	5'4.45"	4'7.79"	5'5.05"	4'7.32"	5'5.74"	4'6.81"	5'6.53"	4'6.25"	5'7.45"	4'5.63"	5'8.51"	4'4.96"	5'9.76"	4'4.23"	5'11.21"
4'9''	4'5.99"	5'0.45"	4'5.64"	5'0.91"	4'5.26"	5'1.43"	4'4.85"	5'2.03"	4'4.39"	5'2.72"	4'3.88"	5'3.52"	4'3.33"	5'4.44"	4'2.73"	5'5.51"	4'2.07"	5'6.77"
4'6''	4'3.35"	4'9.01"	4'3.05"	4'9.4"	4'2.71"	4'9.86"	4'2.34"	4'10.38"	4'1.93"	4'10.97"	4'1.49"	4'11.66"	4'1"	5'0.45"	4'0.46"	5'1.37"	3'11.88"	5'2.45"
4'3''	4'0.69"	4'5.6"	4'0.43"	4'5.94"	4'0.13"	4'6.33"	3'11.81"	4'6.77"	3'11.45"	4'7.28"	3'11.06"	4'7.87"	3'10.62"	4'8.54"	3'10.15"	4'9.32"	3'9.63"	4'10.23"
4'0''	3'10.01"	4'2.22"	3'9.78"	4'2.51"	3'9.53"	4'2.84"	3'9.24"	4'3.22"	3'8.93"	4'3.65"	3'8.59"	4'4.14"	3'8.21"	4'4.71"	3'7.8"	4'5.37"	3'7.35"	4'6.13"
3'9''	3'7.31"	3'10.87"	3'7.11"	3'11.12"	3'6.89"	3'11.39"	3'6.65"	3'11.71"	3'6.38"	4'0.07"	3'6.09"	4'0.48"	3'5.77"	4'0.95"	3'5.41"	4'1.5"	3'5.02"	4'2.13"
3'6''	3'4.58"	3'7.56"	3'4.41"	3'7.76"	3'4.23"	3'7.99"	3'4.03"	3'8.25"	3'3.8"	3'8.54"	3'3.55"	3'8.88"	3'3.28"	3'9.27"	3'2.98"	3'9.71"	3'2.64"	3'10.23"
3'3''	3'1.83"	3'4.27"	3'1.69"	3'4.43"	3'1.54"	3'4.62"	3'1.37"	3'4.83"	3'1.18"	3'5.07"	3'0.98"	3'5.34"	3'0.75"	3'5.66"	3'0.5"	3'6.01"	3'0.22"	3'6.43"
3'0''	2'11.06"	3'1.02"	2'10.95"	3'1.14"	2'10.82"	3'1.29"	2'10.69"	3'1.46"	2'10.53"	3'1.65"	2'10.37"	3'1.86"	2'10.18"	3'2.11"	2'9.97"	3'2.39"	2'9.75"	3'2.72"

8	9	10	11	13	14	16	18	20	22
20'11.73"	18'9.47"	16'10.09"	15'1.22"	13'6.64"	12'2.1"	10'11.34"	9'10.19"	8'10.5"	8'0.06"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
20'10.25"	Infinity	18'7.98"	Infinity	16'8.57"	Infinity	14'11.72"	Infinity	13'5.14"	Infinity	12'0.59"	Infinity	10'9.84"	Infinity	9'8.7"	Infinity	8'9"	Infinity	7'10.57"	Infinity
17'5.95"	Infinity	15'11.41"	Infinity	14'6.31"	Infinity	13'2.57"	Infinity	12'0.14"	Infinity	10'10.95"	Infinity	9'10.91"	Infinity	8'11.95"	Infinity	8'2"	Infinity	7'4.99"	Infinity
15'0.8"	Infinity	13'11.1"	Infinity	12'10.11"	Infinity	11'9.87"	Infinity	10'10.38"	Infinity	9'11.64"	Infinity	9'1.66"	Infinity	8'4.41"	Infinity	7'7.87"	Infinity	7'0.01"	Infinity
12'8.55"	Infinity	11'10.88"	Infinity	11'1.47"	Infinity	10'4.38"	Infinity	9'7.63"	Infinity	8'11.28"	Infinity	8'3.34"	Infinity	7'7.84"	Infinity	7'0.78"	Infinity	6'6.17"	Infinity
10'7.6"	394'6.4"	10'0.94"	Infinity	9'6.31"	Infinity	8'11.75"	Infinity	8'5.29"	Infinity	7'10.99"	Infinity	7'4.87"	Infinity	6'10.97"	Infinity	6'5.31"	Infinity	5'11.91"	Infinity
9'1.65"	48'5.91"	8'8.83"	67'10.09"	8'3.94"	123'10.58"	7'11.02"	1988'10.99"	7'6.1"	Infinity	7'1.21"	Infinity	6'8.38"	Infinity	6'3.65"	Infinity	5'11.03"	Infinity	5'6.56"	Infinity
8'0.11"	25'10.18"	7'8.49"	30'3.77"	7'4.77"	37'8.36"	7'0.97"	52'1.13"	6'9.12"	92'0.68"	6'5.24"	726'8.15"	6'1.36"	Infinity	5'9.5"	Infinity	5'5.68"	Infinity	5'1.94"	Infinity
7'1.53"	17'7.53"	6'10.74"	19'6.33"	6'7.83"	22'2.94"	6'4.83"	26'4.99"	6'1.76"	33'6.82"	5'10.62"	48'6.25"	5'7.45"	98'7.2"	5'4.26"	Infinity	5'1.07"	Infinity	4'9.91"	Infinity
6'7.68"	14'6.56"	6'5.3"	15'9.44"	6'2.8"	17'5.71"	6'0.21"	19'10.67"	5'9.54"	23'7.11"	5'6.8"	29'11.2"	5'4.01"	43'1.88"	5'1.18"	87'1.48"	4'10.33"	Infinity	4'7.49"	Infinity
6'1.4"	11'11.28"	5'11.42"	12'8.87"	5'9.34"	13'9.43"	5'7.16"	15'2.41"	5'4.9"	17'2.51"	5'2.56"	20'3.02"	5'0.16"	25'4.36"	4'9.71"	35'7.63"	4'7.23"	66'5.19"	4'4.74"	8142'11.66"
5'10.09"	10'9.38"	5'8.3"	11'5.02"	5'6.42"	12'2.84"	5'4.45"	13'3.84"	5'2.4"	14'9.7"	5'0.26"	16'11.58"	4'10.07"	20'4.08"	4'7.81"	26'3.85"	4'5.52"	39'8.02"	4'3.21"	94'10.52"
5'6.64"	9'8.48"	5'5.06"	10'2.51"	5'3.38"	10'10.15"	5'1.61"	11'8.04"	4'11.76"	12'9.28"	4'9.83"	14'3.75"	4'7.84"	16'7.08"	4'5.79"	20'3.28"	4'3.69"	27'2.13"	4'1.56"	44'7.2"
5'3.06"	8'8.47"	5'1.67"	9'1.18"	5'0.19"	9'7.06"	4'10.63"	10'2.55"	4'8.98"	11'0.33"	4'7.26"	12'1.54"	4'5.47"	13'8.21"	4'3.62"	16'0.38"	4'1.72"	19'11.34"	3'11.79"	27'8.41"
4'11.34"	7'9.26"	4'10.14"	8'0.89"	4'8.85"	8'5.37"	4'7.48"	8'10.98"	4'6.04"	9'6.15"	4'4.53"	10'3.57"	4'2.95"	11'4.39"	4'1.3"	12'10.69"	3'11.61"	15'2.74"	3'9.87"	19'2.7"
4'7.47"	6'10.77"	4'6.45"	7'1.53"	4'5.35"	7'4.89"	4'4.18"	7'9.04"	4'2.94"	8'2.23"	4'1.62"	8'8.89"	4'0.25"	9'5.67"	3'10.81"	10'5.67"	3'9.32"	11'10.91"	3'7.78"	14'1.57"
4'3.44"	6'0.94"	4'2.59"	6'2.99"	4'1.67"	6'5.46"	4'0.69"	6'8.47"	3'11.64"	7'0.17"	3'10.53"	7'4.82"	3'9.36"	7'10.78"	3'8.13"	8'6.63"	3'6.85"	9'5.36"	3'5.51"	10'8.78"
4'1.36"	5'8.25"	4'0.59"	5'10.01"	3'11.76"	6'0.1"	3'10.87"	6'2.64"	3'9.92"	6'5.74"	3'8.91"	6'9.6"	3'7.84"	7'2.48"	3'6.71"	7'8.8"	3'5.53"	8'5.27"	3'4.3"	9'5.08"
3'11.24"	5'3.71"	3'10.55"	5'5.19"	3'9.8"	5'6.96"	3'9"	5'9.09"	3'8.15"	5'11.67"	3'7.23"	6'2.84"	3'6.26"	6'6.82"	3'5.23"	6'11.89"	3'4.16"	7'6.56"	3'3.03"	8'3.62"
3'9.07"	4'11.3"	3'8.46"	5'0.55"	3'7.8"	5'2.02"	3'7.08"	5'3.79"	3'6.32"	5'5.92"	3'5.5"	5'8.51"	3'4.62"	5'11.73"	3'3.7"	6'3.78"	3'2.72"	6'9.01"	3'1.7"	7'3.95"
3'6.86"	4'7.02"	3'6.32"	4'8.05"	3'5.74"	4'9.28"	3'5.11"	4'10.73"	3'4.43"	5'0.47"	3'3.7"	5'2.57"	3'2.92"	5'5.15"	3'2.1"	5'8.36"	3'1.22"	6'0.44"	3'0.3"	6'5.74"
3'4.59"	4'2.86"	3'4.13"	4'3.71"	3'3.62"	4'4.71"	3'3.07"	4'5.9"	3'2.48"	4'7.3"	3'1.84"	4'8.99"	3'1.16"	4'11.03"	3'0.43"	5'1.55"	2'11.65"	5'4.7"	2'10.84"	5'8.72"
3'2.28"	3'10.82"	3'1.88"	3'11.51"	3'1.45"	4'0.32"	3'0.98"	4'1.27"	3'0.46"	4'2.39"	2'11.91"	4'3.72"	2'11.32"	4'5.32"	2'10.69"	4'7.28"	2'10.01"	4'9.69"	2'9.29"	5'0.71"
2'11.91"	3'6.9"	2'11.58"	3'7.45"	2'11.21"	3'8.09"	2'10.82"	3'8.84"	2'10.38"	3'9.71"	2'9.92"	3'10.75"	2'9.41"	3'11.99"	2'8.87"	4'1.48"	2'8.29"	4'3.29"	2'7.67"	4'5.54"
2'9.5"	3'3.09"	2'9.22"	3'3.51"	2'8.92"	3'4.01"	2'8.59"	3'4.59"	2'8.23"	3'5.26"	2'7.84"	3'6.05"	2'7.42"	3'6.98"	2'6.97"	3'8.1"	2'6.48"	3'9.45"	2'5.96"	3'11.09"

Focal Length 35mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	18.613	16.612	14.83	13.242	11.828	10.568	9.445	8.445	7.553

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	18.574	Infinity	16.574	Infinity	14.792	Infinity	13.204	Infinity	11.79	Infinity	10.529	Infinity	9.407	Infinity	8.406	Infinity	7.515	Infinity
30.00	11.594	Infinity	10.794	Infinity	10.021	Infinity	9.278	Infinity	8.568	Infinity	7.893	Infinity	7.254	Infinity	6.654	Infinity	6.092	Infinity
15.00	8.426	75.156	8.002	149.794	7.577	Infinity	7.151	Infinity	6.728	Infinity	6.311	Infinity	5.903	Infinity	5.506	Infinity	5.121	Infinity
10.00	6.617	21.02	6.358	24.354	6.09	29.65	5.817	39.273	5.539	61.927	5.258	177.231	4.976	Infinity	4.695	Infinity	4.417	Infinity
9.00	6.176	16.951	5.95	19.04	5.717	22.109	5.476	27.015	5.23	36.027	4.98	57.756	4.728	180.818	4.475	Infinity	4.223	Infinity
8.00	5.7	13.648	5.509	14.96	5.309	16.776	5.103	19.434	4.89	23.66	4.672	31.346	4.451	49.488	4.228	142.832	4.004	Infinity
7.00	5.186	10.914	5.029	11.729	4.863	12.806	4.691	14.282	4.512	16.416	4.328	19.742	4.139	25.594	3.947	38.468	3.753	89.134
6.00	4.629	8.614	4.505	9.107	4.374	9.734	4.236	10.553	4.091	11.658	3.941	13.219	3.786	15.572	3.626	19.488	3.464	27.226
5.50	4.334	7.596	4.225	7.973	4.11	8.445	3.989	9.049	3.862	9.843	3.729	10.923	3.59	12.466	3.448	14.833	3.301	18.883
5.00	4.025	6.652	3.932	6.937	3.833	7.288	3.729	7.728	3.618	8.294	3.502	9.039	3.381	10.06	3.255	11.529	3.126	13.807
4.50	3.702	5.775	3.625	5.986	3.542	6.242	3.453	6.559	3.359	6.956	3.26	7.466	3.156	8.139	3.048	9.062	2.935	10.394
4.00	3.365	4.958	3.302	5.11	3.234	5.293	3.161	5.515	3.083	5.789	3.001	6.132	2.914	6.572	2.822	7.151	2.727	7.941
3.80	3.226	4.647	3.168	4.779	3.106	4.938	3.039	5.129	2.968	5.363	2.892	5.654	2.811	6.023	2.727	6.501	2.638	7.143
3.60	3.084	4.344	3.032	4.458	2.975	4.595	2.914	4.758	2.849	4.958	2.779	5.203	2.706	5.511	2.628	5.906	2.546	6.425
3.40	2.94	4.049	2.893	4.147	2.841	4.264	2.786	4.403	2.727	4.572	2.664	4.778	2.597	5.033	2.526	5.357	2.451	5.777
3.20	2.793	3.762	2.751	3.845	2.705	3.944	2.655	4.062	2.602	4.203	2.545	4.375	2.484	4.586	2.419	4.851	2.351	5.188
3.00	2.643	3.482	2.605	3.552	2.565	3.636	2.521	3.734	2.473	3.852	2.422	3.994	2.368	4.167	2.31	4.381	2.248	4.651
2.90	2.567	3.344	2.532	3.409	2.494	3.485	2.452	3.575	2.407	3.682	2.359	3.81	2.308	3.967	2.253	4.159	2.195	4.4
2.80	2.49	3.209	2.457	3.268	2.422	3.337	2.383	3.419	2.341	3.516	2.296	3.632	2.247	3.773	2.195	3.945	2.141	4.16
2.70	2.413	3.075	2.382	3.129	2.349	3.192	2.312	3.266	2.273	3.353	2.231	3.458	2.185	3.584	2.137	3.738	2.085	3.929
2.60	2.334	2.943	2.306	2.991	2.275	3.049	2.241	3.115	2.205	3.194	2.165	3.289	2.123	3.401	2.077	3.539	2.029	3.707
2.50	2.255	2.812	2.229	2.856	2.2	2.908	2.169	2.968	2.135	3.039	2.098	3.123	2.059	3.224	2.016	3.346	1.971	3.495
2.40	2.176	2.683	2.151	2.723	2.125	2.769	2.096	2.823	2.064	2.887	2.03	2.962	1.994	3.051	1.954	3.159	1.912	3.29
2.30	2.095	2.556	2.073	2.591	2.048	2.633	2.022	2.681	1.993	2.738	1.961	2.804	1.927	2.884	1.891	2.979	1.852	3.094
2.20	2.014	2.43	1.993	2.462	1.971	2.499	1.947	2.542	1.92	2.592	1.891	2.651	1.86	2.721	1.826	2.804	1.79	2.905
2.10	1.932	2.306	1.913	2.334	1.893	2.367	1.871	2.405	1.846	2.449	1.82	2.501	1.791	2.562	1.76	2.635	1.727	2.722
2.00	1.849	2.183	1.832	2.208	1.814	2.237	1.793	2.27	1.771	2.309	1.747	2.354	1.721	2.408	1.693	2.471	1.663	2.547
1.95	1.807	2.122	1.791	2.145	1.774	2.172	1.754	2.204	1.733	2.24	1.711	2.282	1.686	2.332	1.659	2.391	1.63	2.461
1.90	1.765	2.061	1.75	2.083	1.733	2.109	1.715	2.138	1.695	2.172	1.674	2.211	1.65	2.257	1.625	2.312	1.597	2.377
1.85	1.723	2.001	1.708	2.022	1.693	2.045	1.676	2.073	1.657	2.104	1.636	2.141	1.614	2.184	1.59	2.234	1.564	2.294
1.80	1.68	1.941	1.667	1.961	1.652	1.983	1.636	2.008	1.618	2.037	1.599	2.071	1.578	2.111	1.555	2.158	1.53	2.213
1.75	1.638	1.882	1.625	1.9	1.611	1.92	1.596	1.944	1.579	1.971	1.561	2.003	1.541	2.039	1.519	2.083	1.496	2.134
1.70	1.595	1.823	1.583	1.839	1.57	1.858	1.555	1.88	1.54	1.905	1.522	1.935	1.504	1.969	1.483	2.008	1.461	2.055
1.65	1.552	1.764	1.541	1.78	1.528	1.797	1.515	1.817	1.5	1.84	1.484	1.867	1.466	1.899	1.447	1.935	1.426	1.978
1.60	1.508	1.706	1.498	1.72	1.487	1.736	1.474	1.755	1.46	1.776	1.445	1.801	1.428	1.83	1.41	1.863	1.391	1.903
1.55	1.465	1.648	1.455	1.661	1.445	1.676	1.433	1.693	1.42	1.712	1.406	1.735	1.39	1.761	1.373	1.792	1.355	1.828
1.50	1.421	1.59	1.412	1.602	1.402	1.616	1.391	1.631	1.379	1.649	1.366	1.67	1.352	1.694	1.336	1.722	1.318	1.755
1.45	1.377	1.533	1.369	1.544	1.36	1.556	1.349	1.571	1.338	1.587	1.326	1.606	1.313	1.628	1.298	1.653	1.282	1.683
1.40	1.333	1.476	1.325	1.486	1.317	1.497	1.307	1.51	1.297	1.525	1.286	1.542	1.273	1.562	1.26	1.585	1.245	1.612
1.35	1.289	1.419	1.281	1.428	1.274	1.438	1.265	1.45	1.256	1.464	1.245	1.479	1.234	1.497	1.221	1.518	1.207	1.542
1.30	1.244	1.363	1.237	1.371	1.23	1.38	1.222	1.391	1.214	1.403	1.204	1.417	1.193	1.433	1.182	1.452	1.169	1.474
1.25	1.199	1.307	1.193	1.314	1.187	1.322	1.179	1.332	1.171	1.343	1.163	1.356	1.153	1.37	1.142	1.387	1.131	1.406
1.20	1.154	1.251	1.149	1.258	1.143	1.265	1.136	1.274	1.129	1.284	1.121	1.295	1.112	1.308	1.102	1.323	1.092	1.34
1.15	1.109	1.196	1.104	1.201	1.098	1.208	1.092	1.216	1.086	1.225	1.079	1.234	1.071	1.246	1.062	1.259	1.052	1.274
1.10	1.063	1.14	1.059	1.146	1.054	1.152	1.049	1.158	1.043	1.166	1.036	1.175	1.029	1.185	1.021	1.197	1.012	1.21
1.05	1.017	1.086	1.013	1.09	1.009	1.096	1.004	1.101	0.999	1.108	0.993	1.116	0.987	1.125	0.98	1.135	0.972	1.146
1.00	0.971	1.031	0.968	1.035	0.964	1.04	0.96	1.045	0.955	1.051	0.95	1.058	0.944	1.065	0.938	1.074	0.931	1.084
0.95	0.925	0.977	0.922	0.981	0.919	0.984	0.915	0.989	0.911	0.994	0.906	1	0.901	1.006	0.896	1.014	0.89	1.023
0.91	0.888	0.934	0.885	0.937	0.882	0.941	0.879	0.944	0.875	0.949	0.871	0.954	0.867	0.96	0.862	0.966	0.856	0.974

8	9	10	11	13	14	16	18	20	22
6.76	6.052	5.422	4.861	4.361	3.915	3.518	3.165	2.849	2.569

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
6.721	Infinity	6.014	Infinity	5.384	Infinity	4.823	Infinity	4.323	Infinity	3.877	Infinity	3.48	Infinity	3.126	Infinity	2.811	Infinity	2.531	Infinity
5.568	Infinity	5.081	Infinity	4.63	Infinity	4.215	Infinity	3.834	Infinity	3.484	Infinity	3.165	Infinity	2.874	Infinity	2.609	Infinity	2.369	Infinity
4.751	Infinity	4.398	Infinity	4.061	Infinity	3.743	Infinity	3.444	Infinity	3.164	Infinity	2.902	Infinity	2.659	Infinity	2.434	Infinity	2.227	Infinity
4.143	Infinity	3.876	Infinity	3.617	Infinity	3.366	Infinity	3.126	Infinity	2.897	Infinity	2.679	Infinity	2.474	Infinity	2.281	Infinity	2.101	Infinity
3.974	Infinity	3.729	Infinity	3.489	Infinity	3.257	Infinity	3.032	Infinity	2.817	Infinity	2.612	Infinity	2.418	Infinity	2.234	Infinity	2.062	Infinity
3.78	Infinity	3.559	Infinity	3.342	Infinity	3.129	Infinity	2.923	Infinity	2.724	Infinity	2.533	Infinity	2.351	Infinity	2.178	Infinity	2.015	Infinity
3.558	Infinity	3.363	Infinity	3.17	Infinity	2.98	Infinity	2.794	Infinity	2.613	Infinity	2.438	Infinity	2.27	Infinity	2.11	Infinity	1.958	Infinity
3.299	49.411	3.132	636.633	2.966	Infinity	2.801	Infinity	2.638	Infinity	2.478	Infinity	2.322	Infinity	2.171	Infinity	2.025	Infinity	1.886	Infinity
3.152	27.318	3.001	55.259	2.85	Infinity	2.698	Infinity	2.547	Infinity	2.399	Infinity	2.253	Infinity	2.112	Infinity	1.975	Infinity	1.843	Infinity
2.993	17.781	2.858	26.371	2.721	58.269	2.584	Infinity	2.447	Infinity	2.31	Infinity	2.176	Infinity	2.045	Infinity	1.918	Infinity	1.794	Infinity
2.819	12.465	2.7	16.093	2.579	24.015	2.457	54.378	2.334	Infinity	2.211	Infinity	2.089	Infinity	1.969	Infinity	1.852	Infinity	1.738	Infinity
2.628	9.075	2.526	10.824	2.421	13.847	2.314	20.269	2.206	42.827	2.098	Infinity	1.989	Infinity	1.882	Infinity	1.776	Infinity	1.672	Infinity
2.546	8.04	2.451	9.371	2.353	11.535	2.252	15.628	2.151	26.178	2.048	112.785	1.945	Infinity	1.843	Infinity	1.742	Infinity	1.642	Infinity
2.461	7.135	2.372	8.155	2.281	9.73	2.187	12.46	2.092	18.285	1.995	39.047	1.898	Infinity	1.802	Infinity	1.705	Infinity	1.611	Infinity
2.372	6.339	2.29	7.123	2.206	8.283	2.119	10.159	2.03	13.678	1.94	22.567	1.849	86.944	1.757	Infinity	1.667	Infinity	1.577	Infinity
2.28	5.632	2.205	6.235	2.127	7.096	2.047	8.412	1.965	10.658	1.881	15.305	1.796	30.406	1.71	Infinity	1.625	Infinity	1.54	Infinity
2.183	5	2.115	5.464	2.044	6.105	1.971	7.041	1.895	8.526	1.818	11.217	1.739	17.512	1.66	48.7	1.58	Infinity	1.501	Infinity
2.133	4.709	2.069	5.115	2.001	5.668	1.931	6.46	1.859	7.679	1.785	9.777	1.71	14.193	1.633	29.29	1.556	Infinity	1.48	Infinity
2.082	4.432	2.021	4.787	1.957	5.265	1.891	5.936	1.822	6.941	1.751	8.596	1.679	11.799	1.606	20.528	1.532	133.396	1.458	Infinity
2.03	4.169	1.973	4.479	1.912	4.891	1.849	5.46	1.783	6.291	1.716	7.608	1.647	9.99	1.577	15.539	1.506	42.598	1.435	Infinity
1.977	3.919	1.923	4.189	1.865	4.544	1.806	5.026	1.744	5.716	1.68	6.771	1.614	8.575	1.547	12.317	1.48	24.588	1.411	Infinity
1.923	3.68	1.871	3.915	1.818	4.22	1.761	4.63	1.703	5.202	1.642	6.053	1.58	7.438	1.516	10.065	1.452	16.885	1.387	75.569
1.867	3.453	1.819	3.656	1.769	3.918	1.716	4.265	1.661	4.74	1.604	5.429	1.545	6.504	1.484	8.402	1.423	12.609	1.361	29.585
1.81	3.235	1.765	3.411	1.718	3.636	1.669	3.929	1.617	4.324	1.563	4.882	1.508	5.724	1.451	7.124	1.393	9.89	1.334	17.815
1.751	3.027	1.71	3.179	1.666	3.371	1.62	3.618	1.572	3.946	1.522	4.399	1.47	5.062	1.416	6.111	1.361	8.008	1.305	12.428
1.691	2.828	1.653	2.959	1.613	3.121	1.57	3.329	1.526	3.601	1.479	3.97	1.43	4.493	1.38	5.288	1.328	6.628	1.275	9.339
1.63	2.638	1.595	2.749	1.558	2.887	1.519	3.061	1.477	3.286	1.434	3.585	1.389	3.999	1.342	4.606	1.293	5.573	1.244	7.336
1.599	2.545	1.566	2.648	1.53	2.775	1.492	2.934	1.453	3.138	1.411	3.407	1.367	3.776	1.322	4.308	1.276	5.133	1.228	6.577
1.567	2.455	1.536	2.549	1.502	2.666	1.466	2.811	1.427	2.996	1.387	3.238	1.346	3.566	1.302	4.033	1.257	4.74	1.211	5.932
1.535	2.366	1.505	2.453	1.473	2.56	1.438	2.692	1.402	2.86	1.364	3.077	1.323	3.37	1.282	3.778	1.239	4.386	1.194	5.377
1.503	2.28	1.474	2.359	1.443	2.457	1.411	2.577	1.376	2.729	1.339	2.924	1.301	3.184	1.261	3.543	1.219	4.066	1.177	4.893
1.47	2.194	1.443	2.268	1.414	2.356	1.382	2.466	1.349	2.603	1.314	2.778	1.278	3.009	1.239	3.324	1.2	3.775	1.159	4.469
1.437	2.111	1.411	2.178	1.383	2.259	1.354	2.358	1.322	2.482	1.289	2.639	1.254	2.844	1.218	3.12	1.18	3.509	1.14	4.094
1.403	2.029	1.379	2.09	1.353	2.164	1.325	2.254	1.295	2.365	1.263	2.506	1.23	2.687	1.195	2.93	1.159	3.266	1.121	3.759
1.369	1.949	1.346	2.005	1.322	2.071	1.295	2.152	1.267	2.252	1.237	2.378	1.205	2.539	1.172	2.751	1.138	3.042	1.102	3.459
1.335	1.87	1.313	1.921	1.29	1.981	1.265	2.054	1.238	2.144	1.21	2.256	1.18	2.398	1.149	2.584	1.116	2.835	1.082	3.189
1.3	1.793	1.28	1.839	1.258	1.893	1.234	1.959	1.209	2.039	1.183	2.139	1.154	2.264	1.125	2.427	1.094	2.643	1.061	2.944
1.264	1.718	1.245	1.759	1.225	1.808	1.203	1.867	1.18	1.938	1.155	2.026	1.128	2.137	1.1	2.279	1.071	2.465	1.04	2.72
1.229	1.643	1.211	1.68	1.192	1.724	1.171	1.777	1.149	1.841	1.126	1.919	1.101	2.016	1.075	2.139	1.047	2.3	1.018	2.516
1.192	1.57	1.176	1.604	1.158	1.643	1.139	1.69	1.119	1.746	1.097	1.815	1.074	1.9	1.049	2.007	1.023	2.145	0.996	2.329
1.155	1.499	1.14	1.529	1.124	1.563	1.106	1.605	1.087	1.655	1.067	1.715	1.045	1.79	1.022	1.882	0.998	2.001	0.972	2.156
1.118	1.429	1.104	1.455	1.089	1.486	1.073	1.523	1.055	1.566	1.037	1.619	1.016	1.684	0.995	1.764	0.972	1.865	0.949	1.996
1.08	1.36	1.068	1.383	1.054	1.41	1.039	1.442	1.023	1.481	1.005	1.527	0.987	1.583	0.967	1.652	0.946	1.738	0.924	1.848
1.042	1.292	1.03	1.312	1.018	1.336	1.004	1.364	0.989	1.398	0.974	1.438	0.957	1.486	0.938	1.545	0.919	1.618	0.899	1.711
1.003	1.225	0.993	1.243	0.981	1.264	0.969	1.289	0.956	1.317	0.941	1.352	0.926	1.393	0.909	1.443	0.891	1.505	0.872	1.583
0.964	1.16	0.954	1.175	0.944	1.193	0.933	1.215	0.921	1.239	0.908	1.269	0.894	1.304	0.879	1.347	0.863	1.399	0.845	1.463
0.924	1.096	0.915	1.109	0.906	1.125	0.896	1.143	0.885	1.164	0.874	1.189	0.861	1.219	0.848	1.254	0.833	1.298	0.817	1.351
0.883	1.032	0.876	1.044	0.868	1.057	0.859	1.072	0.849	1.09	0.839	1.111	0.828	1.136	0.816	1.166	0.802	1.202	0.789	1.246
0.85	0.983	0.844	0.993	0.836	1.004	0.829	1.018	0.82	1.033	0.81	1.051	0.8	1.073	0.789	1.099	0.777	1.129	0.765	1.166

Focal Length 35mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	61'0.8"	54'6.02"	48'7.86"	43'5.34"	38'9.67"	34'8.06"	30'11.85"	27'8

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	60'11.27"	Infinity	54'4.52"	Infinity	48'6.35"	Infinity	43'3.84"	Infinity	38'8.15"	Infinity	34'6.54"	Infinity	30'10.34"	Infinity	27'6.96"
100' 0''	38'3.16"	Infinity	35'7.31"	Infinity	33'0.54"	Infinity	30'6.99"	Infinity	28'2.77"	Infinity	25'11.97"	Infinity	23'10.64"	Infinity	21'10.83"
50' 0''	27'10.61"	268'4.15"	26'5.65"	586'7.59"	25'0.6"	Infinity	23'7.58"	Infinity	22'2.69"	Infinity	20'10.06"	Infinity	19'5.78"	Infinity	18'1.94"
30' 0''	20'5.72"	57'4.33"	19'8.65"	64'8.27"	18'11.26"	75'6.75"	18'1.61"	93'2.57"	17'3.74"	126'6.4"	16'5.72"	211'11.89"	15'7.62"	891'2.91"	14'9.5"
20' 0''	15'4.45"	28'11.21"	14'11.43"	30'7.6"	14'6.13"	32'9.64"	14'0.56"	35'7.78"	13'6.75"	39'6.12"	13'0.7"	45'0.1"	12'6.46"	53'4.72"	12'0.06"
15' 0''	12'3.62"	19'4.19"	12'0.48"	20'0.86"	11'9.12"	20'11.43"	11'5.55"	22'0.52"	11'1.76"	23'4.99"	10'9.76"	25'2.22"	10'5.57"	27'6.38"	10'1.2"
12' 0''	10'3.05"	14'6.43"	10'0.92"	14'11.13"	9'10.63"	15'4.73"	9'8.16"	15'11.48"	9'5.52"	16'7.7"	9'2.71"	17'5.86"	8'11.74"	18'6.63"	8'8.6"
10' 0''	8'9.48"	11'7.69"	8'7.96"	11'10.6"	8'6.31"	12'2.01"	8'4.52"	12'6.07"	8'2.6"	12'10.91"	8'0.53"	13'4.76"	7'10.33"	13'11.92"	7'7.98"
9' 0''	8'0.31"	10'3.32"	7'11.07"	10'5.53"	7'9.71"	10'8.12"	7'8.24"	10'11.16"	7'6.65"	11'2.77"	7'4.94"	11'7.08"	7'3.1"	12'0.29"	7'1.13"
8' 0''	7'2.87"	8'11.57"	7'1.88"	9'1.21"	7'0.8"	9'3.11"	6'11.62"	9'5.33"	6'10.35"	9'7.94"	6'8.97"	9'11.03"	6'7.48"	10'2.72"	6'5.88"
7' 6''	6'10.04"	8'3.92"	6'9.17"	8'5.3"	6'8.22"	8'6.91"	6'7.19"	8'8.78"	6'6.06"	8'10.97"	6'4.83"	9'1.56"	6'3.51"	9'4.62"	6'2.09"
7' 0''	6'5.14"	7'8.41"	6'4.39"	7'9.57"	6'3.56"	7'10.91"	6'2.65"	8'0.47"	6'1.67"	8'2.29"	6'0.6"	8'4.42"	5'11.44"	8'6.95"	5'10.18"
6' 6''	6'0.17"	7'1.03"	5'11.52"	7'1.99"	5'10.81"	7'3.1"	5'10.03"	7'4.38"	5'9.18"	7'5.87"	5'8.25"	7'7.62"	5'7.25"	7'9.67"	5'6.16"
6' 0''	5'7.11"	6'5.79"	5'6.57"	6'6.57"	5'5.97"	6'7.47"	5'5.31"	6'8.51"	5'4.58"	6'9.72"	5'3.8"	6'11.12"	5'2.94"	7'0.76"	5'2"
5' 6''	5'1.99"	5'10.68"	5'1.53"	5'11.3"	5'1.03"	6'0.02"	5'0.49"	6'0.85"	4'11.88"	6'1.8"	4'11.22"	6'2.91"	4'10.5"	6'4.2"	4'9.72"
5' 0''	4'8.78"	5'3.69"	4'8.41"	5'4.18"	4'8.01"	5'4.74"	4'7.56"	5'5.39"	4'7.07"	5'6.13"	4'6.53"	5'6.98"	4'5.94"	5'7.97"	4'5.3"
4' 9''	4'6.14"	5'0.25"	4'5.82"	5'0.68"	4'5.45"	5'1.17"	4'5.06"	5'1.73"	4'4.62"	5'2.37"	4'4.14"	5'3.11"	4'3.61"	5'3.97"	4'3.03"
4' 6''	4'3.49"	4'8.83"	4'3.2"	4'9.2"	4'2.88"	4'9.63"	4'2.53"	4'10.11"	4'2.14"	4'10.67"	4'1.71"	4'11.31"	4'1.24"	5'0.05"	4'0.73"
4' 3''	4'0.81"	4'5.45"	4'0.56"	4'5.77"	4'0.28"	4'6.13"	3'11.97"	4'6.55"	3'11.63"	4'7.02"	3'11.25"	4'7.57"	3'10.84"	4'8.2"	3'10.39"
4' 0''	3'10.11"	4'2.09"	3'9.89"	4'2.36"	3'9.65"	4'2.67"	3'9.38"	4'3.03"	3'9.09"	4'3.43"	3'8.76"	4'3.89"	3'8.4"	4'4.42"	3'8.01"
3' 9''	3'7.39"	3'10.77"	3'7.21"	3'10.99"	3'7"	3'11.25"	3'6.77"	3'11.55"	3'6.52"	3'11.89"	3'6.24"	4'0.27"	3'5.93"	4'0.71"	3'5.59"
3' 6''	3'4.65"	3'7.47"	3'4.5"	3'7.66"	3'4.32"	3'7.87"	3'4.13"	3'8.12"	3'3.91"	3'8.39"	3'3.68"	3'8.71"	3'3.41"	3'9.07"	3'3.12"
3' 3''	3'1.89"	3'4.2"	3'1.76"	3'4.35"	3'1.62"	3'4.53"	3'1.46"	3'4.72"	3'1.28"	3'4.95"	3'1.08"	3'5.21"	3'0.86"	3'5.5"	3'0.62"
3' 0''	2'11.11"	3'0.96"	2'11"	3'1.08"	2'10.88"	3'1.22"	2'10.75"	3'1.38"	2'10.61"	3'1.55"	2'10.45"	3'1.76"	2'10.27"	3'1.99"	2'10.07"

3	7.1	8	9	10	11	13	14	1
.48"	24'9.36"	22'2.14"	19'10.27"	17'9.46"	15'11.38"	14'3.69"	12'10.13"	11'6

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	24'7.88"	Infinity	22'0.62"	Infinity	19'8.78"	Infinity	17'7.97"	Infinity	15'9.87"	Infinity	14'2.18"	Infinity	12'8.64"	Infinity	11'5.01"
Infinity	20'0.55"	Infinity	18'3.79"	Infinity	16'8.52"	Infinity	15'2.7"	Infinity	13'10.29"	Infinity	12'7.21"	Infinity	11'5.4"	Infinity	10'4.79"
Infinity	16'10.64"	Infinity	15'7.93"	Infinity	14'5.87"	Infinity	13'4.52"	Infinity	12'3.9"	Infinity	11'4.03"	Infinity	10'4.91"	Infinity	9'6.56"
Infinity	13'11.43"	Infinity	13'1.47"	Infinity	12'3.68"	Infinity	11'6.14"	Infinity	10'8.88"	Infinity	9'11.95"	Infinity	9'3.4"	Infinity	8'7.25"
67'7.38"	11'5.53"	96'8.73"	10'10.92"	188'6.3"	10'4.26"	Infinity	9'9.61"	Infinity	9'3.01"	Infinity	8'8.49"	Infinity	8'2.11"	Infinity	7'7.89"
30'9.22"	9'8.68"	35'5.78"	9'4.01"	42'10.97"	8'11.24"	56'3.02"	8'6.38"	86'9.91"	8'1.47"	226'5.26"	7'8.55"	Infinity	7'3.64"	Infinity	6'10.77"
19'11.06"	8'5.3"	21'8.81"	8'1.86"	24'2.7"	7'10.3"	27'10.03"	7'6.63"	33'5.89"	7'2.87"	43'6.21"	6'11.04"	65'11.24"	6'7.17"	159'3.06"	6'3.28"
14'8.8"	7'5.5"	15'8.03"	7'2.88"	16'10.58"	7'0.14"	18'6.02"	6'9.28"	20'9.1"	6'6.33"	24'1.08"	6'3.29"	29'5.49"	6'0.18"	39'5.47"	5'9.02"
12'6.66"	6'11.04"	13'2.56"	6'8.82"	14'0.55"	6'6.49"	15'1.49"	6'4.05"	16'6.78"	6'1.51"	18'6.84"	5'10.87"	21'6.35"	5'8.16"	26'3.52"	5'5.39"
10'7.17"	6'4.17"	11'0.6"	6'2.34"	11'7.32"	6'0.41"	12'3.8"	5'10.38"	13'2.74"	5'8.25"	14'5.28"	5'6.03"	16'1.38"	5'3.72"	18'6.77"	5'1.35"
9'8.3"	6'0.56"	10'0.75"	5'10.93"	10'6.2"	5'9.2"	11'1"	5'7.36"	11'9.64"	5'5.44"	12'8.9"	5'3.42"	14'0.06"	5'1.32"	15'9.41"	4'11.16"
8'9.95"	5'8.83"	9'1.56"	5'7.39"	9'5.94"	5'5.85"	9'11.35"	5'4.22"	10'6.12"	5'2.49"	11'2.79"	5'0.68"	12'2.2"	4'10.79"	13'5.76"	4'8.83"
8'0.09"	5'4.98"	8'2.98"	5'3.72"	8'6.47"	5'2.37"	8'10.72"	5'0.93"	9'3.98"	4'11.41"	9'10.61"	4'9.8"	10'7.14"	4'8.11"	11'6.46"	4'6.36"
7'2.69"	5'0.99"	7'4.97"	4'11.91"	7'7.7"	4'10.74"	7'11"	4'9.49"	8'3.04"	4'8.17"	8'8.04"	4'6.76"	9'2.37"	4'5.28"	9'10.57"	4'3.73"
6'5.71"	4'8.87"	6'7.48"	4'7.95"	6'9.59"	4'6.96"	7'0.1"	4'5.9"	7'3.15"	4'4.76"	7'6.88"	4'3.55"	7'11.51"	4'2.27"	8'5.39"	4'0.93"
5'9.12"	4'4.6"	5'10.47"	4'3.84"	6'0.05"	4'3.01"	6'1.94"	4'2.13"	6'4.19"	4'1.18"	6'6.91"	4'0.16"	6'10.25"	3'11.08"	7'2.39"	3'9.94"
5'4.97"	4'2.4"	5'6.13"	4'1.72"	5'7.49"	4'0.98"	5'9.11"	4'0.17"	5'11.03"	3'11.31"	6'1.33"	3'10.39"	6'4.14"	3'9.41"	6'7.59"	3'8.37"
5'0.9"	4'0.17"	5'1.9"	3'11.56"	5'3.06"	3'10.89"	5'4.43"	3'10.17"	5'6.06"	3'9.4"	5'8"	3'8.57"	5'10.34"	3'7.68"	6'1.2"	3'6.74"
4'8.93"	3'9.89"	4'9.77"	3'9.35"	4'10.76"	3'8.76"	4'11.91"	3'8.13"	5'1.27"	3'7.44"	5'2.89"	3'6.69"	5'4.82"	3'5.9"	5'7.18"	3'5.05"
4'5.04"	3'7.57"	4'5.74"	3'7.1"	4'6.57"	3'6.58"	4'7.53"	3'6.02"	4'8.66"	3'5.42"	4'9.99"	3'4.76"	4'11.58"	3'4.06"	5'1.49"	3'3.3"
4'1.22"	3'5.21"	4'1.81"	3'4.8"	4'2.49"	3'4.36"	4'3.28"	3'3.87"	4'4.21"	3'3.34"	4'5.3"	3'2.77"	4'6.58"	3'2.15"	4'8.12"	3'1.49"
3'9.49"	3'2.81"	3'9.97"	3'2.46"	3'10.52"	3'2.08"	3'11.17"	3'1.66"	3'11.91"	3'1.21"	4'0.79"	3'0.72"	4'1.82"	3'0.18"	4'3.04"	2'11.61"
3'5.83"	3'0.36"	3'6.22"	3'0.06"	3'6.66"	2'11.74"	3'7.17"	2'11.39"	3'7.77"	2'11.01"	3'8.46"	2'10.6"	3'9.27"	2'10.14"	3'10.23"	2'9.66"
3'2.25"	2'9.86"	3'2.55"	2'9.62"	3'2.9"	2'9.36"	3'3.3"	2'9.07"	3'3.76"	2'8.75"	3'4.3"	2'8.41"	3'4.92"	2'8.03"	3'5.65"	2'7.63"

6	18	20	22
5.5"	10'4.61"	9'4.17"	8'5.14"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	10'3.09"	Infinity	9'2.68"	Infinity	8'3.63"	Infinity
Infinity	9'5.3"	Infinity	8'6.85"	Infinity	7'9.37"	Infinity
Infinity	8'8.94"	Infinity	8'0.04"	Infinity	7'3.85"	Infinity
Infinity	7'11.53"	Infinity	7'4.24"	Infinity	6'9.41"	Infinity
Infinity	7'1.88"	Infinity	6'8.09"	Infinity	6'2.56"	Infinity
Infinity	6'5.98"	Infinity	6'1.3"	Infinity	5'8.76"	Infinity
Infinity	5'11.4"	Infinity	5'7.56"	Infinity	5'3.78"	Infinity
64'3.88"	5'5.84"	229'1.96"	5'2.64"	Infinity	4'11.46"	Infinity
35'1.81"	5'2.58"	57'1.19"	4'11.74"	199'8.11"	4'8.89"	Infinity
22'5.37"	4'10.93"	29'5.8"	4'8.46"	45'11.38"	4'5.97"	127'7.56"
18'5.43"	4'8.93"	22'10.34"	4'6.65"	31'5.4"	4'4.35"	55'2.65"
15'4.05"	4'6.8"	18'2.37"	4'4.73"	23'1.5"	4'2.61"	33'6.3"
12'10.08"	4'4.54"	14'8.81"	4'2.66"	17'8.66"	4'0.74"	23'0.99"
10'9.51"	4'2.12"	12'0.74"	4'0.44"	13'11.19"	3'10.72"	16'11.3"
9'1.01"	3'11.52"	9'11.24"	3'10.06"	11'1.53"	3'8.54"	12'10.77"
7'7.65"	3'8.74"	8'2.47"	3'7.48"	8'11.61"	3'6.17"	10'0.41"
6'11.92"	3'7.27"	7'5.47"	3'6.11"	8'0.77"	3'4.9"	8'10.73"
6'4.75"	3'5.74"	6'9.24"	3'4.69"	7'3.04"	3'3.58"	7'10.79"
5'10.06"	3'4.15"	6'1.67"	3'3.2"	6'6.27"	3'2.2"	7'0.28"
5'3.82"	3'2.5"	5'6.7"	3'1.65"	5'10.31"	3'0.75"	6'2.96"
4'9.98"	3'0.78"	5'0.26"	3'0.03"	5'3.07"	2'11.24"	5'6.63"
4'4.51"	2'11"	4'6.28"	2'10.34"	4'8.45"	2'9.64"	4'11.15"
3'11.36"	2'9.13"	4'0.72"	2'8.57"	4'2.37"	2'7.97"	4'4.39"
3'6.51"	2'7.19"	3'7.54"	2'6.72"	3'8.77"	2'6.21"	3'10.25"

Focal Length 36mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	19.677	17.56	15.674	13.994	12.498	11.164	9.976	8.9

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	19.638	Infinity	17.521	Infinity	15.636	Infinity	13.956	Infinity	12.459	Infinity	11.126	Infinity	9.938	Infinity	8.88
30.00	11.992	Infinity	11.181	Infinity	10.394	Infinity	9.636	Infinity	8.91	Infinity	8.217	Infinity	7.561	Infinity	6.942
15.00	8.63	61.479	8.209	99.911	7.784	337.41	7.358	Infinity	6.933	Infinity	6.513	Infinity	6.101	Infinity	5.698
10.00	6.741	19.81	6.485	22.557	6.221	26.73	5.951	33.767	5.674	48.009	5.395	91.546	5.113	Infinity	4.831
9.00	6.282	16.16	6.061	17.93	5.831	20.454	5.594	24.306	5.35	30.856	5.102	44.323	4.851	87.306	4.598
8.00	5.79	13.135	5.603	14.272	5.407	15.813	5.204	18.002	4.994	21.331	4.779	26.949	4.559	38.339	4.337
7.00	5.26	10.587	5.106	11.306	4.945	12.242	4.776	13.501	4.6	15.271	4.418	17.919	4.232	22.278	4.041
6.00	4.687	8.412	4.566	8.853	4.438	9.409	4.304	10.126	4.162	11.076	4.015	12.387	3.862	14.295	3.704
5.50	4.384	7.439	4.279	7.78	4.167	8.202	4.049	8.736	3.924	9.429	3.794	10.353	3.658	11.641	3.517
5.00	4.067	6.533	3.978	6.791	3.882	7.108	3.78	7.501	3.672	8.001	3.559	8.65	3.44	9.521	3.317
4.50	3.738	5.686	3.663	5.879	3.582	6.111	3.497	6.396	3.405	6.751	3.309	7.202	3.207	7.788	3.101
4.00	3.394	4.894	3.333	5.033	3.267	5.2	3.197	5.402	3.121	5.649	3.041	5.956	2.956	6.344	2.867
3.80	3.252	4.591	3.197	4.712	3.137	4.857	3.072	5.031	3.003	5.243	2.929	5.505	2.851	5.833	2.768
3.60	3.108	4.295	3.058	4.401	3.003	4.526	2.944	4.675	2.881	4.856	2.814	5.078	2.742	5.353	2.666
3.40	2.961	4.007	2.916	4.098	2.867	4.205	2.813	4.333	2.756	4.486	2.695	4.672	2.63	4.902	2.56
3.20	2.812	3.726	2.771	3.803	2.727	3.894	2.68	4.002	2.628	4.132	2.573	4.288	2.514	4.478	2.451
3.00	2.66	3.451	2.624	3.517	2.585	3.594	2.542	3.684	2.497	3.792	2.447	3.922	2.394	4.079	2.338
2.90	2.583	3.316	2.549	3.377	2.512	3.447	2.473	3.53	2.429	3.628	2.383	3.745	2.333	3.887	2.28
2.80	2.505	3.183	2.473	3.238	2.439	3.302	2.402	3.378	2.361	3.467	2.318	3.573	2.271	3.701	2.221
2.70	2.427	3.052	2.397	3.102	2.365	3.16	2.33	3.228	2.292	3.309	2.252	3.405	2.208	3.52	2.161
2.60	2.347	2.922	2.32	2.967	2.29	3.02	2.258	3.082	2.223	3.155	2.184	3.241	2.143	3.344	2.099
2.50	2.267	2.793	2.242	2.834	2.214	2.882	2.184	2.938	2.152	3.003	2.116	3.081	2.078	3.173	2.037
2.40	2.187	2.666	2.163	2.703	2.138	2.746	2.11	2.796	2.08	2.855	2.047	2.924	2.012	3.006	1.973
2.30	2.105	2.54	2.084	2.574	2.06	2.612	2.035	2.657	2.007	2.709	1.977	2.771	1.944	2.844	1.909
2.20	2.023	2.416	2.003	2.446	1.982	2.48	1.959	2.52	1.933	2.567	1.905	2.621	1.875	2.686	1.843
2.10	1.94	2.293	1.922	2.32	1.903	2.35	1.881	2.386	1.858	2.427	1.833	2.475	1.805	2.531	1.775
2.00	1.856	2.172	1.84	2.195	1.823	2.222	1.803	2.253	1.782	2.289	1.759	2.332	1.734	2.381	1.707
1.95	1.814	2.112	1.799	2.134	1.782	2.159	1.764	2.188	1.744	2.222	1.722	2.261	1.698	2.307	1.672
1.90	1.772	2.052	1.757	2.072	1.741	2.096	1.724	2.123	1.705	2.155	1.684	2.191	1.662	2.234	1.637
1.85	1.729	1.992	1.715	2.012	1.7	2.034	1.684	2.059	1.666	2.088	1.646	2.122	1.625	2.162	1.602
1.80	1.686	1.933	1.673	1.951	1.659	1.972	1.644	1.995	1.627	2.023	1.608	2.054	1.588	2.091	1.566
1.75	1.643	1.874	1.631	1.891	1.618	1.91	1.603	1.932	1.587	1.957	1.57	1.987	1.551	2.021	1.53
1.70	1.6	1.816	1.589	1.831	1.576	1.849	1.562	1.869	1.547	1.893	1.531	1.92	1.513	1.952	1.493
1.65	1.557	1.758	1.546	1.772	1.534	1.788	1.521	1.807	1.507	1.829	1.492	1.854	1.475	1.883	1.456
1.60	1.513	1.7	1.503	1.713	1.492	1.728	1.48	1.746	1.467	1.766	1.452	1.789	1.436	1.815	1.419
1.55	1.469	1.642	1.46	1.654	1.45	1.668	1.438	1.684	1.426	1.703	1.413	1.724	1.398	1.748	1.381
1.50	1.425	1.585	1.417	1.596	1.407	1.609	1.397	1.624	1.385	1.64	1.372	1.66	1.359	1.682	1.343
1.45	1.381	1.528	1.373	1.538	1.364	1.55	1.354	1.563	1.344	1.579	1.332	1.597	1.319	1.617	1.305
1.40	1.336	1.471	1.329	1.481	1.321	1.492	1.312	1.504	1.302	1.518	1.291	1.534	1.279	1.552	1.266
1.35	1.292	1.415	1.285	1.424	1.277	1.433	1.269	1.444	1.26	1.457	1.25	1.472	1.239	1.488	1.227

1.30	1.247	1.359	1.241	1.367	1.234	1.376	1.226	1.386	1.218	1.397	1.209	1.41	1.199	1.425	1.187
1.25	1.202	1.304	1.196	1.31	1.19	1.318	1.183	1.327	1.175	1.338	1.167	1.349	1.158	1.363	1.147
1.20	1.156	1.248	1.151	1.254	1.146	1.261	1.139	1.27	1.132	1.279	1.125	1.289	1.116	1.301	1.107
1.15	1.111	1.193	1.106	1.199	1.101	1.205	1.095	1.212	1.089	1.22	1.082	1.23	1.075	1.24	1.066
1.10	1.065	1.138	1.061	1.143	1.056	1.149	1.051	1.155	1.046	1.162	1.039	1.171	1.032	1.18	1.025
1.05	1.019	1.084	1.015	1.088	1.011	1.093	1.007	1.099	1.002	1.105	0.996	1.112	0.99	1.12	0.983
1.00	0.973	1.03	0.969	1.033	0.966	1.038	0.962	1.042	0.957	1.048	0.952	1.054	0.947	1.061	0.941
0.95	0.926	0.976	0.923	0.979	0.92	0.983	0.917	0.987	0.913	0.992	0.908	0.997	0.904	1.003	0.898
0.91	0.889	0.933	0.886	0.936	0.883	0.939	0.88	0.943	0.877	0.947	0.873	0.952	0.869	0.957	0.864

3	7.1	8	9	10	11	13	14	1
18	7.975	7.135	6.387	5.72	5.126	4.597	4.125	3.7

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	7.937	Infinity	7.097	Infinity	6.349	Infinity	5.682	Infinity	5.088	Infinity	4.559	Infinity	4.087	Infinity	3.667
Infinity	6.361	Infinity	5.818	Infinity	5.313	Infinity	4.845	Infinity	4.413	Infinity	4.015	Infinity	3.65	Infinity	3.317
Infinity	5.306	Infinity	4.929	Infinity	4.567	Infinity	4.223	Infinity	3.896	Infinity	3.587	Infinity	3.297	Infinity	3.027
Infinity	4.552	Infinity	4.276	Infinity	4.005	Infinity	3.742	Infinity	3.487	Infinity	3.241	Infinity	3.006	Infinity	2.783
Infinity	4.345	Infinity	4.095	Infinity	3.847	Infinity	3.605	Infinity	3.369	Infinity	3.14	Infinity	2.92	Infinity	2.71
73.32	4.113	Infinity	3.889	Infinity	3.666	Infinity	3.447	Infinity	3.232	Infinity	3.022	Infinity	2.82	Infinity	2.625
30.708	3.847	53.635	3.652	343.706	3.457	Infinity	3.263	Infinity	3.071	Infinity	2.883	Infinity	2.7	Infinity	2.522
17.304	3.543	22.7	3.379	35.059	3.213	91.295	3.047	Infinity	2.881	Infinity	2.716	Infinity	2.555	Infinity	2.397
13.543	3.373	16.607	3.225	22.313	3.075	36.503	2.923	130.455	2.771	Infinity	2.62	Infinity	2.47	Infinity	2.323
10.742	3.189	12.562	3.058	15.537	2.924	21.224	2.787	36.246	2.65	183.489	2.513	Infinity	2.376	Infinity	2.241
8.575	2.99	9.681	2.876	11.333	2.758	14.043	2.638	19.257	2.516	33.259	2.393	190.331	2.27	Infinity	2.148
6.849	2.773	7.525	2.676	8.469	2.575	9.87	2.472	12.146	2.366	16.443	2.258	27.474	2.15	115.679	2.041
6.253	2.681	6.807	2.591	7.564	2.497	8.653	2.4	10.338	2.301	13.267	2.2	19.554	2.097	42.373	1.995
5.702	2.586	6.155	2.502	6.762	2.415	7.611	2.325	8.872	2.233	10.924	2.138	14.811	2.042	24.87	1.945
5.19	2.487	5.559	2.41	6.045	2.33	6.708	2.247	7.658	2.161	9.124	2.073	11.654	1.983	17.018	1.893
4.715	2.385	5.014	2.315	5.401	2.241	5.918	2.165	6.637	2.086	7.697	2.004	9.401	1.921	12.56	1.837
4.272	2.278	4.512	2.215	4.82	2.148	5.222	2.079	5.766	2.007	6.539	1.932	7.712	1.855	9.686	1.777
4.061	2.223	4.277	2.163	4.55	2.1	4.904	2.034	5.377	1.965	6.038	1.894	7.017	1.821	8.601	1.746
3.857	2.167	4.05	2.111	4.292	2.051	4.603	1.988	5.015	1.923	5.58	1.855	6.399	1.785	7.679	1.714
3.66	2.11	3.832	2.057	4.046	2.001	4.319	1.941	4.676	1.879	5.16	1.815	5.847	1.749	6.887	1.68
3.469	2.052	3.621	2.002	3.811	1.949	4.05	1.893	4.36	1.835	4.773	1.774	5.349	1.711	6.199	1.646
3.284	1.993	3.419	1.946	3.586	1.896	3.795	1.844	4.063	1.789	4.416	1.731	4.9	1.672	5.595	1.61
3.105	1.932	3.224	1.889	3.37	1.842	3.552	1.793	3.783	1.741	4.085	1.687	4.491	1.631	5.062	1.573
2.931	1.871	3.036	1.83	3.163	1.787	3.321	1.741	3.521	1.693	3.777	1.642	4.117	1.589	4.587	1.535
2.762	1.808	2.854	1.77	2.965	1.73	3.102	1.688	3.273	1.643	3.49	1.595	3.775	1.546	4.161	1.495
2.598	1.743	2.678	1.709	2.775	1.672	2.892	1.633	3.038	1.591	3.223	1.547	3.46	1.501	3.777	1.453
2.439	1.678	2.509	1.646	2.592	1.612	2.693	1.576	2.817	1.538	2.972	1.497	3.17	1.455	3.429	1.41
2.361	1.644	2.426	1.614	2.503	1.582	2.596	1.547	2.71	1.511	2.853	1.472	3.033	1.431	3.268	1.388
2.285	1.61	2.344	1.582	2.416	1.551	2.502	1.518	2.607	1.483	2.737	1.446	2.901	1.407	3.113	1.366
2.209	1.576	2.264	1.549	2.33	1.52	2.409	1.488	2.506	1.455	2.625	1.419	2.774	1.382	2.965	1.343
2.135	1.542	2.186	1.516	2.246	1.488	2.319	1.458	2.407	1.426	2.516	1.393	2.651	1.357	2.824	1.319
2.061	1.507	2.108	1.482	2.164	1.456	2.231	1.428	2.312	1.398	2.41	1.365	2.533	1.331	2.688	1.295
1.989	1.472	2.032	1.449	2.083	1.424	2.144	1.397	2.218	1.368	2.308	1.338	2.419	1.305	2.559	1.271
1.917	1.436	1.957	1.414	2.004	1.391	2.06	1.365	2.127	1.338	2.208	1.309	2.309	1.279	2.434	1.246
1.846	1.4	1.883	1.38	1.926	1.357	1.977	1.333	2.038	1.308	2.112	1.28	2.202	1.251	2.314	1.221
1.777	1.364	1.81	1.344	1.849	1.324	1.896	1.301	1.951	1.277	2.018	1.251	2.099	1.224	2.199	1.195
1.708	1.327	1.739	1.309	1.774	1.289	1.816	1.268	1.866	1.246	1.926	1.221	1.999	1.195	2.089	1.168
1.641	1.29	1.668	1.273	1.7	1.255	1.738	1.235	1.783	1.214	1.837	1.191	1.902	1.167	1.982	1.141
1.574	1.252	1.599	1.236	1.628	1.219	1.662	1.201	1.702	1.181	1.751	1.16	1.809	1.137	1.879	1.113
1.508	1.214	1.53	1.199	1.557	1.184	1.587	1.167	1.623	1.148	1.666	1.129	1.718	1.107	1.78	1.085

1.443	1.175	1.463	1.162	1.486	1.148	1.514	1.132	1.546	1.115	1.584	1.096	1.63	1.077	1.685	1.056
1.379	1.136	1.397	1.124	1.418	1.111	1.442	1.096	1.471	1.081	1.504	1.064	1.545	1.046	1.593	1.026
1.315	1.097	1.331	1.086	1.35	1.074	1.371	1.06	1.397	1.046	1.426	1.03	1.462	1.014	1.504	0.996
1.253	1.057	1.267	1.047	1.283	1.036	1.302	1.024	1.324	1.011	1.351	0.997	1.381	0.981	1.418	0.965
1.191	1.017	1.203	1.008	1.218	0.998	1.234	0.987	1.254	0.975	1.276	0.962	1.303	0.948	1.335	0.933
1.13	0.976	1.141	0.968	1.153	0.959	1.168	0.949	1.185	0.938	1.204	0.927	1.227	0.914	1.254	0.9
1.07	0.934	1.079	0.927	1.09	0.919	1.102	0.911	1.117	0.901	1.134	0.891	1.153	0.879	1.177	0.867
1.01	0.893	1.018	0.886	1.028	0.879	1.038	0.872	1.051	0.863	1.065	0.854	1.082	0.844	1.101	0.833
0.963	0.859	0.97	0.853	0.978	0.847	0.988	0.84	0.999	0.832	1.011	0.824	1.026	0.815	1.043	0.805

6	18	20	22
05	3.331	2.998	2.701

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	3.293	Infinity	2.96	Infinity	2.663	Infinity
Infinity	3.012	Infinity	2.735	Infinity	2.483	Infinity
Infinity	2.775	Infinity	2.541	Infinity	2.325	Infinity
Infinity	2.572	Infinity	2.373	Infinity	2.186	Infinity
Infinity	2.511	Infinity	2.322	Infinity	2.144	Infinity
Infinity	2.438	Infinity	2.26	Infinity	2.092	Infinity
Infinity	2.35	Infinity	2.186	Infinity	2.03	Infinity
Infinity	2.243	Infinity	2.095	Infinity	1.953	Infinity
Infinity	2.18	Infinity	2.04	Infinity	1.906	Infinity
Infinity	2.108	Infinity	1.979	Infinity	1.853	Infinity
Infinity	2.027	Infinity	1.908	Infinity	1.792	Infinity
Infinity	1.933	Infinity	1.826	Infinity	1.721	Infinity
Infinity	1.892	Infinity	1.79	Infinity	1.69	Infinity
109.573	1.848	Infinity	1.751	Infinity	1.656	Infinity
35.742	1.801	Infinity	1.71	Infinity	1.62	Infinity
20.337	1.751	69.174	1.666	Infinity	1.581	Infinity
13.666	1.698	25.713	1.618	Infinity	1.539	Infinity
11.573	1.67	19.098	1.593	74.226	1.516	Infinity
9.943	1.641	14.973	1.567	35.473	1.493	Infinity
8.636	1.611	12.155	1.54	22.733	1.469	6189.815
7.566	1.579	10.107	1.512	16.396	1.444	56.977
6.674	1.547	8.553	1.483	12.604	1.418	27.537
5.918	1.513	7.332	1.452	10.081	1.39	17.66
5.27	1.478	6.348	1.421	8.281	1.362	12.71
4.708	1.442	5.537	1.387	6.932	1.332	9.737
4.216	1.404	4.859	1.353	5.883	1.301	7.752
3.782	1.364	4.282	1.317	5.045	1.268	6.334
3.583	1.344	4.025	1.298	4.685	1.251	5.767
3.395	1.323	3.786	1.279	4.359	1.233	5.271
3.218	1.302	3.563	1.259	4.061	1.215	4.832
3.05	1.28	3.355	1.239	3.788	1.197	4.443
2.89	1.258	3.16	1.219	3.536	1.178	4.094
2.738	1.235	2.977	1.198	3.304	1.159	3.78
2.594	1.212	2.804	1.176	3.09	1.139	3.496
2.457	1.188	2.642	1.154	2.89	1.119	3.238
2.326	1.164	2.489	1.132	2.705	1.098	3.003
2.201	1.139	2.344	1.108	2.531	1.077	2.787
2.081	1.113	2.207	1.085	2.369	1.055	2.588
1.967	1.087	2.076	1.06	2.218	1.032	2.404
1.857	1.061	1.953	1.035	2.075	1.009	2.234

1.752	1.033	1.836	1.01	1.941	0.985	2.077
1.652	1.005	1.724	0.983	1.814	0.96	1.93
1.555	0.977	1.617	0.956	1.695	0.934	1.792
1.462	0.947	1.516	0.928	1.582	0.908	1.664
1.373	0.917	1.418	0.9	1.474	0.881	1.544
1.287	0.886	1.326	0.87	1.373	0.853	1.431
1.204	0.854	1.237	0.84	1.276	0.825	1.324
1.124	0.821	1.152	0.809	1.184	0.795	1.224
1.062	0.794	1.086	0.783	1.114	0.771	1.148

Focal Length 36mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	64'6.69"	57'7.34"	51'5.09"	45'10.94"	41'0.05"	36'7.53"	32'8.76"	29'3

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	64'5.15"	Infinity	57'5.82"	Infinity	51'3.58"	Infinity	45'9.44"	Infinity	40'10.52"	Infinity	36'6.03"	Infinity	32'7.26"	Infinity	29'1.59"
100' 0''	39'7.02"	Infinity	36'10.71"	Infinity	34'3.4"	Infinity	31'9.23"	Infinity	29'4.35"	Infinity	27'0.84"	Infinity	24'10.79"	Infinity	22'10.24"
50' 0''	28'6.81"	216'0.19"	27'1.93"	367'5.85"	25'8.9"	1746'4.76"	24'3.85"	Infinity	22'10.89"	Infinity	21'6.12"	Infinity	20'1.65"	Infinity	18'9.59"
30' 0''	20'10"	54'7.23"	20'1.1"	60'9.48"	19'3.86"	69'8.18"	18'6.33"	83'5.11"	17'8.56"	107'3.24"	16'10.61"	158'3.27"	16'0.54"	341'4.49"	15'2.42"
20' 0''	15'6.78"	28'2.84"	15'1.9"	29'9.09"	14'8.74"	31'8.15"	14'3.3"	34'1.96"	13'9.6"	37'5.69"	13'3.66"	42'0.86"	12'9.51"	48'9.95"	12'3.18"
15' 0''	12'5.06"	19'0.53"	12'2.03"	19'8.44"	11'10.78"	20'6.03"	11'7.31"	21'5.8"	11'3.62"	22'8.5"	10'11.72"	24'3.21"	10'7.62"	26'3.65"	10'3.34"
12' 0''	10'4.01"	14'4.42"	10'1.97"	14'8.75"	9'11.76"	15'1.89"	9'9.37"	15'8.05"	9'6.82"	16'3.51"	9'4.09"	17'0.66"	9'1.2"	18'0.06"	8'10.13"
10' 0''	8'10.17"	11'6.44"	8'8.71"	11'9.13"	8'7.12"	12'0.29"	8'5.4"	12'4.02"	8'3.54"	12'8.46"	8'1.55"	13'1.79"	7'11.41"	13'8.27"	7'9.13"
9' 0''	8'0.87"	10'2.37"	7'11.68"	10'4.43"	7'10.38"	10'6.82"	7'8.96"	10'9.63"	7'7.43"	11'0.95"	7'5.78"	11'4.9"	7'4"	11'9.65"	7'2.09"
8' 0''	7'3.31"	8'10.87"	7'2.37"	9'0.39"	7'1.33"	9'2.16"	7'0.2"	9'4.21"	6'10.97"	9'6.63"	6'9.64"	9'9.47"	6'8.21"	10'0.86"	6'6.66"
7' 6''	6'10.43"	8'3.32"	6'9.6"	8'4.61"	6'8.69"	8'6.11"	6'7.69"	8'7.84"	6'6.61"	8'9.87"	6'5.43"	9'0.26"	6'4.16"	9'3.08"	6'2.78"
7' 0''	6'5.48"	7'7.9"	6'4.76"	7'8.99"	6'3.96"	7'10.24"	6'3.1"	7'11.69"	6'2.15"	8'1.38"	6'1.12"	8'3.35"	6'	8'5.68"	5'10.79"
6' 6''	6'0.45"	7'0.61"	5'11.84"	7'1.51"	5'11.16"	7'2.55"	5'10.41"	7'3.74"	5'9.6"	7'5.13"	5'8.71"	7'6.75"	5'7.74"	7'8.64"	5'6.69"
6' 0''	5'7.36"	6'5.45"	5'6.84"	6'6.18"	5'6.26"	6'7.03"	5'5.63"	6'8"	5'4.94"	6'9.12"	5'4.18"	6'10.42"	5'3.36"	6'11.94"	5'2.46"
5' 6''	5'2.19"	5'10.41"	5'1.75"	5'10.99"	5'1.28"	5'11.67"	5'0.75"	6'0.44"	5'0.18"	6'1.33"	4'11.54"	6'2.36"	4'10.85"	6'3.56"	4'10.1"
5' 0''	4'8.94"	5'3.48"	4'8.59"	5'3.94"	4'8.2"	5'4.47"	4'7.78"	5'5.07"	4'7.31"	5'5.76"	4'6.79"	5'6.56"	4'6.23"	5'7.48"	4'5.61"
4' 9''	4'6.29"	5'0.06"	4'5.97"	5'0.47"	4'5.63"	5'0.92"	4'5.25"	5'1.45"	4'4.83"	5'2.05"	4'4.37"	5'2.75"	4'3.86"	5'3.55"	4'3.31"
4' 6''	4'3.61"	4'8.67"	4'3.34"	4'9.02"	4'3.03"	4'9.42"	4'2.7"	4'9.87"	4'2.33"	4'10.4"	4'1.92"	4'10.99"	4'1.47"	4'11.68"	4'0.98"
4' 3''	4'0.92"	4'5.31"	4'0.68"	4'5.61"	4'0.41"	4'5.95"	4'0.12"	4'6.34"	3'11.79"	4'6.79"	3'11.43"	4'7.3"	3'11.04"	4'7.89"	3'10.61"
4' 0''	3'10.21"	4'1.97"	3'10"	4'2.23"	3'9.77"	4'2.52"	3'9.51"	4'2.85"	3'9.23"	4'3.23"	3'8.92"	4'3.67"	3'8.58"	4'4.16"	3'8.2"
3' 9''	3'7.48"	3'10.67"	3'7.3"	3'10.88"	3'7.1"	3'11.13"	3'6.88"	3'11.4"	3'6.64"	3'11.72"	3'6.37"	4'0.08"	3'6.08"	4'0.5"	3'5.75"
3' 6''	3'4.72"	3'7.39"	3'4.57"	3'7.57"	3'4.41"	3'7.77"	3'4.22"	3'8"	3'4.02"	3'8.26"	3'3.79"	3'8.56"	3'3.54"	3'8.9"	3'3.26"
3' 3''	3'1.95"	3'4.13"	3'1.82"	3'4.28"	3'1.69"	3'4.44"	3'1.53"	3'4.63"	3'1.36"	3'4.84"	3'1.17"	3'5.08"	3'0.97"	3'5.36"	3'0.74"
3' 0''	2'11.15"	3'0.91"	2'11.05"	3'1.02"	2'10.94"	3'1.15"	2'10.82"	3'1.3"	2'10.68"	3'1.47"	2'10.52"	3'1.66"	2'10.35"	3'1.88"	2'10.17"

3	7.1	8	9	10	11	13	14	1
3.1"	26'1.98"	23'4.91"	20'11.46"	18'9.2"	16'9.81"	15'0.98"	13'6.4"	12'1

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	26'0.47"	Infinity	23'3.4"	Infinity	20'9.94"	Infinity	18'7.69"	Infinity	16'8.31"	Infinity	14'11.48"	Infinity	13'4.92"	Infinity	12'0.38"
Infinity	20'11.21"	Infinity	19'1.71"	Infinity	17'5.71"	Infinity	15'11.19"	Infinity	14'6.1"	Infinity	13'2.38"	Infinity	11'11.96"	Infinity	10'10.77"
Infinity	17'6.01"	Infinity	16'3"	Infinity	15'0.62"	Infinity	13'10.92"	Infinity	12'9.94"	Infinity	11'9.7"	Infinity	10'10.21"	Infinity	9'11.49"
Infinity	14'4.31"	Infinity	13'6.29"	Infinity	12'8.41"	Infinity	11'10.74"	Infinity	11'1.33"	Infinity	10'4.24"	Infinity	9'7.5"	Infinity	8'11.15"
59'7.69"	11'8.71"	79'6.38"	11'2.13"	127'7.91"	10'7.49"	404'9.62"	10'0.83"	Infinity	9'6.2"	Infinity	8'11.63"	Infinity	8'5.18"	Infinity	7'10.88"
29'0.69"	9'10.89"	32'11.42"	9'6.28"	38'10.02"	9'1.56"	48'7.97"	8'8.74"	68'2.58"	8'3.85"	125'3.16"	7'10.93"	2469'11.12"	7'6"	Infinity	7'1.11"
19'2.56"	8'6.91"	20'9.46"	8'3.54"	22'10.93"	8'0.03"	25'10.84"	7'8.41"	30'4.77"	7'4.69"	37'10.06"	7'0.89"	52'4.74"	6'9.04"	93'1.18"	6'5.15"
14'4.25"	7'6.71"	15'2.25"	7'4.16"	16'3.04"	7'1.47"	17'7.86"	6'10.67"	19'6.78"	6'7.76"	22'3.59"	6'4.76"	26'6.02"	6'1.68"	33'8.66"	5'10.54"
12'3.41"	7'0.06"	12'10.52"	6'9.9"	13'7.42"	6'7.63"	14'6.8"	6'5.24"	15'9.76"	6'2.74"	17'6.14"	6'0.15"	19'11.29"	5'9.47"	23'8.07"	5'6.73"
10'4.92"	6'5"	10'9.84"	6'3.23"	11'3.89"	6'1.35"	11'11.45"	5'11.37"	12'9.09"	5'9.28"	13'9.71"	5'7.1"	15'2.8"	5'4.84"	17'3.06"	5'2.5"
9'6.44"	6'1.31"	9'10.49"	5'11.72"	10'3.43"	5'10.04"	10'9.53"	5'8.25"	11'5.2"	5'6.37"	12'3.07"	5'4.4"	13'4.14"	5'2.34"	14'10.12"	5'0.2"
8'8.44"	5'9.49"	8'11.74"	5'8.09"	9'3.72"	5'6.6"	9'8.6"	5'5.01"	10'2.66"	5'3.33"	10'10.34"	5'1.56"	11'8.29"	4'11.7"	12'9.61"	4'9.78"
7'10.87"	5'5.55"	8'1.53"	5'4.33"	8'4.71"	5'3.02"	8'8.57"	5'1.63"	9'1.31"	5'0.14"	9'7.22"	4'10.58"	10'2.75"	4'8.93"	11'0.59"	4'7.2"
7'1.72"	5'1.49"	7'3.83"	5'0.44"	7'6.33"	4'11.31"	7'9.34"	4'10.1"	8'1"	4'8.81"	8'5.5"	4'7.44"	8'11.14"	4'5.99"	9'6.35"	4'4.48"
6'4.95"	4'9.28"	6'6.59"	4'8.4"	6'8.53"	4'7.44"	6'10.84"	4'6.41"	7'1.62"	4'5.31"	7'4.99"	4'4.14"	7'9.16"	4'2.89"	8'2.39"	4'1.58"
5'8.55"	4'4.94"	5'9.8"	4'4.2"	5'11.26"	4'3.41"	6'1"	4'2.56"	6'3.06"	4'1.64"	6'5.55"	4'0.65"	6'8.57"	3'11.6"	7'0.3"	3'10.49"
5'4.47"	4'2.71"	5'5.55"	4'2.05"	5'6.82"	4'1.33"	5'8.3"	4'0.56"	5'10.07"	3'11.73"	6'0.18"	3'10.84"	6'2.73"	3'9.88"	6'5.85"	3'8.87"
5'0.48"	4'0.44"	5'1.41"	3'11.85"	5'2.49"	3'11.21"	5'3.75"	3'10.52"	5'5.25"	3'9.77"	5'7.03"	3'8.97"	5'9.17"	3'8.11"	5'11.76"	3'7.19"
4'8.57"	3'10.13"	4'9.36"	3'9.61"	4'10.27"	3'9.05"	4'11.34"	3'8.43"	5'0.59"	3'7.77"	5'2.08"	3'7.05"	5'3.86"	3'6.28"	5'6"	3'5.46"
4'4.73"	3'7.78"	4'5.4"	3'7.33"	4'6.16"	3'6.83"	4'7.05"	3'6.29"	4'8.1"	3'5.71"	4'9.33"	3'5.08"	4'10.79"	3'4.4"	5'0.54"	3'3.66"
4'0.97"	3'5.39"	4'1.52"	3'5"	4'2.16"	3'4.57"	4'2.89"	3'4.1"	4'3.75"	3'3.59"	4'4.76"	3'3.04"	4'5.95"	3'2.45"	4'7.36"	3'1.81"
3'9.29"	3'2.96"	3'9.74"	3'2.63"	3'10.25"	3'2.26"	3'10.85"	3'1.86"	3'11.55"	3'1.42"	4'0.36"	3'0.95"	4'1.31"	3'0.44"	4'2.44"	2'11.88"
3'5.67"	3'0.48"	3'6.03"	3'0.2"	3'6.45"	2'11.9"	3'6.93"	2'11.56"	3'7.48"	2'11.19"	3'8.12"	2'10.79"	3'8.87"	2'10.36"	3'9.76"	2'9.89"
3'2.13"	2'9.96"	3'2.41"	2'9.73"	3'2.73"	2'9.48"	3'3.11"	2'9.2"	3'3.54"	2'8.9"	3'4.04"	2'8.57"	3'4.62"	2'8.21"	3'5.3"	2'7.82"

6	18	20	22
.87"	10'11.14"	9'10.03"	8'10.34"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	10'9.65"	Infinity	9'8.53"	Infinity	8'8.84"	Infinity
Infinity	9'10.74"	Infinity	8'11.79"	Infinity	8'1.85"	Infinity
Infinity	9'1.51"	Infinity	8'4.27"	Infinity	7'7.73"	Infinity
Infinity	8'3.21"	Infinity	7'7.71"	Infinity	7'0.66"	Infinity
Infinity	7'4.76"	Infinity	6'10.86"	Infinity	6'5.2"	Infinity
Infinity	6'8.28"	Infinity	6'3.54"	Infinity	5'10.93"	Infinity
804'8.4"	6'1.27"	Infinity	5'9.4"	Infinity	5'5.59"	Infinity
48'10.5"	5'7.37"	100'2.64"	5'4.18"	Infinity	5'0.99"	Infinity
30'0.92"	5'3.93"	43'5.84"	5'1.1"	88'7.37"	4'10.25"	Infinity
20'3.87"	5'0.09"	25'5.83"	4'9.64"	35'10.84"	4'7.16"	67'5.57"
17'0.19"	4'10"	20'5.07"	4'7.75"	26'5.68"	4'5.45"	40'0.62"
14'4.21"	4'7.78"	16'7.77"	4'5.72"	20'4.42"	4'3.62"	27'4.39"
12'1.89"	4'5.41"	13'8.7"	4'3.56"	16'1.12"	4'1.66"	20'0.63"
10'3.83"	4'2.89"	11'4.74"	4'1.25"	12'11.2"	3'11.55"	15'3.53"
8'9.09"	4'0.2"	9'5.93"	3'10.76"	10'6.02"	3'9.26"	11'11.42"
7'4.97"	3'9.31"	7'10.97"	3'8.08"	8'6.88"	3'6.79"	9'5.7"
6'9.73"	3'7.79"	7'2.64"	3'6.66"	7'9.02"	3'5.48"	8'5.55"
6'2.96"	3'6.22"	6'6.96"	3'5.19"	7'0.07"	3'4.11"	7'6.79"
5'8.61"	3'4.58"	5'11.85"	3'3.65"	6'3.93"	3'2.68"	6'9.2"
5'2.66"	3'2.88"	5'5.26"	3'2.06"	5'8.49"	3'1.18"	6'0.6"
4'9.06"	3'1.12"	4'11.12"	3'0.39"	5'1.66"	2'11.61"	5'4.84"
4'3.78"	2'11.29"	4'5.4"	2'10.65"	4'7.37"	2'9.97"	4'9.8"
3'10.8"	2'9.38"	4'0.05"	2'8.84"	4'1.55"	2'8.25"	4'3.39"
3'6.09"	2'7.4"	3'7.04"	2'6.94"	3'8.16"	2'6.45"	3'9.52"

Focal Length 37mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	20.769	18.533	16.541	14.767	13.186	11.777	10.522	9.4

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	20.731	Infinity	18.495	Infinity	16.503	Infinity	14.728	Infinity	13.147	Infinity	11.739	Infinity	10.484	Infinity	9.366
30.00	12.383	Infinity	11.562	Infinity	10.764	Infinity	9.992	Infinity	9.25	Infinity	8.541	Infinity	7.867	Infinity	7.23
15.00	8.828	52.679	8.409	76.522	7.986	156.027	7.559	Infinity	7.134	Infinity	6.711	Infinity	6.295	Infinity	5.887
10.00	6.858	18.816	6.607	21.126	6.347	24.515	6.079	29.919	5.805	39.804	5.527	63.428	5.246	191.815	4.964
9.00	6.383	15.496	6.166	17.02	5.941	19.138	5.707	22.259	5.466	27.267	5.22	36.532	4.97	59.229	4.718
8.00	5.875	12.696	5.692	13.693	5.5	15.021	5.301	16.863	5.094	19.565	4.881	23.877	4.663	31.777	4.442
7.00	5.329	10.303	5.18	10.944	5.022	11.767	4.856	12.856	4.684	14.353	4.505	16.521	4.32	19.913	4.131
6.00	4.742	8.234	4.624	8.632	4.5	9.13	4.368	9.764	4.23	10.592	4.085	11.711	3.934	13.296	3.779
5.50	4.431	7.301	4.329	7.61	4.22	7.991	4.105	8.468	3.984	9.078	3.856	9.881	3.723	10.976	3.584
5.00	4.108	6.427	4.021	6.663	3.928	6.95	3.829	7.304	3.724	7.749	3.613	8.321	3.497	9.076	3.376
4.50	3.771	5.607	3.699	5.784	3.621	5.996	3.538	6.254	3.449	6.574	3.355	6.975	3.255	7.491	3.151
4.00	3.421	4.836	3.362	4.965	3.299	5.118	3.23	5.302	3.157	5.526	3.079	5.802	2.997	6.149	2.909
3.80	3.277	4.54	3.223	4.652	3.165	4.786	3.103	4.945	3.036	5.138	2.964	5.375	2.888	5.668	2.807
3.60	3.131	4.251	3.082	4.349	3.029	4.464	2.972	4.601	2.911	4.767	2.846	4.968	2.776	5.215	2.702
3.40	2.981	3.969	2.938	4.053	2.89	4.152	2.839	4.27	2.784	4.41	2.724	4.58	2.661	4.788	2.593
3.20	2.83	3.693	2.791	3.765	2.748	3.85	2.702	3.949	2.653	4.068	2.599	4.211	2.542	4.384	2.481
3.00	2.676	3.424	2.641	3.485	2.604	3.556	2.563	3.64	2.518	3.739	2.471	3.858	2.42	4.001	2.365
2.90	2.598	3.291	2.565	3.347	2.53	3.412	2.492	3.489	2.45	3.58	2.405	3.688	2.357	3.817	2.305
2.80	2.519	3.16	2.489	3.211	2.456	3.271	2.42	3.341	2.381	3.423	2.339	3.521	2.293	3.638	2.245
2.70	2.439	3.031	2.411	3.077	2.38	3.132	2.347	3.195	2.311	3.27	2.271	3.358	2.229	3.464	2.183
2.60	2.359	2.902	2.333	2.945	2.304	2.994	2.273	3.052	2.239	3.119	2.203	3.199	2.163	3.294	2.12
2.50	2.278	2.776	2.254	2.814	2.228	2.859	2.199	2.911	2.167	2.971	2.133	3.043	2.096	3.128	2.057
2.40	2.197	2.65	2.174	2.685	2.15	2.725	2.123	2.772	2.094	2.826	2.063	2.89	2.028	2.966	1.992
2.30	2.114	2.526	2.094	2.557	2.072	2.593	2.047	2.635	2.02	2.684	1.991	2.741	1.96	2.808	1.925
2.20	2.031	2.404	2.013	2.431	1.992	2.464	1.97	2.501	1.945	2.544	1.919	2.595	1.89	2.654	1.858
2.10	1.948	2.282	1.931	2.307	1.912	2.335	1.892	2.368	1.869	2.407	1.845	2.451	1.818	2.504	1.79
2.00	1.863	2.162	1.848	2.184	1.831	2.209	1.812	2.238	1.792	2.272	1.77	2.311	1.746	2.357	1.72
1.95	1.821	2.102	1.806	2.123	1.79	2.147	1.773	2.174	1.753	2.205	1.732	2.242	1.709	2.285	1.684
1.90	1.778	2.043	1.764	2.062	1.749	2.085	1.732	2.11	1.714	2.139	1.694	2.174	1.672	2.213	1.649
1.85	1.735	1.984	1.722	2.002	1.708	2.023	1.692	2.047	1.675	2.074	1.656	2.106	1.635	2.143	1.613
1.80	1.692	1.926	1.68	1.942	1.666	1.962	1.651	1.984	1.635	2.009	1.617	2.039	1.598	2.073	1.576
1.75	1.648	1.867	1.637	1.883	1.624	1.901	1.61	1.921	1.595	1.945	1.578	1.973	1.56	2.004	1.54
1.70	1.605	1.809	1.594	1.824	1.582	1.84	1.569	1.86	1.555	1.882	1.539	1.907	1.521	1.936	1.502
1.65	1.561	1.752	1.551	1.765	1.54	1.78	1.528	1.798	1.514	1.818	1.499	1.842	1.483	1.869	1.465
1.60	1.517	1.694	1.508	1.707	1.497	1.721	1.486	1.737	1.473	1.756	1.459	1.777	1.444	1.802	1.427
1.55	1.473	1.637	1.464	1.649	1.455	1.662	1.444	1.677	1.432	1.694	1.419	1.714	1.405	1.737	1.389
1.50	1.429	1.58	1.421	1.591	1.412	1.603	1.402	1.617	1.391	1.632	1.378	1.651	1.365	1.672	1.351
1.45	1.384	1.524	1.377	1.533	1.368	1.544	1.359	1.557	1.349	1.571	1.338	1.588	1.325	1.607	1.312
1.40	1.339	1.468	1.332	1.476	1.325	1.486	1.316	1.498	1.307	1.511	1.296	1.526	1.285	1.543	1.272
1.35	1.295	1.412	1.288	1.42	1.281	1.429	1.273	1.439	1.264	1.451	1.255	1.465	1.244	1.48	1.233

1.30	1.249	1.356	1.243	1.363	1.237	1.372	1.23	1.381	1.222	1.392	1.213	1.404	1.203	1.418	1.193
1.25	1.204	1.301	1.199	1.307	1.193	1.315	1.186	1.323	1.179	1.333	1.171	1.344	1.162	1.357	1.152
1.20	1.158	1.246	1.154	1.251	1.148	1.258	1.142	1.266	1.136	1.274	1.128	1.284	1.12	1.296	1.111
1.15	1.113	1.191	1.108	1.196	1.103	1.202	1.098	1.209	1.092	1.216	1.085	1.225	1.078	1.235	1.07
1.10	1.067	1.136	1.063	1.141	1.058	1.146	1.054	1.152	1.048	1.159	1.042	1.167	1.036	1.176	1.028
1.05	1.02	1.082	1.017	1.086	1.013	1.091	1.009	1.096	1.004	1.102	0.999	1.109	0.993	1.117	0.986
1.00	0.974	1.028	0.971	1.032	0.967	1.036	0.964	1.04	0.959	1.045	0.955	1.051	0.95	1.058	0.944
0.95	0.927	0.974	0.925	0.977	0.922	0.981	0.918	0.985	0.915	0.989	0.91	0.994	0.906	1	0.901
0.91	0.89	0.932	0.887	0.934	0.885	0.937	0.882	0.941	0.878	0.945	0.875	0.949	0.871	0.954	0.866

3	7.1	8	9	10	11	13	14	1
04	8.408	7.521	6.73	6.026	5.399	4.84	4.342	3.8

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	8.37	Infinity	7.483	Infinity	6.692	Infinity	5.988	Infinity	5.36	Infinity	4.801	Infinity	4.303	Infinity	3.86
Infinity	6.631	Infinity	6.07	Infinity	5.547	Infinity	5.062	Infinity	4.613	Infinity	4.199	Infinity	3.819	Infinity	3.47
Infinity	5.49	Infinity	5.106	Infinity	4.736	Infinity	4.383	Infinity	4.048	Infinity	3.73	Infinity	3.432	Infinity	3.152
Infinity	4.683	Infinity	4.405	Infinity	4.132	Infinity	3.865	Infinity	3.606	Infinity	3.356	Infinity	3.116	Infinity	2.887
198.147	4.465	Infinity	4.213	Infinity	3.963	Infinity	3.718	Infinity	3.479	Infinity	3.247	Infinity	3.023	Infinity	2.808
50.707	4.218	154.909	3.994	Infinity	3.771	Infinity	3.55	Infinity	3.333	Infinity	3.12	Infinity	2.914	Infinity	2.715
25.918	3.939	39.298	3.744	94.32	3.549	Infinity	3.354	Infinity	3.161	Infinity	2.971	Infinity	2.785	Infinity	2.605
15.692	3.619	19.701	3.456	27.694	3.291	51.177	3.125	1272.899	2.959	Infinity	2.793	Infinity	2.63	Infinity	2.47
12.544	3.441	14.956	3.295	19.108	3.146	27.852	2.995	57.777	2.843	Infinity	2.691	Infinity	2.54	Infinity	2.392
10.11	3.25	11.603	3.12	13.928	2.987	18.007	2.852	26.935	2.715	61.464	2.577	Infinity	2.44	Infinity	2.304
8.173	3.043	9.109	2.93	10.463	2.814	12.576	2.694	16.303	2.573	24.545	2.451	57.539	2.328	Infinity	2.205
6.594	2.818	7.18	2.722	7.981	2.623	9.134	2.521	10.919	2.416	14.023	2.309	20.696	2.201	45.037	2.092
6.041	2.723	6.526	2.634	7.176	2.542	8.086	2.446	9.442	2.348	11.657	2.247	15.882	2.146	26.991	2.043
5.527	2.624	5.926	2.542	6.452	2.457	7.172	2.368	8.209	2.276	9.817	2.183	12.621	2.087	18.679	1.991
5.046	2.522	5.374	2.447	5.799	2.368	6.368	2.286	7.164	2.202	8.346	2.115	10.266	2.025	13.898	1.935
4.597	2.416	4.864	2.348	5.206	2.276	5.655	2.201	6.267	2.123	7.142	2.043	8.486	1.96	10.792	1.876
4.176	2.307	4.392	2.245	4.666	2.18	5.019	2.112	5.488	2.041	6.139	1.967	7.093	1.891	8.613	1.814
3.975	2.25	4.169	2.192	4.413	2.13	4.725	2.065	5.136	1.998	5.698	1.928	6.504	1.855	7.749	1.781
3.78	2.193	3.954	2.138	4.171	2.079	4.447	2.018	4.806	1.954	5.291	1.887	5.973	1.818	6.998	1.747
3.591	2.134	3.746	2.082	3.939	2.027	4.182	1.969	4.496	1.909	4.913	1.845	5.492	1.78	6.339	1.712
3.408	2.075	3.546	2.026	3.717	1.974	3.93	1.92	4.204	1.862	4.563	1.803	5.053	1.74	5.755	1.676
3.229	2.014	3.352	1.968	3.503	1.92	3.69	1.869	3.928	1.815	4.237	1.758	4.652	1.7	5.234	1.639
3.056	1.952	3.165	1.909	3.298	1.864	3.462	1.816	3.668	1.766	3.933	1.713	4.284	1.658	4.768	1.6
2.888	1.889	2.984	1.849	3.1	1.807	3.243	1.763	3.421	1.716	3.648	1.666	3.945	1.614	4.346	1.56
2.725	1.824	2.809	1.788	2.91	1.749	3.034	1.708	3.188	1.664	3.382	1.618	3.632	1.569	3.965	1.519
2.566	1.759	2.639	1.725	2.727	1.689	2.834	1.651	2.966	1.611	3.131	1.568	3.341	1.523	3.617	1.476
2.411	1.691	2.475	1.661	2.551	1.628	2.643	1.593	2.755	1.556	2.895	1.516	3.071	1.475	3.299	1.431
2.335	1.657	2.394	1.628	2.465	1.597	2.55	1.564	2.654	1.528	2.782	1.49	2.943	1.45	3.15	1.408
2.26	1.623	2.315	1.595	2.381	1.566	2.46	1.534	2.555	1.5	2.673	1.463	2.819	1.425	3.007	1.385
2.186	1.588	2.237	1.562	2.298	1.534	2.371	1.503	2.458	1.471	2.566	1.436	2.7	1.4	2.87	1.361
2.113	1.553	2.161	1.528	2.217	1.501	2.284	1.472	2.364	1.441	2.462	1.409	2.584	1.374	2.738	1.337
2.042	1.518	2.085	1.494	2.137	1.469	2.198	1.441	2.272	1.412	2.362	1.38	2.472	1.347	2.611	1.312
1.971	1.482	2.011	1.46	2.058	1.435	2.114	1.409	2.182	1.382	2.264	1.352	2.364	1.32	2.489	1.287
1.901	1.446	1.938	1.425	1.981	1.402	2.032	1.377	2.094	1.351	2.168	1.323	2.259	1.293	2.372	1.261
1.831	1.409	1.865	1.389	1.905	1.368	1.952	1.345	2.008	1.32	2.076	1.293	2.158	1.265	2.259	1.235
1.763	1.372	1.794	1.354	1.83	1.333	1.873	1.312	1.924	1.288	1.985	1.263	2.059	1.237	2.15	1.208
1.696	1.335	1.724	1.317	1.757	1.299	1.796	1.278	1.842	1.256	1.897	1.233	1.963	1.208	2.045	1.181
1.629	1.297	1.655	1.281	1.685	1.263	1.72	1.244	1.762	1.224	1.811	1.202	1.871	1.178	1.943	1.153
1.563	1.259	1.587	1.244	1.614	1.227	1.645	1.21	1.683	1.191	1.727	1.17	1.78	1.148	1.845	1.124
1.499	1.22	1.52	1.206	1.544	1.191	1.572	1.175	1.606	1.157	1.646	1.138	1.693	1.117	1.75	1.095

1.434	1.181	1.453	1.168	1.475	1.154	1.501	1.139	1.531	1.123	1.566	1.105	1.608	1.086	1.658	1.066
1.371	1.142	1.388	1.13	1.408	1.117	1.43	1.103	1.457	1.088	1.488	1.072	1.525	1.054	1.57	1.035
1.309	1.102	1.324	1.091	1.341	1.079	1.361	1.067	1.385	1.053	1.412	1.038	1.445	1.022	1.484	1.004
1.247	1.061	1.26	1.052	1.275	1.041	1.293	1.029	1.314	1.017	1.338	1.003	1.367	0.988	1.4	0.972
1.186	1.021	1.197	1.012	1.211	1.002	1.226	0.992	1.245	0.98	1.266	0.968	1.29	0.954	1.32	0.94
1.125	0.979	1.136	0.971	1.147	0.963	1.161	0.953	1.177	0.943	1.195	0.932	1.216	0.92	1.241	0.907
1.066	0.938	1.075	0.931	1.085	0.923	1.097	0.915	1.11	0.905	1.126	0.895	1.144	0.885	1.166	0.873
1.007	0.895	1.015	0.889	1.023	0.882	1.033	0.875	1.045	0.867	1.058	0.858	1.074	0.848	1.092	0.838
0.96	0.861	0.967	0.856	0.975	0.85	0.983	0.843	0.994	0.836	1.005	0.828	1.019	0.819	1.035	0.81

6	18	20	22
98	3.503	3.151	2.837

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	3.465	Infinity	3.112	Infinity	2.799	Infinity
Infinity	3.152	Infinity	2.862	Infinity	2.598	Infinity
Infinity	2.891	Infinity	2.649	Infinity	2.425	Infinity
Infinity	2.67	Infinity	2.465	Infinity	2.272	Infinity
Infinity	2.603	Infinity	2.409	Infinity	2.226	Infinity
Infinity	2.525	Infinity	2.343	Infinity	2.17	Infinity
Infinity	2.43	Infinity	2.263	Infinity	2.102	Infinity
Infinity	2.315	Infinity	2.164	Infinity	2.018	Infinity
Infinity	2.247	Infinity	2.105	Infinity	1.968	Infinity
Infinity	2.17	Infinity	2.039	Infinity	1.911	Infinity
Infinity	2.083	Infinity	1.963	Infinity	1.846	Infinity
Infinity	1.984	Infinity	1.876	Infinity	1.77	Infinity
132.072	1.94	Infinity	1.838	Infinity	1.736	Infinity
41.136	1.893	Infinity	1.797	Infinity	1.7	Infinity
23.253	1.844	99.698	1.753	Infinity	1.662	Infinity
15.619	1.791	31.838	1.706	Infinity	1.62	Infinity
11.386	1.735	17.98	1.656	53.029	1.576	Infinity
9.905	1.706	14.5	1.629	30.807	1.552	Infinity
8.695	1.675	12.011	1.602	21.265	1.528	178.761
7.686	1.643	10.142	1.573	15.959	1.502	46.37
6.833	1.61	8.687	1.543	12.581	1.476	25.805
6.102	1.576	7.522	1.513	10.241	1.448	17.452
5.469	1.541	6.569	1.481	8.525	1.419	12.924
4.915	1.505	5.774	1.447	7.212	1.389	10.083
4.426	1.467	5.101	1.413	6.176	1.358	8.135
3.991	1.427	4.524	1.377	5.337	1.325	6.715
3.603	1.386	4.024	1.339	4.644	1.291	5.635
3.423	1.365	3.798	1.319	4.34	1.273	5.186
3.253	1.343	3.586	1.299	4.061	1.254	4.785
3.091	1.321	3.387	1.279	3.804	1.236	4.425
2.936	1.298	3.2	1.258	3.565	1.217	4.099
2.789	1.275	3.023	1.237	3.344	1.197	3.804
2.649	1.252	2.857	1.215	3.137	1.177	3.534
2.514	1.228	2.699	1.193	2.945	1.156	3.287
2.386	1.203	2.549	1.17	2.765	1.135	3.06
2.263	1.178	2.407	1.147	2.596	1.114	2.851
2.145	1.152	2.273	1.123	2.438	1.091	2.658
2.032	1.126	2.144	1.098	2.288	1.069	2.478
1.924	1.099	2.022	1.073	2.148	1.045	2.311
1.82	1.072	1.906	1.047	2.015	1.021	2.155

1.719	1.044	1.795	1.021	1.889	0.996	2.009
1.623	1.015	1.689	0.993	1.77	0.971	1.873
1.53	0.985	1.587	0.966	1.657	0.944	1.744
1.441	0.955	1.49	0.937	1.549	0.918	1.624
1.355	0.924	1.396	0.908	1.447	0.89	1.51
1.271	0.893	1.307	0.877	1.35	0.861	1.403
1.191	0.86	1.221	0.846	1.257	0.832	1.301
1.113	0.827	1.139	0.814	1.169	0.801	1.205
1.053	0.799	1.075	0.788	1.101	0.776	1.132

Focal Length 37mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	68'1.68"	60'9.65"	54'3.22"	48'5.38"	43'3.13"	38'7.66"	34'6.25"	30'10

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	68'0.18"	Infinity	60'8.15"	Infinity	54'1.73"	Infinity	48'3.86"	Infinity	43'1.61"	Infinity	38'6.16"	Infinity	34'4.76"	Infinity	30'8.74"
100' 0''	40'10.64"	Infinity	38'1.91"	Infinity	35'6.1"	Infinity	32'11.37"	Infinity	30'5.86"	Infinity	28'1.69"	Infinity	25'10.94"	Infinity	23'9.67"
50' 0''	29'2.72"	183'2.61"	27'9.94"	273'7.92"	26'4.97"	615'11.95"	24'11.92"	Infinity	23'6.9"	Infinity	22'2.02"	Infinity	20'9.4"	Infinity	19'5.13"
30' 0''	21'2.08"	52'3.53"	20'5.35"	57'7.24"	19'8.26"	65'0.44"	18'10.86"	76'1.14"	18'1.2"	94'1.52"	17'3.33"	128'5.17"	16'5.3"	218'0.65"	15'7.2"
20' 0''	15'8.97"	27'7.51"	15'4.24"	28'11.96"	14'11.21"	30'8.55"	14'5.9"	32'10.86"	14'0.32"	35'9.4"	13'6.49"	39'8.36"	13'0.43"	45'3.37"	12'6.18"
15' 0''	12'6.42"	18'9.28"	12'3.48"	19'4.53"	12'0.33"	20'1.27"	11'8.97"	20'11.94"	11'5.38"	22'1.14"	11'1.58"	23'5.79"	10'9.57"	25'3.26"	10'5.38"
12' 0''	10'4.92"	14'2.62"	10'2.95"	14'6.62"	10'0.82"	14'11.36"	9'10.51"	15'5.01"	9'8.04"	15'11.81"	9'5.39"	16'8.11"	9'2.58"	17'6.36"	8'11.59"
10' 0''	8'10.81"	11'5.32"	8'9.41"	11'7.82"	8'7.88"	11'10.74"	8'6.22"	12'2.19"	8'4.43"	12'6.27"	8'2.5"	12'11.16"	8'0.43"	13'5.06"	7'10.21"
9' 0''	8'1.39"	10'1.51"	8'0.25"	10'3.42"	7'11"	10'5.65"	7'9.64"	10'8.26"	7'8.16"	10'11.32"	7'6.57"	11'2.96"	7'4.85"	11'7.31"	7'3"
8' 0''	7'3.72"	8'10.23"	7'2.82"	8'11.65"	7'1.83"	9'1.3"	7'0.74"	9'3.21"	6'11.56"	9'5.45"	6'10.28"	9'8.08"	6'8.89"	9'11.2"	6'7.39"
7' 6''	6'10.79"	8'2.78"	6'10"	8'3.99"	6'9.12"	8'5.38"	6'8.17"	8'7"	6'7.13"	8'8.88"	6'5.99"	8'11.09"	6'4.76"	9'1.7"	6'3.44"
7' 0''	6'5.79"	7'7.45"	6'5.1"	7'8.46"	6'4.34"	7'9.63"	6'3.51"	7'10.99"	6'2.6"	8'0.56"	6'1.61"	8'2.39"	6'0.53"	8'4.55"	5'11.37"
6' 6''	6'0.72"	7'0.24"	6'0.13"	7'1.08"	5'11.48"	7'2.05"	5'10.77"	7'3.16"	5'9.98"	7'4.46"	5'9.13"	7'5.96"	5'8.2"	7'7.72"	5'7.19"
6' 0''	5'7.58"	6'5.14"	5'7.08"	6'5.83"	5'6.54"	6'6.62"	5'5.93"	6'7.53"	5'5.27"	6'8.58"	5'4.54"	6'9.79"	5'3.75"	6'11.2"	5'2.88"
5' 6''	5'2.37"	5'10.16"	5'1.96"	5'10.71"	5'1.5"	5'11.34"	5'1"	6'0.07"	5'0.45"	6'0.9"	4'11.84"	6'1.86"	4'11.18"	6'2.98"	4'10.46"
5' 0''	4'9.09"	5'3.29"	4'8.76"	5'3.72"	4'8.39"	5'4.21"	4'7.98"	5'4.78"	4'7.53"	5'5.43"	4'7.04"	5'6.17"	4'6.49"	5'7.03"	4'5.9"
4' 9''	4'6.42"	4'11.89"	4'6.12"	5'0.27"	4'5.79"	5'0.7"	4'5.43"	5'1.2"	4'5.03"	5'1.76"	4'4.59"	5'2.41"	4'4.1"	5'3.16"	4'3.57"
4' 6''	4'3.73"	4'8.53"	4'3.47"	4'8.85"	4'3.18"	4'9.23"	4'2.86"	4'9.66"	4'2.5"	4'10.15"	4'2.11"	4'10.71"	4'1.68"	4'11.35"	4'1.21"
4' 3''	4'1.02"	4'5.18"	4'0.79"	4'5.47"	4'0.54"	4'5.79"	4'0.26"	4'6.16"	3'11.95"	4'6.58"	3'11.6"	4'7.06"	3'11.23"	4'7.61"	3'10.81"
4' 0''	3'10.3"	4'1.87"	3'10.1"	4'2.11"	3'9.88"	4'2.38"	3'9.63"	4'2.7"	3'9.36"	4'3.05"	3'9.07"	4'3.46"	3'8.74"	4'3.93"	3'8.37"
3' 9''	3'7.55"	3'10.58"	3'7.38"	3'10.78"	3'7.19"	3'11.01"	3'6.98"	3'11.27"	3'6.75"	3'11.57"	3'6.5"	3'11.91"	3'6.21"	4'0.3"	3'5.9"
3' 6''	3'4.78"	3'7.31"	3'4.64"	3'7.48"	3'4.48"	3'7.67"	3'4.31"	3'7.89"	3'4.11"	3'8.13"	3'3.9"	3'8.42"	3'3.66"	3'8.74"	3'3.39"
3' 3''	3'2"	3'4.07"	3'1.88"	3'4.21"	3'1.75"	3'4.37"	3'1.6"	3'4.54"	3'1.44"	3'4.74"	3'1.26"	3'4.97"	3'1.06"	3'5.23"	3'0.84"
3' 0''	2'11.19"	3'0.86"	2'11.1"	3'0.97"	2'10.99"	3'1.09"	2'10.87"	3'1.23"	2'10.74"	3'1.39"	2'10.6"	3'1.57"	2'10.43"	3'1.78"	2'10.25"

3	7.1	8	9	10	11	13	14	1
).24"	27'7.02"	24'8.1"	22'0.96"	19'9.24"	17'8.56"	15'10.55"	14'2.94"	12'9

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	27'5.53"	Infinity	24'6.59"	Infinity	21'11.47"	Infinity	19'7.74"	Infinity	17'7.04"	Infinity	15'9.03"	Infinity	14'1.43"	Infinity	12'7.96"
Infinity	21'9.92"	Infinity	19'11.69"	Infinity	18'2.99"	Infinity	16'7.77"	Infinity	15'2"	Infinity	13'9.64"	Infinity	12'6.61"	Infinity	11'4.84"
Infinity	18'1.31"	Infinity	16'10.02"	Infinity	15'7.33"	Infinity	14'5.3"	Infinity	13'3.98"	Infinity	12'3.38"	Infinity	11'3.54"	Infinity	10'4.45"
1025'11.53"	14'9.07"	Infinity	13'11"	Infinity	13'1.05"	Infinity	12'3.27"	Infinity	11'5.73"	Infinity	10'8.48"	Infinity	9'11.57"	Infinity	9'3.03"
53'9.89"	11'11.77"	68'4.73"	11'5.24"	98'6.38"	10'10.62"	196'4.83"	10'3.96"	Infinity	9'9.31"	Infinity	9'2.71"	Infinity	8'8.2"	Infinity	8'1.82"
27'7.77"	10'1"	30'11.18"	9'8.46"	35'8.71"	9'3.79"	43'3.8"	8'11.01"	57'0.39"	8'6.15"	88'11.25"	8'1.24"	243'4.66"	7'8.31"	Infinity	7'3.4"
18'7.27"	8'8.44"	19'11.89"	8'5.14"	21'9.92"	8'1.69"	24'4.26"	7'10.12"	28'0.34"	7'6.44"	33'9.67"	7'2.68"	44'1.41"	6'10.85"	67'6.03"	6'6.97"
14'0.28"	7'7.86"	14'9.26"	7'5.37"	15'8.62"	7'2.74"	16'11.35"	7'	18'7.06"	6'9.13"	20'10.57"	6'6.17"	24'3.3"	6'3.13"	29'9.25"	6'0.02"
12'0.56"	7'1.03"	12'6.99"	6'10.93"	13'2.98"	6'8.71"	14'1.09"	6'6.37"	15'2.19"	6'3.92"	16'7.72"	6'1.37"	18'8.18"	5'10.73"	21'8.37"	5'8.02"
10'2.92"	6'5.79"	10'7.41"	6'4.07"	11'0.89"	6'2.24"	11'7.69"	6'0.31"	12'4.27"	5'10.27"	13'3.35"	5'8.13"	14'6.09"	5'5.9"	16'2.53"	5'3.59"
9'4.79"	6'2.01"	9'8.5"	6'0.47"	10'0.99"	5'10.84"	10'6.51"	5'9.1"	11'1.38"	5'7.26"	11'10.12"	5'5.33"	12'9.53"	5'3.31"	14'0.93"	5'1.2"
8'7.09"	5'10.11"	8'10.12"	5'8.76"	9'1.76"	5'7.31"	9'6.19"	5'5.76"	9'11.66"	5'4.12"	10'6.51"	5'2.39"	11'3.29"	5'0.58"	12'2.86"	4'10.68"
7'9.79"	5'6.09"	8'0.23"	5'4.91"	8'3.15"	5'3.64"	8'6.67"	5'2.29"	8'10.97"	5'0.84"	9'4.29"	4'11.31"	9'10.99"	4'9.7"	10'7.64"	4'8.01"
7'0.86"	5'1.95"	7'2.8"	5'0.93"	7'5.11"	4'11.84"	7'7.87"	4'10.67"	7'11.2"	4'9.42"	8'3.28"	4'8.08"	8'8.35"	4'6.67"	9'2.76"	4'5.19"
6'4.28"	4'9.67"	6'5.8"	4'8.81"	6'7.59"	4'7.89"	6'9.72"	4'6.9"	7'0.26"	4'5.83"	7'3.34"	4'4.69"	7'7.11"	4'3.47"	7'11.8"	4'2.19"
5'8.03"	4'5.25"	5'9.19"	4'4.55"	5'10.55"	4'3.78"	6'0.16"	4'2.96"	6'2.06"	4'2.07"	6'4.34"	4'1.11"	6'7.09"	4'0.09"	6'10.46"	3'11.01"
5'4.03"	4'2.99"	5'5.03"	4'2.36"	5'6.21"	4'1.67"	5'7.58"	4'0.92"	5'9.21"	4'0.12"	5'11.15"	3'11.25"	6'1.49"	3'10.33"	6'4.32"	3'9.34"
5'0.1"	4'0.69"	5'0.96"	4'0.13"	5'1.97"	3'11.51"	5'3.14"	3'10.85"	5'4.53"	3'10.12"	5'6.17"	3'9.35"	5'8.13"	3'8.51"	5'10.5"	3'7.62"
4'8.24"	3'10.35"	4'8.98"	3'9.86"	4'9.83"	3'9.31"	4'10.82"	3'8.72"	4'11.99"	3'8.08"	5'1.36"	3'7.39"	5'3"	3'6.64"	5'4.96"	3'5.84"
4'4.46"	3'7.98"	4'5.08"	3'7.54"	4'5.8"	3'7.06"	4'6.63"	3'6.55"	4'7.6"	3'5.98"	4'8.74"	3'5.37"	4'10.09"	3'4.71"	4'11.7"	3'4"
4'0.75"	3'5.56"	4'1.26"	3'5.18"	4'1.86"	3'4.77"	4'2.54"	3'4.32"	4'3.34"	3'3.83"	4'4.28"	3'3.3"	4'5.38"	3'2.72"	4'6.68"	3'2.1"
3'9.1"	3'3.1"	3'9.52"	3'2.78"	3'10.01"	3'2.43"	3'10.57"	3'2.05"	3'11.22"	3'1.63"	3'11.97"	3'1.17"	4'0.86"	3'0.67"	4'1.9"	3'0.14"
3'5.52"	3'0.6"	3'5.86"	3'0.33"	3'6.25"	3'0.04"	3'6.7"	2'11.72"	3'7.22"	2'11.36"	3'7.82"	2'10.98"	3'8.52"	2'10.56"	3'9.34"	2'10.11"
3'2.01"	2'10.06"	3'2.28"	2'9.84"	3'2.58"	2'9.6"	3'2.93"	2'9.33"	3'3.34"	2'9.04"	3'3.8"	2'8.72"	3'4.35"	2'8.38"	3'4.98"	2'8"

6	18	20	22
.46"	11'5.91"	10'4.06"	9'3.69"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	11'4.4"	Infinity	10'2.53"	Infinity	9'2.18"	Infinity
Infinity	10'4.28"	Infinity	9'4.82"	Infinity	8'6.42"	Infinity
Infinity	9'6.12"	Infinity	8'8.53"	Infinity	7'11.66"	Infinity
Infinity	8'6.89"	Infinity	7'11.18"	Infinity	7'3.92"	Infinity
Infinity	7'7.61"	Infinity	7'1.6"	Infinity	6'7.82"	Infinity
Infinity	6'10.53"	Infinity	6'5.75"	Infinity	6'1.07"	Infinity
169'11.64"	6'3.08"	Infinity	5'11.21"	Infinity	5'7.36"	Infinity
40'1.1"	5'8.85"	66'3.04"	5'5.67"	259'6.04"	5'2.47"	Infinity
26'6.92"	5'5.24"	35'8.7"	5'2.42"	58'9.96"	4'11.58"	225'10.6"
18'8.48"	5'1.22"	22'8.2"	4'10.79"	29'11.33"	4'8.32"	47'2.7"
15'10.65"	4'11.03"	18'7.35"	4'8.8"	23'1.67"	4'6.52"	32'0.57"
13'6.67"	4'8.71"	15'5.38"	4'6.68"	18'4.49"	4'4.6"	23'5.38"
11'7.13"	4'6.25"	12'11.02"	4'4.43"	14'10.21"	4'2.55"	17'10.96"
9'11.07"	4'3.63"	10'10.18"	4'2.01"	12'1.68"	4'0.34"	14'0.62"
8'5.75"	4'0.84"	9'1.49"	3'11.43"	9'11.88"	3'9.96"	11'2.45"
7'2.66"	3'9.86"	7'7.99"	3'8.65"	8'2.92"	3'7.39"	9'0.21"
6'7.82"	3'8.29"	7'0.21"	3'7.19"	7'5.84"	3'6.03"	8'1.26"
6'1.39"	3'6.67"	6'4.99"	3'5.67"	6'9.54"	3'4.61"	7'3.44"
5'7.34"	3'4.99"	5'10.27"	3'4.08"	6'1.92"	3'3.13"	6'6.59"
5'1.63"	3'3.25"	5'3.99"	3'2.44"	5'6.91"	3'1.58"	5'10.58"
4'8.24"	3'1.44"	4'10.12"	3'0.73"	5'0.43"	2'11.97"	5'3.28"
4'3.14"	2'11.56"	4'4.62"	2'10.94"	4'6.42"	2'10.28"	4'8.62"
3'10.3"	2'9.61"	3'11.45"	2'9.09"	4'0.83"	2'8.52"	4'2.5"
3'5.72"	2'7.59"	3'6.59"	2'7.15"	3'7.63"	2'6.67"	3'8.87"

Focal Length 38mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	21.891	19.533	17.432	15.56	13.892	12.406	11.083	9.9

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	21.853	Infinity	19.494	Infinity	17.393	Infinity	15.521	Infinity	13.854	Infinity	12.368	Infinity	11.044	Infinity	9.865
30.00	12.768	Infinity	11.938	Infinity	11.128	Infinity	10.344	Infinity	9.587	Infinity	8.863	Infinity	8.173	Infinity	7.519
15.00	9.018	46.549	8.603	62.964	8.181	104.407	7.756	403.362	7.329	Infinity	6.905	Infinity	6.485	Infinity	6.073
10.00	6.97	17.986	6.724	19.962	6.468	22.778	6.203	27.081	5.932	34.399	5.655	49.464	5.375	97.709	5.094
9.00	6.48	14.932	6.267	16.261	6.045	18.07	5.815	20.658	5.577	24.632	5.334	31.451	5.085	45.719	4.834
8.00	5.956	12.318	5.777	13.201	5.589	14.36	5.393	15.935	5.19	18.181	4.979	21.613	4.764	27.458	4.544
7.00	5.395	10.055	5.249	10.63	5.095	11.361	4.933	12.315	4.764	13.601	4.588	15.415	4.405	18.143	4.218
6.00	4.793	8.077	4.679	8.439	4.558	8.887	4.429	9.452	4.294	10.182	4.152	11.152	4.004	12.494	3.851
5.50	4.475	7.178	4.376	7.46	4.271	7.806	4.159	8.235	4.04	8.778	3.915	9.483	3.784	10.428	3.648
5.00	4.145	6.333	4.061	6.549	3.971	6.811	3.875	7.132	3.773	7.532	3.664	8.04	3.551	8.701	3.432
4.50	3.803	5.536	3.733	5.699	3.657	5.893	3.576	6.129	3.49	6.419	3.398	6.779	3.301	7.237	3.199
4.00	3.447	4.784	3.39	4.903	3.328	5.044	3.262	5.213	3.191	5.418	3.116	5.668	3.035	5.98	2.95
3.80	3.3	4.495	3.248	4.599	3.192	4.722	3.132	4.869	3.067	5.045	2.997	5.26	2.923	5.526	2.845
3.60	3.151	4.212	3.105	4.302	3.054	4.409	2.999	4.536	2.94	4.687	2.876	4.871	2.808	5.095	2.736
3.40	3	3.935	2.958	4.013	2.912	4.105	2.863	4.213	2.809	4.343	2.752	4.498	2.69	4.687	2.625
3.20	2.847	3.664	2.809	3.731	2.768	3.809	2.724	3.902	2.676	4.011	2.624	4.142	2.569	4.3	2.509
3.00	2.69	3.399	2.657	3.456	2.621	3.522	2.582	3.6	2.539	3.692	2.493	3.801	2.443	3.932	2.39
2.90	2.611	3.268	2.58	3.321	2.546	3.381	2.509	3.453	2.469	3.536	2.426	3.636	2.379	3.755	2.329
2.80	2.532	3.139	2.503	3.187	2.471	3.243	2.436	3.308	2.399	3.384	2.358	3.474	2.314	3.582	2.267
2.70	2.451	3.011	2.424	3.055	2.395	3.106	2.362	3.165	2.327	3.234	2.289	3.316	2.248	3.413	2.204
2.60	2.37	2.885	2.345	2.925	2.318	2.971	2.288	3.024	2.255	3.087	2.22	3.161	2.181	3.248	2.14
2.50	2.289	2.76	2.265	2.796	2.24	2.838	2.212	2.886	2.182	2.942	2.149	3.009	2.113	3.087	2.075
2.40	2.206	2.636	2.185	2.669	2.161	2.706	2.136	2.75	2.108	2.8	2.077	2.86	2.044	2.93	2.009
2.30	2.123	2.513	2.104	2.543	2.082	2.576	2.058	2.615	2.033	2.661	2.005	2.714	1.974	2.776	1.941
2.20	2.039	2.392	2.021	2.418	2.002	2.448	1.98	2.483	1.957	2.524	1.931	2.571	1.903	2.626	1.873
2.10	1.955	2.272	1.939	2.295	1.921	2.322	1.901	2.353	1.88	2.389	1.856	2.43	1.831	2.479	1.803
2.00	1.87	2.153	1.855	2.174	1.839	2.197	1.821	2.225	1.802	2.256	1.78	2.293	1.757	2.335	1.732
1.95	1.827	2.094	1.813	2.113	1.797	2.136	1.781	2.161	1.762	2.191	1.742	2.225	1.72	2.265	1.696
1.90	1.784	2.035	1.77	2.053	1.756	2.074	1.74	2.098	1.723	2.126	1.703	2.158	1.682	2.195	1.66
1.85	1.74	1.977	1.728	1.994	1.714	2.013	1.699	2.036	1.683	2.061	1.664	2.091	1.645	2.126	1.623
1.80	1.697	1.919	1.685	1.935	1.672	1.953	1.658	1.973	1.642	1.997	1.625	2.025	1.607	2.057	1.586
1.75	1.653	1.861	1.642	1.876	1.63	1.893	1.617	1.912	1.602	1.934	1.586	1.96	1.568	1.989	1.549
1.70	1.609	1.803	1.599	1.817	1.588	1.833	1.575	1.851	1.561	1.871	1.546	1.895	1.529	1.923	1.511
1.65	1.565	1.746	1.556	1.759	1.545	1.773	1.533	1.79	1.52	1.809	1.506	1.831	1.49	1.856	1.473
1.60	1.521	1.689	1.512	1.701	1.502	1.714	1.491	1.73	1.479	1.747	1.466	1.767	1.451	1.791	1.435
1.55	1.477	1.632	1.468	1.643	1.459	1.656	1.449	1.67	1.437	1.686	1.425	1.704	1.411	1.726	1.396
1.50	1.432	1.576	1.424	1.586	1.416	1.597	1.406	1.61	1.396	1.625	1.384	1.642	1.371	1.662	1.357
1.45	1.387	1.52	1.38	1.529	1.372	1.539	1.363	1.551	1.353	1.565	1.343	1.58	1.331	1.598	1.318
1.40	1.342	1.464	1.336	1.472	1.328	1.482	1.32	1.493	1.311	1.505	1.301	1.519	1.29	1.535	1.278
1.35	1.297	1.408	1.291	1.416	1.284	1.425	1.277	1.434	1.268	1.446	1.259	1.458	1.249	1.473	1.238

1.30	1.252	1.353	1.246	1.36	1.24	1.368	1.233	1.377	1.225	1.387	1.217	1.398	1.208	1.412	1.198
1.25	1.206	1.298	1.201	1.304	1.195	1.311	1.189	1.319	1.182	1.328	1.174	1.339	1.166	1.351	1.157
1.20	1.16	1.243	1.156	1.249	1.151	1.255	1.145	1.262	1.139	1.27	1.132	1.28	1.124	1.29	1.115
1.15	1.114	1.189	1.11	1.194	1.106	1.199	1.1	1.206	1.095	1.213	1.088	1.221	1.081	1.231	1.074
1.10	1.068	1.134	1.064	1.139	1.06	1.144	1.056	1.149	1.051	1.156	1.045	1.163	1.039	1.171	1.032
1.05	1.022	1.08	1.018	1.084	1.015	1.089	1.011	1.094	1.006	1.099	1.001	1.106	0.995	1.113	0.989
1.00	0.975	1.027	0.972	1.03	0.969	1.034	0.965	1.038	0.961	1.043	0.957	1.049	0.952	1.055	0.946
0.95	0.928	0.973	0.926	0.976	0.923	0.979	0.92	0.983	0.916	0.987	0.912	0.992	0.908	0.998	0.903
0.91	0.891	0.93	0.888	0.933	0.886	0.936	0.883	0.939	0.88	0.943	0.876	0.947	0.873	0.952	0.868

3	7.1	8	9	10	11	13	14	1
03	8.853	7.917	7.083	6.34	5.678	5.089	4.563	4.0

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	8.815	Infinity	7.879	Infinity	7.045	Infinity	6.302	Infinity	5.64	Infinity	5.051	Infinity	4.525	Infinity	4.057
Infinity	6.902	Infinity	6.323	Infinity	5.783	Infinity	5.28	Infinity	4.815	Infinity	4.385	Infinity	3.989	Infinity	3.626
Infinity	5.671	Infinity	5.28	Infinity	4.904	Infinity	4.543	Infinity	4.2	Infinity	3.874	Infinity	3.566	Infinity	3.278
Infinity	4.812	Infinity	4.532	Infinity	4.257	Infinity	3.987	Infinity	3.724	Infinity	3.469	Infinity	3.224	Infinity	2.99
93.644	4.581	Infinity	4.328	Infinity	4.077	Infinity	3.83	Infinity	3.588	Infinity	3.352	Infinity	3.124	Infinity	2.905
39.513	4.321	78.33	4.097	Infinity	3.873	Infinity	3.651	Infinity	3.432	Infinity	3.217	Infinity	3.008	Infinity	2.805
22.669	4.027	31.553	3.834	56.616	3.639	554.543	3.444	Infinity	3.249	Infinity	3.058	Infinity	2.87	Infinity	2.687
14.455	3.693	17.569	3.531	23.217	3.367	36.473	3.201	103.012	3.035	Infinity	2.869	Infinity	2.705	Infinity	2.543
11.747	3.507	13.705	3.362	16.882	3.214	22.877	3.064	38.241	2.912	159.713	2.76	Infinity	2.609	Infinity	2.459
9.592	3.308	10.844	3.18	12.719	3.048	15.808	2.914	21.799	2.777	38.189	2.64	258.637	2.503	Infinity	2.366
7.835	3.093	8.64	2.982	9.774	2.867	11.476	2.749	14.292	2.629	19.792	2.507	35.106	2.384	288.384	2.261
6.376	2.86	6.89	2.766	7.581	2.669	8.549	2.568	9.993	2.464	12.356	2.358	16.881	2.25	28.89	2.142
5.859	2.762	6.287	2.675	6.852	2.584	7.628	2.49	8.747	2.393	10.49	2.293	13.551	2.192	20.26	2.09
5.375	2.66	5.73	2.58	6.192	2.496	6.812	2.409	7.683	2.318	8.983	2.226	11.115	2.131	15.213	2.035
4.921	2.555	5.214	2.482	5.59	2.404	6.085	2.324	6.764	2.241	7.741	2.154	9.257	2.066	11.901	1.976
4.494	2.446	4.734	2.379	5.039	2.309	5.433	2.236	5.962	2.159	6.699	2.08	7.792	1.998	9.561	1.915
4.091	2.333	4.287	2.273	4.532	2.21	4.845	2.143	5.256	2.073	5.813	2.001	6.607	1.926	7.819	1.849
3.899	2.276	4.075	2.219	4.294	2.159	4.572	2.095	4.934	2.029	5.418	1.96	6.096	1.888	7.106	1.815
3.712	2.217	3.87	2.163	4.066	2.106	4.312	2.046	4.629	1.983	5.05	1.918	5.63	1.85	6.473	1.78
3.53	2.157	3.672	2.106	3.846	2.053	4.064	1.996	4.342	1.937	4.707	1.874	5.202	1.81	5.908	1.743
3.353	2.096	3.479	2.048	3.634	1.998	3.827	1.945	4.07	1.889	4.386	1.83	4.809	1.769	5.401	1.706
3.181	2.034	3.293	1.989	3.43	1.942	3.6	1.892	3.812	1.84	4.086	1.784	4.447	1.726	4.942	1.667
3.013	1.97	3.113	1.929	3.234	1.885	3.382	1.838	3.568	1.789	3.803	1.737	4.111	1.683	4.527	1.626
2.85	1.906	2.938	1.868	3.044	1.827	3.174	1.783	3.335	1.737	3.538	1.689	3.799	1.638	4.147	1.585
2.691	1.84	2.769	1.805	2.862	1.767	2.975	1.727	3.114	1.684	3.287	1.639	3.509	1.591	3.8	1.542
2.536	1.773	2.604	1.741	2.685	1.706	2.783	1.669	2.903	1.629	3.051	1.587	3.239	1.543	3.482	1.497
2.385	1.705	2.444	1.675	2.515	1.643	2.599	1.609	2.702	1.573	2.828	1.534	2.986	1.494	3.188	1.451
2.311	1.67	2.366	1.642	2.431	1.611	2.51	1.579	2.604	1.544	2.72	1.507	2.865	1.468	3.049	1.427
2.238	1.635	2.289	1.608	2.35	1.579	2.422	1.548	2.509	1.515	2.616	1.48	2.749	1.443	2.916	1.403
2.166	1.6	2.213	1.574	2.269	1.547	2.336	1.517	2.417	1.486	2.514	1.452	2.635	1.416	2.787	1.379
2.095	1.564	2.138	1.54	2.19	1.514	2.252	1.486	2.326	1.456	2.415	1.424	2.526	1.39	2.664	1.354
2.024	1.528	2.065	1.505	2.112	1.48	2.169	1.454	2.237	1.425	2.319	1.395	2.419	1.362	2.544	1.328
1.954	1.491	1.992	1.47	2.036	1.446	2.088	1.421	2.15	1.394	2.225	1.365	2.316	1.335	2.429	1.302
1.886	1.455	1.92	1.434	1.96	1.412	2.008	1.389	2.065	1.363	2.133	1.336	2.216	1.307	2.318	1.276
1.818	1.417	1.849	1.398	1.886	1.378	1.93	1.355	1.982	1.331	2.043	1.305	2.118	1.278	2.21	1.249
1.751	1.38	1.78	1.362	1.813	1.343	1.853	1.322	1.9	1.299	1.956	1.275	2.024	1.249	2.106	1.221
1.684	1.342	1.711	1.325	1.742	1.307	1.778	1.287	1.82	1.266	1.871	1.243	1.932	1.219	2.006	1.193
1.619	1.304	1.643	1.288	1.671	1.271	1.703	1.253	1.742	1.233	1.788	1.212	1.842	1.189	1.909	1.164
1.554	1.265	1.576	1.251	1.601	1.235	1.631	1.218	1.665	1.199	1.706	1.179	1.755	1.158	1.814	1.135
1.49	1.226	1.51	1.213	1.533	1.198	1.559	1.182	1.59	1.165	1.627	1.147	1.671	1.127	1.723	1.105

1.427	1.186	1.445	1.174	1.465	1.161	1.489	1.146	1.517	1.13	1.549	1.113	1.588	1.095	1.635	1.075
1.364	1.146	1.38	1.135	1.398	1.123	1.42	1.109	1.444	1.095	1.473	1.079	1.508	1.062	1.549	1.044
1.303	1.106	1.317	1.096	1.333	1.085	1.352	1.072	1.374	1.059	1.399	1.044	1.43	1.029	1.465	1.012
1.241	1.065	1.254	1.056	1.268	1.046	1.285	1.035	1.304	1.023	1.327	1.009	1.353	0.995	1.385	0.98
1.181	1.024	1.192	1.016	1.205	1.007	1.219	0.996	1.236	0.985	1.256	0.973	1.279	0.96	1.306	0.946
1.121	0.982	1.131	0.975	1.142	0.967	1.155	0.958	1.169	0.948	1.186	0.937	1.206	0.925	1.23	0.913
1.062	0.94	1.071	0.934	1.08	0.926	1.091	0.918	1.104	0.91	1.119	0.9	1.136	0.889	1.156	0.878
1.004	0.898	1.011	0.892	1.019	0.886	1.029	0.878	1.04	0.871	1.052	0.862	1.067	0.853	1.084	0.843
0.958	0.863	0.964	0.858	0.971	0.852	0.979	0.846	0.989	0.839	1	0.831	1.013	0.823	1.027	0.814

6	18	20	22
95	3.679	3.307	2.976

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	3.64	Infinity	3.269	Infinity	2.938	Infinity
Infinity	3.295	Infinity	2.992	Infinity	2.716	Infinity
Infinity	3.008	Infinity	2.757	Infinity	2.525	Infinity
Infinity	2.768	Infinity	2.557	Infinity	2.359	Infinity
Infinity	2.696	Infinity	2.496	Infinity	2.308	Infinity
Infinity	2.611	Infinity	2.425	Infinity	2.248	Infinity
Infinity	2.509	Infinity	2.338	Infinity	2.175	Infinity
Infinity	2.385	Infinity	2.232	Infinity	2.084	Infinity
Infinity	2.312	Infinity	2.169	Infinity	2.03	Infinity
Infinity	2.231	Infinity	2.098	Infinity	1.969	Infinity
Infinity	2.138	Infinity	2.018	Infinity	1.899	Infinity
150.865	2.033	Infinity	1.925	Infinity	1.818	Infinity
46.328	1.987	Infinity	1.884	Infinity	1.782	Infinity
26.181	1.938	146.006	1.84	Infinity	1.744	Infinity
17.621	1.885	38.906	1.794	Infinity	1.703	Infinity
12.885	1.83	21.322	1.745	84.154	1.659	Infinity
9.878	1.771	14.104	1.692	27.533	1.612	Infinity
8.752	1.74	11.885	1.664	20.083	1.587	94.685
7.799	1.708	10.172	1.635	15.571	1.561	39.554
6.984	1.675	8.809	1.605	12.546	1.534	24.341
6.277	1.64	7.698	1.574	10.376	1.506	17.216
5.659	1.605	6.776	1.542	8.744	1.477	13.083
5.114	1.568	5.998	1.508	7.472	1.447	10.384
4.629	1.53	5.333	1.473	6.452	1.416	8.484
4.196	1.49	4.758	1.437	5.617	1.383	7.073
3.806	1.449	4.256	1.4	4.92	1.348	5.985
3.453	1.407	3.814	1.36	4.329	1.312	5.119
3.289	1.385	3.612	1.34	4.067	1.294	4.749
3.132	1.362	3.421	1.319	3.823	1.275	4.414
2.983	1.339	3.241	1.298	3.596	1.255	4.109
2.84	1.316	3.07	1.276	3.384	1.236	3.829
2.703	1.292	2.909	1.254	3.185	1.215	3.572
2.572	1.268	2.755	1.232	2.999	1.194	3.336
2.446	1.243	2.609	1.209	2.824	1.173	3.117
2.325	1.218	2.47	1.185	2.66	1.151	2.914
2.209	1.192	2.338	1.161	2.504	1.129	2.726
2.097	1.165	2.211	1.136	2.358	1.105	2.55
1.99	1.138	2.091	1.111	2.219	1.082	2.385
1.886	1.111	1.975	1.085	2.087	1.058	2.232
1.787	1.082	1.865	1.058	1.962	1.033	2.087

1.691	1.054	1.759	1.031	1.844	1.007	1.951
1.598	1.024	1.658	1.003	1.731	0.981	1.823
1.508	0.994	1.56	0.975	1.624	0.954	1.703
1.422	0.963	1.467	0.945	1.521	0.926	1.588
1.338	0.931	1.377	0.915	1.423	0.898	1.48
1.257	0.899	1.29	0.884	1.33	0.868	1.378
1.179	0.866	1.207	0.852	1.24	0.838	1.281
1.103	0.832	1.127	0.82	1.155	0.807	1.188
1.045	0.804	1.065	0.793	1.089	0.782	1.117

Focal Length 38mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	71'9.85"	64'1.02"	57'2.3"	51'0.6"	45'6.93"	40'8.43"	36'4.34"	32'5

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	71'8.35"	Infinity	63'11.5"	Infinity	57'0.78"	Infinity	50'11.08"	Infinity	45'5.43"	Infinity	40'6.93"	Infinity	36'2.82"	Infinity	32'4.4"
100' 0''	42'1.98"	Infinity	39'4.89"	Infinity	36'8.63"	Infinity	34'1.38"	Infinity	31'7.3"	Infinity	29'2.49"	Infinity	26'11.08"	Infinity	24'9.12"
50' 0''	29'10.34"	160'9.13"	28'5.69"	221'7.34"	27'0.8"	386'1.56"	25'7.77"	2353'5.79"	24'2.72"	Infinity	22'9.76"	Infinity	21'5.01"	Infinity	20'0.56"
30' 0''	21'5.96"	50'4.03"	20'9.41"	54'11.43"	20'0.48"	61'3.35"	19'3.22"	70'4.86"	18'5.67"	84'7.16"	17'7.88"	109'5.54"	16'9.92"	163'8.56"	15'11.84"
20' 0''	15'11.05"	27'1.04"	15'6.45"	28'3.96"	15'1.55"	29'10.49"	14'8.36"	31'9.93"	14'2.91"	34'4.29"	13'9.19"	37'8.85"	13'3.23"	42'5.35"	12'9.07"
15' 0''	12'7.69"	18'6.36"	12'4.85"	19'1.04"	12'1.8"	19'9.05"	11'10.53"	20'6.77"	11'7.05"	21'6.72"	11'3.34"	22'9.65"	10'11.43"	24'4.69"	10'7.32"
12' 0''	10'5.77"	14'1"	10'3.87"	14'4.71"	10'1.81"	14'9.09"	9'11.59"	15'2.3"	9'9.19"	15'8.54"	9'6.62"	16'4.1"	9'3.88"	17'1.39"	9'0.97"
10' 0''	8'11.41"	11'4.3"	8'10.06"	11'6.63"	8'8.59"	11'9.35"	8'6.99"	12'0.55"	8'5.26"	12'4.32"	8'3.4"	12'8.82"	8'1.39"	13'2.22"	7'11.24"
9' 0''	8'1.88"	10'0.73"	8'0.78"	10'2.52"	7'11.58"	10'4.59"	7'10.27"	10'7.02"	7'8.85"	10'9.86"	7'7.31"	11'1.22"	7'5.64"	11'5.23"	7'3.85"
8' 0''	7'4.11"	8'9.65"	7'3.24"	8'10.98"	7'2.29"	9'0.52"	7'1.25"	9'2.3"	7'0.11"	9'4.39"	6'10.87"	9'6.83"	6'9.53"	9'9.71"	6'8.09"
7' 6''	6'11.13"	8'2.28"	6'10.37"	8'3.42"	6'9.53"	8'4.72"	6'8.61"	8'6.23"	6'7.61"	8'7.99"	6'6.52"	8'10.05"	6'5.33"	9'0.46"	6'4.05"
7' 0''	6'6.08"	7'7.03"	6'5.42"	7'7.98"	6'4.69"	7'9.08"	6'3.9"	7'10.35"	6'3.02"	7'11.82"	6'2.07"	8'1.52"	6'1.03"	8'3.52"	5'11.91"
6' 6''	6'0.97"	6'11.89"	6'0.41"	7'0.68"	5'11.78"	7'1.59"	5'11.1"	7'2.64"	5'10.35"	7'3.85"	5'9.52"	7'5.25"	5'8.63"	7'6.89"	5'7.65"
6' 0''	5'7.79"	6'4.86"	5'7.32"	6'5.51"	5'6.79"	6'6.25"	5'6.21"	6'7.1"	5'5.57"	6'8.08"	5'4.88"	6'9.22"	5'4.11"	6'10.54"	5'3.28"
5' 6''	5'2.55"	5'9.93"	5'2.15"	5'10.45"	5'1.71"	5'11.05"	5'1.23"	5'11.73"	5'0.71"	6'0.51"	5'0.12"	6'1.41"	4'11.49"	6'2.45"	4'10.79"
5' 0''	4'9.23"	5'3.11"	4'8.91"	5'3.52"	4'8.56"	5'3.98"	4'8.17"	5'4.52"	4'7.74"	5'5.13"	4'7.26"	5'5.82"	4'6.74"	5'6.63"	4'6.17"
4' 9''	4'6.54"	4'11.74"	4'6.26"	5'0.1"	4'5.95"	5'0.5"	4'5.6"	5'0.97"	4'5.21"	5'1.5"	4'4.79"	5'2.11"	4'4.33"	5'2.81"	4'3.82"
4' 6''	4'3.84"	4'8.39"	4'3.59"	4'8.7"	4'3.31"	4'9.06"	4'3"	4'9.46"	4'2.67"	4'9.92"	4'2.29"	4'10.45"	4'1.88"	4'11.05"	4'1.43"
4' 3''	4'1.12"	4'5.07"	4'0.9"	4'5.34"	4'0.66"	4'5.64"	4'0.39"	4'5.99"	4'0.09"	4'6.38"	3'11.76"	4'6.83"	3'11.4"	4'7.35"	3'11"
4' 0''	3'10.38"	4'1.77"	3'10.19"	4'2"	3'9.98"	4'2.26"	3'9.75"	4'2.55"	3'9.49"	4'2.89"	3'9.2"	4'3.27"	3'8.89"	4'3.71"	3'8.54"
3' 9''	3'7.62"	3'10.5"	3'7.46"	3'10.69"	3'7.28"	3'10.91"	3'7.08"	3'11.15"	3'6.86"	3'11.43"	3'6.61"	3'11.76"	3'6.34"	4'0.12"	3'6.04"
3' 6''	3'4.84"	3'7.25"	3'4.71"	3'7.4"	3'4.56"	3'7.58"	3'4.39"	3'7.79"	3'4.2"	3'8.02"	3'3.99"	3'8.29"	3'3.76"	3'8.59"	3'3.51"
3' 3''	3'2.05"	3'4.02"	3'1.93"	3'4.15"	3'1.81"	3'4.29"	3'1.67"	3'4.46"	3'1.51"	3'4.65"	3'1.34"	3'4.86"	3'1.15"	3'5.11"	3'0.94"
3' 0''	2'11.23"	3'0.82"	2'11.14"	3'0.92"	2'11.04"	3'1.04"	2'10.93"	3'1.17"	2'10.8"	3'1.32"	2'10.66"	3'1.49"	2'10.51"	3'1.68"	2'10.33"

3	7.1	8	9	10	11	13	14	1
.88"	29'0.54"	25'11.69"	23'2.86"	20'9.61"	18'7.54"	16'8.35"	14'11.65"	13'5

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	28'11.04"	Infinity	25'10.19"	Infinity	23'1.36"	Infinity	20'8.11"	Infinity	18'6.06"	Infinity	16'6.84"	Infinity	14'10.16"	Infinity	13'3.74"
Infinity	22'8.66"	Infinity	20'9.73"	Infinity	19'0.32"	Infinity	17'4.42"	Infinity	15'9.99"	Infinity	14'4.99"	Infinity	13'1.35"	Infinity	11'11.01"
Infinity	18'8.52"	Infinity	17'4.98"	Infinity	16'2"	Infinity	14'11.66"	Infinity	13'10.01"	Infinity	12'9.07"	Infinity	11'8.88"	Infinity	10'9.44"
371'3.93"	15'1.72"	Infinity	14'3.61"	Infinity	13'5.59"	Infinity	12'7.73"	Infinity	11'10.07"	Infinity	11'0.68"	Infinity	10'3.61"	Infinity	9'6.89"
49'4.78"	12'2.73"	60'7.21"	11'8.24"	81'5.64"	11'1.66"	133'4.76"	10'7.01"	478'4.06"	10'0.35"	Infinity	9'5.72"	Infinity	8'11.16"	Infinity	8'4.71"
26'5.62"	10'3.02"	29'3.39"	9'10.55"	33'3.35"	9'5.94"	39'4.19"	9'1.21"	49'6.94"	8'8.38"	70'3.16"	8'3.48"	133'3.81"	7'10.56"	Infinity	7'5.63"
18'0.98"	8'9.9"	19'3.73"	8'6.66"	20'11.01"	8'3.28"	23'1.06"	7'11.77"	26'1.91"	7'8.13"	30'9.56"	7'4.4"	38'6.48"	7'0.6"	53'11.16"	6'8.74"
13'8.8"	7'8.95"	14'4.91"	7'6.52"	15'3.08"	7'3.95"	16'4.11"	7'1.26"	17'9.28"	6'10.45"	19'8.75"	6'7.53"	22'6.49"	6'4.52"	26'10.65"	6'1.44"
11'10.04"	7'1.94"	12'3.89"	6'11.9"	12'11.11"	6'9.73"	13'8.16"	6'7.44"	14'7.76"	6'5.04"	15'11.04"	6'2.54"	17'7.91"	5'11.94"	20'1.9"	5'9.25"
10'1.14"	6'6.53"	10'5.26"	6'4.86"	10'10.26"	6'3.09"	11'4.41"	6'1.2"	12'0.1"	5'11.2"	12'9.92"	5'9.11"	13'10.81"	5'6.92"	15'4.31"	5'4.65"
9'3.32"	6'2.67"	9'6.73"	6'1.18"	9'10.84"	5'11.59"	10'3.85"	5'9.9"	10'10.05"	5'8.1"	11'5.87"	5'6.21"	12'3.94"	5'4.23"	13'5.3"	5'2.16"
8'5.88"	5'10.69"	8'8.68"	5'9.38"	9'0.02"	5'7.97"	9'4.07"	5'6.47"	9'9.03"	5'4.87"	10'3.19"	5'3.18"	10'11.01"	5'1.41"	11'9.18"	4'11.54"
7'8.81"	5'6.6"	7'11.07"	5'5.45"	8'1.76"	5'4.23"	8'4.99"	5'2.91"	8'8.91"	5'1.51"	9'1.73"	5'0.01"	9'7.75"	4'10.44"	10'3.43"	4'8.78"
7'0.07"	5'2.38"	7'1.88"	5'1.4"	7'4.01"	5'0.34"	7'6.56"	4'11.21"	7'9.61"	4'9.99"	8'1.33"	4'8.69"	8'5.91"	4'7.32"	8'11.65"	4'5.86"
6'3.67"	4'10.03"	6'5.08"	4'9.21"	6'6.74"	4'8.31"	6'8.71"	4'7.35"	6'11.05"	4'6.32"	7'1.87"	4'5.21"	7'5.31"	4'4.03"	7'9.55"	4'2.78"
5'7.56"	4'5.55"	5'8.65"	4'4.87"	5'9.92"	4'4.13"	5'11.4"	4'3.34"	6'1.16"	4'2.47"	6'3.26"	4'1.55"	6'5.78"	4'0.56"	6'8.85"	3'11.5"
5'3.62"	4'3.26"	5'4.56"	4'2.65"	5'5.66"	4'1.98"	5'6.94"	4'1.26"	5'8.45"	4'0.49"	5'10.24"	3'11.65"	6'0.38"	3'10.75"	6'2.97"	3'9.79"
4'11.75"	4'0.93"	5'0.56"	4'0.39"	5'1.5"	3'11.79"	5'2.59"	3'11.15"	5'3.88"	3'10.45"	5'5.39"	3'9.7"	5'7.2"	3'8.89"	5'9.37"	3'8.02"
4'7.95"	3'10.56"	4'8.64"	3'10.08"	4'9.43"	3'9.56"	4'10.36"	3'8.99"	4'11.44"	3'8.37"	5'0.72"	3'7.7"	5'2.23"	3'6.98"	5'4.04"	3'6.2"
4'4.21"	3'8.16"	4'4.79"	3'7.74"	4'5.46"	3'7.28"	4'6.24"	3'6.78"	4'7.14"	3'6.24"	4'8.21"	3'5.65"	4'9.46"	3'5.01"	4'10.94"	3'4.32"
4'0.54"	3'5.72"	4'1.02"	3'5.35"	4'1.58"	3'4.96"	4'2.22"	3'4.53"	4'2.97"	3'4.05"	4'3.84"	3'3.54"	4'4.86"	3'2.98"	4'6.07"	3'2.38"
3'8.93"	3'3.23"	3'9.33"	3'2.93"	3'9.79"	3'2.59"	3'10.31"	3'2.22"	3'10.92"	3'1.82"	3'11.62"	3'1.38"	4'0.45"	3'0.9"	4'1.42"	3'0.38"
3'5.39"	3'0.71"	3'5.71"	3'0.45"	3'6.07"	3'0.17"	3'6.49"	2'11.86"	3'6.98"	2'11.52"	3'7.54"	2'11.15"	3'8.2"	2'10.75"	3'8.96"	2'10.31"
3'1.9"	2'10.14"	3'2.15"	2'9.93"	3'2.44"	2'9.7"	3'2.77"	2'9.45"	3'3.15"	2'9.17"	3'3.59"	2'8.86"	3'4.1"	2'8.53"	3'4.69"	2'8.17"

6	18	20	22
.22"	12'0.84"	10'10.2"	9'9.17"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	11'11.32"	Infinity	10'8.7"	Infinity	9'7.67"	Infinity
Infinity	10'9.9"	Infinity	9'9.94"	Infinity	8'11.06"	Infinity
Infinity	9'10.76"	Infinity	9'0.83"	Infinity	8'3.63"	Infinity
Infinity	8'10.56"	Infinity	8'2.66"	Infinity	7'7.18"	Infinity
Infinity	7'10.42"	Infinity	7'4.31"	Infinity	6'10.42"	Infinity
Infinity	7'0.74"	Infinity	6'7.92"	Infinity	6'3.19"	Infinity
98'8.9"	6'4.85"	1823'4.39"	6'0.97"	Infinity	5'9.1"	Infinity
34'5.18"	5'10.29"	50'7.03"	5'7.11"	108'9.15"	5'3.92"	Infinity
24'0.24"	5'6.5"	30'8.58"	5'3.7"	45'0.21"	5'0.87"	96'1.99"
17'5.26"	5'2.3"	20'7.33"	4'11.89"	26'0.03"	4'9.44"	37'0.96"
14'11.74"	5'0.02"	17'2.61"	4'9.81"	20'9.03"	4'7.55"	27'1.27"
12'10.81"	4'9.61"	14'5.92"	4'7.6"	16'10.39"	4'5.54"	20'8.88"
11'1.48"	4'7.05"	12'3.11"	4'5.25"	13'10.47"	4'3.4"	16'3.89"
9'7.01"	4'4.34"	10'4.71"	4'2.75"	11'5.95"	4'1.1"	13'0.97"
8'2.88"	4'1.45"	8'9.72"	4'0.07"	9'6.77"	3'10.62"	10'7.19"
7'0.65"	3'10.38"	7'5.42"	3'9.2"	7'11.55"	3'7.96"	8'7.65"
6'6.15"	3'8.77"	6'10.1"	3'7.69"	7'3.12"	3'6.55"	7'9.64"
6'0.02"	3'7.1"	6'3.27"	3'6.12"	6'7.35"	3'5.08"	7'0.58"
5'6.21"	3'5.37"	5'8.88"	3'4.49"	6'0.18"	3'3.56"	6'4.35"
5'0.72"	3'3.59"	5'2.88"	3'2.8"	5'5.52"	3'1.97"	5'8.82"
4'7.51"	3'1.74"	4'9.24"	3'1.05"	4'11.34"	3'0.31"	5'1.93"
4'2.56"	2'11.82"	4'3.93"	2'11.22"	4'5.58"	2'10.58"	4'7.58"
3'9.86"	2'9.83"	3'10.92"	2'9.32"	4'0.19"	2'8.77"	4'1.72"
3'5.38"	2'7.77"	3'6.19"	2'7.34"	3'7.15"	2'6.88"	3'8.3"

Focal Length 39mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	23.042	20.558	18.345	16.373	14.617	13.052	11.658	10.4

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	23.004	Infinity	20.52	Infinity	18.307	Infinity	16.335	Infinity	14.579	Infinity	13.014	Infinity	11.62	Infinity	10.377
30.00	13.145	Infinity	12.308	Infinity	11.489	Infinity	10.692	Infinity	9.923	Infinity	9.184	Infinity	8.478	Infinity	7.807
15.00	9.201	42.037	8.789	54.12	8.37	80.002	7.946	173.315	7.52	Infinity	7.095	Infinity	6.673	Infinity	6.257
10.00	7.077	17.283	6.835	18.996	6.583	21.382	6.322	24.903	6.054	30.573	5.78	41.122	5.501	67.295	5.22
9.00	6.571	14.447	6.363	15.618	6.146	17.185	5.919	19.374	5.684	22.618	5.443	27.877	5.197	37.78	4.946
8.00	6.033	11.989	5.858	12.778	5.674	13.8	5.482	15.165	5.281	17.068	5.074	19.876	4.861	24.403	4.642
7.00	5.457	9.837	5.315	10.356	5.165	11.011	5.006	11.855	4.84	12.975	4.667	14.519	4.487	16.77	4.302
6.00	4.841	7.937	4.731	8.268	4.613	8.674	4.487	9.183	4.355	9.831	4.216	10.682	4.071	11.835	3.92
5.50	4.517	7.069	4.421	7.328	4.319	7.642	4.21	8.031	4.094	8.519	3.972	9.144	3.843	9.969	3.709
5.00	4.181	6.248	4.099	6.448	4.012	6.688	3.919	6.98	3.819	7.342	3.713	7.797	3.602	8.383	3.485
4.50	3.832	5.472	3.765	5.623	3.692	5.802	3.613	6.018	3.529	6.282	3.44	6.608	3.345	7.019	3.245
4.00	3.47	4.737	3.416	4.847	3.356	4.978	3.292	5.134	3.224	5.322	3.15	5.55	3.071	5.832	2.988
3.80	3.322	4.453	3.272	4.55	3.218	4.664	3.159	4.8	3.096	4.962	3.029	5.159	2.957	5.4	2.88
3.60	3.171	4.176	3.126	4.26	3.077	4.359	3.024	4.476	2.966	4.616	2.905	4.784	2.839	4.989	2.769
3.40	3.018	3.904	2.977	3.977	2.933	4.062	2.885	4.163	2.834	4.282	2.778	4.425	2.718	4.598	2.654
3.20	2.862	3.637	2.826	3.7	2.787	3.773	2.744	3.859	2.698	3.96	2.647	4.081	2.594	4.226	2.536
3.00	2.704	3.376	2.672	3.429	2.637	3.491	2.6	3.564	2.558	3.649	2.514	3.75	2.466	3.871	2.414
2.90	2.624	3.248	2.594	3.296	2.562	3.353	2.526	3.42	2.487	3.497	2.446	3.59	2.4	3.699	2.352
2.80	2.544	3.12	2.516	3.165	2.485	3.217	2.452	3.278	2.416	3.348	2.377	3.432	2.334	3.532	2.288
2.70	2.463	2.994	2.437	3.035	2.408	3.082	2.377	3.138	2.343	3.202	2.307	3.278	2.267	3.368	2.224
2.60	2.381	2.869	2.357	2.906	2.33	2.95	2.301	3	2.27	3.058	2.236	3.127	2.199	3.208	2.159
2.50	2.298	2.746	2.276	2.779	2.252	2.818	2.225	2.864	2.196	2.916	2.164	2.978	2.129	3.051	2.092
2.40	2.215	2.623	2.195	2.654	2.172	2.689	2.147	2.73	2.12	2.777	2.091	2.832	2.059	2.897	2.025
2.30	2.131	2.502	2.112	2.529	2.092	2.561	2.069	2.597	2.044	2.64	2.017	2.689	1.988	2.747	1.956
2.20	2.047	2.382	2.03	2.406	2.011	2.435	1.99	2.467	1.967	2.505	1.943	2.549	1.916	2.6	1.886
2.10	1.961	2.263	1.946	2.285	1.929	2.31	1.91	2.339	1.889	2.372	1.867	2.411	1.842	2.456	1.815
2.00	1.876	2.145	1.862	2.164	1.846	2.186	1.829	2.212	1.81	2.242	1.79	2.276	1.768	2.316	1.743
1.95	1.832	2.086	1.819	2.105	1.804	2.125	1.788	2.149	1.77	2.177	1.751	2.209	1.73	2.246	1.707
1.90	1.789	2.028	1.776	2.045	1.762	2.065	1.747	2.087	1.73	2.113	1.712	2.143	1.692	2.178	1.67
1.85	1.745	1.97	1.734	1.986	1.72	2.004	1.706	2.025	1.69	2.049	1.673	2.077	1.654	2.11	1.633
1.80	1.702	1.912	1.69	1.927	1.678	1.944	1.664	1.964	1.649	1.986	1.633	2.012	1.615	2.042	1.595
1.75	1.658	1.855	1.647	1.869	1.636	1.885	1.623	1.903	1.609	1.924	1.593	1.948	1.576	1.976	1.557
1.70	1.614	1.798	1.604	1.811	1.593	1.826	1.581	1.842	1.567	1.862	1.553	1.884	1.537	1.91	1.519
1.65	1.569	1.741	1.56	1.753	1.55	1.767	1.539	1.782	1.526	1.8	1.512	1.821	1.497	1.845	1.481
1.60	1.525	1.684	1.516	1.696	1.507	1.708	1.496	1.723	1.484	1.739	1.472	1.758	1.458	1.78	1.442
1.55	1.48	1.628	1.472	1.638	1.463	1.65	1.453	1.663	1.443	1.678	1.431	1.696	1.417	1.716	1.403
1.50	1.435	1.572	1.428	1.581	1.42	1.592	1.41	1.604	1.4	1.618	1.389	1.634	1.377	1.653	1.363
1.45	1.39	1.516	1.383	1.525	1.376	1.535	1.367	1.546	1.358	1.559	1.348	1.573	1.336	1.59	1.324
1.40	1.345	1.461	1.339	1.469	1.332	1.477	1.324	1.488	1.315	1.499	1.306	1.513	1.295	1.528	1.284
1.35	1.3	1.405	1.294	1.413	1.287	1.421	1.28	1.43	1.272	1.441	1.263	1.453	1.254	1.466	1.243

1.30	1.254	1.35	1.249	1.357	1.243	1.364	1.236	1.373	1.229	1.382	1.221	1.393	1.212	1.406	1.202
1.25	1.208	1.295	1.203	1.301	1.198	1.308	1.192	1.316	1.185	1.324	1.178	1.334	1.17	1.345	1.161
1.20	1.162	1.241	1.158	1.246	1.153	1.252	1.147	1.259	1.141	1.267	1.135	1.275	1.127	1.286	1.119
1.15	1.116	1.187	1.112	1.191	1.108	1.197	1.103	1.203	1.097	1.21	1.091	1.217	1.085	1.226	1.077
1.10	1.07	1.133	1.066	1.137	1.062	1.141	1.058	1.147	1.053	1.153	1.047	1.16	1.041	1.168	1.035
1.05	1.023	1.079	1.02	1.082	1.016	1.087	1.012	1.091	1.008	1.097	1.003	1.103	0.998	1.11	0.992
1.00	0.976	1.025	0.974	1.028	0.97	1.032	0.967	1.036	0.963	1.041	0.959	1.046	0.954	1.052	0.949
0.95	0.929	0.972	0.927	0.975	0.924	0.978	0.921	0.981	0.918	0.985	0.914	0.99	0.91	0.995	0.905
0.91	0.892	0.929	0.889	0.932	0.887	0.935	0.884	0.938	0.881	0.941	0.878	0.945	0.874	0.95	0.87

3	7.1	8	9	10	11	13	14	1
116	9.309	8.323	7.445	6.663	5.965	5.344	4.791	4.2

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	9.271	Infinity	8.285	Infinity	7.407	Infinity	6.624	Infinity	5.927	Infinity	5.306	Infinity	4.753	Infinity	4.26
Infinity	7.174	Infinity	6.578	Infinity	6.02	Infinity	5.501	Infinity	5.019	Infinity	4.573	Infinity	4.162	Infinity	3.785
Infinity	5.849	Infinity	5.453	Infinity	5.071	Infinity	4.703	Infinity	4.351	Infinity	4.017	Infinity	3.701	Infinity	3.404
238.48	4.938	Infinity	4.657	Infinity	4.379	Infinity	4.106	Infinity	3.84	Infinity	3.581	Infinity	3.332	Infinity	3.093
63.03	4.694	256.425	4.441	Infinity	4.189	Infinity	3.94	Infinity	3.695	Infinity	3.456	Infinity	3.225	Infinity	3.002
32.837	4.421	53.831	4.197	193.58	3.973	Infinity	3.75	Infinity	3.529	Infinity	3.312	Infinity	3.1	Infinity	2.895
20.323	4.113	26.707	3.92	41.389	3.726	109.258	3.53	Infinity	3.336	Infinity	3.143	Infinity	2.953	Infinity	2.768
13.477	3.764	15.977	3.604	20.211	3.44	28.848	3.275	55.83	3.109	Infinity	2.942	Infinity	2.777	Infinity	2.614
11.098	3.571	12.725	3.427	15.247	3.28	19.649	3.131	29.171	2.98	64.623	2.828	Infinity	2.676	Infinity	2.526
9.159	3.363	10.227	3.237	11.777	3.107	14.212	2.974	18.548	2.838	28.329	2.701	70.395	2.564	Infinity	2.426
7.547	3.141	8.249	3.032	9.215	2.918	10.621	2.802	12.836	2.683	16.802	2.561	25.849	2.438	66.421	2.315
6.187	2.901	6.643	2.809	7.246	2.713	8.073	2.613	9.27	2.51	11.139	2.405	14.437	2.298	21.736	2.19
5.701	2.799	6.082	2.714	6.58	2.625	7.249	2.532	8.192	2.436	9.606	2.338	11.941	2.237	16.486	2.135
5.243	2.694	5.561	2.616	5.97	2.534	6.512	2.448	7.255	2.359	8.333	2.267	10.018	2.173	12.999	2.077
4.811	2.586	5.075	2.515	5.41	2.439	5.847	2.36	6.433	2.278	7.258	2.193	8.49	2.105	10.514	2.016
4.403	2.475	4.621	2.409	4.894	2.341	5.244	2.268	5.706	2.193	6.338	2.115	7.247	2.034	8.654	1.952
4.017	2.359	4.195	2.3	4.416	2.238	4.696	2.173	5.059	2.104	5.543	2.033	6.216	1.959	7.21	1.883
3.831	2.3	3.992	2.244	4.191	2.186	4.44	2.124	4.761	2.058	5.184	1.991	5.764	1.92	6.602	1.848
3.651	2.239	3.796	2.187	3.973	2.132	4.195	2.073	4.478	2.011	4.848	1.947	5.347	1.88	6.055	1.811
3.475	2.178	3.605	2.129	3.764	2.077	3.961	2.021	4.21	1.963	4.532	1.902	4.962	1.839	5.561	1.773
3.304	2.116	3.42	2.07	3.562	2.021	3.736	1.969	3.955	1.914	4.235	1.856	4.605	1.796	5.112	1.734
3.137	2.052	3.241	2.009	3.366	1.963	3.52	1.915	3.712	1.863	3.955	1.809	4.273	1.752	4.701	1.693
2.974	1.988	3.066	1.948	3.177	1.905	3.313	1.859	3.48	1.811	3.691	1.76	3.964	1.707	4.326	1.652
2.816	1.922	2.897	1.885	2.995	1.845	3.114	1.803	3.259	1.758	3.442	1.71	3.675	1.66	3.98	1.608
2.661	1.855	2.733	1.82	2.818	1.784	2.922	1.745	3.048	1.703	3.206	1.659	3.404	1.613	3.661	1.564
2.51	1.786	2.573	1.755	2.647	1.721	2.737	1.685	2.847	1.647	2.981	1.606	3.15	1.563	3.366	1.518
2.362	1.717	2.417	1.688	2.482	1.657	2.56	1.624	2.654	1.589	2.769	1.552	2.911	1.512	3.092	1.47
2.29	1.682	2.341	1.654	2.401	1.625	2.473	1.593	2.56	1.56	2.666	1.524	2.797	1.486	2.962	1.446
2.218	1.646	2.266	1.62	2.322	1.592	2.389	1.562	2.469	1.53	2.566	1.496	2.686	1.459	2.837	1.421
2.147	1.61	2.191	1.585	2.243	1.559	2.305	1.53	2.379	1.5	2.469	1.467	2.579	1.432	2.716	1.395
2.077	1.574	2.118	1.55	2.166	1.525	2.223	1.498	2.291	1.469	2.374	1.438	2.474	1.405	2.599	1.37
2.008	1.537	2.046	1.515	2.09	1.491	2.143	1.466	2.205	1.438	2.281	1.408	2.372	1.377	2.486	1.343
1.94	1.5	1.975	1.479	2.016	1.457	2.064	1.433	2.121	1.406	2.19	1.378	2.274	1.348	2.376	1.317
1.872	1.463	1.904	1.443	1.942	1.422	1.986	1.399	2.039	1.374	2.101	1.348	2.177	1.319	2.27	1.289
1.805	1.425	1.835	1.407	1.869	1.387	1.91	1.365	1.958	1.342	2.015	1.317	2.084	1.29	2.168	1.262
1.739	1.387	1.766	1.37	1.798	1.351	1.835	1.331	1.878	1.309	1.93	1.285	1.993	1.26	2.068	1.233
1.674	1.349	1.699	1.333	1.727	1.315	1.761	1.296	1.801	1.276	1.848	1.254	1.904	1.23	1.972	1.204
1.609	1.31	1.632	1.295	1.658	1.279	1.689	1.261	1.724	1.242	1.767	1.221	1.817	1.199	1.878	1.175
1.546	1.271	1.566	1.257	1.59	1.242	1.617	1.225	1.649	1.207	1.688	1.188	1.733	1.167	1.787	1.145
1.482	1.231	1.501	1.218	1.522	1.204	1.547	1.189	1.576	1.173	1.61	1.155	1.651	1.135	1.699	1.115

1.42	1.191	1.437	1.18	1.456	1.167	1.478	1.153	1.504	1.137	1.534	1.121	1.57	1.103	1.613	1.084
1.358	1.151	1.373	1.14	1.39	1.128	1.41	1.115	1.433	1.101	1.46	1.086	1.492	1.07	1.53	1.052
1.297	1.11	1.31	1.1	1.326	1.09	1.343	1.078	1.364	1.065	1.388	1.051	1.416	1.036	1.449	1.019
1.237	1.069	1.248	1.06	1.262	1.05	1.277	1.04	1.296	1.028	1.317	1.015	1.341	1.001	1.37	0.986
1.177	1.027	1.187	1.019	1.199	1.011	1.213	1.001	1.229	0.99	1.247	0.979	1.269	0.966	1.294	0.953
1.118	0.985	1.127	0.978	1.137	0.97	1.149	0.962	1.163	0.952	1.179	0.942	1.197	0.93	1.219	0.918
1.059	0.943	1.067	0.937	1.076	0.93	1.086	0.922	1.098	0.913	1.112	0.904	1.128	0.894	1.147	0.883
1.001	0.9	1.008	0.895	1.016	0.888	1.025	0.882	1.035	0.874	1.046	0.866	1.06	0.857	1.076	0.847
0.955	0.866	0.961	0.861	0.968	0.855	0.976	0.849	0.985	0.842	0.995	0.835	1.007	0.827	1.021	0.818

6	18	20	22
98	3.859	3.468	3.119

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	3.821	Infinity	3.43	Infinity	3.081	Infinity
Infinity	3.439	Infinity	3.123	Infinity	2.836	Infinity
Infinity	3.126	Infinity	2.867	Infinity	2.626	Infinity
Infinity	2.865	Infinity	2.649	Infinity	2.446	Infinity
Infinity	2.788	Infinity	2.584	Infinity	2.391	Infinity
Infinity	2.696	Infinity	2.506	Infinity	2.325	Infinity
Infinity	2.587	Infinity	2.413	Infinity	2.246	Infinity
Infinity	2.455	Infinity	2.299	Infinity	2.149	Infinity
Infinity	2.377	Infinity	2.232	Infinity	2.091	Infinity
Infinity	2.291	Infinity	2.157	Infinity	2.026	Infinity
Infinity	2.193	Infinity	2.071	Infinity	1.951	Infinity
51.052	2.081	Infinity	1.973	Infinity	1.865	Infinity
29.036	2.032	216.629	1.929	Infinity	1.827	Infinity
19.634	1.981	46.811	1.883	Infinity	1.786	Infinity
14.418	1.926	24.958	1.834	149.268	1.743	Infinity
11.102	1.868	16.367	1.782	35.6	1.697	Infinity
8.808	1.806	11.777	1.727	19.116	1.647	66.201
7.907	1.773	10.199	1.697	15.228	1.621	34.823
7.126	1.74	8.92	1.667	12.505	1.594	23.099
6.443	1.705	7.861	1.636	10.491	1.566	16.967
5.84	1.669	6.971	1.603	8.941	1.536	13.197
5.305	1.632	6.211	1.57	7.711	1.506	10.644
4.826	1.594	5.556	1.535	6.712	1.474	8.802
4.395	1.554	4.985	1.498	5.884	1.441	7.409
4.005	1.513	4.482	1.461	5.186	1.407	6.319
3.65	1.471	4.037	1.422	4.591	1.371	5.443
3.326	1.426	3.639	1.381	4.076	1.333	4.723
3.175	1.404	3.456	1.36	3.845	1.314	4.409
3.029	1.38	3.283	1.338	3.628	1.294	4.122
2.89	1.357	3.118	1.316	3.424	1.274	3.856
2.757	1.333	2.96	1.294	3.233	1.254	3.611
2.628	1.308	2.811	1.271	3.052	1.232	3.384
2.505	1.283	2.668	1.248	2.882	1.211	3.173
2.386	1.257	2.532	1.224	2.722	1.189	2.976
2.271	1.231	2.402	1.199	2.57	1.166	2.792
2.161	1.205	2.277	1.174	2.426	1.143	2.62
2.055	1.178	2.158	1.149	2.289	1.119	2.458
1.952	1.15	2.044	1.123	2.159	1.095	2.307
1.853	1.121	1.934	1.096	2.035	1.07	2.164
1.757	1.092	1.829	1.069	1.917	1.044	2.029

1.665	1.063	1.727	1.041	1.804	1.018	1.901
1.575	1.033	1.63	1.012	1.697	0.991	1.78
1.489	1.002	1.536	0.983	1.594	0.963	1.666
1.405	0.97	1.446	0.953	1.496	0.934	1.557
1.324	0.938	1.359	0.922	1.402	0.905	1.454
1.245	0.905	1.275	0.891	1.312	0.875	1.356
1.169	0.871	1.194	0.858	1.225	0.844	1.262
1.095	0.836	1.116	0.825	1.142	0.813	1.173
1.037	0.808	1.056	0.798	1.078	0.787	1.105

Focal Length 39mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	75'7.17"	67'5.37"	60'2.24"	53'8.61"	47'11.47"	42'9.86"	38'2.98"	34'2

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	75'5.66"	Infinity	67'3.86"	Infinity	60'0.74"	Infinity	53'7.11"	Infinity	47'9.96"	Infinity	42'8.35"	Infinity	38'1.46"	Infinity	34'0.56"
100' 0''	43'5.04"	Infinity	40'7.63"	Infinity	37'10.98"	Infinity	35'3.26"	Infinity	32'8.63"	Infinity	30'3.24"	Infinity	27'11.19"	Infinity	25'8.57"
50' 0''	30'5.7"	144'5.19"	29'1.19"	188'6.5"	27'8.39"	287'3.4"	26'3.4"	700'0.43"	24'10.35"	Infinity	23'5.33"	Infinity	22'0.47"	Infinity	20'7.88"
30' 0''	21'9.66"	48'7.87"	21'1.28"	52'8.59"	20'4.52"	58'2.16"	19'7.4"	65'10.38"	18'9.97"	77'4.52"	18'0.28"	96'4.17"	17'2.39"	133'1.74"	16'4.36"
20' 0''	16'1.01"	26'7.29"	15'8.54"	27'8.9"	15'3.77"	29'1.69"	14'10.71"	30'10.73"	14'5.37"	33'1.68"	13'11.77"	36'1.16"	13'5.92"	40'1.58"	12'11.84"
15' 0''	12'8.88"	18'3.74"	12'6.14"	18'9.92"	12'3.19"	19'5.29"	12'0.02"	20'2.2"	11'8.63"	21'1.07"	11'5.02"	22'2.56"	11'1.2"	23'7.59"	10'9.17"
12' 0''	10'6.56"	13'11.53"	10'4.73"	14'2.98"	10'2.75"	14'7.05"	10'0.59"	14'11.86"	9'10.28"	15'5.61"	9'7.78"	16'0.55"	9'5.12"	16'9"	9'2.29"
10' 0''	8'11.97"	11'3.37"	8'10.67"	11'5.55"	8'9.26"	11'8.09"	8'7.72"	11'11.06"	8'6.05"	12'2.56"	8'4.24"	12'6.72"	8'2.3"	12'11.69"	8'0.21"
9' 0''	8'2.34"	10'0.02"	8'1.28"	10'1.69"	8'0.13"	10'3.63"	7'10.87"	10'5.9"	7'9.49"	10'8.54"	7'8"	10'11.66"	7'6.39"	11'3.36"	7'4.66"
8' 0''	7'4.47"	8'9.12"	7'3.63"	8'10.37"	7'2.72"	8'11.81"	7'1.72"	9'1.48"	7'0.62"	9'3.42"	6'11.43"	9'5.7"	6'10.14"	9'8.37"	6'8.74"
7' 6''	6'11.44"	8'1.83"	6'10.71"	8'2.9"	6'9.91"	8'4.12"	6'9.03"	8'5.54"	6'8.06"	8'7.18"	6'7.01"	8'9.1"	6'5.87"	8'11.34"	6'4.63"
7' 0''	6'6.35"	7'6.65"	6'5.72"	7'7.55"	6'5.02"	7'8.58"	6'4.26"	7'9.77"	6'3.42"	7'11.14"	6'2.5"	8'0.74"	6'1.5"	8'2.6"	6'0.41"
6' 6''	6'1.2"	6'11.58"	6'0.66"	7'0.32"	6'0.06"	7'1.18"	5'11.41"	7'2.16"	5'10.68"	7'3.29"	5'9.89"	7'4.61"	5'9.03"	7'6.14"	5'8.09"
6' 0''	5'7.99"	6'4.6"	5'7.53"	6'5.21"	5'7.03"	6'5.91"	5'6.47"	6'6.71"	5'5.86"	6'7.63"	5'5.19"	6'8.7"	5'4.46"	6'9.93"	5'3.66"
5' 6''	5'2.71"	5'9.73"	5'2.33"	5'10.22"	5'1.91"	5'10.78"	5'1.45"	5'11.42"	5'0.94"	6'0.15"	5'0.38"	6'1"	4'11.77"	6'1.98"	4'11.1"
5' 0''	4'9.36"	5'2.95"	4'9.05"	5'3.34"	4'8.71"	5'3.77"	4'8.34"	5'4.27"	4'7.93"	5'4.85"	4'7.48"	5'5.51"	4'6.98"	5'6.26"	4'6.43"
4' 9''	4'6.66"	4'11.6"	4'6.39"	4'11.93"	4'6.09"	5'0.32"	4'5.75"	5'0.76"	4'5.39"	5'1.26"	4'4.98"	5'1.83"	4'4.53"	5'2.49"	4'4.04"
4' 6''	4'3.94"	4'8.27"	4'3.7"	4'8.56"	4'3.44"	4'8.9"	4'3.14"	4'9.28"	4'2.82"	4'9.71"	4'2.46"	4'10.21"	4'2.06"	4'10.78"	4'1.63"
4' 3''	4'1.21"	4'4.96"	4'1"	4'5.22"	4'0.76"	4'5.5"	4'0.51"	4'5.83"	4'0.22"	4'6.2"	3'11.91"	4'6.63"	3'11.56"	4'7.12"	3'11.18"
4' 0''	3'10.45"	4'1.68"	3'10.27"	4'1.9"	3'10.07"	4'2.14"	3'9.85"	4'2.42"	3'9.6"	4'2.74"	3'9.33"	4'3.1"	3'9.03"	4'3.51"	3'8.69"
3' 9''	3'7.68"	3'10.42"	3'7.53"	3'10.6"	3'7.36"	3'10.81"	3'7.17"	3'11.04"	3'6.96"	3'11.31"	3'6.72"	3'11.61"	3'6.46"	3'11.96"	3'6.18"
3' 6''	3'4.9"	3'7.18"	3'4.77"	3'7.33"	3'4.62"	3'7.5"	3'4.46"	3'7.7"	3'4.28"	3'7.92"	3'4.09"	3'8.17"	3'3.87"	3'8.45"	3'3.62"
3' 3''	3'2.09"	3'3.97"	3'1.98"	3'4.09"	3'1.86"	3'4.23"	3'1.73"	3'4.39"	3'1.58"	3'4.57"	3'1.42"	3'4.77"	3'1.24"	3'5"	3'1.03"
3' 0''	2'11.27"	3'0.78"	2'11.18"	3'0.87"	2'11.08"	3'0.98"	2'10.98"	3'1.11"	2'10.86"	3'1.25"	2'10.72"	3'1.41"	2'10.57"	3'1.6"	2'10.41"

3	7.1	8	9	10	11	13	14	1
.08"	30'6.5"	27'3.68"	24'5.11"	21'10.32"	19'6.84"	17'6.39"	15'8.62"	14'1

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	30'5"	Infinity	27'2.19"	Infinity	24'3.61"	Infinity	21'8.8"	Infinity	19'5.36"	Infinity	17'4.91"	Infinity	15'7.13"	Infinity	13'11.72"
Infinity	23'7.43"	Infinity	21'7.81"	Infinity	19'9.72"	Infinity	18'1.15"	Infinity	16'6.06"	Infinity	15'0.42"	Infinity	13'8.18"	Infinity	12'5.26"
Infinity	19'3.64"	Infinity	17'11.87"	Infinity	16'8.63"	Infinity	15'5.99"	Infinity	14'4.02"	Infinity	13'2.76"	Infinity	12'2.23"	Infinity	11'2.45"
233'10.65"	15'6.24"	1600'0.33"	14'8.12"	Infinity	13'10.05"	Infinity	13'0.11"	Infinity	12'2.35"	Infinity	11'4.83"	Infinity	10'7.61"	Infinity	9'10.73"
45'11.04"	12'5.57"	54'10.16"	11'11.15"	70'3.25"	11'4.6"	102'11.99"	10'9.98"	217'7.53"	10'3.32"	Infinity	9'8.67"	Infinity	9'2.07"	Infinity	8'7.56"
25'5.61"	10'4.95"	27'10.95"	10'0.56"	31'3.67"	9'8.01"	36'3.49"	9'3.32"	44'3.11"	8'10.53"	58'10.76"	8'5.66"	94'2.29"	8'0.75"	294'1.57"	7'7.82"
17'7.48"	8'11.28"	18'8.69"	8'8.12"	20'1.75"	8'4.8"	22'0.41"	8'1.34"	24'7.77"	7'9.76"	28'5.61"	7'6.07"	34'6.36"	7'2.29"	45'6.32"	6'10.45"
13'5.71"	7'9.98"	14'1.08"	7'7.61"	14'10.25"	7'5.1"	15'9.89"	7'2.47"	17'1.02"	6'11.71"	18'9.34"	6'8.83"	21'1.82"	6'5.86"	24'8.3"	6'2.81"
11'7.79"	7'2.8"	12'1.15"	7'0.81"	12'7.71"	6'10.7"	13'3.88"	6'8.47"	14'2.23"	6'6.12"	15'3.7"	6'3.66"	16'9.77"	6'1.1"	18'11.1"	5'10.45"
9'11.55"	6'7.23"	10'3.34"	6'5.61"	10'7.92"	6'3.88"	11'1.52"	6'2.04"	11'8.47"	6'0.1"	12'5.25"	5'10.04"	13'4.64"	5'7.9"	14'7.84"	5'5.66"
9'1.99"	6'3.29"	9'5.14"	6'1.85"	9'8.92"	6'0.3"	10'1.51"	5'10.66"	10'7.14"	5'8.91"	11'2.17"	5'7.06"	11'11.14"	5'5.11"	12'10.88"	5'3.08"
8'4.79"	5'11.24"	8'7.38"	5'9.97"	8'10.47"	5'8.6"	9'2.18"	5'7.14"	9'6.71"	5'5.59"	10'0.29"	5'3.94"	10'7.31"	5'2.2"	11'4.33"	5'0.37"
7'7.92"	5'7.07"	7'10.02"	5'5.97"	8'0.52"	5'4.78"	8'3.49"	5'3.5"	8'7.08"	5'2.13"	8'11.47"	5'0.68"	9'4.91"	4'11.14"	9'11.79"	4'9.52"
6'11.37"	5'2.78"	7'1.05"	5'1.84"	7'3.03"	5'0.82"	7'5.38"	4'11.71"	7'8.19"	4'10.53"	7'11.6"	4'9.27"	8'3.77"	4'7.93"	8'8.95"	4'6.51"
6'3.11"	4'10.37"	6'4.43"	4'9.58"	6'5.98"	4'8.71"	6'7.8"	4'7.78"	6'9.97"	4'6.78"	7'0.57"	4'5.7"	7'3.71"	4'4.55"	7'7.57"	4'3.33"
5'7.14"	4'5.83"	5'8.15"	4'5.18"	5'9.34"	4'4.46"	5'10.72"	4'3.69"	6'0.35"	4'2.86"	6'2.29"	4'1.96"	6'4.62"	4'1"	6'7.43"	3'11.97"
5'3.25"	4'3.51"	5'4.13"	4'2.92"	5'5.16"	4'2.28"	5'6.35"	4'1.58"	5'7.76"	4'0.83"	5'9.42"	4'0.02"	5'11.39"	3'11.15"	6'1.78"	3'10.21"
4'11.43"	4'1.15"	5'0.19"	4'0.63"	5'1.07"	4'0.06"	5'2.09"	3'11.44"	5'3.29"	3'10.76"	5'4.7"	3'10.03"	5'6.37"	3'9.25"	5'8.37"	3'8.41"
4'7.68"	3'10.76"	4'8.33"	3'10.3"	4'9.07"	3'9.79"	4'9.94"	3'9.24"	4'10.95"	3'8.64"	5'0.14"	3'8"	5'1.54"	3'7.3"	5'3.21"	3'6.54"
4'3.99"	3'8.33"	4'4.53"	3'7.93"	4'5.16"	3'7.48"	4'5.89"	3'7"	4'6.73"	3'6.48"	4'7.72"	3'5.91"	4'8.89"	3'5.29"	4'10.26"	3'4.63"
4'0.35"	3'5.86"	4'0.81"	3'5.51"	4'1.33"	3'5.13"	4'1.93"	3'4.72"	4'2.63"	3'4.26"	4'3.45"	3'3.77"	4'4.4"	3'3.23"	4'5.52"	3'2.65"
3'8.78"	3'3.36"	3'9.15"	3'3.06"	3'9.58"	3'2.74"	3'10.08"	3'2.38"	3'10.64"	3'1.99"	3'11.31"	3'1.57"	4'0.08"	3'1.11"	4'0.98"	3'0.61"
3'5.26"	3'0.81"	3'5.57"	3'0.57"	3'5.91"	3'0.29"	3'6.31"	3'	3'6.76"	2'11.67"	3'7.29"	2'11.31"	3'7.9"	2'10.92"	3'8.62"	2'10.5"
3'1.81"	2'10.23"	3'2.04"	2'10.03"	3'2.32"	2'9.8"	3'2.63"	2'9.56"	3'2.98"	2'9.29"	3'3.4"	2'9"	3'3.87"	2'8.68"	3'4.42"	2'8.32"

6	18	20	22
.21"	12'7.93"	11'4.54"	10'2.8"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	12'6.43"	Infinity	11'3.03"	Infinity	10'1.31"	Infinity
Infinity	11'3.61"	Infinity	10'3.14"	Infinity	9'3.79"	Infinity
Infinity	10'3.43"	Infinity	9'5.17"	Infinity	8'7.64"	Infinity
Infinity	9'2.22"	Infinity	8'6.12"	Infinity	7'10.45"	Infinity
Infinity	8'1.2"	Infinity	7'7"	Infinity	7'1.01"	Infinity
Infinity	7'2.91"	Infinity	6'10.05"	Infinity	6'5.27"	Infinity
71'3.89"	6'6.57"	200'7.54"	6'2.68"	Infinity	5'10.81"	Infinity
30'5.81"	5'11.69"	41'6.89"	5'8.52"	70'11.96"	5'5.33"	369'2.23"
22'0.86"	5'7.72"	27'2.59"	5'4.94"	37'0.6"	5'2.12"	63'0.54"
16'5"	5'3.34"	19'0.21"	5'0.96"	23'2.46"	4'10.52"	30'11.86"
14'2.77"	5'0.97"	16'1.32"	4'10.79"	18'11.53"	4'8.55"	23'9.05"
12'4.25"	4'10.47"	13'8.6"	4'8.49"	15'8.23"	4'6.45"	18'9.08"
10'8.68"	4'7.82"	11'8.53"	4'6.05"	13'0.99"	4'4.22"	15'1.18"
9'3.53"	4'5.01"	10'0.08"	4'3.45"	10'11.56"	4'1.82"	12'3.64"
8'0.37"	4'2.04"	8'6.48"	4'0.68"	9'2.45"	3'11.26"	10'1.19"
6'10.88"	3'10.88"	7'3.19"	3'9.72"	7'8.66"	3'8.51"	8'3.79"
6'4.68"	3'9.22"	6'8.26"	3'8.16"	7'0.77"	3'7.05"	7'6.56"
5'10.8"	3'7.51"	6'1.76"	3'6.55"	6'5.45"	3'5.54"	6'10.13"
5'5.21"	3'5.74"	5'7.65"	3'4.88"	5'10.65"	3'3.97"	6'2.4"
4'11.91"	3'3.91"	5'1.89"	3'3.15"	5'4.3"	3'2.33"	5'7.29"
4'6.86"	3'2.02"	4'8.45"	3'1.35"	4'10.38"	3'0.63"	5'0.73"
4'2.04"	3'0.07"	4'3.31"	2'11.48"	4'4.82"	2'10.86"	4'6.66"
3'9.45"	2'10.04"	3'10.44"	2'9.54"	3'11.62"	2'9.01"	4'1.03"
3'5.07"	2'7.94"	3'5.83"	2'7.53"	3'6.72"	2'7.08"	3'7.78"

Focal Length 40mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	24.223	21.61	19.282	17.208	15.36	13.714	12.247	10.9

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	24.184	Infinity	21.571	Infinity	19.243	Infinity	17.169	Infinity	15.322	Infinity	13.676	Infinity	12.209	Infinity	10.903
30.00	13.515	Infinity	12.672	Infinity	11.844	Infinity	11.037	Infinity	10.255	Infinity	9.502	Infinity	8.781	Infinity	8.095
15.00	9.377	38.58	8.97	47.902	8.554	65.791	8.132	113.505	7.706	619.06	7.28	Infinity	6.856	Infinity	6.437
10.00	7.179	16.68	6.942	18.183	6.694	20.235	6.437	23.18	6.172	27.724	5.9	35.58	5.623	52.271	5.342
9.00	6.659	14.026	6.455	15.067	6.242	16.441	6.019	18.321	5.788	21.029	5.549	25.23	5.305	32.559	5.056
8.00	6.106	11.699	5.935	12.41	5.755	13.32	5.567	14.518	5.37	16.154	5.165	18.503	4.954	22.129	4.738
7.00	5.516	9.643	5.378	10.116	5.231	10.706	5.076	11.459	4.913	12.445	4.743	13.78	4.566	15.675	4.383
6.00	4.887	7.812	4.78	8.116	4.665	8.487	4.543	8.947	4.413	9.528	4.277	10.281	4.134	11.286	3.986
5.50	4.557	6.97	4.464	7.209	4.364	7.498	4.258	7.851	4.145	8.292	4.025	8.852	3.9	9.58	3.768
5.00	4.214	6.172	4.136	6.357	4.051	6.578	3.96	6.846	3.863	7.175	3.76	7.586	3.651	8.109	3.537
4.50	3.86	5.414	3.795	5.554	3.724	5.72	3.648	5.919	3.566	6.161	3.479	6.457	3.387	6.828	3.289
4.00	3.493	4.694	3.44	4.797	3.383	4.919	3.321	5.063	3.254	5.236	3.182	5.445	3.106	5.702	3.025
3.80	3.342	4.416	3.294	4.506	3.242	4.613	3.185	4.738	3.124	4.888	3.059	5.069	2.989	5.289	2.914
3.60	3.189	4.143	3.146	4.222	3.099	4.314	3.047	4.423	2.992	4.552	2.932	4.707	2.868	4.895	2.8
3.40	3.034	3.876	2.995	3.944	2.953	4.024	2.906	4.117	2.856	4.228	2.802	4.36	2.744	4.519	2.682
3.20	2.877	3.613	2.842	3.672	2.804	3.74	2.763	3.82	2.718	3.914	2.67	4.026	2.617	4.16	2.561
3.00	2.717	3.356	2.686	3.405	2.653	3.463	2.616	3.531	2.577	3.61	2.533	3.704	2.487	3.816	2.437
2.90	2.636	3.229	2.608	3.274	2.576	3.328	2.542	3.39	2.505	3.462	2.464	3.548	2.42	3.649	2.373
2.80	2.555	3.103	2.528	3.145	2.499	3.194	2.467	3.25	2.432	3.316	2.394	3.394	2.353	3.487	2.308
2.70	2.473	2.978	2.448	3.017	2.421	3.061	2.391	3.113	2.358	3.173	2.323	3.244	2.284	3.327	2.243
2.60	2.39	2.855	2.367	2.89	2.342	2.93	2.314	2.977	2.284	3.032	2.251	3.096	2.215	3.171	2.176
2.50	2.307	2.732	2.286	2.764	2.262	2.801	2.237	2.843	2.208	2.893	2.178	2.95	2.145	3.018	2.109
2.40	2.223	2.611	2.204	2.64	2.182	2.673	2.158	2.711	2.132	2.756	2.104	2.807	2.073	2.868	2.04
2.30	2.139	2.491	2.121	2.517	2.101	2.547	2.079	2.581	2.055	2.621	2.029	2.667	2.001	2.721	1.97
2.20	2.054	2.372	2.037	2.395	2.019	2.422	1.999	2.453	1.977	2.488	1.953	2.529	1.927	2.577	1.899
2.10	1.968	2.254	1.953	2.275	1.936	2.298	1.918	2.326	1.898	2.357	1.877	2.394	1.853	2.436	1.827
2.00	1.881	2.137	1.868	2.156	1.853	2.177	1.837	2.201	1.819	2.228	1.799	2.26	1.777	2.298	1.754
1.95	1.838	2.079	1.825	2.096	1.811	2.116	1.795	2.139	1.778	2.165	1.76	2.195	1.739	2.23	1.717
1.90	1.794	2.021	1.782	2.038	1.769	2.056	1.754	2.077	1.738	2.101	1.72	2.13	1.701	2.162	1.679
1.85	1.75	1.964	1.739	1.979	1.726	1.996	1.712	2.016	1.697	2.039	1.68	2.065	1.662	2.095	1.642
1.80	1.706	1.907	1.695	1.921	1.684	1.937	1.67	1.955	1.656	1.976	1.64	2.001	1.623	2.029	1.604
1.75	1.662	1.85	1.652	1.863	1.641	1.878	1.628	1.895	1.615	1.915	1.6	1.937	1.583	1.963	1.566
1.70	1.618	1.793	1.608	1.805	1.598	1.819	1.586	1.835	1.573	1.853	1.559	1.874	1.544	1.898	1.527
1.65	1.573	1.736	1.564	1.748	1.554	1.761	1.543	1.775	1.532	1.792	1.518	1.812	1.504	1.834	1.488
1.60	1.528	1.68	1.52	1.691	1.511	1.703	1.501	1.716	1.49	1.732	1.477	1.75	1.464	1.77	1.449
1.55	1.483	1.624	1.476	1.634	1.467	1.645	1.458	1.657	1.447	1.672	1.436	1.688	1.423	1.707	1.409
1.50	1.438	1.568	1.431	1.577	1.423	1.587	1.414	1.599	1.405	1.612	1.394	1.627	1.382	1.645	1.369
1.45	1.393	1.513	1.386	1.521	1.379	1.53	1.371	1.541	1.362	1.553	1.352	1.567	1.341	1.583	1.329
1.40	1.348	1.458	1.341	1.465	1.335	1.474	1.327	1.483	1.319	1.494	1.31	1.507	1.3	1.521	1.289
1.35	1.302	1.403	1.296	1.409	1.29	1.417	1.283	1.426	1.276	1.436	1.267	1.447	1.258	1.46	1.248

1.30	1.256	1.348	1.251	1.354	1.245	1.361	1.239	1.369	1.232	1.378	1.224	1.388	1.216	1.4	1.206
1.25	1.21	1.293	1.205	1.299	1.2	1.305	1.195	1.312	1.188	1.32	1.181	1.33	1.173	1.34	1.165
1.20	1.164	1.239	1.16	1.244	1.155	1.25	1.15	1.256	1.144	1.263	1.138	1.272	1.131	1.281	1.123
1.15	1.118	1.185	1.114	1.189	1.11	1.194	1.105	1.2	1.1	1.207	1.094	1.214	1.087	1.222	1.08
1.10	1.071	1.131	1.068	1.135	1.064	1.139	1.06	1.145	1.055	1.15	1.05	1.157	1.044	1.164	1.038
1.05	1.024	1.077	1.021	1.081	1.018	1.085	1.014	1.089	1.01	1.094	1.005	1.1	1	1.107	0.995
1.00	0.977	1.024	0.975	1.027	0.972	1.03	0.968	1.034	0.965	1.039	0.961	1.044	0.956	1.05	0.951
0.95	0.93	0.971	0.928	0.973	0.925	0.976	0.922	0.98	0.919	0.984	0.916	0.988	0.912	0.993	0.907
0.91	0.892	0.928	0.89	0.931	0.888	0.933	0.885	0.936	0.883	0.94	0.879	0.944	0.876	0.948	0.872

3	7.1	8	9	10	11	13	14	1
941	9.777	8.74	7.816	6.993	6.26	5.607	5.025	4.5

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	9.739	Infinity	8.702	Infinity	7.778	Infinity	6.955	Infinity	6.222	Infinity	5.568	Infinity	4.986	Infinity	4.468
Infinity	7.445	Infinity	6.833	Infinity	6.259	Infinity	5.723	Infinity	5.224	Infinity	4.763	Infinity	4.337	Infinity	3.945
Infinity	6.026	Infinity	5.625	Infinity	5.236	Infinity	4.861	Infinity	4.502	Infinity	4.16	Infinity	3.836	Infinity	3.531
110.968	5.06	Infinity	4.779	Infinity	4.5	Infinity	4.224	Infinity	3.955	Infinity	3.693	Infinity	3.439	Infinity	3.196
48.418	4.804	107.473	4.551	Infinity	4.298	Infinity	4.048	Infinity	3.801	Infinity	3.559	Infinity	3.324	Infinity	3.097
28.406	4.517	41.774	4.294	89.104	4.07	Infinity	3.846	Infinity	3.624	Infinity	3.406	Infinity	3.191	Infinity	2.983
18.551	4.196	23.392	4.004	33.161	3.81	62.776	3.615	Infinity	3.42	Infinity	3.226	Infinity	3.035	Infinity	2.847
12.684	3.832	14.744	3.673	18.053	3.512	24.185	3.347	39.257	3.181	133.115	3.014	Infinity	2.849	Infinity	2.685
10.56	3.631	11.937	3.49	13.997	3.345	17.386	3.196	23.938	3.045	41.732	2.894	263.851	2.742	Infinity	2.59
8.793	3.417	9.717	3.292	11.025	3.164	13.001	3.032	16.305	2.897	22.885	2.761	42.148	2.623	921.933	2.486
7.3	3.187	7.918	3.079	8.754	2.968	9.939	2.853	11.734	2.734	14.748	2.614	20.799	2.492	38.881	2.369
6.023	2.939	6.43	2.849	6.962	2.755	7.679	2.656	8.69	2.555	10.212	2.451	12.738	2.345	17.702	2.237
5.562	2.835	5.905	2.751	6.347	2.664	6.932	2.573	7.74	2.478	8.914	2.38	10.763	2.281	14.073	2.179
5.126	2.727	5.413	2.65	5.779	2.57	6.257	2.485	6.901	2.398	7.811	2.307	9.182	2.214	11.463	2.119
4.713	2.616	4.953	2.546	5.254	2.472	5.642	2.395	6.156	2.314	6.863	2.23	7.888	2.143	9.495	2.055
4.322	2.502	4.52	2.438	4.767	2.371	5.081	2.3	5.489	2.226	6.038	2.149	6.808	2.069	7.959	1.987
3.95	2.383	4.113	2.326	4.314	2.265	4.567	2.201	4.889	2.134	5.315	2.064	5.895	1.991	6.727	1.916
3.771	2.323	3.919	2.269	4.1	2.211	4.325	2.151	4.612	2.087	4.985	2.02	5.488	1.951	6.197	1.879
3.597	2.261	3.73	2.21	3.892	2.156	4.093	2.099	4.347	2.038	4.675	1.975	5.111	1.909	5.716	1.841
3.426	2.198	3.546	2.151	3.691	2.1	3.87	2.046	4.095	1.989	4.382	1.929	4.76	1.866	5.275	1.801
3.26	2.135	3.367	2.09	3.497	2.042	3.656	1.991	3.854	1.938	4.105	1.881	4.432	1.822	4.871	1.761
3.098	2.07	3.194	2.028	3.309	1.983	3.45	1.936	3.624	1.886	3.843	1.832	4.125	1.777	4.5	1.719
2.94	2.004	3.025	1.965	3.127	1.923	3.251	1.879	3.403	1.832	3.594	1.782	3.837	1.73	4.156	1.676
2.785	1.937	2.86	1.901	2.951	1.862	3.059	1.821	3.193	1.777	3.358	1.731	3.567	1.682	3.838	1.631
2.634	1.868	2.7	1.835	2.779	1.8	2.875	1.762	2.991	1.721	3.134	1.678	3.313	1.633	3.542	1.585
2.486	1.799	2.544	1.769	2.614	1.736	2.697	1.701	2.797	1.664	2.92	1.624	3.073	1.582	3.266	1.537
2.341	1.728	2.392	1.701	2.453	1.671	2.525	1.639	2.611	1.605	2.716	1.568	2.846	1.529	3.009	1.488
2.27	1.693	2.318	1.666	2.374	1.638	2.441	1.607	2.521	1.574	2.618	1.539	2.737	1.502	2.886	1.463
2.2	1.656	2.244	1.631	2.296	1.604	2.358	1.575	2.432	1.544	2.522	1.51	2.632	1.475	2.768	1.437
2.13	1.62	2.172	1.596	2.22	1.57	2.277	1.543	2.346	1.513	2.428	1.481	2.529	1.447	2.653	1.411
2.062	1.583	2.1	1.561	2.145	1.536	2.198	1.51	2.261	1.482	2.336	1.451	2.428	1.419	2.542	1.385
1.994	1.546	2.029	1.525	2.07	1.502	2.119	1.477	2.177	1.45	2.247	1.421	2.331	1.39	2.434	1.358
1.926	1.509	1.959	1.488	1.997	1.467	2.042	1.443	2.095	1.418	2.159	1.39	2.236	1.361	2.33	1.33
1.86	1.471	1.89	1.452	1.925	1.431	1.966	1.409	2.015	1.385	2.073	1.359	2.143	1.332	2.228	1.302
1.794	1.433	1.822	1.415	1.854	1.396	1.892	1.375	1.936	1.352	1.989	1.328	2.053	1.302	2.13	1.274
1.729	1.394	1.754	1.377	1.784	1.359	1.818	1.34	1.859	1.319	1.907	1.296	1.965	1.271	2.034	1.245
1.665	1.355	1.688	1.34	1.715	1.323	1.746	1.304	1.783	1.285	1.827	1.263	1.878	1.24	1.941	1.215
1.601	1.316	1.622	1.302	1.646	1.286	1.675	1.269	1.708	1.25	1.748	1.23	1.795	1.209	1.851	1.185
1.538	1.276	1.557	1.263	1.579	1.248	1.605	1.232	1.635	1.215	1.671	1.197	1.713	1.176	1.763	1.155
1.475	1.236	1.493	1.224	1.513	1.21	1.536	1.196	1.563	1.18	1.595	1.162	1.633	1.144	1.677	1.124

1.414	1.196	1.429	1.185	1.447	1.172	1.468	1.159	1.492	1.144	1.521	1.128	1.554	1.11	1.594	1.092
1.353	1.155	1.366	1.145	1.383	1.133	1.401	1.121	1.423	1.107	1.448	1.093	1.478	1.077	1.513	1.059
1.292	1.114	1.304	1.105	1.319	1.094	1.335	1.083	1.355	1.07	1.377	1.057	1.403	1.042	1.434	1.026
1.232	1.073	1.243	1.064	1.256	1.055	1.271	1.044	1.288	1.033	1.307	1.021	1.33	1.007	1.358	0.993
1.173	1.031	1.183	1.023	1.194	1.014	1.207	1.005	1.222	0.995	1.239	0.984	1.259	0.972	1.283	0.958
1.114	0.988	1.123	0.981	1.133	0.974	1.144	0.965	1.157	0.956	1.172	0.946	1.189	0.935	1.21	0.923
1.056	0.946	1.064	0.939	1.072	0.933	1.082	0.925	1.093	0.917	1.106	0.908	1.121	0.898	1.139	0.888
0.999	0.902	1.005	0.897	1.012	0.891	1.021	0.884	1.03	0.877	1.041	0.869	1.054	0.861	1.069	0.851
0.953	0.867	0.959	0.863	0.965	0.857	0.972	0.851	0.981	0.845	0.991	0.838	1.002	0.83	1.015	0.822

6	18	20	22
06	4.044	3.633	3.266

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	4.006	Infinity	3.594	Infinity	3.228	Infinity
Infinity	3.586	Infinity	3.257	Infinity	2.957	Infinity
Infinity	3.245	Infinity	2.977	Infinity	2.729	Infinity
Infinity	2.963	Infinity	2.741	Infinity	2.532	Infinity
Infinity	2.879	Infinity	2.671	Infinity	2.473	Infinity
Infinity	2.781	Infinity	2.588	Infinity	2.403	Infinity
Infinity	2.665	Infinity	2.488	Infinity	2.318	Infinity
Infinity	2.523	Infinity	2.366	Infinity	2.213	Infinity
Infinity	2.441	Infinity	2.295	Infinity	2.152	Infinity
Infinity	2.349	Infinity	2.214	Infinity	2.082	Infinity
2968.366	2.245	Infinity	2.123	Infinity	2.003	Infinity
31.74	2.128	321.87	2.019	Infinity	1.911	Infinity
21.616	2.077	55.322	1.974	Infinity	1.871	Infinity
15.962	2.022	28.818	1.925	346.771	1.828	Infinity
12.353	1.965	18.772	1.874	45.965	1.782	Infinity
9.849	1.904	13.487	1.819	23.271	1.734	134.743
8.01	1.839	10.226	1.761	14.926	1.681	31.363
7.262	1.805	9.023	1.73	12.462	1.654	22.04
6.602	1.77	8.013	1.698	10.59	1.625	16.718
6.015	1.734	7.154	1.666	9.119	1.596	13.277
5.489	1.697	6.414	1.632	7.933	1.565	10.869
5.016	1.659	5.769	1.597	6.957	1.533	9.09
4.588	1.619	5.203	1.56	6.139	1.5	7.722
4.199	1.578	4.702	1.523	5.444	1.466	6.637
3.843	1.535	4.255	1.483	4.845	1.43	5.755
3.517	1.491	3.854	1.443	4.325	1.393	5.025
3.217	1.445	3.493	1.4	3.869	1.354	4.41
3.076	1.422	3.325	1.379	3.661	1.334	4.138
2.941	1.398	3.165	1.356	3.465	1.313	3.885
2.81	1.373	3.012	1.334	3.28	1.292	3.651
2.684	1.349	2.866	1.311	3.105	1.271	3.432
2.563	1.323	2.726	1.287	2.94	1.249	3.228
2.446	1.297	2.593	1.263	2.783	1.227	3.037
2.333	1.271	2.465	1.238	2.634	1.204	2.857
2.224	1.244	2.342	1.213	2.492	1.18	2.689
2.119	1.217	2.224	1.187	2.357	1.156	2.53
2.017	1.189	2.111	1.161	2.229	1.132	2.38
1.919	1.161	2.002	1.134	2.106	1.107	2.239
1.823	1.132	1.897	1.107	1.989	1.081	2.105
1.731	1.102	1.796	1.079	1.877	1.055	1.978

1.642	1.072	1.699	1.05	1.77	1.028	1.857
1.555	1.041	1.606	1.021	1.667	1	1.743
1.471	1.009	1.515	0.991	1.568	0.971	1.634
1.39	0.977	1.428	0.96	1.474	0.942	1.53
1.31	0.944	1.343	0.929	1.383	0.912	1.431
1.234	0.911	1.262	0.897	1.296	0.882	1.336
1.159	0.876	1.183	0.864	1.212	0.85	1.246
1.086	0.841	1.107	0.83	1.131	0.818	1.16
1.03	0.812	1.048	0.802	1.068	0.791	1.093

Focal Length 40mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	79'5.66"	70'10.79"	63'3.13"	56'5.48"	50'4.72"	44'11.92"	40'2.17"	35'10

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	79'4.12"	Infinity	70'9.25"	Infinity	63'1.6"	Infinity	56'3.96"	Infinity	50'3.21"	Infinity	44'10.41"	Infinity	40'0.67"	Infinity	35'9.24"
100' 0''	44'7.82"	Infinity	41'10.15"	Infinity	39'1.14"	Infinity	36'4.99"	Infinity	33'9.86"	Infinity	31'3.91"	Infinity	28'11.26"	Infinity	26'8.01"
50' 0''	31'0.79"	132'0.43"	29'8.43"	165'8.28"	28'3.75"	232'3.9"	26'10.83"	424'5.95"	25'5.79"	6190'1.46"	24'0.74"	Infinity	22'7.8"	Infinity	21'3.07"
30' 0''	22'1.18"	47'2.39"	21'4.98"	50'9.65"	20'8.38"	55'6.98"	19'11.41"	62'1.94"	19'2.11"	71'8.66"	18'4.53"	86'8.99"	17'6.72"	113'6.8"	16'8.74"
20' 0''	16'2.86"	26'2.15"	15'10.52"	27'2.64"	15'5.88"	28'5.93"	15'0.95"	30'0.96"	14'7.73"	32'1.08"	14'2.24"	34'8.43"	13'8.49"	38'2.49"	13'2.51"
15' 0''	12'10.01"	18'1.37"	12'7.36"	18'7.1"	12'4.5"	19'1.92"	12'1.42"	19'10.12"	11'10.12"	20'8.07"	11'6.61"	21'8.33"	11'2.88"	22'11.67"	10'10.94"
12' 0''	10'7.31"	13'10.19"	10'5.54"	14'1.42"	10'3.62"	14'5.2"	10'1.55"	14'9.67"	9'11.3"	15'2.99"	9'8.88"	15'9.37"	9'6.29"	16'5.12"	9'3.53"
10' 0''	9'0.49"	11'2.52"	8'11.25"	11'4.57"	8'9.88"	11'6.94"	8'8.4"	11'9.72"	8'6.79"	12'0.98"	8'5.04"	12'4.83"	8'3.15"	12'9.43"	8'1.13"
9' 0''	8'2.76"	9'11.36"	8'1.75"	10'0.94"	8'0.64"	10'2.76"	7'11.42"	10'4.88"	7'10.1"	10'7.35"	7'8.66"	10'10.25"	7'7.1"	11'1.68"	7'5.42"
8' 0''	7'4.8"	8'8.63"	7'4"	8'9.81"	7'3.12"	8'11.16"	7'2.16"	9'0.73"	7'1.1"	9'2.55"	6'11.96"	9'4.67"	6'10.71"	9'7.17"	6'9.35"
7' 6''	6'11.73"	8'1.42"	6'11.03"	8'2.42"	6'10.26"	8'3.57"	6'9.41"	8'4.9"	6'8.49"	8'6.44"	6'7.47"	8'8.24"	6'6.37"	8'10.33"	6'5.17"
7' 0''	6'6.61"	7'6.3"	6'6"	7'7.15"	6'5.33"	7'8.12"	6'4.59"	7'9.23"	6'3.79"	7'10.52"	6'2.9"	8'0.02"	6'1.94"	8'1.76"	6'0.89"
6' 6''	6'1.42"	6'11.29"	6'0.9"	6'11.99"	6'0.33"	7'0.79"	5'11.7"	7'1.72"	5'11"	7'2.79"	5'10.24"	7'4.02"	5'9.41"	7'5.45"	5'8.5"
6' 0''	5'8.17"	6'4.36"	5'7.73"	6'4.94"	5'7.25"	6'5.6"	5'6.72"	6'6.35"	5'6.13"	6'7.22"	5'5.48"	6'8.22"	5'4.78"	6'9.38"	5'4.01"
5' 6''	5'2.86"	5'9.54"	5'2.49"	5'10"	5'2.09"	5'10.53"	5'1.65"	5'11.13"	5'1.17"	5'11.83"	5'0.63"	6'0.62"	5'0.04"	6'1.54"	4'11.4"
5' 0''	4'9.48"	5'2.8"	4'9.19"	5'3.17"	4'8.86"	5'3.58"	4'8.5"	5'4.05"	4'8.11"	5'4.59"	4'7.67"	5'5.22"	4'7.19"	5'5.93"	4'6.67"
4' 9''	4'6.76"	4'11.47"	4'6.5"	4'11.79"	4'6.22"	5'0.15"	4'5.9"	5'0.56"	4'5.55"	5'1.04"	4'5.16"	5'1.58"	4'4.73"	5'2.2"	4'4.26"
4' 6''	4'4.03"	4'8.15"	4'3.81"	4'8.43"	4'3.55"	4'8.75"	4'3.27"	4'9.11"	4'2.96"	4'9.52"	4'2.61"	4'9.99"	4'2.23"	4'10.53"	4'1.82"
4' 3''	4'1.29"	4'4.86"	4'1.09"	4'5.1"	4'0.87"	4'5.38"	4'0.62"	4'5.69"	4'0.35"	4'6.04"	4'0.04"	4'6.44"	3'11.71"	4'6.9"	3'11.34"
4' 0''	3'10.52"	4'1.6"	3'10.35"	4'1.8"	3'10.16"	4'2.03"	3'9.95"	4'2.3"	3'9.71"	4'2.6"	3'9.45"	4'2.94"	3'9.16"	4'3.33"	3'8.84"
3' 9''	3'7.74"	3'10.35"	3'7.6"	3'10.52"	3'7.43"	3'10.72"	3'7.25"	3'10.94"	3'7.05"	3'11.19"	3'6.82"	3'11.48"	3'6.57"	3'11.81"	3'6.3"
3' 6''	3'4.95"	3'7.12"	3'4.82"	3'7.27"	3'4.68"	3'7.43"	3'4.53"	3'7.61"	3'4.36"	3'7.82"	3'4.17"	3'8.06"	3'3.96"	3'8.33"	3'3.73"
3' 3''	3'2.13"	3'3.92"	3'2.03"	3'4.04"	3'1.92"	3'4.17"	3'1.79"	3'4.32"	3'1.65"	3'4.49"	3'1.49"	3'4.68"	3'1.31"	3'4.9"	3'1.12"
3' 0''	2'11.3"	3'0.74"	2'11.22"	3'0.83"	2'11.12"	3'0.94"	2'11.02"	3'1.06"	2'10.91"	3'1.19"	2'10.78"	3'1.34"	2'10.64"	3'1.52"	2'10.48"

3	7.1	8	9	10	11	13	14	1
).75"	32'0.92"	28'8.09"	25'7.72"	22'11.31"	20'6.46"	18'4.75"	16'5.83"	14'9

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	31'11.41"	Infinity	28'6.59"	Infinity	25'6.22"	Infinity	22'9.81"	Infinity	20'4.95"	Infinity	18'3.23"	Infinity	16'4.32"	Infinity	14'7.9"
Infinity	24'6.22"	Infinity	22'5.93"	Infinity	20'7.17"	Infinity	18'9.93"	Infinity	17'2.2"	Infinity	15'7.93"	Infinity	14'3.09"	Infinity	12'11.6"
Infinity	19'10.67"	Infinity	18'6.68"	Infinity	17'3.19"	Infinity	16'0.29"	Infinity	14'10.02"	Infinity	13'8.44"	Infinity	12'7.59"	Infinity	11'7.48"
174'3.92"	15'10.65"	439'8.93"	15'0.52"	Infinity	14'2.42"	Infinity	13'4.41"	Infinity	12'6.56"	Infinity	11'8.93"	Infinity	10'11.58"	Infinity	10'2.54"
43'1.41"	12'8.32"	50'5.14"	12'1.96"	62'4.34"	11'7.46"	85'1.37"	11'0.86"	144'10.26"	10'6.21"	703'8.79"	9'11.55"	Infinity	9'4.92"	Infinity	8'10.37"
24'7.3"	10'6.8"	26'9.08"	10'2.48"	29'8.19"	9'10"	33'10.36"	9'5.37"	40'3.31"	9'0.62"	51'3.08"	8'7.78"	74'1.81"	8'2.88"	150'2.58"	7'9.95"
17'2.65"	9'0.6"	18'2.57"	8'9.5"	19'5.78"	8'6.25"	21'1.73"	8'2.85"	23'4.8"	7'11.32"	26'7.35"	7'7.67"	31'6.12"	7'3.93"	39'9.8"	7'0.11"
13'2.96"	7'10.96"	13'9.7"	7'8.65"	14'6.03"	7'6.2"	15'4.49"	7'3.62"	16'5.95"	7'0.91"	17'11.74"	6'10.08"	20'0.19"	6'7.15"	22'11.58"	6'4.13"
11'5.78"	7'3.62"	11'10.7"	7'1.69"	12'4.7"	6'11.63"	13'0.12"	6'9.44"	13'9.44"	6'7.14"	14'9.41"	6'4.73"	16'1.25"	6'2.21"	17'10.99"	5'11.59"
9'10.11"	6'7.89"	10'1.62"	6'6.32"	10'5.83"	6'4.64"	10'10.96"	6'2.85"	11'5.27"	6'0.94"	12'1.19"	5'10.94"	12'11.34"	5'8.83"	14'0.69"	5'6.63"
9'0.8"	6'3.88"	9'3.72"	6'2.48"	9'7.21"	6'0.98"	9'11.42"	5'11.37"	10'4.56"	5'9.67"	10'10.94"	5'7.86"	11'6.99"	5'5.96"	12'5.4"	5'3.96"
8'3.81"	5'11.75"	8'6.21"	5'10.52"	8'9.07"	5'9.2"	9'0.5"	5'7.78"	9'4.65"	5'6.26"	9'9.74"	5'4.65"	10'4.08"	5'2.95"	11'0.15"	5'1.16"
7'7.12"	5'7.52"	7'9.08"	5'6.45"	7'11.39"	5'5.3"	8'2.15"	5'4.06"	8'5.45"	5'2.73"	8'9.47"	5'1.31"	9'2.42"	4'11.81"	9'8.63"	4'10.22"
6'10.73"	5'3.16"	7'0.3"	5'2.25"	7'2.14"	5'1.26"	7'4.32"	5'0.19"	7'6.92"	4'11.05"	7'10.06"	4'9.82"	8'1.87"	4'8.51"	8'6.58"	4'7.12"
6'2.61"	4'10.69"	6'3.84"	4'9.92"	6'5.29"	4'9.09"	6'6.99"	4'8.19"	6'9"	4'7.21"	6'11.4"	4'6.17"	7'2.29"	4'5.05"	7'5.81"	4'3.86"
5'6.75"	4'6.09"	5'7.7"	4'5.46"	5'8.81"	4'4.77"	5'10.1"	4'4.03"	5'11.62"	4'3.22"	6'1.42"	4'2.35"	6'3.57"	4'1.41"	6'6.16"	4'0.41"
5'2.92"	4'3.74"	5'3.74"	4'3.17"	5'4.7"	4'2.56"	5'5.82"	4'1.89"	5'7.13"	4'1.16"	5'8.67"	4'0.37"	5'10.51"	3'11.52"	6'0.71"	3'10.62"
4'11.15"	4'1.36"	4'11.86"	4'0.85"	5'0.68"	4'0.3"	5'1.64"	3'11.7"	5'2.76"	3'11.05"	5'4.07"	3'10.35"	5'5.63"	3'9.59"	5'7.48"	3'8.77"
4'7.43"	3'10.94"	4'8.04"	3'10.5"	4'8.74"	3'10.01"	4'9.56"	3'9.48"	4'10.5"	3'8.9"	4'11.61"	3'8.28"	5'0.92"	3'7.6"	5'2.46"	3'6.87"
4'3.78"	3'8.49"	4'4.29"	3'8.1"	4'4.88"	3'7.67"	4'5.57"	3'7.21"	4'6.36"	3'6.7"	4'7.29"	3'6.15"	4'8.37"	3'5.56"	4'9.65"	3'4.91"
4'0.18"	3'6"	4'0.61"	3'5.66"	4'1.1"	3'5.3"	4'1.67"	3'4.9"	4'2.33"	3'4.46"	4'3.09"	3'3.98"	4'3.98"	3'3.46"	4'5.03"	3'2.9"
3'8.64"	3'3.47"	3'8.99"	3'3.19"	3'9.39"	3'2.88"	3'9.86"	3'2.53"	3'10.4"	3'2.16"	3'11.02"	3'1.75"	3'11.74"	3'1.3"	4'0.58"	3'0.82"
3'5.15"	3'0.91"	3'5.44"	3'0.67"	3'5.76"	3'0.41"	3'6.13"	3'0.12"	3'6.56"	2'11.81"	3'7.06"	2'11.46"	3'7.64"	2'11.09"	3'8.3"	2'10.68"
3'1.72"	2'10.3"	3'1.94"	2'10.11"	3'2.2"	2'9.9"	3'2.49"	2'9.66"	3'2.83"	2'9.41"	3'3.22"	2'9.12"	3'3.67"	2'8.81"	3'4.18"	2'8.47"

6	18	20	22
.4"	13'3.21"	11'11.03"	10'8.58"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	13'1.72"	Infinity	11'9.52"	Infinity	10'7.08"	Infinity
Infinity	11'9.4"	Infinity	10'8.42"	Infinity	9'8.59"	Infinity
Infinity	10'8.13"	Infinity	9'9.53"	Infinity	8'11.69"	Infinity
Infinity	9'5.86"	Infinity	8'9.58"	Infinity	8'1.72"	Infinity
Infinity	8'3.93"	Infinity	7'9.66"	Infinity	7'3.57"	Infinity
Infinity	7'5.02"	Infinity	7'0.14"	Infinity	6'7.32"	Infinity
56'9.78"	6'8.25"	110'4.39"	6'4.36"	Infinity	6'0.47"	Infinity
27'6.9"	6'1.04"	35'8.7"	5'9.89"	53'9.99"	5'6.7"	127'6.53"
20'6.46"	5'8.9"	24'7.63"	5'6.14"	31'10.44"	5'3.33"	47'10.89"
15'6.92"	5'4.34"	17'9.07"	5'1.98"	21'1.42"	4'11.57"	26'11.15"
13'7.28"	5'1.88"	15'2.53"	4'11.73"	17'6.81"	4'9.51"	21'4"
11'10.67"	4'11.29"	13'0.86"	4'9.34"	14'8.86"	4'7.33"	17'2.93"
10'4.56"	4'8.55"	11'2.98"	4'6.81"	12'5.18"	4'5"	14'1.49"
9'0.5"	4'5.66"	9'8.11"	4'4.12"	10'6.18"	4'2.52"	11'8"
7'10.18"	4'2.6"	8'3.68"	4'1.26"	8'10.76"	3'11.87"	9'8.16"
6'9.32"	3'11.35"	7'1.23"	3'10.22"	7'6.15"	3'9.03"	8'0.49"
6'3.37"	3'9.65"	6'6.64"	3'8.62"	6'10.71"	3'7.53"	7'3.9"
5'9.71"	3'7.89"	6'0.42"	3'6.96"	6'3.78"	3'5.97"	6'7.99"
5'4.32"	3'6.08"	5'6.55"	3'5.25"	5'9.29"	3'4.36"	6'0.7"
4'11.17"	3'4.22"	5'1"	3'3.47"	5'3.22"	3'2.68"	5'5.94"
4'6.27"	3'2.29"	4'7.74"	3'1.64"	4'9.52"	3'0.94"	4'11.68"
4'1.57"	3'0.3"	4'2.75"	2'11.73"	4'4.15"	2'11.12"	4'5.85"
3'9.09"	2'10.23"	3'10.01"	2'9.75"	3'11.1"	2'9.24"	4'0.4"
3'4.79"	2'8.1"	3'5.5"	2'7.7"	3'6.33"	2'7.27"	3'7.31"

Focal Length 42mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	26.671	23.791	21.224	18.938	16.902	15.087	13.471	12.

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	26.632	Infinity	23.752	Infinity	21.186	Infinity	18.9	Infinity	16.863	Infinity	15.049	Infinity	13.432	Infinity	11.992
30.00	14.233	Infinity	13.381	Infinity	12.539	Infinity	11.714	Infinity	10.911	Infinity	10.133	Infinity	9.385	Infinity	8.67
15.00	9.711	33.638	9.313	39.745	8.904	49.947	8.487	70.232	8.064	129.388	7.638	2511.192	7.212	Infinity	6.788
10.00	7.37	15.701	7.142	16.891	6.903	18.467	6.653	20.632	6.395	23.77	6.128	28.682	5.855	37.383	5.578
9.00	6.821	13.331	6.627	14.175	6.422	15.261	6.206	16.701	5.982	18.686	5.749	21.574	5.51	26.12	5.265
8.00	6.241	11.216	6.079	11.802	5.907	12.54	5.725	13.489	5.535	14.745	5.337	16.472	5.131	18.975	4.919
7.00	5.625	9.315	5.494	9.713	5.355	10.202	5.207	10.815	5.05	11.6	4.886	12.632	4.715	14.039	4.537
6.00	4.971	7.599	4.87	7.858	4.762	8.171	4.645	8.554	4.522	9.031	4.392	9.637	4.254	10.424	4.11
5.50	4.629	6.801	4.542	7.006	4.448	7.252	4.347	7.55	4.24	7.916	4.126	8.373	4.005	8.956	3.879
5.00	4.276	6.041	4.202	6.2	4.122	6.39	4.036	6.618	3.944	6.895	3.846	7.235	3.742	7.662	3.632
4.50	3.911	5.314	3.85	5.436	3.783	5.579	3.712	5.75	3.635	5.956	3.552	6.205	3.464	6.512	3.371
4.00	3.534	4.62	3.484	4.71	3.431	4.816	3.373	4.941	3.31	5.089	3.242	5.267	3.17	5.484	3.093
3.80	3.379	4.351	3.334	4.43	3.286	4.523	3.233	4.632	3.175	4.761	3.114	4.916	3.047	5.102	2.976
3.60	3.223	4.086	3.182	4.155	3.138	4.236	3.09	4.331	3.038	4.443	2.982	4.576	2.922	4.736	2.857
3.40	3.064	3.826	3.028	3.886	2.988	3.956	2.945	4.038	2.898	4.134	2.848	4.248	2.793	4.384	2.734
3.20	2.904	3.57	2.871	3.622	2.836	3.682	2.797	3.752	2.756	3.835	2.71	3.931	2.661	4.047	2.608
3.00	2.741	3.319	2.712	3.363	2.681	3.415	2.647	3.474	2.61	3.543	2.569	3.625	2.526	3.722	2.479
2.90	2.658	3.195	2.632	3.236	2.603	3.283	2.571	3.337	2.536	3.401	2.498	3.476	2.457	3.564	2.412
2.80	2.575	3.072	2.551	3.109	2.523	3.153	2.494	3.202	2.461	3.261	2.426	3.329	2.387	3.409	2.345
2.70	2.492	2.95	2.469	2.984	2.444	3.024	2.416	3.069	2.385	3.122	2.352	3.184	2.316	3.257	2.277
2.60	2.408	2.829	2.387	2.86	2.363	2.896	2.337	2.938	2.309	2.986	2.278	3.042	2.245	3.107	2.209
2.50	2.323	2.709	2.304	2.737	2.282	2.77	2.258	2.808	2.232	2.851	2.203	2.902	2.172	2.961	2.139
2.40	2.238	2.59	2.22	2.616	2.2	2.645	2.178	2.679	2.154	2.718	2.128	2.764	2.099	2.817	2.068
2.30	2.152	2.472	2.136	2.495	2.117	2.522	2.097	2.552	2.075	2.587	2.051	2.628	2.024	2.676	1.996
2.20	2.066	2.355	2.051	2.376	2.034	2.4	2.016	2.427	1.995	2.458	1.973	2.495	1.949	2.537	1.923
2.10	1.979	2.239	1.965	2.258	1.95	2.279	1.933	2.303	1.915	2.331	1.895	2.363	1.873	2.401	1.849
2.00	1.891	2.124	1.879	2.14	1.865	2.159	1.85	2.181	1.833	2.205	1.815	2.234	1.795	2.267	1.773
1.95	1.847	2.067	1.836	2.082	1.823	2.1	1.808	2.12	1.792	2.143	1.775	2.17	1.756	2.2	1.735
1.90	1.803	2.01	1.792	2.024	1.78	2.041	1.766	2.06	1.751	2.081	1.735	2.106	1.717	2.135	1.697
1.85	1.759	1.953	1.748	1.966	1.737	1.982	1.724	2	1.71	2.02	1.694	2.043	1.677	2.07	1.658
1.80	1.714	1.896	1.704	1.909	1.693	1.923	1.681	1.94	1.668	1.959	1.653	1.98	1.637	2.005	1.62
1.75	1.669	1.84	1.66	1.852	1.65	1.865	1.639	1.881	1.626	1.898	1.612	1.918	1.597	1.942	1.58
1.70	1.625	1.784	1.616	1.795	1.606	1.807	1.596	1.822	1.584	1.838	1.571	1.857	1.557	1.878	1.541
1.65	1.58	1.728	1.571	1.738	1.562	1.75	1.552	1.763	1.541	1.778	1.529	1.796	1.516	1.815	1.501
1.60	1.534	1.673	1.527	1.682	1.518	1.693	1.509	1.705	1.499	1.719	1.487	1.735	1.475	1.753	1.461
1.55	1.489	1.617	1.482	1.626	1.474	1.636	1.465	1.647	1.456	1.66	1.445	1.675	1.434	1.691	1.421
1.50	1.444	1.562	1.437	1.57	1.43	1.579	1.422	1.589	1.413	1.601	1.403	1.615	1.392	1.63	1.38
1.45	1.398	1.507	1.392	1.514	1.385	1.523	1.378	1.532	1.369	1.543	1.36	1.555	1.35	1.57	1.339
1.40	1.352	1.452	1.346	1.459	1.34	1.467	1.333	1.475	1.326	1.485	1.317	1.496	1.308	1.509	1.298
1.35	1.306	1.398	1.301	1.404	1.295	1.411	1.289	1.419	1.282	1.428	1.274	1.438	1.265	1.45	1.256

1.30	1.26	1.343	1.255	1.349	1.25	1.355	1.244	1.362	1.238	1.37	1.231	1.38	1.223	1.39	1.214
1.25	1.214	1.289	1.209	1.294	1.205	1.3	1.199	1.306	1.193	1.314	1.187	1.322	1.18	1.332	1.172
1.20	1.167	1.235	1.163	1.24	1.159	1.245	1.154	1.251	1.149	1.257	1.143	1.265	1.136	1.273	1.129
1.15	1.12	1.182	1.117	1.186	1.113	1.19	1.109	1.195	1.104	1.201	1.099	1.208	1.093	1.216	1.086
1.10	1.074	1.128	1.07	1.132	1.067	1.136	1.063	1.14	1.059	1.146	1.054	1.151	1.049	1.158	1.043
1.05	1.027	1.075	1.024	1.078	1.021	1.082	1.017	1.086	1.013	1.09	1.009	1.095	1.004	1.101	0.999
1.00	0.979	1.022	0.977	1.025	0.974	1.028	0.971	1.031	0.968	1.035	0.964	1.04	0.96	1.045	0.955
0.95	0.932	0.969	0.93	0.971	0.927	0.974	0.925	0.977	0.922	0.981	0.919	0.985	0.915	0.989	0.911
0.91	0.894	0.927	0.892	0.929	0.89	0.931	0.888	0.934	0.885	0.937	0.882	0.941	0.879	0.945	0.875

3	7.1	8	9	10	11	13	14	1
03	10.747	9.604	8.586	7.679	6.871	6.15	5.509	4.9

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	10.709	Infinity	9.566	Infinity	8.548	Infinity	7.641	Infinity	6.832	Infinity	6.112	Infinity	5.471	Infinity	4.899
Infinity	7.989	Infinity	7.345	Infinity	6.739	Infinity	6.17	Infinity	5.64	Infinity	5.148	Infinity	4.692	Infinity	4.271
Infinity	6.37	Infinity	5.96	Infinity	5.561	Infinity	5.174	Infinity	4.802	Infinity	4.446	Infinity	4.106	Infinity	3.785
56.806	5.297	137.153	5.015	Infinity	4.733	Infinity	4.455	Infinity	4.18	Infinity	3.912	Infinity	3.651	Infinity	3.399
34.257	5.015	52.801	4.763	135.645	4.51	Infinity	4.257	Infinity	4.007	Infinity	3.761	Infinity	3.52	Infinity	3.287
22.897	4.702	29.854	4.481	45.424	4.258	110.458	4.034	Infinity	3.81	Infinity	3.588	Infinity	3.37	Infinity	3.157
16.054	4.353	19.154	4.165	24.488	3.973	35.716	3.779	74.099	3.583	Infinity	3.388	Infinity	3.195	Infinity	3.004
11.48	3.961	12.961	3.806	15.169	3.647	18.779	3.485	25.685	3.32	43.963	3.153	225.694	2.987	Infinity	2.821
9.718	3.746	10.75	3.608	12.212	3.466	14.427	3.32	18.144	3.171	25.601	3.02	47.854	2.868	3099.438	2.716
8.207	3.517	8.923	3.397	9.897	3.271	11.288	3.142	13.418	3.01	17.055	2.875	24.601	2.738	49.31	2.6
6.897	3.273	7.389	3.169	8.036	3.061	8.918	2.949	10.179	2.833	12.115	2.714	15.437	2.594	22.392	2.471
5.75	3.011	6.083	2.924	6.507	2.833	7.064	2.738	7.82	2.64	8.895	2.538	10.535	2.433	13.313	2.326
5.33	2.901	5.613	2.821	5.97	2.737	6.431	2.649	7.047	2.557	7.901	2.462	9.158	2.364	11.169	2.264
4.93	2.788	5.169	2.715	5.468	2.637	5.849	2.556	6.349	2.471	7.029	2.382	7.997	2.291	9.474	2.198
4.549	2.671	4.749	2.605	4.998	2.534	5.312	2.459	5.717	2.381	6.257	2.3	7.004	2.215	8.101	2.128
4.185	2.551	4.352	2.491	4.558	2.427	4.814	2.359	5.141	2.288	5.569	2.213	6.147	2.136	6.966	2.055
3.837	2.428	3.975	2.374	4.144	2.316	4.352	2.255	4.615	2.19	4.952	2.123	5.398	2.052	6.011	1.979
3.668	2.365	3.794	2.314	3.946	2.259	4.134	2.201	4.368	2.14	4.667	2.076	5.058	2.008	5.589	1.939
3.504	2.301	3.617	2.252	3.755	2.201	3.923	2.146	4.131	2.089	4.396	2.028	4.739	1.964	5.198	1.897
3.343	2.235	3.445	2.19	3.568	2.142	3.719	2.091	3.904	2.036	4.138	1.978	4.438	1.918	4.835	1.855
3.185	2.169	3.277	2.127	3.388	2.082	3.521	2.034	3.686	1.982	3.892	1.928	4.154	1.871	4.496	1.812
3.031	2.102	3.113	2.063	3.212	2.021	3.331	1.975	3.476	1.927	3.657	1.877	3.885	1.823	4.18	1.767
2.879	2.034	2.953	1.997	3.041	1.958	3.146	1.916	3.275	1.871	3.433	1.824	3.631	1.773	3.885	1.721
2.731	1.964	2.797	1.931	2.875	1.894	2.968	1.855	3.08	1.814	3.218	1.769	3.39	1.723	3.608	1.673
2.586	1.894	2.644	1.863	2.713	1.829	2.795	1.793	2.893	1.755	3.013	1.714	3.161	1.67	3.348	1.624
2.444	1.822	2.495	1.794	2.555	1.763	2.627	1.73	2.713	1.695	2.816	1.657	2.944	1.617	3.102	1.574
2.305	1.75	2.35	1.724	2.402	1.696	2.464	1.665	2.538	1.633	2.628	1.598	2.737	1.561	2.871	1.522
2.236	1.713	2.278	1.688	2.327	1.661	2.385	1.633	2.454	1.602	2.536	1.568	2.637	1.533	2.761	1.495
2.168	1.676	2.207	1.652	2.253	1.627	2.306	1.599	2.37	1.57	2.447	1.538	2.539	1.504	2.653	1.468
2.101	1.638	2.137	1.616	2.18	1.592	2.229	1.566	2.288	1.538	2.359	1.507	2.444	1.475	2.548	1.441
2.034	1.6	2.068	1.579	2.107	1.556	2.153	1.532	2.208	1.505	2.273	1.476	2.351	1.446	2.447	1.413
1.968	1.562	2	1.542	2.036	1.521	2.079	1.497	2.129	1.472	2.189	1.445	2.26	1.416	2.347	1.385
1.903	1.524	1.932	1.505	1.965	1.485	2.005	1.463	2.051	1.439	2.106	1.413	2.171	1.385	2.251	1.356
1.838	1.485	1.865	1.467	1.896	1.448	1.932	1.427	1.974	1.405	2.025	1.381	2.085	1.354	2.157	1.327
1.774	1.446	1.799	1.429	1.827	1.411	1.86	1.392	1.899	1.371	1.945	1.348	2	1.323	2.065	1.297
1.711	1.407	1.733	1.391	1.759	1.374	1.79	1.356	1.825	1.336	1.867	1.314	1.917	1.291	1.976	1.266
1.648	1.367	1.669	1.352	1.692	1.337	1.72	1.32	1.752	1.301	1.79	1.281	1.835	1.259	1.889	1.236
1.586	1.327	1.605	1.313	1.626	1.299	1.651	1.283	1.681	1.265	1.715	1.247	1.756	1.226	1.804	1.204
1.524	1.286	1.541	1.274	1.561	1.26	1.584	1.246	1.61	1.229	1.641	1.212	1.678	1.193	1.721	1.172
1.463	1.246	1.478	1.234	1.496	1.222	1.517	1.208	1.541	1.193	1.569	1.177	1.601	1.159	1.64	1.14

1.402	1.204	1.416	1.194	1.432	1.182	1.451	1.17	1.472	1.156	1.497	1.141	1.527	1.125	1.561	1.107
1.342	1.163	1.355	1.153	1.369	1.143	1.386	1.131	1.405	1.118	1.427	1.105	1.453	1.09	1.484	1.073
1.283	1.121	1.294	1.112	1.307	1.103	1.322	1.092	1.339	1.081	1.359	1.068	1.382	1.054	1.409	1.039
1.224	1.079	1.234	1.071	1.245	1.062	1.259	1.053	1.274	1.042	1.291	1.031	1.311	1.018	1.335	1.004
1.166	1.036	1.175	1.029	1.185	1.021	1.196	1.013	1.209	1.003	1.225	0.993	1.243	0.981	1.263	0.969
1.108	0.993	1.116	0.987	1.125	0.98	1.135	0.972	1.146	0.964	1.16	0.954	1.175	0.944	1.193	0.933
1.051	0.95	1.057	0.944	1.065	0.938	1.074	0.931	1.084	0.924	1.095	0.915	1.109	0.906	1.124	0.896
0.994	0.906	1	0.901	1.006	0.896	1.014	0.89	1.022	0.883	1.032	0.876	1.044	0.868	1.057	0.859
0.949	0.871	0.954	0.867	0.96	0.862	0.966	0.856	0.974	0.85	0.983	0.844	0.993	0.836	1.004	0.828

6	18	20	22
37	4.428	3.975	3.57

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	4.39	Infinity	3.936	Infinity	3.532	Infinity
Infinity	3.885	Infinity	3.53	Infinity	3.206	Infinity
Infinity	3.483	Infinity	3.2	Infinity	2.935	Infinity
Infinity	3.157	Infinity	2.926	Infinity	2.706	Infinity
Infinity	3.061	Infinity	2.844	Infinity	2.637	Infinity
Infinity	2.949	Infinity	2.749	Infinity	2.556	Infinity
Infinity	2.817	Infinity	2.635	Infinity	2.459	Infinity
Infinity	2.658	Infinity	2.497	Infinity	2.34	Infinity
Infinity	2.565	Infinity	2.416	Infinity	2.27	Infinity
Infinity	2.463	Infinity	2.326	Infinity	2.192	Infinity
45.771	2.348	Infinity	2.225	Infinity	2.103	Infinity
18.991	2.218	36.817	2.11	Infinity	2.001	Infinity
14.872	2.162	23.846	2.059	75.932	1.956	Infinity
11.985	2.102	17.139	2.006	33.536	1.909	Infinity
9.849	2.04	13.042	1.949	20.654	1.858	61.564
8.204	1.973	10.279	1.889	14.425	1.804	26.67
6.9	1.903	8.29	1.826	10.752	1.747	16.244
6.343	1.866	7.49	1.792	9.428	1.717	13.363
5.839	1.829	6.789	1.758	8.33	1.686	11.231
5.38	1.79	6.169	1.723	7.404	1.654	9.588
4.96	1.75	5.617	1.686	6.613	1.62	8.284
4.574	1.708	5.122	1.648	5.929	1.586	7.223
4.219	1.666	4.676	1.609	5.332	1.55	6.344
3.891	1.622	4.272	1.568	4.806	1.513	5.603
3.587	1.576	3.904	1.526	4.34	1.474	4.971
3.304	1.529	3.568	1.482	3.923	1.434	4.424
3.041	1.481	3.259	1.437	3.548	1.392	3.947
2.916	1.456	3.114	1.414	3.375	1.371	3.73
2.795	1.43	2.975	1.39	3.21	1.349	3.527
2.678	1.405	2.841	1.366	3.053	1.326	3.335
2.564	1.378	2.712	1.342	2.903	1.303	3.154
2.455	1.352	2.589	1.317	2.759	1.28	2.984
2.348	1.324	2.469	1.291	2.623	1.256	2.822
2.245	1.297	2.354	1.265	2.491	1.232	2.668
2.145	1.269	2.243	1.239	2.366	1.207	2.523
2.048	1.24	2.136	1.212	2.245	1.182	2.385
1.953	1.211	2.032	1.184	2.13	1.156	2.253
1.862	1.181	1.932	1.156	2.019	1.129	2.127
1.773	1.151	1.836	1.127	1.912	1.102	2.008
1.686	1.12	1.742	1.098	1.81	1.074	1.893

1.602	1.088	1.651	1.068	1.711	1.046	1.784
1.52	1.056	1.564	1.037	1.616	1.017	1.68
1.441	1.023	1.479	1.006	1.524	0.987	1.58
1.363	0.99	1.396	0.974	1.436	0.957	1.484
1.288	0.956	1.316	0.941	1.35	0.926	1.391
1.214	0.921	1.239	0.908	1.268	0.894	1.303
1.142	0.885	1.163	0.874	1.188	0.861	1.218
1.072	0.849	1.09	0.839	1.111	0.827	1.136
1.018	0.82	1.033	0.81	1.051	0.8	1.073

Focal Length 42mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	87'6.04"	78'0.65"	69'7.59"	62'1.59"	55'5.43"	49'5.98"	44'2.35"	39'5

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	87'4.5"	Infinity	77'11.11"	Infinity	69'6.09"	Infinity	62'0.09"	Infinity	55'3.91"	Infinity	49'4.47"	Infinity	44'0.83"	Infinity	39'4.13"
100' 0''	47'0.51"	Infinity	44'2.44"	Infinity	41'4.86"	Infinity	38'7.97"	Infinity	35'11.97"	Infinity	33'5.02"	Infinity	30'11.26"	Infinity	28'6.83"
50' 0''	32'2.2"	114'5.77"	30'10.2"	136'2.43"	29'5.79"	173'1.98"	28'1.05"	249'3.59"	26'8.11"	493'7.02"	25'3.06"	Infinity	23'10.02"	Infinity	22'5.1"
30' 0''	22'7.74"	44'9.63"	21'11.89"	47'8.57"	21'3.62"	51'5.72"	20'6.96"	56'5.87"	19'9.93"	63'5.33"	19'0.58"	73'7.86"	18'2.96"	89'11.58"	17'5.11"
20' 0''	16'6.27"	25'5.37"	16'2.17"	26'4.01"	15'9.78"	27'4.9"	15'5.09"	28'8.72"	15'0.11"	30'4.46"	14'6.85"	32'5.58"	14'1.31"	35'2.37"	13'7.52"
15' 0''	13'0.06"	17'9.26"	12'9.58"	18'2.24"	12'6.9"	18'8.14"	12'4"	19'3.16"	12'0.89"	19'11.61"	11'9.56"	20'9.9"	11'6.01"	21'10.59"	11'2.24"
12' 0''	10'8.67"	13'7.85"	10'7.02"	13'10.69"	10'5.23"	14'2"	10'3.29"	14'5.89"	10'1.18"	14'10.49"	9'10.91"	15'3.97"	9'8.46"	15'10.55"	9'5.84"
10' 0''	9'1.45"	11'1.03"	9'0.29"	11'2.84"	8'11.03"	11'4.94"	8'9.64"	11'7.38"	8'8.14"	11'10.23"	8'6.5"	12'1.58"	8'4.73"	12'5.54"	8'2.82"
9' 0''	8'3.53"	9'10.22"	8'2.6"	9'11.61"	8'1.57"	10'1.23"	8'0.44"	10'3.09"	7'11.2"	10'5.27"	7'9.86"	10'7.8"	7'8.4"	10'10.79"	7'6.82"
8' 0''	7'5.41"	8'7.77"	7'4.67"	8'8.82"	7'3.86"	8'10.02"	7'2.96"	8'11.41"	7'1.98"	9'1.02"	7'0.91"	9'2.89"	6'11.75"	9'5.07"	6'10.48"
7' 6''	7'0.26"	8'0.68"	6'11.62"	8'1.58"	6'10.9"	8'2.61"	6'10.12"	8'3.79"	6'9.26"	8'5.15"	6'8.32"	8'6.73"	6'7.29"	8'8.57"	6'6.17"
7' 0''	6'7.07"	7'5.68"	6'6.51"	7'6.44"	6'5.89"	7'7.31"	6'5.21"	7'8.3"	6'4.46"	7'9.44"	6'3.64"	7'10.77"	6'2.74"	8'0.3"	6'1.76"
6' 6''	6'1.81"	6'10.77"	6'1.33"	6'11.4"	6'0.8"	7'0.12"	6'0.22"	7'0.95"	5'11.58"	7'1.9"	5'10.87"	7'2.99"	5'10.1"	7'4.25"	5'9.26"
6' 0''	5'8.5"	6'3.94"	5'8.09"	6'4.46"	5'7.65"	6'5.05"	5'7.16"	6'5.73"	5'6.61"	6'6.5"	5'6.02"	6'7.39"	5'5.36"	6'8.41"	5'4.65"
5' 6''	5'3.13"	5'9.2"	5'2.79"	5'9.61"	5'2.42"	5'10.09"	5'2.02"	5'10.63"	5'1.57"	5'11.25"	5'1.07"	5'11.96"	5'0.53"	6'0.78"	4'11.93"
5' 0''	4'9.69"	5'2.54"	4'9.43"	5'2.86"	4'9.13"	5'3.24"	4'8.8"	5'3.66"	4'8.44"	5'4.15"	4'8.03"	5'4.7"	4'7.59"	5'5.34"	4'7.1"
4' 9''	4'6.96"	4'11.23"	4'6.72"	4'11.52"	4'6.45"	4'11.85"	4'6.16"	5'0.22"	4'5.84"	5'0.65"	4'5.48"	5'1.13"	4'5.08"	5'1.69"	4'4.64"
4' 6''	4'4.2"	4'7.95"	4'3.99"	4'8.2"	4'3.76"	4'8.49"	4'3.5"	4'8.81"	4'3.21"	4'9.18"	4'2.9"	4'9.6"	4'2.55"	4'10.08"	4'2.16"
4' 3''	4'1.44"	4'4.69"	4'1.25"	4'4.91"	4'1.05"	4'5.15"	4'0.82"	4'5.43"	4'0.57"	4'5.75"	4'0.29"	4'6.11"	3'11.98"	4'6.52"	3'11.64"
4' 0''	3'10.65"	4'1.45"	3'10.49"	4'1.63"	3'10.32"	4'1.84"	3'10.12"	4'2.08"	3'9.9"	4'2.35"	3'9.66"	4'2.66"	3'9.39"	4'3.01"	3'9.1"
3' 9''	3'7.85"	3'10.23"	3'7.72"	3'10.38"	3'7.57"	3'10.56"	3'7.4"	3'10.76"	3'7.21"	3'10.99"	3'7.01"	3'11.24"	3'6.78"	3'11.54"	3'6.52"
3' 6''	3'5.04"	3'7.02"	3'4.92"	3'7.15"	3'4.8"	3'7.3"	3'4.66"	3'7.46"	3'4.5"	3'7.65"	3'4.32"	3'7.87"	3'4.13"	3'8.11"	3'3.92"
3' 3''	3'2.21"	3'3.84"	3'2.11"	3'3.94"	3'2.01"	3'4.06"	3'1.89"	3'4.2"	3'1.76"	3'4.35"	3'1.62"	3'4.53"	3'1.46"	3'4.72"	3'1.28"
3' 0''	2'11.36"	3'0.67"	2'11.28"	3'0.76"	2'11.2"	3'0.85"	2'11.1"	3'0.96"	2'11"	3'1.08"	2'10.88"	3'1.22"	2'10.75"	3'1.38"	2'10.61"

3	7.1	8	9	10	11	13	14	1
.62"	35'3.11"	31'6.11"	28'2.03"	25'2.32"	22'6.51"	20'2.13"	18'0.89"	16'2

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	35'1.62"	Infinity	31'4.62"	Infinity	28'0.53"	Infinity	25'0.81"	Infinity	22'4.99"	Infinity	20'0.64"	Infinity	17'11.38"	Infinity	16'0.88"
Infinity	26'3.8"	Infinity	24'2.24"	Infinity	22'2.19"	Infinity	20'3.67"	Infinity	18'6.67"	Infinity	16'11.17"	Infinity	15'5.13"	Infinity	14'0.5"
Infinity	21'0.41"	Infinity	19'8.07"	Infinity	18'4.15"	Infinity	17'0.75"	Infinity	15'9.94"	Infinity	14'7.78"	Infinity	13'6.31"	Infinity	12'5.57"
119'10.61"	16'7.11"	191'9.71"	15'9.01"	593'6.9"	14'10.88"	Infinity	14'0.78"	Infinity	13'2.8"	Infinity	12'4.98"	Infinity	11'7.38"	Infinity	10'10.07"
38'10.62"	13'1.51"	44'1.13"	12'7.29"	51'11.34"	12'0.9"	65'0.11"	11'6.38"	90'9.7"	10'11.77"	164'8.44"	10'5.11"	2079'3.65"	9'10.45"	Infinity	9'3.83"
23'2.54"	10'10.27"	24'11.01"	10'6.1"	27'2.05"	10'1.75"	30'3.1"	9'9.24"	34'8.57"	9'4.58"	41'7.76"	8'11.82"	53'9.63"	8'6.96"	80'4.45"	8'2.05"
16'6.56"	9'3.05"	17'4.43"	9'0.09"	18'4.81"	8'8.97"	19'8.68"	8'5.69"	21'5.6"	8'2.26"	23'10.17"	7'10.71"	27'3.24"	7'7.04"	32'6.74"	7'3.29"
12'10.28"	8'0.77"	13'3.99"	7'10.58"	13'10.96"	7'8.24"	14'7.6"	7'5.77"	15'6.49"	7'3.17"	16'8.55"	7'0.43"	18'3.25"	6'9.59"	20'5.12"	6'6.64"
11'2.32"	7'5.12"	11'6.54"	7'3.3"	11'11.63"	7'1.34"	12'5.84"	6'11.26"	13'1.53"	6'9.06"	13'11.23"	6'6.73"	14'11.75"	6'4.3"	16'4.39"	6'1.76"
9'7.63"	6'9.11"	9'10.66"	6'7.63"	10'2.28"	6'6.04"	10'6.63"	6'4.34"	10'11.93"	6'2.52"	11'6.49"	6'0.6"	12'2.73"	5'10.58"	13'1.33"	5'8.45"
8'10.72"	6'4.95"	9'1.26"	6'3.64"	9'4.27"	6'2.22"	9'7.87"	6'0.71"	10'0.22"	5'11.08"	10'5.55"	5'9.36"	11'0.17"	5'7.53"	11'8.57"	5'5.61"
8'2.09"	6'0.7"	8'4.19"	5'11.54"	8'6.67"	5'10.3"	8'9.62"	5'8.96"	9'1.15"	5'7.52"	9'5.44"	5'5.99"	9'10.72"	5'4.36"	10'5.32"	5'2.64"
7'5.72"	5'8.33"	7'7.44"	5'7.33"	7'9.45"	5'6.25"	7'11.84"	5'5.08"	8'2.68"	5'3.83"	8'6.09"	5'2.48"	8'10.25"	5'1.05"	9'3.39"	4'11.53"
6'9.6"	5'3.86"	6'10.98"	5'3.01"	7'0.6"	5'2.08"	7'2.5"	5'1.08"	7'4.74"	4'11.99"	7'7.43"	4'10.83"	7'10.67"	4'9.59"	8'2.62"	4'8.27"
6'1.72"	4'11.27"	6'2.81"	4'10.56"	6'4.08"	4'9.78"	6'5.57"	4'8.93"	6'7.32"	4'8.02"	6'9.39"	4'7.03"	6'11.87"	4'5.97"	7'2.86"	4'4.84"
5'6.07"	4'6.57"	5'6.91"	4'5.98"	5'7.89"	4'5.34"	5'9.03"	4'4.64"	5'10.36"	4'3.88"	5'11.92"	4'3.06"	6'1.78"	4'2.18"	6'4"	4'1.23"
5'2.32"	4'4.17"	5'3.06"	4'3.64"	5'3.91"	4'3.06"	5'4.89"	4'2.44"	5'6.04"	4'1.76"	5'7.39"	4'1.02"	5'8.98"	4'0.22"	5'10.87"	3'11.36"
4'10.63"	4'1.73"	4'11.27"	4'1.27"	5'	4'0.75"	5'0.85"	4'0.2"	5'1.83"	3'11.59"	5'2.98"	3'10.92"	5'4.34"	3'10.21"	5'5.94"	3'9.44"
4'7"	3'11.27"	4'7.54"	3'10.86"	4'8.16"	3'10.41"	4'8.88"	3'9.91"	4'9.72"	3'9.37"	4'10.7"	3'8.79"	4'11.84"	3'8.15"	5'1.18"	3'7.46"
4'3.41"	3'8.77"	4'3.87"	3'8.41"	4'4.4"	3'8.02"	4'5"	3'7.59"	4'5.71"	3'7.12"	4'6.52"	3'6.6"	4'7.48"	3'6.04"	4'8.59"	3'5.44"
3'11.87"	3'6.24"	4'0.26"	3'5.93"	4'0.7"	3'5.59"	4'1.2"	3'5.22"	4'1.79"	3'4.81"	4'2.46"	3'4.37"	4'3.25"	3'3.88"	4'4.17"	3'3.35"
3'8.39"	3'3.68"	3'8.7"	3'3.42"	3'9.06"	3'3.13"	3'9.48"	3'2.81"	3'9.96"	3'2.46"	3'10.51"	3'2.08"	3'11.15"	3'1.66"	3'11.89"	3'1.21"
3'4.95"	3'1.08"	3'5.2"	3'0.86"	3'5.5"	3'0.62"	3'5.83"	3'0.35"	3'6.22"	3'0.06"	3'6.66"	2'11.74"	3'7.17"	2'11.39"	3'7.76"	2'11.01"
3'1.56"	2'10.44"	3'1.76"	2'10.27"	3'1.99"	2'10.07"	3'2.25"	2'9.85"	3'2.56"	2'9.61"	3'2.9"	2'9.35"	3'3.3"	2'9.06"	3'3.76"	2'8.74"

6	18	20	22
.37"	14'6.33"	13'0.5"	11'8.55"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	14'4.84"	Infinity	12'10.98"	Infinity	11'7.07"	Infinity
Infinity	12'9.21"	Infinity	11'7.21"	Infinity	10'6.42"	Infinity
Infinity	11'5.58"	Infinity	10'6.35"	Infinity	9'7.87"	Infinity
Infinity	10'1.09"	Infinity	9'4.47"	Infinity	8'8.25"	Infinity
Infinity	8'9.29"	Infinity	8'2.88"	Infinity	7'8.63"	Infinity
182'7.51"	7'9.12"	Infinity	7'4.2"	Infinity	6'11.32"	Infinity
41'8.93"	6'11.46"	61'4.77"	6'7.59"	132'1.06"	6'3.69"	Infinity
23'6.97"	6'3.6"	28'7.1"	6'0.5"	37'8.32"	5'9.34"	59'1.37"
18'3.41"	5'11.13"	21'1.08"	5'8.43"	25'6.52"	5'5.65"	33'7.5"
14'3.35"	5'6.23"	15'10.64"	5'3.93"	18'2.58"	5'1.56"	21'10.34"
12'7.47"	5'3.6"	13'10.08"	5'1.51"	15'6.52"	4'11.34"	18'0.88"
11'1.74"	5'0.84"	12'0.78"	4'10.95"	13'3.76"	4'8.99"	15'1.07"
9'9.85"	4'9.93"	10'6.14"	4'8.25"	11'5.1"	4'6.49"	12'8.12"
8'7.51"	4'6.86"	9'1.68"	4'5.39"	9'9.65"	4'3.84"	10'8.24"
7'6.51"	4'3.63"	7'11.05"	4'2.36"	8'4.78"	4'1.01"	9'0.21"
6'6.68"	4'0.22"	6'9.95"	3'11.14"	7'2.02"	3'10"	7'7.15"
6'1.15"	3'10.44"	6'3.91"	3'9.46"	6'7.3"	3'8.42"	6'11.55"
5'7.85"	3'8.61"	5'10.16"	3'7.72"	6'0.98"	3'6.78"	6'4.46"
5'2.78"	3'6.72"	5'4.69"	3'5.93"	5'7.01"	3'5.08"	5'9.86"
4'9.92"	3'4.78"	4'11.49"	3'4.08"	5'1.38"	3'3.32"	5'3.68"
4'5.25"	3'2.78"	4'6.52"	3'2.16"	4'8.05"	3'1.5"	4'9.89"
4'0.76"	3'0.72"	4'1.78"	3'0.19"	4'3"	2'11.61"	4'4.45"
3'8.45"	2'10.59"	3'9.26"	2'10.14"	3'10.21"	2'9.65"	3'11.33"
3'4.3"	2'8.4"	3'4.92"	2'8.02"	3'5.65"	2'7.61"	3'6.51"

Focal Length 44mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	29.238	26.077	23.262	20.753	18.518	16.527	14.753	13.:

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	29.199	Infinity	26.039	Infinity	23.223	Infinity	20.714	Infinity	18.48	Infinity	16.489	Infinity	14.715	Infinity	13.135
30.00	14.922	Infinity	14.064	Infinity	13.213	Infinity	12.374	Infinity	11.553	Infinity	10.755	Infinity	9.983	Infinity	9.241
15.00	10.021	30.281	9.633	34.641	9.232	41.336	8.822	52.819	8.403	76.844	7.979	157.475	7.553	Infinity	7.127
10.00	7.543	14.942	7.325	15.913	7.095	17.169	6.854	18.841	6.602	21.161	6.342	24.566	6.074	30.001	5.8
9.00	6.969	12.784	6.783	13.484	6.586	14.369	6.379	15.515	6.162	17.045	5.936	19.173	5.702	22.309	5.461
8.00	6.363	10.828	6.209	11.323	6.045	11.936	5.871	12.71	5.688	13.711	5.496	15.045	5.296	16.895	5.089
7.00	5.724	9.049	5.6	9.389	5.467	9.802	5.326	10.313	5.176	10.956	5.018	11.783	4.852	12.877	4.679
6.00	5.047	7.423	4.952	7.647	4.849	7.916	4.739	8.241	4.621	8.642	4.496	9.141	4.364	9.778	4.226
5.50	4.694	6.661	4.612	6.84	4.523	7.052	4.428	7.307	4.326	7.618	4.217	8	4.102	8.479	3.98
5.00	4.33	5.931	4.261	6.071	4.186	6.236	4.105	6.433	4.018	6.669	3.925	6.958	3.826	7.314	3.72
4.50	3.956	5.23	3.899	5.337	3.836	5.463	3.769	5.612	3.696	5.789	3.618	6.002	3.535	6.262	3.446
4.00	3.57	4.557	3.524	4.637	3.474	4.73	3.419	4.84	3.36	4.969	3.296	5.123	3.228	5.308	3.154
3.80	3.412	4.296	3.37	4.366	3.325	4.448	3.275	4.544	3.221	4.656	3.163	4.79	3.1	4.951	3.033
3.60	3.252	4.038	3.215	4.099	3.174	4.171	3.129	4.254	3.08	4.352	3.027	4.468	2.97	4.606	2.909
3.40	3.091	3.784	3.057	3.838	3.02	3.9	2.98	3.972	2.936	4.057	2.888	4.156	2.837	4.274	2.781
3.20	2.927	3.534	2.897	3.581	2.864	3.634	2.828	3.696	2.789	3.768	2.746	3.853	2.7	3.953	2.65
3.00	2.761	3.288	2.735	3.328	2.706	3.373	2.674	3.426	2.639	3.487	2.602	3.559	2.561	3.644	2.516
2.90	2.678	3.167	2.653	3.203	2.626	3.245	2.596	3.293	2.564	3.35	2.528	3.415	2.49	3.493	2.448
2.80	2.594	3.046	2.57	3.079	2.545	3.118	2.517	3.162	2.487	3.214	2.454	3.274	2.418	3.344	2.379
2.70	2.509	2.926	2.487	2.957	2.464	2.992	2.438	3.033	2.41	3.08	2.379	3.134	2.345	3.198	2.308
2.60	2.424	2.807	2.404	2.835	2.382	2.867	2.358	2.904	2.332	2.947	2.303	2.997	2.271	3.055	2.237
2.50	2.338	2.689	2.319	2.715	2.299	2.744	2.277	2.777	2.253	2.816	2.226	2.861	2.197	2.913	2.165
2.40	2.251	2.572	2.234	2.595	2.216	2.622	2.196	2.652	2.173	2.687	2.149	2.727	2.122	2.774	2.092
2.30	2.164	2.456	2.149	2.477	2.132	2.501	2.113	2.528	2.093	2.559	2.07	2.596	2.045	2.638	2.019
2.20	2.077	2.341	2.063	2.359	2.047	2.381	2.03	2.405	2.012	2.433	1.991	2.466	1.968	2.503	1.944
2.10	1.989	2.226	1.976	2.243	1.962	2.262	1.947	2.284	1.929	2.309	1.911	2.337	1.89	2.371	1.868
2.00	1.9	2.112	1.889	2.127	1.876	2.144	1.862	2.163	1.847	2.185	1.83	2.211	1.811	2.24	1.791
1.95	1.856	2.056	1.845	2.07	1.833	2.086	1.82	2.104	1.805	2.125	1.789	2.148	1.771	2.176	1.752
1.90	1.811	2	1.801	2.013	1.789	2.028	1.777	2.044	1.763	2.064	1.748	2.086	1.731	2.112	1.713
1.85	1.766	1.944	1.756	1.956	1.746	1.97	1.734	1.985	1.721	2.004	1.706	2.025	1.691	2.048	1.673
1.80	1.721	1.888	1.712	1.899	1.702	1.912	1.691	1.927	1.678	1.944	1.665	1.963	1.65	1.986	1.633
1.75	1.676	1.832	1.668	1.843	1.658	1.855	1.648	1.868	1.636	1.884	1.623	1.902	1.609	1.923	1.594
1.70	1.631	1.776	1.623	1.786	1.614	1.798	1.604	1.81	1.593	1.825	1.581	1.842	1.568	1.861	1.553
1.65	1.585	1.721	1.578	1.73	1.57	1.741	1.56	1.753	1.55	1.766	1.539	1.782	1.526	1.8	1.513
1.60	1.54	1.666	1.533	1.674	1.525	1.684	1.516	1.695	1.507	1.708	1.496	1.722	1.485	1.739	1.472
1.55	1.494	1.611	1.488	1.619	1.48	1.628	1.472	1.638	1.463	1.65	1.454	1.663	1.443	1.678	1.431
1.50	1.448	1.556	1.442	1.564	1.435	1.572	1.428	1.581	1.42	1.592	1.411	1.604	1.401	1.618	1.389
1.45	1.402	1.502	1.397	1.509	1.39	1.516	1.383	1.525	1.376	1.534	1.367	1.546	1.358	1.558	1.348
1.40	1.356	1.448	1.351	1.454	1.345	1.461	1.339	1.468	1.332	1.477	1.324	1.487	1.315	1.499	1.306
1.35	1.31	1.393	1.305	1.399	1.3	1.405	1.294	1.412	1.287	1.421	1.28	1.43	1.272	1.44	1.263

1.30	1.263	1.339	1.259	1.345	1.254	1.35	1.249	1.357	1.243	1.364	1.236	1.372	1.229	1.382	1.221
1.25	1.217	1.286	1.213	1.29	1.208	1.295	1.203	1.301	1.198	1.308	1.192	1.315	1.185	1.324	1.178
1.20	1.17	1.232	1.166	1.236	1.162	1.241	1.158	1.246	1.153	1.252	1.147	1.259	1.141	1.267	1.135
1.15	1.123	1.179	1.12	1.183	1.116	1.187	1.112	1.191	1.108	1.197	1.103	1.203	1.097	1.21	1.091
1.10	1.076	1.126	1.073	1.129	1.07	1.133	1.066	1.137	1.062	1.142	1.058	1.147	1.053	1.153	1.047
1.05	1.028	1.073	1.026	1.076	1.023	1.079	1.02	1.083	1.016	1.087	1.012	1.091	1.008	1.097	1.003
1.00	0.981	1.02	0.979	1.022	0.976	1.025	0.973	1.028	0.97	1.032	0.967	1.036	0.963	1.041	0.959
0.95	0.933	0.967	0.931	0.97	0.929	0.972	0.927	0.975	0.924	0.978	0.921	0.981	0.918	0.986	0.914
0.91	0.895	0.925	0.894	0.927	0.892	0.93	0.889	0.932	0.887	0.935	0.884	0.938	0.881	0.941	0.878

3	7.1	8	9	10	11	13	14	1
173	11.765	10.511	9.393	8.398	7.511	6.721	6.017	5.3

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	11.727	Infinity	10.473	Infinity	9.355	Infinity	8.36	Infinity	7.473	Infinity	6.683	Infinity	5.979	Infinity	5.352
Infinity	8.532	Infinity	7.858	Infinity	7.221	Infinity	6.622	Infinity	6.062	Infinity	5.539	Infinity	5.054	Infinity	4.605
Infinity	6.704	Infinity	6.288	Infinity	5.88	Infinity	5.482	Infinity	5.098	Infinity	4.729	Infinity	4.376	Infinity	4.04
39.963	5.521	63.862	5.24	196.116	4.958	Infinity	4.677	Infinity	4.399	Infinity	4.125	Infinity	3.858	Infinity	3.599
27.349	5.215	36.692	4.964	59.682	4.712	203.648	4.459	Infinity	4.206	Infinity	3.957	Infinity	3.712	Infinity	3.472
19.612	4.876	23.954	4.658	31.924	4.436	51.111	4.213	158.985	3.988	Infinity	3.765	Infinity	3.544	Infinity	3.326
14.382	4.5	16.563	4.315	19.98	4.126	26.039	3.934	39.599	3.739	96.186	3.544	Infinity	3.349	Infinity	3.155
10.61	4.081	11.736	3.93	13.331	3.774	15.745	3.614	19.791	3.451	27.886	3.286	51.877	3.119	1968.843	2.953
9.093	3.852	9.9	3.718	11.002	3.58	12.581	3.437	15.013	3.29	19.209	3.141	28.081	2.989	58.837	2.837
7.761	3.609	8.336	3.493	9.095	3.371	10.137	3.245	11.641	3.115	13.987	2.982	18.114	2.847	27.193	2.71
6.583	3.351	6.987	3.252	7.506	3.147	8.192	3.038	9.135	2.925	10.5	2.809	12.635	2.69	16.41	2.568
5.533	3.076	5.811	2.993	6.16	2.906	6.608	2.814	7.198	2.718	8.006	2.619	9.17	2.516	10.974	2.411
5.145	2.961	5.383	2.885	5.678	2.804	6.054	2.719	6.542	2.63	7.197	2.537	8.116	2.442	9.486	2.343
4.773	2.843	4.975	2.773	5.224	2.699	5.538	2.621	5.94	2.538	6.47	2.453	7.197	2.364	8.245	2.272
4.416	2.721	4.587	2.658	4.796	2.59	5.056	2.519	5.386	2.443	5.814	2.364	6.389	2.282	7.193	2.197
4.073	2.597	4.216	2.539	4.391	2.478	4.606	2.413	4.875	2.344	5.219	2.272	5.672	2.197	6.29	2.119
3.744	2.468	3.863	2.417	4.007	2.362	4.183	2.303	4.401	2.242	4.677	2.176	5.033	2.108	5.508	2.037
3.584	2.403	3.692	2.354	3.823	2.302	3.982	2.247	4.178	2.189	4.423	2.127	4.739	2.062	5.154	1.994
3.427	2.336	3.526	2.291	3.644	2.242	3.787	2.19	3.962	2.134	4.181	2.076	4.459	2.014	4.822	1.95
3.273	2.269	3.362	2.226	3.469	2.18	3.597	2.131	3.754	2.079	3.948	2.024	4.193	1.966	4.51	1.905
3.123	2.2	3.203	2.161	3.298	2.118	3.413	2.072	3.553	2.023	3.725	1.971	3.941	1.916	4.217	1.859
2.975	2.131	3.047	2.094	3.132	2.054	3.235	2.011	3.359	1.965	3.511	1.917	3.7	1.865	3.94	1.811
2.829	2.061	2.894	2.026	2.97	1.989	3.061	1.949	3.171	1.907	3.305	1.861	3.47	1.813	3.679	1.762
2.687	1.989	2.744	1.957	2.812	1.923	2.893	1.886	2.989	1.847	3.107	1.804	3.251	1.76	3.431	1.712
2.547	1.917	2.598	1.888	2.658	1.856	2.729	1.822	2.814	1.785	2.916	1.746	3.041	1.705	3.197	1.661
2.409	1.843	2.454	1.816	2.507	1.787	2.569	1.756	2.644	1.723	2.733	1.687	2.841	1.648	2.974	1.608
2.274	1.768	2.314	1.744	2.36	1.718	2.414	1.689	2.479	1.659	2.556	1.626	2.649	1.59	2.763	1.553
2.208	1.731	2.245	1.708	2.288	1.682	2.338	1.655	2.398	1.626	2.47	1.595	2.556	1.561	2.661	1.525
2.142	1.693	2.176	1.671	2.216	1.647	2.263	1.621	2.319	1.593	2.385	1.563	2.465	1.531	2.562	1.497
2.076	1.654	2.108	1.633	2.146	1.611	2.19	1.586	2.241	1.56	2.302	1.531	2.376	1.501	2.465	1.468
2.011	1.616	2.041	1.596	2.076	1.574	2.117	1.551	2.164	1.526	2.221	1.499	2.288	1.47	2.37	1.439
1.947	1.577	1.975	1.558	2.007	1.538	2.045	1.516	2.089	1.492	2.141	1.466	2.203	1.439	2.278	1.409
1.883	1.537	1.909	1.52	1.939	1.501	1.973	1.48	2.014	1.457	2.062	1.433	2.119	1.407	2.187	1.379
1.82	1.498	1.844	1.481	1.871	1.463	1.903	1.444	1.941	1.423	1.985	1.4	2.037	1.375	2.099	1.348
1.758	1.458	1.779	1.442	1.805	1.426	1.834	1.407	1.868	1.387	1.908	1.366	1.956	1.342	2.013	1.317
1.695	1.418	1.716	1.403	1.739	1.388	1.766	1.37	1.797	1.352	1.834	1.331	1.877	1.309	1.929	1.286
1.634	1.377	1.652	1.364	1.673	1.349	1.698	1.333	1.727	1.316	1.76	1.297	1.799	1.276	1.846	1.254
1.573	1.336	1.59	1.324	1.609	1.31	1.631	1.295	1.657	1.279	1.688	1.261	1.723	1.242	1.765	1.221
1.512	1.295	1.528	1.284	1.545	1.271	1.566	1.257	1.589	1.242	1.617	1.226	1.649	1.208	1.687	1.188
1.452	1.254	1.466	1.243	1.482	1.231	1.501	1.219	1.522	1.205	1.547	1.189	1.575	1.173	1.609	1.155

1.393	1.212	1.405	1.202	1.42	1.191	1.436	1.18	1.455	1.167	1.478	1.153	1.504	1.137	1.534	1.121
1.334	1.17	1.345	1.161	1.358	1.151	1.373	1.14	1.39	1.128	1.41	1.115	1.433	1.101	1.46	1.086
1.275	1.127	1.285	1.119	1.297	1.11	1.31	1.1	1.325	1.09	1.343	1.078	1.364	1.065	1.387	1.051
1.217	1.085	1.226	1.077	1.237	1.069	1.248	1.06	1.262	1.05	1.277	1.039	1.295	1.028	1.317	1.015
1.16	1.041	1.168	1.035	1.177	1.027	1.187	1.019	1.199	1.01	1.213	1.001	1.229	0.99	1.247	0.979
1.103	0.998	1.11	0.992	1.118	0.985	1.127	0.978	1.137	0.97	1.149	0.961	1.163	0.952	1.179	0.942
1.046	0.954	1.052	0.949	1.059	0.943	1.067	0.936	1.076	0.929	1.086	0.922	1.098	0.913	1.112	0.904
0.99	0.91	0.995	0.905	1.001	0.9	1.008	0.894	1.016	0.888	1.025	0.881	1.035	0.874	1.047	0.865
0.946	0.874	0.95	0.87	0.955	0.865	0.961	0.86	0.968	0.855	0.976	0.849	0.985	0.842	0.995	0.834

6	18	20	22
39	4.831	4.333	3.89

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	4.793	Infinity	4.295	Infinity	3.852	Infinity
Infinity	4.191	Infinity	3.811	Infinity	3.463	Infinity
Infinity	3.723	Infinity	3.424	Infinity	3.145	Infinity
Infinity	3.349	Infinity	3.109	Infinity	2.88	Infinity
Infinity	3.24	Infinity	3.016	Infinity	2.801	Infinity
Infinity	3.114	Infinity	2.908	Infinity	2.709	Infinity
Infinity	2.965	Infinity	2.779	Infinity	2.598	Infinity
Infinity	2.788	Infinity	2.624	Infinity	2.464	Infinity
Infinity	2.685	Infinity	2.535	Infinity	2.386	Infinity
62.907	2.572	Infinity	2.434	Infinity	2.298	Infinity
24.806	2.446	59.084	2.322	Infinity	2.199	Infinity
14.121	2.304	20.927	2.196	46.212	2.087	Infinity
11.73	2.243	16.027	2.141	27.44	2.038	144.23
9.872	2.178	12.719	2.082	18.91	1.985	42.34
8.388	2.11	10.336	2.021	14.035	1.93	23.665
7.175	2.038	8.537	1.956	10.882	1.872	15.82
6.166	1.963	7.132	1.887	8.674	1.809	11.502
5.722	1.924	6.538	1.851	7.801	1.777	9.997
5.312	1.883	6.003	1.814	7.042	1.743	8.769
4.932	1.841	5.518	1.776	6.376	1.708	7.747
4.58	1.799	5.076	1.736	5.787	1.672	6.883
4.253	1.755	4.673	1.696	5.263	1.635	6.144
3.947	1.709	4.302	1.654	4.792	1.596	5.504
3.661	1.662	3.961	1.61	4.368	1.556	4.945
3.393	1.614	3.646	1.566	3.983	1.515	4.451
3.141	1.564	3.354	1.519	3.633	1.472	4.013
2.904	1.513	3.082	1.471	3.313	1.428	3.621
2.791	1.487	2.954	1.447	3.163	1.405	3.441
2.681	1.46	2.829	1.422	3.019	1.381	3.269
2.574	1.433	2.709	1.396	2.881	1.358	3.106
2.47	1.406	2.593	1.37	2.749	1.334	2.95
2.368	1.378	2.481	1.344	2.621	1.309	2.802
2.27	1.349	2.372	1.317	2.499	1.284	2.661
2.174	1.32	2.266	1.29	2.381	1.258	2.526
2.081	1.291	2.164	1.262	2.267	1.232	2.396
1.99	1.261	2.065	1.234	2.158	1.205	2.273
1.902	1.23	1.969	1.205	2.052	1.178	2.154
1.816	1.199	1.876	1.175	1.95	1.15	2.041
1.732	1.168	1.786	1.145	1.851	1.122	1.931
1.65	1.135	1.698	1.115	1.756	1.093	1.827

1.57	1.103	1.612	1.084	1.664	1.063	1.726
1.492	1.07	1.529	1.052	1.575	1.033	1.629
1.416	1.036	1.449	1.019	1.488	1.002	1.536
1.341	1.001	1.37	0.986	1.405	0.97	1.446
1.269	0.966	1.294	0.952	1.324	0.938	1.359
1.198	0.93	1.219	0.918	1.245	0.905	1.276
1.128	0.894	1.147	0.883	1.169	0.871	1.195
1.06	0.856	1.076	0.847	1.095	0.836	1.117
1.007	0.826	1.021	0.817	1.037	0.808	1.056

Focal Length 44mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	95'11.1"	85'6.65"	76'3.83"	68'1.05"	60'9.06"	54'2.67"	48'4.83"	43'2

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	95'9.57"	Infinity	85'5.14"	Infinity	76'2.29"	Infinity	67'11.53"	Infinity	60'7.55"	Infinity	54'1.16"	Infinity	48'3.33"	Infinity	43'1.11"
100' 0''	49'4.04"	Infinity	46'5.74"	Infinity	43'7.75"	Infinity	40'10.29"	Infinity	38'1.56"	Infinity	35'5.74"	Infinity	32'11.02"	Infinity	30'5.51"
50' 0''	33'2.66"	102'8.02"	31'11.06"	118'0.34"	30'6.97"	141'10.9"	29'2.48"	183'8.74"	27'9.69"	274'10.77"	26'4.71"	622'9.51"	24'11.65"	Infinity	23'6.63"
30' 0''	23'1.7"	42'11"	22'6.2"	45'3.93"	21'10.27"	48'4.62"	21'1.92"	52'4.29"	20'5.17"	57'8.26"	19'8.08"	65'1.86"	18'10.67"	76'3.26"	18'0.99"
20' 0''	16'9.33"	24'10.15"	16'5.46"	25'7.35"	16'1.31"	26'6.4"	15'8.86"	27'7.81"	15'4.11"	29'0.33"	14'11.07"	30'9.01"	14'5.75"	32'11.44"	14'0.16"
15' 0''	13'1.89"	17'5.82"	12'11.57"	17'10.2"	12'9.05"	18'3.36"	12'6.33"	18'9.46"	12'3.38"	19'4.74"	12'0.23"	20'1.53"	11'8.85"	21'0.25"	11'5.25"
12' 0''	10'9.87"	13'5.88"	10'8.34"	13'8.4"	10'6.67"	13'11.33"	10'4.85"	14'2.75"	10'2.87"	14'6.77"	10'0.73"	14'11.53"	9'10.42"	15'5.21"	9'7.94"
10' 0''	9'2.29"	10'11.77"	9'1.22"	11'1.39"	9'0.04"	11'3.25"	8'10.75"	11'5.41"	8'9.34"	11'7.93"	8'7.81"	11'10.87"	8'6.14"	12'2.34"	8'4.34"
9' 0''	8'4.21"	9'9.24"	8'3.34"	9'10.49"	8'2.39"	9'11.93"	8'1.34"	10'1.59"	8'0.19"	10'3.52"	7'10.93"	10'5.76"	7'9.56"	10'8.38"	7'8.08"
8' 0''	7'5.94"	8'7.04"	7'5.26"	8'7.98"	7'4.5"	8'9.06"	7'3.67"	8'10.3"	7'2.76"	8'11.73"	7'1.76"	9'1.39"	7'0.67"	9'3.32"	6'11.49"
7' 6''	7'0.73"	8'0.06"	7'0.13"	8'0.86"	6'11.47"	8'1.78"	6'10.74"	8'2.84"	6'9.94"	8'4.06"	6'9.07"	8'5.46"	6'8.11"	8'7.1"	6'7.06"
7' 0''	6'7.47"	7'5.16"	6'6.95"	7'5.84"	6'6.38"	7'6.61"	6'5.75"	7'7.51"	6'5.05"	7'8.53"	6'4.29"	7'9.71"	6'3.45"	7'11.07"	6'2.54"
6' 6''	6'2.15"	6'10.33"	6'1.71"	6'10.9"	6'1.22"	6'11.55"	6'0.68"	7'0.29"	6'0.09"	7'1.14"	5'11.43"	7'2.12"	5'10.71"	7'3.24"	5'9.92"
6' 0''	5'8.78"	6'3.58"	5'8.41"	6'4.05"	5'8"	6'4.58"	5'7.55"	6'5.19"	5'7.04"	6'5.88"	5'6.49"	6'6.68"	5'5.88"	6'7.6"	5'5.21"
5' 6''	5'3.36"	5'8.91"	5'3.06"	5'9.28"	5'2.72"	5'9.71"	5'2.34"	5'10.2"	5'1.92"	5'10.76"	5'1.46"	5'11.4"	5'0.96"	6'0.13"	5'0.4"
5' 0''	4'9.88"	5'2.31"	4'9.64"	5'2.6"	4'9.36"	5'2.94"	4'9.06"	5'3.32"	4'8.72"	5'3.76"	4'8.35"	5'4.26"	4'7.94"	5'4.83"	4'7.48"
4' 9''	4'7.13"	4'11.03"	4'6.91"	4'11.29"	4'6.66"	4'11.59"	4'6.39"	4'11.93"	4'6.09"	5'0.31"	4'5.76"	5'0.75"	4'5.39"	5'1.25"	4'4.99"
4' 6''	4'4.35"	4'7.78"	4'4.16"	4'8.01"	4'3.94"	4'8.26"	4'3.7"	4'8.56"	4'3.44"	4'8.89"	4'3.15"	4'9.27"	4'2.82"	4'9.7"	4'2.46"
4' 3''	4'1.56"	4'4.54"	4'1.4"	4'4.74"	4'1.21"	4'4.96"	4'1"	4'5.21"	4'0.77"	4'5.5"	4'0.51"	4'5.83"	4'0.22"	4'6.2"	3'11.91"
4' 0''	3'10.76"	4'1.32"	3'10.62"	4'1.49"	3'10.45"	4'1.68"	3'10.27"	4'1.89"	3'10.07"	4'2.14"	3'9.85"	4'2.42"	3'9.6"	4'2.73"	3'9.33"
3' 9''	3'7.95"	3'10.12"	3'7.82"	3'10.26"	3'7.68"	3'10.42"	3'7.53"	3'10.6"	3'7.36"	3'10.81"	3'7.17"	3'11.04"	3'6.95"	3'11.31"	3'6.72"
3' 6''	3'5.12"	3'6.93"	3'5.01"	3'7.05"	3'4.9"	3'7.18"	3'4.77"	3'7.34"	3'4.62"	3'7.51"	3'4.46"	3'7.7"	3'4.28"	3'7.92"	3'4.08"
3' 3''	3'2.27"	3'3.76"	3'2.19"	3'3.86"	3'2.09"	3'3.97"	3'1.98"	3'4.09"	3'1.86"	3'4.23"	3'1.73"	3'4.39"	3'1.58"	3'4.57"	3'1.41"
3' 0''	2'11.41"	3'0.61"	2'11.34"	3'0.69"	2'11.26"	3'0.78"	2'11.18"	3'0.88"	2'11.08"	3'0.99"	2'10.97"	3'1.11"	2'10.85"	3'1.26"	2'10.72"

3	7.1	8	9	10	11	13	14	1
.62"	38'7.19"	34'5.82"	30'9.8"	27'6.63"	24'7.71"	22'0.61"	19'8.89"	17'8

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	38'5.69"	Infinity	34'4.31"	Infinity	30'8.31"	Infinity	27'5.12"	Infinity	24'6.2"	Infinity	21'11.09"	Infinity	19'7.38"	Infinity	17'6.69"
Infinity	28'1.34"	Infinity	25'10.6"	Infinity	23'9.33"	Infinity	21'9.58"	Infinity	19'11.36"	Infinity	18'2.66"	Infinity	16'7.45"	Infinity	15'1.69"
Infinity	22'1.75"	Infinity	20'9.12"	Infinity	19'4.85"	Infinity	18'1.02"	Infinity	16'9.73"	Infinity	15'7.04"	Infinity	14'5.01"	Infinity	13'3.69"
94'5.05"	17'3.11"	129'0.29"	16'5.08"	219'10.74"	15'6.97"	1070'9.5"	14'8.84"	Infinity	13'10.76"	Infinity	13'0.8"	Infinity	12'3.01"	Infinity	11'5.47"
35'10.15"	13'6.32"	39'9.38"	13'0.26"	45'4.82"	12'6"	54'0.12"	11'11.58"	68'8.62"	11'5.04"	99'3.07"	10'10.41"	199'5.86"	10'3.75"	Infinity	9'9.09"
22'1.52"	11'1.44"	23'6.26"	10'9.43"	25'3.86"	10'5.22"	27'8.56"	10'0.84"	31'0.26"	9'8.29"	35'10.29"	9'3.61"	43'6.32"	8'10.82"	57'5.1"	8'5.95"
16'0.06"	9'5.28"	16'8.4"	9'2.45"	17'6.72"	8'11.46"	18'7.72"	8'8.3"	20'0.47"	8'4.99"	21'10.67"	8'1.54"	24'5.28"	7'9.96"	28'1.82"	7'6.27"
12'6.45"	8'2.4"	12'11.37"	8'0.32"	13'5.31"	7'10.1"	14'0.59"	7'7.74"	14'9.63"	7'5.24"	15'9.08"	7'2.6"	16'11.95"	6'11.85"	18'7.85"	6'8.98"
10'11.47"	7'6.48"	11'3.13"	7'4.75"	11'7.52"	7'2.89"	12'0.81"	7'0.91"	12'7.29"	6'10.81"	13'3.35"	6'8.58"	14'1.55"	6'6.23"	15'2.78"	6'3.77"
9'5.57"	6'10.2"	9'8.22"	6'8.8"	9'11.37"	6'7.3"	10'3.12"	6'5.69"	10'7.65"	6'3.96"	11'1.18"	6'2.12"	11'8.04"	6'0.18"	12'4.71"	5'10.13"
8'9"	6'5.92"	8'11.22"	6'4.68"	9'1.85"	6'3.35"	9'4.97"	6'1.91"	9'8.71"	6'0.37"	10'1.25"	5'10.72"	10'6.81"	5'8.98"	11'1.76"	5'7.13"
8'0.66"	6'1.54"	8'2.51"	6'0.46"	8'4.68"	5'11.28"	8'7.25"	5'10.02"	8'10.31"	5'8.66"	9'1.99"	5'7.2"	9'6.46"	5'5.65"	9'11.99"	5'4"
7'4.55"	5'9.06"	7'6.07"	5'8.13"	7'7.84"	5'7.11"	7'9.93"	5'6.01"	8'0.4"	5'4.82"	8'3.35"	5'3.54"	8'6.91"	5'2.18"	8'11.25"	5'0.73"
6'8.65"	5'4.48"	6'9.88"	5'3.68"	6'11.31"	5'2.81"	7'0.98"	5'1.87"	7'2.95"	5'0.85"	7'5.28"	4'11.75"	7'8.07"	4'10.57"	7'11.44"	4'9.31"
6'0.97"	4'11.79"	6'1.94"	4'11.12"	6'3.07"	4'10.39"	6'4.39"	4'9.6"	6'5.92"	4'8.74"	6'7.74"	4'7.8"	6'9.89"	4'6.8"	7'0.46"	4'5.72"
5'5.49"	4'6.99"	5'6.24"	4'6.44"	5'7.11"	4'5.84"	5'8.12"	4'5.19"	5'9.3"	4'4.48"	5'10.68"	4'3.7"	6'0.3"	4'2.87"	6'2.23"	4'1.97"
5'1.82"	4'4.54"	5'2.48"	4'4.05"	5'3.24"	4'3.52"	5'4.11"	4'2.93"	5'5.13"	4'2.29"	5'6.32"	4'1.59"	5'7.72"	4'0.84"	5'9.37"	4'0.03"
4'10.2"	4'2.07"	4'10.77"	4'1.63"	4'11.42"	4'1.15"	5'0.18"	4'0.63"	5'1.05"	4'0.06"	5'2.07"	3'11.44"	5'3.26"	3'10.77"	5'4.67"	3'10.04"
4'6.62"	3'11.56"	4'7.11"	3'11.18"	4'7.67"	3'10.76"	4'8.32"	3'10.3"	4'9.06"	3'9.79"	4'9.93"	3'9.24"	4'10.94"	3'8.65"	5'0.12"	3'8"
4'3.1"	3'9.03"	4'3.51"	3'8.69"	4'3.98"	3'8.33"	4'4.53"	3'7.92"	4'5.15"	3'7.48"	4'5.88"	3'7"	4'6.73"	3'6.48"	4'7.71"	3'5.91"
3'11.61"	3'6.46"	3'11.96"	3'6.17"	4'0.35"	3'5.86"	4'0.81"	3'5.51"	4'1.33"	3'5.13"	4'1.93"	3'4.71"	4'2.63"	3'4.26"	4'3.45"	3'3.76"
3'8.17"	3'3.86"	3'8.46"	3'3.62"	3'8.78"	3'3.35"	3'9.16"	3'3.06"	3'9.59"	3'2.73"	3'10.08"	3'2.37"	3'10.65"	3'1.99"	3'11.31"	3'1.56"
3'4.77"	3'1.23"	3'5.01"	3'1.03"	3'5.27"	3'0.81"	3'5.57"	3'0.56"	3'5.92"	3'0.29"	3'6.31"	2'11.99"	3'6.77"	2'11.66"	3'7.3"	2'11.3"
3'1.42"	2'10.57"	3'1.6"	2'10.4"	3'1.81"	2'10.22"	3'2.05"	2'10.02"	3'2.32"	2'9.8"	3'2.64"	2'9.55"	3'3"	2'9.28"	3'3.41"	2'8.98"

6	18	20	22
3.2"	15'10.2"	14'2.59"	12'9.15"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	15'8.69"	Infinity	14'1.1"	Infinity	12'7.64"	Infinity
Infinity	13'9.32"	Infinity	12'6.3"	Infinity	11'4.54"	Infinity
Infinity	12'3.09"	Infinity	11'3.25"	Infinity	10'4.16"	Infinity
Infinity	10'8.22"	Infinity	9'11.3"	Infinity	9'2.76"	Infinity
Infinity	9'2.48"	Infinity	8'7.96"	Infinity	8'1.58"	Infinity
89'11.56"	8'1.03"	251'8.22"	7'8.1"	Infinity	7'3.18"	Infinity
34'	7'2.49"	44'5.7"	6'10.65"	68'4.82"	6'6.77"	176'1.6"
20'11.66"	6'6.01"	24'4.92"	6'2.95"	29'11.89"	5'11.83"	40'6.27"
16'8.5"	6'1.21"	18'9.26"	5'10.56"	21'9.97"	5'7.84"	26'9.51"
13'3.91"	5'7.98"	14'6.83"	5'5.75"	16'3.54"	5'3.43"	18'9.96"
11'10.6"	5'5.19"	12'10.15"	5'3.16"	14'1.75"	5'1.05"	15'11.8"
10'6.92"	5'2.26"	11'3.81"	5'0.43"	12'3.53"	4'10.53"	13'7.57"
9'4.63"	4'11.19"	9'11.42"	4'9.57"	10'8.19"	4'7.87"	11'7.85"
8'3.57"	4'7.96"	8'8.7"	4'6.55"	9'3.2"	4'5.05"	9'11.64"
7'3.58"	4'4.58"	7'7.41"	4'3.36"	8'0.17"	4'2.06"	8'6.21"
6'4.54"	4'1.01"	6'7.33"	3'11.98"	6'10.76"	3'10.89"	7'3.03"
5'11.34"	3'11.16"	6'1.71"	3'10.22"	6'4.59"	3'9.23"	6'8.14"
5'6.33"	3'9.25"	5'8.33"	3'8.41"	5'10.73"	3'7.51"	6'1.68"
5'1.52"	3'7.3"	5'3.18"	3'6.54"	5'5.17"	3'5.74"	5'7.59"
4'8.87"	3'5.29"	4'10.25"	3'4.62"	4'11.88"	3'3.91"	5'1.86"
4'4.4"	3'3.22"	4'5.52"	3'2.64"	4'6.85"	3'2.01"	4'8.44"
4'0.08"	3'1.1"	4'0.98"	3'0.6"	4'2.05"	3'0.05"	4'3.31"
3'7.91"	2'10.91"	3'8.63"	2'10.49"	3'9.46"	2'10.02"	3'10.45"
3'3.89"	2'8.66"	3'4.44"	2'8.31"	3'5.09"	2'7.92"	3'5.84"

Focal Length 46mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	31.926	28.472	25.395	22.653	20.211	18.035	16.096	14.3

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	31.887	Infinity	28.433	Infinity	25.356	Infinity	22.615	Infinity	20.172	Infinity	17.996	Infinity	16.058	Infinity	14.331
30.00	15.581	489.618	14.722	Infinity	13.865	Infinity	13.016	Infinity	12.181	Infinity	11.365	Infinity	10.572	Infinity	9.806
15.00	10.309	27.858	9.932	31.154	9.54	35.937	9.137	43.436	8.724	56.765	8.304	86.709	7.879	213.498	7.453
10.00	7.702	14.338	7.493	15.149	7.272	16.178	7.039	17.516	6.795	19.314	6.542	21.837	6.279	25.6	6.01
9.00	7.104	12.341	6.926	12.934	6.738	13.672	6.538	14.611	6.329	15.833	6.11	17.478	5.881	19.794	5.646
8.00	6.474	10.512	6.328	10.936	6.171	11.455	6.005	12.101	5.829	12.922	5.643	13.989	5.449	15.423	5.248
7.00	5.812	8.829	5.695	9.123	5.569	9.479	5.434	9.913	5.291	10.451	5.139	11.132	4.979	12.012	4.812
6.00	5.115	7.276	5.025	7.472	4.928	7.706	4.823	7.987	4.711	8.328	4.592	8.749	4.465	9.277	4.332
5.50	4.752	6.544	4.675	6.701	4.591	6.887	4.501	7.108	4.404	7.375	4.301	7.701	4.19	8.103	4.073
5.00	4.379	5.839	4.314	5.962	4.244	6.107	4.167	6.279	4.085	6.485	3.996	6.733	3.902	7.035	3.801
4.50	3.996	5.159	3.943	5.254	3.884	5.365	3.821	5.496	3.752	5.651	3.678	5.836	3.599	6.059	3.514
4.00	3.602	4.504	3.559	4.575	3.512	4.658	3.461	4.755	3.405	4.869	3.345	5.003	3.28	5.164	3.211
3.80	3.441	4.249	3.402	4.311	3.36	4.384	3.313	4.469	3.263	4.569	3.208	4.686	3.148	4.826	3.085
3.60	3.279	3.997	3.244	4.052	3.205	4.116	3.163	4.19	3.117	4.277	3.067	4.378	3.014	4.499	2.955
3.40	3.114	3.748	3.083	3.796	3.048	3.852	3.011	3.916	2.969	3.991	2.925	4.079	2.876	4.183	2.823
3.20	2.948	3.503	2.92	3.545	2.889	3.593	2.856	3.648	2.819	3.712	2.779	3.788	2.735	3.876	2.688
3.00	2.78	3.262	2.755	3.297	2.728	3.338	2.698	3.385	2.666	3.44	2.631	3.504	2.592	3.578	2.55
2.90	2.695	3.142	2.672	3.175	2.647	3.213	2.619	3.256	2.588	3.306	2.555	3.365	2.519	3.433	2.48
2.80	2.609	3.024	2.588	3.054	2.565	3.088	2.539	3.128	2.51	3.174	2.479	3.228	2.445	3.29	2.408
2.70	2.524	2.906	2.504	2.933	2.482	2.965	2.458	3.001	2.431	3.043	2.402	3.092	2.371	3.149	2.336
2.60	2.437	2.789	2.419	2.814	2.399	2.843	2.376	2.876	2.352	2.914	2.325	2.958	2.295	3.01	2.263
2.50	2.35	2.672	2.333	2.695	2.315	2.722	2.294	2.752	2.271	2.786	2.246	2.827	2.219	2.873	2.189
2.40	2.263	2.557	2.247	2.578	2.23	2.601	2.211	2.629	2.19	2.66	2.167	2.696	2.142	2.738	2.115
2.30	2.175	2.442	2.161	2.461	2.145	2.482	2.128	2.507	2.108	2.535	2.087	2.568	2.064	2.605	2.039
2.20	2.087	2.328	2.074	2.345	2.059	2.364	2.043	2.386	2.026	2.412	2.007	2.441	1.985	2.474	1.962
2.10	1.998	2.215	1.986	2.23	1.973	2.247	1.958	2.267	1.942	2.289	1.925	2.315	1.906	2.345	1.885
2.00	1.908	2.103	1.897	2.116	1.886	2.131	1.873	2.149	1.858	2.169	1.843	2.191	1.825	2.218	1.806
1.95	1.863	2.047	1.853	2.059	1.842	2.074	1.83	2.09	1.816	2.109	1.801	2.13	1.785	2.155	1.766
1.90	1.818	1.991	1.809	2.003	1.798	2.016	1.786	2.032	1.773	2.049	1.759	2.069	1.744	2.092	1.727
1.85	1.773	1.935	1.764	1.946	1.754	1.959	1.743	1.973	1.731	1.99	1.717	2.009	1.703	2.03	1.686
1.80	1.727	1.88	1.719	1.89	1.71	1.902	1.699	1.916	1.688	1.931	1.675	1.948	1.661	1.969	1.646
1.75	1.682	1.825	1.674	1.834	1.665	1.845	1.655	1.858	1.645	1.872	1.633	1.889	1.62	1.907	1.605
1.70	1.636	1.77	1.629	1.779	1.621	1.789	1.611	1.801	1.601	1.814	1.59	1.829	1.578	1.846	1.564
1.65	1.591	1.715	1.584	1.723	1.576	1.733	1.567	1.744	1.558	1.756	1.547	1.77	1.536	1.786	1.523
1.60	1.545	1.66	1.538	1.668	1.531	1.677	1.523	1.687	1.514	1.698	1.504	1.711	1.493	1.726	1.482
1.55	1.499	1.606	1.493	1.613	1.486	1.621	1.478	1.63	1.47	1.641	1.461	1.653	1.451	1.667	1.44
1.50	1.452	1.552	1.447	1.558	1.441	1.566	1.434	1.574	1.426	1.584	1.417	1.595	1.408	1.607	1.398
1.45	1.406	1.497	1.401	1.503	1.395	1.51	1.389	1.518	1.382	1.527	1.374	1.537	1.365	1.549	1.355
1.40	1.36	1.443	1.355	1.449	1.349	1.455	1.344	1.462	1.337	1.471	1.33	1.48	1.322	1.49	1.313
1.35	1.313	1.39	1.309	1.395	1.304	1.401	1.298	1.407	1.292	1.414	1.286	1.423	1.278	1.432	1.27

1.30	1.266	1.336	1.262	1.341	1.258	1.346	1.253	1.352	1.247	1.359	1.241	1.366	1.234	1.375	1.227
1.25	1.219	1.283	1.216	1.287	1.212	1.292	1.207	1.297	1.202	1.303	1.196	1.31	1.19	1.318	1.183
1.20	1.172	1.23	1.169	1.233	1.165	1.237	1.161	1.242	1.157	1.248	1.152	1.254	1.146	1.261	1.14
1.15	1.125	1.176	1.122	1.18	1.119	1.184	1.115	1.188	1.111	1.193	1.106	1.198	1.101	1.204	1.096
1.10	1.078	1.124	1.075	1.127	1.072	1.13	1.069	1.134	1.065	1.138	1.061	1.143	1.056	1.148	1.051
1.05	1.03	1.071	1.028	1.073	1.025	1.076	1.022	1.08	1.019	1.084	1.015	1.088	1.011	1.093	1.007
1.00	0.983	1.018	0.98	1.021	0.978	1.023	0.976	1.026	0.973	1.029	0.969	1.033	0.966	1.037	0.962
0.95	0.935	0.966	0.933	0.968	0.931	0.97	0.929	0.973	0.926	0.976	0.923	0.979	0.92	0.983	0.917
0.91	0.896	0.924	0.895	0.926	0.893	0.928	0.891	0.93	0.889	0.933	0.886	0.936	0.883	0.939	0.88

3	7.1	8	9	10	11	13	14	1
369	12.831	11.46	10.239	9.151	8.182	7.318	6.549	5.8

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	12.792	Infinity	11.422	Infinity	10.201	Infinity	9.113	Infinity	8.143	Infinity	7.28	Infinity	6.511	Infinity	5.825
Infinity	9.072	Infinity	8.371	Infinity	7.706	Infinity	7.078	Infinity	6.488	Infinity	5.936	Infinity	5.422	Infinity	4.945
Infinity	7.027	Infinity	6.606	Infinity	6.191	Infinity	5.785	Infinity	5.391	Infinity	5.01	Infinity	4.644	Infinity	4.295
31.767	5.735	43.598	5.455	75.141	5.174	408.245	4.891	Infinity	4.611	Infinity	4.334	Infinity	4.061	Infinity	3.796
23.266	5.403	28.997	5.156	40.139	4.905	70.835	4.652	516.783	4.399	Infinity	4.147	Infinity	3.898	Infinity	3.654
17.435	5.039	20.441	4.825	25.369	4.606	34.843	4.383	60.22	4.159	338.941	3.935	Infinity	3.712	Infinity	3.492
13.187	4.637	14.819	4.457	17.223	4.271	21.077	4.081	28.197	3.887	45.586	3.692	150.336	3.497	Infinity	3.302
9.953	4.192	10.844	4.045	12.06	3.893	13.806	3.736	16.501	3.576	21.167	3.412	31.103	3.246	66.294	3.08
8.61	3.95	9.263	3.821	10.129	3.686	11.321	3.546	13.056	3.402	15.787	3.254	20.673	3.104	31.803	2.953
7.41	3.694	7.884	3.582	8.496	3.464	9.311	3.342	10.441	3.214	12.098	3.084	14.742	2.95	19.582	2.814
6.332	3.424	6.67	3.328	7.098	3.227	7.651	3.122	8.388	3.012	9.411	2.898	10.916	2.78	13.325	2.661
5.358	3.136	5.594	3.057	5.887	2.973	6.257	2.884	6.733	2.791	7.367	2.694	8.243	2.594	9.524	2.491
4.994	3.016	5.197	2.943	5.447	2.866	5.76	2.784	6.158	2.698	6.68	2.608	7.387	2.514	8.39	2.418
4.643	2.893	4.817	2.826	5.03	2.755	5.293	2.68	5.624	2.601	6.053	2.518	6.622	2.431	7.411	2.342
4.306	2.767	4.454	2.706	4.633	2.642	4.853	2.573	5.128	2.501	5.478	2.424	5.936	2.345	6.556	2.262
3.98	2.638	4.105	2.583	4.255	2.525	4.438	2.462	4.665	2.397	4.95	2.327	5.316	2.254	5.803	2.178
3.666	2.505	3.771	2.456	3.895	2.404	4.046	2.348	4.231	2.289	4.462	2.226	4.754	2.16	5.134	2.091
3.513	2.437	3.608	2.391	3.722	2.342	3.858	2.289	4.025	2.233	4.232	2.174	4.492	2.111	4.828	2.045
3.363	2.369	3.449	2.325	3.552	2.279	3.676	2.229	3.826	2.177	4.01	2.12	4.242	2.061	4.538	1.999
3.215	2.299	3.294	2.259	3.386	2.215	3.498	2.169	3.632	2.119	3.797	2.066	4.002	2.01	4.262	1.951
3.07	2.229	3.141	2.191	3.224	2.15	3.324	2.107	3.445	2.06	3.591	2.01	3.773	1.958	4.001	1.902
2.927	2.157	2.991	2.122	3.066	2.084	3.155	2.044	3.263	2	3.393	1.954	3.553	1.904	3.753	1.852
2.787	2.085	2.844	2.052	2.911	2.017	2.991	1.98	3.086	1.939	3.201	1.896	3.342	1.85	3.516	1.801
2.649	2.011	2.7	1.982	2.76	1.949	2.83	1.914	2.915	1.877	3.016	1.836	3.139	1.794	3.291	1.748
2.513	1.937	2.558	1.91	2.612	1.88	2.674	1.848	2.748	1.813	2.837	1.776	2.945	1.736	3.076	1.694
2.38	1.862	2.42	1.837	2.467	1.809	2.522	1.78	2.587	1.748	2.664	1.714	2.757	1.677	2.871	1.638
2.248	1.785	2.283	1.762	2.325	1.738	2.373	1.711	2.429	1.682	2.497	1.651	2.577	1.617	2.675	1.581
2.183	1.747	2.216	1.725	2.255	1.701	2.3	1.676	2.352	1.648	2.415	1.618	2.49	1.586	2.58	1.552
2.119	1.708	2.15	1.687	2.186	1.665	2.227	1.64	2.276	1.614	2.335	1.586	2.404	1.555	2.487	1.522
2.055	1.669	2.084	1.649	2.117	1.628	2.156	1.605	2.202	1.58	2.255	1.553	2.319	1.524	2.396	1.492
1.992	1.629	2.018	1.611	2.049	1.591	2.085	1.569	2.128	1.545	2.178	1.519	2.237	1.492	2.307	1.462
1.929	1.589	1.954	1.572	1.982	1.553	2.016	1.532	2.055	1.51	2.101	1.486	2.155	1.459	2.22	1.431
1.866	1.549	1.889	1.533	1.916	1.515	1.947	1.496	1.983	1.474	2.025	1.451	2.075	1.427	2.135	1.4
1.805	1.509	1.826	1.494	1.85	1.477	1.879	1.459	1.912	1.439	1.951	1.417	1.997	1.394	2.051	1.368
1.743	1.468	1.763	1.454	1.785	1.438	1.812	1.421	1.842	1.402	1.878	1.382	1.92	1.36	1.969	1.336
1.682	1.428	1.7	1.414	1.721	1.399	1.745	1.383	1.773	1.366	1.806	1.347	1.844	1.326	1.889	1.304
1.622	1.386	1.638	1.374	1.657	1.36	1.679	1.345	1.705	1.329	1.735	1.311	1.769	1.291	1.811	1.27
1.562	1.345	1.577	1.333	1.594	1.32	1.614	1.306	1.638	1.291	1.665	1.275	1.696	1.256	1.733	1.237
1.502	1.303	1.516	1.292	1.532	1.28	1.55	1.267	1.571	1.253	1.596	1.238	1.624	1.221	1.658	1.203
1.443	1.261	1.456	1.251	1.47	1.24	1.487	1.228	1.506	1.215	1.528	1.201	1.554	1.185	1.584	1.168

1.385	1.219	1.396	1.209	1.409	1.199	1.424	1.188	1.441	1.176	1.461	1.163	1.484	1.149	1.511	1.133
1.327	1.176	1.337	1.168	1.348	1.158	1.362	1.148	1.377	1.137	1.395	1.125	1.415	1.112	1.44	1.097
1.269	1.133	1.278	1.125	1.288	1.117	1.3	1.108	1.314	1.098	1.33	1.086	1.348	1.074	1.369	1.061
1.212	1.089	1.22	1.083	1.229	1.075	1.24	1.067	1.252	1.058	1.266	1.047	1.282	1.036	1.301	1.024
1.155	1.046	1.162	1.04	1.17	1.033	1.179	1.025	1.19	1.017	1.203	1.008	1.217	0.998	1.233	0.987
1.098	1.002	1.105	0.996	1.112	0.99	1.12	0.983	1.129	0.976	1.14	0.968	1.153	0.959	1.167	0.949
1.042	0.957	1.048	0.953	1.054	0.947	1.061	0.941	1.069	0.935	1.079	0.927	1.09	0.919	1.102	0.911
0.987	0.913	0.991	0.909	0.997	0.904	1.003	0.898	1.01	0.893	1.018	0.886	1.027	0.879	1.038	0.872
0.943	0.877	0.947	0.873	0.952	0.869	0.957	0.864	0.963	0.859	0.97	0.853	0.978	0.847	0.988	0.84

6	18	20	22
63	5.253	4.709	4.224

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	5.215	Infinity	4.671	Infinity	4.186	Infinity
Infinity	4.504	Infinity	4.098	Infinity	3.726	Infinity
Infinity	3.964	Infinity	3.651	Infinity	3.356	Infinity
Infinity	3.539	Infinity	3.291	Infinity	3.053	Infinity
Infinity	3.416	Infinity	3.186	Infinity	2.964	Infinity
Infinity	3.275	Infinity	3.064	Infinity	2.859	Infinity
Infinity	3.11	Infinity	2.92	Infinity	2.735	Infinity
Infinity	2.913	Infinity	2.748	Infinity	2.586	Infinity
81.409	2.801	Infinity	2.649	Infinity	2.498	Infinity
31.156	2.676	94.329	2.539	Infinity	2.401	Infinity
17.762	2.539	28.518	2.416	91.082	2.292	Infinity
11.556	2.385	15.238	2.278	23.862	2.169	66.796
9.915	2.319	12.485	2.218	17.684	2.115	33.546
8.565	2.249	10.399	2.155	13.734	2.059	21.603
7.434	2.176	8.763	2.088	10.992	1.999	15.456
6.472	2.099	7.446	2.018	8.976	1.935	11.71
5.645	2.019	6.362	1.944	7.433	1.868	9.187
5.274	1.977	5.89	1.906	6.789	1.833	8.212
4.926	1.934	5.456	1.866	6.212	1.796	7.374
4.601	1.89	5.056	1.825	5.693	1.759	6.645
4.295	1.844	4.686	1.783	5.224	1.72	6.006
4.008	1.797	4.343	1.74	4.796	1.681	5.442
3.737	1.749	4.024	1.696	4.406	1.639	4.939
3.482	1.7	3.726	1.65	4.048	1.597	4.489
3.24	1.649	3.448	1.602	3.719	1.553	4.083
3.012	1.597	3.188	1.553	3.415	1.508	3.715
2.795	1.543	2.944	1.503	3.133	1.46	3.38
2.69	1.516	2.827	1.477	3	1.436	3.224
2.589	1.488	2.714	1.451	2.872	1.412	3.074
2.49	1.459	2.604	1.424	2.748	1.387	2.931
2.393	1.43	2.498	1.397	2.628	1.361	2.794
2.299	1.401	2.394	1.369	2.513	1.335	2.662
2.206	1.371	2.294	1.341	2.401	1.309	2.535
2.117	1.341	2.196	1.313	2.293	1.282	2.414
2.029	1.311	2.101	1.283	2.188	1.254	2.297
1.943	1.28	2.008	1.254	2.087	1.226	2.184
1.859	1.248	1.918	1.224	1.989	1.198	2.076
1.777	1.216	1.83	1.193	1.893	1.169	1.971
1.697	1.183	1.745	1.162	1.801	1.139	1.87
1.619	1.15	1.661	1.13	1.712	1.109	1.773

1.543	1.116	1.58	1.098	1.625	1.078	1.679
1.468	1.082	1.501	1.065	1.54	1.047	1.588
1.394	1.047	1.424	1.031	1.458	1.015	1.5
1.323	1.011	1.348	0.997	1.379	0.982	1.415
1.252	0.975	1.275	0.962	1.301	0.948	1.332
1.184	0.938	1.203	0.927	1.226	0.914	1.253
1.116	0.901	1.133	0.891	1.152	0.879	1.175
1.05	0.863	1.065	0.854	1.081	0.844	1.101
0.998	0.832	1.011	0.824	1.025	0.815	1.042

Focal Length 46mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	104'8.93"	93'4.94"	83'3.8"	74'3.85"	66'3.71"	59'2.04"	52'9.7"	47'1

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	104'7.38"	Infinity	93'3.41"	Infinity	83'2.26"	Infinity	74'2.34"	Infinity	66'2.18"	Infinity	59'0.52"	Infinity	52'8.2"	Infinity	47'0.21"
100' 0''	51'6.42"	2173'10.13"	48'8.03"	Infinity	45'9.78"	Infinity	42'11.89"	Infinity	40'2.58"	Infinity	37'6.04"	Infinity	34'10.47"	Infinity	32'4.01"
50' 0''	34'2.24"	94'2.33"	32'11.06"	105'8.77"	31'7.33"	122'7.43"	30'3.14"	149'5.7"	28'10.57"	198'4.22"	27'5.73"	313'10.17"	26'0.72"	911'1.21"	24'7.65"
30' 0''	23'7.13"	41'4.77"	22'11.97"	43'5.21"	22'4.37"	45'11.74"	21'8.34"	49'2.65"	20'11.89"	53'5.55"	20'3.06"	59'2.46"	19'5.89"	67'4.17"	18'8.41"
20' 0''	17'0.08"	24'4.13"	16'8.44"	25'0.18"	16'4.5"	25'9.77"	16'0.28"	26'9.33"	15'7.75"	27'11.4"	15'2.94"	29'4.79"	14'9.83"	31'2.65"	14'4.44"
15' 0''	13'3.53"	17'2.91"	13'1.36"	17'6.8"	12'10.99"	17'11.35"	12'8.42"	18'4.72"	12'5.64"	18'11.07"	12'2.65"	19'6.68"	11'11.44"	20'3.88"	11'8.01"
12' 0''	10'10.94"	13'4.19"	10'9.51"	13'6.45"	10'7.95"	13'9.06"	10'6.24"	14'0.1"	10'4.38"	14'3.65"	10'2.37"	14'7.84"	10'0.18"	15'0.8"	9'9.83"
10' 0''	9'3.04"	10'10.69"	9'2.04"	11'0.14"	9'0.94"	11'1.81"	8'11.73"	11'3.75"	8'10.42"	11'5.99"	8'8.98"	11'8.6"	8'7.41"	11'11.66"	8'5.72"
9' 0''	8'4.82"	9'8.4"	8'4.01"	9'9.53"	8'3.12"	9'10.82"	8'2.14"	10'0.31"	8'1.07"	10'2.03"	7'11.89"	10'4.03"	7'10.61"	10'6.36"	7'9.21"
8' 0''	7'6.42"	8'6.41"	7'5.78"	8'7.26"	7'5.08"	8'8.23"	7'4.31"	8'9.35"	7'3.46"	8'10.63"	7'2.53"	9'0.11"	7'1.5"	9'1.83"	7'0.39"
7' 6''	7'1.14"	7'11.52"	7'0.59"	8'0.25"	6'11.98"	8'1.08"	6'11.3"	8'2.03"	6'10.55"	8'3.12"	6'9.73"	8'4.38"	6'8.84"	8'5.84"	6'7.86"
7' 0''	6'7.82"	7'4.7"	6'7.34"	7'5.32"	6'6.81"	7'6.02"	6'6.23"	7'6.82"	6'5.58"	7'7.74"	6'4.87"	7'8.8"	6'4.09"	7'10.03"	6'3.23"
6' 6''	6'2.46"	6'9.95"	6'2.05"	6'10.47"	6'1.59"	6'11.05"	6'1.09"	6'11.72"	6'0.54"	7'0.49"	5'11.93"	7'1.37"	5'11.26"	7'2.38"	5'10.52"
6' 0''	5'9.04"	6'3.27"	5'8.69"	6'3.69"	5'8.31"	6'4.18"	5'7.89"	6'4.73"	5'7.42"	6'5.35"	5'6.91"	6'6.07"	5'6.34"	6'6.9"	5'5.72"
5' 6''	5'3.57"	5'8.66"	5'3.29"	5'9"	5'2.97"	5'9.39"	5'2.62"	5'9.83"	5'2.24"	5'10.33"	5'1.81"	5'10.91"	5'1.34"	5'11.57"	5'0.82"
5' 0''	4'10.05"	5'2.11"	4'9.82"	5'2.38"	4'9.57"	5'2.69"	4'9.29"	5'3.03"	4'8.98"	5'3.43"	4'8.63"	5'3.88"	4'8.25"	5'4.4"	4'7.83"
4' 9''	4'7.27"	4'10.86"	4'7.07"	4'11.1"	4'6.85"	4'11.37"	4'6.59"	4'11.67"	4'6.32"	5'0.02"	4'6.01"	5'0.42"	4'5.67"	5'0.87"	4'5.29"
4' 6''	4'4.48"	4'7.63"	4'4.3"	4'7.83"	4'4.1"	4'8.07"	4'3.88"	4'8.34"	4'3.64"	4'8.64"	4'3.37"	4'8.98"	4'3.06"	4'9.38"	4'2.73"
4' 3''	4'1.68"	4'4.41"	4'1.52"	4'4.59"	4'1.35"	4'4.79"	4'1.16"	4'5.02"	4'0.94"	4'5.28"	4'0.7"	4'5.58"	4'0.44"	4'5.92"	4'0.15"
4' 0''	3'10.86"	4'1.21"	3'10.73"	4'1.36"	3'10.58"	4'1.54"	3'10.41"	4'1.73"	3'10.22"	4'1.96"	3'10.02"	4'2.21"	3'9.79"	4'2.5"	3'9.53"
3' 9''	3'8.03"	3'10.02"	3'7.92"	3'10.15"	3'7.79"	3'10.3"	3'7.64"	3'10.47"	3'7.49"	3'10.65"	3'7.31"	3'10.87"	3'7.11"	3'11.11"	3'6.89"
3' 6''	3'5.19"	3'6.86"	3'5.09"	3'6.96"	3'4.98"	3'7.09"	3'4.86"	3'7.22"	3'4.73"	3'7.38"	3'4.58"	3'7.56"	3'4.41"	3'7.76"	3'4.23"
3' 3''	3'2.33"	3'3.7"	3'2.25"	3'3.79"	3'2.16"	3'3.89"	3'2.06"	3'4"	3'1.95"	3'4.13"	3'1.83"	3'4.27"	3'1.69"	3'4.44"	3'1.54"
3' 0''	2'11.46"	3'0.56"	2'11.39"	3'0.63"	2'11.32"	3'0.71"	2'11.24"	3'0.8"	2'11.15"	3'0.91"	2'11.05"	3'1.02"	2'10.94"	3'1.15"	2'10.81"

3	7.1	8	9	10	11	13	14	1
.71"	42'1.16"	37'7.18"	33'7.11"	30'0.28"	26'10.13"	24'0.11"	21'5.83"	19'2

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	41'11.64"	Infinity	37'5.67"	Infinity	33'5.6"	Infinity	29'10.76"	Infinity	26'8.61"	Infinity	23'10.61"	Infinity	21'4.32"	Infinity	19'1.34"
Infinity	29'10.81"	Infinity	27'6.96"	Infinity	25'4.55"	Infinity	23'3.63"	Infinity	21'4.24"	Infinity	19'6.37"	Infinity	17'10.01"	Infinity	16'3.14"
Infinity	23'2.65"	Infinity	21'9.81"	Infinity	20'5.26"	Infinity	19'1.08"	Infinity	17'9.37"	Infinity	16'6.21"	Infinity	15'3.67"	Infinity	14'1.8"
79'8.3"	17'10.68"	100'5.16"	17'0.75"	142'1.37"	16'2.69"	267'2.03"	15'4.57"	37905'11"	14'6.44"	Infinity	13'8.38"	Infinity	12'10.46"	Infinity	12'0.72"
33'6.76"	13'10.79"	36'7.94"	13'4.9"	40'11.03"	12'10.78"	47'1.03"	12'4.48"	56'8.78"	11'10.03"	73'9.63"	11'3.46"	111'9.83"	10'8.82"	267'9.92"	10'2.15"
21'3.14"	11'4.36"	22'5.14"	11'0.5"	23'10.88"	10'8.44"	25'9.91"	10'4.18"	28'4.78"	9'11.76"	31'11.95"	9'7.18"	37'4.08"	9'2.46"	46'0.41"	8'9.65"
15'6.73"	9'7.31"	16'1.9"	9'4.61"	16'10.67"	9'1.74"	17'9.55"	8'10.71"	18'11.33"	8'7.51"	20'5.18"	8'4.16"	22'5.05"	8'0.68"	25'2.33"	7'9.07"
12'3.27"	8'3.88"	12'7.56"	8'1.91"	13'0.7"	7'11.79"	13'6.93"	7'9.54"	14'2.58"	7'7.14"	15'0.13"	7'4.6"	16'0.3"	7'1.94"	17'4.18"	6'11.15"
10'9.09"	7'7.7"	11'0.3"	7'6.07"	11'4.12"	7'4.31"	11'8.71"	7'2.42"	12'2.26"	7'0.41"	12'9.08"	6'10.27"	13'5.59"	6'8.01"	14'4.42"	6'5.63"
9'3.83"	6'11.18"	9'6.18"	6'9.86"	9'8.94"	6'8.44"	10'0.22"	6'6.91"	10'4.15"	6'5.27"	10'8.9"	6'3.52"	11'2.72"	6'1.65"	11'9.96"	5'11.68"
8'7.54"	6'6.78"	8'9.51"	6'5.62"	8'11.83"	6'4.36"	9'2.57"	6'3"	9'5.82"	6'1.54"	9'9.74"	5'11.97"	10'2.5"	5'10.3"	10'8.37"	5'8.52"
7'11.44"	6'2.3"	8'1.09"	6'1.28"	8'3.01"	6'0.17"	8'5.27"	5'10.98"	8'7.95"	5'9.69"	8'11.15"	5'8.3"	9'3"	5'6.82"	9'7.71"	5'5.24"
7'3.55"	5'9.72"	7'4.9"	5'8.84"	7'6.48"	5'7.88"	7'8.32"	5'6.84"	7'10.5"	5'5.72"	8'1.08"	5'4.51"	8'4.16"	5'3.21"	8'7.9"	5'1.82"
6'7.85"	5'5.03"	6'8.94"	5'4.29"	6'10.22"	5'3.47"	6'11.7"	5'2.58"	7'1.44"	5'1.62"	7'3.49"	5'0.58"	7'5.93"	4'11.46"	7'8.85"	4'10.25"
6'0.33"	5'0.25"	6'1.2"	4'11.62"	6'2.21"	4'10.94"	6'3.38"	4'10.19"	6'4.75"	4'9.38"	6'6.35"	4'8.5"	6'8.24"	4'7.55"	6'10.49"	4'6.53"
5'4.99"	4'7.36"	5'5.67"	4'6.85"	5'6.45"	4'6.29"	5'7.36"	4'5.68"	5'8.41"	4'5.01"	5'9.63"	4'4.28"	5'11.07"	4'3.5"	6'0.76"	4'2.65"
5'1.39"	4'4.88"	5'1.98"	4'4.42"	5'2.66"	4'3.92"	5'3.45"	4'3.37"	5'4.36"	4'2.77"	5'5.42"	4'2.11"	5'6.66"	4'1.4"	5'8.11"	4'0.64"
4'9.82"	4'2.36"	4'10.34"	4'1.96"	4'10.93"	4'1.51"	4'11.61"	4'1.02"	5'0.39"	4'0.49"	5'1.3"	3'11.9"	5'2.36"	3'11.27"	5'3.6"	3'10.58"
4'6.3"	3'11.82"	4'6.74"	3'11.47"	4'7.25"	3'11.07"	4'7.83"	3'10.64"	4'8.5"	3'10.17"	4'9.27"	3'9.65"	4'10.17"	3'9.09"	4'11.22"	3'8.48"
4'2.82"	3'9.25"	4'3.2"	3'8.94"	4'3.63"	3'8.6"	4'4.12"	3'8.22"	4'4.68"	3'7.81"	4'5.33"	3'7.36"	4'6.09"	3'6.87"	4'6.97"	3'6.33"
3'11.38"	3'6.65"	3'11.7"	3'6.39"	4'0.06"	3'6.09"	4'0.47"	3'5.77"	4'0.94"	3'5.41"	4'1.48"	3'5.02"	4'2.11"	3'4.59"	4'2.83"	3'4.13"
3'7.98"	3'4.02"	3'8.24"	3'3.8"	3'8.54"	3'3.55"	3'8.88"	3'3.27"	3'9.27"	3'2.97"	3'9.71"	3'2.64"	3'10.22"	3'2.27"	3'10.82"	3'1.87"
3'4.62"	3'1.37"	3'4.83"	3'1.18"	3'5.07"	3'0.97"	3'5.35"	3'0.74"	3'5.66"	3'0.49"	3'6.02"	3'0.21"	3'6.43"	2'11.9"	3'6.91"	2'11.56"
3'1.3"	2'10.68"	3'1.47"	2'10.52"	3'1.66"	2'10.35"	3'1.88"	2'10.17"	3'2.12"	2'9.96"	3'2.41"	2'9.73"	3'2.73"	2'9.48"	3'3.1"	2'9.2"

6	18	20	22
.83"	17'2.81"	15'5.39"	13'10.3"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	17'1.3"	Infinity	15'3.88"	Infinity	13'8.8"	Infinity
Infinity	14'9.71"	Infinity	13'5.66"	Infinity	12'2.93"	Infinity
Infinity	13'0.64"	Infinity	12'0.22"	Infinity	11'0.55"	Infinity
Infinity	11'3.24"	Infinity	10'6.06"	Infinity	9'9.23"	Infinity
Infinity	9'7.5"	Infinity	9'0.9"	Infinity	8'6.41"	Infinity
62'6.06"	8'4.77"	105'1.32"	7'11.84"	463'4.06"	7'6.9"	Infinity
29'3.52"	7'5.36"	35'10.95"	7'1.56"	48'3.44"	6'9.71"	79'3.88"
19'1.65"	6'8.26"	21'8.01"	6'5.26"	25'5.87"	6'2.19"	31'10.46"
15'6.57"	6'3.15"	17'1.69"	6'0.56"	19'4.72"	5'9.9"	22'9.53"
12'7.16"	5'9.61"	13'7.13"	5'7.43"	14'11.21"	5'5.18"	16'9.79"
11'3.72"	5'6.65"	12'1.13"	5'4.69"	13'1.5"	5'2.63"	14'6.38"
10'1.54"	5'3.57"	10'8.88"	5'1.81"	11'6.37"	4'11.96"	12'6.97"
9'0.47"	5'0.35"	9'6.16"	4'10.79"	10'1.37"	4'9.14"	10'10.74"
8'0.39"	4'8.97"	8'4.74"	4'7.61"	8'10.17"	4'6.17"	9'5.08"
7'1.19"	4'5.44"	7'4.46"	4'4.27"	7'8.49"	4'3.03"	8'1.53"
6'2.77"	4'1.73"	6'5.19"	4'0.75"	6'8.13"	3'11.7"	6'11.74"
5'9.84"	3'11.81"	5'11.9"	3'10.92"	6'2.38"	3'9.97"	6'5.42"
5'5.07"	3'9.84"	5'6.81"	3'9.04"	5'8.9"	3'8.18"	5'11.43"
5'0.46"	3'7.82"	5'1.92"	3'7.1"	5'3.66"	3'6.34"	5'5.75"
4'8"	3'5.75"	4'9.21"	3'5.11"	4'10.64"	3'4.44"	5'0.36"
4'3.68"	3'3.62"	4'4.67"	3'3.07"	4'5.85"	3'2.47"	4'7.24"
3'11.5"	3'1.44"	4'0.31"	3'0.96"	4'1.25"	3'0.45"	4'2.36"
3'7.46"	2'11.2"	3'8.09"	2'10.8"	3'8.84"	2'10.36"	3'9.71"
3'3.53"	2'8.9"	3'4.03"	2'8.56"	3'4.61"	2'8.2"	3'5.28"

Focal Length 48mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (m)	34.735	30.975	27.624	24.639	21.98	19.611	17.5	15.

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	34.696	Infinity	30.935	Infinity	27.585	Infinity	24.6	Infinity	21.941	Infinity	19.572	Infinity	17.462	Infinity	15.581
30.00	16.211	216.958	15.353	938.413	14.494	Infinity	13.639	Infinity	12.793	Infinity	11.962	Infinity	11.152	Infinity	10.366
15.00	10.576	26.03	10.21	28.627	9.829	32.243	9.434	37.583	9.028	46.186	8.613	62.211	8.191	102.066	7.766
10.00	7.848	13.846	7.648	14.536	7.435	15.398	7.211	16.499	6.975	17.942	6.728	19.899	6.472	22.685	6.208
9.00	7.226	11.978	7.057	12.487	6.877	13.115	6.685	13.9	6.483	14.904	6.271	16.222	6.049	18.015	5.819
8.00	6.575	10.249	6.436	10.617	6.287	11.064	6.127	11.613	5.958	12.301	5.78	13.178	5.592	14.329	5.396
7.00	5.893	8.645	5.782	8.903	5.662	9.212	5.534	9.586	5.397	10.045	5.251	10.617	5.097	11.344	4.935
6.00	5.177	7.152	5.092	7.326	5	7.531	4.9	7.776	4.794	8.072	4.68	8.432	4.559	8.879	4.43
5.50	4.805	6.444	4.732	6.584	4.653	6.748	4.568	6.942	4.476	7.175	4.377	7.456	4.272	7.8	4.159
5.00	4.424	5.76	4.362	5.87	4.296	5.999	4.224	6.151	4.146	6.331	4.061	6.547	3.971	6.808	3.875
4.50	4.032	5.099	3.982	5.184	3.927	5.283	3.867	5.399	3.803	5.535	3.733	5.698	3.657	5.892	3.576
4.00	3.631	4.459	3.591	4.522	3.547	4.597	3.499	4.683	3.446	4.784	3.389	4.903	3.328	5.044	3.262
3.80	3.468	4.208	3.431	4.265	3.391	4.33	3.347	4.406	3.3	4.495	3.248	4.599	3.192	4.722	3.131
3.60	3.302	3.961	3.27	4.011	3.234	4.068	3.194	4.135	3.151	4.212	3.104	4.303	3.053	4.409	2.998
3.40	3.135	3.717	3.106	3.761	3.074	3.811	3.038	3.868	3	3.935	2.958	4.014	2.912	4.105	2.862
3.20	2.967	3.477	2.941	3.514	2.912	3.557	2.88	3.607	2.846	3.665	2.808	3.732	2.767	3.81	2.723
3.00	2.796	3.239	2.773	3.271	2.748	3.308	2.72	3.35	2.69	3.4	2.657	3.457	2.62	3.523	2.581
2.90	2.71	3.121	2.689	3.151	2.665	3.185	2.639	3.224	2.611	3.269	2.58	3.321	2.546	3.382	2.508
2.80	2.624	3.004	2.604	3.032	2.582	3.063	2.558	3.099	2.531	3.14	2.502	3.188	2.47	3.244	2.435
2.70	2.537	2.888	2.518	2.913	2.498	2.942	2.475	2.974	2.451	3.012	2.424	3.056	2.394	3.107	2.362
2.60	2.449	2.772	2.432	2.795	2.413	2.821	2.393	2.851	2.37	2.886	2.344	2.926	2.317	2.972	2.287
2.50	2.362	2.658	2.346	2.678	2.328	2.702	2.309	2.729	2.288	2.761	2.265	2.797	2.239	2.839	2.211
2.40	2.273	2.543	2.259	2.562	2.243	2.584	2.225	2.609	2.205	2.637	2.184	2.67	2.16	2.707	2.135
2.30	2.184	2.43	2.171	2.447	2.156	2.467	2.14	2.489	2.122	2.514	2.103	2.544	2.081	2.578	2.057
2.20	2.095	2.317	2.083	2.333	2.07	2.35	2.055	2.37	2.039	2.393	2.021	2.419	2.001	2.45	1.979
2.10	2.005	2.205	1.994	2.219	1.982	2.235	1.969	2.252	1.954	2.273	1.938	2.296	1.92	2.323	1.9
2.00	1.915	2.094	1.905	2.106	1.894	2.12	1.882	2.136	1.869	2.154	1.854	2.175	1.838	2.198	1.82
1.95	1.87	2.039	1.86	2.05	1.85	2.063	1.839	2.078	1.826	2.095	1.812	2.114	1.797	2.137	1.78
1.90	1.824	1.983	1.815	1.994	1.806	2.006	1.795	2.02	1.783	2.036	1.77	2.054	1.755	2.075	1.739
1.85	1.779	1.928	1.77	1.938	1.761	1.95	1.751	1.963	1.74	1.978	1.727	1.995	1.713	2.014	1.698
1.80	1.733	1.873	1.725	1.883	1.716	1.894	1.707	1.906	1.696	1.92	1.684	1.936	1.671	1.954	1.657
1.75	1.687	1.819	1.68	1.827	1.672	1.837	1.663	1.849	1.653	1.862	1.641	1.877	1.629	1.894	1.616
1.70	1.641	1.764	1.634	1.772	1.627	1.782	1.618	1.792	1.609	1.804	1.598	1.818	1.587	1.834	1.574
1.65	1.595	1.71	1.589	1.717	1.581	1.726	1.573	1.736	1.565	1.747	1.555	1.76	1.544	1.774	1.532
1.60	1.549	1.655	1.543	1.662	1.536	1.67	1.529	1.68	1.52	1.69	1.511	1.702	1.501	1.715	1.49
1.55	1.502	1.601	1.497	1.608	1.491	1.615	1.484	1.624	1.476	1.633	1.468	1.644	1.458	1.657	1.448
1.50	1.456	1.547	1.451	1.553	1.445	1.56	1.439	1.568	1.431	1.577	1.424	1.587	1.415	1.598	1.405
1.45	1.409	1.494	1.405	1.499	1.399	1.505	1.393	1.512	1.387	1.521	1.379	1.53	1.371	1.54	1.362
1.40	1.363	1.44	1.358	1.445	1.353	1.451	1.348	1.457	1.342	1.465	1.335	1.473	1.328	1.483	1.319
1.35	1.316	1.386	1.312	1.391	1.307	1.396	1.302	1.402	1.297	1.409	1.29	1.417	1.283	1.425	1.276

1.30	1.269	1.333	1.265	1.337	1.261	1.342	1.256	1.348	1.251	1.354	1.246	1.361	1.239	1.369	1.232
1.25	1.222	1.28	1.218	1.284	1.214	1.288	1.21	1.293	1.206	1.299	1.2	1.305	1.195	1.312	1.188
1.20	1.174	1.227	1.171	1.231	1.168	1.234	1.164	1.239	1.16	1.244	1.155	1.249	1.15	1.256	1.144
1.15	1.127	1.174	1.124	1.177	1.121	1.181	1.118	1.185	1.114	1.189	1.11	1.194	1.105	1.2	1.1
1.10	1.079	1.122	1.077	1.124	1.074	1.127	1.071	1.131	1.068	1.135	1.064	1.139	1.06	1.144	1.055
1.05	1.032	1.069	1.029	1.072	1.027	1.074	1.024	1.077	1.021	1.081	1.018	1.085	1.014	1.089	1.01
1.00	0.984	1.017	0.982	1.019	0.98	1.021	0.977	1.024	0.975	1.027	0.972	1.031	0.968	1.034	0.965
0.95	0.936	0.965	0.934	0.966	0.932	0.969	0.93	0.971	0.928	0.974	0.925	0.977	0.922	0.98	0.919
0.91	0.897	0.923	0.896	0.925	0.894	0.926	0.892	0.929	0.89	0.931	0.888	0.934	0.885	0.937	0.882

3	7.1	8	9	10	11	13	14	1
62	13.945	12.452	11.123	9.938	8.883	7.942	7.105	6.3

3	7.1		8		9		10		11		13		14		1
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)
Infinity	13.906	Infinity	12.414	Infinity	11.084	Infinity	9.9	Infinity	8.844	Infinity	7.904	Infinity	7.067	Infinity	6.32
Infinity	9.608	Infinity	8.882	Infinity	8.19	Infinity	7.535	Infinity	6.917	Infinity	6.337	Infinity	5.795	Infinity	5.291
366.202	7.339	Infinity	6.914	Infinity	6.494	Infinity	6.082	Infinity	5.678	Infinity	5.287	Infinity	4.91	Infinity	4.549
26.929	5.937	34.119	5.66	48.799	5.38	94.756	5.098	Infinity	4.816	Infinity	4.536	Infinity	4.26	Infinity	3.989
20.576	5.581	24.498	5.337	31.198	5.089	45.104	4.837	90.702	4.584	Infinity	4.331	Infinity	4.08	Infinity	3.832
15.891	5.192	18.114	4.982	21.505	4.766	27.255	4.546	39.025	4.323	76.119	4.099	Infinity	3.875	Infinity	3.652
12.292	4.765	13.569	4.589	15.367	4.407	18.065	4.22	22.527	4.029	31.23	3.835	55.402	3.64	442.135	3.444
9.442	4.295	10.167	4.153	11.131	4.005	12.463	3.851	14.407	3.693	17.485	3.532	23.045	3.367	35.967	3.201
8.228	4.041	8.769	3.916	9.471	3.785	10.41	3.648	11.72	3.507	13.661	3.362	16.802	3.214	22.701	3.063
7.128	3.773	7.527	3.664	8.033	3.551	8.691	3.431	9.577	3.307	10.821	3.179	12.681	3.047	15.737	2.913
6.127	3.49	6.416	3.398	6.776	3.301	7.233	3.199	7.828	3.092	8.629	2.981	9.757	2.866	11.447	2.748
5.213	3.191	5.417	3.115	5.667	3.034	5.979	2.949	6.373	2.859	6.886	2.765	7.574	2.667	8.539	2.566
4.869	3.066	5.045	2.997	5.26	2.922	5.525	2.844	5.858	2.761	6.285	2.674	6.849	2.583	7.622	2.488
4.536	2.939	4.687	2.875	4.871	2.807	5.095	2.735	5.375	2.659	5.729	2.579	6.19	2.494	6.81	2.407
4.214	2.808	4.343	2.751	4.499	2.689	4.688	2.623	4.921	2.554	5.214	2.48	5.59	2.403	6.085	2.322
3.903	2.675	4.012	2.623	4.143	2.567	4.301	2.508	4.495	2.445	4.736	2.378	5.04	2.307	5.435	2.234
3.601	2.538	3.693	2.492	3.802	2.442	3.934	2.389	4.093	2.332	4.289	2.272	4.535	2.208	4.848	2.141
3.454	2.468	3.538	2.425	3.637	2.378	3.757	2.328	3.901	2.274	4.077	2.217	4.297	2.157	4.575	2.093
3.309	2.398	3.385	2.357	3.476	2.313	3.584	2.266	3.714	2.215	3.872	2.161	4.068	2.104	4.315	2.044
3.166	2.326	3.236	2.288	3.317	2.247	3.415	2.203	3.532	2.155	3.674	2.105	3.849	2.051	4.067	1.994
3.026	2.254	3.088	2.218	3.162	2.18	3.25	2.139	3.355	2.094	3.482	2.047	3.637	1.996	3.83	1.943
2.887	2.181	2.944	2.148	3.01	2.112	3.089	2.073	3.183	2.032	3.296	1.987	3.433	1.94	3.603	1.89
2.751	2.107	2.802	2.076	2.862	2.043	2.932	2.007	3.015	1.969	3.116	1.927	3.237	1.883	3.386	1.836
2.617	2.032	2.662	2.003	2.716	1.973	2.778	1.94	2.852	1.904	2.941	1.866	3.048	1.825	3.178	1.781
2.484	1.955	2.525	1.93	2.572	1.902	2.628	1.871	2.693	1.838	2.771	1.803	2.865	1.765	2.978	1.724
2.354	1.878	2.39	1.855	2.432	1.829	2.481	1.801	2.539	1.771	2.607	1.739	2.688	1.704	2.787	1.667
2.226	1.8	2.258	1.779	2.294	1.756	2.337	1.73	2.388	1.703	2.447	1.673	2.518	1.641	2.603	1.607
2.162	1.761	2.192	1.741	2.226	1.719	2.267	1.694	2.313	1.668	2.369	1.64	2.434	1.609	2.513	1.577
2.099	1.721	2.127	1.702	2.159	1.681	2.197	1.658	2.24	1.633	2.292	1.606	2.353	1.577	2.426	1.546
2.037	1.681	2.063	1.663	2.093	1.643	2.127	1.621	2.168	1.598	2.216	1.572	2.272	1.545	2.34	1.515
1.975	1.641	1.999	1.624	2.027	1.605	2.059	1.585	2.097	1.562	2.141	1.538	2.193	1.512	2.255	1.483
1.913	1.601	1.935	1.585	1.961	1.567	1.991	1.547	2.026	1.526	2.067	1.503	2.115	1.478	2.172	1.452
1.852	1.56	1.873	1.545	1.897	1.528	1.924	1.51	1.957	1.49	1.994	1.468	2.039	1.445	2.091	1.419
1.791	1.519	1.81	1.505	1.832	1.489	1.858	1.472	1.888	1.453	1.922	1.433	1.963	1.41	2.011	1.386
1.731	1.478	1.748	1.464	1.769	1.45	1.792	1.433	1.82	1.416	1.852	1.397	1.889	1.376	1.933	1.353
1.671	1.436	1.687	1.424	1.706	1.41	1.728	1.395	1.753	1.378	1.782	1.36	1.816	1.341	1.856	1.32
1.611	1.395	1.626	1.383	1.644	1.37	1.663	1.356	1.686	1.34	1.713	1.324	1.744	1.305	1.781	1.285
1.552	1.353	1.566	1.342	1.582	1.33	1.6	1.317	1.621	1.302	1.645	1.286	1.673	1.269	1.706	1.251
1.494	1.31	1.506	1.3	1.52	1.289	1.537	1.277	1.556	1.263	1.578	1.249	1.603	1.233	1.633	1.216
1.435	1.267	1.447	1.258	1.46	1.248	1.475	1.237	1.492	1.224	1.512	1.211	1.535	1.196	1.562	1.18

1.378	1.225	1.388	1.216	1.4	1.207	1.413	1.196	1.429	1.185	1.446	1.173	1.467	1.159	1.491	1.144
1.32	1.181	1.329	1.173	1.34	1.165	1.352	1.155	1.366	1.145	1.382	1.134	1.401	1.121	1.422	1.108
1.263	1.138	1.271	1.131	1.281	1.123	1.292	1.114	1.304	1.105	1.318	1.094	1.335	1.083	1.354	1.071
1.206	1.094	1.214	1.088	1.222	1.08	1.232	1.073	1.243	1.064	1.256	1.055	1.27	1.044	1.287	1.033
1.15	1.05	1.157	1.044	1.164	1.038	1.173	1.031	1.182	1.023	1.194	1.014	1.207	1.005	1.221	0.995
1.094	1.005	1.1	1	1.107	0.995	1.114	0.988	1.123	0.981	1.132	0.974	1.144	0.965	1.157	0.956
1.039	0.961	1.044	0.956	1.05	0.951	1.056	0.945	1.064	0.939	1.072	0.932	1.082	0.925	1.093	0.917
0.984	0.916	0.988	0.912	0.993	0.907	0.999	0.902	1.005	0.897	1.012	0.891	1.021	0.884	1.03	0.877
0.94	0.879	0.944	0.876	0.948	0.872	0.953	0.867	0.959	0.862	0.965	0.857	0.973	0.851	0.981	0.845

6	18	20	22
59	5.694	5.102	4.574

6	18		20		22	
Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	5.656	Infinity	5.063	Infinity	4.536	Infinity
Infinity	4.823	Infinity	4.392	Infinity	3.995	Infinity
Infinity	4.204	Infinity	3.878	Infinity	3.569	Infinity
Infinity	3.726	Infinity	3.471	Infinity	3.225	Infinity
Infinity	3.59	Infinity	3.353	Infinity	3.125	Infinity
Infinity	3.433	Infinity	3.217	Infinity	3.008	Infinity
Infinity	3.25	Infinity	3.058	Infinity	2.869	Infinity
98.325	3.034	Infinity	2.868	Infinity	2.704	Infinity
37.65	2.911	147.941	2.759	Infinity	2.608	Infinity
21.635	2.776	37.575	2.639	227.634	2.501	Infinity
14.236	2.627	19.659	2.505	34.585	2.382	249.536
9.975	2.462	12.32	2.356	16.794	2.248	28.557
8.737	2.391	10.469	2.291	13.505	2.19	20.122
7.678	2.316	8.973	2.223	11.092	2.128	15.151
6.762	2.238	7.737	2.152	9.246	2.064	11.874
5.963	2.157	6.699	2.077	7.789	1.995	9.551
5.258	2.071	5.815	1.998	6.609	1.923	7.819
4.936	2.027	5.421	1.957	6.099	1.886	7.108
4.633	1.981	5.054	1.915	5.634	1.847	6.477
4.346	1.934	4.711	1.872	5.208	1.807	5.914
4.074	1.886	4.391	1.827	4.815	1.766	5.407
3.817	1.837	4.091	1.782	4.453	1.724	4.95
3.572	1.787	3.809	1.735	4.117	1.68	4.534
3.339	1.735	3.543	1.686	3.806	1.635	4.155
3.118	1.682	3.293	1.636	3.516	1.589	3.808
2.907	1.627	3.056	1.585	3.245	1.541	3.489
2.706	1.571	2.833	1.532	2.992	1.491	3.195
2.609	1.542	2.725	1.505	2.871	1.466	3.056
2.514	1.513	2.621	1.477	2.754	1.44	2.923
2.421	1.483	2.519	1.449	2.641	1.414	2.794
2.33	1.453	2.42	1.421	2.531	1.387	2.67
2.241	1.423	2.323	1.392	2.425	1.36	2.551
2.154	1.392	2.229	1.363	2.321	1.332	2.436
2.069	1.361	2.137	1.333	2.221	1.304	2.324
1.985	1.329	2.048	1.303	2.123	1.275	2.216
1.904	1.297	1.96	1.272	2.029	1.246	2.112
1.824	1.264	1.875	1.241	1.937	1.216	2.011
1.745	1.231	1.792	1.209	1.847	1.186	1.914
1.668	1.197	1.71	1.177	1.76	1.155	1.819
1.593	1.163	1.631	1.144	1.675	1.124	1.728

1.52	1.128	1.553	1.111	1.592	1.092	1.639
1.447	1.093	1.477	1.077	1.512	1.06	1.553
1.376	1.057	1.402	1.042	1.433	1.027	1.47
1.307	1.021	1.33	1.007	1.357	0.993	1.389
1.239	0.984	1.259	0.971	1.282	0.958	1.31
1.172	0.946	1.189	0.935	1.209	0.923	1.233
1.106	0.908	1.121	0.898	1.139	0.887	1.159
1.042	0.869	1.054	0.86	1.069	0.851	1.087
0.991	0.837	1.002	0.83	1.015	0.821	1.03

Focal Length 48mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.
Hyperfocal Distance (ft-inch)	113'11.52"	101'7.49"	90'7.56"	80'10.04"	72'1.35"	64'4.09"	57'4.98"	51'2

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	113'9.98"	Infinity	101'5.93"	Infinity	90'6.03"	Infinity	80'8.52"	Infinity	71'11.83"	Infinity	64'2.56"	Infinity	57'3.47"	Infinity	51'1.44"
100' 0''	53'7.64"	804'9.21"	50'9.3"	6164'0.06"	47'10.93"	Infinity	45'0.75"	Infinity	42'2.99"	Infinity	39'5.86"	Infinity	36'9.56"	Infinity	34'2.26"
50' 0''	35'0.99"	87'10.02"	33'10.25"	96'10.53"	32'6.92"	109'6.72"	31'3.06"	128'5.69"	29'10.76"	159'5.24"	28'6.1"	218'9.05"	27'1.2"	376'4.12"	25'8.17"
30' 0''	24'0.09"	40'1.8"	23'5.26"	41'10.79"	22'9.98"	44'0.67"	22'2.26"	46'9.17"	21'6.11"	50'2.84"	20'9.56"	54'9.81"	20'0.64"	61'1.03"	19'3.37"
20' 0''	17'2.57"	23'11.04"	16'11.13"	24'6.16"	16'7.41"	25'2.58"	16'3.39"	26'0.66"	15'11.09"	27'0.82"	15'6.48"	28'3.69"	15'1.59"	29'10.14"	14'8.4"
15' 0''	13'5"	17'0.43"	13'2.96"	17'3.91"	13'0.73"	17'7.96"	12'10.31"	18'0.72"	12'7.69"	18'6.32"	12'4.85"	19'0.99"	12'1.8"	19'8.99"	11'10.53"
12' 0''	10'11.9"	13'2.74"	10'10.56"	13'4.77"	10'9.1"	13'7.12"	10'7.5"	13'9.84"	10'5.75"	14'1.01"	10'3.85"	14'4.72"	10'1.79"	14'9.1"	9'11.56"
10' 0''	9'3.7"	10'9.75"	9'2.77"	10'11.07"	9'1.75"	11'0.58"	9'0.62"	11'2.32"	8'11.38"	11'4.33"	8'10.03"	11'6.66"	8'8.56"	11'9.39"	8'6.96"
9' 0''	8'5.36"	9'7.67"	8'4.6"	9'8.7"	8'3.77"	9'9.87"	8'2.86"	9'11.21"	8'1.85"	10'0.76"	8'0.75"	10'2.55"	7'11.55"	10'4.64"	7'10.23"
8' 0''	7'6.84"	8'5.86"	7'6.25"	8'6.63"	7'5.59"	8'7.51"	7'4.87"	8'8.52"	7'4.08"	8'9.68"	7'3.21"	8'11.02"	7'2.25"	9'0.56"	7'1.2"
7' 6''	7'1.51"	7'11.05"	7'0.99"	7'11.71"	7'0.42"	8'0.47"	6'11.79"	8'1.33"	6'11.1"	8'2.32"	6'10.33"	8'3.46"	6'9.49"	8'4.77"	6'8.57"
7' 0''	6'8.14"	7'4.3"	6'7.69"	7'4.86"	6'7.2"	7'5.5"	6'6.66"	7'6.23"	6'6.05"	7'7.07"	6'5.39"	7'8.03"	6'4.66"	7'9.13"	6'3.86"
6' 6''	6'2.72"	6'9.62"	6'2.34"	6'10.09"	6'1.92"	6'10.62"	6'1.46"	6'11.23"	6'0.94"	6'11.93"	6'0.37"	7'0.72"	5'11.75"	7'1.64"	5'11.06"
6' 0''	5'9.26"	6'3"	5'8.94"	6'3.38"	5'8.59"	6'3.82"	5'8.2"	6'4.32"	5'7.76"	6'4.89"	5'7.28"	6'5.55"	5'6.75"	6'6.29"	5'6.17"
5' 6''	5'3.76"	5'8.44"	5'3.49"	5'8.75"	5'3.2"	5'9.1"	5'2.88"	5'9.51"	5'2.52"	5'9.97"	5'2.12"	5'10.49"	5'1.68"	5'11.09"	5'1.2"
5' 0''	4'10.2"	5'1.94"	4'9.99"	5'2.18"	4'9.75"	5'2.46"	4'9.49"	5'2.78"	4'9.2"	5'3.14"	4'8.88"	5'3.55"	4'8.52"	5'4.02"	4'8.13"
4' 9''	4'7.41"	4'10.71"	4'7.22"	4'10.93"	4'7.01"	4'11.17"	4'6.78"	4'11.45"	4'6.52"	4'11.77"	4'6.23"	5'0.13"	4'5.91"	5'0.54"	4'5.56"
4' 6''	4'4.6"	4'7.49"	4'4.43"	4'7.68"	4'4.25"	4'7.9"	4'4.04"	4'8.14"	4'3.81"	4'8.42"	4'3.56"	4'8.73"	4'3.28"	4'9.09"	4'2.97"
4' 3''	4'1.78"	4'4.3"	4'1.63"	4'4.46"	4'1.47"	4'4.65"	4'1.29"	4'4.86"	4'1.09"	4'5.1"	4'0.87"	4'5.37"	4'0.63"	4'5.67"	4'0.35"
4' 0''	3'10.95"	4'1.11"	3'10.82"	4'1.25"	3'10.68"	4'1.41"	3'10.53"	4'1.59"	3'10.36"	4'1.8"	3'10.16"	4'2.03"	3'9.95"	4'2.29"	3'9.71"
3' 9''	3'8.1"	3'9.94"	3'8"	3'10.06"	3'7.88"	3'10.2"	3'7.75"	3'10.35"	3'7.6"	3'10.52"	3'7.43"	3'10.71"	3'7.25"	3'10.94"	3'7.05"
3' 6''	3'5.25"	3'6.79"	3'5.16"	3'6.89"	3'5.06"	3'7"	3'4.95"	3'7.12"	3'4.82"	3'7.27"	3'4.68"	3'7.43"	3'4.53"	3'7.61"	3'4.36"
3' 3''	3'2.38"	3'3.65"	3'2.31"	3'3.73"	3'2.22"	3'3.82"	3'2.13"	3'3.92"	3'2.03"	3'4.04"	3'1.91"	3'4.17"	3'1.79"	3'4.32"	3'1.64"
3' 0''	2'11.5"	3'0.52"	2'11.44"	3'0.58"	2'11.37"	3'0.66"	2'11.3"	3'0.74"	2'11.21"	3'0.83"	2'11.12"	3'0.94"	2'11.02"	3'1.06"	2'10.9"

3	7.1	8	9	10	11	13	14	1
.96"	45'9.02"	40'10.24"	36'5.91"	32'7.26"	29'1.72"	26'0.68"	23'3.72"	20'10

3	7.1		8		9		10		11		13		14		1
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)
Infinity	45'7.49"	Infinity	40'8.73"	Infinity	36'4.39"	Infinity	32'5.75"	Infinity	29'0.2"	Infinity	25'11.19"	Infinity	23'2.21"	Infinity	20'8.83"
Infinity	31'8.12"	Infinity	29'3.27"	Infinity	26'11.79"	Infinity	24'9.77"	Infinity	22'9.25"	Infinity	20'10.26"	Infinity	19'0.79"	Infinity	17'4.83"
1991'11.93"	24'3.11"	Infinity	22'10.13"	Infinity	21'5.36"	Infinity	20'0.89"	Infinity	18'8.83"	Infinity	17'5.26"	Infinity	16'2.26"	Infinity	14'11.88"
70'1.34"	18'5.82"	84'1.31"	17'8.03"	108'6.25"	16'10.06"	161'3.47"	15'11.98"	357'2.04"	15'1.84"	Infinity	14'3.73"	Infinity	13'5.69"	Infinity	12'7.81"
31'9.47"	14'2.94"	34'3.67"	13'9.22"	37'7.97"	13'3.27"	42'4.05"	12'9.1"	49'2.69"	12'2.75"	60'3.5"	11'8.26"	80'9.69"	11'1.67"	131'3.54"	10'7.01"
20'6.69"	11'7.04"	21'6.61"	11'3.33"	22'9.5"	10'11.41"	24'4.48"	10'7.3"	26'5.3"	10'2.99"	29'2.92"	9'10.52"	33'2.6"	9'5.9"	39'2.89"	9'1.16"
15'2.31"	9'9.16"	15'8.54"	9'6.59"	16'4.1"	9'3.84"	17'1.38"	9'0.93"	18'0.96"	8'9.85"	19'3.7"	8'6.61"	20'10.94"	8'3.22"	23'0.92"	7'11.7"
12'0.59"	8'5.22"	12'4.37"	8'3.35"	12'8.87"	8'1.34"	13'2.28"	7'11.19"	13'8.86"	7'8.89"	14'4.98"	7'6.45"	15'3.15"	7'3.88"	16'4.19"	7'1.18"
10'7.07"	7'8.81"	10'9.92"	7'7.26"	11'1.29"	7'5.59"	11'5.3"	7'3.8"	11'10.12"	7'1.87"	12'3.99"	6'11.83"	12'11.22"	6'9.65"	13'8.29"	6'7.36"
9'2.36"	7'0.06"	9'4.45"	6'10.82"	9'6.9"	6'9.48"	9'9.79"	6'8.03"	10'1.23"	6'6.46"	10'5.36"	6'4.79"	10'10.38"	6'3.01"	11'4.55"	6'1.11"
8'6.29"	6'7.57"	8'8.05"	6'6.47"	8'10.12"	6'5.28"	9'0.54"	6'3.99"	9'3.41"	6'2.6"	9'6.84"	6'1.11"	9'10.96"	5'11.51"	10'4"	5'9.81"
7'10.4"	6'2.98"	7'11.88"	6'2.02"	8'1.59"	6'0.98"	8'3.6"	5'11.85"	8'5.97"	5'10.62"	8'8.78"	5'9.31"	9'0.15"	5'7.89"	9'4.22"	5'6.38"
7'2.69"	5'10.3"	7'3.91"	5'9.47"	7'5.32"	5'8.57"	7'6.97"	5'7.59"	7'8.9"	5'6.53"	7'11.17"	5'5.38"	8'1.88"	5'4.15"	8'5.13"	5'2.82"
6'7.15"	5'5.53"	6'8.14"	5'4.83"	6'9.28"	5'4.06"	6'10.61"	5'3.22"	7'0.16"	5'2.31"	7'1.98"	5'1.33"	7'4.13"	5'0.26"	7'6.69"	4'11.12"
5'11.78"	5'0.66"	6'0.56"	5'0.08"	6'1.47"	4'11.44"	6'2.53"	4'10.73"	6'3.75"	4'9.97"	6'5.18"	4'9.14"	6'6.85"	4'8.24"	6'8.84"	4'7.27"
5'4.56"	4'7.7"	5'5.18"	4'7.22"	5'5.88"	4'6.69"	5'6.7"	4'6.12"	5'7.64"	4'5.49"	5'8.74"	4'4.81"	5'10.02"	4'4.06"	5'11.52"	4'3.26"
5'1.01"	4'5.17"	5'1.55"	4'4.75"	5'2.17"	4'4.28"	5'2.88"	4'3.76"	5'3.7"	4'3.2"	5'4.65"	4'2.58"	5'5.75"	4'1.91"	5'7.05"	4'1.19"
4'9.5"	4'2.63"	4'9.97"	4'2.25"	4'10.5"	4'1.83"	4'11.11"	4'1.37"	4'11.82"	4'0.87"	5'0.64"	4'0.32"	5'1.59"	3'11.72"	5'2.7"	3'11.07"
4'6.03"	4'0.05"	4'6.43"	3'11.72"	4'6.88"	3'11.35"	4'7.41"	3'10.95"	4'8.01"	3'10.51"	4'8.71"	3'10.02"	4'9.52"	3'9.49"	4'10.46"	3'8.92"
4'2.59"	3'9.45"	4'2.93"	3'9.16"	4'3.32"	3'8.84"	4'3.76"	3'8.49"	4'4.28"	3'8.11"	4'4.86"	3'7.68"	4'5.54"	3'7.22"	4'6.33"	3'6.71"
3'11.19"	3'6.82"	3'11.47"	3'6.58"	3'11.8"	3'6.3"	4'0.17"	3'6"	4'0.6"	3'5.67"	4'1.09"	3'5.3"	4'1.66"	3'4.9"	4'2.31"	3'4.46"
3'7.82"	3'4.17"	3'8.06"	3'3.96"	3'8.33"	3'3.73"	3'8.64"	3'3.47"	3'8.99"	3'3.19"	3'9.39"	3'2.87"	3'9.86"	3'2.53"	3'10.39"	3'2.16"
3'4.49"	3'1.49"	3'4.68"	3'1.31"	3'4.9"	3'1.12"	3'5.15"	3'0.9"	3'5.44"	3'0.67"	3'5.76"	3'0.4"	3'6.14"	3'0.12"	3'6.57"	2'11.8"
3'1.2"	2'10.77"	3'1.35"	2'10.63"	3'1.52"	2'10.47"	3'1.72"	2'10.3"	3'1.95"	2'10.1"	3'2.21"	2'9.89"	3'2.5"	2'9.65"	3'2.84"	2'9.39"

6	18	20	22
).35"	18'8.17"	16'8.87"	15'0.08"

6	18		20		22	
Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	18'6.66"	Infinity	16'7.34"	Infinity	14'10.57"	Infinity
Infinity	15'10.34"	Infinity	14'5.28"	Infinity	13'1.59"	Infinity
Infinity	13'10.2"	Infinity	12'9.23"	Infinity	11'9"	Infinity
Infinity	11'10.14"	Infinity	11'0.73"	Infinity	10'3.64"	Infinity
447'6.62"	10'0.34"	Infinity	9'5.7"	Infinity	8'11.12"	Infinity
49'4.39"	8'8.32"	69'8.78"	8'3.42"	130'11.41"	7'10.49"	33180'3.9"
26'1.65"	7'8.06"	30'9.04"	7'4.32"	38'5.34"	7'0.5"	53'8.1"
17'9.36"	6'10.36"	19'8.82"	6'7.43"	22'6.52"	6'4.42"	26'10.57"
14'7.9"	6'4.95"	15'11.2"	6'2.44"	17'8.1"	5'11.83"	20'2.11"
12'0.27"	5'11.11"	12'10.13"	5'9.01"	13'11.05"	5'6.81"	15'4.61"
10'10.23"	5'8.01"	11'6.07"	5'6.11"	12'4.19"	5'4.12"	13'5.61"
9'9.2"	5'4.78"	10'3.4"	5'3.08"	10'11.26"	5'1.29"	11'9.48"
8'9.08"	5'1.41"	9'1.93"	4'11.91"	9'7.99"	4'10.33"	10'3.72"
7'9.77"	4'9.9"	8'1.52"	4'8.59"	8'6.13"	4'7.21"	8'11.93"
6'11.2"	4'6.23"	7'2.05"	4'5.11"	7'5.51"	4'3.92"	7'9.8"
6'1.3"	4'2.39"	6'3.42"	4'1.45"	6'5.97"	4'0.45"	6'9.08"
5'8.58"	4'0.4"	5'10.39"	3'11.56"	6'0.56"	3'10.65"	6'3.19"
5'4"	3'10.37"	5'5.54"	3'9.61"	5'7.37"	3'8.79"	5'9.57"
4'11.56"	3'8.29"	5'0.85"	3'7.61"	5'2.39"	3'6.88"	5'4.22"
4'7.25"	3'6.16"	4'8.33"	3'5.56"	4'9.6"	3'4.92"	4'11.11"
4'3.07"	3'3.98"	4'3.96"	3'3.46"	4'5"	3'2.9"	4'6.23"
3'11.01"	3'1.75"	3'11.73"	3'1.3"	4'0.57"	3'0.81"	4'1.56"
3'7.06"	2'11.46"	3'7.64"	2'11.08"	3'8.31"	2'10.67"	3'9.09"
3'3.23"	2'9.11"	3'3.68"	2'8.8"	3'4.2"	2'8.46"	3'4.8"

Focal Length 50mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	37.666	33.585	29.95	26.711	23.825	21.255	18.965	16.924	15.107

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	37.626	Infinity	33.546	Infinity	29.911	Infinity	26.672	Infinity	23.787	Infinity	21.216	Infinity	18.926	Infinity	16.886	Infinity	15.068	Infinity
30.00	16.812	145.501	15.959	276.967	15.1	Infinity	14.241	Infinity	13.388	Infinity	12.546	Infinity	11.721	Infinity	10.917	Infinity	10.139	Infinity
15.00	10.824	24.606	10.469	26.715	10.099	29.564	9.713	33.592	9.315	39.671	8.906	49.81	8.488	69.919	8.065	128.152	7.639	2059.153
10.00	7.981	13.44	7.79	14.035	7.586	14.771	7.37	15.695	7.142	16.884	6.903	18.456	6.653	20.617	6.395	23.745	6.128	28.638
9.00	7.338	11.674	7.177	12.118	7.005	12.659	6.821	13.329	6.626	14.171	6.421	15.256	6.206	16.693	5.982	18.674	5.749	21.554
8.00	6.667	10.028	6.535	10.351	6.393	10.74	6.24	11.215	6.078	11.801	5.906	12.538	5.725	13.486	5.535	14.74	5.336	16.464
7.00	5.966	8.488	5.861	8.717	5.747	8.989	5.625	9.315	5.494	9.713	5.354	10.202	5.206	10.815	5.049	11.599	4.885	12.63
6.00	5.232	7.046	5.152	7.201	5.065	7.383	4.971	7.6	4.869	7.858	4.761	8.172	4.644	8.555	4.521	9.033	4.39	9.638
5.50	4.852	6.359	4.784	6.484	4.709	6.63	4.628	6.802	4.541	7.007	4.447	7.253	4.346	7.551	4.239	7.918	4.124	8.375
5.00	4.463	5.692	4.406	5.791	4.343	5.906	4.275	6.042	4.201	6.201	4.121	6.391	4.035	6.62	3.943	6.897	3.845	7.238
4.50	4.065	5.046	4.018	5.123	3.966	5.212	3.91	5.315	3.849	5.437	3.782	5.581	3.71	5.752	3.633	5.958	3.551	6.208
4.00	3.657	4.419	3.619	4.477	3.578	4.544	3.533	4.621	3.483	4.711	3.43	4.817	3.371	4.943	3.308	5.091	3.241	5.27
3.80	3.491	4.173	3.457	4.224	3.419	4.283	3.378	4.352	3.333	4.431	3.285	4.524	3.231	4.634	3.174	4.763	3.112	4.918
3.60	3.324	3.931	3.293	3.976	3.259	4.027	3.222	4.087	3.181	4.157	3.137	4.238	3.089	4.333	3.037	4.445	2.981	4.579
3.40	3.154	3.691	3.127	3.73	3.097	3.775	3.063	3.827	3.027	3.888	2.987	3.958	2.944	4.04	2.897	4.136	2.846	4.251
3.20	2.983	3.453	2.959	3.488	2.932	3.527	2.903	3.572	2.87	3.624	2.835	3.684	2.796	3.754	2.754	3.837	2.709	3.934
3.00	2.811	3.219	2.789	3.248	2.766	3.282	2.74	3.32	2.711	3.365	2.68	3.416	2.646	3.476	2.609	3.545	2.568	3.627
2.90	2.724	3.103	2.704	3.13	2.682	3.161	2.658	3.196	2.631	3.237	2.602	3.284	2.569	3.339	2.535	3.403	2.497	3.478
2.80	2.636	2.987	2.618	3.012	2.597	3.041	2.575	3.073	2.55	3.111	2.522	3.154	2.492	3.204	2.46	3.262	2.424	3.331
2.70	2.549	2.872	2.531	2.895	2.512	2.921	2.491	2.951	2.468	2.985	2.443	3.025	2.415	3.071	2.384	3.124	2.351	3.186
2.60	2.46	2.758	2.444	2.779	2.427	2.803	2.407	2.83	2.386	2.861	2.362	2.897	2.336	2.939	2.308	2.987	2.277	3.044
2.50	2.372	2.645	2.357	2.664	2.341	2.685	2.323	2.71	2.303	2.739	2.281	2.771	2.257	2.809	2.231	2.853	2.202	2.904
2.40	2.282	2.532	2.269	2.549	2.254	2.569	2.237	2.591	2.219	2.617	2.199	2.646	2.177	2.681	2.153	2.72	2.126	2.766
2.30	2.193	2.419	2.18	2.435	2.167	2.453	2.152	2.473	2.135	2.496	2.117	2.523	2.096	2.554	2.074	2.589	2.05	2.63
2.20	2.103	2.308	2.092	2.322	2.079	2.338	2.065	2.356	2.05	2.377	2.033	2.401	2.015	2.428	1.994	2.46	1.972	2.496
2.10	2.012	2.197	2.002	2.209	1.991	2.224	1.978	2.24	1.964	2.258	1.949	2.28	1.932	2.304	1.914	2.332	1.894	2.365
2.00	1.921	2.086	1.912	2.098	1.902	2.11	1.891	2.125	1.878	2.141	1.864	2.16	1.849	2.182	1.832	2.207	1.814	2.235
1.95	1.876	2.031	1.867	2.042	1.857	2.054	1.847	2.067	1.835	2.083	1.822	2.101	1.807	2.121	1.791	2.144	1.774	2.171
1.90	1.83	1.977	1.822	1.987	1.812	1.998	1.802	2.01	1.791	2.025	1.779	2.042	1.765	2.061	1.75	2.082	1.734	2.108
1.85	1.784	1.922	1.776	1.931	1.768	1.942	1.758	1.954	1.747	1.967	1.736	1.983	1.723	2.001	1.709	2.021	1.693	2.044
1.80	1.738	1.867	1.731	1.876	1.722	1.886	1.714	1.897	1.704	1.91	1.693	1.924	1.68	1.941	1.667	1.96	1.652	1.982
1.75	1.692	1.813	1.685	1.821	1.677	1.83	1.669	1.841	1.66	1.853	1.649	1.866	1.638	1.882	1.625	1.899	1.611	1.92
1.70	1.645	1.759	1.639	1.766	1.632	1.775	1.624	1.785	1.615	1.796	1.606	1.808	1.595	1.823	1.583	1.839	1.57	1.858
1.65	1.599	1.705	1.593	1.712	1.586	1.72	1.579	1.729	1.571	1.739	1.562	1.751	1.552	1.764	1.541	1.779	1.528	1.797
1.60	1.553	1.651	1.547	1.657	1.541	1.665	1.534	1.673	1.526	1.683	1.518	1.693	1.508	1.706	1.498	1.72	1.486	1.736
1.55	1.506	1.597	1.501	1.603	1.495	1.61	1.489	1.618	1.481	1.627	1.473	1.637	1.465	1.648	1.455	1.661	1.444	1.676
1.50	1.459	1.544	1.454	1.549	1.449	1.555	1.443	1.563	1.436	1.571	1.429	1.58	1.421	1.59	1.412	1.602	1.402	1.616
1.45	1.412	1.49	1.408	1.495	1.403	1.501	1.397	1.508	1.391	1.515	1.384	1.523	1.377	1.533	1.369	1.544	1.359	1.556
1.40	1.365	1.437	1.361	1.441	1.357	1.447	1.352	1.453	1.346	1.46	1.34	1.467	1.333	1.476	1.325	1.486	1.316	1.497
1.35	1.318	1.384	1.314	1.388	1.31	1.393	1.306	1.398	1.3	1.404	1.295	1.411	1.288	1.419	1.281	1.428	1.273	1.439
1.30	1.271	1.331	1.268	1.335	1.264	1.339	1.259	1.344	1.255	1.349	1.249	1.356	1.244	1.363	1.237	1.371	1.23	1.381
1.25	1.224	1.278	1.221	1.281	1.217	1.285	1.213	1.29	1.209	1.295	1.204	1.301	1.199	1.307	1.193	1.315	1.186	1.323
1.20	1.176	1.225	1.173	1.228	1.17	1.232	1.167	1.236	1.163	1.24	1.158	1.246	1.154	1.251	1.148	1.258	1.142	1.266
1.15	1.129	1.172	1.126	1.175	1.123	1.178	1.12	1.182	1.116	1.186	1.113	1.191	1.108	1.196	1.103	1.202	1.098	1.209
1.10	1.081	1.12	1.079	1.123	1.076	1.125	1.073	1.129	1.07	1.132	1.066	1.136	1.063	1.141	1.058	1.146	1.053	1.152
1.05	1.033	1.068	1.031	1.07	1.029	1.072	1.026	1.075	1.023	1.078	1.02	1.082	1.017	1.086	1.013	1.091	1.008	1.096
1.00	0.985	1.016	0.983	1.018	0.981	1.02	0.979	1.022	0.977	1.025	0.974	1.028	0.971	1.032	0.967	1.036	0.963	1.04
0.95	0.937	0.964	0.935	0.965	0.934	0.967	0.932	0.969	0.929	0.972	0.927	0.975	0.924	0.978	0.921	0.981	0.918	0.985
0.91	0.898	0.922	0.897	0.924	0.895	0.925	0.894	0.927	0.892	0.929	0.89	0.932	0.887	0.935	0.884	0.938	0.881	0.941

8	9	10	11	13	14	16	18	20	22
13.487	12.044	10.759	9.614	8.594	7.685	6.875	6.154	5.511	4.939

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
13.449	Infinity	12.006	Infinity	10.721	Infinity	9.576	Infinity	8.556	Infinity	7.647	Infinity	6.837	Infinity	6.116	Infinity	5.473	Infinity	4.9	Infinity
9.39	Infinity	8.674	Infinity	7.993	Infinity	7.348	Infinity	6.741	Infinity	6.172	Infinity	5.641	Infinity	5.148	Infinity	4.692	Infinity	4.27	Infinity
7.213	Infinity	6.789	Infinity	6.371	Infinity	5.961	Infinity	5.561	Infinity	5.174	Infinity	4.801	Infinity	4.444	Infinity	4.105	Infinity	3.784	Infinity
5.855	37.293	5.577	56.554	5.296	135.384	5.014	Infinity	4.732	Infinity	4.453	Infinity	4.178	Infinity	3.91	Infinity	3.649	Infinity	3.396	Infinity
5.509	26.085	5.264	34.182	5.014	52.581	4.762	133.864	4.508	Infinity	4.256	Infinity	4.005	Infinity	3.759	Infinity	3.518	Infinity	3.284	Infinity
5.13	18.962	4.918	22.873	4.701	29.801	4.48	45.269	4.256	109.297	4.032	Infinity	3.808	Infinity	3.586	Infinity	3.367	Infinity	3.154	Infinity
4.714	14.035	4.535	16.048	4.352	19.141	4.163	24.46	3.971	35.635	3.776	73.632	3.581	Infinity	3.386	Infinity	3.192	Infinity	3.001	Infinity
4.253	10.425	4.109	11.481	3.959	12.961	3.804	15.167	3.645	18.772	3.482	25.661	3.317	43.85	3.151	221.29	2.984	Infinity	2.818	Infinity
4.004	8.958	3.877	9.721	3.744	10.752	3.606	12.214	3.464	14.428	3.318	18.142	3.169	25.585	3.018	47.744	2.865	2468.677	2.713	Infinity
3.741	7.665	3.631	8.211	3.515	8.927	3.395	9.902	3.269	11.293	3.14	13.423	3.007	17.061	2.872	24.6	2.735	49.241	2.597	Infinity
3.463	6.515	3.369	6.901	3.271	7.394	3.167	8.041	3.059	8.924	2.947	10.186	2.831	12.125	2.712	15.45	2.59	22.41	2.468	45.786
3.168	5.487	3.091	5.753	3.009	6.087	2.922	6.512	2.831	7.07	2.736	7.828	2.637	8.906	2.535	10.549	2.43	13.334	2.323	19.027
3.046	5.105	2.975	5.333	2.899	5.617	2.819	5.975	2.735	6.437	2.646	7.054	2.554	7.911	2.459	9.171	2.361	11.188	2.26	14.903
2.92	4.739	2.855	4.933	2.786	5.173	2.712	5.472	2.635	5.855	2.553	6.357	2.468	7.038	2.38	8.009	2.288	9.492	2.195	12.012
2.791	4.387	2.732	4.552	2.67	4.753	2.603	5.003	2.532	5.317	2.457	5.724	2.378	6.265	2.297	7.016	2.212	8.117	2.125	9.872
2.659	4.049	2.606	4.188	2.55	4.356	2.489	4.562	2.425	4.82	2.357	5.148	2.285	5.577	2.21	6.157	2.133	6.98	2.052	8.224
2.524	3.724	2.477	3.84	2.426	3.979	2.372	4.148	2.314	4.357	2.252	4.621	2.188	4.96	2.12	5.408	2.049	6.024	1.975	6.917
2.455	3.566	2.411	3.671	2.363	3.797	2.312	3.95	2.257	4.139	2.199	4.374	2.137	4.674	2.073	5.067	2.006	5.601	1.935	6.359
2.386	3.411	2.344	3.507	2.299	3.621	2.251	3.759	2.199	3.927	2.144	4.137	2.086	4.403	2.025	4.747	1.961	5.209	1.894	5.854
2.315	3.259	2.276	3.345	2.234	3.448	2.188	3.572	2.14	3.723	2.088	3.91	2.034	4.144	1.976	4.446	1.915	4.845	1.852	5.394
2.243	3.11	2.207	3.188	2.168	3.28	2.125	3.391	2.08	3.526	2.031	3.691	1.98	3.898	1.926	4.161	1.868	4.506	1.809	4.973
2.171	2.963	2.137	3.033	2.1	3.116	2.061	3.215	2.019	3.335	1.973	3.481	1.925	3.663	1.874	3.892	1.82	4.19	1.764	4.586
2.097	2.819	2.066	2.882	2.032	2.956	1.995	3.044	1.956	3.15	1.914	3.279	1.869	3.438	1.821	3.638	1.771	3.894	1.718	4.23
2.023	2.678	1.994	2.734	1.963	2.8	1.929	2.878	1.892	2.971	1.853	3.085	1.811	3.224	1.767	3.396	1.72	3.616	1.67	3.901
1.948	2.539	1.921	2.588	1.892	2.647	1.861	2.716	1.828	2.798	1.791	2.897	1.753	3.018	1.711	3.167	1.668	3.355	1.622	3.596
1.871	2.402	1.847	2.446	1.821	2.498	1.792	2.558	1.761	2.63	1.728	2.717	1.692	2.821	1.654	2.949	1.614	3.109	1.571	3.313
1.794	2.268	1.772	2.307	1.748	2.352	1.722	2.405	1.694	2.467	1.663	2.542	1.631	2.632	1.596	2.742	1.559	2.878	1.519	3.049
1.755	2.202	1.734	2.238	1.711	2.28	1.686	2.33	1.66	2.388	1.631	2.457	1.599	2.541	1.566	2.642	1.53	2.767	1.493	2.923
1.716	2.137	1.696	2.17	1.674	2.209	1.651	2.255	1.625	2.309	1.597	2.374	1.568	2.451	1.536	2.544	1.502	2.659	1.466	2.802
1.676	2.072	1.657	2.103	1.637	2.139	1.614	2.182	1.59	2.232	1.564	2.292	1.536	2.363	1.505	2.449	1.473	2.554	1.438	2.685
1.636	2.007	1.618	2.036	1.599	2.07	1.578	2.11	1.555	2.156	1.53	2.211	1.503	2.277	1.474	2.356	1.443	2.452	1.41	2.571
1.596	1.943	1.579	1.97	1.561	2.002	1.541	2.038	1.519	2.081	1.496	2.132	1.47	2.192	1.443	2.265	1.413	2.353	1.382	2.461
1.555	1.88	1.54	1.905	1.522	1.934	1.504	1.968	1.483	2.007	1.461	2.054	1.437	2.109	1.411	2.176	1.383	2.256	1.353	2.354
1.515	1.817	1.5	1.84	1.484	1.867	1.466	1.898	1.447	1.935	1.426	1.977	1.403	2.028	1.379	2.089	1.352	2.162	1.324	2.251
1.474	1.755	1.46	1.776	1.445	1.801	1.428	1.829	1.41	1.863	1.39	1.902	1.369	1.948	1.346	2.004	1.321	2.07	1.294	2.15
1.433	1.693	1.42	1.712	1.405	1.735	1.39	1.761	1.373	1.792	1.354	1.828	1.334	1.87	1.313	1.92	1.289	1.98	1.264	2.053
1.391	1.632	1.379	1.65	1.366	1.67	1.351	1.694	1.335	1.722	1.318	1.755	1.299	1.793	1.279	1.839	1.257	1.893	1.233	1.958
1.349	1.571	1.338	1.587	1.326	1.606	1.312	1.628	1.297	1.653	1.281	1.683	1.264	1.718	1.245	1.759	1.224	1.808	1.202	1.867
1.307	1.51	1.297	1.525	1.285	1.543	1.273	1.563	1.259	1.586	1.244	1.612	1.228	1.644	1.21	1.681	1.191	1.725	1.17	1.777
1.265	1.451	1.255	1.464	1.244	1.48	1.233	1.498	1.22	1.519	1.206	1.543	1.191	1.571	1.175	1.604	1.157	1.644	1.138	1.691
1.222	1.391	1.213	1.404	1.203	1.418	1.193	1.434	1.181	1.453	1.168	1.474	1.154	1.5	1.139	1.53	1.123	1.565	1.105	1.606
1.179	1.333	1.171	1.344	1.162	1.356	1.152	1.371	1.141	1.388	1.13	1.407	1.117	1.43	1.103	1.456	1.088	1.487	1.071	1.524
1.136	1.274	1.128	1.284	1.12	1.296	1.111	1.309	1.101	1.323	1.091	1.341	1.079	1.361	1.066	1.384	1.052	1.412	1.037	1.444
1.092	1.216	1.085	1.225	1.078	1.235	1.07	1.247	1.061	1.26	1.051	1.275	1.041	1.293	1.029	1.314	1.016	1.338	1.003	1.366
1.048	1.159	1.042	1.167	1.035	1.176	1.028	1.186	1.02	1.198	1.011	1.211	1.002	1.227	0.991	1.245	0.98	1.266	0.967	1.291
1.004	1.102	0.998	1.109	0.992	1.117	0.986	1.126	0.979	1.136	0.971	1.148	0.962	1.161	0.953	1.177	0.942	1.195	0.931	1.217
0.959	1.046	0.954	1.052	0.949	1.058	0.943	1.066	0.937	1.075	0.93	1.085	0.922	1.097	0.914	1.111	0.905	1.127	0.895	1.145
0.914	0.99	0.91	0.995	0.905	1.001	0.9	1.007	0.895	1.015	0.889	1.024	0.882	1.034	0.874	1.046	0.866	1.059	0.857	1.075
0.878	0.945	0.874	0.95	0.87	0.955	0.866	0.961	0.861	0.968	0.855	0.975	0.849	0.984	0.842	0.994	0.835	1.006	0.827	1.02

Focal Length 50mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	123'6.91"	110'2.24"	98'3.13"	87'7.61"	78'1.99"	69'8.81"	62'2.65"	55'6.3"	49'6.76"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	123'5.35"	Infinity	110'0.7"	Infinity	98'1.58"	Infinity	87'6.08"	Infinity	78'0.48"	Infinity	69'7.28"	Infinity	62'1.12"	Infinity	55'4.8"	Infinity	49'5.23"	Infinity
100'0''	55'7.72"	517'4.81"	52'9.54"	1065'11.26"	49'11.16"	Infinity	47'0.82"	Infinity	44'2.74"	Infinity	41'5.14"	Infinity	38'8.23"	Infinity	36'0.21"	Infinity	33'5.24"	Infinity
50'0''	35'10.98"	82'10.78"	34'8.7"	90'2.59"	33'5.78"	100'1.86"	32'2.28"	114'3.8"	30'10.28"	135'11.19"	29'5.86"	172'7.91"	28'1.12"	248'0.98"	26'8.17"	488'0.5"	25'3.11"	Infinity
30'0''	24'4.63"	39'1.33"	23'10.11"	40'7.58"	23'3.15"	42'5.88"	22'7.73"	44'9.51"	21'11.88"	47'8.4"	21'3.61"	51'5.48"	20'6.94"	56'5.53"	19'9.91"	63'4.8"	19'0.56"	73'6.98"
20'0''	17'4.82"	23'6.7"	17'1.57"	24'1.04"	16'10.05"	24'8.52"	16'6.24"	25'5.4"	16'2.14"	26'4.04"	15'9.74"	27'4.93"	15'5.05"	28'8.76"	15'0.07"	30'4.5"	14'6.8"	32'5.62"
15'0''	13'6.32"	16'10.28"	13'4.41"	17'1.41"	13'2.31"	17'5.06"	13'0.03"	17'9.31"	12'9.54"	18'2.3"	12'6.86"	18'8.2"	12'3.95"	19'3.23"	12'0.84"	19'11.69"	11'9.5"	20'9.99"
12'0''	11'0.76"	13'1.49"	10'11.51"	13'3.33"	10'10.13"	13'5.45"	10'8.63"	13'7.9"	10'6.98"	13'10.74"	10'5.19"	14'2.07"	10'3.24"	14'5.97"	10'1.13"	14'10.57"	9'10.85"	15'4.06"
10'0''	9'4.3"	10'8.94"	9'3.43"	10'10.13"	9'2.47"	10'11.5"	9'1.41"	11'1.08"	9'0.25"	11'2.89"	8'10.98"	11'5"	8'9.6"	11'7.44"	8'8.09"	11'10.3"	8'6.44"	12'1.66"
9'0''	8'5.84"	9'7.04"	8'5.13"	9'7.97"	8'4.36"	9'9.04"	8'3.5"	9'10.26"	8'2.56"	9'11.66"	8'1.53"	10'1.28"	8'0.39"	10'3.15"	7'11.16"	10'5.34"	7'9.81"	10'7.88"
8'0''	7'7.21"	8'5.38"	7'6.66"	8'6.08"	7'6.05"	8'6.89"	7'5.38"	8'7.81"	7'4.64"	8'8.86"	7'3.82"	8'10.07"	7'2.92"	8'11.47"	7'1.94"	9'1.08"	7'0.86"	9'2.96"
7'6''	7'1.84"	7'10.64"	7'1.36"	7'11.24"	7'0.82"	7'11.93"	7'0.24"	8'0.72"	6'11.59"	8'1.62"	6'10.87"	8'2.65"	6'10.08"	8'3.84"	6'9.22"	8'5.21"	6'8.27"	8'6.8"
7'0''	6'8.42"	7'3.95"	6'8.01"	7'4.47"	6'7.55"	7'5.05"	6'7.04"	7'5.72"	6'6.47"	7'6.48"	6'5.85"	7'7.35"	6'5.17"	7'8.35"	6'4.42"	7'9.5"	6'3.59"	7'10.83"
6'6''	6'2.96"	6'9.33"	6'2.61"	6'9.76"	6'2.22"	6'10.25"	6'1.78"	6'10.8"	6'1.3"	6'11.44"	6'0.77"	7'0.16"	6'0.18"	7'0.99"	5'11.54"	7'1.95"	5'10.83"	7'3.05"
6'0''	5'9.46"	6'2.76"	5'9.17"	6'3.11"	5'8.84"	6'3.51"	5'8.47"	6'3.97"	5'8.07"	6'4.49"	5'7.62"	6'5.09"	5'7.12"	6'5.77"	5'6.58"	6'6.55"	5'5.98"	6'7.44"
5'6''	5'3.92"	5'8.24"	5'3.68"	5'8.53"	5'3.4"	5'8.86"	5'3.1"	5'9.22"	5'2.77"	5'9.64"	5'2.4"	5'10.12"	5'1.99"	5'10.67"	5'1.53"	5'11.29"	5'1.03"	6'0.01"
5'0''	4'10.33"	5'1.78"	4'10.14"	5'2.01"	4'9.92"	5'2.27"	4'9.67"	5'2.56"	4'9.4"	5'2.89"	4'9.1"	5'3.27"	4'8.77"	5'3.7"	4'8.4"	5'4.19"	4'8"	5'4.75"
4'9''	4'7.52"	4'10.57"	4'7.35"	4'10.77"	4'7.15"	4'11"	4'6.94"	4'11.26"	4'6.7"	4'11.55"	4'6.43"	4'11.88"	4'6.13"	5'0.25"	4'5.81"	5'0.68"	4'5.44"	5'1.17"
4'6''	4'4.7"	4'7.38"	4'4.55"	4'7.55"	4'4.38"	4'7.75"	4'4.18"	4'7.97"	4'3.97"	4'8.23"	4'3.74"	4'8.52"	4'3.48"	4'8.84"	4'3.19"	4'9.22"	4'2.86"	4'9.64"
4'3''	4'1.87"	4'4.2"	4'1.73"	4'4.35"	4'1.58"	4'4.52"	4'1.42"	4'4.71"	4'1.23"	4'4.93"	4'1.03"	4'5.18"	4'0.8"	4'5.46"	4'0.54"	4'5.78"	4'0.26"	4'6.15"
4'0''	3'11.02"	4'1.03"	3'10.91"	4'1.16"	3'10.78"	4'1.3"	3'10.64"	4'1.47"	3'10.47"	4'1.65"	3'10.3"	4'1.87"	3'10.1"	4'2.11"	3'9.88"	4'2.38"	3'9.63"	4'2.69"
3'9''	3'8.17"	3'9.87"	3'8.07"	3'9.98"	3'7.96"	3'10.1"	3'7.84"	3'10.24"	3'7.7"	3'10.4"	3'7.55"	3'10.58"	3'7.38"	3'10.78"	3'7.19"	3'11.01"	3'6.98"	3'11.28"
3'6''	3'5.3"	3'6.73"	3'5.22"	3'6.82"	3'5.13"	3'6.92"	3'5.02"	3'7.04"	3'4.91"	3'7.17"	3'4.78"	3'7.32"	3'4.64"	3'7.49"	3'4.48"	3'7.68"	3'4.3"	3'7.9"
3'3''	3'2.43"	3'3.6"	3'2.36"	3'3.67"	3'2.28"	3'3.76"	3'2.19"	3'3.85"	3'2.1"	3'3.96"	3'1.99"	3'4.08"	3'1.87"	3'4.22"	3'1.74"	3'4.38"	3'1.59"	3'4.55"
3'0''	2'11.54"	3'0.48"	2'11.48"	3'0.54"	2'11.42"	3'0.61"	2'11.35"	3'0.68"	2'11.27"	3'0.77"	2'11.18"	3'0.87"	2'11.09"	3'0.98"	2'10.98"	3'1.1"	2'10.86"	3'1.24"

8	9	10	11	13	14	16	18	20	22
44'2.98"	39'6.17"	35'3.58"	31'6.5"	28'2.35"	25'2.56"	22'6.67"	20'2.28"	18'0.97"	16'2.45"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
44'1.48"	Infinity	39'4.68"	Infinity	35'2.08"	Infinity	31'5"	Infinity	28'0.83"	Infinity	25'1.05"	Infinity	22'5.17"	Infinity	20'0.77"	Infinity	17'11.47"	Infinity	16'0.93"	Infinity
30'11.46"	Infinity	28'7"	Infinity	26'3.94"	Infinity	24'2.36"	Infinity	22'2.28"	Infinity	20'3.74"	Infinity	18'6.71"	Infinity	16'11.19"	Infinity	15'5.12"	Infinity	14'0.47"	Infinity
23'10.06"	Infinity	22'5.13"	Infinity	21'0.44"	Infinity	19'8.08"	Infinity	18'4.15"	Infinity	17'0.74"	Infinity	15'9.91"	Infinity	14'7.74"	Infinity	13'6.25"	Infinity	12'5.5"	Infinity
18'2.93"	89'9.99"	17'5.08"	119'7.13"	16'7.07"	190'10.76"	15'8.96"	582'11.15"	14'10.82"	Infinity	14'0.72"	Infinity	13'2.72"	Infinity	12'4.89"	Infinity	11'7.29"	Infinity	10'9.97"	Infinity
14'1.26"	35'2.4"	13'7.46"	38'10.64"	13'1.44"	44'1.11"	12'7.21"	51'11.21"	12'0.81"	64'11.72"	11'6.29"	90'8.44"	10'11.67"	164'2.04"	10'5"	1961'1.3"	9'10.33"	Infinity	9'3.7"	Infinity
11'5.94"	21'10.71"	11'2.17"	23'2.68"	10'10.19"	24'11.18"	10'6.02"	27'2.24"	10'1.66"	30'3.34"	9'9.14"	34'8.87"	9'4.48"	41'8.14"	8'11.7"	53'10.12"	8'6.84"	80'5.07"	8'1.93"	182'6.95"
9'8.4"	15'10.66"	9'5.77"	16'6.69"	9'2.98"	17'4.59"	9'0.01"	18'5.01"	8'8.88"	19'8.92"	8'5.59"	21'5.89"	8'2.16"	23'10.55"	7'10.6"	27'3.74"	7'6.93"	32'7.45"	7'3.16"	41'10.04"
8'4.67"	12'5.64"	8'2.75"	12'10.4"	8'0.7"	13'4.13"	7'10.5"	13'11.13"	7'8.16"	14'7.8"	7'5.68"	15'6.74"	7'3.07"	16'8.86"	7'0.33"	18'3.64"	6'9.47"	20'5.64"	6'6.52"	23'7.68"
7'8.35"	10'10.88"	7'6.76"	11'2.43"	7'5.05"	11'6.67"	7'3.22"	11'11.78"	7'1.26"	12'6.02"	6'11.17"	13'1.75"	6'8.96"	13'11.49"	6'6.63"	15'0.08"	6'4.19"	16'4.81"	6'1.64"	18'3.97"
6'11.69"	9'5.15"	6'10.42"	9'7.73"	6'9.04"	9'10.78"	6'7.56"	10'2.41"	6'5.96"	10'6.79"	6'4.25"	11'0.12"	6'2.43"	11'6.71"	6'0.5"	12'3.01"	5'10.47"	13'1.68"	5'8.33"	14'3.8"
6'7.24"	8'8.65"	6'6.11"	8'10.82"	6'4.89"	9'1.37"	6'3.57"	9'4.39"	6'2.15"	9'8.02"	6'0.62"	10'0.4"	5'10.99"	10'5.76"	5'9.26"	11'0.43"	5'7.43"	11'8.88"	5'5.5"	12'7.86"
6'2.69"	8'0.38"	6'1.71"	8'2.18"	6'0.64"	8'4.29"	5'11.48"	8'6.78"	5'10.22"	8'9.75"	5'8.88"	9'1.31"	5'7.43"	9'5.63"	5'5.89"	9'10.95"	5'4.26"	10'5.6"	5'2.53"	11'2.09"
5'10.05"	7'4.32"	5'9.2"	7'5.8"	5'8.28"	7'7.53"	5'7.27"	7'9.56"	5'6.18"	7'11.96"	5'5.01"	8'2.82"	5'3.74"	8'6.27"	5'2.39"	8'10.46"	5'0.95"	9'3.64"	4'11.42"	9'10.16"
5'5.32"	6'8.48"	5'4.59"	6'9.67"	5'3.81"	6'11.07"	5'2.95"	7'0.69"	5'2.01"	7'2.61"	5'1"	7'4.88"	4'11.91"	7'7.58"	4'10.74"	7'10.85"	4'9.49"	8'2.84"	4'8.16"	8'7.78"
5'0.48"	6'0.84"	4'11.88"	6'1.79"	4'11.22"	6'2.89"	4'10.5"	6'4.17"	4'9.71"	6'5.67"	4'8.86"	6'7.44"	4'7.94"	6'9.53"	4'6.95"	7'0.03"	4'5.88"	7'3.05"	4'4.74"	7'6.75"
4'7.55"	5'5.39"	4'7.06"	5'6.13"	4'6.52"	5'6.98"	4'5.93"	5'7.97"	4'5.28"	5'9.12"	4'4.58"	5'10.46"	4'3.81"	6'0.05"	4'2.99"	6'1.92"	4'2.1"	6'4.17"	4'1.14"	6'6.88"
4'5.04"	5'1.74"	4'4.6"	5'2.38"	4'4.12"	5'3.12"	4'3.59"	5'3.98"	4'3.01"	5'4.98"	4'2.38"	5'6.14"	4'1.69"	5'7.5"	4'0.94"	5'9.11"	4'0.14"	5'11.03"	3'11.27"	6'1.33"
4'2.51"	4'10.13"	4'2.12"	4'10.69"	4'1.69"	4'11.33"	4'1.22"	5'0.07"	4'0.7"	5'0.93"	4'0.14"	5'1.92"	3'11.52"	5'3.09"	3'10.85"	5'4.46"	3'10.13"	5'6.08"	3'9.35"	5'8.02"
3'11.95"	4'6.57"	3'11.61"	4'7.05"	3'11.23"	4'7.59"	3'10.81"	4'8.23"	3'10.36"	4'8.96"	3'9.86"	4'9.81"	3'9.31"	4'10.79"	3'8.72"	4'11.95"	3'8.08"	5'1.31"	3'7.38"	5'2.94"
3'9.36"	4'3.05"	3'9.06"	4'3.46"	3'8.73"	4'3.92"	3'8.37"	4'4.46"	3'7.97"	4'5.07"	3'7.54"	4'5.79"	3'7.06"	4'6.61"	3'6.54"	4'7.58"	3'5.97"	4'8.72"	3'5.36"	4'10.06"
3'6.75"	3'11.57"	3'6.49"	3'11.92"	3'6.21"	4'0.31"	3'5.89"	4'0.75"	3'5.55"	4'1.27"	3'5.17"	4'1.86"	3'4.76"	4'2.54"	3'4.31"	4'3.34"	3'3.81"	4'4.28"	3'3.28"	4'5.37"
3'4.1"	3'8.14"	3'3.88"	3'8.42"	3'3.64"	3'8.75"	3'3.38"	3'9.11"	3'3.09"	3'9.54"	3'2.76"	3'10.02"	3'2.41"	3'10.58"	3'2.02"	3'11.23"	3'1.6"	3'11.99"	3'1.14"	4'0.88"
3'1.43"	3'4.75"	3'1.25"	3'4.98"	3'1.05"	3'5.24"	3'0.83"	3'5.54"	3'0.58"	3'5.88"	3'0.31"	3'6.27"	3'0.01"	3'6.72"	2'11.69"	3'7.24"	2'11.33"	3'7.85"	2'10.94"	3'8.55"
2'10.73"	3'1.41"	2'10.58"	3'1.59"	2'10.42"	3'1.79"	2'10.23"	3'2.03"	2'10.03"	3'2.3"	2'9.81"	3'2.61"	2'9.57"	3'2.96"	2'9.3"	3'3.37"	2'9.01"	3'3.84"	2'8.68"	3'4.39"

Focal Length 52mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	40.717	36.303	32.371	28.868	25.747	22.966	20.489	18.282	16.316

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	40.677	Infinity	36.264	Infinity	32.332	Infinity	28.829	Infinity	25.708	Infinity	22.928	Infinity	20.451	Infinity	18.244	Infinity	16.278	Infinity
30.00	17.385	112.627	16.538	170.486	15.683	403.477	14.823	Infinity	13.965	Infinity	13.115	Infinity	12.278	Infinity	11.459	Infinity	10.663	Infinity
15.00	11.054	23.468	10.711	25.223	10.351	27.537	9.976	30.704	9.586	35.265	9.184	42.337	8.772	54.674	8.352	81.347	7.928	180.443
10.00	8.103	13.099	7.92	13.62	7.725	14.256	7.517	15.046	7.297	16.046	7.065	17.343	6.823	19.076	6.57	21.495	6.309	25.073
9.00	7.441	11.418	7.287	11.809	7.123	12.281	6.946	12.86	6.759	13.579	6.561	14.491	6.352	15.675	6.134	17.262	5.907	19.482
8.00	6.751	9.839	6.625	10.126	6.49	10.469	6.344	10.884	6.189	11.391	6.023	12.021	5.848	12.818	5.664	13.852	5.471	15.236
7.00	6.032	8.354	5.933	8.558	5.825	8.8	5.708	9.088	5.583	9.436	5.449	9.86	5.307	10.385	5.156	11.047	4.997	11.901
6.00	5.282	6.955	5.207	7.094	5.124	7.257	5.035	7.45	4.938	7.679	4.835	7.954	4.723	8.288	4.605	8.699	4.479	9.213
5.50	4.895	6.285	4.83	6.397	4.76	6.529	4.683	6.683	4.6	6.865	4.511	7.082	4.415	7.344	4.312	7.662	4.202	8.055
5.00	4.499	5.634	4.445	5.723	4.386	5.827	4.321	5.948	4.251	6.091	4.175	6.26	4.093	6.461	4.006	6.704	3.912	7
4.50	4.094	5	4.05	5.07	4.001	5.15	3.948	5.244	3.89	5.353	3.827	5.482	3.759	5.634	3.686	5.815	3.607	6.034
4.00	3.681	4.384	3.645	4.437	3.606	4.498	3.564	4.568	3.517	4.649	3.466	4.744	3.411	4.856	3.351	4.988	3.287	5.146
3.80	3.512	4.143	3.48	4.189	3.445	4.243	3.406	4.305	3.364	4.377	3.318	4.46	3.268	4.558	3.213	4.674	3.154	4.811
3.60	3.343	3.904	3.314	3.945	3.282	3.992	3.247	4.046	3.209	4.109	3.167	4.182	3.122	4.267	3.072	4.368	3.019	4.486
3.40	3.171	3.667	3.146	3.703	3.117	3.744	3.086	3.791	3.052	3.846	3.014	3.909	2.973	3.983	2.929	4.07	2.881	4.172
3.20	2.998	3.433	2.976	3.464	2.95	3.5	2.923	3.541	2.892	3.588	2.859	3.642	2.822	3.706	2.783	3.78	2.74	3.867
3.00	2.824	3.202	2.804	3.228	2.782	3.259	2.757	3.294	2.731	3.334	2.701	3.381	2.669	3.435	2.634	3.497	2.595	3.571
2.90	2.736	3.087	2.717	3.111	2.697	3.14	2.674	3.172	2.649	3.209	2.621	3.252	2.591	3.301	2.558	3.359	2.522	3.426
2.80	2.648	2.972	2.63	2.995	2.611	3.021	2.59	3.051	2.567	3.085	2.541	3.124	2.513	3.17	2.482	3.222	2.448	3.284
2.70	2.559	2.859	2.543	2.88	2.525	2.904	2.505	2.931	2.484	2.962	2.46	2.998	2.434	3.039	2.405	3.088	2.373	3.143
2.60	2.47	2.746	2.455	2.765	2.439	2.787	2.42	2.812	2.4	2.84	2.378	2.873	2.354	2.911	2.327	2.954	2.298	3.005
2.50	2.381	2.633	2.367	2.651	2.352	2.671	2.335	2.693	2.316	2.719	2.296	2.749	2.273	2.783	2.248	2.823	2.221	2.869
2.40	2.291	2.521	2.278	2.537	2.264	2.555	2.249	2.576	2.232	2.599	2.213	2.626	2.192	2.657	2.169	2.693	2.144	2.734
2.30	2.2	2.41	2.189	2.424	2.176	2.441	2.162	2.459	2.146	2.481	2.129	2.505	2.11	2.533	2.089	2.565	2.066	2.602
2.20	2.11	2.299	2.099	2.312	2.087	2.327	2.075	2.344	2.06	2.363	2.045	2.384	2.027	2.409	2.008	2.438	1.987	2.471
2.10	2.018	2.189	2.009	2.201	1.998	2.214	1.987	2.229	1.974	2.246	1.959	2.265	1.944	2.288	1.926	2.313	1.907	2.343
2.00	1.927	2.08	1.918	2.09	1.909	2.102	1.898	2.115	1.887	2.13	1.874	2.147	1.859	2.167	1.844	2.19	1.826	2.216
1.95	1.881	2.025	1.873	2.035	1.864	2.046	1.854	2.058	1.843	2.072	1.831	2.089	1.817	2.107	1.802	2.128	1.786	2.153
1.90	1.835	1.971	1.827	1.98	1.819	1.99	1.809	2.002	1.799	2.015	1.787	2.03	1.774	2.048	1.76	2.068	1.745	2.091
1.85	1.789	1.916	1.781	1.925	1.773	1.935	1.764	1.946	1.755	1.958	1.744	1.972	1.732	1.989	1.718	2.007	1.704	2.029
1.80	1.742	1.862	1.735	1.87	1.728	1.879	1.72	1.89	1.71	1.901	1.7	1.915	1.689	1.93	1.676	1.947	1.662	1.967
1.75	1.696	1.808	1.689	1.816	1.682	1.824	1.675	1.834	1.666	1.845	1.656	1.857	1.645	1.871	1.634	1.887	1.621	1.906
1.70	1.649	1.754	1.643	1.761	1.637	1.769	1.629	1.778	1.621	1.788	1.612	1.8	1.602	1.813	1.591	1.828	1.579	1.845
1.65	1.603	1.701	1.597	1.707	1.591	1.714	1.584	1.723	1.576	1.732	1.568	1.743	1.558	1.755	1.548	1.769	1.536	1.785
1.60	1.556	1.647	1.551	1.653	1.545	1.66	1.538	1.668	1.531	1.676	1.523	1.686	1.515	1.698	1.505	1.71	1.494	1.725
1.55	1.509	1.594	1.504	1.599	1.499	1.605	1.493	1.613	1.486	1.621	1.479	1.63	1.471	1.64	1.461	1.652	1.451	1.666
1.50	1.462	1.54	1.458	1.545	1.453	1.551	1.447	1.558	1.441	1.565	1.434	1.574	1.426	1.583	1.418	1.594	1.409	1.607
1.45	1.415	1.487	1.411	1.492	1.406	1.497	1.401	1.503	1.395	1.51	1.389	1.518	1.382	1.527	1.374	1.537	1.365	1.548
1.40	1.368	1.434	1.364	1.438	1.36	1.443	1.355	1.449	1.35	1.455	1.344	1.462	1.337	1.47	1.33	1.479	1.322	1.49
1.35	1.32	1.381	1.317	1.385	1.313	1.39	1.309	1.395	1.304	1.4	1.298	1.407	1.292	1.414	1.286	1.422	1.278	1.432
1.30	1.273	1.328	1.27	1.332	1.266	1.336	1.262	1.341	1.258	1.346	1.253	1.352	1.247	1.358	1.241	1.366	1.235	1.374
1.25	1.226	1.276	1.223	1.279	1.219	1.283	1.216	1.287	1.212	1.291	1.207	1.297	1.202	1.303	1.197	1.31	1.19	1.317
1.20	1.178	1.223	1.175	1.226	1.172	1.229	1.169	1.233	1.165	1.237	1.161	1.242	1.157	1.247	1.152	1.254	1.146	1.261
1.15	1.13	1.171	1.128	1.173	1.125	1.176	1.122	1.18	1.119	1.183	1.115	1.188	1.111	1.193	1.106	1.198	1.101	1.204
1.10	1.082	1.119	1.08	1.121	1.078	1.123	1.075	1.126	1.072	1.13	1.069	1.134	1.065	1.138	1.061	1.143	1.057	1.148
1.05	1.034	1.066	1.032	1.068	1.03	1.071	1.028	1.073	1.025	1.076	1.022	1.08	1.019	1.084	1.015	1.088	1.011	1.093
1.00	0.986	1.014	0.984	1.016	0.983	1.018	0.98	1.021	0.978	1.023	0.976	1.026	0.973	1.029	0.969	1.033	0.966	1.037
0.95	0.938	0.963	0.936	0.964	0.935	0.966	0.933	0.968	0.931	0.97	0.929	0.973	0.926	0.976	0.923	0.979	0.92	0.983
0.91	0.899	0.921	0.898	0.923	0.896	0.924	0.895	0.926	0.893	0.928	0.891	0.93	0.889	0.933	0.886	0.936	0.883	0.939

8	9	10	11	13	14	16	18	20	22
14.565	13.004	11.614	10.375	9.272	8.289	7.413	6.633	5.938	5.319

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
14.526	Infinity	12.966	Infinity	11.576	Infinity	10.337	Infinity	9.234	Infinity	8.251	Infinity	7.375	Infinity	6.595	Infinity	5.9	Infinity	5.28	Infinity
9.894	Infinity	9.155	Infinity	8.45	Infinity	7.78	Infinity	7.148	Infinity	6.553	Infinity	5.996	Infinity	5.477	Infinity	4.996	Infinity	4.551	Infinity
7.501	Infinity	7.075	Infinity	6.653	Infinity	6.237	Infinity	5.83	Infinity	5.434	Infinity	5.051	Infinity	4.683	Infinity	4.332	Infinity	3.998	Infinity
6.04	30.857	5.765	41.69	5.486	68.986	5.204	263.549	4.922	Infinity	4.641	Infinity	4.363	Infinity	4.09	Infinity	3.824	Infinity	3.565	Infinity
5.672	22.782	5.43	28.152	5.183	38.338	4.932	64.755	4.679	290.883	4.426	Infinity	4.174	Infinity	3.924	Infinity	3.68	Infinity	3.441	Infinity
5.27	17.167	5.062	20.025	4.848	24.651	4.629	33.332	4.407	55.306	4.183	216.204	3.959	Infinity	3.735	Infinity	3.514	Infinity	3.297	Infinity
4.83	13.036	4.656	14.605	4.476	16.896	4.29	20.527	4.101	27.097	3.908	42.423	3.713	117.498	3.517	Infinity	3.322	Infinity	3.129	Infinity
4.346	9.87	4.206	10.732	4.061	11.904	3.909	13.576	3.753	16.13	3.592	20.481	3.428	29.455	3.263	58.365	3.096	Infinity	2.929	Infinity
4.086	8.549	3.963	9.183	3.834	10.021	3.7	11.169	3.56	12.827	3.416	15.41	3.269	19.947	3.119	29.895	2.968	68.621	2.815	Infinity
3.811	7.366	3.705	7.828	3.593	8.422	3.476	9.21	3.354	10.298	3.227	11.881	3.097	14.378	2.963	18.859	2.827	29.131	2.689	76.036
3.522	6.301	3.433	6.631	3.337	7.048	3.237	7.585	3.132	8.298	3.022	9.284	2.909	10.722	2.792	12.997	2.672	17.105	2.55	26.641
3.217	5.336	3.143	5.568	3.064	5.854	2.981	6.214	2.893	6.678	2.8	7.292	2.704	8.136	2.604	9.362	2.5	11.285	2.395	14.706
3.091	4.976	3.023	5.175	2.95	5.419	2.873	5.724	2.792	6.113	2.706	6.619	2.616	7.302	2.523	8.267	2.427	9.719	2.328	12.133
2.961	4.628	2.899	4.799	2.833	5.006	2.762	5.264	2.687	5.587	2.608	6.004	2.525	6.556	2.439	7.316	2.35	8.421	2.257	10.159
2.828	4.293	2.772	4.438	2.712	4.614	2.648	4.829	2.579	5.098	2.507	5.439	2.431	5.884	2.352	6.483	2.269	7.328	2.184	8.596
2.693	3.97	2.642	4.092	2.588	4.239	2.53	4.419	2.468	4.64	2.402	4.919	2.333	5.276	2.261	5.748	2.185	6.394	2.106	7.328
2.554	3.657	2.509	3.76	2.46	3.883	2.408	4.031	2.353	4.212	2.294	4.437	2.231	4.723	2.165	5.093	2.096	5.588	2.025	6.279
2.483	3.505	2.441	3.599	2.395	3.71	2.346	3.845	2.294	4.008	2.238	4.21	2.179	4.465	2.116	4.792	2.051	5.224	1.982	5.82
2.412	3.356	2.372	3.441	2.329	3.542	2.283	3.663	2.234	3.81	2.181	3.991	2.125	4.218	2.066	4.506	2.004	4.884	1.939	5.397
2.339	3.209	2.302	3.286	2.262	3.377	2.219	3.487	2.173	3.619	2.123	3.78	2.07	3.981	2.015	4.235	1.956	4.565	1.894	5.006
2.266	3.064	2.232	3.134	2.194	3.216	2.154	3.315	2.11	3.433	2.064	3.577	2.014	3.754	1.962	3.978	1.907	4.265	1.849	4.644
2.192	2.922	2.16	2.985	2.125	3.059	2.087	3.147	2.047	3.252	2.004	3.38	1.957	3.537	1.908	3.733	1.856	3.982	1.802	4.308
2.117	2.783	2.087	2.839	2.055	2.905	2.02	2.984	1.983	3.077	1.942	3.19	1.899	3.328	1.853	3.499	1.804	3.715	1.753	3.995
2.041	2.645	2.014	2.695	1.984	2.754	1.952	2.824	1.917	2.907	1.88	3.007	1.839	3.128	1.797	3.277	1.751	3.463	1.703	3.702
1.964	2.51	1.939	2.555	1.912	2.607	1.882	2.669	1.85	2.742	1.816	2.829	1.779	2.935	1.739	3.064	1.697	3.225	1.652	3.428
1.886	2.377	1.863	2.416	1.838	2.463	1.811	2.517	1.782	2.581	1.75	2.657	1.716	2.749	1.68	2.861	1.641	2.999	1.6	3.172
1.807	2.246	1.787	2.281	1.764	2.321	1.739	2.369	1.713	2.425	1.684	2.491	1.653	2.57	1.619	2.667	1.584	2.784	1.546	2.931
1.768	2.181	1.748	2.214	1.726	2.252	1.703	2.296	1.678	2.348	1.65	2.41	1.62	2.484	1.588	2.572	1.554	2.681	1.518	2.815
1.728	2.117	1.709	2.147	1.689	2.183	1.666	2.224	1.642	2.273	1.616	2.33	1.588	2.398	1.557	2.48	1.525	2.58	1.49	2.703
1.687	2.053	1.67	2.082	1.65	2.115	1.629	2.153	1.606	2.198	1.581	2.251	1.554	2.314	1.525	2.39	1.494	2.482	1.461	2.595
1.647	1.99	1.63	2.016	1.612	2.047	1.592	2.083	1.57	2.125	1.546	2.174	1.521	2.232	1.493	2.302	1.464	2.386	1.432	2.489
1.606	1.927	1.59	1.952	1.573	1.98	1.554	2.013	1.534	2.052	1.511	2.097	1.487	2.151	1.461	2.215	1.433	2.292	1.403	2.387
1.565	1.865	1.55	1.888	1.534	1.914	1.516	1.945	1.497	1.98	1.476	2.022	1.453	2.072	1.428	2.13	1.402	2.201	1.373	2.287
1.524	1.803	1.51	1.824	1.495	1.849	1.478	1.877	1.46	1.91	1.44	1.948	1.418	1.994	1.395	2.047	1.37	2.112	1.343	2.19
1.482	1.742	1.469	1.762	1.455	1.784	1.439	1.81	1.422	1.84	1.403	1.875	1.383	1.917	1.361	1.966	1.337	2.025	1.312	2.095
1.44	1.681	1.428	1.699	1.415	1.72	1.4	1.744	1.384	1.771	1.367	1.804	1.348	1.841	1.327	1.886	1.305	1.939	1.281	2.003
1.398	1.621	1.387	1.637	1.374	1.656	1.361	1.678	1.346	1.703	1.329	1.733	1.312	1.767	1.292	1.808	1.271	1.856	1.249	1.914
1.356	1.561	1.345	1.576	1.334	1.593	1.321	1.613	1.307	1.636	1.292	1.663	1.275	1.694	1.257	1.731	1.238	1.775	1.217	1.827
1.313	1.502	1.304	1.515	1.293	1.531	1.281	1.549	1.268	1.57	1.254	1.594	1.238	1.623	1.222	1.656	1.203	1.695	1.184	1.742
1.27	1.443	1.261	1.455	1.251	1.469	1.241	1.486	1.229	1.505	1.216	1.527	1.201	1.552	1.186	1.582	1.169	1.617	1.151	1.659
1.227	1.384	1.219	1.395	1.21	1.408	1.2	1.423	1.189	1.44	1.177	1.46	1.164	1.483	1.149	1.51	1.134	1.541	1.117	1.578
1.184	1.326	1.176	1.336	1.168	1.348	1.159	1.361	1.149	1.376	1.137	1.394	1.125	1.415	1.112	1.438	1.098	1.466	1.082	1.499
1.14	1.269	1.133	1.278	1.125	1.288	1.117	1.3	1.108	1.314	1.098	1.329	1.087	1.347	1.075	1.369	1.061	1.393	1.047	1.422
1.096	1.211	1.09	1.219	1.083	1.229	1.075	1.239	1.067	1.251	1.058	1.265	1.048	1.281	1.037	1.3	1.025	1.322	1.012	1.347
1.051	1.155	1.046	1.162	1.04	1.17	1.033	1.179	1.025	1.19	1.017	1.202	1.008	1.216	0.998	1.233	0.987	1.252	0.975	1.274
1.007	1.098	1.002	1.104	0.996	1.112	0.99	1.12	0.984	1.129	0.976	1.14	0.968	1.152	0.959	1.167	0.949	1.183	0.939	1.203
0.962	1.042	0.957	1.048	0.953	1.054	0.947	1.061	0.941	1.069	0.935	1.079	0.927	1.089	0.919	1.102	0.911	1.116	0.901	1.133
0.917	0.987	0.913	0.991	0.908	0.997	0.904	1.003	0.898	1.01	0.893	1.018	0.886	1.027	0.879	1.038	0.871	1.05	0.863	1.064
0.88	0.943	0.877	0.947	0.873	0.952	0.869	0.957	0.864	0.963	0.859	0.97	0.853	0.978	0.847	0.988	0.84	0.999	0.832	1.011

Focal Length 52mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	133'7.03"	119'1.25"	106'2.45"	94'8.54"	84'5.66"	75'4.17"	67'2.65"	59'11.76"	53'6.36"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	133'5.46"	Infinity	118'11.7"	Infinity	106'0.9"	Infinity	94'6.99"	Infinity	84'4.13"	Infinity	75'2.67"	Infinity	67'1.15"	Infinity	59'10.27"	Infinity	53'4.86"	Infinity
100'0''	57'6.67"	393'0.32"	54'8.74"	615'1.55"	51'10.47"	1686'3.77"	49'0.08"	Infinity	46'1.79"	Infinity	43'3.84"	Infinity	40'6.44"	Infinity	37'9.8"	Infinity	35'2.09"	Infinity
50'0''	36'8.26"	78'11.58"	35'6.44"	85'0.41"	34'3.94"	93'0.91"	33'0.83"	104'1.79"	31'9.16"	120'2.8"	30'5.01"	145'6.09"	29'0.48"	190'6.93"	27'7.65"	292'6.56"	26'2.65"	735'7.1"
30'0''	24'8.77"	38'2.8"	24'2.56"	39'6.86"	23'7.9"	41'2.3"	23'0.79"	43'2.16"	22'5.23"	45'7.89"	21'9.24"	48'9.68"	21'0.84"	52'10.96"	20'4.05"	58'5.36"	19'6.91"	66'2.93"
20'0''	17'6.86"	23'2.96"	17'3.79"	23'8.65"	17'0.45"	24'3.34"	16'8.83"	24'11.23"	16'4.93"	25'8.64"	16'0.74"	26'7.96"	15'8.24"	27'9.72"	15'3.46"	29'2.69"	14'10.38"	30'11.98"
15'0''	13'7.52"	16'8.42"	13'5.71"	16'11.26"	13'3.74"	17'2.54"	13'1.58"	17'6.37"	12'11.23"	17'10.85"	12'8.68"	18'4.12"	12'5.93"	18'10.36"	12'2.96"	19'5.82"	11'11.77"	20'2.83"
12'0''	11'1.53"	13'0.39"	11'0.36"	13'2.06"	10'11.07"	13'3.99"	10'9.65"	13'6.21"	10'8.1"	13'8.78"	10'6.41"	13'11.78"	10'4.57"	14'3.28"	10'2.56"	14'7.39"	10'0.4"	15'0.27"
10'0''	9'4.83"	10'8.23"	9'4.02"	10'9.32"	9'3.12"	10'10.57"	9'2.13"	11'	9'1.04"	11'1.65"	8'11.85"	11'3.56"	8'10.54"	11'5.76"	8'9.11"	11'8.34"	8'7.56"	11'11.35"
9'0''	8'6.27"	9'6.48"	8'5.61"	9'7.33"	8'4.88"	9'8.31"	8'4.08"	9'9.42"	8'3.2"	9'10.7"	8'2.23"	10'0.17"	8'1.16"	10'1.87"	7'11.99"	10'3.84"	7'10.72"	10'6.14"
8'0''	7'7.55"	8'4.96"	7'7.03"	8'5.6"	7'6.46"	8'6.34"	7'5.83"	8'7.18"	7'5.14"	8'8.14"	7'4.37"	8'9.25"	7'3.53"	8'10.51"	7'2.6"	8'11.98"	7'1.59"	9'1.68"
7'6''	7'2.13"	7'10.28"	7'1.68"	7'10.83"	7'1.18"	7'11.46"	7'0.63"	8'0.18"	7'0.02"	8'1.01"	6'11.35"	8'1.95"	6'10.61"	8'3.03"	6'9.8"	8'4.28"	6'8.91"	8'5.72"
7'0''	6'8.67"	7'3.65"	6'8.29"	7'4.12"	6'7.86"	7'4.66"	6'7.38"	7'5.27"	6'6.85"	7'5.96"	6'6.27"	7'6.76"	6'5.63"	7'7.67"	6'4.92"	7'8.72"	6'4.15"	7'9.93"
6'6''	6'3.18"	6'9.07"	6'2.85"	6'9.47"	6'2.48"	6'9.92"	6'2.08"	6'10.43"	6'1.63"	6'11.01"	6'1.13"	6'11.67"	6'0.58"	7'0.43"	5'11.97"	7'1.3"	5'11.31"	7'2.3"
6'0''	5'9.64"	6'2.55"	5'9.37"	6'2.87"	5'9.06"	6'3.24"	5'8.72"	6'3.66"	5'8.34"	6'4.14"	5'7.92"	6'4.69"	5'7.46"	6'5.31"	5'6.94"	6'6.02"	5'6.38"	6'6.84"
5'6''	5'4.07"	5'8.07"	5'3.84"	5'8.34"	5'3.59"	5'8.64"	5'3.3"	5'8.98"	5'2.99"	5'9.36"	5'2.65"	5'9.8"	5'2.26"	5'10.3"	5'1.84"	5'10.87"	5'1.37"	5'11.53"
5'0''	4'10.45"	5'1.65"	4'10.27"	5'1.86"	4'10.06"	5'2.1"	4'9.84"	5'2.36"	4'9.58"	5'2.67"	4'9.3"	5'3.01"	4'8.99"	5'3.41"	4'8.65"	5'3.86"	4'8.27"	5'4.37"
4'9''	4'7.63"	4'10.46"	4'7.46"	4'10.64"	4'7.28"	4'10.85"	4'7.08"	4'11.08"	4'6.86"	4'11.35"	4'6.61"	4'11.66"	4'6.33"	5'	4'6.02"	5'0.4"	4'5.68"	5'0.84"
4'6''	4'4.79"	4'7.28"	4'4.65"	4'7.44"	4'4.49"	4'7.62"	4'4.31"	4'7.82"	4'4.11"	4'8.06"	4'3.89"	4'8.32"	4'3.65"	4'8.62"	4'3.38"	4'8.97"	4'3.08"	4'9.36"
4'3''	4'1.95"	4'4.11"	4'1.82"	4'4.25"	4'1.68"	4'4.4"	4'1.53"	4'4.58"	4'1.36"	4'4.78"	4'1.16"	4'5.01"	4'0.95"	4'5.27"	4'0.71"	4'5.57"	4'0.45"	4'5.9"
4'0''	3'11.09"	4'0.95"	3'10.99"	4'1.07"	3'10.86"	4'1.2"	3'10.73"	4'1.36"	3'10.58"	4'1.53"	3'10.41"	4'1.73"	3'10.23"	4'1.95"	3'10.02"	4'2.2"	3'9.79"	4'2.49"
3'9''	3'8.23"	3'9.81"	3'8.14"	3'9.91"	3'8.03"	3'10.02"	3'7.92"	3'10.15"	3'7.79"	3'10.3"	3'7.65"	3'10.46"	3'7.49"	3'10.65"	3'7.31"	3'10.86"	3'7.12"	3'11.1"
3'6''	3'5.35"	3'6.67"	3'5.27"	3'6.76"	3'5.19"	3'6.85"	3'5.09"	3'6.96"	3'4.98"	3'7.08"	3'4.86"	3'7.22"	3'4.73"	3'7.38"	3'4.58"	3'7.55"	3'4.41"	3'7.75"
3'3''	3'2.47"	3'3.55"	3'2.4"	3'3.62"	3'2.33"	3'3.7"	3'2.25"	3'3.79"	3'2.16"	3'3.89"	3'2.06"	3'4"	3'1.95"	3'4.13"	3'1.83"	3'4.27"	3'1.69"	3'4.44"
3'0''	2'11.57"	3'0.45"	2'11.52"	3'0.5"	2'11.46"	3'0.56"	2'11.39"	3'0.64"	2'11.32"	3'0.71"	2'11.24"	3'0.81"	2'11.15"	3'0.91"	2'11.05"	3'1.02"	2'10.94"	3'1.15"

8	9	10	11	13	14	16	18	20	22
47'9.43"	42'7.97"	38'1.24"	34'0.46"	30'5.04"	27'2.34"	24'3.85"	21'9.14"	19'5.78"	17'5.41"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
47'7.91"	Infinity	42'6.47"	Infinity	37'11.74"	Infinity	33'10.98"	Infinity	30'3.54"	Infinity	27'0.83"	Infinity	24'2.36"	Infinity	21'7.64"	Infinity	19'4.27"	Infinity	17'3.89"	Infinity
32'7.49"	Infinity	30'2.12"	Infinity	27'10.1"	Infinity	25'7.51"	Infinity	23'6.41"	Infinity	21'6.82"	Infinity	19'8.76"	Infinity	18'0.22"	Infinity	16'5.17"	Infinity	14'11.57"	Infinity
24'9.58"	Infinity	23'4.56"	Infinity	21'11.69"	Infinity	20'7.09"	Infinity	19'2.86"	Infinity	17'11.09"	Infinity	16'7.85"	Infinity	15'5.23"	Infinity	14'3.27"	Infinity	13'2.02"	Infinity
18'9.46"	77'11.46"	17'11.75"	97'4.09"	17'1.84"	135'2.91"	16'3.78"	241'1.06"	15'5.66"	2059'9.89"	14'7.52"	Infinity	13'9.45"	Infinity	12'11.49"	Infinity	12'1.73"	Infinity	11'4.21"	Infinity
14'5.02"	33'3.28"	13'11.39"	36'3.26"	13'5.52"	40'4.45"	12'11.42"	46'3.2"	12'5.13"	55'4.7"	11'10.69"	71'3.08"	11'4.13"	105'4.02"	10'9.49"	229'3.9"	10'2.81"	Infinity	9'8.15"	Infinity
11'8.36"	21'1.85"	11'4.73"	22'3.51"	11'0.89"	23'8.79"	10'8.84"	25'7.15"	10'4.6"	28'1"	10'0.19"	31'6.52"	9'7.62"	36'7.72"	9'2.92"	44'10.04"	8'10.11"	60'0.25"	8'5.22"	97'4.36"
9'10.06"	15'6.09"	9'7.55"	16'1.12"	9'4.87"	16'9.7"	9'2.02"	17'8.34"	8'10.99"	18'9.77"	8'7.81"	20'3.13"	8'4.47"	22'2.25"	8'0.99"	24'10.31"	7'9.39"	28'9.34"	7'5.68"	35'0.41"
8'5.87"	12'2.9"	8'4.05"	12'7.12"	8'2.09"	13'0.17"	7'11.98"	13'6.28"	7'9.74"	14'1.78"	7'7.35"	14'11.12"	7'4.82"	15'10.98"	7'2.17"	17'2.42"	6'11.39"	18'11.21"	6'8.5"	21'4.45"
7'9.33"	10'8.82"	7'7.83"	10'11.99"	7'6.21"	11'3.75"	7'4.46"	11'8.25"	7'2.58"	12'1.7"	7'0.58"	12'8.39"	6'10.45"	13'4.71"	6'8.19"	14'3.28"	6'5.82"	15'5.05"	6'3.35"	16'11.58"
7'0.48"	9'3.65"	6'11.28"	9'5.96"	6'9.97"	9'8.69"	6'8.56"	9'11.91"	6'7.03"	10'3.77"	6'5.4"	10'8.44"	6'3.65"	11'2.15"	6'1.8"	11'9.25"	5'11.83"	12'6.24"	5'9.76"	13'5.9"
6'7.93"	8'7.39"	6'6.87"	8'9.34"	6'5.71"	8'11.62"	6'4.46"	9'2.32"	6'3.1"	9'5.53"	6'1.65"	9'9.38"	6'0.09"	10'2.06"	5'10.42"	10'7.81"	5'8.65"	11'3.01"	5'6.79"	12'0.2"
6'3.3"	7'11.32"	6'2.37"	8'0.95"	6'1.36"	8'2.85"	6'0.26"	8'5.08"	5'11.06"	8'7.72"	5'9.78"	8'10.87"	5'8.4"	9'2.66"	5'6.92"	9'7.29"	5'5.35"	10'1"	5'3.68"	10'8.2"
5'10.57"	7'3.46"	5'9.77"	7'4.79"	5'8.9"	7'6.35"	5'7.94"	7'8.17"	5'6.91"	7'10.32"	5'5.79"	8'0.86"	5'4.59"	8'3.9"	5'3.29"	8'7.58"	5'1.91"	9'0.07"	5'0.44"	9'5.65"
5'5.76"	6'7.78"	5'5.08"	6'8.86"	5'4.33"	6'10.12"	5'3.52"	6'11.59"	5'2.64"	7'1.31"	5'1.68"	7'3.33"	5'0.64"	7'5.73"	4'11.52"	7'8.61"	4'10.33"	8'0.1"	4'9.05"	8'4.38"
5'0.85"	6'0.28"	5'0.28"	6'1.14"	4'11.66"	6'2.14"	4'10.98"	6'3.3"	4'10.24"	6'4.65"	4'9.43"	6'6.24"	4'8.55"	6'8.11"	4'7.61"	6'10.33"	4'6.59"	7'0.99"	4'5.5"	7'4.22"
4'7.85"	5'4.96"	4'7.39"	5'5.63"	4'6.88"	5'6.41"	4'6.32"	5'7.3"	4'5.71"	5'8.34"	4'5.04"	5'9.55"	4'4.32"	5'10.97"	4'3.53"	6'0.65"	4'2.69"	6'2.64"	4'1.77"	6'5.03"
4'5.31"	5'1.36"	4'4.9"	5'1.95"	4'4.44"	5'2.62"	4'3.94"	5'3.4"	4'3.39"	5'4.31"	4'2.8"	5'5.36"	4'2.14"	5'6.58"	4'1.44"	5'8.03"	4'0.67"	5'9.73"	3'11.84"	5'11.77"
4'2.75"	4'9.8"	4'2.38"	4'10.31"	4'1.97"	4'10.9"	4'1.53"	4'11.57"	4'1.04"	5'0.35"	4'0.51"	5'1.25"	3'11.93"	5'2.3"	3'11.29"	5'3.53"	3'10.61"	5'4.99"	3'9.87"	5'6.71"
4'0.16"	4'6.29"	3'11.83"	4'6.73"	3'11.48"	4'7.23"	3'11.09"	4'7.8"	3'10.66"	4'8.47"	3'10.19"	4'9.24"	3'9.67"	4'10.13"	3'9.11"	4'11.17"	3'8.5"	5'0.4"	3'7.84"	5'1.84"
3'9.54"	4'2.81"	3'9.26"	4'3.18"	3'8.95"	4'3.61"	3'8.61"	4'4.1"	3'8.23"	4'4.66"	3'7.82"	4'5.31"	3'7.37"	4'6.06"	3'6.88"	4'6.93"	3'6.34"	4'7.95"	3'5.76"	4'9.16"
3'6.9"	3'11.38"	3'6.66"	3'11.69"	3'6.39"	4'0.05"	3'6.1"	4'0.46"	3'5.77"	4'0.92"	3'5.42"	4'1.46"	3'5.03"	4'2.09"	3'4.6"	4'2.81"	3'4.14"	4'3.65"	3'3.63"	4'4.64"
3'4.23"	3'7.98"	3'4.03"	3'8.24"	3'3.8"	3'8.53"	3'3.55"	3'8.87"	3'3.28"	3'9.26"	3'2.97"	3'9.7"	3'2.64"	3'10.21"	3'2.28"	3'10.8"	3'1.88"	3'11.49"	3'1.44"	4'0.29"
3'1.54"	3'4.62"	3'1.37"	3'4.83"	3'1.18"	3'5.07"	3'0.97"	3'5.35"	3'0.74"	3'5.66"	3'0.49"	3'6.02"	3'0.21"	3'6.43"	2'11.9"	3'6.9"	2'11.56"	3'7.45"	2'11.2"	3'8.09"
2'10.81"	3'1.3"	2'10.67"	3'1.47"	2'10.52"	3'1.66"	2'10.35"	3'1.88"	2'10.16"	3'2.12"	2'9.95"	3'2.41"	2'9.73"	3'2.73"	2'9.47"	3'3.1"	2'9.2"	3'3.53"	2'8.89"	3'4.03"

Focal Length 54mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	43.888	39.128	34.888	31.11	27.744	24.746	22.074	19.694	17.574

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	43.848	Infinity	39.089	Infinity	34.849	Infinity	31.071	Infinity	27.705	Infinity	24.707	Infinity	22.036	Infinity	19.656	Infinity	17.536	Infinity
30.00	17.929	93.765	17.092	127.015	16.242	211.182	15.384	827.88	14.524	Infinity	13.668	Infinity	12.822	Infinity	11.991	Infinity	11.179	Infinity
15.00	11.268	22.54	10.937	24.028	10.588	25.953	10.222	28.521	9.841	32.092	9.447	37.351	9.041	45.792	8.626	61.403	8.204	99.626
10.00	8.215	12.81	8.041	13.27	7.853	13.827	7.654	14.511	7.442	15.367	7.217	16.459	6.982	17.888	6.736	19.824	6.48	22.574
9.00	7.535	11.199	7.389	11.546	7.231	11.964	7.062	12.47	6.882	13.093	6.691	13.872	6.489	14.868	6.277	16.174	6.055	17.948
8.00	6.828	9.677	6.708	9.934	6.579	10.239	6.44	10.605	6.291	11.049	6.132	11.595	5.963	12.277	5.785	13.148	5.597	14.288
7.00	6.093	8.238	5.998	8.422	5.896	8.638	5.785	8.895	5.665	9.202	5.537	9.574	5.4	10.031	5.255	10.599	5.101	11.32
6.00	5.328	6.875	5.257	7.001	5.178	7.148	5.094	7.321	5.002	7.525	4.903	7.769	4.796	8.063	4.683	8.422	4.561	8.866
5.50	4.934	6.22	4.873	6.322	4.806	6.441	4.734	6.58	4.655	6.743	4.57	6.937	4.478	7.169	4.379	7.448	4.274	7.791
5.00	4.532	5.582	4.481	5.664	4.425	5.758	4.364	5.867	4.297	5.996	4.225	6.147	4.147	6.326	4.063	6.541	3.973	6.801
4.50	4.121	4.961	4.079	5.024	4.033	5.097	3.983	5.182	3.928	5.28	3.869	5.396	3.804	5.532	3.734	5.694	3.658	5.887
4.00	3.702	4.354	3.668	4.402	3.632	4.457	3.592	4.521	3.547	4.595	3.499	4.681	3.447	4.782	3.39	4.9	3.329	5.041
3.80	3.531	4.116	3.501	4.159	3.468	4.207	3.432	4.264	3.392	4.329	3.348	4.405	3.3	4.493	3.249	4.597	3.193	4.72
3.60	3.36	3.88	3.333	3.918	3.303	3.961	3.27	4.01	3.234	4.067	3.195	4.134	3.151	4.211	3.105	4.301	3.054	4.407
3.40	3.187	3.646	3.162	3.679	3.136	3.717	3.106	3.76	3.074	3.81	3.039	3.867	3	3.934	2.958	4.012	2.912	4.104
3.20	3.012	3.415	2.991	3.444	2.967	3.476	2.941	3.514	2.912	3.557	2.881	3.606	2.846	3.664	2.809	3.731	2.768	3.809
3.00	2.836	3.186	2.817	3.211	2.796	3.239	2.773	3.271	2.748	3.308	2.72	3.35	2.69	3.399	2.657	3.456	2.62	3.522
2.90	2.747	3.072	2.73	3.095	2.71	3.121	2.689	3.151	2.665	3.185	2.639	3.224	2.611	3.269	2.58	3.321	2.546	3.382
2.80	2.658	2.959	2.642	2.98	2.624	3.004	2.604	3.031	2.582	3.063	2.558	3.098	2.531	3.14	2.502	3.188	2.47	3.243
2.70	2.569	2.847	2.554	2.866	2.537	2.888	2.518	2.913	2.498	2.941	2.475	2.974	2.451	3.012	2.424	3.056	2.394	3.106
2.60	2.479	2.735	2.465	2.752	2.449	2.772	2.432	2.795	2.413	2.821	2.393	2.851	2.37	2.886	2.344	2.926	2.317	2.972
2.50	2.389	2.623	2.376	2.639	2.362	2.658	2.346	2.678	2.328	2.702	2.309	2.729	2.288	2.761	2.265	2.797	2.239	2.839
2.40	2.298	2.512	2.286	2.527	2.273	2.543	2.259	2.562	2.243	2.584	2.225	2.609	2.205	2.637	2.184	2.67	2.16	2.707
2.30	2.207	2.402	2.196	2.415	2.184	2.43	2.171	2.447	2.156	2.467	2.14	2.489	2.122	2.514	2.103	2.544	2.081	2.578
2.20	2.116	2.292	2.106	2.304	2.095	2.317	2.083	2.333	2.07	2.35	2.055	2.37	2.038	2.393	2.02	2.419	2.001	2.45
2.10	2.024	2.183	2.015	2.193	2.005	2.205	1.994	2.219	1.982	2.235	1.969	2.253	1.954	2.273	1.938	2.296	1.92	2.323
2.00	1.932	2.074	1.924	2.083	1.915	2.094	1.905	2.106	1.894	2.12	1.882	2.136	1.869	2.154	1.854	2.175	1.838	2.199
1.95	1.886	2.02	1.878	2.029	1.87	2.039	1.86	2.05	1.85	2.063	1.838	2.078	1.826	2.095	1.812	2.115	1.796	2.137
1.90	1.839	1.966	1.832	1.974	1.824	1.983	1.815	1.994	1.806	2.006	1.795	2.02	1.783	2.036	1.769	2.055	1.755	2.076
1.85	1.793	1.912	1.786	1.919	1.779	1.928	1.77	1.938	1.761	1.95	1.751	1.963	1.739	1.978	1.727	1.995	1.713	2.015
1.80	1.746	1.858	1.74	1.865	1.733	1.873	1.725	1.883	1.716	1.894	1.707	1.906	1.696	1.92	1.684	1.936	1.671	1.954
1.75	1.7	1.804	1.694	1.811	1.687	1.819	1.68	1.828	1.671	1.838	1.662	1.849	1.652	1.862	1.641	1.877	1.629	1.894
1.70	1.653	1.75	1.647	1.757	1.641	1.764	1.634	1.772	1.626	1.782	1.618	1.792	1.608	1.804	1.598	1.818	1.587	1.834
1.65	1.606	1.697	1.601	1.703	1.595	1.71	1.588	1.717	1.581	1.726	1.573	1.736	1.564	1.747	1.555	1.76	1.544	1.775
1.60	1.559	1.644	1.554	1.649	1.549	1.655	1.543	1.663	1.536	1.671	1.529	1.68	1.52	1.69	1.511	1.702	1.501	1.716
1.55	1.512	1.59	1.507	1.596	1.502	1.601	1.497	1.608	1.49	1.615	1.484	1.624	1.476	1.633	1.467	1.644	1.458	1.657
1.50	1.465	1.537	1.46	1.542	1.456	1.547	1.451	1.554	1.445	1.56	1.438	1.568	1.431	1.577	1.423	1.587	1.415	1.599
1.45	1.417	1.484	1.414	1.489	1.409	1.494	1.404	1.499	1.399	1.506	1.393	1.513	1.386	1.521	1.379	1.53	1.371	1.541
1.40	1.37	1.432	1.366	1.436	1.362	1.44	1.358	1.445	1.353	1.451	1.348	1.458	1.341	1.465	1.335	1.473	1.327	1.483
1.35	1.323	1.379	1.319	1.383	1.316	1.387	1.312	1.391	1.307	1.397	1.302	1.403	1.296	1.409	1.29	1.417	1.283	1.426
1.30	1.275	1.326	1.272	1.33	1.269	1.333	1.265	1.338	1.261	1.342	1.256	1.348	1.251	1.354	1.245	1.361	1.239	1.369
1.25	1.227	1.274	1.224	1.277	1.221	1.28	1.218	1.284	1.214	1.288	1.21	1.293	1.205	1.299	1.2	1.305	1.194	1.312
1.20	1.179	1.222	1.177	1.224	1.174	1.227	1.171	1.231	1.168	1.235	1.164	1.239	1.16	1.244	1.155	1.25	1.15	1.256
1.15	1.131	1.169	1.129	1.172	1.127	1.174	1.124	1.178	1.121	1.181	1.117	1.185	1.114	1.189	1.109	1.195	1.105	1.2
1.10	1.083	1.117	1.081	1.119	1.079	1.122	1.077	1.125	1.074	1.128	1.071	1.131	1.067	1.135	1.064	1.14	1.059	1.145
1.05	1.035	1.065	1.034	1.067	1.032	1.069	1.029	1.072	1.027	1.075	1.024	1.078	1.021	1.081	1.018	1.085	1.014	1.09
1.00	0.987	1.013	0.985	1.015	0.984	1.017	0.982	1.019	0.98	1.022	0.977	1.024	0.974	1.027	0.971	1.031	0.968	1.035
0.95	0.939	0.962	0.937	0.963	0.936	0.965	0.934	0.967	0.932	0.969	0.93	0.971	0.928	0.974	0.925	0.977	0.922	0.98
0.91	0.9	0.92	0.899	0.922	0.897	0.923	0.896	0.925	0.894	0.927	0.892	0.929	0.89	0.931	0.888	0.934	0.885	0.937

8	9	10	11	13	14	16	18	20	22
15.685	14.002	12.503	11.167	9.977	8.917	7.973	7.131	6.381	5.714

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
15.647	Infinity	13.964	Infinity	12.465	Infinity	11.129	Infinity	9.939	Infinity	8.879	Infinity	7.934	Infinity	7.093	Infinity	6.343	Infinity	5.675	Infinity
10.392	Infinity	9.633	Infinity	8.906	Infinity	8.212	Infinity	7.555	Infinity	6.936	Infinity	6.354	Infinity	5.811	Infinity	5.305	Infinity	4.836	Infinity
7.779	332.987	7.352	Infinity	6.927	Infinity	6.507	Infinity	6.093	Infinity	5.69	Infinity	5.298	Infinity	4.921	Infinity	4.558	Infinity	4.213	Infinity
6.215	26.752	5.944	33.797	5.668	48.051	5.387	91.597	5.105	Infinity	4.823	Infinity	4.543	Infinity	4.267	Infinity	3.996	Infinity	3.732	Infinity
5.825	20.476	5.588	24.337	5.344	30.902	5.095	44.401	4.843	87.51	4.59	Infinity	4.337	Infinity	4.086	Infinity	3.838	Infinity	3.595	Infinity
5.401	15.834	5.198	18.03	4.987	21.37	4.772	27.008	4.551	38.448	4.328	73.647	4.104	Infinity	3.88	Infinity	3.657	Infinity	3.437	Infinity
4.939	12.26	4.77	13.524	4.593	15.302	4.411	17.963	4.224	22.344	4.033	30.83	3.839	53.972	3.644	355.408	3.448	Infinity	3.253	Infinity
4.433	9.424	4.298	10.145	4.156	11.1	4.008	12.419	3.854	14.339	3.696	17.37	3.535	22.813	3.37	35.321	3.204	92.938	3.037	Infinity
4.162	8.215	4.043	8.753	3.918	9.449	3.787	10.38	3.651	11.677	3.51	13.594	3.365	16.685	3.216	22.456	3.066	36.875	2.914	134.958
3.877	7.12	3.775	7.516	3.666	8.019	3.553	8.672	3.433	9.55	3.309	10.782	3.181	12.619	3.049	15.627	2.915	21.394	2.778	36.736
3.578	6.122	3.491	6.409	3.4	6.767	3.302	7.221	3.2	7.812	3.094	8.606	2.982	9.723	2.868	11.394	2.749	14.141	2.629	19.446
3.263	5.209	3.192	5.413	3.116	5.662	3.035	5.971	2.95	6.364	2.86	6.874	2.766	7.557	2.668	8.513	2.567	9.933	2.463	12.245
3.132	4.866	3.067	5.042	2.997	5.255	2.923	5.519	2.845	5.85	2.762	6.275	2.674	6.836	2.583	7.602	2.489	8.706	2.392	10.419
2.999	4.534	2.94	4.685	2.876	4.867	2.808	5.091	2.736	5.369	2.66	5.722	2.579	6.18	2.495	6.795	2.408	7.656	2.317	8.938
2.862	4.212	2.809	4.341	2.751	4.496	2.69	4.685	2.624	4.917	2.554	5.209	2.48	5.582	2.403	6.074	2.323	6.747	2.239	7.713
2.723	3.901	2.675	4.011	2.623	4.141	2.568	4.299	2.508	4.492	2.445	4.731	2.378	5.034	2.308	5.427	2.234	5.952	2.157	6.683
2.581	3.6	2.538	3.692	2.492	3.801	2.442	3.932	2.389	4.091	2.332	4.286	2.272	4.531	2.208	4.843	2.141	5.251	2.071	5.805
2.509	3.453	2.468	3.537	2.425	3.636	2.378	3.755	2.328	3.899	2.274	4.075	2.217	4.294	2.157	4.571	2.093	4.931	2.026	5.413
2.436	3.308	2.398	3.385	2.357	3.475	2.313	3.583	2.266	3.712	2.215	3.87	2.161	4.066	2.104	4.312	2.044	4.628	1.981	5.047
2.362	3.166	2.326	3.235	2.288	3.317	2.247	3.414	2.203	3.531	2.155	3.673	2.104	3.847	2.051	4.064	1.994	4.342	1.934	4.706
2.287	3.025	2.254	3.088	2.218	3.162	2.18	3.25	2.138	3.354	2.094	3.481	2.046	3.636	1.996	3.828	1.942	4.071	1.886	4.387
2.211	2.887	2.181	2.944	2.148	3.01	2.112	3.089	2.073	3.182	2.032	3.295	1.987	3.432	1.94	3.602	1.89	3.815	1.837	4.088
2.135	2.751	2.107	2.802	2.076	2.861	2.043	2.932	2.007	3.015	1.968	3.115	1.927	3.236	1.883	3.385	1.836	3.571	1.786	3.807
2.057	2.617	2.031	2.662	2.003	2.715	1.973	2.778	1.939	2.852	1.904	2.941	1.865	3.047	1.824	3.177	1.781	3.339	1.734	3.542
1.979	2.485	1.955	2.525	1.929	2.572	1.901	2.628	1.871	2.693	1.838	2.771	1.802	2.865	1.764	2.978	1.724	3.118	1.681	3.292
1.9	2.354	1.878	2.39	1.855	2.432	1.829	2.481	1.801	2.539	1.771	2.607	1.738	2.688	1.703	2.787	1.666	2.907	1.626	3.056
1.82	2.226	1.8	2.258	1.779	2.295	1.755	2.337	1.73	2.388	1.702	2.447	1.673	2.518	1.641	2.603	1.606	2.706	1.57	2.833
1.779	2.163	1.761	2.192	1.74	2.227	1.718	2.267	1.694	2.314	1.668	2.369	1.639	2.435	1.609	2.514	1.576	2.609	1.541	2.726
1.739	2.1	1.721	2.127	1.702	2.16	1.681	2.197	1.658	2.241	1.633	2.292	1.606	2.353	1.577	2.426	1.545	2.514	1.512	2.622
1.698	2.037	1.681	2.063	1.663	2.093	1.643	2.128	1.621	2.168	1.597	2.216	1.572	2.273	1.544	2.34	1.514	2.421	1.483	2.52
1.657	1.975	1.641	1.999	1.624	2.027	1.605	2.059	1.584	2.097	1.562	2.141	1.537	2.194	1.511	2.256	1.483	2.33	1.453	2.421
1.615	1.913	1.601	1.936	1.584	1.962	1.566	1.992	1.547	2.027	1.526	2.068	1.503	2.116	1.478	2.173	1.451	2.242	1.422	2.324
1.574	1.852	1.56	1.873	1.544	1.897	1.528	1.925	1.509	1.957	1.489	1.995	1.467	2.039	1.444	2.092	1.419	2.155	1.391	2.23
1.532	1.791	1.519	1.811	1.504	1.833	1.489	1.859	1.471	1.888	1.452	1.923	1.432	1.964	1.41	2.012	1.386	2.07	1.36	2.138
1.49	1.731	1.478	1.749	1.464	1.769	1.449	1.793	1.433	1.82	1.415	1.852	1.396	1.89	1.375	1.934	1.353	1.986	1.328	2.049
1.448	1.671	1.436	1.688	1.423	1.706	1.41	1.728	1.394	1.753	1.378	1.783	1.36	1.817	1.34	1.857	1.319	1.905	1.296	1.961
1.405	1.612	1.394	1.627	1.382	1.644	1.37	1.664	1.355	1.687	1.34	1.714	1.323	1.745	1.305	1.781	1.285	1.825	1.263	1.876
1.362	1.553	1.352	1.566	1.341	1.582	1.329	1.6	1.316	1.621	1.302	1.646	1.286	1.674	1.269	1.707	1.25	1.746	1.23	1.793
1.319	1.494	1.31	1.507	1.3	1.521	1.289	1.537	1.276	1.557	1.263	1.579	1.248	1.604	1.232	1.634	1.215	1.67	1.196	1.711
1.276	1.436	1.267	1.447	1.258	1.46	1.248	1.475	1.236	1.493	1.224	1.512	1.21	1.536	1.196	1.563	1.18	1.594	1.162	1.632
1.232	1.378	1.224	1.388	1.216	1.4	1.206	1.414	1.196	1.429	1.184	1.447	1.172	1.468	1.158	1.492	1.143	1.521	1.127	1.554
1.188	1.321	1.181	1.33	1.173	1.34	1.164	1.353	1.155	1.367	1.145	1.383	1.133	1.401	1.121	1.423	1.107	1.448	1.092	1.478
1.144	1.263	1.137	1.272	1.13	1.281	1.122	1.292	1.114	1.305	1.104	1.319	1.094	1.336	1.082	1.355	1.07	1.377	1.056	1.404
1.099	1.207	1.094	1.214	1.087	1.223	1.08	1.232	1.072	1.244	1.063	1.256	1.054	1.271	1.044	1.288	1.032	1.308	1.02	1.331
1.055	1.151	1.049	1.157	1.044	1.165	1.037	1.173	1.03	1.183	1.022	1.194	1.014	1.207	1.004	1.222	0.994	1.24	0.983	1.26
1.01	1.095	1.005	1.101	1	1.107	0.994	1.115	0.988	1.123	0.981	1.133	0.973	1.144	0.965	1.158	0.955	1.173	0.945	1.19
0.964	1.039	0.96	1.044	0.956	1.05	0.951	1.057	0.945	1.064	0.939	1.073	0.932	1.083	0.924	1.094	0.916	1.107	0.907	1.122
0.919	0.984	0.915	0.988	0.911	0.993	0.907	0.999	0.902	1.006	0.896	1.013	0.89	1.022	0.884	1.031	0.876	1.042	0.868	1.055
0.882	0.94	0.879	0.944	0.875	0.949	0.871	0.954	0.867	0.959	0.862	0.966	0.857	0.973	0.851	0.982	0.844	0.992	0.837	1.003

Focal Length 54mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	143'11.87"	128'4.47"	114'5.54"	102'0.8"	91'0.28"	81'2.25"	72'5.06"	64'7.35"	57'7.89"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	143'10.31"	Infinity	128'2.93"	Infinity	114'3.99"	Infinity	101'11.26"	Infinity	90'10.76"	Infinity	81'0.71"	Infinity	72'3.54"	Infinity	64'5.85"	Infinity	57'6.37"	Infinity
100'0''	59'4.52"	323'8.88"	56'6.93"	446'10.57"	53'8.86"	780'7.17"	50'10.51"	4862'4.34"	48'0.13"	Infinity	45'1.93"	Infinity	42'4.15"	Infinity	39'6.99"	Infinity	36'10.65"	Infinity
50'0''	37'4.88"	75'9.16"	36'3.52"	80'10.77"	35'1.46"	87'6.79"	33'10.74"	96'6.1"	32'7.42"	109'0.33"	31'3.57"	127'7.77"	29'11.28"	157'11.98"	28'6.63"	215'8.44"	27'1.74"	366'2.82"
30'0''	25'0.57"	37'5.82"	24'6.65"	38'8.07"	24'0.28"	40'1.22"	23'5.46"	41'10.06"	22'10.19"	43'11.77"	22'2.48"	46'8.02"	21'6.35"	50'1.34"	20'9.8"	54'7.78"	20'0.88"	60'10.18"
20'0''	17'8.72"	22'11.71"	17'5.81"	23'4.86"	17'2.65"	23'10.88"	16'11.21"	24'5.95"	16'7.5"	25'2.34"	16'3.49"	26'0.37"	15'11.19"	27'0.47"	15'6.59"	28'3.25"	15'1.7"	29'9.58"
15'0''	13'8.6"	16'6.78"	13'6.9"	16'9.37"	13'5.04"	17'0.36"	13'3"	17'3.83"	13'0.77"	17'7.87"	12'10.36"	18'0.61"	12'7.73"	18'6.19"	12'4.9"	19'0.83"	12'1.85"	19'8.8"
12'0''	11'2.23"	12'11.42"	11'1.13"	13'0.96"	10'11.91"	13'2.72"	10'10.58"	13'4.74"	10'9.12"	13'7.08"	10'7.52"	13'9.79"	10'5.77"	14'0.95"	10'3.87"	14'4.66"	10'1.81"	14'9.02"
10'0''	9'5.32"	10'7.6"	9'4.55"	10'8.6"	9'3.71"	10'9.74"	9'2.78"	10'11.05"	9'1.75"	11'0.56"	9'0.63"	11'2.3"	8'11.39"	11'4.3"	8'10.04"	11'6.63"	8'8.57"	11'9.35"
9'0''	8'6.65"	9'5.99"	8'6.04"	9'6.77"	8'5.36"	9'7.67"	8'4.61"	9'8.69"	8'3.78"	9'9.86"	8'2.86"	9'11.2"	8'1.86"	10'0.75"	8'0.75"	10'2.54"	7'11.55"	10'4.62"
8'0''	7'7.85"	8'4.59"	7'7.37"	8'5.18"	7'6.84"	8'5.86"	7'6.24"	8'6.63"	7'5.59"	8'7.51"	7'4.87"	8'8.52"	7'4.08"	8'9.68"	7'3.2"	8'11.02"	7'2.25"	9'0.56"
7'6''	7'2.39"	7'9.96"	7'1.97"	7'10.47"	7'1.51"	7'11.05"	7'0.99"	7'11.71"	7'0.42"	8'0.47"	6'11.79"	8'1.33"	6'11.09"	8'2.32"	6'10.33"	8'3.46"	6'9.49"	8'4.77"
7'0''	6'8.9"	7'3.38"	6'8.54"	7'3.81"	6'8.14"	7'4.3"	6'7.69"	7'4.87"	6'7.2"	7'5.51"	6'6.65"	7'6.24"	6'6.05"	7'7.07"	6'5.38"	7'8.03"	6'4.65"	7'9.13"
6'6''	6'3.37"	6'8.84"	6'3.06"	6'9.21"	6'2.72"	6'9.62"	6'2.34"	6'10.09"	6'1.92"	6'10.63"	6'1.45"	6'11.24"	6'0.93"	6'11.93"	6'0.37"	7'0.73"	5'11.74"	7'1.65"
6'0''	5'9.8"	6'2.36"	5'9.55"	6'2.66"	5'9.26"	6'3"	5'8.94"	6'3.39"	5'8.58"	6'3.83"	5'8.19"	6'4.33"	5'7.76"	6'4.9"	5'7.27"	6'5.55"	5'6.74"	6'6.3"
5'6''	5'4.2"	5'7.92"	5'3.99"	5'8.17"	5'3.75"	5'8.44"	5'3.49"	5'8.76"	5'3.19"	5'9.11"	5'2.87"	5'9.52"	5'2.51"	5'9.98"	5'2.11"	5'10.5"	5'1.67"	5'11.1"
5'0''	4'10.56"	5'1.53"	4'10.39"	5'1.72"	4'10.19"	5'1.94"	4'9.98"	5'2.19"	4'9.75"	5'2.47"	4'9.48"	5'2.79"	4'9.19"	5'3.15"	4'8.87"	5'3.57"	4'8.51"	5'4.04"
4'9''	4'7.72"	4'10.35"	4'7.57"	4'10.52"	4'7.4"	4'10.71"	4'7.21"	4'10.93"	4'7"	4'11.18"	4'6.77"	4'11.46"	4'6.51"	4'11.78"	4'6.22"	5'0.14"	4'5.9"	5'0.55"
4'6''	4'4.88"	4'7.18"	4'4.74"	4'7.33"	4'4.59"	4'7.5"	4'4.43"	4'7.69"	4'4.24"	4'7.91"	4'4.03"	4'8.15"	4'3.81"	4'8.43"	4'3.55"	4'8.75"	4'3.27"	4'9.11"
4'3''	4'2.02"	4'4.03"	4'1.9"	4'4.16"	4'1.77"	4'4.3"	4'1.63"	4'4.47"	4'1.47"	4'4.65"	4'1.29"	4'4.87"	4'1.09"	4'5.11"	4'0.86"	4'5.38"	4'0.62"	4'5.69"
4'0''	3'11.16"	4'0.88"	3'11.05"	4'0.99"	3'10.94"	4'1.12"	3'10.82"	4'1.26"	3'10.68"	4'1.42"	3'10.52"	4'1.6"	3'10.35"	4'1.81"	3'10.15"	4'2.04"	3'9.94"	4'2.3"
3'9''	3'8.28"	3'9.75"	3'8.19"	3'9.84"	3'8.1"	3'9.95"	3'7.99"	3'10.07"	3'7.87"	3'10.2"	3'7.74"	3'10.36"	3'7.59"	3'10.53"	3'7.42"	3'10.73"	3'7.24"	3'10.95"
3'6''	3'5.4"	3'6.63"	3'5.32"	3'6.7"	3'5.24"	3'6.79"	3'5.15"	3'6.89"	3'5.05"	3'7.01"	3'4.94"	3'7.13"	3'4.81"	3'7.28"	3'4.67"	3'7.44"	3'4.52"	3'7.63"
3'3''	3'2.5"	3'3.52"	3'2.44"	3'3.58"	3'2.37"	3'3.65"	3'2.3"	3'3.73"	3'2.22"	3'3.83"	3'2.12"	3'3.93"	3'2.02"	3'4.05"	3'1.9"	3'4.18"	3'1.77"	3'4.33"
3'0''	2'11.6"	3'0.42"	2'11.55"	3'0.47"	2'11.49"	3'0.53"	2'11.43"	3'0.59"	2'11.37"	3'0.66"	2'11.29"	3'0.75"	2'11.21"	3'0.84"	2'11.11"	3'0.95"	2'11.01"	3'1.07"

8	9	10	11	13	14	16	18	20	22
51'5.52"	45'11.26"	41'0.24"	36'7.65"	32'8.8"	29'3.06"	26'1.9"	23'4.75"	20'11.22"	18'8.96"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
51'4.01"	Infinity	45'9.76"	Infinity	40'10.73"	Infinity	36'6.14"	Infinity	32'7.3"	Infinity	29'1.56"	Infinity	26'0.38"	Infinity	23'3.25"	Infinity	20'9.74"	Infinity	18'7.44"	Infinity
34'3.31"	Infinity	31'9.11"	Infinity	29'4.2"	Infinity	27'0.67"	Infinity	24'10.58"	Infinity	22'10"	Infinity	20'10.95"	Infinity	19'1.42"	Infinity	17'5.4"	Infinity	15'10.85"	Infinity
25'8.7"	1708'6.65"	24'3.63"	Infinity	22'10.64"	Infinity	21'5.86"	Infinity	20'1.37"	Infinity	18'9.29"	Infinity	17'5.69"	Infinity	16'2.66"	Infinity	15'0.26"	Infinity	13'10.54"	Infinity
19'3.63"	69'9.08"	18'6.08"	83'6.34"	17'8.29"	107'5.06"	16'10.32"	158'6.42"	16'0.24"	342'1.34"	15'2.1"	Infinity	14'3.97"	Infinity	13'5.93"	Infinity	12'8.03"	Infinity	11'10.35"	Infinity
14'8.52"	31'8.75"	14'3.06"	34'2.71"	13'9.35"	37'6.65"	13'3.39"	42'2.14"	12'9.22"	48'11.73"	12'2.88"	59'10.41"	11'8.38"	79'11.2"	11'1.79"	128'7.83"	10'7.13"	413'11.5"	10'0.45"	Infinity
11'10.58"	20'6.45"	11'7.1"	21'6.31"	11'3.39"	22'9.11"	10'11.48"	24'3.97"	10'7.36"	26'4.62"	10'3.06"	29'1.96"	9'10.59"	33'1.16"	9'5.96"	39'0.56"	9'1.22"	49'0.11"	8'8.38"	68'10.85"
9'11.58"	15'2.21"	9'9.19"	15'8.42"	9'6.62"	16'3.95"	9'3.87"	17'1.2"	9'0.96"	18'0.72"	8'9.88"	19'3.38"	8'6.64"	20'10.5"	8'3.25"	23'0.3"	7'11.72"	26'0.71"	7'8.08"	30'7.51"
8'6.97"	12'0.55"	8'5.23"	12'4.32"	8'3.36"	12'8.81"	8'1.35"	13'2.2"	7'11.19"	13'8.77"	7'8.9"	14'4.85"	7'6.46"	15'2.99"	7'3.89"	16'3.97"	7'1.18"	17'9.05"	6'10.36"	19'8.37"
7'10.24"	10'7.05"	7'8.81"	10'9.89"	7'7.26"	11'1.25"	7'5.59"	11'5.26"	7'3.8"	11'10.07"	7'1.87"	12'3.92"	6'11.82"	12'11.13"	6'9.65"	13'8.17"	6'7.35"	14'7.75"	6'4.94"	15'10.98"
7'1.2"	9'2.35"	7'0.06"	9'4.44"	6'10.82"	9'6.89"	6'9.47"	9'9.78"	6'8.02"	10'1.21"	6'6.46"	10'5.34"	6'4.78"	10'10.35"	6'2.99"	11'4.51"	6'1.1"	12'0.21"	5'11.09"	12'10.04"
6'8.57"	8'6.29"	6'7.56"	8'8.05"	6'6.46"	8'10.11"	6'5.27"	9'0.54"	6'3.98"	9'3.4"	6'2.59"	9'6.83"	6'1.09"	9'10.95"	5'11.5"	10'3.98"	5'9.79"	10'10.2"	5'7.99"	11'6.03"
6'3.85"	7'10.41"	6'2.97"	7'11.88"	6'2.01"	8'1.6"	6'0.97"	8'3.61"	5'11.83"	8'5.98"	5'10.61"	8'8.79"	5'9.29"	9'0.15"	5'7.88"	9'4.21"	5'6.36"	9'9.19"	5'4.76"	10'3.39"
5'11.05"	7'2.7"	5'10.29"	7'3.92"	5'9.46"	7'5.33"	5'8.56"	7'6.98"	5'7.58"	7'8.91"	5'6.51"	7'11.19"	5'5.36"	8'1.9"	5'4.13"	8'5.15"	5'2.8"	8'9.09"	5'1.38"	9'1.94"
5'6.16"	6'7.16"	5'5.52"	6'8.15"	5'4.81"	6'9.3"	5'4.05"	6'10.63"	5'3.21"	7'0.18"	5'2.3"	7'2"	5'1.31"	7'4.15"	5'0.24"	7'6.72"	4'11.1"	7'9.8"	4'9.87"	8'1.55"
5'1.18"	5'11.79"	5'0.65"	6'0.58"	5'0.06"	6'1.49"	4'11.42"	6'2.55"	4'10.72"	6'3.77"	4'9.95"	6'5.2"	4'9.12"	6'6.88"	4'8.21"	6'8.87"	4'7.24"	6'11.24"	4'6.19"	7'2.09"
4'8.12"	5'4.58"	4'7.68"	5'5.19"	4'7.2"	5'5.9"	4'6.68"	5'6.72"	4'6.1"	5'7.66"	4'5.47"	5'8.76"	4'4.78"	5'10.05"	4'4.04"	5'11.56"	4'3.23"	6'1.34"	4'2.35"	6'3.46"
4'5.55"	5'1.03"	4'5.16"	5'1.57"	4'4.73"	5'2.19"	4'4.26"	5'2.9"	4'3.74"	5'3.72"	4'3.18"	5'4.67"	4'2.56"	5'5.79"	4'1.89"	5'7.09"	4'1.16"	5'8.62"	4'0.37"	5'10.44"
4'2.96"	4'9.51"	4'2.61"	4'9.98"	4'2.23"	4'10.52"	4'1.81"	4'11.14"	4'1.35"	4'11.85"	4'0.85"	5'0.67"	4'0.3"	5'1.62"	3'11.7"	5'2.73"	3'11.04"	5'4.04"	3'10.34"	5'5.59"
4'0.34"	4'6.04"	4'0.04"	4'6.44"	3'11.7"	4'6.9"	3'11.34"	4'7.43"	3'10.93"	4'8.04"	3'10.49"	4'8.74"	3'10"	4'9.55"	3'9.47"	4'10.5"	3'8.89"	4'11.6"	3'8.26"	5'0.9"
3'9.7"	4'2.6"	3'9.44"	4'2.95"	3'9.15"	4'3.34"	3'8.83"	4'3.79"	3'8.47"	4'4.3"	3'8.08"	4'4.89"	3'7.66"	4'5.58"	3'7.19"	4'6.37"	3'6.68"	4'7.29"	3'6.13"	4'8.38"
3'7.04"	3'11.2"	3'6.81"	3'11.49"	3'6.56"	3'11.82"	3'6.28"	4'0.19"	3'5.98"	4'0.62"	3'5.64"	4'1.12"	3'5.28"	4'1.69"	3'4.87"	4'2.35"	3'4.43"	4'3.11"	3'3.95"	4'4"
3'4.35"	3'7.84"	3'4.16"	3'8.07"	3'3.94"	3'8.35"	3'3.71"	3'8.66"	3'3.45"	3'9.01"	3'3.16"	3'9.42"	3'2.85"	3'9.89"	3'2.51"	3'10.42"	3'2.13"	3'11.05"	3'1.71"	3'11.77"
3'1.63"	3'4.5"	3'1.47"	3'4.7"	3'1.3"	3'4.92"	3'1.1"	3'5.17"	3'0.88"	3'5.46"	3'0.65"	3'5.79"	3'0.38"	3'6.17"	3'0.09"	3'6.6"	2'11.77"	3'7.1"	2'11.43"	3'7.68"
2'10.89"	3'1.21"	2'10.76"	3'1.36"	2'10.62"	3'1.54"	2'10.46"	3'1.74"	2'10.28"	3'1.97"	2'10.08"	3'2.23"	2'9.87"	3'2.53"	2'9.63"	3'2.87"	2'9.37"	3'3.26"	2'9.08"	3'3.72"

Focal Length 56mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	47.179	42.06	37.5	33.437	29.817	26.592	23.719	21.159	18.879

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	47.139	Infinity	42.02	Infinity	37.46	Infinity	33.397	Infinity	29.778	Infinity	26.553	Infinity	23.68	Infinity	21.121	Infinity	18.841	Infinity
30.00	18.447	81.555	17.62	103.439	16.777	148.098	15.923	287.724	15.064	Infinity	14.205	Infinity	13.352	Infinity	12.511	Infinity	11.686	Infinity
15.00	11.467	21.771	11.147	23.051	10.809	24.683	10.453	26.817	10.082	29.704	9.696	33.795	9.297	39.988	8.887	50.372	8.469	71.166
10.00	8.319	12.562	8.152	12.972	7.972	13.464	7.78	14.065	7.576	14.807	7.359	15.742	7.131	16.944	6.891	18.537	6.641	20.729
9.00	7.621	11.01	7.482	11.321	7.331	11.693	7.169	12.141	6.996	12.687	6.812	13.363	6.617	14.214	6.411	15.312	6.195	16.769
8.00	6.898	9.537	6.784	9.768	6.661	10.042	6.528	10.368	6.385	10.761	6.233	11.239	6.07	11.831	5.897	12.577	5.715	13.536
7.00	6.148	8.138	6.058	8.304	5.961	8.499	5.855	8.729	5.741	9.003	5.618	9.333	5.487	9.734	5.347	10.228	5.198	10.847
6.00	5.37	6.806	5.302	6.92	5.228	7.053	5.147	7.209	5.06	7.393	4.965	7.611	4.864	7.873	4.754	8.189	4.638	8.577
5.50	4.969	6.164	4.912	6.257	4.849	6.365	4.78	6.491	4.705	6.638	4.624	6.812	4.536	7.019	4.441	7.267	4.34	7.568
5.00	4.561	5.537	4.513	5.612	4.46	5.697	4.402	5.797	4.339	5.913	4.271	6.05	4.196	6.211	4.116	6.402	4.03	6.633
4.50	4.145	4.925	4.106	4.983	4.062	5.05	4.015	5.127	3.963	5.217	3.906	5.322	3.845	5.444	3.778	5.59	3.706	5.762
4.00	3.721	4.328	3.689	4.372	3.655	4.422	3.617	4.48	3.575	4.548	3.53	4.626	3.48	4.717	3.426	4.824	3.368	4.95
3.80	3.549	4.092	3.52	4.131	3.489	4.176	3.455	4.228	3.417	4.287	3.376	4.356	3.331	4.436	3.281	4.53	3.228	4.641
3.60	3.375	3.859	3.35	3.894	3.322	3.933	3.291	3.978	3.257	4.031	3.219	4.091	3.179	4.161	3.134	4.243	3.086	4.339
3.40	3.2	3.628	3.178	3.658	3.153	3.693	3.125	3.733	3.095	3.778	3.061	3.831	3.025	3.892	2.985	3.962	2.941	4.045
3.20	3.024	3.399	3.004	3.426	2.982	3.456	2.957	3.49	2.93	3.529	2.901	3.575	2.868	3.627	2.832	3.688	2.794	3.759
3.00	2.847	3.172	2.829	3.195	2.809	3.221	2.788	3.25	2.764	3.284	2.738	3.323	2.709	3.368	2.678	3.42	2.643	3.48
2.90	2.757	3.06	2.741	3.081	2.723	3.105	2.702	3.132	2.68	3.163	2.656	3.199	2.629	3.24	2.599	3.288	2.567	3.343
2.80	2.667	2.948	2.652	2.967	2.635	2.989	2.616	3.014	2.596	3.043	2.573	3.076	2.548	3.113	2.52	3.157	2.49	3.208
2.70	2.577	2.836	2.563	2.854	2.547	2.874	2.53	2.897	2.511	2.923	2.49	2.953	2.466	2.988	2.441	3.028	2.413	3.074
2.60	2.487	2.725	2.474	2.741	2.459	2.76	2.443	2.781	2.425	2.805	2.406	2.832	2.384	2.864	2.36	2.9	2.334	2.942
2.50	2.396	2.614	2.384	2.629	2.371	2.646	2.356	2.665	2.339	2.687	2.321	2.712	2.301	2.741	2.279	2.774	2.255	2.812
2.40	2.305	2.504	2.294	2.518	2.281	2.533	2.268	2.55	2.253	2.57	2.236	2.593	2.218	2.619	2.197	2.649	2.175	2.683
2.30	2.213	2.395	2.203	2.407	2.192	2.421	2.179	2.436	2.166	2.454	2.15	2.475	2.134	2.498	2.115	2.525	2.095	2.556
2.20	2.121	2.285	2.112	2.296	2.102	2.309	2.091	2.323	2.078	2.339	2.064	2.358	2.049	2.379	2.032	2.403	2.013	2.43
2.10	2.029	2.177	2.021	2.187	2.011	2.198	2.001	2.21	1.99	2.225	1.977	2.241	1.963	2.26	1.948	2.282	1.931	2.306
2.00	1.936	2.069	1.929	2.077	1.92	2.087	1.911	2.099	1.901	2.111	1.89	2.126	1.877	2.143	1.863	2.162	1.848	2.184
1.95	1.89	2.015	1.883	2.023	1.875	2.032	1.866	2.043	1.856	2.055	1.846	2.069	1.834	2.084	1.821	2.102	1.806	2.123
1.90	1.843	1.961	1.837	1.969	1.829	1.977	1.821	1.987	1.812	1.999	1.801	2.012	1.79	2.026	1.778	2.043	1.764	2.062
1.85	1.797	1.907	1.79	1.914	1.783	1.923	1.775	1.932	1.767	1.943	1.757	1.955	1.746	1.969	1.735	1.984	1.722	2.002
1.80	1.75	1.854	1.744	1.86	1.737	1.868	1.73	1.877	1.722	1.887	1.713	1.898	1.703	1.911	1.692	1.926	1.679	1.943
1.75	1.703	1.8	1.697	1.807	1.691	1.814	1.684	1.822	1.677	1.831	1.668	1.842	1.659	1.854	1.648	1.868	1.637	1.883
1.70	1.656	1.747	1.651	1.753	1.645	1.76	1.638	1.767	1.631	1.776	1.623	1.786	1.614	1.797	1.605	1.81	1.594	1.824
1.65	1.609	1.694	1.604	1.699	1.599	1.705	1.592	1.713	1.586	1.721	1.578	1.73	1.57	1.74	1.561	1.752	1.551	1.765
1.60	1.562	1.641	1.557	1.646	1.552	1.652	1.546	1.658	1.54	1.666	1.533	1.674	1.525	1.684	1.517	1.695	1.507	1.707
1.55	1.514	1.588	1.51	1.592	1.505	1.598	1.5	1.604	1.494	1.611	1.488	1.619	1.481	1.627	1.473	1.638	1.464	1.649
1.50	1.467	1.535	1.463	1.539	1.459	1.544	1.454	1.55	1.448	1.556	1.442	1.563	1.436	1.571	1.428	1.581	1.42	1.591
1.45	1.42	1.482	1.416	1.486	1.412	1.491	1.407	1.496	1.402	1.502	1.397	1.508	1.391	1.516	1.384	1.524	1.376	1.534
1.40	1.372	1.429	1.369	1.433	1.365	1.437	1.361	1.442	1.356	1.447	1.351	1.453	1.345	1.46	1.339	1.468	1.332	1.477
1.35	1.324	1.377	1.321	1.38	1.318	1.384	1.314	1.388	1.31	1.393	1.305	1.399	1.3	1.405	1.294	1.412	1.287	1.42
1.30	1.277	1.325	1.274	1.328	1.271	1.331	1.267	1.335	1.263	1.339	1.259	1.344	1.254	1.35	1.249	1.357	1.243	1.364
1.25	1.229	1.272	1.226	1.275	1.223	1.278	1.22	1.282	1.217	1.286	1.213	1.29	1.208	1.295	1.203	1.301	1.198	1.308
1.20	1.181	1.22	1.178	1.223	1.176	1.225	1.173	1.229	1.17	1.232	1.166	1.236	1.162	1.241	1.158	1.246	1.153	1.252
1.15	1.133	1.168	1.131	1.17	1.128	1.173	1.126	1.176	1.123	1.179	1.12	1.183	1.116	1.187	1.112	1.191	1.108	1.197
1.10	1.085	1.116	1.083	1.118	1.081	1.12	1.078	1.123	1.076	1.126	1.073	1.129	1.07	1.133	1.066	1.137	1.062	1.142
1.05	1.036	1.064	1.035	1.066	1.033	1.068	1.031	1.07	1.028	1.073	1.026	1.076	1.023	1.079	1.02	1.083	1.016	1.087
1.00	0.988	1.013	0.986	1.014	0.985	1.016	0.983	1.018	0.981	1.02	0.979	1.023	0.976	1.025	0.973	1.029	0.97	1.032
0.95	0.939	0.961	0.938	0.962	0.937	0.964	0.935	0.966	0.933	0.967	0.931	0.97	0.929	0.972	0.927	0.975	0.924	0.978
0.91	0.901	0.92	0.899	0.921	0.898	0.922	0.897	0.924	0.895	0.926	0.893	0.927	0.891	0.93	0.889	0.932	0.887	0.935

8	9	10	11	13	14	16	18	20	22
16.848	15.038	13.425	11.989	10.709	9.569	8.553	7.648	6.842	6.124

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
16.809	Infinity	14.999	Infinity	13.387	Infinity	11.95	Infinity	10.671	Infinity	9.531	Infinity	8.515	Infinity	7.61	Infinity	6.804	Infinity	6.085	Infinity
10.883	Infinity	10.106	Infinity	9.358	Infinity	8.644	Infinity	7.963	Infinity	7.32	Infinity	6.714	Infinity	6.147	Infinity	5.618	Infinity	5.126	Infinity
8.046	132.925	7.62	5797.425	7.193	Infinity	6.77	Infinity	6.351	Infinity	5.941	Infinity	5.542	Infinity	5.155	Infinity	4.783	Infinity	4.427	Infinity
6.382	23.913	6.115	28.911	5.841	37.813	5.563	57.903	5.282	144.375	5	Infinity	4.718	Infinity	4.439	Infinity	4.164	Infinity	3.896	Infinity
5.97	18.78	5.737	21.711	5.497	26.343	5.251	34.679	5.001	53.908	4.749	143.924	4.495	Infinity	4.242	Infinity	3.992	Infinity	3.746	Infinity
5.525	14.807	5.326	16.558	5.12	19.101	4.907	23.099	4.689	30.232	4.468	46.389	4.244	116.897	4.02	Infinity	3.796	Infinity	3.574	Infinity
5.041	11.641	4.876	12.686	4.704	14.113	4.526	16.162	4.342	19.323	4.153	24.792	3.96	36.429	3.766	77.52	3.57	Infinity	3.375	Infinity
4.514	9.059	4.383	9.672	4.245	10.469	4.101	11.541	3.951	13.047	3.795	15.298	3.636	18.998	3.473	26.134	3.308	45.415	3.141	274.379
4.232	7.939	4.118	8.401	3.997	8.992	3.869	9.765	3.736	10.813	3.598	12.301	3.456	14.564	3.309	18.382	3.16	26.122	3.008	49.873
3.938	6.913	3.839	7.258	3.735	7.69	3.624	8.243	3.508	8.97	3.387	9.96	3.262	11.378	3.132	13.558	2.999	17.304	2.863	25.169
3.629	5.97	3.546	6.223	3.457	6.534	3.363	6.924	3.264	7.423	3.161	8.081	3.052	8.979	2.939	10.266	2.823	12.251	2.704	15.68
3.304	5.101	3.236	5.281	3.164	5.5	3.086	5.77	3.004	6.108	2.917	6.539	2.825	7.106	2.73	7.876	2.63	8.976	2.528	10.659
3.17	4.772	3.108	4.928	3.041	5.117	2.97	5.348	2.894	5.635	2.814	5.998	2.729	6.467	2.64	7.094	2.548	7.967	2.452	9.256
3.033	4.452	2.977	4.587	2.916	4.749	2.851	4.946	2.781	5.189	2.707	5.492	2.629	5.88	2.548	6.39	2.462	7.083	2.373	8.075
2.894	4.143	2.843	4.258	2.788	4.396	2.728	4.563	2.665	4.767	2.598	5.019	2.527	5.338	2.452	5.751	2.373	6.302	2.291	7.067
2.751	3.842	2.705	3.94	2.656	4.057	2.603	4.197	2.546	4.367	2.485	4.576	2.42	4.837	2.352	5.17	2.28	5.607	2.205	6.198
2.606	3.55	2.565	3.633	2.521	3.731	2.473	3.848	2.422	3.988	2.368	4.16	2.31	4.372	2.248	4.639	2.183	4.983	2.115	5.44
2.532	3.407	2.494	3.483	2.452	3.572	2.407	3.679	2.359	3.806	2.308	3.961	2.253	4.152	2.194	4.391	2.133	4.696	2.068	5.096
2.457	3.267	2.421	3.336	2.383	3.417	2.341	3.513	2.295	3.629	2.247	3.769	2.195	3.94	2.14	4.152	2.082	4.422	2.02	4.773
2.382	3.128	2.348	3.191	2.312	3.264	2.273	3.352	2.23	3.456	2.185	3.581	2.136	3.734	2.084	3.923	2.029	4.162	1.971	4.468
2.306	2.991	2.275	3.048	2.241	3.115	2.204	3.193	2.164	3.287	2.122	3.4	2.076	3.536	2.027	3.704	1.976	3.914	1.921	4.181
2.229	2.856	2.2	2.908	2.168	2.968	2.134	3.038	2.097	3.122	2.058	3.223	2.015	3.344	1.969	3.493	1.921	3.677	1.87	3.91
2.151	2.723	2.124	2.769	2.095	2.823	2.064	2.887	2.029	2.962	1.992	3.051	1.953	3.159	1.91	3.289	1.865	3.451	1.817	3.653
2.072	2.592	2.048	2.633	2.021	2.682	1.992	2.738	1.96	2.805	1.926	2.884	1.889	2.979	1.85	3.094	1.808	3.235	1.763	3.41
1.993	2.462	1.97	2.499	1.946	2.542	1.919	2.593	1.89	2.652	1.858	2.722	1.825	2.805	1.788	2.905	1.749	3.028	1.708	3.18
1.912	2.335	1.892	2.368	1.869	2.406	1.845	2.45	1.818	2.502	1.79	2.563	1.759	2.636	1.725	2.724	1.689	2.83	1.651	2.96
1.831	2.209	1.812	2.238	1.792	2.271	1.77	2.31	1.746	2.356	1.72	2.409	1.691	2.473	1.661	2.549	1.628	2.64	1.593	2.752
1.79	2.146	1.772	2.174	1.753	2.205	1.732	2.241	1.709	2.284	1.684	2.334	1.657	2.393	1.628	2.463	1.596	2.548	1.563	2.651
1.749	2.084	1.732	2.11	1.714	2.139	1.694	2.173	1.672	2.213	1.648	2.26	1.623	2.314	1.595	2.38	1.565	2.458	1.533	2.553
1.707	2.023	1.692	2.047	1.674	2.074	1.655	2.106	1.635	2.143	1.612	2.186	1.588	2.237	1.561	2.297	1.533	2.37	1.502	2.457
1.666	1.962	1.651	1.984	1.634	2.009	1.617	2.039	1.597	2.073	1.576	2.113	1.552	2.161	1.527	2.216	1.5	2.283	1.471	2.363
1.624	1.901	1.61	1.922	1.594	1.945	1.577	1.973	1.559	2.005	1.539	2.042	1.517	2.085	1.493	2.137	1.467	2.198	1.44	2.272
1.582	1.841	1.569	1.86	1.554	1.882	1.538	1.907	1.521	1.937	1.502	1.971	1.481	2.011	1.458	2.059	1.434	2.115	1.408	2.182
1.539	1.781	1.527	1.799	1.513	1.819	1.498	1.842	1.482	1.87	1.464	1.901	1.445	1.938	1.423	1.982	1.401	2.033	1.376	2.095
1.497	1.721	1.485	1.738	1.472	1.757	1.458	1.778	1.443	1.803	1.426	1.832	1.408	1.866	1.388	1.906	1.366	1.953	1.343	2.009
1.454	1.662	1.443	1.677	1.431	1.695	1.418	1.714	1.404	1.737	1.388	1.764	1.371	1.795	1.352	1.832	1.332	1.874	1.31	1.925
1.411	1.604	1.401	1.617	1.39	1.633	1.378	1.651	1.364	1.673	1.349	1.697	1.333	1.725	1.316	1.758	1.297	1.797	1.276	1.844
1.368	1.545	1.358	1.558	1.348	1.572	1.337	1.589	1.324	1.608	1.31	1.63	1.296	1.656	1.279	1.686	1.262	1.722	1.242	1.763
1.324	1.487	1.315	1.499	1.306	1.512	1.295	1.527	1.284	1.545	1.271	1.565	1.257	1.588	1.242	1.616	1.226	1.647	1.208	1.685
1.28	1.43	1.272	1.44	1.264	1.452	1.254	1.466	1.243	1.482	1.231	1.5	1.219	1.521	1.205	1.546	1.189	1.575	1.173	1.608
1.236	1.372	1.229	1.382	1.221	1.393	1.212	1.405	1.202	1.42	1.191	1.436	1.18	1.455	1.167	1.477	1.153	1.503	1.137	1.533
1.192	1.315	1.185	1.324	1.178	1.334	1.17	1.345	1.161	1.358	1.151	1.373	1.14	1.39	1.128	1.41	1.115	1.433	1.101	1.459
1.147	1.259	1.141	1.267	1.135	1.275	1.127	1.285	1.119	1.297	1.11	1.31	1.1	1.325	1.089	1.343	1.077	1.363	1.065	1.387
1.103	1.203	1.097	1.21	1.091	1.218	1.084	1.226	1.077	1.237	1.069	1.248	1.06	1.262	1.05	1.278	1.039	1.296	1.027	1.317
1.058	1.147	1.053	1.153	1.047	1.16	1.041	1.168	1.034	1.177	1.027	1.187	1.019	1.199	1.01	1.213	1	1.229	0.99	1.247
1.012	1.092	1.008	1.097	1.003	1.103	0.998	1.11	0.992	1.118	0.985	1.127	0.978	1.138	0.97	1.15	0.961	1.163	0.951	1.179
0.967	1.036	0.963	1.041	0.958	1.047	0.954	1.053	0.948	1.06	0.942	1.067	0.936	1.077	0.929	1.087	0.921	1.099	0.913	1.113
0.921	0.982	0.917	0.986	0.914	0.99	0.909	0.996	0.905	1.002	0.9	1.009	0.894	1.016	0.888	1.025	0.881	1.036	0.873	1.048
0.884	0.938	0.881	0.942	0.877	0.946	0.874	0.951	0.87	0.956	0.865	0.962	0.86	0.969	0.854	0.977	0.848	0.986	0.841	0.996

Focal Length 56mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	154'9.44"	137'11.91"	123'0.38"	109'8.42"	97'9.9"	87'2.93"	77'9.82"	69'5.03"	61'11.27"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	154'7.87"	Infinity	137'10.34"	Infinity	122'10.81"	Infinity	109'6.86"	Infinity	97'8.35"	Infinity	87'1.4"	Infinity	77'8.29"	Infinity	69'3.53"	Infinity	61'9.76"	Infinity
100'0''	61'1.28"	279'7.98"	58'4.11"	359'1.04"	55'6.32"	527'4.97"	52'8.12"	1114'9.41"	49'9.73"	Infinity	46'11.39"	Infinity	44'1.32"	Infinity	41'3.74"	Infinity	38'6.86"	Infinity
50'0''	38'0.89"	73'1.37"	36'11.99"	77'6.31"	35'10.36"	83'1.98"	34'8.05"	90'6.84"	33'5.1"	100'7.74"	32'1.58"	115'0.38"	30'9.55"	137'0.81"	29'5.11"	174'8.59"	28'0.36"	252'10.37"
30'0''	25'4.06"	36'10.07"	24'10.41"	37'10.84"	24'4.32"	39'2.09"	23'9.79"	40'8.5"	23'2.8"	42'7"	22'7.36"	44'10.91"	21'11.49"	47'10.18"	21'3.2"	51'7.81"	20'6.51"	56'8.66"
20'0''	17'10.41"	22'8.87"	17'7.65"	23'1.55"	17'4.65"	23'7"	17'1.39"	24'1.39"	16'9.85"	24'8.93"	16'6.03"	25'5.88"	16'1.91"	26'4.62"	15'9.5"	27'5.64"	15'4.79"	28'9.64"
15'0''	13'9.58"	16'5.34"	13'7.97"	16'7.71"	13'6.22"	16'10.44"	13'4.29"	17'1.6"	13'2.18"	17'5.27"	12'11.89"	17'9.56"	12'9.39"	18'2.6"	12'6.69"	18'8.55"	12'3.78"	19'3.65"
12'0''	11'2.86"	12'10.57"	11'1.82"	12'11.98"	11'0.68"	13'1.59"	10'11.42"	13'3.45"	10'10.04"	13'5.58"	10'8.53"	13'8.06"	10'6.87"	13'10.93"	10'5.07"	14'2.28"	10'3.11"	14'6.22"
10'0''	9'5.75"	10'7.04"	9'5.04"	10'7.96"	9'4.24"	10'9.01"	9'3.37"	10'10.22"	9'2.4"	10'11.6"	9'1.34"	11'1.19"	9'0.17"	11'3.02"	8'10.89"	11'5.15"	8'9.5"	11'7.62"
9'0''	8'7"	9'5.55"	8'6.43"	9'6.28"	8'5.79"	9'7.1"	8'5.08"	9'8.04"	8'4.3"	9'9.12"	8'3.44"	9'10.35"	8'2.49"	9'11.77"	8'1.45"	10'1.4"	8'0.31"	10'3.29"
8'0''	7'8.12"	8'4.25"	7'7.67"	8'4.8"	7'7.17"	8'5.43"	7'6.62"	8'6.14"	7'6"	8'6.95"	7'5.32"	8'7.88"	7'4.58"	8'8.94"	7'3.75"	8'10.17"	7'2.85"	8'11.58"
7'6''	7'2.63"	7'9.67"	7'2.24"	7'10.15"	7'1.8"	7'10.68"	7'1.32"	7'11.29"	7'0.78"	7'11.99"	7'0.19"	8'0.78"	6'11.53"	8'1.69"	6'10.81"	8'2.74"	6'10.01"	8'3.94"
7'0''	6'9.11"	7'3.14"	6'8.77"	7'3.54"	6'8.39"	7'3.99"	6'7.97"	7'4.51"	6'7.51"	7'5.1"	6'6.99"	7'5.77"	6'6.43"	7'6.54"	6'5.8"	7'7.42"	6'5.11"	7'8.43"
6'6''	6'3.54"	6'8.64"	6'3.26"	6'8.98"	6'2.94"	6'9.36"	6'2.58"	6'9.8"	6'2.18"	6'10.29"	6'1.74"	6'10.85"	6'1.26"	6'11.49"	6'0.72"	7'0.23"	6'0.13"	7'1.07"
6'0''	5'9.95"	6'2.19"	5'9.71"	6'2.47"	5'9.44"	6'2.79"	5'9.14"	6'3.15"	5'8.81"	6'3.55"	5'8.44"	6'4.02"	5'8.03"	6'4.54"	5'7.57"	6'5.14"	5'7.08"	6'5.83"
5'6''	5'4.32"	5'7.79"	5'4.12"	5'8.01"	5'3.9"	5'8.27"	5'3.65"	5'8.56"	5'3.38"	5'8.89"	5'3.07"	5'9.26"	5'2.73"	5'9.69"	5'2.36"	5'10.17"	5'1.94"	5'10.72"
5'0''	4'10.65"	5'1.42"	4'10.49"	5'1.6"	4'10.31"	5'1.81"	4'10.11"	5'2.04"	4'9.89"	5'2.3"	4'9.65"	5'2.59"	4'9.37"	5'2.93"	4'9.07"	5'3.31"	4'8.73"	5'3.74"
4'9''	4'7.81"	4'10.26"	4'7.66"	4'10.42"	4'7.5"	4'10.59"	4'7.33"	4'10.8"	4'7.13"	4'11.03"	4'6.91"	4'11.29"	4'6.67"	4'11.58"	4'6.4"	4'11.92"	4'6.1"	5'0.3"
4'6''	4'4.95"	4'7.1"	4'4.82"	4'7.24"	4'4.68"	4'7.4"	4'4.53"	4'7.57"	4'4.36"	4'7.77"	4'4.16"	4'8"	4'3.95"	4'8.26"	4'3.71"	4'8.55"	4'3.44"	4'8.88"
4'3''	4'2.08"	4'3.96"	4'1.98"	4'4.08"	4'1.85"	4'4.21"	4'1.72"	4'4.37"	4'1.57"	4'4.54"	4'1.4"	4'4.73"	4'1.21"	4'4.96"	4'1"	4'5.21"	4'0.77"	4'5.5"
4'0''	3'11.21"	4'0.82"	3'11.12"	4'0.92"	3'11.01"	4'1.04"	3'10.89"	4'1.17"	3'10.76"	4'1.32"	3'10.62"	4'1.49"	3'10.45"	4'1.68"	3'10.27"	4'1.89"	3'10.07"	4'2.14"
3'9''	3'8.33"	3'9.7"	3'8.25"	3'9.79"	3'8.16"	3'9.88"	3'8.06"	3'9.99"	3'7.94"	3'10.12"	3'7.82"	3'10.26"	3'7.68"	3'10.42"	3'7.53"	3'10.61"	3'7.35"	3'10.81"
3'6''	3'5.44"	3'6.58"	3'5.37"	3'6.66"	3'5.29"	3'6.74"	3'5.21"	3'6.83"	3'5.11"	3'6.94"	3'5.01"	3'7.06"	3'4.89"	3'7.19"	3'4.76"	3'7.34"	3'4.61"	3'7.51"
3'3''	3'2.53"	3'3.48"	3'2.48"	3'3.54"	3'2.42"	3'3.61"	3'2.35"	3'3.68"	3'2.27"	3'3.77"	3'2.18"	3'3.87"	3'2.08"	3'3.98"	3'1.97"	3'4.1"	3'1.85"	3'4.24"
3'0''	2'11.62"	3'0.39"	2'11.58"	3'0.44"	2'11.53"	3'0.49"	2'11.47"	3'0.55"	2'11.41"	3'0.62"	2'11.34"	3'0.7"	2'11.26"	3'0.79"	2'11.17"	3'0.89"	2'11.07"	3'1"

8	9	10	11	13	14	16	18	20	22
55'3.31"	49'4.05"	44'0.54"	39'4.01"	35'1.61"	31'4.73"	28'0.73"	25'1.1"	22'5.37"	20'1.1"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
55'1.78"	Infinity	49'2.52"	Infinity	43'11.04"	Infinity	39'2.49"	Infinity	35'0.11"	Infinity	31'3.22"	Infinity	27'11.23"	Infinity	24'11.6"	Infinity	22'3.86"	Infinity	19'11.58"	Infinity
35'10.87"	Infinity	33'3.93"	Infinity	30'10.2"	Infinity	28'5.79"	Infinity	26'2.78"	Infinity	24'1.25"	Infinity	22'1.23"	Infinity	20'2.74"	Infinity	18'5.77"	Infinity	16'10.3"	Infinity
26'7.39"	509'2.76"	25'2.33"	Infinity	23'9.28"	Infinity	22'4.35"	Infinity	20'11.66"	Infinity	19'7.31"	Infinity	18'3.4"	Infinity	17'	Infinity	15'9.2"	Infinity	14'7.04"	Infinity
19'9.46"	63'9.22"	19'0.09"	74'1.66"	18'2.44"	90'9.15"	17'4.58"	121'5.35"	16'6.56"	196'2.72"	15'8.44"	642'4.34"	14'10.3"	Infinity	14'0.19"	Infinity	13'2.2"	Infinity	12'4.37"	Infinity
14'11.79"	30'5.6"	14'6.5"	32'7.02"	14'0.94"	35'4.24"	13'7.13"	39'1.15"	13'1.1"	44'4.73"	12'6.86"	52'4.83"	12'0.45"	65'9.58"	11'5.91"	92'6.01"	10'11.28"	170'10.36"	10'4.61"	4090'7.32"
12'0.65"	20'0.2"	11'9.29"	20'10.61"	11'5.72"	21'11.47"	11'1.94"	23'3.64"	10'9.95"	25'0.42"	10'5.76"	27'3.89"	10'1.39"	30'5.63"	9'8.85"	35'0.24"	9'4.18"	42'1.56"	8'11.4"	54'8.27"
10'0.99"	14'10.87"	9'10.7"	15'4.42"	9'8.23"	15'11.09"	9'5.6"	16'7.21"	9'2.79"	17'5.23"	8'11.81"	18'5.81"	8'8.66"	19'9.96"	8'5.36"	21'7.27"	8'1.92"	24'0.45"	7'10.35"	27'6.52"
8'7.98"	11'10.5"	8'6.32"	12'1.9"	8'4.54"	12'5.92"	8'2.61"	12'10.73"	8'0.55"	13'4.53"	7'10.34"	13'11.62"	7'7.98"	14'8.41"	7'5.49"	15'7.51"	7'2.87"	16'9.85"	7'0.12"	18'4.97"
7'11.06"	10'5.5"	7'9.71"	10'8.07"	7'8.23"	10'11.1"	7'6.64"	11'2.69"	7'4.92"	11'6.98"	7'3.08"	12'0.16"	7'1.11"	12'6.48"	6'11.01"	13'2.31"	6'8.79"	14'0.21"	6'6.44"	15'1"
7'1.86"	9'1.21"	7'0.78"	9'3.11"	6'11.6"	9'5.33"	6'10.32"	9'7.93"	6'8.93"	9'11.02"	6'7.43"	10'2.7"	6'5.83"	10'7.13"	6'4.11"	11'0.54"	6'2.28"	11'7.23"	6'0.34"	12'3.65"
6'9.14"	8'5.32"	6'8.19"	8'6.93"	6'7.15"	8'8.8"	6'6.02"	8'10.99"	6'4.79"	9'1.58"	6'3.46"	9'4.64"	6'2.03"	9'8.31"	6'0.49"	10'0.75"	5'10.85"	10'6.19"	5'9.11"	11'0.96"
6'4.35"	7'9.6"	6'3.52"	7'10.95"	6'2.61"	8'0.51"	6'1.62"	8'2.33"	6'0.54"	8'4.47"	5'11.37"	8'7"	5'10.11"	8'10"	5'8.76"	9'1.61"	5'7.3"	9'6"	5'5.75"	9'11.4"
5'11.48"	7'2.03"	5'10.76"	7'3.15"	5'9.98"	7'4.44"	5'9.12"	7'5.93"	5'8.19"	7'7.68"	5'7.18"	7'9.74"	5'6.08"	8'0.17"	5'4.89"	8'3.07"	5'3.62"	8'6.57"	5'2.26"	8'10.83"
5'6.52"	6'6.62"	5'5.92"	6'7.53"	5'5.25"	6'8.57"	5'4.52"	6'9.79"	5'3.73"	6'11.2"	5'2.86"	7'0.85"	5'1.92"	7'2.79"	5'0.9"	7'5.09"	4'11.8"	7'7.84"	4'10.63"	7'11.15"
5'1.49"	5'11.36"	5'0.98"	6'0.08"	5'0.43"	6'0.92"	4'11.82"	6'1.88"	4'11.15"	6'3"	4'10.42"	6'4.3"	4'9.63"	6'5.82"	4'8.77"	6'7.61"	4'7.84"	6'9.73"	4'6.84"	7'0.28"
4'8.36"	5'4.24"	4'7.95"	5'4.81"	4'7.5"	5'5.46"	4'7"	5'6.21"	4'6.46"	5'7.07"	4'5.86"	5'8.07"	4'5.21"	5'9.24"	4'4.5"	5'10.61"	4'3.73"	6'0.21"	4'2.89"	6'2.12"
4'5.77"	5'0.73"	4'5.4"	5'1.23"	4'5"	5'1.8"	4'4.55"	5'2.45"	4'4.06"	5'3.21"	4'3.53"	5'4.08"	4'2.94"	5'5.09"	4'2.3"	5'6.27"	4'1.61"	5'7.65"	4'0.85"	5'9.29"
4'3.15"	4'9.26"	4'2.83"	4'9.69"	4'2.47"	4'10.19"	4'2.07"	4'10.75"	4'1.64"	4'11.4"	4'1.16"	5'0.15"	4'0.64"	5'1.02"	4'0.07"	5'2.04"	3'11.45"	5'3.22"	3'10.77"	5'4.62"
4'0.51"	4'5.82"	4'0.23"	4'6.19"	3'11.91"	4'6.62"	3'11.56"	4'7.1"	3'11.18"	4'7.66"	3'10.76"	4'8.3"	3'10.3"	4'9.05"	3'9.79"	4'9.91"	3'9.24"	4'10.91"	3'8.64"	5'0.09"
3'9.85"	4'2.42"	3'9.6"	4'2.73"	3'9.33"	4'3.09"	3'9.02"	4'3.51"	3'8.69"	4'3.98"	3'8.32"	4'4.52"	3'7.92"	4'5.15"	3'7.48"	4'5.88"	3'6.99"	4'6.72"	3'6.47"	4'7.7"
3'7.16"	3'11.05"	3'6.95"	3'11.31"	3'6.71"	3'11.62"	3'6.45"	3'11.96"	3'6.17"	4'0.36"	3'5.85"	4'0.81"	3'5.5"	4'1.34"	3'5.12"	4'1.94"	3'4.7"	4'2.64"	3'4.24"	4'3.45"
3'4.45"	3'7.71"	3'4.27"	3'7.93"	3'4.07"	3'8.18"	3'3.85"	3'8.47"	3'3.61"	3'8.79"	3'3.34"	3'9.17"	3'3.04"	3'9.6"	3'2.71"	3'10.09"	3'2.36"	3'10.66"	3'1.96"	3'11.33"
3'1.72"	3'4.4"	3'1.57"	3'4.58"	3'1.4"	3'4.79"	3'1.22"	3'5.02"	3'1.01"	3'5.28"	3'0.79"	3'5.59"	3'0.54"	3'5.94"	3'0.27"	3'6.33"	2'11.97"	3'6.79"	2'11.64"	3'7.32"
2'10.96"	3'1.12"	2'10.84"	3'1.27"	2'10.7"	3'1.43"	2'10.55"	3'1.62"	2'10.39"	3'1.83"	2'10.2"	3'2.07"	2'10"	3'2.35"	2'9.77"	3'2.66"	2'9.52"	3'3.02"	2'9.25"	3'3.44"

Focal Length 58mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	50.589	45.098	40.206	35.847	31.964	28.505	25.423	22.678	20.231

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	50.549	Infinity	45.058	Infinity	40.166	Infinity	35.808	Infinity	31.925	Infinity	28.466	Infinity	25.384	Infinity	22.639	Infinity	20.193	Infinity
30.00	18.938	73.021	18.124	88.668	17.29	116.791	16.442	181.483	15.585	480.912	14.726	Infinity	13.868	Infinity	13.019	Infinity	12.184	Infinity
15.00	11.651	21.123	11.343	22.24	11.016	23.646	10.671	25.453	10.309	27.846	9.931	31.136	9.54	35.907	9.136	43.384	8.723	56.655
10.00	8.414	12.348	8.254	12.715	8.082	13.155	7.898	13.687	7.701	14.339	7.492	15.15	7.27	16.179	7.037	17.517	6.793	19.314
9.00	7.7	10.846	7.567	11.127	7.423	11.46	7.268	11.86	7.102	12.343	6.925	12.936	6.736	13.675	6.536	14.613	6.327	15.836
8.00	6.963	9.415	6.854	9.624	6.737	9.871	6.61	10.164	6.473	10.514	6.326	10.938	6.169	11.458	6.003	12.105	5.826	12.926
7.00	6.199	8.049	6.114	8.2	6.021	8.377	5.92	8.585	5.811	8.832	5.693	9.126	5.567	9.482	5.432	9.917	5.289	10.456
6.00	5.408	6.745	5.344	6.849	5.273	6.971	5.197	7.112	5.113	7.279	5.023	7.475	4.926	7.709	4.821	7.991	4.709	8.333
5.50	5.002	6.114	4.947	6.199	4.887	6.298	4.822	6.412	4.751	6.546	4.673	6.704	4.589	6.89	4.499	7.112	4.402	7.38
5.00	4.588	5.497	4.543	5.566	4.493	5.644	4.438	5.735	4.378	5.841	4.313	5.965	4.242	6.11	4.165	6.283	4.083	6.489
4.50	4.167	4.894	4.13	4.947	4.089	5.009	4.044	5.079	3.995	5.161	3.941	5.257	3.882	5.368	3.819	5.499	3.75	5.655
4.00	3.738	4.304	3.709	4.344	3.676	4.391	3.64	4.444	3.601	4.506	3.558	4.578	3.51	4.661	3.459	4.758	3.403	4.872
3.80	3.564	4.071	3.538	4.107	3.508	4.149	3.476	4.196	3.44	4.25	3.401	4.314	3.358	4.387	3.311	4.472	3.26	4.572
3.60	3.389	3.841	3.365	3.872	3.339	3.909	3.31	3.951	3.278	3.998	3.242	4.054	3.204	4.118	3.161	4.192	3.115	4.28
3.40	3.213	3.612	3.192	3.64	3.168	3.672	3.142	3.708	3.113	3.75	3.081	3.798	3.047	3.854	3.009	3.919	2.968	3.994
3.20	3.035	3.385	3.016	3.409	2.995	3.437	2.972	3.469	2.947	3.505	2.919	3.547	2.888	3.595	2.854	3.65	2.817	3.715
3.00	2.856	3.16	2.84	3.181	2.821	3.205	2.801	3.232	2.779	3.263	2.754	3.299	2.727	3.34	2.697	3.388	2.664	3.443
2.90	2.766	3.049	2.751	3.068	2.734	3.09	2.715	3.115	2.694	3.144	2.671	3.177	2.645	3.215	2.617	3.258	2.587	3.309
2.80	2.676	2.937	2.661	2.955	2.646	2.975	2.628	2.999	2.608	3.025	2.587	3.055	2.563	3.09	2.537	3.13	2.509	3.177
2.70	2.585	2.827	2.572	2.843	2.557	2.862	2.541	2.883	2.523	2.907	2.503	2.935	2.48	2.967	2.456	3.003	2.43	3.046
2.60	2.494	2.716	2.482	2.731	2.468	2.748	2.453	2.768	2.436	2.79	2.418	2.815	2.397	2.844	2.375	2.878	2.35	2.916
2.50	2.403	2.606	2.391	2.62	2.379	2.636	2.365	2.653	2.349	2.674	2.332	2.697	2.313	2.723	2.293	2.754	2.27	2.789
2.40	2.311	2.497	2.301	2.509	2.289	2.524	2.276	2.54	2.262	2.558	2.246	2.579	2.229	2.603	2.21	2.631	2.189	2.662
2.30	2.219	2.388	2.209	2.399	2.199	2.412	2.187	2.427	2.174	2.443	2.16	2.462	2.144	2.484	2.126	2.509	2.107	2.537
2.20	2.126	2.28	2.118	2.29	2.108	2.301	2.097	2.314	2.086	2.329	2.073	2.346	2.058	2.366	2.042	2.388	2.024	2.413
2.10	2.034	2.171	2.026	2.181	2.017	2.191	2.007	2.203	1.997	2.216	1.985	2.231	1.972	2.249	1.957	2.268	1.941	2.291
2.00	1.94	2.064	1.933	2.072	1.926	2.081	1.917	2.092	1.907	2.104	1.896	2.117	1.885	2.133	1.872	2.15	1.857	2.17
1.95	1.894	2.01	1.887	2.018	1.88	2.027	1.871	2.036	1.862	2.048	1.852	2.06	1.841	2.075	1.828	2.091	1.815	2.11
1.90	1.847	1.957	1.841	1.964	1.834	1.972	1.826	1.981	1.817	1.992	1.808	2.004	1.797	2.017	1.785	2.033	1.772	2.051
1.85	1.8	1.903	1.794	1.91	1.787	1.918	1.78	1.926	1.772	1.936	1.763	1.947	1.753	1.96	1.742	1.975	1.73	1.991
1.80	1.753	1.85	1.747	1.856	1.741	1.864	1.734	1.872	1.727	1.881	1.718	1.891	1.709	1.903	1.698	1.917	1.687	1.932
1.75	1.706	1.797	1.701	1.803	1.695	1.809	1.688	1.817	1.681	1.826	1.673	1.835	1.664	1.847	1.654	1.859	1.644	1.874
1.70	1.659	1.744	1.654	1.749	1.648	1.756	1.642	1.763	1.636	1.771	1.628	1.78	1.62	1.79	1.61	1.802	1.6	1.815
1.65	1.611	1.691	1.607	1.696	1.602	1.702	1.596	1.708	1.59	1.716	1.583	1.724	1.575	1.734	1.566	1.745	1.557	1.757
1.60	1.564	1.638	1.56	1.643	1.555	1.648	1.55	1.654	1.544	1.661	1.537	1.669	1.53	1.678	1.522	1.688	1.513	1.7
1.55	1.517	1.585	1.513	1.59	1.508	1.595	1.503	1.6	1.498	1.607	1.492	1.614	1.485	1.622	1.477	1.631	1.469	1.642
1.50	1.469	1.532	1.465	1.537	1.461	1.541	1.457	1.546	1.452	1.552	1.446	1.559	1.44	1.567	1.433	1.575	1.425	1.585
1.45	1.421	1.48	1.418	1.484	1.414	1.488	1.41	1.493	1.405	1.498	1.4	1.504	1.394	1.511	1.388	1.519	1.381	1.528
1.40	1.374	1.427	1.371	1.431	1.367	1.435	1.363	1.439	1.359	1.444	1.354	1.45	1.349	1.456	1.343	1.463	1.336	1.472
1.35	1.326	1.375	1.323	1.378	1.32	1.382	1.316	1.386	1.312	1.39	1.308	1.396	1.303	1.401	1.297	1.408	1.291	1.415
1.30	1.278	1.323	1.275	1.326	1.272	1.329	1.269	1.333	1.266	1.337	1.262	1.341	1.257	1.347	1.252	1.353	1.246	1.36
1.25	1.23	1.271	1.228	1.273	1.225	1.276	1.222	1.28	1.219	1.283	1.215	1.288	1.211	1.292	1.206	1.298	1.201	1.304
1.20	1.182	1.219	1.18	1.221	1.177	1.224	1.175	1.227	1.172	1.23	1.168	1.234	1.165	1.238	1.16	1.243	1.156	1.249
1.15	1.134	1.167	1.132	1.169	1.13	1.171	1.127	1.174	1.124	1.177	1.121	1.18	1.118	1.184	1.114	1.189	1.11	1.194
1.10	1.085	1.115	1.084	1.117	1.082	1.119	1.08	1.121	1.077	1.124	1.074	1.127	1.071	1.131	1.068	1.134	1.064	1.139
1.05	1.037	1.063	1.036	1.065	1.034	1.067	1.032	1.069	1.03	1.071	1.027	1.074	1.025	1.077	1.022	1.08	1.018	1.084
1.00	0.989	1.012	0.987	1.013	0.986	1.015	0.984	1.017	0.982	1.019	0.98	1.021	0.978	1.024	0.975	1.027	0.972	1.03
0.95	0.94	0.96	0.939	0.961	0.938	0.963	0.936	0.965	0.934	0.966	0.932	0.968	0.93	0.971	0.928	0.973	0.925	0.976
0.91	0.901	0.919	0.9	0.92	0.899	0.921	0.898	0.923	0.896	0.925	0.894	0.926	0.893	0.928	0.89	0.931	0.888	0.933

8	9	10	11	13	14	16	18	20	22
18.052	16.111	14.381	12.84	11.467	10.244	9.155	8.184	7.319	6.549

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
18.014	Infinity	16.072	Infinity	14.343	Infinity	12.802	Infinity	11.429	Infinity	10.206	Infinity	9.116	Infinity	8.146	Infinity	7.281	Infinity	6.51	Infinity
11.367	Infinity	10.574	Infinity	9.808	Infinity	9.072	Infinity	8.371	Infinity	7.705	Infinity	7.076	Infinity	6.486	Infinity	5.933	Infinity	5.419	Infinity
8.303	86.397	7.878	211.194	7.451	Infinity	7.025	Infinity	6.603	Infinity	6.188	Infinity	5.782	Infinity	5.387	Infinity	5.006	Infinity	4.64	Infinity
6.539	21.835	6.277	25.595	6.007	31.752	5.732	43.554	5.452	74.948	5.17	400.193	4.888	Infinity	4.607	Infinity	4.329	Infinity	4.057	Infinity
6.107	17.481	5.879	19.797	5.643	23.267	5.4	28.992	5.152	40.116	4.901	70.703	4.648	505.544	4.394	Infinity	4.142	Infinity	3.894	Infinity
5.641	13.994	5.447	15.428	5.245	17.442	5.036	20.448	4.821	25.376	4.602	34.846	4.379	60.181	4.155	335.659	3.93	Infinity	3.707	Infinity
5.137	11.137	4.976	12.019	4.809	13.195	4.634	14.829	4.453	17.236	4.267	21.094	4.077	28.222	3.883	45.623	3.688	150.317	3.492	Infinity
4.589	8.755	4.463	9.284	4.329	9.961	4.188	10.854	4.042	12.073	3.889	13.823	3.732	16.525	3.571	21.203	3.407	31.17	3.241	66.522
4.298	7.706	4.188	8.11	4.07	8.618	3.947	9.272	3.817	10.14	3.682	11.336	3.542	13.076	3.398	15.817	3.25	20.722	3.099	31.906
3.994	6.737	3.899	7.041	3.798	7.417	3.691	7.892	3.579	8.506	3.461	9.324	3.338	10.458	3.21	12.122	3.079	14.778	2.945	19.644
3.676	5.84	3.596	6.064	3.511	6.338	3.42	6.678	3.325	7.107	3.224	7.662	3.118	8.403	3.007	9.431	2.893	10.944	2.776	13.367
3.343	5.007	3.278	5.169	3.208	5.363	3.133	5.601	3.054	5.895	2.969	6.267	2.88	6.746	2.787	7.383	2.69	8.264	2.59	9.553
3.205	4.69	3.146	4.831	3.082	4.999	3.013	5.204	2.94	5.455	2.862	5.769	2.78	6.17	2.694	6.694	2.604	7.405	2.51	8.416
3.065	4.382	3.011	4.503	2.953	4.648	2.89	4.823	2.823	5.037	2.752	5.301	2.677	5.635	2.597	6.066	2.514	6.639	2.427	7.433
2.922	4.082	2.874	4.187	2.821	4.31	2.764	4.459	2.703	4.639	2.639	4.861	2.57	5.137	2.497	5.49	2.42	5.951	2.34	6.575
2.777	3.791	2.733	3.88	2.686	3.985	2.635	4.11	2.58	4.261	2.521	4.445	2.459	4.673	2.393	4.96	2.323	5.33	2.25	5.82
2.629	3.507	2.59	3.582	2.548	3.67	2.502	3.775	2.453	3.901	2.401	4.053	2.345	4.239	2.285	4.472	2.222	4.766	2.156	5.15
2.553	3.368	2.517	3.436	2.477	3.517	2.435	3.613	2.388	3.727	2.339	3.865	2.286	4.033	2.23	4.241	2.17	4.504	2.107	4.842
2.477	3.23	2.443	3.293	2.406	3.367	2.366	3.454	2.323	3.557	2.276	3.682	2.226	3.833	2.173	4.019	2.117	4.252	2.057	4.551
2.4	3.095	2.369	3.152	2.334	3.219	2.297	3.298	2.256	3.391	2.212	3.503	2.166	3.639	2.115	3.805	2.062	4.012	2.006	4.275
2.323	2.961	2.293	3.013	2.261	3.074	2.226	3.145	2.188	3.229	2.148	3.33	2.104	3.451	2.057	3.599	2.007	3.782	1.954	4.013
2.245	2.829	2.217	2.876	2.187	2.931	2.155	2.995	2.12	3.071	2.082	3.161	2.041	3.269	1.997	3.4	1.95	3.562	1.9	3.764
2.166	2.699	2.14	2.741	2.113	2.79	2.083	2.848	2.05	2.915	2.015	2.996	1.977	3.092	1.936	3.208	1.892	3.35	1.846	3.527
2.086	2.57	2.062	2.608	2.037	2.652	2.009	2.703	1.979	2.764	1.947	2.835	1.911	2.92	1.874	3.023	1.833	3.147	1.79	3.301
2.005	2.443	1.984	2.477	1.96	2.516	1.935	2.562	1.907	2.615	1.877	2.679	1.845	2.753	1.81	2.843	1.773	2.952	1.733	3.085
1.923	2.317	1.904	2.347	1.883	2.382	1.86	2.423	1.834	2.47	1.807	2.526	1.777	2.591	1.745	2.67	1.711	2.764	1.674	2.879
1.841	2.193	1.824	2.22	1.804	2.251	1.783	2.286	1.76	2.328	1.735	2.377	1.708	2.434	1.679	2.502	1.647	2.584	1.614	2.683
1.8	2.132	1.783	2.157	1.765	2.186	1.745	2.219	1.723	2.258	1.699	2.303	1.673	2.357	1.645	2.42	1.615	2.496	1.583	2.587
1.758	2.071	1.742	2.094	1.725	2.121	1.706	2.152	1.685	2.189	1.663	2.231	1.638	2.281	1.611	2.34	1.583	2.41	1.552	2.494
1.716	2.01	1.701	2.032	1.685	2.057	1.667	2.086	1.647	2.12	1.626	2.16	1.602	2.206	1.577	2.26	1.55	2.325	1.52	2.403
1.674	1.95	1.66	1.97	1.644	1.994	1.627	2.021	1.609	2.052	1.588	2.089	1.566	2.132	1.542	2.182	1.516	2.242	1.489	2.314
1.631	1.89	1.618	1.909	1.604	1.931	1.588	1.956	1.57	1.985	1.551	2.019	1.53	2.059	1.507	2.105	1.483	2.16	1.456	2.226
1.589	1.831	1.576	1.848	1.563	1.869	1.548	1.892	1.531	1.919	1.513	1.95	1.493	1.987	1.472	2.03	1.449	2.08	1.424	2.141
1.546	1.772	1.534	1.788	1.522	1.807	1.507	1.828	1.492	1.853	1.475	1.882	1.456	1.916	1.436	1.955	1.414	2.002	1.391	2.057
1.503	1.713	1.492	1.728	1.48	1.745	1.467	1.765	1.452	1.788	1.436	1.815	1.419	1.846	1.4	1.882	1.379	1.924	1.357	1.975
1.46	1.654	1.45	1.668	1.438	1.684	1.426	1.702	1.412	1.724	1.397	1.748	1.381	1.776	1.363	1.809	1.344	1.848	1.323	1.894
1.416	1.596	1.407	1.609	1.396	1.624	1.385	1.64	1.372	1.66	1.358	1.682	1.343	1.708	1.326	1.738	1.308	1.774	1.289	1.815
1.373	1.538	1.364	1.55	1.354	1.564	1.343	1.579	1.332	1.597	1.319	1.617	1.304	1.641	1.289	1.668	1.272	1.7	1.254	1.738
1.329	1.481	1.321	1.492	1.312	1.504	1.302	1.518	1.291	1.534	1.279	1.553	1.266	1.574	1.251	1.599	1.235	1.628	1.218	1.662
1.285	1.424	1.277	1.434	1.269	1.445	1.26	1.458	1.25	1.472	1.238	1.489	1.226	1.508	1.213	1.531	1.198	1.557	1.183	1.588
1.24	1.367	1.233	1.376	1.226	1.386	1.217	1.398	1.208	1.411	1.198	1.426	1.187	1.444	1.174	1.464	1.161	1.487	1.146	1.515
1.196	1.311	1.189	1.319	1.182	1.328	1.175	1.338	1.166	1.35	1.157	1.364	1.146	1.38	1.135	1.398	1.123	1.419	1.109	1.443
1.151	1.255	1.145	1.262	1.139	1.27	1.132	1.279	1.124	1.29	1.115	1.302	1.106	1.316	1.096	1.332	1.084	1.351	1.072	1.373
1.106	1.199	1.1	1.206	1.095	1.213	1.088	1.221	1.081	1.231	1.074	1.241	1.065	1.254	1.056	1.268	1.045	1.285	1.034	1.304
1.06	1.144	1.056	1.149	1.05	1.156	1.045	1.163	1.038	1.172	1.031	1.181	1.024	1.192	1.015	1.205	1.006	1.219	0.996	1.236
1.015	1.089	1.01	1.094	1.006	1.099	1.001	1.106	0.995	1.113	0.989	1.122	0.982	1.131	0.974	1.142	0.966	1.155	0.957	1.17
0.969	1.034	0.965	1.038	0.961	1.043	0.956	1.049	0.951	1.055	0.946	1.063	0.94	1.071	0.933	1.081	0.926	1.092	0.917	1.105
0.923	0.98	0.919	0.983	0.916	0.988	0.912	0.993	0.907	0.998	0.903	1.005	0.897	1.012	0.891	1.02	0.885	1.03	0.877	1.04
0.886	0.936	0.883	0.94	0.879	0.944	0.876	0.948	0.872	0.953	0.868	0.958	0.863	0.965	0.857	0.972	0.852	0.98	0.845	0.99

Focal Length 58mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	165'11.69"	147'11.51"	131'10.91"	117'7.3"	104'10.43"	93'6.24"	83'4.91"	74'4.83"	66'4.5"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	165'10.11"	Infinity	147'9.93"	Infinity	131'9.34"	Infinity	117'5.76"	Infinity	104'8.9"	Infinity	93'4.71"	Infinity	83'3.39"	Infinity	74'3.29"	Infinity	66'2.99"	Infinity
100'0''	62'9.01"	249'2.57"	60'0.31"	305'3.2"	57'2.87"	408'6.22"	54'4.89"	659'0.53"	51'6.59"	2121'4.77"	48'8.19"	Infinity	45'9.92"	Infinity	43'0.02"	Infinity	40'2.69"	Infinity
50'0''	38'8.34"	70'10.66"	37'7.89"	74'8.76"	36'6.7"	79'6.91"	35'4.8"	85'9.98"	34'2.22"	94'1.8"	32'11.04"	105'7.97"	31'7.31"	122'6.13"	30'3.11"	149'3.35"	28'10.53"	197'11.18"
30'0''	25'7.27"	36'3.35"	25'1.88"	37'2.85"	24'8.06"	38'4.53"	24'1.79"	39'8.94"	23'7.07"	41'4.84"	22'11.91"	43'5.29"	22'4.3"	45'11.82"	21'8.26"	49'2.74"	20'11.8"	53'5.65"
20'0''	17'11.95"	22'6.36"	17'9.34"	22'10.64"	17'6.49"	23'3.61"	17'3.39"	23'9.41"	17'0.02"	24'4.23"	16'8.37"	25'0.29"	16'4.43"	25'9.9"	16'0.19"	26'9.48"	15'7.66"	27'11.58"
15'0''	13'10.47"	16'4.07"	13'8.96"	16'6.25"	13'7.29"	16'8.75"	13'5.47"	16'11.65"	13'3.47"	17'3"	13'1.29"	17'6.9"	12'10.92"	17'11.47"	12'8.34"	18'4.84"	12'5.55"	18'11.22"
12'0''	11'3.43"	12'9.81"	11'2.46"	12'11.11"	11'1.38"	13'0.6"	11'0.19"	13'2.3"	10'10.89"	13'4.26"	10'9.45"	13'6.53"	10'7.88"	13'9.15"	10'6.17"	14'0.21"	10'4.3"	14'3.78"
10'0''	9'6.15"	10'6.54"	9'5.47"	10'7.39"	9'4.73"	10'8.37"	9'3.9"	10'9.48"	9'2.99"	10'10.75"	9'1.98"	11'0.21"	9'0.88"	11'1.89"	8'11.67"	11'3.84"	8'10.34"	11'6.09"
9'0''	8'7.32"	9'5.16"	8'6.78"	9'5.83"	8'6.18"	9'6.6"	8'5.51"	9'7.46"	8'4.77"	9'8.46"	8'3.96"	9'9.59"	8'3.06"	9'10.89"	8'2.08"	10'0.39"	8'1"	10'2.13"
8'0''	7'8.37"	8'3.96"	7'7.95"	8'4.47"	7'7.48"	8'5.05"	7'6.95"	8'5.71"	7'6.38"	8'6.46"	7'5.74"	8'7.31"	7'5.03"	8'8.29"	7'4.25"	8'9.42"	7'3.4"	8'10.71"
7'6''	7'2.85"	7'9.42"	7'2.48"	7'9.86"	7'2.07"	7'10.35"	7'1.61"	7'10.92"	7'1.11"	7'11.56"	7'0.55"	8'0.3"	6'11.93"	8'1.14"	6'11.25"	8'2.1"	6'10.5"	8'3.2"
7'0''	6'9.29"	7'2.92"	6'8.97"	7'3.29"	6'8.62"	7'3.72"	6'8.22"	7'4.2"	6'7.79"	7'4.74"	6'7.3"	7'5.36"	6'6.77"	7'6.07"	6'6.18"	7'6.89"	6'5.53"	7'7.82"
6'6''	6'3.7"	6'8.46"	6'3.43"	6'8.77"	6'3.13"	6'9.13"	6'2.79"	6'9.53"	6'2.42"	6'9.99"	6'2.01"	6'10.51"	6'1.55"	6'11.1"	6'1.05"	6'11.78"	6'0.49"	7'0.55"
6'0''	5'10.08"	6'2.04"	5'9.85"	6'2.3"	5'9.6"	6'2.6"	5'9.32"	6'2.93"	5'9.01"	6'3.31"	5'8.66"	6'3.73"	5'8.27"	6'4.22"	5'7.85"	6'4.78"	5'7.38"	6'5.41"
5'6''	5'4.43"	5'7.67"	5'4.24"	5'7.88"	5'4.03"	5'8.11"	5'3.8"	5'8.38"	5'3.54"	5'8.69"	5'3.25"	5'9.04"	5'2.94"	5'9.43"	5'2.58"	5'9.88"	5'2.19"	5'10.39"
5'0''	4'10.74"	5'1.33"	4'10.59"	5'1.49"	4'10.42"	5'1.68"	4'10.23"	5'1.9"	4'10.03"	5'2.14"	4'9.79"	5'2.41"	4'9.54"	5'2.72"	4'9.25"	5'3.08"	4'8.94"	5'3.48"
4'9''	4'7.88"	4'10.17"	4'7.75"	4'10.32"	4'7.6"	4'10.49"	4'7.43"	4'10.67"	4'7.25"	4'10.89"	4'7.04"	4'11.13"	4'6.81"	4'11.4"	4'6.56"	4'11.71"	4'6.28"	5'0.07"
4'6''	4'5.02"	4'7.03"	4'4.9"	4'7.16"	4'4.77"	4'7.3"	4'4.62"	4'7.47"	4'4.46"	4'7.65"	4'4.28"	4'7.86"	4'4.08"	4'8.1"	4'3.85"	4'8.37"	4'3.6"	4'8.68"
4'3''	4'2.14"	4'3.89"	4'2.04"	4'4"	4'1.93"	4'4.13"	4'1.8"	4'4.27"	4'1.66"	4'4.43"	4'1.5"	4'4.62"	4'1.32"	4'4.82"	4'1.12"	4'5.06"	4'0.91"	4'5.32"
4'0''	3'11.26"	4'0.77"	3'11.17"	4'0.86"	3'11.07"	4'0.97"	3'10.96"	4'1.09"	3'10.84"	4'1.23"	3'10.7"	4'1.39"	3'10.55"	4'1.57"	3'10.38"	4'1.77"	3'10.19"	4'1.99"
3'9''	3'8.37"	3'9.65"	3'8.3"	3'9.73"	3'8.21"	3'9.83"	3'8.12"	3'9.93"	3'8.01"	3'10.05"	3'7.89"	3'10.18"	3'7.76"	3'10.33"	3'7.62"	3'10.5"	3'7.45"	3'10.69"
3'6''	3'5.47"	3'6.55"	3'5.41"	3'6.61"	3'5.34"	3'6.69"	3'5.26"	3'6.78"	3'5.17"	3'6.87"	3'5.07"	3'6.99"	3'4.96"	3'7.11"	3'4.84"	3'7.25"	3'4.7"	3'7.41"
3'3''	3'2.56"	3'3.45"	3'2.51"	3'3.51"	3'2.45"	3'3.57"	3'2.39"	3'3.64"	3'2.31"	3'3.72"	3'2.23"	3'3.81"	3'2.14"	3'3.91"	3'2.04"	3'4.03"	3'1.92"	3'4.16"
3'0''	2'11.65"	3'0.36"	2'11.6"	3'0.41"	2'11.56"	3'0.46"	2'11.5"	3'0.52"	2'11.44"	3'0.58"	2'11.38"	3'0.65"	2'11.3"	3'0.73"	2'11.22"	3'0.83"	2'11.13"	3'0.93"

8	9	10	11	13	14	16	18	20	22
59'2.71"	52'10.29"	47'2.18"	42'1.51"	37'7.46"	33'7.31"	30'0.43"	26'10.2"	24'0.15"	21'5.83"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
59'1.2"	Infinity	52'8.77"	Infinity	47'0.67"	Infinity	42'0.01"	Infinity	37'5.96"	Infinity	33'5.81"	Infinity	29'10.91"	Infinity	26'8.7"	Infinity	23'10.65"	Infinity	21'4.31"	Infinity
37'6.13"	Infinity	34'10.54"	Infinity	32'4.06"	Infinity	29'10.83"	Infinity	27'6.96"	Infinity	25'4.53"	Infinity	23'3.59"	Infinity	21'4.16"	Infinity	19'6.27"	Infinity	17'9.9"	Infinity
27'5.68"	312'6.8"	26'0.66"	898'0.22"	24'7.58"	Infinity	23'2.57"	Infinity	21'9.72"	Infinity	20'5.15"	Infinity	19'0.96"	Infinity	17'9.24"	Infinity	16'6.06"	Infinity	15'3.51"	Infinity
20'2.97"	59'2.55"	19'5.78"	67'4.24"	18'8.29"	79'8.27"	17'10.55"	100'4.87"	17'0.62"	142'0.1"	16'2.55"	266'6.25"	15'4.41"	24545'2"	14'6.28"	Infinity	13'8.21"	Infinity	12'10.27"	Infinity
15'2.84"	29'5"	14'9.72"	31'2.91"	14'4.32"	33'7.07"	13'10.66"	36'8.33"	13'4.76"	40'11.53"	12'10.63"	47'1.69"	12'4.32"	56'9.72"	11'9.86"	73'11.09"	11'3.28"	112'0.65"	10'8.62"	268'9.24"
12'2.55"	19'6.86"	11'11.33"	20'4.09"	11'7.89"	21'3.39"	11'4.24"	22'5.44"	11'0.37"	23'11.25"	10'8.29"	25'10.37"	10'4.03"	28'5.37"	9'11.59"	32'0.74"	9'7"	37'5.2"	9'2.28"	46'2.14"
10'2.28"	14'7.98"	10'0.09"	15'0.97"	9'9.73"	15'6.93"	9'7.2"	16'2.14"	9'4.49"	16'10.95"	9'1.61"	17'9.9"	8'10.57"	18'11.75"	8'7.36"	20'5.71"	8'4"	22'5.74"	8'0.5"	25'3.25"
8'8.9"	11'8.72"	8'7.33"	11'11.8"	8'5.62"	12'3.43"	8'3.78"	12'7.75"	8'1.8"	13'0.92"	7'11.67"	13'7.2"	7'9.4"	14'2.91"	7'7"	15'0.53"	7'4.45"	16'0.78"	7'1.77"	17'4.8"
7'11.82"	10'4.14"	7'10.53"	10'6.48"	7'9.12"	10'9.23"	7'7.6"	11'0.47"	7'5.96"	11'4.32"	7'4.19"	11'8.94"	7'2.3"	12'2.54"	7'0.27"	12'9.41"	6'10.12"	13'6"	6'7.85"	14'4.93"
7'2.46"	9'0.21"	7'1.43"	9'1.94"	7'0.31"	9'3.96"	6'11.09"	9'6.33"	6'9.77"	9'9.11"	6'8.34"	10'0.42"	6'6.79"	10'4.38"	6'5.14"	10'9.18"	6'3.38"	11'3.06"	6'1.5"	11'10.38"
6'9.67"	8'4.47"	6'8.77"	8'5.94"	6'7.78"	8'7.65"	6'6.7"	8'9.65"	6'5.53"	8'11.98"	6'4.26"	9'2.75"	6'2.89"	9'6.04"	6'1.41"	9'10"	5'11.84"	10'2.81"	5'10.15"	10'8.74"
6'4.81"	7'8.89"	6'4.02"	7'10.12"	6'3.16"	7'11.55"	6'2.22"	8'1.21"	6'1.19"	8'3.16"	6'0.08"	8'5.44"	5'10.87"	8'8.15"	5'9.57"	8'11.38"	5'8.17"	9'3.28"	5'6.68"	9'8.04"
5'11.87"	7'1.44"	5'11.19"	7'2.47"	5'10.45"	7'3.65"	5'9.64"	7'5.02"	5'8.75"	7'6.61"	5'7.79"	7'8.48"	5'6.74"	7'10.68"	5'5.6"	8'1.29"	5'4.38"	8'4.41"	5'3.08"	8'8.19"
5'6.86"	6'6.14"	5'6.28"	6'6.98"	5'5.65"	6'7.94"	5'4.96"	6'9.05"	5'4.21"	6'10.34"	5'3.38"	6'11.84"	5'2.48"	7'1.6"	5'1.51"	7'3.68"	5'0.46"	7'6.15"	4'11.33"	7'9.11"
5'1.76"	5'10.97"	5'1.28"	5'11.64"	5'0.76"	6'0.41"	5'0.18"	6'1.3"	4'11.55"	6'2.32"	4'10.86"	6'3.51"	4'10.11"	6'4.89"	4'9.29"	6'6.52"	4'8.4"	6'8.43"	4'7.44"	6'10.72"
4'8.58"	5'3.94"	4'8.2"	5'4.46"	4'7.77"	5'5.06"	4'7.3"	5'5.75"	4'6.78"	5'6.55"	4'6.22"	5'7.47"	4'5.6"	5'8.53"	4'4.92"	5'9.78"	4'4.18"	5'11.23"	4'3.39"	6'0.96"
4'5.97"	5'0.47"	4'5.62"	5'0.93"	4'5.24"	5'1.45"	4'4.82"	5'2.06"	4'4.35"	5'2.75"	4'3.85"	5'3.55"	4'3.29"	5'4.48"	4'2.68"	5'5.55"	4'2.02"	5'6.81"	4'1.3"	5'8.29"
4'3.33"	4'9.03"	4'3.02"	4'9.43"	4'2.68"	4'9.89"	4'2.31"	4'10.41"	4'1.9"	4'11.01"	4'1.44"	4'11.7"	4'0.95"	5'0.5"	4'0.41"	5'1.43"	3'11.81"	5'2.5"	3'11.17"	5'3.77"
4'0.66"	4'5.63"	4'0.39"	4'5.97"	4'0.1"	4'6.36"	3'11.77"	4'6.81"	3'11.41"	4'7.33"	3'11.01"	4'7.92"	3'10.57"	4'8.6"	3'10.09"	4'9.39"	3'9.57"	4'10.31"	3'9"	4'11.38"
3'9.98"	4'2.25"	3'9.75"	4'2.54"	3'9.49"	4'2.88"	3'9.2"	4'3.26"	3'8.89"	4'3.7"	3'8.54"	4'4.2"	3'8.16"	4'4.78"	3'7.74"	4'5.44"	3'7.28"	4'6.21"	3'6.78"	4'7.11"
3'7.27"	3'10.91"	3'7.07"	3'11.15"	3'6.85"	3'11.43"	3'6.61"	3'11.76"	3'6.34"	4'0.12"	3'6.04"	4'0.54"	3'5.71"	4'1.02"	3'5.34"	4'1.58"	3'4.94"	4'2.22"	3'4.51"	4'2.96"
3'4.55"	3'7.59"	3'4.38"	3'7.8"	3'4.19"	3'8.03"	3'3.98"	3'8.3"	3'3.75"	3'8.6"	3'3.5"	3'8.95"	3'3.22"	3'9.34"	3'2.91"	3'9.8"	3'2.57"	3'10.32"	3'2.19"	3'10.93"
3'1.8"	3'4.31"	3'1.66"	3'4.47"	3'1.5"	3'4.66"	3'1.33"	3'4.88"	3'1.13"	3'5.13"	3'0.92"	3'5.41"	3'0.69"	3'5.73"	3'0.43"	3'6.1"	3'0.14"	3'6.52"	2'11.83"	3'7.01"
2'11.02"	3'1.05"	2'10.91"	3'1.18"	2'10.78"	3'1.34"	2'10.64"	3'1.51"	2'10.48"	3'1.71"	2'10.31"	3'1.93"	2'10.12"	3'2.18"	2'9.9"	3'2.48"	2'9.67"	3'2.81"	2'9.41"	3'3.19"

Focal Length 60mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	54.118	48.242	43.006	38.342	34.187	30.485	27.187	24.249	21.631

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	54.077	Infinity	48.201	Infinity	42.966	Infinity	38.302	Infinity	34.147	Infinity	30.446	Infinity	27.148	Infinity	24.21	Infinity	21.592	Infinity
30.00	19.404	66.73	18.603	78.563	17.78	98.111	16.94	136.192	16.088	241.585	15.229	1857.026	14.37	Infinity	13.515	Infinity	12.671	Infinity
15.00	11.823	20.572	11.525	21.557	11.209	22.783	10.874	24.338	10.522	26.36	10.154	29.076	9.77	32.885	9.373	38.567	8.966	47.87
10.00	8.501	12.161	8.349	12.493	8.184	12.888	8.007	13.363	7.817	13.941	7.615	14.653	7.401	15.546	7.174	16.69	6.937	18.196
9.00	7.773	10.702	7.646	10.957	7.509	11.258	7.36	11.617	7.2	12.049	7.029	12.575	6.847	13.223	6.654	14.036	6.45	15.08
8.00	7.022	9.307	6.919	9.498	6.806	9.722	6.685	9.986	6.554	10.302	6.413	10.681	6.262	11.141	6.101	11.709	5.93	12.422
7.00	6.245	7.971	6.164	8.109	6.076	8.27	5.98	8.46	5.875	8.683	5.763	8.948	5.642	9.266	5.512	9.652	5.373	10.127
6.00	5.443	6.69	5.382	6.786	5.315	6.898	5.242	7.027	5.163	7.178	5.077	7.357	4.983	7.568	4.883	7.82	4.775	8.125
5.50	5.031	6.07	4.98	6.148	4.923	6.239	4.861	6.344	4.793	6.466	4.719	6.609	4.639	6.777	4.552	6.978	4.459	7.217
5.00	4.613	5.462	4.57	5.525	4.522	5.597	4.47	5.681	4.413	5.777	4.351	5.89	4.284	6.023	4.21	6.179	4.131	6.364
4.50	4.187	4.866	4.152	4.916	4.113	4.972	4.071	5.037	4.024	5.112	3.973	5.2	3.917	5.301	3.856	5.42	3.791	5.561
4.00	3.754	4.283	3.726	4.32	3.695	4.363	3.661	4.412	3.624	4.469	3.583	4.535	3.538	4.611	3.489	4.699	3.436	4.803
3.80	3.579	4.052	3.554	4.086	3.526	4.124	3.495	4.168	3.461	4.218	3.424	4.276	3.383	4.343	3.339	4.421	3.29	4.512
3.60	3.402	3.824	3.38	3.853	3.355	3.887	3.327	3.926	3.297	3.97	3.263	4.021	3.226	4.08	3.186	4.148	3.142	4.227
3.40	3.224	3.597	3.204	3.623	3.182	3.653	3.157	3.686	3.13	3.725	3.1	3.769	3.067	3.821	3.031	3.88	2.992	3.949
3.20	3.045	3.372	3.028	3.395	3.008	3.421	2.986	3.45	2.962	3.483	2.935	3.522	2.906	3.566	2.874	3.617	2.839	3.676
3.00	2.865	3.149	2.849	3.169	2.832	3.191	2.813	3.216	2.792	3.245	2.768	3.278	2.743	3.316	2.714	3.359	2.683	3.41
2.90	2.774	3.039	2.76	3.056	2.744	3.077	2.726	3.1	2.706	3.127	2.684	3.157	2.66	3.192	2.634	3.232	2.605	3.279
2.80	2.684	2.928	2.67	2.945	2.655	2.963	2.638	2.985	2.62	3.009	2.599	3.037	2.577	3.069	2.552	3.106	2.525	3.149
2.70	2.592	2.818	2.58	2.833	2.566	2.851	2.55	2.87	2.533	2.893	2.514	2.918	2.493	2.948	2.47	2.982	2.445	3.021
2.60	2.501	2.708	2.489	2.722	2.476	2.738	2.462	2.756	2.446	2.777	2.429	2.8	2.409	2.827	2.388	2.858	2.365	2.894
2.50	2.409	2.599	2.398	2.612	2.386	2.626	2.373	2.643	2.358	2.662	2.342	2.683	2.324	2.708	2.305	2.736	2.283	2.768
2.40	2.316	2.49	2.307	2.502	2.296	2.515	2.284	2.53	2.27	2.547	2.255	2.567	2.239	2.589	2.221	2.614	2.201	2.643
2.30	2.224	2.382	2.215	2.393	2.205	2.405	2.194	2.418	2.182	2.434	2.168	2.451	2.153	2.471	2.136	2.494	2.118	2.52
2.20	2.131	2.274	2.123	2.284	2.114	2.294	2.104	2.307	2.093	2.321	2.08	2.336	2.066	2.354	2.051	2.375	2.035	2.398
2.10	2.038	2.167	2.03	2.175	2.022	2.185	2.013	2.196	2.003	2.208	1.992	2.222	1.979	2.238	1.966	2.257	1.95	2.278
2.00	1.944	2.06	1.937	2.067	1.93	2.076	1.922	2.086	1.913	2.097	1.903	2.109	1.892	2.123	1.879	2.14	1.866	2.158
1.95	1.897	2.006	1.891	2.013	1.884	2.022	1.876	2.031	1.868	2.041	1.858	2.053	1.847	2.066	1.836	2.082	1.823	2.099
1.90	1.85	1.953	1.844	1.96	1.838	1.967	1.83	1.976	1.822	1.986	1.813	1.997	1.803	2.009	1.792	2.024	1.78	2.04
1.85	1.803	1.9	1.797	1.906	1.791	1.913	1.784	1.921	1.777	1.93	1.768	1.941	1.759	1.953	1.748	1.966	1.737	1.982
1.80	1.756	1.847	1.751	1.853	1.745	1.859	1.738	1.867	1.731	1.875	1.723	1.885	1.714	1.896	1.704	1.909	1.693	1.923
1.75	1.709	1.794	1.704	1.799	1.698	1.806	1.692	1.813	1.685	1.821	1.678	1.83	1.669	1.84	1.66	1.852	1.65	1.865
1.70	1.661	1.741	1.657	1.746	1.652	1.752	1.646	1.758	1.639	1.766	1.632	1.774	1.625	1.784	1.616	1.795	1.606	1.807
1.65	1.614	1.688	1.61	1.693	1.605	1.698	1.599	1.704	1.593	1.711	1.587	1.719	1.579	1.728	1.571	1.738	1.562	1.75
1.60	1.566	1.635	1.562	1.64	1.558	1.645	1.553	1.651	1.547	1.657	1.541	1.664	1.534	1.673	1.527	1.682	1.518	1.693
1.55	1.519	1.583	1.515	1.587	1.511	1.592	1.506	1.597	1.501	1.603	1.495	1.61	1.489	1.617	1.482	1.626	1.474	1.636
1.50	1.471	1.53	1.468	1.534	1.464	1.538	1.459	1.543	1.455	1.549	1.449	1.555	1.443	1.562	1.437	1.57	1.429	1.579
1.45	1.423	1.478	1.42	1.481	1.416	1.485	1.413	1.49	1.408	1.495	1.403	1.501	1.398	1.507	1.392	1.515	1.385	1.523
1.40	1.375	1.426	1.372	1.429	1.369	1.433	1.366	1.437	1.361	1.441	1.357	1.447	1.352	1.452	1.346	1.459	1.34	1.467
1.35	1.327	1.373	1.325	1.376	1.322	1.38	1.318	1.384	1.315	1.388	1.31	1.393	1.306	1.398	1.301	1.404	1.295	1.411
1.30	1.279	1.321	1.277	1.324	1.274	1.327	1.271	1.331	1.268	1.334	1.264	1.339	1.26	1.344	1.255	1.349	1.25	1.356
1.25	1.231	1.269	1.229	1.272	1.227	1.275	1.224	1.278	1.221	1.281	1.217	1.285	1.213	1.29	1.209	1.295	1.204	1.3
1.20	1.183	1.218	1.181	1.22	1.179	1.222	1.176	1.225	1.173	1.228	1.17	1.232	1.167	1.236	1.163	1.24	1.158	1.245
1.15	1.135	1.166	1.133	1.168	1.131	1.17	1.129	1.172	1.126	1.175	1.123	1.178	1.12	1.182	1.116	1.186	1.113	1.191
1.10	1.086	1.114	1.085	1.116	1.083	1.118	1.081	1.12	1.079	1.123	1.076	1.125	1.073	1.129	1.07	1.132	1.066	1.136
1.05	1.038	1.062	1.036	1.064	1.035	1.066	1.033	1.068	1.031	1.07	1.029	1.072	1.026	1.075	1.023	1.079	1.02	1.082
1.00	0.989	1.011	0.988	1.012	0.987	1.014	0.985	1.016	0.983	1.018	0.981	1.02	0.979	1.022	0.976	1.025	0.974	1.028
0.95	0.941	0.96	0.94	0.961	0.938	0.962	0.937	0.964	0.935	0.965	0.934	0.967	0.932	0.969	0.929	0.972	0.927	0.975
0.91	0.902	0.919	0.901	0.92	0.9	0.921	0.898	0.922	0.897	0.924	0.895	0.925	0.894	0.927	0.892	0.929	0.889	0.932

8	9	10	11	13	14	16	18	20	22
19.299	17.221	15.37	13.721	12.252	10.943	9.777	8.738	7.813	6.988

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
19.26	Infinity	17.183	Infinity	15.332	Infinity	13.683	Infinity	12.214	Infinity	10.905	Infinity	9.739	Infinity	8.7	Infinity	7.775	Infinity	6.95	Infinity
11.842	Infinity	11.035	Infinity	10.252	Infinity	9.499	Infinity	8.777	Infinity	8.09	Infinity	7.439	Infinity	6.826	Infinity	6.251	Infinity	5.715	Infinity
8.549	65.702	8.126	113.128	7.7	603.724	7.274	Infinity	6.849	Infinity	6.43	Infinity	6.018	Infinity	5.616	Infinity	5.227	Infinity	4.852	Infinity
6.689	20.251	6.431	23.201	6.165	27.751	5.893	35.617	5.615	52.328	5.335	111.061	5.052	Infinity	4.77	Infinity	4.49	Infinity	4.215	Infinity
6.236	16.457	6.013	18.342	5.781	21.056	5.542	25.267	5.297	32.615	5.048	48.521	4.796	107.813	4.542	Infinity	4.289	Infinity	4.038	Infinity
5.75	13.334	5.561	14.536	5.363	16.178	5.158	18.535	4.947	22.175	4.73	28.478	4.509	41.914	4.286	89.626	4.061	Infinity	3.837	Infinity
5.226	10.719	5.071	11.475	4.907	12.465	4.737	13.806	4.559	15.71	4.376	18.601	4.188	23.471	3.996	33.314	3.801	63.273	3.606	Infinity
4.66	8.498	4.537	8.96	4.408	9.545	4.271	10.302	4.128	11.313	3.978	12.72	3.824	14.794	3.665	18.13	3.503	24.323	3.338	39.608
4.359	7.508	4.253	7.864	4.139	8.307	4.019	8.87	3.893	9.603	3.761	10.59	3.624	11.977	3.482	14.055	3.336	17.478	3.187	24.113
4.046	6.587	3.955	6.857	3.857	7.188	3.754	7.602	3.645	8.129	3.53	8.818	3.409	9.75	3.285	11.07	3.156	13.067	3.023	16.412
3.719	5.728	3.643	5.929	3.561	6.172	3.474	6.471	3.381	6.845	3.283	7.321	3.18	7.944	3.072	8.789	2.96	9.987	2.844	11.805
3.378	4.926	3.316	5.071	3.249	5.246	3.177	5.457	3.1	5.716	3.019	6.04	2.932	6.452	2.842	6.989	2.747	7.715	2.648	8.74
3.238	4.619	3.181	4.746	3.119	4.897	3.053	5.08	2.983	5.302	2.908	5.578	2.828	5.924	2.744	6.371	2.656	6.964	2.564	7.783
3.095	4.321	3.043	4.431	2.987	4.561	2.927	4.718	2.863	4.908	2.794	5.141	2.721	5.431	2.643	5.802	2.562	6.285	2.477	6.939
2.949	4.029	2.902	4.124	2.852	4.236	2.798	4.37	2.739	4.531	2.677	4.727	2.61	4.969	2.539	5.275	2.465	5.668	2.387	6.189
2.801	3.746	2.759	3.826	2.714	3.922	2.665	4.035	2.612	4.17	2.556	4.334	2.496	4.535	2.431	4.786	2.364	5.104	2.293	5.518
2.65	3.469	2.613	3.537	2.572	3.617	2.529	3.712	2.482	3.825	2.431	3.961	2.377	4.127	2.32	4.331	2.259	4.587	2.194	4.915
2.573	3.333	2.538	3.395	2.501	3.469	2.46	3.556	2.415	3.659	2.368	3.782	2.317	3.932	2.262	4.115	2.205	4.344	2.144	4.635
2.496	3.198	2.463	3.256	2.428	3.323	2.39	3.402	2.348	3.495	2.303	3.607	2.255	3.742	2.204	3.907	2.15	4.111	2.092	4.369
2.418	3.066	2.387	3.118	2.354	3.179	2.319	3.251	2.28	3.335	2.238	3.436	2.193	3.557	2.145	3.705	2.093	3.887	2.039	4.115
2.339	2.934	2.311	2.982	2.28	3.037	2.247	3.102	2.211	3.179	2.171	3.269	2.129	3.378	2.084	3.51	2.036	3.672	1.985	3.873
2.259	2.805	2.233	2.848	2.205	2.898	2.174	2.957	2.14	3.025	2.104	3.107	2.065	3.204	2.022	3.321	1.977	3.464	1.929	3.641
2.179	2.677	2.155	2.716	2.129	2.761	2.1	2.813	2.069	2.875	2.035	2.948	1.999	3.034	1.96	3.138	1.918	3.265	1.873	3.42
2.098	2.55	2.076	2.585	2.052	2.626	2.025	2.673	1.997	2.728	1.966	2.793	1.932	2.869	1.896	2.961	1.857	3.072	1.815	3.208
2.016	2.425	1.996	2.457	1.974	2.493	1.95	2.535	1.923	2.583	1.895	2.641	1.864	2.709	1.83	2.79	1.794	2.887	1.756	3.005
1.934	2.302	1.915	2.33	1.895	2.362	1.873	2.399	1.849	2.442	1.823	2.493	1.795	2.552	1.764	2.623	1.731	2.708	1.695	2.81
1.85	2.18	1.834	2.204	1.816	2.233	1.796	2.265	1.774	2.303	1.75	2.348	1.724	2.4	1.696	2.461	1.666	2.535	1.633	2.623
1.808	2.119	1.793	2.142	1.775	2.169	1.756	2.199	1.736	2.235	1.713	2.276	1.688	2.325	1.662	2.382	1.633	2.451	1.602	2.533
1.766	2.059	1.751	2.081	1.735	2.105	1.717	2.134	1.697	2.167	1.676	2.206	1.652	2.251	1.627	2.305	1.599	2.368	1.57	2.444
1.724	1.999	1.71	2.019	1.694	2.043	1.677	2.069	1.658	2.1	1.638	2.136	1.616	2.178	1.592	2.228	1.566	2.287	1.537	2.357
1.681	1.94	1.668	1.958	1.653	1.98	1.637	2.005	1.619	2.034	1.6	2.067	1.579	2.106	1.556	2.152	1.531	2.206	1.505	2.271
1.638	1.881	1.626	1.898	1.612	1.918	1.597	1.941	1.58	1.968	1.562	1.999	1.542	2.035	1.52	2.078	1.497	2.128	1.472	2.187
1.595	1.822	1.584	1.838	1.571	1.857	1.556	1.878	1.541	1.903	1.523	1.932	1.505	1.965	1.484	2.004	1.462	2.05	1.438	2.105
1.552	1.763	1.541	1.778	1.529	1.796	1.516	1.815	1.501	1.838	1.485	1.865	1.467	1.896	1.448	1.932	1.427	1.974	1.404	2.024
1.509	1.705	1.498	1.719	1.487	1.735	1.474	1.753	1.461	1.774	1.446	1.799	1.429	1.827	1.411	1.86	1.391	1.899	1.37	1.945
1.465	1.647	1.456	1.66	1.445	1.675	1.433	1.692	1.42	1.711	1.406	1.734	1.391	1.76	1.374	1.79	1.355	1.825	1.335	1.867
1.421	1.59	1.412	1.602	1.402	1.615	1.391	1.631	1.379	1.648	1.366	1.669	1.352	1.693	1.336	1.72	1.319	1.753	1.3	1.791
1.377	1.532	1.369	1.543	1.36	1.556	1.35	1.57	1.338	1.586	1.326	1.605	1.313	1.627	1.298	1.652	1.282	1.681	1.264	1.716
1.333	1.476	1.325	1.486	1.317	1.497	1.307	1.51	1.297	1.525	1.286	1.542	1.273	1.562	1.259	1.584	1.244	1.611	1.228	1.642
1.288	1.419	1.281	1.428	1.274	1.438	1.265	1.45	1.255	1.464	1.245	1.479	1.233	1.497	1.221	1.518	1.207	1.542	1.192	1.57
1.244	1.363	1.237	1.371	1.23	1.38	1.222	1.391	1.213	1.403	1.204	1.417	1.193	1.433	1.181	1.452	1.169	1.474	1.155	1.499
1.199	1.307	1.193	1.314	1.186	1.323	1.179	1.332	1.171	1.343	1.162	1.356	1.152	1.37	1.142	1.387	1.13	1.406	1.117	1.429
1.154	1.251	1.148	1.258	1.142	1.265	1.136	1.274	1.128	1.284	1.12	1.295	1.111	1.308	1.102	1.323	1.091	1.34	1.079	1.36
1.108	1.196	1.103	1.202	1.098	1.209	1.092	1.216	1.085	1.225	1.078	1.235	1.07	1.247	1.061	1.26	1.051	1.275	1.041	1.293
1.063	1.141	1.058	1.146	1.053	1.152	1.048	1.159	1.042	1.167	1.035	1.176	1.028	1.186	1.02	1.198	1.011	1.211	1.002	1.227
1.017	1.086	1.013	1.091	1.008	1.096	1.004	1.102	0.998	1.109	0.992	1.117	0.986	1.126	0.979	1.136	0.971	1.148	0.962	1.161
0.971	1.032	0.967	1.036	0.963	1.041	0.959	1.046	0.954	1.052	0.949	1.059	0.943	1.066	0.937	1.075	0.93	1.086	0.922	1.097
0.924	0.978	0.921	0.981	0.918	0.985	0.914	0.99	0.91	0.995	0.905	1.001	0.9	1.008	0.895	1.015	0.888	1.024	0.882	1.034
0.887	0.935	0.884	0.938	0.881	0.941	0.878	0.945	0.874	0.95	0.87	0.955	0.865	0.961	0.86	0.968	0.855	0.976	0.849	0.985

Focal Length 60mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	177'6.63"	158'3.29"	141'1.15"	125'9.53"	112'1.94"	100'0.2"	89'2.35"	79'6.69"	70'11.61"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	177'5.02"	Infinity	158'1.68"	Infinity	140'11.59"	Infinity	125'7.97"	Infinity	112'0.39"	Infinity	99'10.65"	Infinity	89'0.82"	Infinity	79'5.14"	Infinity	70'10.09"	Infinity
100'0''	64'3.75"	226'11.42"	61'7.57"	268'11.44"	58'10.54"	339'6.81"	56'0.84"	481'8.28"	53'2.7"	909'6.72"	50'4.33"	Infinity	47'5.96"	Infinity	44'7.81"	Infinity	41'10.12"	Infinity
50'0''	39'3.27"	68'11.95"	38'3.26"	72'4.54"	37'2.5"	76'7.18"	36'1.01"	81'11.62"	34'10.82"	88'11.75"	33'7.99"	98'5.34"	32'4.57"	111'9.82"	31'0.63"	131'11.77"	29'8.26"	165'6.72"
30'0''	25'10.22"	35'9.46"	25'5.08"	36'7.9"	24'11.51"	37'8.25"	24'5.5"	38'10.98"	23'11.05"	40'4.74"	23'4.14"	42'2.37"	22'8.79"	44'5.13"	22'1"	47'2.81"	21'4.78"	50'10.16"
20'0''	18'1.36"	22'4.15"	17'10.89"	22'8.07"	17'8.18"	23'0.62"	17'5.23"	23'5.92"	17'2.01"	24'0.12"	16'10.53"	24'7.42"	16'6.75"	25'4.09"	16'2.69"	26'2.46"	15'10.33"	27'3.01"
15'0''	13'11.28"	16'2.94"	13'9.85"	16'4.95"	13'8.28"	16'7.25"	13'6.55"	16'9.91"	13'4.65"	17'0.99"	13'2.58"	17'4.56"	13'0.32"	17'8.72"	12'9.86"	18'1.61"	12'7.2"	18'7.38"
12'0''	11'3.95"	12'9.13"	11'3.03"	12'10.33"	11'2.02"	12'11.71"	11'0.89"	13'1.28"	10'11.66"	13'3.09"	10'10.3"	13'5.18"	10'8.81"	13'7.58"	10'7.18"	13'10.38"	10'5.4"	14'1.64"
10'0''	9'6.51"	10'6.09"	9'5.87"	10'6.89"	9'5.17"	10'7.79"	9'4.39"	10'8.82"	9'3.53"	10'9.99"	9'2.58"	10'11.34"	9'1.53"	11'0.89"	9'0.38"	11'2.68"	8'11.12"	11'4.75"
9'0''	8'7.61"	9'4.81"	8'7.1"	9'5.44"	8'6.53"	9'6.14"	8'5.9"	9'6.95"	8'5.21"	9'7.87"	8'4.44"	9'8.92"	8'3.59"	9'10.12"	8'2.66"	9'11.5"	8'1.63"	10'1.1"
8'0''	7'8.59"	8'3.69"	7'8.2"	8'4.17"	7'7.75"	8'4.7"	7'7.26"	8'5.32"	7'6.71"	8'6.01"	7'6.11"	8'6.81"	7'5.44"	8'7.71"	7'4.71"	8'8.75"	7'3.9"	8'9.94"
7'6''	7'3.04"	7'9.19"	7'2.69"	7'9.6"	7'2.31"	7'10.06"	7'1.88"	7'10.59"	7'1.4"	7'11.18"	7'0.87"	7'11.86"	7'0.29"	8'0.64"	6'11.65"	8'1.53"	6'10.94"	8'2.55"
7'0''	6'9.46"	7'2.73"	6'9.16"	7'3.07"	6'8.83"	7'3.47"	6'8.45"	7'3.91"	6'8.04"	7'4.42"	6'7.59"	7'5"	6'7.08"	7'5.66"	6'6.52"	7'6.41"	6'5.91"	7'7.27"
6'6''	6'3.84"	6'8.3"	6'3.59"	6'8.59"	6'3.31"	6'8.92"	6'2.99"	6'9.3"	6'2.64"	6'9.72"	6'2.25"	6'10.2"	6'1.82"	6'10.75"	6'1.34"	6'11.38"	6'0.81"	7'0.1"
6'0''	5'10.2"	6'1.91"	5'9.99"	6'2.15"	5'9.75"	6'2.42"	5'9.48"	6'2.73"	5'9.19"	6'3.08"	5'8.86"	6'3.48"	5'8.5"	6'3.94"	5'8.1"	6'4.45"	5'7.65"	6'5.04"
5'6''	5'4.52"	5'7.56"	5'4.35"	5'7.75"	5'4.15"	5'7.97"	5'3.93"	5'8.23"	5'3.69"	5'8.51"	5'3.42"	5'8.83"	5'3.12"	5'9.2"	5'2.79"	5'9.62"	5'2.42"	5'10.09"
5'0''	4'10.82"	5'1.24"	4'10.68"	5'1.4"	4'10.52"	5'1.57"	4'10.34"	5'1.77"	4'10.15"	5'2"	4'9.93"	5'2.25"	4'9.69"	5'2.54"	4'9.42"	5'2.87"	4'9.12"	5'3.25"
4'9''	4'7.95"	4'10.1"	4'7.83"	4'10.23"	4'7.69"	4'10.39"	4'7.53"	4'10.57"	4'7.36"	4'10.76"	4'7.16"	4'10.99"	4'6.95"	4'11.24"	4'6.71"	4'11.53"	4'6.44"	4'11.86"
4'6''	4'5.08"	4'6.96"	4'4.97"	4'7.08"	4'4.84"	4'7.22"	4'4.71"	4'7.37"	4'4.55"	4'7.55"	4'4.38"	4'7.74"	4'4.19"	4'7.96"	4'3.98"	4'8.22"	4'3.75"	4'8.5"
4'3''	4'2.2"	4'3.84"	4'2.1"	4'3.94"	4'1.99"	4'4.06"	4'1.87"	4'4.19"	4'1.74"	4'4.34"	4'1.59"	4'4.51"	4'1.42"	4'4.7"	4'1.24"	4'4.92"	4'1.03"	4'5.17"
4'0''	3'11.31"	4'0.72"	3'11.22"	4'0.81"	3'11.13"	4'0.91"	3'11.03"	4'1.02"	3'10.91"	4'1.15"	3'10.78"	4'1.3"	3'10.64"	4'1.46"	3'10.48"	4'1.65"	3'10.3"	4'1.86"
3'9''	3'8.41"	3'9.61"	3'8.34"	3'9.69"	3'8.26"	3'9.77"	3'8.17"	3'9.87"	3'8.07"	3'9.98"	3'7.96"	3'10.1"	3'7.84"	3'10.24"	3'7.7"	3'10.4"	3'7.55"	3'10.58"
3'6''	3'5.5"	3'6.51"	3'5.44"	3'6.58"	3'5.38"	3'6.65"	3'5.3"	3'6.73"	3'5.22"	3'6.82"	3'5.13"	3'6.92"	3'5.02"	3'7.04"	3'4.91"	3'7.17"	3'4.78"	3'7.32"
3'3''	3'2.59"	3'3.42"	3'2.54"	3'3.47"	3'2.49"	3'3.53"	3'2.42"	3'3.6"	3'2.35"	3'3.67"	3'2.28"	3'3.76"	3'2.19"	3'3.85"	3'2.1"	3'3.96"	3'1.99"	3'4.08"
3'0''	2'11.67"	3'0.34"	2'11.63"	3'0.38"	2'11.58"	3'0.43"	2'11.53"	3'0.48"	2'11.48"	3'0.54"	2'11.41"	3'0.61"	2'11.34"	3'0.69"	2'11.27"	3'0.77"	2'11.18"	3'0.87"

8	9	10	11	13	14	16	18	20	22
63'3.8"	56'5.99"	50'5.12"	45'0.2"	40'2.36"	35'10.83"	32'0.92"	28'8.02"	25'7.6"	22'11.12"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
63'2.28"	Infinity	56'4.49"	Infinity	50'3.62"	Infinity	44'10.7"	Infinity	40'0.86"	Infinity	35'9.33"	Infinity	31'11.42"	Infinity	28'6.53"	Infinity	25'6.09"	Infinity	22'9.63"	Infinity
39'1.08"	Infinity	36'4.9"	Infinity	33'9.75"	Infinity	31'3.77"	Infinity	28'11.09"	Infinity	26'7.81"	Infinity	24'5.98"	Infinity	22'5.67"	Infinity	20'6.88"	Infinity	18'9.61"	Infinity
28'3.55"	231'11.48"	26'10.62"	422'9.25"	25'5.56"	5721'2.24"	24'0.49"	Infinity	22'7.53"	Infinity	21'2.79"	Infinity	19'10.36"	Infinity	18'6.35"	Infinity	17'2.85"	Infinity	15'11.92"	Infinity
20'8.16"	55'7.61"	19'11.18"	62'2.74"	19'1.86"	71'9.71"	18'4.26"	86'10.46"	17'6.43"	113'9.04"	16'8.43"	174'8.14"	15'10.32"	441'1.18"	15'0.18"	Infinity	14'2.06"	Infinity	13'4.03"	Infinity
15'5.68"	28'6.38"	15'0.73"	30'1.5"	14'7.49"	32'1.75"	14'1.99"	34'9.27"	13'8.22"	38'3.57"	13'2.22"	43'2.86"	12'8.01"	50'7.19"	12'1.63"	62'7.55"	11'7.11"	85'7.29"	11'0.49"	146'2.7"
12'4.32"	19'2.25"	12'1.23"	19'10.5"	11'9.92"	20'8.53"	11'6.38"	21'8.88"	11'2.64"	23'0.35"	10'10.68"	24'8.15"	10'6.52"	26'10.17"	10'2.18"	29'9.61"	9'9.68"	34'0.33"	9'5.03"	40'6.24"
10'3.47"	14'5.46"	10'1.38"	14'9.97"	9'11.12"	15'3.34"	9'8.68"	15'9.79"	9'6.08"	16'5.61"	9'3.3"	17'3.24"	9'0.35"	18'3.29"	8'9.23"	19'6.69"	8'5.96"	21'2.89"	8'2.54"	23'6.34"
8'9.75"	11'7.15"	8'8.25"	11'9.96"	8'6.62"	12'1.25"	8'4.86"	12'5.16"	8'2.96"	12'9.81"	8'0.92"	13'3.41"	7'10.73"	13'10.24"	7'8.4"	14'6.69"	7'5.93"	15'5.31"	7'3.33"	16'6.97"
8'0.51"	10'2.94"	7'11.28"	10'5.09"	7'9.95"	10'7.59"	7'8.49"	10'10.53"	7'6.92"	11'2.01"	7'5.22"	11'6.17"	7'3.4"	11'11.17"	7'1.45"	12'5.26"	6'11.37"	13'0.79"	6'9.17"	13'10.27"
7'3.01"	8'11.32"	7'2.03"	9'0.91"	7'0.97"	9'2.76"	6'11.8"	9'4.92"	6'10.54"	9'7.45"	6'9.17"	9'10.44"	6'7.69"	10'2.01"	6'6.1"	10'6.3"	6'4.4"	10'11.51"	6'2.59"	11'5.95"
6'10.15"	8'3.72"	6'9.3"	8'5.07"	6'8.36"	8'6.64"	6'7.33"	8'8.46"	6'6.21"	8'10.59"	6'5"	9'1.1"	6'3.69"	9'4.07"	6'2.27"	9'7.63"	6'0.75"	9'11.92"	5'11.13"	10'5.16"
6'5.23"	7'8.25"	6'4.48"	7'9.39"	6'3.66"	7'10.7"	6'2.77"	8'0.23"	6'1.79"	8'2"	6'0.73"	8'4.08"	5'11.57"	8'6.54"	5'10.33"	8'9.45"	5'8.98"	9'0.95"	5'7.55"	9'5.18"
6'0.23"	7'0.92"	5'11.59"	7'1.86"	5'10.88"	7'2.95"	5'10.11"	7'4.21"	5'9.27"	7'5.67"	5'8.35"	7'7.37"	5'7.35"	7'9.37"	5'6.26"	7'11.73"	5'5.09"	8'2.55"	5'3.83"	8'5.93"
5'7.16"	6'5.71"	5'6.62"	6'6.48"	5'6.02"	6'7.37"	5'5.36"	6'8.39"	5'4.65"	6'9.58"	5'3.86"	6'10.95"	5'3"	7'0.56"	5'2.08"	7'2.44"	5'1.07"	7'4.68"	4'11.98"	7'7.34"
5'2.01"	5'10.63"	5'1.56"	5'11.25"	5'1.06"	5'11.96"	5'0.52"	6'0.78"	4'11.92"	6'1.72"	4'11.26"	6'2.81"	4'10.54"	6'4.07"	4'9.76"	6'5.56"	4'8.91"	6'7.3"	4'7.99"	6'9.36"
4'8.79"	5'3.67"	4'8.42"	5'4.16"	4'8.02"	5'4.71"	4'7.57"	5'5.35"	4'7.08"	5'6.08"	4'6.54"	5'6.93"	4'5.95"	5'7.91"	4'5.31"	5'9.04"	4'4.61"	5'10.38"	4'3.85"	5'11.94"
4'6.15"	5'0.24"	4'5.82"	5'0.66"	4'5.46"	5'1.15"	4'5.06"	5'1.71"	4'4.62"	5'2.35"	4'4.14"	5'3.08"	4'3.61"	5'3.93"	4'3.03"	5'4.92"	4'2.4"	5'6.07"	4'1.71"	5'7.42"
4'3.48"	4'8.83"	4'3.2"	4'9.2"	4'2.88"	4'9.62"	4'2.52"	4'10.11"	4'2.13"	4'10.66"	4'1.7"	4'11.3"	4'1.23"	5'0.03"	4'0.72"	5'0.88"	4'0.15"	5'1.87"	3'11.54"	5'3.03"
4'0.8"	4'5.45"	4'0.55"	4'5.77"	4'0.27"	4'6.14"	3'11.96"	4'6.55"	3'11.61"	4'7.03"	3'11.24"	4'7.57"	3'10.82"	4'8.2"	3'10.37"	4'8.93"	3'9.87"	4'9.77"	3'9.32"	4'10.75"
3'10.1"	4'2.1"	3'9.88"	4'2.38"	3'9.64"	4'2.69"	3'9.37"	4'3.04"	3'9.07"	4'3.44"	3'8.74"	4'3.91"	3'8.38"	4'4.44"	3'7.98"	4'5.05"	3'7.54"	4'5.76"	3'7.06"	4'6.59"
3'7.38"	3'10.78"	3'7.19"	3'11.01"	3'6.98"	3'11.27"	3'6.75"	3'11.57"	3'6.49"	3'11.91"	3'6.21"	4'0.3"	3'5.89"	4'0.75"	3'5.55"	4'1.26"	3'5.17"	4'1.85"	3'4.76"	4'2.53"
3'4.63"	3'7.49"	3'4.47"	3'7.68"	3'4.3"	3'7.9"	3'4.1"	3'8.14"	3'3.88"	3'8.43"	3'3.64"	3'8.75"	3'3.37"	3'9.11"	3'3.08"	3'9.54"	3'2.76"	3'10.02"	3'2.4"	3'10.58"
3'1.87"	3'4.22"	3'1.74"	3'4.38"	3'1.59"	3'4.56"	3'1.42"	3'4.76"	3'1.24"	3'4.99"	3'1.04"	3'5.25"	3'0.82"	3'5.55"	3'0.57"	3'5.89"	3'0.3"	3'6.28"	3'	3'6.73"
2'11.08"	3'0.98"	2'10.97"	3'1.11"	2'10.85"	3'1.25"	2'10.72"	3'1.41"	2'10.57"	3'1.59"	2'10.41"	3'1.8"	2'10.22"	3'2.04"	2'10.02"	3'2.31"	2'9.8"	3'2.62"	2'9.55"	3'2.98"

Focal Length 62mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	57.766	51.491	45.901	40.921	36.484	32.532	29.01	25.873	23.078

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	57.725	Infinity	51.451	Infinity	45.861	Infinity	40.881	Infinity	36.445	Infinity	32.492	Infinity	28.971	Infinity	25.834	Infinity	23.039	Infinity
30.00	19.847	61.908	19.06	71.223	18.249	85.715	17.418	111.122	16.572	166.628	15.716	379.951	14.856	Infinity	13.998	Infinity	13.147	Infinity
15.00	11.983	20.098	11.696	20.974	11.39	22.055	11.066	23.41	10.723	25.147	10.364	27.435	9.989	30.56	9.599	35.05	9.197	41.988
10.00	8.582	11.996	8.436	12.298	8.279	12.656	8.109	13.084	7.926	13.6	7.731	14.232	7.523	15.016	7.304	16.007	7.072	17.291
9.00	7.841	10.575	7.719	10.808	7.588	11.082	7.445	11.407	7.292	11.795	7.127	12.265	6.951	12.839	6.764	13.553	6.567	14.457
8.00	7.076	9.212	6.978	9.386	6.871	9.591	6.755	9.831	6.629	10.117	6.494	10.458	6.348	10.87	6.193	11.373	6.028	11.999
7.00	6.288	7.901	6.211	8.029	6.127	8.176	6.035	8.349	5.935	8.552	5.827	8.792	5.711	9.079	5.586	9.425	5.452	9.846
6.00	5.475	6.642	5.417	6.731	5.353	6.833	5.284	6.952	5.208	7.09	5.126	7.253	5.037	7.444	4.94	7.672	4.837	7.946
5.50	5.058	6.03	5.009	6.103	4.955	6.186	4.896	6.283	4.832	6.395	4.761	6.525	4.685	6.679	4.602	6.861	4.512	7.077
5.00	4.635	5.43	4.594	5.488	4.549	5.555	4.5	5.632	4.446	5.721	4.387	5.825	4.322	5.946	4.252	6.088	4.176	6.256
4.50	4.205	4.841	4.172	4.887	4.135	4.939	4.095	4.999	4.051	5.069	4.002	5.149	3.949	5.242	3.891	5.351	3.828	5.479
4.00	3.769	4.264	3.742	4.298	3.713	4.338	3.681	4.384	3.645	4.436	3.607	4.497	3.564	4.567	3.517	4.648	3.467	4.743
3.80	3.592	4.035	3.568	4.066	3.542	4.102	3.513	4.142	3.481	4.189	3.445	4.242	3.407	4.304	3.364	4.376	3.318	4.459
3.60	3.414	3.809	3.393	3.836	3.369	3.868	3.343	3.903	3.314	3.944	3.282	3.991	3.247	4.046	3.209	4.108	3.167	4.181
3.40	3.235	3.584	3.216	3.608	3.195	3.636	3.171	3.667	3.146	3.703	3.117	3.744	3.086	3.791	3.052	3.846	3.014	3.909
3.20	3.055	3.361	3.038	3.382	3.019	3.406	2.998	3.433	2.976	3.464	2.95	3.5	2.923	3.541	2.892	3.588	2.859	3.642
3.00	2.873	3.14	2.858	3.158	2.842	3.178	2.824	3.202	2.804	3.228	2.782	3.259	2.757	3.294	2.73	3.334	2.701	3.381
2.90	2.782	3.029	2.768	3.046	2.753	3.065	2.736	3.087	2.717	3.111	2.697	3.14	2.674	3.172	2.649	3.209	2.621	3.252
2.80	2.69	2.92	2.678	2.935	2.664	2.953	2.648	2.973	2.63	2.995	2.611	3.021	2.59	3.051	2.566	3.085	2.541	3.124
2.70	2.599	2.81	2.587	2.825	2.574	2.841	2.559	2.859	2.543	2.88	2.525	2.904	2.505	2.931	2.484	2.962	2.46	2.998
2.60	2.507	2.701	2.496	2.714	2.483	2.729	2.47	2.746	2.455	2.765	2.438	2.787	2.42	2.812	2.4	2.84	2.378	2.873
2.50	2.414	2.593	2.404	2.605	2.393	2.618	2.38	2.634	2.367	2.651	2.351	2.671	2.335	2.693	2.316	2.719	2.295	2.749
2.40	2.321	2.485	2.312	2.495	2.302	2.508	2.291	2.522	2.278	2.537	2.264	2.556	2.248	2.576	2.231	2.6	2.212	2.627
2.30	2.228	2.377	2.22	2.387	2.211	2.398	2.2	2.41	2.189	2.425	2.176	2.441	2.162	2.46	2.146	2.481	2.129	2.505
2.20	2.135	2.269	2.127	2.278	2.119	2.288	2.109	2.3	2.099	2.313	2.087	2.327	2.074	2.344	2.06	2.363	2.044	2.385
2.10	2.041	2.162	2.034	2.17	2.027	2.179	2.018	2.19	2.009	2.201	1.998	2.214	1.986	2.229	1.973	2.246	1.959	2.266
2.00	1.947	2.056	1.941	2.063	1.934	2.071	1.927	2.08	1.918	2.09	1.908	2.102	1.898	2.115	1.886	2.13	1.873	2.148
1.95	1.9	2.003	1.894	2.009	1.888	2.017	1.881	2.025	1.872	2.035	1.863	2.046	1.853	2.059	1.842	2.073	1.83	2.089
1.90	1.853	1.95	1.848	1.956	1.841	1.963	1.835	1.971	1.827	1.98	1.818	1.99	1.809	2.002	1.798	2.016	1.787	2.031
1.85	1.806	1.897	1.801	1.903	1.795	1.909	1.788	1.917	1.781	1.925	1.773	1.935	1.764	1.946	1.754	1.959	1.743	1.973
1.80	1.759	1.844	1.754	1.849	1.748	1.856	1.742	1.863	1.735	1.871	1.728	1.88	1.719	1.89	1.71	1.902	1.7	1.915
1.75	1.711	1.791	1.706	1.796	1.701	1.802	1.696	1.809	1.689	1.816	1.682	1.825	1.674	1.834	1.665	1.845	1.656	1.858
1.70	1.664	1.738	1.659	1.743	1.654	1.749	1.649	1.755	1.643	1.762	1.636	1.77	1.629	1.779	1.621	1.789	1.612	1.8
1.65	1.616	1.686	1.612	1.69	1.607	1.695	1.602	1.701	1.597	1.707	1.591	1.715	1.584	1.723	1.576	1.733	1.567	1.743
1.60	1.568	1.633	1.565	1.637	1.56	1.642	1.556	1.647	1.55	1.653	1.545	1.66	1.538	1.668	1.531	1.677	1.523	1.687
1.55	1.521	1.581	1.517	1.585	1.513	1.589	1.509	1.594	1.504	1.599	1.499	1.606	1.492	1.613	1.486	1.621	1.478	1.63
1.50	1.473	1.528	1.47	1.532	1.466	1.536	1.462	1.541	1.457	1.546	1.452	1.552	1.447	1.558	1.44	1.566	1.434	1.574
1.45	1.425	1.476	1.422	1.479	1.418	1.483	1.415	1.487	1.411	1.492	1.406	1.497	1.401	1.504	1.395	1.51	1.389	1.518
1.40	1.377	1.424	1.374	1.427	1.371	1.43	1.368	1.434	1.364	1.439	1.359	1.444	1.355	1.449	1.349	1.455	1.343	1.463
1.35	1.329	1.372	1.326	1.375	1.323	1.378	1.32	1.381	1.317	1.385	1.313	1.39	1.308	1.395	1.303	1.401	1.298	1.407
1.30	1.281	1.32	1.278	1.323	1.276	1.325	1.273	1.329	1.27	1.332	1.266	1.336	1.262	1.341	1.257	1.346	1.253	1.352
1.25	1.232	1.268	1.23	1.27	1.228	1.273	1.225	1.276	1.222	1.279	1.219	1.283	1.215	1.287	1.211	1.292	1.207	1.297
1.20	1.184	1.216	1.182	1.219	1.18	1.221	1.178	1.223	1.175	1.226	1.172	1.23	1.169	1.233	1.165	1.238	1.161	1.243
1.15	1.136	1.165	1.134	1.167	1.132	1.169	1.13	1.171	1.127	1.174	1.125	1.177	1.122	1.18	1.118	1.184	1.115	1.188
1.10	1.087	1.113	1.086	1.115	1.084	1.117	1.082	1.119	1.08	1.121	1.077	1.124	1.075	1.127	1.072	1.13	1.068	1.134
1.05	1.039	1.062	1.037	1.063	1.036	1.065	1.034	1.067	1.032	1.069	1.03	1.071	1.028	1.074	1.025	1.077	1.022	1.08
1.00	0.99	1.01	0.989	1.012	0.987	1.013	0.986	1.015	0.984	1.016	0.982	1.019	0.98	1.021	0.978	1.024	0.975	1.026
0.95	0.941	0.959	0.94	0.96	0.939	0.961	0.938	0.963	0.936	0.964	0.935	0.966	0.933	0.968	0.931	0.97	0.928	0.973
0.91	0.902	0.918	0.901	0.919	0.9	0.92	0.899	0.921	0.898	0.923	0.896	0.924	0.895	0.926	0.893	0.928	0.891	0.931

8	9	10	11	13	14	16	18	20	22
20.588	18.369	16.393	14.632	13.064	11.666	10.421	9.312	8.324	7.443

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
20.549	Infinity	18.331	Infinity	16.354	Infinity	14.594	Infinity	13.025	Infinity	11.628	Infinity	10.383	Infinity	9.274	Infinity	8.285	Infinity	7.405	Infinity
12.309	Infinity	11.489	Infinity	10.692	Infinity	9.921	Infinity	9.181	Infinity	8.474	Infinity	7.803	Infinity	7.168	Infinity	6.572	Infinity	6.013	Infinity
8.785	54.014	8.366	79.702	7.941	171.507	7.515	Infinity	7.089	Infinity	6.666	Infinity	6.249	Infinity	5.842	Infinity	5.445	Infinity	5.061	Infinity
6.83	19.006	6.578	21.393	6.316	24.915	6.047	30.585	5.772	41.125	5.493	67.235	5.211	236.517	4.929	Infinity	4.648	Infinity	4.369	Infinity
6.358	15.63	6.14	17.199	5.913	19.391	5.678	22.64	5.436	27.906	5.189	37.816	4.938	63.064	4.685	255.428	4.431	Infinity	4.179	Infinity
5.853	12.79	5.669	13.815	5.476	15.184	5.275	17.091	5.067	19.907	4.853	24.447	4.634	32.905	4.412	53.964	4.188	194.346	3.963	Infinity
5.31	10.368	5.159	11.025	5	11.872	4.834	12.996	4.66	14.547	4.48	16.808	4.294	20.377	4.104	26.796	3.911	41.576	3.716	110.262
4.726	8.278	4.607	8.687	4.481	9.198	4.349	9.85	4.209	10.705	4.063	11.865	3.911	13.517	3.755	16.035	3.594	20.303	3.431	29.028
4.416	7.337	4.313	7.654	4.204	8.045	4.087	8.535	3.965	9.165	3.836	9.995	3.702	11.133	3.562	12.772	3.418	15.317	3.271	19.765
4.095	6.457	4.007	6.698	3.913	6.993	3.813	7.357	3.707	7.816	3.595	8.406	3.478	9.188	3.355	10.266	3.228	11.831	3.098	14.293
3.76	5.631	3.687	5.811	3.608	6.029	3.523	6.295	3.434	6.624	3.338	7.038	3.238	7.572	3.133	8.28	3.023	9.257	2.909	10.68
3.411	4.854	3.352	4.986	3.287	5.144	3.218	5.333	3.144	5.564	3.065	5.849	2.981	6.207	2.893	6.668	2.8	7.278	2.704	8.117
3.268	4.557	3.213	4.672	3.154	4.809	3.091	4.973	3.023	5.172	2.95	5.416	2.873	5.719	2.792	6.106	2.706	6.609	2.616	7.288
3.122	4.266	3.072	4.367	3.019	4.485	2.961	4.626	2.899	4.796	2.833	5.004	2.762	5.26	2.687	5.582	2.608	5.997	2.525	6.546
2.973	3.983	2.929	4.069	2.881	4.171	2.828	4.292	2.772	4.436	2.712	4.612	2.648	4.827	2.579	5.094	2.507	5.434	2.431	5.877
2.822	3.706	2.783	3.779	2.739	3.866	2.693	3.969	2.642	4.091	2.588	4.238	2.53	4.417	2.468	4.638	2.402	4.916	2.333	5.272
2.669	3.435	2.634	3.497	2.595	3.571	2.554	3.657	2.509	3.76	2.46	3.882	2.408	4.03	2.352	4.211	2.293	4.436	2.231	4.72
2.591	3.301	2.558	3.359	2.522	3.426	2.483	3.505	2.441	3.599	2.395	3.71	2.346	3.844	2.293	4.008	2.237	4.209	2.178	4.463
2.512	3.17	2.482	3.223	2.448	3.284	2.411	3.356	2.372	3.441	2.329	3.542	2.283	3.663	2.233	3.81	2.18	3.991	2.124	4.217
2.433	3.04	2.405	3.088	2.373	3.144	2.339	3.209	2.302	3.286	2.262	3.378	2.218	3.487	2.172	3.619	2.122	3.78	2.069	3.981
2.353	2.911	2.327	2.955	2.297	3.005	2.266	3.065	2.231	3.134	2.194	3.217	2.153	3.315	2.11	3.433	2.063	3.577	2.013	3.755
2.273	2.784	2.248	2.823	2.221	2.869	2.191	2.923	2.159	2.986	2.124	3.06	2.087	3.148	2.046	3.253	2.003	3.381	1.956	3.538
2.192	2.658	2.169	2.693	2.144	2.735	2.116	2.783	2.087	2.839	2.054	2.906	2.019	2.984	1.982	3.078	1.941	3.191	1.898	3.329
2.109	2.533	2.089	2.565	2.066	2.603	2.04	2.646	2.013	2.696	1.983	2.755	1.951	2.825	1.916	2.908	1.879	3.008	1.838	3.129
2.027	2.41	2.008	2.439	1.987	2.472	1.964	2.511	1.938	2.555	1.911	2.608	1.881	2.67	1.849	2.743	1.815	2.83	1.777	2.936
1.943	2.288	1.926	2.314	1.907	2.343	1.886	2.377	1.863	2.417	1.838	2.464	1.811	2.518	1.781	2.582	1.749	2.659	1.715	2.751
1.859	2.168	1.843	2.19	1.826	2.216	1.807	2.247	1.786	2.282	1.763	2.322	1.739	2.37	1.712	2.426	1.683	2.493	1.651	2.572
1.817	2.108	1.802	2.129	1.785	2.154	1.767	2.182	1.747	2.215	1.726	2.253	1.702	2.297	1.677	2.349	1.649	2.411	1.619	2.485
1.774	2.048	1.76	2.068	1.744	2.091	1.727	2.118	1.708	2.148	1.688	2.184	1.665	2.225	1.641	2.274	1.615	2.331	1.586	2.4
1.731	1.989	1.718	2.008	1.703	2.029	1.687	2.054	1.669	2.083	1.65	2.116	1.628	2.154	1.605	2.199	1.58	2.253	1.553	2.316
1.688	1.93	1.675	1.948	1.662	1.968	1.646	1.991	1.629	2.017	1.611	2.048	1.591	2.084	1.569	2.126	1.545	2.175	1.52	2.234
1.645	1.872	1.633	1.888	1.62	1.907	1.605	1.928	1.59	1.953	1.572	1.981	1.553	2.015	1.533	2.053	1.51	2.099	1.486	2.153
1.601	1.814	1.59	1.829	1.578	1.846	1.564	1.866	1.549	1.889	1.533	1.915	1.515	1.946	1.496	1.982	1.475	2.024	1.452	2.074
1.558	1.756	1.547	1.77	1.536	1.786	1.523	1.804	1.509	1.825	1.494	1.85	1.477	1.878	1.459	1.911	1.439	1.95	1.417	1.995
1.514	1.698	1.504	1.711	1.493	1.726	1.482	1.743	1.468	1.762	1.454	1.785	1.438	1.811	1.421	1.842	1.402	1.877	1.382	1.919
1.47	1.641	1.461	1.653	1.451	1.666	1.44	1.682	1.427	1.7	1.414	1.721	1.399	1.745	1.383	1.773	1.365	1.805	1.346	1.843
1.426	1.584	1.417	1.595	1.408	1.607	1.398	1.622	1.386	1.638	1.374	1.657	1.36	1.679	1.345	1.705	1.328	1.734	1.31	1.769
1.381	1.527	1.374	1.537	1.365	1.549	1.355	1.562	1.345	1.577	1.333	1.594	1.32	1.614	1.306	1.638	1.291	1.665	1.274	1.696
1.337	1.471	1.33	1.48	1.322	1.49	1.313	1.503	1.303	1.516	1.292	1.532	1.28	1.55	1.267	1.571	1.253	1.596	1.237	1.624
1.292	1.415	1.285	1.423	1.278	1.433	1.27	1.444	1.261	1.456	1.251	1.47	1.24	1.487	1.228	1.506	1.214	1.528	1.2	1.554
1.247	1.359	1.241	1.366	1.234	1.375	1.227	1.385	1.218	1.396	1.209	1.409	1.199	1.424	1.188	1.441	1.176	1.461	1.162	1.485
1.202	1.303	1.196	1.31	1.19	1.318	1.183	1.327	1.175	1.337	1.167	1.349	1.158	1.362	1.148	1.378	1.136	1.396	1.124	1.416
1.156	1.248	1.151	1.254	1.146	1.261	1.139	1.269	1.132	1.278	1.125	1.289	1.116	1.301	1.107	1.315	1.097	1.331	1.086	1.349
1.111	1.193	1.106	1.199	1.101	1.205	1.095	1.212	1.089	1.22	1.082	1.23	1.074	1.24	1.066	1.253	1.057	1.267	1.047	1.283
1.065	1.138	1.061	1.143	1.056	1.149	1.051	1.155	1.045	1.162	1.039	1.171	1.032	1.18	1.025	1.191	1.016	1.204	1.007	1.218
1.019	1.084	1.015	1.088	1.011	1.093	1.006	1.099	1.001	1.105	0.996	1.113	0.989	1.121	0.983	1.13	0.975	1.141	0.967	1.154
0.972	1.03	0.969	1.034	0.965	1.038	0.961	1.043	0.957	1.048	0.952	1.055	0.946	1.062	0.94	1.07	0.934	1.08	0.926	1.091
0.926	0.976	0.923	0.979	0.92	0.983	0.916	0.987	0.912	0.992	0.908	0.998	0.903	1.004	0.898	1.011	0.892	1.019	0.885	1.029
0.888	0.933	0.886	0.936	0.883	0.939	0.88	0.943	0.876	0.947	0.872	0.952	0.868	0.958	0.863	0.964	0.858	0.971	0.852	0.98

Focal Length 62mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	189'6.25"	168'11.2"	150'7.13"	134'3.06"	119'8.38"	106'8.79"	95'2.13"	84'10.62"	75'8.58"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	189'4.62"	Infinity	168'9.62"	Infinity	150'5.56"	Infinity	134'1.5"	Infinity	119'6.84"	Infinity	106'7.23"	Infinity	95'0.6"	Infinity	84'9.09"	Infinity	75'7.05"	Infinity
100'0''	65'9.53"	209'11.86"	63'1.91"	242'10.01"	60'5.34"	294'7.32"	57'8"	387'5.2"	54'10.08"	599'9.92"	51'11.81"	1562'9.77"	49'1.41"	Infinity	46'3.1"	Infinity	43'5.13"	Infinity
50'0''	39'9.73"	67'4.44"	38'10.15"	70'4.52"	37'9.81"	74'1.09"	36'8.73"	78'9.16"	35'6.93"	84'9.24"	34'4.45"	92'8.62"	33'1.36"	103'7.71"	31'9.7"	119'5.65"	30'5.56"	144'2.93"
30'0''	26'0.94"	35'4.27"	25'8.03"	36'1.79"	25'2.7"	37'1.01"	24'8.95"	38'2.33"	24'2.75"	39'6.29"	23'8.1"	41'1.61"	23'1"	43'1.29"	22'5.45"	45'6.79"	21'9.47"	48'8.25"
20'0''	18'2.65"	22'2.17"	18'0.31"	22'5.79"	17'9.74"	22'9.97"	17'6.92"	23'2.83"	17'3.86"	23'8.5"	17'0.52"	24'3.16"	16'8.91"	24'11.02"	16'5.01"	25'8.38"	16'0.82"	26'7.64"
15'0''	14'0.02"	16'1.92"	13'10.67"	16'3.78"	13'9.18"	16'5.92"	13'7.54"	16'8.37"	13'5.74"	16'11.2"	13'3.77"	17'2.48"	13'1.61"	17'6.3"	12'11.26"	17'10.76"	12'8.72"	18'4.01"
12'0''	11'4.43"	12'8.52"	11'3.56"	12'9.64"	11'2.6"	12'10.92"	11'1.54"	13'0.38"	11'0.36"	13'2.05"	10'11.08"	13'3.97"	10'9.66"	13'6.19"	10'8.11"	13'8.76"	10'6.42"	13'11.75"
10'0''	9'6.83"	10'5.69"	9'6.23"	10'6.43"	9'5.57"	10'7.27"	9'4.83"	10'8.22"	9'4.02"	10'9.32"	9'3.12"	10'10.56"	9'2.13"	11'	9'1.04"	11'1.65"	8'11.84"	11'3.55"
9'0''	8'7.87"	9'4.5"	8'7.39"	9'5.08"	8'6.86"	9'5.74"	8'6.26"	9'6.49"	8'5.6"	9'7.34"	8'4.88"	9'8.31"	8'4.07"	9'9.43"	8'3.19"	9'10.71"	8'2.22"	10'0.18"
8'0''	7'8.8"	8'3.45"	7'8.42"	8'3.9"	7'8"	8'4.4"	7'7.54"	8'4.97"	7'7.03"	8'5.61"	7'6.45"	8'6.35"	7'5.82"	8'7.19"	7'5.13"	8'8.15"	7'4.36"	8'9.26"
7'6''	7'3.22"	7'8.98"	7'2.89"	7'9.37"	7'2.53"	7'9.8"	7'2.12"	7'10.29"	7'1.67"	7'10.84"	7'1.17"	7'11.47"	7'0.62"	8'0.2"	7'0.01"	8'1.02"	6'11.34"	8'1.96"
7'0''	6'9.61"	7'2.55"	6'9.33"	7'2.87"	6'9.01"	7'3.24"	6'8.67"	7'3.66"	6'8.28"	7'4.13"	6'7.85"	7'4.67"	6'7.37"	7'5.28"	6'6.84"	7'5.98"	6'6.26"	7'6.77"
6'6''	6'3.97"	6'8.15"	6'3.73"	6'8.42"	6'3.47"	6'8.73"	6'3.17"	6'9.08"	6'2.84"	6'9.48"	6'2.47"	6'9.93"	6'2.06"	6'10.44"	6'1.61"	6'11.02"	6'1.11"	6'11.69"
6'0''	5'10.31"	6'1.79"	5'10.11"	6'2.01"	5'9.88"	6'2.27"	5'9.63"	6'2.56"	5'9.36"	6'2.88"	5'9.05"	6'3.26"	5'8.7"	6'3.68"	5'8.32"	6'4.16"	5'7.9"	6'4.71"
5'6''	5'4.61"	5'7.46"	5'4.45"	5'7.64"	5'4.26"	5'7.85"	5'4.06"	5'8.08"	5'3.83"	5'8.35"	5'3.57"	5'8.65"	5'3.29"	5'8.99"	5'2.98"	5'9.38"	5'2.63"	5'9.82"
5'0''	4'10.89"	5'1.16"	4'10.75"	5'1.31"	4'10.61"	5'1.47"	4'10.44"	5'1.66"	4'10.26"	5'1.87"	4'10.05"	5'2.11"	4'9.82"	5'2.38"	4'9.57"	5'2.69"	4'9.29"	5'3.03"
4'9''	4'8.01"	4'10.03"	4'7.9"	4'10.16"	4'7.76"	4'10.3"	4'7.62"	4'10.47"	4'7.45"	4'10.65"	4'7.27"	4'10.86"	4'7.07"	4'11.1"	4'6.84"	4'11.37"	4'6.59"	4'11.68"
4'6''	4'5.13"	4'6.9"	4'5.03"	4'7.01"	4'4.91"	4'7.14"	4'4.78"	4'7.29"	4'4.64"	4'7.45"	4'4.48"	4'7.63"	4'4.3"	4'7.84"	4'4.1"	4'8.07"	4'3.88"	4'8.34"
4'3''	4'2.24"	4'3.78"	4'2.15"	4'3.88"	4'2.05"	4'3.99"	4'1.94"	4'4.12"	4'1.81"	4'4.26"	4'1.67"	4'4.42"	4'1.52"	4'4.6"	4'1.34"	4'4.8"	4'1.15"	4'5.03"
4'0''	3'11.35"	4'0.67"	3'11.27"	4'0.76"	3'11.18"	4'0.85"	3'11.08"	4'0.96"	3'10.98"	4'1.08"	3'10.85"	4'1.22"	3'10.72"	4'1.37"	3'10.57"	4'1.55"	3'10.4"	4'1.74"
3'9''	3'8.44"	3'9.57"	3'8.38"	3'9.64"	3'8.3"	3'9.72"	3'8.22"	3'9.82"	3'8.13"	3'9.92"	3'8.02"	3'10.03"	3'7.91"	3'10.16"	3'7.78"	3'10.31"	3'7.63"	3'10.48"
3'6''	3'5.53"	3'6.48"	3'5.48"	3'6.54"	3'5.41"	3'6.61"	3'5.34"	3'6.68"	3'5.27"	3'6.77"	3'5.18"	3'6.87"	3'5.08"	3'6.97"	3'4.97"	3'7.1"	3'4.85"	3'7.24"
3'3''	3'2.61"	3'3.4"	3'2.57"	3'3.44"	3'2.52"	3'3.5"	3'2.46"	3'3.56"	3'2.39"	3'3.63"	3'2.32"	3'3.71"	3'2.24"	3'3.8"	3'2.15"	3'3.9"	3'2.05"	3'4.02"
3'0''	2'11.69"	3'0.32"	2'11.65"	3'0.36"	2'11.61"	3'0.4"	2'11.56"	3'0.45"	2'11.51"	3'0.51"	2'11.45"	3'0.57"	2'11.38"	3'0.65"	2'11.31"	3'0.73"	2'11.23"	3'0.82"

8	9	10	11	13	14	16	18	20	22
67'6.55"	60'3.19"	53'9.39"	48'0.06"	42'10.33"	38'3.29"	34'2.28"	30'6.61"	27'3.72"	24'5.03"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
67'5.02"	Infinity	60'1.69"	Infinity	53'7.88"	Infinity	47'10.56"	Infinity	42'8.8"	Infinity	38'1.78"	Infinity	34'0.77"	Infinity	30'5.1"	Infinity	27'2.19"	Infinity	24'3.53"	Infinity
40'7.69"	Infinity	37'11"	Infinity	35'3.24"	Infinity	32'8.58"	Infinity	30'3.15"	Infinity	27'11.06"	Infinity	25'8.4"	Infinity	23'7.23"	Infinity	21'7.57"	Infinity	19'9.44"	Infinity
29'1.03"	188'1.54"	27'8.21"	286'0.59"	26'3.21"	690'8.36"	24'10.13"	Infinity	23'5.09"	Infinity	22'0.21"	Infinity	20'7.59"	Infinity	19'3.33"	Infinity	17'11.53"	Infinity	16'8.27"	Infinity
21'1.07"	52'9.05"	20'4.29"	58'2.71"	19'7.15"	65'11.06"	18'9.71"	77'5.36"	18'	96'5.22"	17'2.09"	133'2.99"	16'4.03"	233'11.01"	15'5.9"	1582'3.76"	14'7.75"	Infinity	13'9.66"	Infinity
15'8.34"	27'9.32"	15'3.55"	29'2.19"	14'10.48"	30'11.34"	14'5.12"	33'2.43"	13'11.49"	36'2.09"	13'5.62"	40'2.79"	12'11.52"	46'0.68"	12'5.23"	55'0.54"	11'10.79"	70'7.1"	11'4.22"	103'7.84"
12'5.96"	18'10.23"	12'2.99"	19'5.67"	11'11.8"	20'2.64"	11'8.39"	21'1.61"	11'4.77"	22'3.2"	11'0.92"	23'8.38"	10'8.88"	25'6.6"	10'4.64"	28'0.23"	10'0.22"	31'5.38"	9'7.65"	36'5.9"
10'4.57"	14'3.24"	10'2.57"	14'7.35"	10'0.4"	15'0.21"	9'10.07"	15'6.02"	9'7.56"	16'1.03"	9'4.87"	16'9.58"	9'2.02"	17'8.18"	8'10.99"	18'9.56"	8'7.81"	20'2.83"	8'4.46"	22'1.82"
8'10.53"	11'5.76"	8'9.1"	11'8.33"	8'7.55"	11'11.34"	8'5.86"	12'2.89"	8'4.04"	12'7.1"	8'2.07"	13'0.14"	7'11.97"	13'6.25"	7'9.72"	14'1.73"	7'7.33"	14'11.04"	7'4.8"	15'10.87"
8'1.15"	10'1.88"	7'11.98"	10'3.85"	7'10.71"	10'6.14"	7'9.32"	10'8.83"	7'7.81"	11'	7'6.19"	11'3.75"	7'4.43"	11'8.25"	7'2.55"	12'1.7"	7'0.55"	12'8.38"	6'10.41"	13'4.69"
7'3.51"	8'10.53"	7'2.59"	9'	7'1.57"	9'1.69"	7'0.46"	9'3.67"	6'11.25"	9'5.99"	6'9.94"	9'8.71"	6'8.53"	9'11.94"	6'7"	10'3.8"	6'5.36"	10'8.47"	6'3.61"	11'2.18"
6'10.6"	8'3.05"	6'9.78"	8'4.3"	6'8.89"	8'5.74"	6'7.91"	8'7.41"	6'6.84"	8'9.36"	6'5.68"	8'11.65"	6'4.43"	9'2.35"	6'3.07"	9'5.57"	6'1.61"	9'9.43"	6'0.04"	10'2.11"
6'5.61"	7'7.69"	6'4.9"	7'8.74"	6'4.13"	7'9.95"	6'3.27"	7'11.35"	6'2.34"	8'0.98"	6'1.32"	8'2.88"	6'0.22"	8'5.12"	5'11.03"	8'7.77"	5'9.74"	8'10.92"	5'8.35"	9'2.72"
6'0.56"	7'0.45"	5'11.95"	7'1.32"	5'11.28"	7'2.33"	5'10.55"	7'3.49"	5'9.74"	7'4.83"	5'8.87"	7'6.39"	5'7.91"	7'8.22"	5'6.87"	7'10.37"	5'5.75"	8'0.92"	5'4.54"	8'3.97"
5'7.44"	6'5.33"	5'6.92"	6'6.04"	5'6.36"	6'6.86"	5'5.73"	6'7.81"	5'5.05"	6'8.9"	5'4.3"	6'10.16"	5'3.48"	6'11.64"	5'2.6"	7'1.36"	5'1.63"	7'3.39"	5'0.59"	7'5.81"
5'2.24"	5'10.32"	5'1.81"	5'10.9"	5'1.34"	5'11.56"	5'0.82"	6'0.31"	5'0.25"	6'1.18"	4'11.63"	6'2.19"	4'10.94"	6'3.35"	4'10.2"	6'4.71"	4'9.39"	6'6.3"	4'8.5"	6'8.18"
4'8.97"	5'3.43"	4'8.63"	5'3.88"	4'8.24"	5'4.4"	4'7.82"	5'4.99"	4'7.36"	5'5.67"	4'6.84"	5'6.45"	4'6.28"	5'7.35"	4'5.67"	5'8.4"	4'5"	5'9.62"	4'4.27"	5'11.05"
4'6.31"	5'0.02"	4'6"	5'0.42"	4'5.66"	5'0.87"	4'5.28"	5'1.39"	4'4.87"	5'1.98"	4'4.41"	5'2.66"	4'3.9"	5'3.45"	4'3.35"	5'4.36"	4'2.75"	5'5.42"	4'2.09"	5'6.65"
4'3.63"	4'8.65"	4'3.36"	4'8.99"	4'3.05"	4'9.38"	4'2.72"	4'9.83"	4'2.35"	4'10.35"	4'1.94"	4'10.94"	4'1.49"	4'11.62"	4'1"	5'0.4"	4'0.47"	5'1.31"	3'11.88"	5'2.37"
4'0.93"	4'5.29"	4'0.69"	4'5.59"	4'0.42"	4'5.93"	4'0.13"	4'6.32"	3'11.81"	4'6.76"	3'11.45"	4'7.27"	3'11.05"	4'7.85"	3'10.62"	4'8.52"	3'10.14"	4'9.3"	3'9.62"	4'10.2"
3'10.21"	4'1.97"	3'10"	4'2.22"	3'9.77"	4'2.51"	3'9.52"	4'2.84"	3'9.23"	4'3.22"	3'8.92"	4'3.65"	3'8.58"	4'4.14"	3'8.2"	4'4.71"	3'7.78"	4'5.36"	3'7.33"	4'6.12"
3'7.47"	3'10.67"	3'7.29"	3'10.88"	3'7.1"	3'11.13"	3'6.88"	3'11.4"	3'6.63"	3'11.72"	3'6.36"	4'0.08"	3'6.07"	4'0.5"	3'5.74"	4'0.97"	3'5.38"	4'1.52"	3'4.98"	4'2.15"
3'4.71"	3'7.39"	3'4.56"	3'7.57"	3'4.39"	3'7.78"	3'4.21"	3'8.01"	3'4"	3'8.27"	3'3.77"	3'8.57"	3'3.52"	3'8.91"	3'3.24"	3'9.3"	3'2.94"	3'9.75"	3'2.6"	3'10.27"
3'1.93"	3'4.15"	3'1.81"	3'4.29"	3'1.67"	3'4.46"	3'1.51"	3'4.65"	3'1.34"	3'4.86"	3'1.15"	3'5.1"	3'0.94"	3'5.38"	3'0.71"	3'5.7"	3'0.45"	3'6.06"	3'0.17"	3'6.48"
2'11.14"	3'0.92"	2'11.03"	3'1.04"	2'10.92"	3'1.17"	2'10.79"	3'1.32"	2'10.65"	3'1.49"	2'10.5"	3'1.69"	2'10.32"	3'1.91"	2'10.13"	3'2.16"	2'9.92"	3'2.45"	2'9.69"	3'2.78"

Focal Length 64mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	61.534	54.848	48.892	43.585	38.858	34.646	30.894	27.551	24.572

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	61.492	Infinity	54.807	Infinity	48.851	Infinity	43.545	Infinity	38.818	Infinity	34.607	Infinity	30.854	Infinity	27.512	Infinity	24.534	Infinity
30.00	20.266	58.097	19.495	65.657	18.697	76.9	17.876	95.219	17.037	130.028	16.186	220.711	15.328	1021.536	14.468	Infinity	13.612	Infinity
15.00	12.132	19.686	11.856	20.472	11.56	21.433	11.246	22.628	10.913	24.139	10.563	26.099	10.196	28.719	9.814	32.373	9.419	37.778
10.00	8.657	11.851	8.518	12.127	8.366	12.452	8.203	12.84	8.027	13.305	7.839	13.87	7.638	14.565	7.425	15.434	7.2	16.545
9.00	7.903	10.463	7.787	10.676	7.661	10.926	7.524	11.222	7.377	11.574	7.219	11.996	7.049	12.51	6.868	13.142	6.676	13.935
8.00	7.126	9.127	7.033	9.287	6.93	9.475	6.819	9.695	6.699	9.955	6.569	10.264	6.429	10.635	6.279	11.085	6.119	11.639
7.00	6.327	7.839	6.254	7.957	6.173	8.093	6.086	8.251	5.991	8.437	5.887	8.656	5.776	8.916	5.655	9.228	5.526	9.605
6.00	5.504	6.599	5.449	6.681	5.389	6.775	5.323	6.885	5.25	7.012	5.172	7.161	5.086	7.336	4.994	7.543	4.894	7.79
5.50	5.083	5.995	5.037	6.062	4.985	6.139	4.929	6.228	4.868	6.331	4.8	6.452	4.727	6.592	4.648	6.758	4.562	6.954
5.00	4.656	5.402	4.617	5.456	4.574	5.518	4.528	5.589	4.476	5.671	4.42	5.766	4.358	5.877	4.291	6.007	4.218	6.161
4.50	4.222	4.819	4.191	4.861	4.156	4.91	4.117	4.966	4.075	5.03	4.029	5.104	3.978	5.19	3.923	5.29	3.863	5.407
4.00	3.782	4.247	3.757	4.279	3.729	4.316	3.699	4.358	3.665	4.407	3.628	4.463	3.588	4.527	3.543	4.602	3.495	4.689
3.80	3.604	4.02	3.581	4.049	3.556	4.082	3.529	4.12	3.498	4.163	3.465	4.212	3.428	4.269	3.388	4.335	3.344	4.412
3.60	3.425	3.796	3.404	3.821	3.382	3.85	3.357	3.883	3.33	3.921	3.3	3.965	3.267	4.015	3.23	4.073	3.19	4.14
3.40	3.244	3.572	3.226	3.595	3.206	3.62	3.184	3.649	3.16	3.683	3.133	3.721	3.103	3.765	3.071	3.815	3.035	3.873
3.20	3.063	3.351	3.047	3.37	3.029	3.393	3.01	3.418	2.988	3.447	2.964	3.48	2.938	3.518	2.909	3.561	2.877	3.612
3.00	2.88	3.131	2.867	3.148	2.851	3.167	2.834	3.189	2.815	3.213	2.794	3.242	2.771	3.274	2.745	3.312	2.717	3.355
2.90	2.789	3.021	2.776	3.037	2.761	3.055	2.745	3.075	2.728	3.098	2.708	3.124	2.686	3.154	2.663	3.188	2.636	3.228
2.80	2.697	2.912	2.685	2.927	2.671	2.943	2.656	2.961	2.64	2.983	2.622	3.007	2.602	3.034	2.579	3.066	2.555	3.102
2.70	2.605	2.803	2.593	2.817	2.581	2.832	2.567	2.849	2.552	2.868	2.535	2.89	2.516	2.916	2.496	2.945	2.473	2.978
2.60	2.512	2.695	2.502	2.707	2.49	2.721	2.477	2.737	2.463	2.754	2.448	2.775	2.43	2.798	2.411	2.824	2.39	2.855
2.50	2.419	2.587	2.41	2.598	2.399	2.611	2.387	2.625	2.374	2.641	2.36	2.66	2.344	2.681	2.326	2.705	2.307	2.733
2.40	2.326	2.479	2.317	2.489	2.308	2.501	2.297	2.514	2.285	2.529	2.272	2.546	2.257	2.565	2.241	2.587	2.223	2.612
2.30	2.233	2.372	2.225	2.381	2.216	2.392	2.206	2.403	2.195	2.417	2.183	2.432	2.169	2.449	2.155	2.469	2.138	2.492
2.20	2.139	2.265	2.132	2.273	2.124	2.283	2.115	2.293	2.105	2.305	2.094	2.319	2.081	2.335	2.068	2.352	2.053	2.373
2.10	2.045	2.159	2.038	2.166	2.031	2.174	2.023	2.184	2.014	2.195	2.004	2.207	1.993	2.221	1.981	2.237	1.967	2.255
2.00	1.951	2.052	1.945	2.059	1.938	2.067	1.931	2.075	1.923	2.085	1.914	2.096	1.904	2.108	1.893	2.122	1.88	2.138
1.95	1.903	1.999	1.898	2.006	1.891	2.013	1.885	2.021	1.877	2.03	1.868	2.04	1.859	2.052	1.848	2.065	1.837	2.08
1.90	1.856	1.947	1.851	1.952	1.845	1.959	1.838	1.967	1.831	1.975	1.823	1.985	1.814	1.996	1.804	2.008	1.793	2.022
1.85	1.808	1.894	1.804	1.899	1.798	1.906	1.792	1.913	1.785	1.921	1.777	1.93	1.769	1.94	1.76	1.952	1.749	1.965
1.80	1.761	1.841	1.756	1.846	1.751	1.852	1.745	1.859	1.739	1.866	1.732	1.875	1.724	1.884	1.715	1.895	1.705	1.908
1.75	1.713	1.788	1.709	1.793	1.704	1.799	1.699	1.805	1.693	1.812	1.686	1.82	1.678	1.829	1.67	1.839	1.661	1.851
1.70	1.666	1.736	1.662	1.74	1.657	1.746	1.652	1.751	1.646	1.758	1.64	1.765	1.633	1.774	1.625	1.783	1.617	1.794
1.65	1.618	1.683	1.614	1.688	1.61	1.692	1.605	1.698	1.6	1.704	1.594	1.711	1.587	1.719	1.58	1.727	1.572	1.737
1.60	1.57	1.631	1.567	1.635	1.563	1.639	1.558	1.644	1.553	1.65	1.548	1.656	1.542	1.664	1.535	1.672	1.527	1.681
1.55	1.522	1.579	1.519	1.582	1.515	1.587	1.511	1.591	1.507	1.596	1.501	1.602	1.496	1.609	1.489	1.617	1.482	1.625
1.50	1.474	1.527	1.471	1.53	1.468	1.534	1.464	1.538	1.46	1.543	1.455	1.548	1.45	1.555	1.444	1.562	1.437	1.569
1.45	1.426	1.475	1.423	1.478	1.42	1.481	1.417	1.485	1.413	1.49	1.408	1.495	1.404	1.5	1.398	1.507	1.392	1.514
1.40	1.378	1.423	1.376	1.425	1.373	1.429	1.369	1.432	1.366	1.436	1.362	1.441	1.357	1.446	1.352	1.452	1.347	1.459
1.35	1.33	1.371	1.328	1.373	1.325	1.376	1.322	1.379	1.319	1.383	1.315	1.387	1.311	1.392	1.306	1.398	1.301	1.404
1.30	1.282	1.319	1.28	1.321	1.277	1.324	1.274	1.327	1.271	1.33	1.268	1.334	1.264	1.338	1.26	1.343	1.255	1.349
1.25	1.233	1.267	1.231	1.269	1.229	1.272	1.227	1.274	1.224	1.277	1.221	1.281	1.217	1.285	1.214	1.289	1.209	1.294
1.20	1.185	1.215	1.183	1.217	1.181	1.22	1.179	1.222	1.176	1.225	1.174	1.228	1.17	1.231	1.167	1.235	1.163	1.24
1.15	1.137	1.164	1.135	1.166	1.133	1.168	1.131	1.17	1.129	1.172	1.126	1.175	1.123	1.178	1.12	1.182	1.117	1.186
1.10	1.088	1.112	1.086	1.114	1.085	1.116	1.083	1.118	1.081	1.12	1.079	1.122	1.076	1.125	1.073	1.128	1.07	1.132
1.05	1.039	1.061	1.038	1.062	1.037	1.064	1.035	1.066	1.033	1.068	1.031	1.07	1.029	1.072	1.026	1.075	1.023	1.078
1.00	0.991	1.01	0.989	1.011	0.988	1.012	0.987	1.014	0.985	1.015	0.983	1.017	0.981	1.02	0.979	1.022	0.977	1.025
0.95	0.942	0.958	0.941	0.96	0.94	0.961	0.938	0.962	0.937	0.964	0.935	0.965	0.934	0.967	0.932	0.969	0.93	0.972
0.91	0.903	0.918	0.902	0.918	0.901	0.92	0.9	0.921	0.898	0.922	0.897	0.924	0.895	0.925	0.894	0.927	0.892	0.929

8	9	10	11	13	14	16	18	20	22
21.919	19.555	17.449	15.573	13.902	12.413	11.086	9.904	8.851	7.913

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
21.881	Infinity	19.517	Infinity	17.411	Infinity	15.535	Infinity	13.863	Infinity	12.374	Infinity	11.048	Infinity	9.866	Infinity	8.813	Infinity	7.875	Infinity
12.767	Infinity	11.936	Infinity	11.126	Infinity	10.34	Infinity	9.583	Infinity	8.857	Infinity	8.166	Infinity	7.511	Infinity	6.894	Infinity	6.314	Infinity
9.012	46.513	8.596	62.865	8.174	104.018	7.748	395.37	7.321	Infinity	6.896	Infinity	6.476	Infinity	6.063	Infinity	5.66	Infinity	5.269	Infinity
6.964	18.002	6.717	19.982	6.46	22.804	6.195	27.114	5.923	34.445	5.646	49.533	5.366	97.825	5.083	Infinity	4.801	Infinity	4.521	Infinity
6.473	14.948	6.26	16.28	6.038	18.095	5.807	20.691	5.569	24.677	5.324	31.518	5.075	45.839	4.823	93.998	4.57	Infinity	4.316	Infinity
5.949	12.333	5.77	13.22	5.582	14.383	5.385	15.964	5.181	18.22	4.97	21.668	4.754	27.544	4.533	39.676	4.31	78.862	4.085	Infinity
5.389	10.069	5.243	10.646	5.088	11.381	4.925	12.34	4.755	13.633	4.579	15.458	4.396	18.204	4.208	22.764	4.017	31.731	3.822	57.141
4.787	8.089	4.673	8.453	4.551	8.904	4.422	9.473	4.286	10.208	4.143	11.185	3.995	12.537	3.841	14.516	3.682	17.662	3.52	23.38
4.47	7.189	4.37	7.473	4.264	7.821	4.152	8.253	4.032	8.801	3.907	9.512	3.775	10.465	3.639	11.797	3.497	13.776	3.351	16.993
4.14	6.343	4.055	6.561	3.965	6.825	3.868	7.148	3.765	7.552	3.656	8.065	3.542	8.733	3.422	9.632	3.298	10.899	3.169	12.798
3.798	5.545	3.727	5.709	3.651	5.905	3.57	6.144	3.483	6.436	3.391	6.8	3.293	7.263	3.19	7.868	3.083	8.683	2.972	9.833
3.442	4.792	3.385	4.912	3.323	5.055	3.256	5.226	3.185	5.432	3.108	5.686	3.027	6.002	2.941	6.402	2.851	6.924	2.757	7.625
3.296	4.502	3.243	4.607	3.187	4.732	3.126	4.88	3.06	5.059	2.99	5.277	2.916	5.545	2.836	5.883	2.753	6.318	2.665	6.892
3.147	4.219	3.1	4.31	3.048	4.418	2.993	4.546	2.933	4.7	2.869	4.886	2.801	5.114	2.728	5.397	2.651	5.758	2.571	6.227
2.996	3.941	2.953	4.021	2.907	4.114	2.857	4.223	2.803	4.355	2.745	4.512	2.683	4.704	2.617	4.941	2.547	5.239	2.472	5.621
2.843	3.67	2.805	3.738	2.763	3.817	2.718	3.911	2.67	4.022	2.618	4.155	2.562	4.316	2.502	4.512	2.438	4.757	2.371	5.067
2.687	3.404	2.653	3.462	2.616	3.53	2.577	3.609	2.533	3.702	2.487	3.813	2.437	3.946	2.383	4.108	2.326	4.308	2.265	4.557
2.608	3.274	2.576	3.327	2.542	3.389	2.504	3.461	2.464	3.546	2.42	3.647	2.373	3.768	2.322	3.915	2.268	4.094	2.21	4.318
2.528	3.144	2.499	3.193	2.466	3.25	2.431	3.316	2.393	3.393	2.352	3.485	2.308	3.595	2.26	3.727	2.209	3.888	2.155	4.088
2.448	3.016	2.42	3.061	2.39	3.112	2.358	3.172	2.322	3.243	2.284	3.326	2.242	3.425	2.197	3.544	2.149	3.689	2.098	3.867
2.367	2.89	2.341	2.93	2.314	2.977	2.283	3.032	2.25	3.095	2.214	3.171	2.175	3.26	2.133	3.366	2.089	3.496	2.041	3.654
2.285	2.764	2.262	2.801	2.236	2.844	2.208	2.893	2.177	2.95	2.144	3.018	2.107	3.098	2.068	3.194	2.026	3.309	1.982	3.449
2.203	2.64	2.181	2.674	2.157	2.712	2.131	2.756	2.103	2.808	2.072	2.869	2.039	2.94	2.002	3.025	1.963	3.127	1.922	3.251
2.12	2.518	2.1	2.547	2.078	2.582	2.054	2.622	2.028	2.668	2	2.722	1.969	2.786	1.935	2.861	1.899	2.952	1.86	3.061
2.036	2.396	2.018	2.423	1.998	2.453	1.976	2.489	1.952	2.53	1.926	2.579	1.898	2.635	1.867	2.702	1.833	2.781	1.798	2.877
1.952	2.276	1.935	2.3	1.917	2.327	1.897	2.358	1.875	2.395	1.851	2.438	1.825	2.488	1.797	2.546	1.767	2.616	1.734	2.699
1.867	2.157	1.852	2.178	1.835	2.202	1.817	2.23	1.797	2.262	1.776	2.3	1.752	2.343	1.726	2.395	1.699	2.455	1.668	2.527
1.824	2.097	1.81	2.117	1.794	2.14	1.777	2.166	1.758	2.196	1.737	2.231	1.715	2.272	1.69	2.32	1.664	2.377	1.635	2.444
1.781	2.039	1.767	2.057	1.753	2.079	1.736	2.103	1.719	2.131	1.699	2.164	1.678	2.202	1.654	2.247	1.629	2.299	1.602	2.362
1.738	1.98	1.725	1.998	1.711	2.017	1.696	2.04	1.679	2.067	1.66	2.097	1.64	2.133	1.618	2.174	1.594	2.223	1.568	2.281
1.694	1.922	1.682	1.938	1.669	1.957	1.655	1.978	1.639	2.003	1.621	2.031	1.602	2.064	1.581	2.103	1.558	2.148	1.534	2.201
1.651	1.864	1.639	1.879	1.627	1.896	1.613	1.916	1.598	1.939	1.582	1.966	1.564	1.996	1.544	2.032	1.522	2.074	1.499	2.123
1.607	1.806	1.596	1.82	1.585	1.836	1.572	1.855	1.558	1.876	1.542	1.901	1.525	1.929	1.506	1.962	1.486	2.001	1.464	2.046
1.563	1.749	1.553	1.762	1.542	1.777	1.53	1.794	1.517	1.814	1.502	1.836	1.486	1.863	1.469	1.893	1.449	1.928	1.429	1.97
1.519	1.692	1.51	1.704	1.499	1.718	1.488	1.734	1.476	1.752	1.462	1.773	1.447	1.797	1.43	1.825	1.412	1.857	1.393	1.896
1.475	1.635	1.466	1.646	1.456	1.659	1.446	1.674	1.434	1.69	1.421	1.709	1.407	1.732	1.392	1.757	1.375	1.787	1.357	1.822
1.43	1.579	1.422	1.589	1.413	1.6	1.403	1.614	1.392	1.629	1.38	1.647	1.367	1.667	1.353	1.691	1.337	1.718	1.32	1.75
1.385	1.522	1.378	1.532	1.37	1.542	1.36	1.555	1.35	1.569	1.339	1.585	1.327	1.603	1.314	1.625	1.299	1.65	1.283	1.679
1.34	1.466	1.334	1.475	1.326	1.485	1.317	1.496	1.308	1.509	1.298	1.523	1.287	1.54	1.274	1.56	1.26	1.582	1.246	1.609
1.295	1.411	1.289	1.418	1.282	1.427	1.274	1.438	1.266	1.449	1.256	1.463	1.246	1.478	1.234	1.496	1.222	1.516	1.208	1.54
1.25	1.355	1.244	1.362	1.238	1.37	1.231	1.38	1.223	1.39	1.214	1.402	1.204	1.416	1.194	1.432	1.182	1.45	1.169	1.472
1.204	1.3	1.199	1.306	1.193	1.314	1.187	1.322	1.18	1.332	1.172	1.342	1.163	1.355	1.153	1.369	1.142	1.386	1.131	1.405
1.159	1.245	1.154	1.251	1.149	1.257	1.143	1.265	1.136	1.273	1.129	1.283	1.121	1.294	1.112	1.307	1.102	1.322	1.092	1.339
1.113	1.19	1.108	1.196	1.104	1.201	1.098	1.208	1.092	1.216	1.086	1.224	1.078	1.234	1.07	1.246	1.062	1.259	1.052	1.274
1.067	1.136	1.063	1.141	1.058	1.146	1.054	1.152	1.048	1.159	1.042	1.166	1.036	1.175	1.029	1.185	1.021	1.197	1.012	1.21
1.02	1.082	1.017	1.086	1.013	1.091	1.009	1.096	1.004	1.102	0.999	1.109	0.993	1.116	0.986	1.125	0.979	1.135	0.971	1.147
0.974	1.028	0.971	1.032	0.967	1.036	0.963	1.04	0.959	1.045	0.955	1.051	0.949	1.058	0.944	1.066	0.937	1.075	0.93	1.085
0.927	0.974	0.924	0.978	0.921	0.981	0.918	0.985	0.914	0.99	0.91	0.995	0.906	1.001	0.9	1.007	0.895	1.015	0.889	1.024
0.89	0.932	0.887	0.935	0.884	0.938	0.881	0.941	0.878	0.945	0.874	0.95	0.87	0.955	0.866	0.961	0.861	0.968	0.855	0.975

Focal Length 64mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	201'10.6"	179'11.37"	160'4.88"	142'11.94"	127'5.84"	113'8.02"	101'4.3"	90'4.69"	80'7.4"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	201'8.96"	Infinity	179'9.77"	Infinity	160'3.29"	Infinity	142'10.38"	Infinity	127'4.27"	Infinity	113'6.46"	Infinity	101'2.74"	Infinity	90'3.14"	Infinity	80'5.89"	Infinity
100'0''	67'2.41"	196'7.81"	64'7.38"	223'2.02"	61'11.31"	263'0.17"	59'2.37"	329'0.26"	56'4.74"	458'3.13"	53'6.63"	820'5.65"	50'8.27"	7356'11.95"	47'9.89"	Infinity	44'11.7"	Infinity
50'0''	40'3.76"	65'11.5"	39'4.59"	68'7.83"	38'4.66"	71'11.45"	37'3.98"	76'0.77"	36'2.57"	81'3.38"	35'0.46"	88'0.85"	33'9.7"	97'2.36"	32'6.34"	110'0.16"	31'2.45"	129'1.98"
30'0''	26'3.46"	34'11.66"	25'10.77"	35'8.39"	25'5.67"	36'6.64"	25'0.15"	37'6.75"	24'6.19"	38'9.19"	23'11.79"	40'2.57"	23'4.93"	41'11.71"	22'9.63"	44'1.81"	22'1.88"	46'10.59"
20'0''	18'3.84"	22'0.4"	18'1.61"	22'3.75"	17'11.17"	22'7.61"	17'8.49"	23'0.09"	17'5.56"	23'5.3"	17'2.37"	23'11.39"	16'10.92"	24'6.56"	16'7.18"	25'3.06"	16'3.14"	26'1.23"
15'0''	14'0.71"	16'1.01"	13'11.42"	16'2.74"	13'10.01"	16'4.72"	13'8.45"	16'6.99"	13'6.74"	16'9.61"	13'4.86"	17'0.64"	13'2.81"	17'4.15"	13'0.57"	17'8.24"	12'10.13"	18'1.05"
12'0''	11'4.87"	12'7.97"	11'4.04"	12'9.02"	11'3.13"	12'10.2"	11'2.13"	12'11.56"	11'1.01"	13'1.11"	10'11.79"	13'2.89"	10'10.44"	13'4.94"	10'8.97"	13'7.32"	10'7.35"	13'10.07"
10'0''	9'7.13"	10'5.33"	9'6.57"	10'6.02"	9'5.94"	10'6.8"	9'5.24"	10'7.69"	9'4.47"	10'8.71"	9'3.62"	10'9.87"	9'2.68"	10'11.2"	9'1.64"	11'0.72"	9'0.5"	11'2.49"
9'0''	8'8.11"	9'4.22"	8'7.66"	9'4.76"	8'7.15"	9'5.37"	8'6.59"	9'6.07"	8'5.97"	9'6.86"	8'5.28"	9'7.77"	8'4.52"	9'8.81"	8'3.68"	9'9.99"	8'2.75"	9'11.36"
8'0''	7'8.99"	8'3.24"	7'8.63"	8'3.65"	7'8.24"	8'4.12"	7'7.8"	8'4.65"	7'7.31"	8'5.25"	7'6.77"	8'5.94"	7'6.17"	8'6.72"	7'5.51"	8'7.62"	7'4.78"	8'8.64"
7'6''	7'3.38"	7'8.8"	7'3.07"	7'9.15"	7'2.73"	7'9.56"	7'2.35"	7'10.01"	7'1.92"	7'10.53"	7'1.45"	7'11.12"	7'0.93"	7'11.8"	7'0.35"	8'0.56"	6'11.71"	8'1.44"
7'0''	6'9.75"	7'2.39"	6'9.48"	7'2.7"	6'9.19"	7'3.04"	6'8.86"	7'3.43"	6'8.49"	7'3.87"	6'8.08"	7'4.37"	6'7.63"	7'4.94"	6'7.13"	7'5.59"	6'6.58"	7'6.33"
6'6''	6'4.09"	6'8.02"	6'3.87"	6'8.27"	6'3.61"	6'8.56"	6'3.33"	6'8.89"	6'3.02"	6'9.26"	6'2.67"	6'9.68"	6'2.29"	6'10.16"	6'1.86"	6'10.7"	6'1.39"	6'11.32"
6'0''	5'10.41"	6'1.68"	5'10.22"	6'1.89"	5'10.01"	6'2.13"	5'9.77"	6'2.4"	5'9.51"	6'2.7"	5'9.22"	6'3.05"	5'8.89"	6'3.45"	5'8.53"	6'3.89"	5'8.13"	6'4.4"
5'6''	5'4.69"	5'7.37"	5'4.54"	5'7.54"	5'4.36"	5'7.73"	5'4.17"	5'7.95"	5'3.95"	5'8.2"	5'3.71"	5'8.48"	5'3.45"	5'8.8"	5'3.15"	5'9.17"	5'2.82"	5'9.58"
5'0''	4'10.95"	5'1.09"	4'10.83"	5'1.23"	4'10.69"	5'1.38"	4'10.53"	5'1.56"	4'10.36"	5'1.76"	4'10.16"	5'1.98"	4'9.95"	5'2.23"	4'9.71"	5'2.52"	4'9.44"	5'2.84"
4'9''	4'8.07"	4'9.97"	4'7.96"	4'10.09"	4'7.84"	4'10.22"	4'7.7"	4'10.38"	4'7.54"	4'10.55"	4'7.37"	4'10.75"	4'7.18"	4'10.97"	4'6.96"	4'11.22"	4'6.73"	4'11.51"
4'6''	4'5.18"	4'6.85"	4'5.09"	4'6.95"	4'4.98"	4'7.07"	4'4.85"	4'7.21"	4'4.72"	4'7.36"	4'4.57"	4'7.53"	4'4.4"	4'7.73"	4'4.21"	4'7.95"	4'4"	4'8.2"
4'3''	4'2.29"	4'3.74"	4'2.2"	4'3.83"	4'2.11"	4'3.93"	4'2"	4'4.05"	4'1.88"	4'4.18"	4'1.75"	4'4.33"	4'1.6"	4'4.5"	4'1.43"	4'4.69"	4'1.25"	4'4.91"
4'0''	3'11.39"	4'0.63"	3'11.31"	4'0.71"	3'11.23"	4'0.8"	3'11.14"	4'0.9"	3'11.03"	4'1.02"	3'10.92"	4'1.14"	3'10.79"	4'1.29"	3'10.65"	4'1.45"	3'10.49"	4'1.64"
3'9''	3'8.48"	3'9.54"	3'8.41"	3'9.61"	3'8.34"	3'9.68"	3'8.26"	3'9.77"	3'8.18"	3'9.86"	3'8.08"	3'9.97"	3'7.97"	3'10.09"	3'7.85"	3'10.23"	3'7.71"	3'10.39"
3'6''	3'5.56"	3'6.45"	3'5.51"	3'6.51"	3'5.45"	3'6.57"	3'5.38"	3'6.64"	3'5.31"	3'6.72"	3'5.22"	3'6.81"	3'5.13"	3'6.92"	3'5.03"	3'7.03"	3'4.91"	3'7.16"
3'3''	3'2.64"	3'3.37"	3'2.59"	3'3.42"	3'2.54"	3'3.47"	3'2.49"	3'3.53"	3'2.43"	3'3.6"	3'2.36"	3'3.67"	3'2.28"	3'3.75"	3'2.2"	3'3.85"	3'2.1"	3'3.96"
3'0''	2'11.71"	3'0.3"	2'11.67"	3'0.34"	2'11.63"	3'0.38"	2'11.59"	3'0.43"	2'11.54"	3'0.48"	2'11.48"	3'0.54"	2'11.42"	3'0.61"	2'11.35"	3'0.68"	2'11.27"	3'0.77"

8	9	10	11	13	14	16	18	20	22
71'10.95"	64'1.88"	57'2.97"	51'1.11"	45'7.32"	40'8.7"	36'4.46"	32'5.92"	29'0.46"	25'11.54"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
71'9.44"	Infinity	64'0.38"	Infinity	57'1.47"	Infinity	50'11.61"	Infinity	45'5.8"	Infinity	40'7.18"	Infinity	36'2.95"	Infinity	32'4.42"	Infinity	28'10.96"	Infinity	25'10.03"	Infinity
42'1.94"	Infinity	39'4.82"	Infinity	36'8.53"	Infinity	34'1.24"	Infinity	31'7.12"	Infinity	29'2.28"	Infinity	26'10.83"	Infinity	24'8.83"	Infinity	22'8.33"	Infinity	20'9.36"	Infinity
29'10.12"	160'7.36"	28'5.45"	221'2.45"	27'0.53"	384'4.67"	25'7.48"	2267'0.78"	24'2.4"	Infinity	22'9.42"	Infinity	21'4.64"	Infinity	20'0.17"	Infinity	18'8.11"	Infinity	17'4.54"	Infinity
21'5.71"	50'4.67"	20'9.14"	55'0.22"	20'0.19"	61'4.34"	19'2.9"	70'6.16"	18'5.33"	84'8.96"	17'7.52"	109'8.25"	16'9.53"	164'1.49"	15'11.43"	372'8.17"	15'1.28"	Infinity	14'3.15"	Infinity
15'10.82"	27'1.5"	15'6.2"	28'4.52"	15'1.28"	29'11.17"	14'8.07"	31'10.76"	14'2.59"	34'5.33"	13'8.85"	37'10.19"	13'2.87"	42'7.13"	12'8.68"	49'7.28"	12'2.31"	60'11.07"	11'7.81"	82'0.59"
12'7.49"	18'6.71"	12'4.63"	19'1.45"	12'1.56"	19'9.54"	11'10.27"	20'7.35"	11'6.76"	21'7.42"	11'3.04"	22'10.5"	10'11.1"	24'5.74"	10'6.96"	26'6.96"	10'2.64"	29'5.15"	9'10.15"	33'5.77"
10'5.59"	14'1.27"	10'3.68"	14'5.03"	10'1.6"	14'9.46"	9'11.35"	15'2.73"	9'8.94"	15'9.05"	9'6.35"	16'4.71"	9'3.59"	17'2.13"	9'0.65"	18'1.88"	8'9.55"	19'4.86"	8'6.29"	21'0.45"
8'11.25"	11'4.52"	8'9.89"	11'6.89"	8'8.4"	11'9.65"	8'6.79"	12'0.89"	8'5.04"	12'4.73"	8'3.15"	12'9.29"	8'1.12"	13'2.79"	7'10.95"	13'9.48"	7'8.63"	14'5.73"	7'6.18"	15'4.09"
8'1.74"	10'0.93"	8'0.62"	10'2.75"	7'11.41"	10'4.86"	7'10.08"	10'7.32"	7'8.64"	10'10.22"	7'7.08"	11'1.64"	7'5.39"	11'5.71"	7'3.58"	11'10.62"	7'1.64"	12'4.59"	6'11.58"	12'11.95"
7'3.98"	8'9.82"	7'3.1"	8'11.18"	7'2.13"	9'0.75"	7'1.07"	9'2.57"	6'11.92"	9'4.69"	6'10.66"	9'7.18"	6'9.3"	9'10.13"	6'7.84"	10'1.63"	6'6.26"	10'5.84"	6'4.57"	10'10.95"
6'11"	8'2.44"	6'10.23"	8'3.6"	6'9.38"	8'4.93"	6'8.45"	8'6.48"	6'7.43"	8'8.27"	6'6.32"	8'10.37"	6'5.11"	9'0.84"	6'3.81"	9'3.76"	6'2.41"	9'7.25"	6'0.9"	9'11.46"
6'5.97"	7'7.18"	6'5.29"	7'8.16"	6'4.55"	7'9.28"	6'3.74"	7'10.57"	6'2.85"	8'0.07"	6'1.88"	8'1.82"	6'0.82"	8'3.87"	5'11.68"	8'6.28"	5'10.44"	8'9.15"	5'9.11"	9'0.58"
6'0.86"	7'0.03"	6'0.28"	7'0.84"	5'11.65"	7'1.77"	5'10.95"	7'2.84"	5'10.18"	7'4.08"	5'9.35"	7'5.52"	5'8.43"	7'7.2"	5'7.44"	7'9.17"	5'6.36"	7'11.5"	5'5.2"	8'2.26"
5'7.69"	6'4.98"	5'7.2"	6'5.65"	5'6.67"	6'6.41"	5'6.07"	6'7.29"	5'5.42"	6'8.29"	5'4.71"	6'9.46"	5'3.93"	6'10.82"	5'3.08"	7'0.4"	5'2.16"	7'2.26"	5'1.16"	7'4.46"
5'2.45"	5'10.05"	5'2.05"	5'10.58"	5'1.6"	5'11.19"	5'1.11"	5'11.89"	5'0.56"	6'0.7"	4'11.97"	6'1.63"	4'11.32"	6'2.71"	4'10.6"	6'3.96"	4'9.83"	6'5.42"	4'8.98"	6'7.14"
4'9.14"	5'3.21"	4'8.82"	5'3.63"	4'8.45"	5'4.11"	4'8.05"	5'4.66"	4'7.61"	5'5.29"	4'7.12"	5'6.02"	4'6.59"	5'6.85"	4'6"	5'7.82"	4'5.36"	5'8.94"	4'4.66"	5'10.26"
4'6.46"	4'11.83"	4'6.17"	5'0.2"	4'5.85"	5'0.63"	4'5.49"	5'1.11"	4'5.09"	5'1.66"	4'4.66"	5'2.29"	4'4.18"	5'3.02"	4'3.65"	5'3.86"	4'3.08"	5'4.84"	4'2.45"	5'5.97"
4'3.76"	4'8.48"	4'3.5"	4'8.8"	4'3.22"	4'9.17"	4'2.9"	4'9.59"	4'2.55"	4'10.07"	4'2.16"	4'10.61"	4'1.74"	4'11.25"	4'1.27"	4'11.97"	4'0.76"	5'0.81"	4'0.2"	5'1.79"
4'1.05"	4'5.15"	4'0.82"	4'5.43"	4'0.57"	4'5.75"	4'0.29"	4'6.11"	3'11.98"	4'6.52"	3'11.64"	4'6.99"	3'11.26"	4'7.53"	3'10.85"	4'8.15"	3'10.4"	4'8.87"	3'9.9"	4'9.7"
3'10.31"	4'1.85"	3'10.11"	4'2.08"	3'9.9"	4'2.35"	3'9.65"	4'2.66"	3'9.39"	4'3.01"	3'9.09"	4'3.41"	3'8.76"	4'3.87"	3'8.4"	4'4.4"	3'8"	4'5.01"	3'7.57"	4'5.71"
3'7.56"	3'10.57"	3'7.39"	3'10.77"	3'7.2"	3'10.99"	3'6.99"	3'11.25"	3'6.76"	3'11.55"	3'6.51"	3'11.89"	3'6.23"	4'0.27"	3'5.91"	4'0.71"	3'5.57"	4'1.22"	3'5.2"	4'1.81"
3'4.79"	3'7.31"	3'4.64"	3'7.48"	3'4.48"	3'7.67"	3'4.31"	3'7.88"	3'4.11"	3'8.13"	3'3.9"	3'8.41"	3'3.66"	3'8.73"	3'3.39"	3'9.09"	3'3.1"	3'9.51"	3'2.78"	3'9.99"
3'1.99"	3'4.08"	3'1.88"	3'4.21"	3'1.74"	3'4.37"	3'1.6"	3'4.55"	3'1.43"	3'4.75"	3'1.25"	3'4.97"	3'1.05"	3'5.23"	3'0.83"	3'5.53"	3'0.59"	3'5.87"	3'0.32"	3'6.26"
2'11.18"	3'0.87"	2'11.09"	3'0.98"	2'10.98"	3'1.1"	2'10.86"	3'1.24"	2'10.73"	3'1.4"	2'10.58"	3'1.58"	2'10.41"	3'1.79"	2'10.23"	3'2.03"	2'10.03"	3'2.3"	2'9.81"	3'2.6"

Focal Length 66mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	65.423	58.313	51.978	46.335	41.307	36.828	32.837	29.282	26.115

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	65.381	Infinity	58.271	Infinity	51.937	Infinity	46.295	Infinity	41.267	Infinity	36.788	Infinity	32.798	Infinity	29.243	Infinity	26.076	Infinity
30.00	20.665	55.015	19.909	61.297	19.124	70.317	18.315	84.246	17.485	108.367	16.64	159.777	15.785	342.299	14.925	Infinity	14.066	Infinity
15.00	12.271	19.325	12.005	20.035	11.719	20.897	11.415	21.96	11.092	23.29	10.751	24.991	10.393	27.226	10.019	30.269	9.63	34.62
10.00	8.727	11.721	8.593	11.975	8.448	12.273	8.291	12.626	8.122	13.047	7.941	13.556	7.746	14.177	7.54	14.948	7.321	15.92
9.00	7.96	10.362	7.849	10.559	7.729	10.789	7.598	11.059	7.457	11.379	7.304	11.762	7.14	12.225	6.965	12.79	6.779	13.491
8.00	7.173	9.051	7.083	9.199	6.986	9.372	6.879	9.574	6.764	9.811	6.639	10.093	6.504	10.429	6.36	10.835	6.205	11.331
7.00	6.363	7.784	6.293	7.893	6.217	8.018	6.133	8.164	6.042	8.335	5.943	8.535	5.836	8.773	5.72	9.055	5.596	9.396
6.00	5.531	6.56	5.479	6.636	5.421	6.723	5.358	6.825	5.289	6.942	5.214	7.079	5.132	7.239	5.044	7.429	4.948	7.654
5.50	5.106	5.963	5.062	6.025	5.013	6.097	4.959	6.179	4.901	6.275	4.837	6.386	4.767	6.515	4.691	6.667	4.608	6.846
5.00	4.675	5.376	4.638	5.426	4.598	5.484	4.553	5.55	4.504	5.626	4.45	5.714	4.391	5.816	4.327	5.936	4.258	6.076
4.50	4.238	4.799	4.208	4.838	4.175	4.884	4.138	4.935	4.098	4.995	4.054	5.063	4.006	5.143	3.953	5.235	3.895	5.343
4.00	3.794	4.231	3.77	4.261	3.744	4.296	3.715	4.335	3.683	4.38	3.648	4.432	3.609	4.492	3.567	4.561	3.521	4.642
3.80	3.615	4.007	3.593	4.033	3.57	4.064	3.544	4.099	3.515	4.139	3.483	4.185	3.448	4.238	3.409	4.299	3.367	4.37
3.60	3.435	3.783	3.415	3.807	3.394	3.834	3.371	3.865	3.345	3.901	3.316	3.941	3.284	3.988	3.25	4.042	3.212	4.104
3.40	3.253	3.562	3.236	3.583	3.217	3.607	3.196	3.634	3.173	3.665	3.147	3.7	3.119	3.741	3.088	3.788	3.054	3.842
3.20	3.071	3.342	3.056	3.36	3.039	3.381	3.02	3.404	3	3.431	2.977	3.462	2.952	3.497	2.925	3.538	2.894	3.584
3.00	2.887	3.123	2.874	3.138	2.859	3.156	2.843	3.177	2.825	3.2	2.805	3.226	2.783	3.257	2.759	3.291	2.732	3.331
2.90	2.795	3.014	2.783	3.028	2.769	3.045	2.754	3.064	2.737	3.085	2.719	3.11	2.698	3.138	2.675	3.17	2.65	3.206
2.80	2.703	2.905	2.691	2.919	2.679	2.934	2.664	2.951	2.649	2.971	2.632	2.994	2.612	3.019	2.591	3.049	2.568	3.083
2.70	2.61	2.797	2.599	2.809	2.588	2.824	2.575	2.84	2.56	2.858	2.544	2.878	2.526	2.902	2.507	2.929	2.485	2.96
2.60	2.517	2.689	2.507	2.701	2.496	2.714	2.484	2.728	2.471	2.745	2.456	2.764	2.44	2.785	2.421	2.81	2.401	2.838
2.50	2.424	2.582	2.415	2.592	2.405	2.604	2.394	2.617	2.381	2.632	2.368	2.65	2.352	2.669	2.336	2.692	2.317	2.718
2.40	2.33	2.475	2.322	2.484	2.313	2.495	2.303	2.507	2.291	2.521	2.279	2.536	2.265	2.554	2.249	2.575	2.232	2.598
2.30	2.236	2.368	2.229	2.376	2.221	2.386	2.211	2.397	2.201	2.41	2.189	2.424	2.177	2.44	2.162	2.458	2.147	2.479
2.20	2.142	2.261	2.136	2.269	2.128	2.278	2.119	2.288	2.11	2.299	2.1	2.312	2.088	2.326	2.075	2.343	2.061	2.362
2.10	2.048	2.155	2.042	2.162	2.035	2.17	2.027	2.179	2.019	2.189	2.009	2.2	1.999	2.213	1.987	2.228	1.974	2.245
2.00	1.953	2.049	1.948	2.055	1.942	2.062	1.935	2.07	1.927	2.079	1.918	2.09	1.909	2.101	1.899	2.114	1.887	2.13
1.95	1.906	1.996	1.901	2.002	1.895	2.009	1.888	2.016	1.881	2.025	1.873	2.035	1.864	2.045	1.854	2.058	1.843	2.072
1.90	1.858	1.944	1.853	1.949	1.848	1.956	1.842	1.963	1.835	1.971	1.827	1.98	1.819	1.99	1.809	2.002	1.799	2.015
1.85	1.811	1.891	1.806	1.896	1.801	1.902	1.795	1.909	1.789	1.916	1.781	1.925	1.773	1.934	1.765	1.945	1.755	1.958
1.80	1.763	1.839	1.759	1.843	1.754	1.849	1.748	1.855	1.742	1.862	1.736	1.87	1.728	1.879	1.72	1.889	1.71	1.901
1.75	1.715	1.786	1.711	1.791	1.707	1.796	1.702	1.802	1.696	1.808	1.69	1.816	1.682	1.824	1.675	1.834	1.666	1.844
1.70	1.668	1.734	1.664	1.738	1.66	1.743	1.655	1.748	1.649	1.754	1.643	1.761	1.637	1.769	1.629	1.778	1.621	1.788
1.65	1.62	1.681	1.616	1.685	1.612	1.69	1.608	1.695	1.603	1.701	1.597	1.707	1.591	1.714	1.584	1.723	1.576	1.732
1.60	1.572	1.629	1.569	1.633	1.565	1.637	1.561	1.642	1.556	1.647	1.551	1.653	1.545	1.66	1.538	1.668	1.531	1.676
1.55	1.524	1.577	1.521	1.581	1.517	1.584	1.513	1.589	1.509	1.594	1.504	1.599	1.499	1.605	1.493	1.613	1.486	1.621
1.50	1.476	1.525	1.473	1.528	1.47	1.532	1.466	1.536	1.462	1.54	1.458	1.545	1.453	1.551	1.447	1.558	1.441	1.565
1.45	1.428	1.473	1.425	1.476	1.422	1.479	1.419	1.483	1.415	1.487	1.411	1.492	1.406	1.497	1.401	1.503	1.395	1.51
1.40	1.379	1.421	1.377	1.424	1.374	1.427	1.371	1.43	1.368	1.434	1.364	1.438	1.36	1.443	1.355	1.449	1.35	1.455
1.35	1.331	1.369	1.329	1.372	1.326	1.375	1.324	1.378	1.32	1.381	1.317	1.385	1.313	1.39	1.309	1.395	1.304	1.4
1.30	1.283	1.318	1.281	1.32	1.278	1.322	1.276	1.325	1.273	1.328	1.27	1.332	1.266	1.336	1.262	1.341	1.258	1.346
1.25	1.234	1.266	1.232	1.268	1.23	1.27	1.228	1.273	1.225	1.276	1.222	1.279	1.219	1.283	1.216	1.287	1.211	1.292
1.20	1.186	1.215	1.184	1.216	1.182	1.218	1.18	1.221	1.178	1.223	1.175	1.226	1.172	1.23	1.169	1.233	1.165	1.238
1.15	1.137	1.163	1.136	1.165	1.134	1.167	1.132	1.169	1.13	1.171	1.128	1.174	1.125	1.177	1.122	1.18	1.119	1.184
1.10	1.089	1.112	1.087	1.113	1.086	1.115	1.084	1.117	1.082	1.119	1.08	1.121	1.078	1.124	1.075	1.127	1.072	1.13
1.05	1.04	1.06	1.039	1.062	1.037	1.063	1.036	1.065	1.034	1.067	1.032	1.069	1.03	1.071	1.028	1.074	1.025	1.077
1.00	0.991	1.009	0.99	1.01	0.989	1.012	0.987	1.013	0.986	1.015	0.984	1.016	0.982	1.018	0.98	1.021	0.978	1.023
0.95	0.942	0.958	0.941	0.959	0.94	0.96	0.939	0.961	0.938	0.963	0.936	0.964	0.935	0.966	0.933	0.968	0.931	0.97
0.91	0.903	0.917	0.902	0.918	0.901	0.919	0.9	0.92	0.899	0.921	0.898	0.923	0.896	0.924	0.895	0.926	0.893	0.928

8	9	10	11	13	14	16	18	20	22
23.293	20.779	18.54	16.544	14.767	13.183	11.772	10.515	9.396	8.398

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
23.255	Infinity	20.741	Infinity	18.501	Infinity	16.506	Infinity	14.729	Infinity	13.145	Infinity	11.734	Infinity	10.477	Infinity	9.357	Infinity	8.36	Infinity
13.215	Infinity	12.375	Infinity	11.554	Infinity	10.754	Infinity	9.981	Infinity	9.239	Infinity	8.529	Infinity	7.854	Infinity	7.217	Infinity	6.617	Infinity
9.229	41.296	8.818	52.734	8.399	76.608	7.975	156.197	7.548	Infinity	7.121	Infinity	6.698	Infinity	6.281	Infinity	5.873	Infinity	5.475	Infinity
7.09	17.177	6.849	18.851	6.597	21.172	6.336	24.578	6.068	30.014	5.794	39.97	5.515	63.826	5.233	195.073	4.95	Infinity	4.669	Infinity
6.582	14.378	6.374	15.526	6.157	17.058	5.93	19.189	5.696	22.329	5.454	27.375	5.208	36.726	4.957	59.722	4.704	203.265	4.45	Infinity
6.04	11.945	5.866	12.721	5.683	13.724	5.49	15.061	5.29	16.916	5.083	19.64	4.869	23.993	4.65	31.985	4.428	51.228	4.204	159.568
5.463	9.811	5.321	10.324	5.171	10.969	5.012	11.798	4.846	12.897	4.673	14.407	4.493	16.596	4.308	20.028	4.118	26.117	3.925	39.758
4.845	7.923	4.734	8.251	4.616	8.653	4.491	9.155	4.358	9.794	4.219	10.631	4.074	11.762	3.923	13.366	3.766	15.796	3.606	19.871
4.519	7.059	4.424	7.316	4.321	7.628	4.212	8.012	4.096	8.494	3.974	9.111	3.845	9.923	3.711	11.032	3.572	12.622	3.429	15.074
4.182	6.242	4.101	6.44	4.013	6.679	3.92	6.969	3.82	7.327	3.714	7.777	3.603	8.356	3.486	9.121	3.364	10.171	3.237	11.689
3.833	5.469	3.765	5.619	3.692	5.797	3.613	6.012	3.529	6.274	3.44	6.597	3.345	7.004	3.245	7.527	3.14	8.22	3.031	9.172
3.47	4.736	3.415	4.846	3.356	4.976	3.292	5.131	3.223	5.318	3.149	5.546	3.07	5.826	2.987	6.178	2.899	6.63	2.807	7.227
3.321	4.453	3.271	4.55	3.217	4.663	3.159	4.799	3.095	4.96	3.028	5.156	2.955	5.396	2.879	5.695	2.797	6.074	2.712	6.568
3.17	4.176	3.125	4.26	3.076	4.359	3.023	4.476	2.965	4.615	2.903	4.783	2.837	4.988	2.767	5.24	2.692	5.557	2.614	5.963
3.017	3.904	2.976	3.977	2.932	4.063	2.884	4.163	2.832	4.283	2.776	4.425	2.716	4.598	2.652	4.81	2.584	5.073	2.512	5.407
2.861	3.638	2.825	3.701	2.785	3.774	2.742	3.86	2.696	3.961	2.646	4.082	2.591	4.227	2.534	4.404	2.472	4.621	2.406	4.894
2.703	3.377	2.671	3.431	2.636	3.493	2.598	3.565	2.556	3.651	2.512	3.752	2.463	3.873	2.411	4.019	2.356	4.197	2.297	4.419
2.623	3.249	2.593	3.298	2.56	3.355	2.524	3.421	2.485	3.5	2.443	3.592	2.398	3.702	2.349	3.834	2.297	3.995	2.241	4.194
2.542	3.122	2.514	3.167	2.484	3.219	2.45	3.28	2.414	3.351	2.374	3.435	2.331	3.535	2.286	3.654	2.236	3.799	2.184	3.977
2.461	2.996	2.435	3.037	2.406	3.084	2.375	3.14	2.341	3.205	2.304	3.281	2.264	3.371	2.221	3.479	2.175	3.609	2.125	3.768
2.379	2.871	2.355	2.908	2.328	2.952	2.299	3.002	2.268	3.061	2.233	3.13	2.196	3.211	2.156	3.308	2.112	3.425	2.066	3.567
2.297	2.747	2.274	2.781	2.25	2.821	2.223	2.866	2.193	2.919	2.161	2.981	2.127	3.054	2.089	3.141	2.049	3.246	2.005	3.372
2.214	2.625	2.193	2.656	2.17	2.691	2.145	2.732	2.118	2.78	2.088	2.836	2.056	2.901	2.022	2.979	1.984	3.071	1.944	3.183
2.13	2.504	2.111	2.531	2.09	2.563	2.067	2.6	2.042	2.643	2.015	2.693	1.985	2.751	1.953	2.82	1.918	2.902	1.881	3.001
2.045	2.383	2.028	2.408	2.009	2.437	1.988	2.47	1.965	2.508	1.94	2.552	1.913	2.604	1.883	2.665	1.851	2.738	1.817	2.824
1.96	2.265	1.944	2.287	1.927	2.312	1.908	2.341	1.887	2.375	1.864	2.415	1.839	2.461	1.812	2.514	1.783	2.578	1.751	2.654
1.874	2.147	1.86	2.166	1.844	2.189	1.827	2.215	1.808	2.245	1.787	2.279	1.765	2.32	1.74	2.367	1.713	2.422	1.684	2.488
1.831	2.088	1.817	2.107	1.802	2.128	1.786	2.152	1.768	2.18	1.748	2.213	1.727	2.25	1.703	2.294	1.678	2.346	1.65	2.407
1.787	2.03	1.775	2.047	1.761	2.067	1.745	2.09	1.728	2.116	1.709	2.146	1.689	2.182	1.667	2.223	1.642	2.271	1.616	2.328
1.744	1.972	1.732	1.988	1.718	2.007	1.704	2.028	1.688	2.053	1.67	2.081	1.651	2.114	1.629	2.152	1.606	2.197	1.582	2.249
1.7	1.914	1.689	1.929	1.676	1.947	1.662	1.967	1.647	1.989	1.63	2.016	1.612	2.046	1.592	2.082	1.57	2.123	1.547	2.172
1.656	1.857	1.645	1.871	1.634	1.887	1.621	1.906	1.606	1.927	1.59	1.951	1.573	1.98	1.554	2.013	1.534	2.051	1.511	2.096
1.612	1.8	1.602	1.813	1.591	1.828	1.579	1.845	1.565	1.865	1.55	1.887	1.534	1.914	1.516	1.944	1.497	1.98	1.476	2.021
1.568	1.743	1.558	1.755	1.548	1.769	1.536	1.785	1.524	1.803	1.51	1.824	1.495	1.848	1.478	1.877	1.459	1.909	1.44	1.948
1.523	1.686	1.515	1.697	1.505	1.71	1.494	1.725	1.482	1.742	1.469	1.761	1.455	1.784	1.439	1.81	1.422	1.84	1.403	1.875
1.479	1.63	1.47	1.64	1.461	1.652	1.451	1.666	1.44	1.681	1.428	1.699	1.415	1.72	1.4	1.744	1.384	1.771	1.366	1.803
1.434	1.574	1.426	1.583	1.418	1.594	1.408	1.607	1.398	1.621	1.387	1.637	1.374	1.656	1.36	1.678	1.345	1.703	1.329	1.733
1.389	1.518	1.382	1.527	1.374	1.537	1.365	1.548	1.356	1.561	1.345	1.576	1.333	1.594	1.321	1.613	1.307	1.636	1.291	1.663
1.344	1.462	1.337	1.47	1.33	1.479	1.322	1.49	1.313	1.502	1.303	1.516	1.292	1.531	1.281	1.549	1.268	1.57	1.253	1.595
1.298	1.407	1.292	1.414	1.286	1.423	1.278	1.432	1.27	1.443	1.261	1.455	1.251	1.47	1.24	1.486	1.228	1.505	1.215	1.527
1.253	1.352	1.247	1.358	1.241	1.366	1.234	1.375	1.227	1.385	1.219	1.396	1.209	1.409	1.199	1.424	1.188	1.441	1.176	1.46
1.207	1.297	1.202	1.303	1.196	1.31	1.19	1.318	1.183	1.327	1.176	1.337	1.167	1.348	1.158	1.362	1.148	1.377	1.137	1.395
1.161	1.242	1.156	1.248	1.151	1.254	1.146	1.261	1.139	1.269	1.133	1.278	1.125	1.288	1.117	1.3	1.107	1.314	1.097	1.33
1.115	1.188	1.111	1.193	1.106	1.198	1.101	1.205	1.095	1.212	1.089	1.22	1.082	1.229	1.075	1.24	1.066	1.252	1.057	1.266
1.069	1.134	1.065	1.138	1.061	1.143	1.056	1.149	1.051	1.155	1.045	1.162	1.039	1.17	1.032	1.18	1.025	1.191	1.016	1.203
1.022	1.08	1.019	1.084	1.015	1.088	1.011	1.093	1.006	1.099	1.001	1.105	0.996	1.112	0.99	1.121	0.983	1.13	0.975	1.141
0.975	1.026	0.972	1.03	0.969	1.034	0.965	1.038	0.961	1.043	0.957	1.048	0.952	1.055	0.947	1.062	0.94	1.07	0.934	1.08
0.928	0.973	0.926	0.976	0.923	0.979	0.92	0.983	0.916	0.987	0.912	0.992	0.908	0.998	0.903	1.004	0.898	1.011	0.892	1.019
0.891	0.93	0.888	0.933	0.886	0.936	0.883	0.939	0.88	0.943	0.876	0.947	0.872	0.952	0.868	0.958	0.863	0.964	0.858	0.971

Focal Length 66mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	214'7.71"	191'3.79"	170'6.38"	152'0.21"	135'6.26"	120'9.92"	107'8.8"	96'0.83"	85'8.15"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	214'6.04"	Infinity	191'2.14"	Infinity	170'4.78"	Infinity	151'10.62"	Infinity	135'4.69"	Infinity	120'8.36"	Infinity	107'7.26"	Infinity	95'11.31"	Infinity	85'6.62"	Infinity
100'0''	68'6.43"	185'10.82"	66'0.02"	207'10.16"	63'4.49"	239'7.49"	60'7.99"	289'3.87"	57'10.7"	377'2.85"	55'0.82"	572'10.35"	52'2.56"	1373'3.9"	49'4.16"	Infinity	46'5.84"	Infinity
50'0''	40'9.38"	64'8.69"	39'10.62"	67'1.86"	38'11.09"	70'1.36"	37'10.81"	73'9.16"	36'9.78"	78'4.16"	35'8.04"	84'2.74"	34'5.62"	91'11.89"	33'2.56"	102'7.46"	31'10.95"	117'11.37"
30'0''	26'5.79"	34'7.55"	26'1.3"	35'3.59"	25'8.42"	36'0.99"	25'3.13"	37'0.07"	24'9.4"	38'1.21"	24'3.24"	39'4.94"	23'8.62"	40'11.96"	23'1.56"	42'11.25"	22'6.04"	45'4.23"
20'0''	18'4.94"	21'10.81"	18'2.82"	22'1.92"	18'0.49"	22'5.5"	17'9.93"	22'9.64"	17'7.14"	23'2.44"	17'4.09"	23'8.04"	17'0.78"	24'2.62"	16'9.19"	24'10.38"	16'5.31"	25'7.61"
15'0''	14'1.33"	16'0.18"	14'0.12"	16'1.8"	13'10.77"	16'3.64"	13'9.29"	16'5.75"	13'7.66"	16'8.18"	13'5.87"	16'10.98"	13'3.91"	17'2.23"	13'1.77"	17'6"	12'11.44"	17'10.41"
12'0''	11'5.27"	12'7.48"	11'4.49"	12'8.45"	11'3.62"	12'9.56"	11'2.67"	12'10.82"	11'1.61"	13'0.27"	11'0.45"	13'1.92"	10'11.17"	13'3.83"	10'9.76"	13'6.02"	10'8.22"	13'8.57"
10'0''	9'7.41"	10'5"	9'6.87"	10'5.65"	9'6.28"	10'6.38"	9'5.62"	10'7.21"	9'4.88"	10'8.16"	9'4.07"	10'9.24"	9'3.18"	10'10.48"	9'2.2"	10'11.9"	9'1.11"	11'1.53"
9'0''	8'8.33"	9'3.96"	8'7.9"	9'4.47"	8'7.42"	9'5.04"	8'6.89"	9'5.69"	8'6.3"	9'6.43"	8'5.65"	9'7.28"	8'4.93"	9'8.25"	8'4.13"	9'9.35"	8'3.25"	9'10.62"
8'0''	7'9.16"	8'3.04"	7'8.82"	8'3.43"	7'8.45"	8'3.87"	7'8.03"	8'4.36"	7'7.57"	8'4.93"	7'7.06"	8'5.57"	7'6.49"	8'6.3"	7'5.86"	8'7.14"	7'5.17"	8'8.09"
7'6''	7'3.53"	7'8.63"	7'3.24"	7'8.96"	7'2.91"	7'9.34"	7'2.55"	7'9.77"	7'2.15"	7'10.25"	7'1.7"	7'10.81"	7'1.21"	7'11.43"	7'0.66"	8'0.15"	7'0.05"	8'0.97"
7'0''	6'9.88"	7'2.25"	6'9.63"	7'2.53"	6'9.35"	7'2.85"	6'9.03"	7'3.22"	6'8.69"	7'3.63"	6'8.3"	7'4.1"	6'7.87"	7'4.63"	6'7.4"	7'5.24"	6'6.87"	7'5.93"
6'6''	6'4.2"	6'7.9"	6'3.99"	6'8.14"	6'3.75"	6'8.41"	6'3.48"	6'8.71"	6'3.19"	6'9.06"	6'2.86"	6'9.45"	6'2.49"	6'9.9"	6'2.09"	6'10.41"	6'1.64"	6'10.99"
6'0''	5'10.5"	6'1.58"	5'10.32"	6'1.78"	5'10.12"	6'2"	5'9.9"	6'2.25"	5'9.65"	6'2.54"	5'9.37"	6'2.87"	5'9.06"	6'3.23"	5'8.72"	6'3.65"	5'8.34"	6'4.13"
5'6''	5'4.77"	5'7.29"	5'4.62"	5'7.45"	5'4.46"	5'7.63"	5'4.27"	5'7.84"	5'4.07"	5'8.07"	5'3.84"	5'8.33"	5'3.59"	5'8.63"	5'3.31"	5'8.97"	5'2.99"	5'9.36"
5'0''	4'11.01"	5'1.03"	4'10.89"	5'1.16"	4'10.76"	5'1.3"	4'10.61"	5'1.47"	4'10.45"	5'1.65"	4'10.27"	5'1.86"	4'10.06"	5'2.1"	4'9.83"	5'2.37"	4'9.58"	5'2.67"
4'9''	4'8.12"	4'9.91"	4'8.02"	4'10.02"	4'7.9"	4'10.15"	4'7.77"	4'10.3"	4'7.62"	4'10.46"	4'7.46"	4'10.64"	4'7.28"	4'10.85"	4'7.08"	4'11.09"	4'6.85"	4'11.36"
4'6''	4'5.23"	4'6.8"	4'5.14"	4'6.9"	4'5.03"	4'7.01"	4'4.92"	4'7.14"	4'4.79"	4'7.28"	4'4.65"	4'7.44"	4'4.48"	4'7.62"	4'4.31"	4'7.83"	4'4.11"	4'8.06"
4'3''	4'2.33"	4'3.69"	4'2.25"	4'3.78"	4'2.16"	4'3.88"	4'2.06"	4'3.99"	4'1.94"	4'4.11"	4'1.82"	4'4.25"	4'1.68"	4'4.41"	4'1.52"	4'4.59"	4'1.35"	4'4.79"
4'0''	3'11.42"	4'0.6"	3'11.35"	4'0.67"	3'11.27"	4'0.75"	3'11.19"	4'0.85"	3'11.09"	4'0.96"	3'10.98"	4'1.08"	3'10.86"	4'1.21"	3'10.72"	4'1.37"	3'10.57"	4'1.54"
3'9''	3'8.51"	3'9.51"	3'8.45"	3'9.57"	3'8.38"	3'9.64"	3'8.31"	3'9.72"	3'8.22"	3'9.81"	3'8.13"	3'9.91"	3'8.03"	3'10.03"	3'7.91"	3'10.16"	3'7.78"	3'10.31"
3'6''	3'5.58"	3'6.43"	3'5.53"	3'6.48"	3'5.48"	3'6.54"	3'5.42"	3'6.6"	3'5.35"	3'6.68"	3'5.27"	3'6.77"	3'5.18"	3'6.86"	3'5.08"	3'6.97"	3'4.97"	3'7.09"
3'3''	3'2.66"	3'3.35"	3'2.62"	3'3.39"	3'2.57"	3'3.44"	3'2.52"	3'3.5"	3'2.46"	3'3.56"	3'2.39"	3'3.63"	3'2.32"	3'3.71"	3'2.24"	3'3.8"	3'2.15"	3'3.9"
3'0''	2'11.72"	3'0.28"	2'11.69"	3'0.32"	2'11.65"	3'0.36"	2'11.61"	3'0.4"	2'11.56"	3'0.45"	2'11.51"	3'0.51"	2'11.45"	3'0.57"	2'11.38"	3'0.64"	2'11.31"	3'0.73"

8	9	10	11	13	14	16	18	20	22
76'5.05"	68'2.07"	60'9.92"	54'3.34"	48'5.38"	43'3.02"	38'7.46"	34'5.98"	30'9.92"	27'6.63"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
76'3.53"	Infinity	68'0.57"	Infinity	60'8.4"	Infinity	54'1.85"	Infinity	48'3.86"	Infinity	43'1.52"	Infinity	38'5.97"	Infinity	34'4.49"	Infinity	30'8.4"	Infinity	27'5.13"	Infinity
43'7.82"	Infinity	40'10.33"	Infinity	38'1.57"	Infinity	35'5.73"	Infinity	32'10.97"	Infinity	30'5.43"	Infinity	28'1.23"	Infinity	25'10.45"	Infinity	23'9.15"	Infinity	21'9.36"	Infinity
30'6.84"	141'9.06"	29'2.34"	183'4.74"	27'9.53"	273'11.2"	26'4.54"	616'5.35"	24'11.46"	Infinity	23'6.41"	Infinity	22'1.51"	Infinity	20'8.86"	Infinity	19'4.57"	Infinity	18'0.72"	Infinity
21'10.09"	48'4.97"	21'1.73"	52'4.71"	20'4.97"	57'8.76"	19'7.86"	65'2.47"	18'10.43"	76'4.03"	18'0.74"	94'6.03"	17'2.84"	129'1.51"	16'4.79"	219'11.66"	15'6.66"	1065'2.32"	14'8.51"	Infinity
16'1.14"	26'6.71"	15'8.68"	27'8.18"	15'3.91"	29'0.77"	14'10.86"	30'9.54"	14'5.52"	33'0.1"	13'11.91"	35'10.98"	13'6.05"	39'10.45"	12'11.97"	45'6.26"	12'5.69"	54'2.2"	11'11.26"	68'11.97"
12'8.91"	18'3.6"	12'6.16"	18'9.74"	12'3.21"	19'5.08"	12'0.03"	20'1.92"	11'8.64"	21'0.72"	11'5.03"	22'2.09"	11'1.2"	23'6.96"	10'9.17"	25'4.73"	10'4.94"	27'9.69"	10'0.53"	31'1.77"
10'6.54"	13'11.52"	10'4.7"	14'2.97"	10'2.71"	14'7.03"	10'0.56"	14'11.84"	9'10.23"	15'5.57"	9'7.73"	16'0.48"	9'5.06"	16'8.91"	9'2.22"	17'7.34"	8'11.2"	18'8.49"	8'8.02"	20'1.42"
8'11.92"	11'3.41"	8'10.62"	11'5.6"	8'9.2"	11'8.14"	8'7.65"	11'11.12"	8'5.97"	12'2.63"	8'4.16"	12'6.79"	8'2.2"	12'11.77"	8'0.11"	13'5.79"	7'9.87"	14'1.16"	7'7.48"	14'10.33"
8'2.28"	10'0.08"	8'1.22"	10'1.76"	8'0.06"	10'3.71"	7'10.79"	10'5.98"	7'9.41"	10'8.64"	7'7.91"	10'11.77"	7'6.29"	11'3.48"	7'4.55"	11'7.93"	7'2.67"	12'1.3"	7'0.67"	12'7.88"
7'4.41"	8'9.19"	7'3.57"	8'10.44"	7'2.64"	8'11.9"	7'1.63"	9'1.58"	7'0.53"	9'3.54"	6'11.33"	9'5.83"	6'10.03"	9'8.52"	6'8.62"	9'11.72"	6'7.09"	10'3.53"	6'5.46"	10'8.14"
6'11.38"	8'1.9"	6'10.64"	8'2.98"	6'9.83"	8'4.21"	6'8.94"	8'5.64"	6'7.97"	8'7.3"	6'6.91"	8'9.23"	6'5.75"	8'11.5"	6'4.5"	9'2.17"	6'3.15"	9'5.35"	6'1.7"	9'9.16"
6'6.29"	7'6.72"	6'5.65"	7'7.63"	6'4.95"	7'8.67"	6'4.17"	7'9.87"	6'3.32"	7'11.26"	6'2.4"	8'0.88"	6'1.39"	8'2.76"	6'0.29"	8'4.97"	5'11.1"	8'7.59"	5'9.81"	8'10.71"
6'1.14"	6'11.65"	6'0.59"	7'0.4"	5'11.99"	7'1.27"	5'11.32"	7'2.27"	5'10.59"	7'3.41"	5'9.79"	7'4.75"	5'8.92"	7'6.29"	5'7.96"	7'8.1"	5'6.93"	7'10.23"	5'5.81"	8'0.76"
5'7.93"	6'4.67"	5'7.46"	6'5.29"	5'6.95"	6'6"	5'6.39"	6'6.82"	5'5.77"	6'7.75"	5'5.09"	6'8.83"	5'4.34"	6'10.09"	5'3.53"	6'11.55"	5'2.64"	7'1.26"	5'1.68"	7'3.27"
5'2.65"	5'9.8"	5'2.26"	5'10.3"	5'1.84"	5'10.87"	5'1.37"	5'11.52"	5'0.85"	6'0.27"	5'0.28"	6'1.13"	4'11.66"	6'2.13"	4'10.98"	6'3.28"	4'10.24"	6'4.63"	4'9.43"	6'6.21"
4'9.3"	5'3.02"	4'8.99"	5'3.41"	4'8.64"	5'3.86"	4'8.26"	5'4.37"	4'7.84"	5'4.96"	4'7.38"	5'5.63"	4'6.87"	5'6.41"	4'6.31"	5'7.3"	4'5.7"	5'8.34"	4'5.03"	5'9.55"
4'6.6"	4'11.66"	4'6.32"	5'0.01"	4'6.02"	5'0.4"	4'5.68"	5'0.85"	4'5.3"	5'1.36"	4'4.89"	5'1.95"	4'4.43"	5'2.63"	4'3.93"	5'3.41"	4'3.38"	5'4.31"	4'2.78"	5'5.36"
4'3.89"	4'8.33"	4'3.64"	4'8.63"	4'3.37"	4'8.97"	4'3.07"	4'9.37"	4'2.73"	4'9.81"	4'2.37"	4'10.32"	4'1.96"	4'10.91"	4'1.51"	4'11.58"	4'1.02"	5'0.36"	4'0.49"	5'1.27"
4'1.15"	4'5.02"	4'0.94"	4'5.28"	4'0.7"	4'5.58"	4'0.44"	4'5.92"	4'0.14"	4'6.3"	3'11.82"	4'6.74"	3'11.46"	4'7.24"	3'11.07"	4'7.82"	3'10.64"	4'8.49"	3'10.16"	4'9.26"
3'10.4"	4'1.74"	3'10.22"	4'1.96"	3'10.01"	4'2.21"	3'9.78"	4'2.5"	3'9.53"	4'2.83"	3'9.24"	4'3.2"	3'8.93"	4'3.63"	3'8.59"	4'4.12"	3'8.21"	4'4.69"	3'7.8"	4'5.34"
3'7.64"	3'10.47"	3'7.48"	3'10.66"	3'7.3"	3'10.88"	3'7.1"	3'11.12"	3'6.88"	3'11.39"	3'6.64"	3'11.71"	3'6.37"	4'0.07"	3'6.08"	4'0.48"	3'5.75"	4'0.95"	3'5.39"	4'1.5"
3'4.85"	3'7.23"	3'4.72"	3'7.39"	3'4.57"	3'7.57"	3'4.4"	3'7.77"	3'4.21"	3'8"	3'4.01"	3'8.26"	3'3.78"	3'8.56"	3'3.53"	3'8.9"	3'3.25"	3'9.29"	3'2.94"	3'9.74"
3'2.05"	3'4.01"	3'1.94"	3'4.14"	3'1.81"	3'4.29"	3'1.67"	3'4.45"	3'1.52"	3'4.64"	3'1.35"	3'4.85"	3'1.16"	3'5.1"	3'0.95"	3'5.37"	3'0.71"	3'5.69"	3'0.46"	3'6.05"
2'11.23"	3'0.82"	2'11.14"	3'0.92"	2'11.03"	3'1.04"	2'10.92"	3'1.17"	2'10.79"	3'1.32"	2'10.65"	3'1.49"	2'10.5"	3'1.68"	2'10.33"	3'1.9"	2'10.14"	3'2.16"	2'9.92"	3'2.44"

Focal Length 68mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	69.433	61.885	55.161	49.17	43.833	39.078	34.842	31.068	27.705

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	69.39	Infinity	61.843	Infinity	55.119	Infinity	49.129	Infinity	43.793	Infinity	39.038	Infinity	34.802	Infinity	31.029	Infinity	27.667	Infinity
30.00	21.043	52.473	20.303	57.793	19.533	65.221	18.735	76.227	17.916	94.064	17.078	127.62	16.227	213.031	15.369	859.987	14.509	Infinity
15.00	12.401	19.007	12.145	19.652	11.869	20.431	11.574	21.383	11.261	22.565	10.929	24.059	10.579	25.993	10.213	28.575	9.832	32.167
10.00	8.791	11.606	8.663	11.839	8.524	12.113	8.373	12.436	8.211	12.821	8.036	13.282	7.848	13.841	7.648	14.529	7.435	15.39
9.00	8.013	10.272	7.908	10.454	7.792	10.666	7.667	10.914	7.531	11.207	7.384	11.556	7.226	11.975	7.057	12.484	6.876	13.11
8.00	7.216	8.982	7.13	9.12	7.037	9.28	6.935	9.466	6.824	9.684	6.704	9.942	6.575	10.248	6.435	10.616	6.286	11.063
7.00	6.397	7.734	6.33	7.835	6.257	7.951	6.177	8.086	6.09	8.244	5.995	8.428	5.892	8.646	5.78	8.904	5.661	9.213
6.00	5.556	6.525	5.506	6.595	5.451	6.677	5.391	6.771	5.325	6.88	5.253	7.006	5.175	7.154	5.09	7.327	4.998	7.533
5.50	5.127	5.934	5.085	5.992	5.039	6.059	4.988	6.136	4.932	6.224	4.87	6.327	4.803	6.446	4.73	6.586	4.651	6.75
5.00	4.692	5.353	4.657	5.4	4.619	5.453	4.576	5.515	4.53	5.586	4.478	5.667	4.422	5.762	4.361	5.872	4.294	6.001
4.50	4.252	4.781	4.223	4.818	4.192	4.86	4.157	4.908	4.119	4.963	4.077	5.027	4.031	5.101	3.98	5.186	3.925	5.285
4.00	3.805	4.217	3.783	4.245	3.758	4.278	3.73	4.314	3.7	4.357	3.666	4.405	3.63	4.46	3.589	4.525	3.545	4.599
3.80	3.625	3.994	3.605	4.019	3.582	4.048	3.557	4.081	3.53	4.118	3.499	4.161	3.466	4.21	3.429	4.267	3.389	4.333
3.60	3.444	3.772	3.425	3.795	3.405	3.82	3.383	3.849	3.358	3.882	3.331	3.92	3.301	3.963	3.268	4.013	3.232	4.071
3.40	3.261	3.552	3.245	3.572	3.227	3.594	3.207	3.619	3.185	3.648	3.161	3.681	3.134	3.719	3.104	3.763	3.072	3.813
3.20	3.078	3.333	3.064	3.35	3.048	3.37	3.03	3.392	3.011	3.417	2.989	3.446	2.965	3.479	2.939	3.516	2.91	3.56
3.00	2.893	3.115	2.881	3.13	2.867	3.147	2.852	3.166	2.835	3.188	2.816	3.212	2.795	3.241	2.772	3.273	2.746	3.31
2.90	2.801	3.007	2.789	3.021	2.776	3.036	2.762	3.054	2.746	3.074	2.728	3.097	2.709	3.123	2.687	3.153	2.663	3.187
2.80	2.708	2.899	2.697	2.912	2.685	2.926	2.672	2.942	2.657	2.961	2.641	2.982	2.622	3.006	2.602	3.033	2.58	3.065
2.70	2.615	2.791	2.605	2.803	2.594	2.816	2.581	2.831	2.568	2.848	2.552	2.868	2.535	2.89	2.517	2.915	2.496	2.944
2.60	2.522	2.684	2.512	2.695	2.502	2.707	2.491	2.72	2.478	2.736	2.464	2.754	2.448	2.774	2.431	2.797	2.412	2.823
2.50	2.428	2.577	2.419	2.587	2.41	2.598	2.399	2.61	2.388	2.625	2.375	2.641	2.36	2.659	2.344	2.68	2.327	2.704
2.40	2.334	2.47	2.326	2.479	2.318	2.489	2.308	2.501	2.297	2.513	2.285	2.528	2.272	2.545	2.257	2.564	2.241	2.586
2.30	2.24	2.364	2.233	2.372	2.225	2.381	2.216	2.391	2.206	2.403	2.195	2.416	2.183	2.431	2.17	2.449	2.155	2.468
2.20	2.146	2.258	2.139	2.265	2.132	2.273	2.124	2.283	2.115	2.293	2.105	2.305	2.094	2.319	2.082	2.334	2.068	2.352
2.10	2.051	2.152	2.045	2.158	2.038	2.166	2.031	2.174	2.023	2.184	2.014	2.194	2.004	2.207	1.993	2.221	1.981	2.236
2.00	1.956	2.046	1.951	2.052	1.945	2.059	1.938	2.066	1.931	2.075	1.923	2.084	1.914	2.095	1.904	2.108	1.893	2.122
1.95	1.908	1.994	1.903	1.999	1.898	2.006	1.892	2.013	1.885	2.021	1.877	2.03	1.869	2.04	1.859	2.051	1.849	2.065
1.90	1.861	1.941	1.856	1.946	1.851	1.952	1.845	1.959	1.838	1.966	1.831	1.975	1.823	1.985	1.814	1.995	1.804	2.008
1.85	1.813	1.889	1.809	1.894	1.804	1.899	1.798	1.905	1.792	1.912	1.785	1.92	1.778	1.929	1.769	1.94	1.76	1.951
1.80	1.765	1.836	1.761	1.841	1.756	1.846	1.751	1.852	1.745	1.859	1.739	1.866	1.732	1.874	1.724	1.884	1.715	1.895
1.75	1.717	1.784	1.713	1.788	1.709	1.793	1.704	1.799	1.699	1.805	1.693	1.812	1.686	1.82	1.679	1.829	1.67	1.839
1.70	1.669	1.732	1.666	1.736	1.662	1.74	1.657	1.745	1.652	1.751	1.646	1.758	1.64	1.765	1.633	1.773	1.625	1.783
1.65	1.621	1.68	1.618	1.683	1.614	1.688	1.61	1.692	1.605	1.698	1.6	1.704	1.594	1.711	1.588	1.718	1.58	1.727
1.60	1.573	1.628	1.57	1.631	1.567	1.635	1.563	1.639	1.558	1.644	1.553	1.65	1.548	1.656	1.542	1.664	1.535	1.672
1.55	1.525	1.576	1.522	1.579	1.519	1.582	1.515	1.587	1.511	1.591	1.507	1.596	1.502	1.602	1.496	1.609	1.49	1.616
1.50	1.477	1.524	1.474	1.527	1.471	1.53	1.468	1.534	1.464	1.538	1.46	1.543	1.455	1.548	1.45	1.554	1.444	1.561
1.45	1.429	1.472	1.426	1.475	1.424	1.478	1.42	1.481	1.417	1.485	1.413	1.489	1.409	1.494	1.404	1.5	1.398	1.507
1.40	1.381	1.42	1.378	1.423	1.376	1.425	1.373	1.429	1.369	1.432	1.366	1.436	1.362	1.441	1.357	1.446	1.352	1.452
1.35	1.332	1.368	1.33	1.371	1.328	1.373	1.325	1.376	1.322	1.379	1.319	1.383	1.315	1.387	1.311	1.392	1.306	1.397
1.30	1.284	1.317	1.282	1.319	1.28	1.321	1.277	1.324	1.274	1.327	1.271	1.33	1.268	1.334	1.264	1.338	1.26	1.343
1.25	1.235	1.265	1.233	1.267	1.231	1.269	1.229	1.272	1.227	1.274	1.224	1.277	1.221	1.281	1.217	1.285	1.214	1.289
1.20	1.187	1.214	1.185	1.215	1.183	1.217	1.181	1.22	1.179	1.222	1.176	1.225	1.174	1.228	1.17	1.231	1.167	1.235
1.15	1.138	1.162	1.137	1.164	1.135	1.166	1.133	1.168	1.131	1.17	1.129	1.172	1.126	1.175	1.123	1.178	1.12	1.182
1.10	1.089	1.111	1.088	1.112	1.086	1.114	1.085	1.116	1.083	1.118	1.081	1.12	1.079	1.122	1.076	1.125	1.073	1.128
1.05	1.04	1.06	1.039	1.061	1.038	1.062	1.037	1.064	1.035	1.066	1.033	1.068	1.031	1.07	1.029	1.072	1.026	1.075
1.00	0.992	1.009	0.991	1.01	0.989	1.011	0.988	1.012	0.987	1.014	0.985	1.016	0.983	1.017	0.981	1.02	0.979	1.022
0.95	0.943	0.958	0.942	0.958	0.941	0.96	0.94	0.961	0.938	0.962	0.937	0.964	0.935	0.965	0.934	0.967	0.932	0.969
0.91	0.903	0.917	0.903	0.918	0.902	0.918	0.901	0.92	0.9	0.921	0.898	0.922	0.897	0.924	0.895	0.925	0.894	0.927

8	9	10	11	13	14	16	18	20	22
24.71	22.042	19.664	17.546	15.659	13.978	12.48	11.146	9.957	8.898

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
24.671	Infinity	22.003	Infinity	19.626	Infinity	17.508	Infinity	15.621	Infinity	13.94	Infinity	12.442	Infinity	11.108	Infinity	9.919	Infinity	8.86	Infinity
13.653	Infinity	12.806	Infinity	11.975	Infinity	11.163	Infinity	10.376	Infinity	9.618	Infinity	8.89	Infinity	8.197	Infinity	7.54	Infinity	6.921	Infinity
9.437	37.462	9.031	45.975	8.616	61.764	8.194	100.667	7.768	345.936	7.341	Infinity	6.916	Infinity	6.495	Infinity	6.082	Infinity	5.678	Infinity
7.211	16.487	6.975	17.925	6.728	19.874	6.472	22.646	6.207	26.862	5.935	33.988	5.658	48.474	5.378	93.269	5.095	Infinity	4.813	Infinity
6.685	13.894	6.482	14.896	6.27	16.21	6.048	17.997	5.817	20.546	5.579	24.446	5.335	31.093	5.086	44.829	4.834	89.32	4.58	Infinity
6.126	11.612	5.957	12.298	5.778	13.174	5.59	14.322	5.394	15.88	5.19	18.096	4.979	21.47	4.763	27.183	4.543	38.834	4.319	75.187
5.532	9.587	5.395	10.046	5.249	10.618	5.095	11.344	4.932	12.291	4.763	13.565	4.586	15.36	4.404	18.05	4.216	22.492	4.025	31.135
4.898	7.779	4.792	8.074	4.678	8.435	4.556	8.882	4.427	9.445	4.291	10.171	4.149	11.135	4.001	12.467	3.847	14.409	3.689	17.482
4.566	6.945	4.473	7.178	4.375	7.46	4.269	7.804	4.156	8.232	4.037	8.774	3.912	9.477	3.781	10.416	3.644	11.728	3.503	13.668
4.221	6.154	4.143	6.334	4.059	6.551	3.969	6.812	3.872	7.133	3.769	7.533	3.661	8.04	3.547	8.7	3.427	9.587	3.303	10.833
3.865	5.402	3.8	5.539	3.73	5.702	3.654	5.897	3.573	6.133	3.486	6.422	3.394	6.783	3.297	7.242	3.194	7.839	3.087	8.643
3.497	4.686	3.444	4.787	3.387	4.907	3.325	5.048	3.259	5.218	3.187	5.423	3.111	5.675	3.03	5.987	2.945	6.384	2.854	6.899
3.345	4.409	3.297	4.498	3.245	4.603	3.189	4.726	3.128	4.874	3.063	5.051	2.993	5.267	2.918	5.534	2.839	5.868	2.756	6.298
3.192	4.138	3.149	4.215	3.102	4.306	3.05	4.414	2.995	4.541	2.936	4.693	2.872	4.878	2.803	5.104	2.731	5.385	2.654	5.742
3.036	3.871	2.997	3.939	2.955	4.017	2.909	4.11	2.859	4.219	2.805	4.349	2.747	4.506	2.685	4.696	2.619	4.931	2.549	5.226
2.878	3.61	2.844	3.668	2.806	3.735	2.765	3.814	2.72	3.907	2.672	4.018	2.619	4.15	2.564	4.309	2.504	4.504	2.44	4.747
2.718	3.353	2.688	3.403	2.654	3.46	2.618	3.527	2.578	3.605	2.535	3.698	2.488	3.809	2.438	3.941	2.385	4.102	2.327	4.3
2.637	3.227	2.609	3.272	2.577	3.325	2.543	3.386	2.506	3.458	2.465	3.543	2.421	3.643	2.374	3.764	2.324	3.909	2.27	4.087
2.556	3.101	2.529	3.143	2.5	3.191	2.468	3.247	2.433	3.313	2.395	3.39	2.354	3.482	2.309	3.59	2.262	3.722	2.211	3.882
2.474	2.977	2.449	3.015	2.421	3.059	2.391	3.11	2.359	3.17	2.323	3.24	2.285	3.323	2.243	3.421	2.199	3.54	2.151	3.683
2.391	2.854	2.368	2.889	2.342	2.929	2.314	2.975	2.284	3.03	2.251	3.093	2.215	3.168	2.176	3.256	2.135	3.363	2.09	3.491
2.307	2.732	2.286	2.763	2.262	2.8	2.237	2.842	2.209	2.891	2.178	2.948	2.145	3.016	2.109	3.095	2.07	3.19	2.028	3.304
2.223	2.611	2.204	2.639	2.182	2.672	2.158	2.71	2.132	2.755	2.104	2.806	2.073	2.867	2.04	2.938	2.003	3.022	1.964	3.124
2.139	2.491	2.121	2.517	2.101	2.546	2.079	2.581	2.055	2.62	2.029	2.666	2	2.72	1.969	2.784	1.936	2.859	1.9	2.948
2.053	2.372	2.037	2.395	2.019	2.422	1.999	2.453	1.977	2.488	1.953	2.529	1.927	2.577	1.898	2.633	1.868	2.7	1.834	2.779
1.967	2.254	1.952	2.275	1.936	2.299	1.918	2.326	1.898	2.357	1.876	2.394	1.852	2.436	1.826	2.486	1.798	2.544	1.767	2.614
1.881	2.138	1.867	2.156	1.852	2.177	1.836	2.201	1.818	2.229	1.798	2.261	1.776	2.298	1.753	2.342	1.727	2.393	1.699	2.453
1.837	2.08	1.824	2.097	1.81	2.117	1.795	2.139	1.777	2.165	1.759	2.196	1.738	2.23	1.716	2.271	1.691	2.319	1.665	2.375
1.793	2.022	1.781	2.038	1.768	2.057	1.753	2.078	1.737	2.102	1.719	2.13	1.699	2.163	1.678	2.201	1.655	2.246	1.63	2.298
1.749	1.965	1.738	1.98	1.725	1.997	1.711	2.017	1.696	2.04	1.679	2.066	1.661	2.096	1.64	2.132	1.618	2.173	1.594	2.222
1.705	1.907	1.695	1.922	1.683	1.938	1.669	1.956	1.655	1.978	1.639	2.002	1.621	2.03	1.602	2.063	1.581	2.102	1.559	2.147
1.661	1.85	1.651	1.864	1.64	1.879	1.627	1.896	1.614	1.916	1.599	1.939	1.582	1.965	1.564	1.995	1.544	2.031	1.523	2.073
1.617	1.794	1.607	1.806	1.597	1.82	1.585	1.836	1.572	1.854	1.558	1.876	1.542	1.9	1.525	1.928	1.507	1.961	1.486	2
1.572	1.737	1.563	1.749	1.553	1.762	1.542	1.777	1.53	1.794	1.517	1.813	1.502	1.836	1.486	1.862	1.469	1.892	1.45	1.928
1.527	1.681	1.519	1.692	1.51	1.704	1.5	1.717	1.488	1.733	1.476	1.751	1.462	1.772	1.447	1.796	1.431	1.824	1.413	1.857
1.483	1.625	1.475	1.635	1.466	1.646	1.457	1.659	1.446	1.673	1.434	1.69	1.422	1.709	1.407	1.731	1.392	1.757	1.375	1.787
1.437	1.569	1.43	1.578	1.422	1.589	1.413	1.6	1.403	1.614	1.393	1.629	1.381	1.647	1.368	1.667	1.353	1.69	1.337	1.717
1.392	1.514	1.385	1.522	1.378	1.532	1.37	1.542	1.361	1.554	1.351	1.569	1.339	1.585	1.327	1.603	1.314	1.625	1.299	1.649
1.347	1.459	1.34	1.466	1.334	1.475	1.326	1.485	1.318	1.496	1.308	1.509	1.298	1.523	1.287	1.54	1.274	1.56	1.261	1.582
1.301	1.404	1.295	1.41	1.289	1.418	1.282	1.427	1.274	1.437	1.266	1.449	1.256	1.462	1.246	1.478	1.234	1.495	1.222	1.516
1.255	1.349	1.25	1.355	1.244	1.362	1.238	1.37	1.231	1.38	1.223	1.39	1.214	1.402	1.204	1.416	1.194	1.432	1.182	1.45
1.209	1.294	1.204	1.3	1.199	1.306	1.193	1.314	1.187	1.322	1.18	1.331	1.172	1.342	1.163	1.355	1.153	1.369	1.142	1.386
1.163	1.24	1.159	1.245	1.154	1.251	1.149	1.257	1.143	1.265	1.136	1.273	1.129	1.283	1.121	1.294	1.112	1.307	1.102	1.322
1.117	1.186	1.113	1.19	1.108	1.196	1.104	1.201	1.098	1.208	1.092	1.216	1.086	1.224	1.078	1.234	1.07	1.246	1.062	1.259
1.07	1.132	1.067	1.136	1.063	1.141	1.058	1.146	1.054	1.152	1.048	1.159	1.042	1.166	1.036	1.175	1.029	1.185	1.021	1.197
1.023	1.078	1.02	1.082	1.017	1.086	1.013	1.091	1.009	1.096	1.004	1.102	0.999	1.109	0.993	1.116	0.986	1.125	0.979	1.135
0.977	1.025	0.974	1.028	0.971	1.032	0.967	1.036	0.963	1.04	0.959	1.045	0.955	1.051	0.949	1.058	0.944	1.066	0.937	1.075
0.929	0.972	0.927	0.974	0.924	0.978	0.921	0.981	0.918	0.985	0.914	0.99	0.91	0.995	0.905	1.001	0.9	1.007	0.895	1.015
0.892	0.929	0.89	0.932	0.887	0.935	0.884	0.938	0.881	0.941	0.878	0.945	0.874	0.95	0.87	0.955	0.866	0.961	0.861	0.968

Focal Length 68mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	227'9.58"	203'0.42"	180'11.69"	161'3.83"	143'9.71"	128'2.5"	114'3.73"	101'11.15"	90'10.75"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	227'7.88"	Infinity	202'10.76"	Infinity	180'10.05"	Infinity	161'2.22"	Infinity	143'8.12"	Infinity	128'0.93"	Infinity	114'2.17"	Infinity	101'9.6"	Infinity	90'9.24"	Infinity
100'0''	69'9.64"	177'0.78"	67'3.87"	195'7.04"	64'8.9"	221'7.56"	62'0.87"	260'7.41"	59'3.96"	324'9.81"	56'6.36"	449'1.8"	53'8.27"	788'3.01"	50'9.92"	5207'11.29"	47'11.52"	Infinity
50'0''	41'2.64"	63'7.65"	40'4.26"	65'10.13"	39'5.13"	68'6.15"	38'5.23"	71'9.38"	37'4.59"	75'10.17"	36'3.21"	81'0.03"	35'1.13"	87'8.43"	33'10.39"	96'8.31"	32'7.06"	109'3.44"
30'0''	26'7.94"	34'3.87"	26'3.66"	34'11.3"	25'10.98"	35'7.96"	25'5.91"	36'6.13"	25'0.4"	37'6.15"	24'6.47"	38'8.48"	24'0.08"	40'1.7"	23'5.25"	41'10.65"	22'9.96"	44'0.49"
20'0''	18'5.95"	21'9.38"	18'3.93"	22'0.27"	18'1.71"	22'3.6"	17'11.27"	22'7.44"	17'8.61"	22'11.88"	17'5.69"	23'5.06"	17'2.51"	23'11.11"	16'11.07"	24'6.22"	16'7.34"	25'2.66"
15'0''	14'1.91"	15'11.44"	14'0.75"	16'0.94"	13'11.48"	16'2.66"	13'10.07"	16'4.63"	13'8.52"	16'6.89"	13'6.81"	16'9.5"	13'4.94"	17'0.5"	13'2.89"	17'4"	13'0.66"	17'8.06"
12'0''	11'5.63"	12'7.03"	11'4.89"	12'7.94"	11'4.08"	12'8.97"	11'3.17"	12'10.15"	11'2.16"	12'11.5"	11'1.06"	13'1.05"	10'11.84"	13'2.82"	10'10.5"	13'4.86"	10'9.03"	13'7.22"
10'0''	9'7.66"	10'4.7"	9'7.15"	10'5.31"	9'6.59"	10'5.99"	9'5.96"	10'6.77"	9'5.27"	10'7.66"	9'4.5"	10'8.67"	9'3.65"	10'9.82"	9'2.71"	10'11.15"	9'1.68"	11'0.67"
9'0''	8'8.53"	9'3.72"	8'8.13"	9'4.2"	8'7.67"	9'4.74"	8'7.17"	9'5.35"	8'6.61"	9'6.04"	8'5.99"	9'6.84"	8'5.3"	9'7.74"	8'4.54"	9'8.77"	8'3.71"	9'9.95"
8'0''	7'9.31"	8'2.86"	7'9"	8'3.23"	7'8.64"	8'3.64"	7'8.25"	8'4.1"	7'7.81"	8'4.63"	7'7.32"	8'5.23"	7'6.79"	8'5.92"	7'6.19"	8'6.7"	7'5.53"	8'7.59"
7'6''	7'3.67"	7'8.47"	7'3.39"	7'8.79"	7'3.08"	7'9.14"	7'2.74"	7'9.54"	7'2.36"	7'10"	7'1.93"	7'10.52"	7'1.46"	7'11.1"	7'0.94"	7'11.77"	7'0.36"	8'0.54"
7'0''	6'10"	7'2.12"	6'9.76"	7'2.38"	6'9.49"	7'2.69"	6'9.2"	7'3.03"	6'8.87"	7'3.42"	6'8.5"	7'3.86"	6'8.09"	7'4.36"	6'7.64"	7'4.92"	6'7.14"	7'5.57"
6'6''	6'4.3"	6'7.79"	6'4.1"	6'8.01"	6'3.87"	6'8.27"	6'3.62"	6'8.55"	6'3.34"	6'8.88"	6'3.03"	6'9.25"	6'2.68"	6'9.67"	6'2.3"	6'10.14"	6'1.87"	6'10.69"
6'0''	5'10.58"	6'1.49"	5'10.41"	6'1.67"	5'10.22"	6'1.88"	5'10.01"	6'2.12"	5'9.78"	6'2.39"	5'9.51"	6'2.7"	5'9.22"	6'3.04"	5'8.9"	6'3.44"	5'8.54"	6'3.88"
5'6''	5'4.84"	5'7.21"	5'4.7"	5'7.37"	5'4.54"	5'7.54"	5'4.37"	5'7.73"	5'4.17"	5'7.95"	5'3.96"	5'8.2"	5'3.72"	5'8.48"	5'3.45"	5'8.8"	5'3.15"	5'9.16"
5'0''	4'11.07"	5'0.97"	4'10.95"	5'1.09"	4'10.83"	5'1.23"	4'10.69"	5'1.38"	4'10.53"	5'1.55"	4'10.36"	5'1.75"	4'10.17"	5'1.97"	4'9.95"	5'2.23"	4'9.71"	5'2.51"
4'9''	4'8.17"	4'9.86"	4'8.07"	4'9.96"	4'7.96"	4'10.08"	4'7.84"	4'10.22"	4'7.7"	4'10.37"	4'7.54"	4'10.55"	4'7.37"	4'10.74"	4'7.18"	4'10.97"	4'6.97"	4'11.22"
4'6''	4'5.27"	4'6.75"	4'5.18"	4'6.85"	4'5.09"	4'6.95"	4'4.98"	4'7.07"	4'4.86"	4'7.21"	4'4.72"	4'7.36"	4'4.57"	4'7.53"	4'4.4"	4'7.72"	4'4.21"	4'7.94"
4'3''	4'2.37"	4'3.65"	4'2.29"	4'3.74"	4'2.2"	4'3.83"	4'2.11"	4'3.93"	4'2"	4'4.05"	4'1.88"	4'4.18"	4'1.75"	4'4.33"	4'1.6"	4'4.5"	4'1.44"	4'4.69"
4'0''	3'11.45"	4'0.56"	3'11.39"	4'0.63"	3'11.31"	4'0.71"	3'11.23"	4'0.8"	3'11.14"	4'0.9"	3'11.04"	4'1.01"	3'10.92"	4'1.14"	3'10.79"	4'1.29"	3'10.65"	4'1.45"
3'9''	3'8.53"	3'9.48"	3'8.48"	3'9.54"	3'8.41"	3'9.61"	3'8.34"	3'9.68"	3'8.26"	3'9.77"	3'8.18"	3'9.86"	3'8.08"	3'9.97"	3'7.97"	3'10.09"	3'7.85"	3'10.23"
3'6''	3'5.61"	3'6.4"	3'5.56"	3'6.45"	3'5.51"	3'6.51"	3'5.45"	3'6.57"	3'5.38"	3'6.64"	3'5.31"	3'6.72"	3'5.22"	3'6.81"	3'5.13"	3'6.92"	3'5.03"	3'7.03"
3'3''	3'2.68"	3'3.33"	3'2.64"	3'3.37"	3'2.59"	3'3.42"	3'2.54"	3'3.47"	3'2.49"	3'3.53"	3'2.43"	3'3.6"	3'2.36"	3'3.67"	3'2.28"	3'3.75"	3'2.2"	3'3.85"
3'0''	2'11.74"	3'0.27"	2'11.71"	3'0.3"	2'11.67"	3'0.34"	2'11.63"	3'0.38"	2'11.59"	3'0.43"	2'11.54"	3'0.48"	2'11.48"	3'0.54"	2'11.42"	3'0.61"	2'11.35"	3'0.69"

8	9	10	11	13	14	16	18	20	22
81'0.83"	72'3.8"	64'6.17"	57'6.79"	51'4.5"	45'10.31"	40'11.34"	36'6.82"	32'8.01"	29'2.31"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
80'11.31"	Infinity	72'2.26"	Infinity	64'4.66"	Infinity	57'5.28"	Infinity	51'2.99"	Infinity	45'8.8"	Infinity	40'9.84"	Infinity	36'5.31"	Infinity	32'6.51"	Infinity	29'0.82"	Infinity
45'1.32"	Infinity	42'3.53"	Infinity	39'6.37"	Infinity	36'10.03"	Infinity	34'2.69"	Infinity	31'8.5"	Infinity	29'3.59"	Infinity	27'0.07"	Infinity	24'10"	Infinity	22'9.42"	Infinity
31'3.19"	128'0.47"	29'10.88"	158'7.89"	28'6.22"	217'0.58"	27'1.31"	370'5.73"	25'8.26"	1813'5.94"	24'3.18"	Infinity	22'10.19"	Infinity	21'5.39"	Infinity	20'0.9"	Infinity	18'8.81"	Infinity
22'2.24"	46'8.91"	21'6.08"	50'2.48"	20'9.52"	54'9.27"	20'0.59"	61'0.21"	19'3.31"	70'0.02"	18'5.75"	83'10.95"	17'7.95"	108'1.37"	16'9.97"	160'2.11"	15'11.87"	350'5.35"	15'1.72"	Infinity
16'3.32"	26'0.74"	15'11"	27'0.92"	15'6.39"	28'3.8"	15'1.49"	29'10.26"	14'8.29"	31'9.59"	14'2.82"	34'3.79"	13'9.09"	37'8.09"	13'3.12"	42'4.13"	12'8.93"	49'2.68"	12'2.57"	60'3.21"
12'10.23"	18'0.83"	12'7.59"	18'6.46"	12'4.75"	19'1.15"	12'1.69"	19'9.17"	11'10.4"	20'6.9"	11'6.9"	21'6.86"	11'3.18"	22'9.79"	10'11.25"	24'4.83"	10'7.12"	26'5.74"	10'2.81"	29'3.45"
10'7.42"	13'9.95"	10'5.66"	14'1.14"	10'3.75"	14'4.87"	10'1.68"	14'9.28"	9'11.44"	15'2.51"	9'9.03"	15'8.78"	9'6.45"	16'4.38"	9'3.69"	17'1.72"	9'0.76"	18'1.36"	8'9.66"	19'4.19"
9'0.54"	11'2.42"	8'11.3"	11'4.44"	8'9.94"	11'6.8"	8'8.46"	11'9.54"	8'6.85"	12'0.77"	8'5.1"	12'4.57"	8'3.22"	12'9.11"	8'1.19"	13'2.57"	7'11.02"	13'9.2"	7'8.71"	14'5.39"
8'2.78"	9'11.31"	8'1.77"	10'0.87"	8'0.66"	10'2.68"	7'11.45"	10'4.78"	7'10.13"	10'7.23"	7'8.69"	10'10.11"	7'7.13"	11'1.51"	7'5.45"	11'5.56"	7'3.64"	11'10.43"	7'1.7"	12'4.35"
7'4.8"	8'8.61"	7'4"	8'9.78"	7'3.12"	8'11.13"	7'2.16"	9'0.69"	7'1.1"	9'2.5"	6'11.95"	9'4.62"	6'10.7"	9'7.1"	6'9.34"	9'10.02"	6'7.88"	10'1.5"	6'6.3"	10'5.68"
6'11.73"	8'1.41"	6'11.03"	8'2.41"	6'10.25"	8'3.56"	6'9.4"	8'4.89"	6'8.47"	8'6.43"	6'7.46"	8'8.21"	6'6.35"	8'10.3"	6'5.15"	9'0.76"	6'3.85"	9'3.66"	6'2.44"	9'7.13"
6'6.59"	7'6.31"	6'5.98"	7'7.16"	6'5.31"	7'8.13"	6'4.57"	7'9.24"	6'3.76"	7'10.53"	6'2.88"	8'0.03"	6'1.91"	8'1.77"	6'0.85"	8'3.81"	5'11.71"	8'6.21"	5'10.47"	8'9.06"
6'1.4"	6'11.3"	6'0.88"	7'0.01"	6'0.3"	7'0.82"	5'11.66"	7'1.74"	5'10.97"	7'2.81"	5'10.2"	7'4.05"	5'9.37"	7'5.48"	5'8.45"	7'7.15"	5'7.46"	7'9.11"	5'6.39"	7'11.43"
5'8.14"	6'4.39"	5'7.7"	6'4.97"	5'7.21"	6'5.63"	5'6.68"	6'6.39"	5'6.09"	6'7.26"	5'5.44"	6'8.27"	5'4.73"	6'9.43"	5'3.95"	6'10.78"	5'3.1"	7'0.36"	5'2.18"	7'2.21"
5'2.82"	5'9.57"	5'2.46"	5'10.04"	5'2.06"	5'10.57"	5'1.61"	5'11.18"	5'1.12"	5'11.88"	5'0.58"	6'0.68"	4'11.98"	6'1.61"	4'11.33"	6'2.68"	4'10.62"	6'3.93"	4'9.84"	6'5.38"
4'9.44"	5'2.84"	4'9.15"	5'3.21"	4'8.82"	5'3.63"	4'8.46"	5'4.1"	4'8.06"	5'4.65"	4'7.62"	5'5.28"	4'7.13"	5'6"	4'6.6"	5'6.84"	4'6.01"	5'7.8"	4'5.37"	5'8.92"
4'6.73"	4'11.5"	4'6.47"	4'11.83"	4'6.17"	5'0.2"	4'5.85"	5'0.62"	4'5.49"	5'1.1"	4'5.1"	5'1.65"	4'4.66"	5'2.28"	4'4.18"	5'3.01"	4'3.66"	5'3.84"	4'3.08"	5'4.82"
4'4"	4'8.19"	4'3.77"	4'8.48"	4'3.51"	4'8.8"	4'3.22"	4'9.16"	4'2.9"	4'9.58"	4'2.55"	4'10.06"	4'2.17"	4'10.61"	4'1.74"	4'11.24"	4'1.27"	4'11.96"	4'0.76"	5'0.8"
4'1.25"	4'4.9"	4'1.05"	4'5.15"	4'0.82"	4'5.43"	4'0.57"	4'5.74"	4'0.29"	4'6.1"	3'11.98"	4'6.51"	3'11.64"	4'6.98"	3'11.27"	4'7.52"	3'10.86"	4'8.14"	3'10.4"	4'8.86"
3'10.49"	4'1.63"	3'10.31"	4'1.84"	3'10.12"	4'2.08"	3'9.9"	4'2.35"	3'9.66"	4'2.66"	3'9.39"	4'3.01"	3'9.09"	4'3.41"	3'8.76"	4'3.87"	3'8.4"	4'4.39"	3'8.01"	4'5"
3'7.71"	3'10.39"	3'7.56"	3'10.56"	3'7.39"	3'10.77"	3'7.2"	3'10.99"	3'6.99"	3'11.25"	3'6.76"	3'11.55"	3'6.51"	3'11.88"	3'6.23"	4'0.27"	3'5.91"	4'0.71"	3'5.57"	4'1.22"
3'4.91"	3'7.16"	3'4.79"	3'7.31"	3'4.64"	3'7.48"	3'4.48"	3'7.67"	3'4.31"	3'7.88"	3'4.11"	3'8.13"	3'3.89"	3'8.41"	3'3.66"	3'8.72"	3'3.39"	3'9.09"	3'3.1"	3'9.51"
3'2.1"	3'3.96"	3'1.99"	3'4.08"	3'1.87"	3'4.21"	3'1.74"	3'4.37"	3'1.6"	3'4.55"	3'1.43"	3'4.75"	3'1.25"	3'4.97"	3'1.05"	3'5.23"	3'0.83"	3'5.53"	3'0.58"	3'5.87"
2'11.27"	3'0.77"	2'11.18"	3'0.87"	2'11.09"	3'0.98"	2'10.98"	3'1.1"	2'10.86"	3'1.24"	2'10.72"	3'1.4"	2'10.58"	3'1.59"	2'10.41"	3'1.79"	2'10.23"	3'2.03"	2'10.03"	3'2.3"

Focal Length 70mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	73.564	65.565	58.439	52.091	46.435	41.396	36.907	32.907	29.344

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	73.521	Infinity	65.523	Infinity	58.398	Infinity	52.05	Infinity	46.394	Infinity	41.356	Infinity	36.867	Infinity	32.868	Infinity	29.305	Infinity
30.00	21.401	50.343	20.678	54.918	19.922	61.162	19.138	70.118	18.329	83.924	17.5	107.768	16.655	158.315	15.799	334.823	14.94	Infinity
15.00	12.523	18.725	12.275	19.314	12.009	20.022	11.724	20.881	11.42	21.94	11.097	23.264	10.757	24.958	10.399	27.182	10.025	30.208
10.00	8.851	11.502	8.729	11.718	8.595	11.97	8.45	12.268	8.294	12.62	8.125	13.04	7.943	13.547	7.749	14.167	7.543	14.934
9.00	8.063	10.191	7.962	10.36	7.851	10.556	7.731	10.785	7.6	11.054	7.459	11.374	7.306	11.756	7.143	12.217	6.968	12.78
8.00	7.255	8.921	7.174	9.049	7.085	9.197	6.987	9.369	6.881	9.571	6.765	9.808	6.641	10.088	6.506	10.424	6.362	10.828
7.00	6.428	7.688	6.364	7.783	6.294	7.891	6.218	8.016	6.134	8.162	6.043	8.332	5.944	8.532	5.837	8.769	5.722	9.051
6.00	5.579	6.493	5.532	6.559	5.479	6.635	5.422	6.722	5.359	6.823	5.29	6.94	5.215	7.077	5.133	7.237	5.045	7.426
5.50	5.147	5.908	5.106	5.962	5.062	6.025	5.014	6.096	4.96	6.178	4.901	6.274	4.837	6.384	4.767	6.513	4.691	6.665
5.00	4.709	5.332	4.675	5.376	4.639	5.426	4.598	5.483	4.553	5.549	4.504	5.625	4.451	5.713	4.392	5.815	4.328	5.934
4.50	4.265	4.764	4.238	4.799	4.208	4.838	4.175	4.883	4.139	4.935	4.098	4.994	4.054	5.063	4.006	5.142	3.953	5.234
4.00	3.816	4.204	3.794	4.231	3.771	4.261	3.744	4.295	3.715	4.335	3.683	4.38	3.648	4.432	3.61	4.492	3.567	4.561
3.80	3.634	3.983	3.615	4.006	3.594	4.033	3.57	4.064	3.544	4.099	3.515	4.139	3.483	4.185	3.448	4.238	3.41	4.299
3.60	3.452	3.762	3.435	3.783	3.415	3.807	3.394	3.834	3.371	3.865	3.345	3.9	3.316	3.941	3.285	3.987	3.25	4.041
3.40	3.269	3.543	3.253	3.562	3.236	3.583	3.217	3.606	3.196	3.633	3.173	3.664	3.148	3.7	3.119	3.74	3.088	3.787
3.20	3.084	3.325	3.071	3.341	3.056	3.36	3.039	3.38	3.021	3.404	3	3.431	2.977	3.462	2.952	3.497	2.925	3.537
3.00	2.899	3.109	2.887	3.123	2.874	3.138	2.859	3.156	2.843	3.177	2.825	3.2	2.805	3.226	2.783	3.256	2.759	3.291
2.90	2.806	3.001	2.795	3.014	2.783	3.028	2.769	3.045	2.754	3.064	2.737	3.085	2.719	3.11	2.698	3.138	2.675	3.17
2.80	2.713	2.893	2.703	2.905	2.691	2.919	2.679	2.934	2.665	2.951	2.649	2.971	2.632	2.994	2.612	3.019	2.591	3.049
2.70	2.62	2.786	2.61	2.797	2.599	2.809	2.588	2.823	2.575	2.839	2.56	2.858	2.544	2.878	2.526	2.902	2.507	2.929
2.60	2.526	2.679	2.517	2.689	2.507	2.701	2.496	2.713	2.484	2.728	2.471	2.745	2.456	2.764	2.44	2.785	2.421	2.81
2.50	2.432	2.572	2.424	2.582	2.415	2.592	2.405	2.604	2.394	2.617	2.381	2.632	2.368	2.65	2.352	2.669	2.336	2.692
2.40	2.338	2.466	2.33	2.475	2.322	2.484	2.313	2.495	2.303	2.507	2.291	2.521	2.279	2.536	2.265	2.554	2.249	2.575
2.30	2.243	2.36	2.236	2.368	2.229	2.376	2.221	2.386	2.211	2.397	2.201	2.41	2.189	2.424	2.177	2.44	2.162	2.458
2.20	2.148	2.254	2.142	2.261	2.135	2.269	2.128	2.278	2.119	2.288	2.11	2.299	2.1	2.312	2.088	2.326	2.075	2.343
2.10	2.053	2.149	2.048	2.155	2.042	2.162	2.035	2.17	2.027	2.179	2.019	2.189	2.009	2.2	1.999	2.213	1.987	2.228
2.00	1.958	2.044	1.953	2.049	1.948	2.055	1.942	2.063	1.935	2.07	1.927	2.079	1.918	2.09	1.909	2.101	1.898	2.115
1.95	1.911	1.991	1.906	1.996	1.901	2.002	1.895	2.009	1.888	2.016	1.881	2.025	1.873	2.035	1.864	2.046	1.854	2.058
1.90	1.863	1.939	1.858	1.944	1.853	1.949	1.848	1.956	1.842	1.963	1.835	1.971	1.827	1.98	1.819	1.99	1.809	2.002
1.85	1.815	1.887	1.811	1.891	1.806	1.896	1.801	1.902	1.795	1.909	1.789	1.916	1.781	1.925	1.773	1.934	1.765	1.945
1.80	1.767	1.834	1.763	1.839	1.759	1.843	1.754	1.849	1.748	1.855	1.742	1.862	1.736	1.87	1.728	1.879	1.72	1.889
1.75	1.719	1.782	1.715	1.786	1.711	1.791	1.707	1.796	1.702	1.802	1.696	1.808	1.689	1.816	1.682	1.824	1.675	1.834
1.70	1.671	1.73	1.668	1.734	1.664	1.738	1.659	1.743	1.655	1.748	1.649	1.754	1.643	1.761	1.637	1.769	1.629	1.778
1.65	1.623	1.678	1.62	1.682	1.616	1.685	1.612	1.69	1.608	1.695	1.603	1.701	1.597	1.707	1.591	1.714	1.584	1.723
1.60	1.575	1.626	1.572	1.629	1.568	1.633	1.565	1.637	1.561	1.642	1.556	1.647	1.551	1.653	1.545	1.66	1.538	1.668
1.55	1.527	1.574	1.524	1.577	1.521	1.581	1.517	1.584	1.513	1.589	1.509	1.594	1.504	1.599	1.499	1.606	1.493	1.613
1.50	1.478	1.522	1.476	1.525	1.473	1.528	1.47	1.532	1.466	1.536	1.462	1.54	1.457	1.546	1.452	1.551	1.447	1.558
1.45	1.43	1.471	1.428	1.473	1.425	1.476	1.422	1.479	1.419	1.483	1.415	1.487	1.411	1.492	1.406	1.497	1.401	1.503
1.40	1.382	1.419	1.379	1.421	1.377	1.424	1.374	1.427	1.371	1.43	1.368	1.434	1.364	1.439	1.36	1.443	1.355	1.449
1.35	1.333	1.367	1.331	1.37	1.329	1.372	1.326	1.375	1.323	1.378	1.32	1.381	1.317	1.385	1.313	1.39	1.308	1.395
1.30	1.285	1.316	1.283	1.318	1.281	1.32	1.278	1.323	1.276	1.325	1.273	1.329	1.27	1.332	1.266	1.336	1.262	1.341
1.25	1.236	1.264	1.234	1.266	1.232	1.268	1.23	1.27	1.228	1.273	1.225	1.276	1.222	1.279	1.219	1.283	1.215	1.287
1.20	1.187	1.213	1.186	1.215	1.184	1.216	1.182	1.218	1.18	1.221	1.178	1.223	1.175	1.226	1.172	1.23	1.169	1.233
1.15	1.139	1.162	1.137	1.163	1.136	1.165	1.134	1.167	1.132	1.169	1.13	1.171	1.127	1.174	1.125	1.177	1.122	1.18
1.10	1.09	1.11	1.089	1.112	1.087	1.113	1.086	1.115	1.084	1.117	1.082	1.119	1.08	1.121	1.077	1.124	1.075	1.127
1.05	1.041	1.059	1.04	1.06	1.039	1.062	1.037	1.063	1.036	1.065	1.034	1.067	1.032	1.069	1.03	1.071	1.028	1.074
1.00	0.992	1.008	0.991	1.009	0.99	1.01	0.989	1.012	0.987	1.013	0.986	1.015	0.984	1.016	0.982	1.019	0.98	1.021
0.95	0.943	0.957	0.942	0.958	0.941	0.959	0.94	0.96	0.939	0.961	0.938	0.963	0.936	0.964	0.934	0.966	0.933	0.968
0.91	0.904	0.916	0.903	0.917	0.902	0.918	0.901	0.919	0.9	0.92	0.899	0.921	0.898	0.923	0.896	0.924	0.894	0.926

8	9	10	11	13	14	16	18	20	22
26.17	23.342	20.823	18.578	16.578	14.797	13.21	11.796	10.536	9.414

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
26.131	Infinity	23.303	Infinity	20.784	Infinity	18.54	Infinity	16.54	Infinity	14.758	Infinity	13.171	Infinity	11.757	Infinity	10.498	Infinity	9.375	Infinity
14.081	Infinity	13.229	Infinity	12.389	Infinity	11.567	Infinity	10.767	Infinity	9.994	Infinity	9.25	Infinity	8.54	Infinity	7.865	Infinity	7.226	Infinity
9.636	34.529	9.236	41.15	8.824	52.465	8.405	75.967	7.981	153.208	7.554	Infinity	7.128	Infinity	6.705	Infinity	6.287	Infinity	5.878	Infinity
7.324	15.903	7.094	17.154	6.852	18.819	6.601	21.127	6.34	24.509	6.072	29.898	5.797	39.737	5.518	63.152	5.237	188.071	4.954	Infinity
6.782	13.479	6.585	14.362	6.377	15.505	6.16	17.03	5.933	19.148	5.699	22.267	5.458	27.269	5.211	36.509	4.96	59.07	4.707	194.892
6.207	11.322	6.043	11.935	5.869	12.708	5.685	13.707	5.493	15.037	5.293	16.882	5.085	19.588	4.872	23.904	4.653	31.804	4.431	50.701
5.597	9.391	5.464	9.804	5.323	10.315	5.173	10.958	5.014	11.785	4.848	12.878	4.675	14.38	4.495	16.556	4.31	19.961	4.12	25.987
4.949	7.65	4.846	7.92	4.735	8.246	4.618	8.647	4.492	9.147	4.36	9.784	4.221	10.617	4.075	11.744	3.924	13.339	3.768	15.752
4.609	6.843	4.52	7.056	4.425	7.312	4.322	7.623	4.213	8.007	4.097	8.487	3.975	9.102	3.847	9.911	3.713	11.014	3.574	12.595
4.258	6.075	4.183	6.24	4.102	6.438	4.014	6.675	3.921	6.965	3.821	7.322	3.716	7.771	3.604	8.348	3.487	9.109	3.365	10.154
3.896	5.341	3.833	5.468	3.766	5.617	3.693	5.795	3.614	6.009	3.53	6.27	3.441	6.593	3.346	6.999	3.246	7.52	3.141	8.21
3.521	4.641	3.471	4.735	3.416	4.845	3.356	4.975	3.292	5.13	3.223	5.316	3.15	5.543	3.071	5.823	2.988	6.174	2.9	6.625
3.368	4.37	3.322	4.452	3.272	4.549	3.218	4.662	3.159	4.797	3.096	4.959	3.028	5.154	2.956	5.394	2.879	5.692	2.798	6.07
3.212	4.103	3.171	4.175	3.125	4.259	3.076	4.358	3.023	4.475	2.966	4.614	2.904	4.782	2.838	4.985	2.767	5.237	2.693	5.553
3.054	3.841	3.017	3.904	2.977	3.977	2.932	4.062	2.884	4.162	2.832	4.282	2.776	4.424	2.716	4.597	2.652	4.808	2.584	5.071
2.895	3.584	2.861	3.638	2.825	3.7	2.786	3.773	2.743	3.859	2.696	3.96	2.646	4.081	2.592	4.226	2.534	4.402	2.472	4.619
2.732	3.331	2.703	3.377	2.671	3.43	2.636	3.492	2.598	3.565	2.557	3.65	2.512	3.751	2.463	3.872	2.412	4.018	2.356	4.196
2.651	3.206	2.623	3.249	2.593	3.298	2.56	3.355	2.524	3.421	2.486	3.499	2.443	3.591	2.398	3.701	2.349	3.833	2.297	3.994
2.568	3.083	2.543	3.121	2.514	3.166	2.484	3.218	2.45	3.279	2.414	3.35	2.374	3.434	2.332	3.534	2.286	3.654	2.236	3.798
2.485	2.96	2.461	2.995	2.435	3.037	2.406	3.084	2.375	3.139	2.341	3.204	2.304	3.28	2.264	3.371	2.221	3.478	2.175	3.608
2.401	2.838	2.379	2.871	2.355	2.908	2.328	2.951	2.299	3.002	2.268	3.06	2.233	3.129	2.196	3.211	2.156	3.308	2.112	3.424
2.317	2.718	2.297	2.747	2.274	2.781	2.25	2.82	2.223	2.866	2.193	2.919	2.161	2.981	2.127	3.054	2.089	3.141	2.049	3.245
2.232	2.598	2.214	2.625	2.193	2.656	2.17	2.691	2.145	2.732	2.118	2.78	2.088	2.835	2.056	2.901	2.022	2.979	1.984	3.071
2.147	2.479	2.13	2.504	2.111	2.531	2.09	2.563	2.067	2.6	2.042	2.643	2.015	2.693	1.985	2.751	1.953	2.82	1.918	2.902
2.061	2.362	2.045	2.383	2.028	2.408	2.009	2.437	1.988	2.47	1.965	2.508	1.94	2.552	1.913	2.604	1.883	2.665	1.851	2.738
1.974	2.245	1.96	2.265	1.944	2.287	1.927	2.312	1.908	2.341	1.887	2.375	1.864	2.415	1.839	2.461	1.812	2.514	1.783	2.578
1.887	2.13	1.874	2.147	1.86	2.166	1.844	2.189	1.827	2.215	1.808	2.245	1.787	2.279	1.764	2.32	1.74	2.367	1.713	2.422
1.843	2.072	1.831	2.088	1.817	2.107	1.802	2.128	1.786	2.152	1.768	2.18	1.748	2.213	1.727	2.25	1.703	2.294	1.678	2.346
1.799	2.015	1.787	2.03	1.775	2.047	1.76	2.067	1.745	2.09	1.728	2.116	1.709	2.146	1.689	2.182	1.666	2.223	1.642	2.271
1.755	1.958	1.744	1.972	1.732	1.988	1.718	2.007	1.704	2.028	1.688	2.053	1.67	2.081	1.65	2.114	1.629	2.152	1.606	2.197
1.71	1.901	1.7	1.914	1.689	1.93	1.676	1.947	1.662	1.967	1.647	1.99	1.63	2.016	1.612	2.046	1.592	2.082	1.57	2.124
1.666	1.845	1.656	1.857	1.645	1.871	1.634	1.887	1.62	1.906	1.606	1.927	1.59	1.951	1.573	1.98	1.554	2.013	1.533	2.051
1.621	1.788	1.612	1.8	1.602	1.813	1.591	1.828	1.579	1.845	1.565	1.865	1.55	1.888	1.534	1.914	1.516	1.944	1.497	1.98
1.576	1.732	1.568	1.743	1.558	1.755	1.548	1.769	1.536	1.785	1.524	1.803	1.51	1.824	1.494	1.849	1.478	1.877	1.459	1.91
1.531	1.676	1.523	1.686	1.514	1.698	1.505	1.71	1.494	1.725	1.482	1.742	1.469	1.762	1.455	1.784	1.439	1.81	1.422	1.84
1.486	1.621	1.479	1.63	1.47	1.64	1.461	1.652	1.451	1.666	1.44	1.681	1.428	1.699	1.414	1.72	1.4	1.744	1.384	1.771
1.441	1.565	1.434	1.574	1.426	1.583	1.418	1.594	1.408	1.607	1.398	1.621	1.387	1.638	1.374	1.657	1.36	1.678	1.345	1.704
1.395	1.51	1.389	1.518	1.382	1.527	1.374	1.537	1.365	1.548	1.356	1.561	1.345	1.576	1.333	1.594	1.321	1.614	1.307	1.637
1.349	1.455	1.344	1.462	1.337	1.47	1.33	1.48	1.322	1.49	1.313	1.502	1.303	1.516	1.292	1.532	1.28	1.55	1.267	1.571
1.304	1.4	1.298	1.407	1.292	1.414	1.285	1.423	1.278	1.432	1.27	1.443	1.261	1.456	1.251	1.47	1.24	1.486	1.228	1.505
1.258	1.346	1.253	1.352	1.247	1.359	1.241	1.366	1.234	1.375	1.227	1.385	1.218	1.396	1.209	1.409	1.199	1.424	1.188	1.441
1.211	1.292	1.207	1.297	1.202	1.303	1.196	1.31	1.19	1.318	1.183	1.327	1.176	1.337	1.167	1.349	1.158	1.362	1.148	1.377
1.165	1.238	1.161	1.242	1.156	1.248	1.151	1.254	1.146	1.261	1.139	1.269	1.132	1.278	1.125	1.289	1.116	1.301	1.107	1.314
1.118	1.184	1.115	1.188	1.111	1.193	1.106	1.199	1.101	1.205	1.095	1.212	1.089	1.22	1.082	1.229	1.074	1.24	1.066	1.252
1.072	1.13	1.068	1.134	1.065	1.138	1.061	1.143	1.056	1.149	1.051	1.155	1.045	1.162	1.039	1.171	1.032	1.18	1.025	1.191
1.025	1.077	1.022	1.08	1.019	1.084	1.015	1.088	1.011	1.093	1.006	1.099	1.001	1.105	0.996	1.112	0.989	1.121	0.983	1.13
0.978	1.024	0.975	1.027	0.972	1.03	0.969	1.034	0.965	1.038	0.961	1.043	0.957	1.048	0.952	1.055	0.946	1.062	0.94	1.07
0.931	0.971	0.928	0.973	0.926	0.976	0.923	0.979	0.92	0.983	0.916	0.987	0.912	0.992	0.908	0.998	0.903	1.004	0.898	1.011
0.893	0.928	0.891	0.931	0.888	0.933	0.886	0.936	0.883	0.939	0.88	0.943	0.876	0.948	0.872	0.952	0.868	0.958	0.863	0.964

Focal Length 70mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (ft-inch)	241'4.22"	215'1.3"	191'8.75"	170'10.83"	152'4.15"	135'9.76"	121'1.03"	107'11.55"	96'3.28"

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
Infinity	241'2.51"	Infinity	214'11.64"	Infinity	191'7.12"	Infinity	170'9.21"	Infinity	152'2.55"	Infinity	135'8.19"	Infinity	120'11.47"	Infinity	107'10.02"	Infinity	96'1.75"	Infinity
100'0''	71'0.08"	169'8.16"	68'6.96"	185'6.79"	66'0.57"	207'4.49"	63'5.05"	238'11.01"	60'8.56"	288'1.97"	57'11.28"	375'0.27"	55'1.41"	567'1.54"	52'3.16"	1336'9.31"	49'4.75"	Infinity
50'0''	41'7.56"	62'8.08"	40'9.55"	64'8.25"	39'10.8"	67'1.32"	38'11.28"	70'0.69"	37'11.01"	73'8.33"	36'10"	78'3.11"	35'8.27"	84'1.37"	34'5.85"	91'10.04"	33'2.81"	102'4.86"
30'0''	26'9.95"	34'0.56"	26'5.85"	34'7.44"	26'1.37"	35'3.46"	25'8.5"	36'0.84"	25'3.21"	36'11.88"	24'9.49"	38'0.99"	24'3.33"	39'4.67"	23'8.72"	40'11.64"	23'1.66"	42'10.85"
20'0''	18'6.89"	21'8.08"	18'4.97"	21'10.78"	18'2.85"	22'1.88"	18'0.52"	22'5.45"	17'9.97"	22'9.58"	17'7.18"	23'2.37"	17'4.13"	23'7.96"	17'0.82"	24'2.52"	16'9.23"	24'10.27"
15'0''	14'2.44"	15'10.76"	14'1.34"	16'0.17"	14'0.13"	16'1.78"	13'10.79"	16'3.62"	13'9.31"	16'5.73"	13'7.68"	16'8.15"	13'5.89"	16'10.95"	13'3.93"	17'2.19"	13'1.79"	17'5.96"
12'0''	11'5.97"	12'6.62"	11'5.27"	12'7.47"	11'4.49"	12'8.44"	11'3.63"	12'9.55"	11'2.68"	12'10.81"	11'1.62"	13'0.25"	11'0.46"	13'1.91"	10'11.18"	13'3.81"	10'9.77"	13'6"
10'0''	9'7.89"	10'4.43"	9'7.41"	10'5"	9'6.88"	10'5.64"	9'6.28"	10'6.37"	9'5.62"	10'7.2"	9'4.89"	10'8.15"	9'4.08"	10'9.23"	9'3.18"	10'10.47"	9'2.2"	10'11.89"
9'0''	8'8.72"	9'3.51"	8'8.33"	9'3.96"	8'7.9"	9'4.46"	8'7.42"	9'5.04"	8'6.89"	9'5.69"	8'6.3"	9'6.43"	8'5.65"	9'7.28"	8'4.93"	9'8.24"	8'4.13"	9'9.35"
8'0''	7'9.46"	8'2.7"	7'9.16"	8'3.04"	7'8.82"	8'3.43"	7'8.45"	8'3.87"	7'8.03"	8'4.36"	7'7.57"	8'4.93"	7'7.06"	8'5.57"	7'6.49"	8'6.3"	7'5.86"	8'7.13"
7'6''	7'3.79"	7'8.33"	7'3.53"	7'8.63"	7'3.24"	7'8.96"	7'2.91"	7'9.34"	7'2.55"	7'9.77"	7'2.15"	7'10.25"	7'1.7"	7'10.81"	7'1.21"	7'11.43"	7'0.66"	8'0.15"
7'0''	6'10.1"	7'2"	6'9.88"	7'2.25"	6'9.63"	7'2.53"	6'9.35"	7'2.85"	6'9.03"	7'3.22"	6'8.69"	7'3.63"	6'8.3"	7'4.1"	6'7.87"	7'4.63"	6'7.4"	7'5.24"
6'6''	6'4.39"	6'7.69"	6'4.2"	6'7.9"	6'3.99"	6'8.14"	6'3.75"	6'8.41"	6'3.48"	6'8.71"	6'3.19"	6'9.06"	6'2.86"	6'9.46"	6'2.49"	6'9.9"	6'2.09"	6'10.41"
6'0''	5'10.66"	6'1.4"	5'10.5"	6'1.58"	5'10.32"	6'1.78"	5'10.12"	6'2"	5'9.89"	6'2.25"	5'9.65"	6'2.54"	5'9.37"	6'2.87"	5'9.06"	6'3.24"	5'8.72"	6'3.66"
5'6''	5'4.9"	5'7.15"	5'4.77"	5'7.29"	5'4.62"	5'7.45"	5'4.45"	5'7.63"	5'4.27"	5'7.84"	5'4.07"	5'8.07"	5'3.84"	5'8.34"	5'3.58"	5'8.64"	5'3.3"	5'8.98"
5'0''	4'11.12"	5'0.91"	4'11.01"	5'1.03"	4'10.89"	5'1.16"	4'10.76"	5'1.3"	4'10.61"	5'1.47"	4'10.45"	5'1.65"	4'10.26"	5'1.86"	4'10.06"	5'2.1"	4'9.83"	5'2.37"
4'9''	4'8.22"	4'9.81"	4'8.12"	4'9.91"	4'8.02"	4'10.02"	4'7.9"	4'10.15"	4'7.77"	4'10.3"	4'7.62"	4'10.46"	4'7.46"	4'10.65"	4'7.28"	4'10.85"	4'7.07"	4'11.09"
4'6''	4'5.31"	4'6.71"	4'5.23"	4'6.8"	4'5.14"	4'6.9"	4'5.03"	4'7.01"	4'4.92"	4'7.14"	4'4.79"	4'7.28"	4'4.64"	4'7.44"	4'4.48"	4'7.63"	4'4.3"	4'7.83"
4'3''	4'2.4"	4'3.62"	4'2.33"	4'3.69"	4'2.25"	4'3.78"	4'2.16"	4'3.88"	4'2.05"	4'3.99"	4'1.94"	4'4.11"	4'1.82"	4'4.25"	4'1.68"	4'4.41"	4'1.52"	4'4.59"
4'0''	3'11.48"	4'0.53"	3'11.42"	4'0.6"	3'11.35"	4'0.67"	3'11.27"	4'0.76"	3'11.18"	4'0.85"	3'11.09"	4'0.96"	3'10.98"	4'1.08"	3'10.86"	4'1.21"	3'10.72"	4'1.37"
3'9''	3'8.56"	3'9.45"	3'8.5"	3'9.51"	3'8.45"	3'9.57"	3'8.38"	3'9.64"	3'8.3"	3'9.72"	3'8.22"	3'9.81"	3'8.13"	3'9.92"	3'8.02"	3'10.03"	3'7.91"	3'10.16"
3'6''	3'5.63"	3'6.38"	3'5.58"	3'6.43"	3'5.53"	3'6.48"	3'5.48"	3'6.54"	3'5.41"	3'6.61"	3'5.34"	3'6.68"	3'5.27"	3'6.77"	3'5.18"	3'6.86"	3'5.08"	3'6.97"
3'3''	3'2.69"	3'3.31"	3'2.66"	3'3.35"	3'2.61"	3'3.4"	3'2.57"	3'3.45"	3'2.52"	3'3.5"	3'2.46"	3'3.56"	3'2.39"	3'3.63"	3'2.32"	3'3.71"	3'2.24"	3'3.8"
3'0''	2'11.75"	3'0.25"	2'11.72"	3'0.28"	2'11.69"	3'0.32"	2'11.65"	3'0.36"	2'11.61"	3'0.4"	2'11.56"	3'0.45"	2'11.51"	3'0.51"	2'11.45"	3'0.58"	2'11.38"	3'0.65"

8	9	10	11	13	14	16	18	20	22
85'10.31"	76'6.98"	68'3.8"	60'11.42"	54'4.68"	48'6.56"	43'4.08"	38'8.41"	34'6.8"	30'10.63"

8		9		10		11		13		14		16		18		20		22	
Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)	Short Focus (ft-inch)	Long Focus (ft-inch)
85'8.79"	Infinity	76'5.46"	Infinity	68'2.27"	Infinity	60'9.9"	Infinity	54'3.18"	Infinity	48'5.04"	Infinity	43'2.56"	Infinity	38'6.89"	Infinity	34'5.3"	Infinity	30'9.11"	Infinity
46'6.42"	Infinity	43'8.4"	Infinity	40'10.89"	Infinity	38'2.12"	Infinity	35'6.25"	Infinity	32'11.47"	Infinity	30'5.91"	Infinity	28'1.67"	Infinity	25'10.86"	Infinity	23'9.53"	Infinity
31'11.2"	117'7.5"	30'7.1"	141'2.75"	29'2.6"	182'4.81"	27'9.8"	271'5.15"	26'4.8"	602'3.22"	24'11.72"	Infinity	23'6.67"	Infinity	22'1.76"	Infinity	20'9.1"	Infinity	19'4.8"	Infinity
22'6.15"	45'3.72"	21'10.21"	48'4.32"	21'1.85"	52'3.85"	20'5.09"	57'7.57"	19'7.99"	65'0.76"	18'10.56"	76'1.36"	18'0.87"	94'1.38"	17'2.97"	128'3.65"	16'4.92"	217'3.19"	15'6.78"	996'5.57"
16'5.36"	25'7.48"	16'1.19"	26'6.54"	15'8.73"	27'7.98"	15'3.97"	29'0.52"	14'10.92"	30'9.22"	14'5.58"	32'11.68"	13'11.98"	35'10.42"	13'6.12"	39'9.65"	13'0.04"	45'5.08"	12'5.76"	54'0.28"
12'11.46"	17'10.36"	12'8.93"	18'3.54"	12'6.19"	18'9.67"	12'3.24"	19'4.99"	12'0.06"	20'1.81"	11'8.67"	21'0.58"	11'5.06"	22'1.92"	11'1.23"	23'6.73"	10'9.2"	25'4.43"	10'4.97"	27'9.28"
10'8.23"	13'8.54"	10'6.55"	13'11.49"	10'4.72"	14'2.94"	10'2.73"	14'6.99"	10'0.57"	14'11.79"	9'10.25"	15'5.51"	9'7.75"	16'0.41"	9'5.08"	16'8.82"	9'2.23"	17'7.23"	8'11.22"	18'8.34"
9'1.12"	11'1.52"	8'11.93"	11'3.4"	8'10.63"	11'5.58"	8'9.21"	11'8.13"	8'7.66"	11'11.1"	8'5.98"	12'2.6"	8'4.17"	12'6.76"	8'2.21"	12'11.73"	8'0.11"	13'5.74"	7'9.87"	14'1.1"
8'3.25"	9'10.61"	8'2.28"	10'0.07"	8'1.22"	10'1.75"	8'0.06"	10'3.7"	7'10.79"	10'5.97"	7'9.41"	10'8.62"	7'7.91"	10'11.75"	7'6.29"	11'3.46"	7'4.55"	11'7.9"	7'2.68"	12'1.27"
7'5.17"	8'8.09"	7'4.41"	8'9.18"	7'3.57"	8'10.44"	7'2.65"	8'11.89"	7'1.63"	9'1.57"	7'0.53"	9'3.53"	6'11.33"	9'5.82"	6'10.03"	9'8.51"	6'8.61"	9'11.7"	6'7.09"	10'3.52"
7'0.05"	8'0.97"	6'11.38"	8'1.9"	6'10.64"	8'2.97"	6'9.83"	8'4.21"	6'8.94"	8'5.64"	6'7.97"	8'7.3"	6'6.91"	8'9.23"	6'5.75"	8'11.49"	6'4.5"	9'2.16"	6'3.15"	9'5.34"
6'6.87"	7'5.93"	6'6.29"	7'6.72"	6'5.65"	7'7.63"	6'4.94"	7'8.67"	6'4.17"	7'9.87"	6'3.32"	7'11.26"	6'2.39"	8'0.88"	6'1.38"	8'2.76"	6'0.28"	8'4.97"	5'11.09"	8'7.59"
6'1.64"	6'10.99"	6'1.14"	6'11.65"	6'0.59"	7'0.41"	5'11.98"	7'1.27"	5'11.32"	7'2.27"	5'10.59"	7'3.42"	5'9.79"	7'4.75"	5'8.91"	7'6.3"	5'7.96"	7'8.11"	5'6.92"	7'10.24"
5'8.34"	6'4.13"	5'7.92"	6'4.68"	5'7.46"	6'5.3"	5'6.95"	6'6.01"	5'6.38"	6'6.82"	5'5.76"	6'7.76"	5'5.08"	6'8.84"	5'4.34"	6'10.09"	5'3.52"	6'11.55"	5'2.64"	7'1.26"
5'2.99"	5'9.36"	5'2.64"	5'9.8"	5'2.26"	5'10.3"	5'1.83"	5'10.87"	5'1.36"	5'11.52"	5'0.85"	6'0.27"	5'0.28"	6'1.14"	4'11.65"	6'2.13"	4'10.97"	6'3.29"	4'10.23"	6'4.64"
4'9.58"	5'2.67"	4'9.3"	5'3.02"	4'8.98"	5'3.41"	4'8.64"	5'3.86"	4'8.26"	5'4.38"	4'7.84"	5'4.96"	4'7.37"	5'5.64"	4'6.86"	5'6.41"	4'6.3"	5'7.31"	4'5.69"	5'8.35"
4'6.85"	4'11.36"	4'6.6"	4'11.66"	4'6.32"	5'0.01"	4'6.01"	5'0.41"	4'5.67"	5'0.86"	4'5.29"	5'1.37"	4'4.88"	5'1.96"	4'4.42"	5'2.64"	4'3.92"	5'3.42"	4'3.37"	5'4.32"
4'4.1"	4'8.07"	4'3.88"	4'8.33"	4'3.64"	4'8.64"	4'3.36"	4'8.98"	4'3.06"	4'9.37"	4'2.73"	4'9.82"	4'2.36"	4'10.33"	4'1.95"	4'10.92"	4'1.51"	4'11.59"	4'1.02"	5'0.37"
4'1.34"	4'4.79"	4'1.15"	4'5.03"	4'0.93"	4'5.29"	4'0.7"	4'5.58"	4'0.43"	4'5.92"	4'0.14"	4'6.31"	3'11.81"	4'6.75"	3'11.45"	4'7.25"	3'11.06"	4'7.83"	3'10.63"	4'8.5"
3'10.57"	4'1.54"	3'10.4"	4'1.74"	3'10.21"	4'1.96"	3'10.01"	4'2.22"	3'9.78"	4'2.51"	3'9.52"	4'2.83"	3'9.24"	4'3.21"	3'8.93"	4'3.64"	3'8.58"	4'4.13"	3'8.2"	4'4.7"
3'7.78"	3'10.31"	3'7.63"	3'10.48"	3'7.47"	3'10.67"	3'7.29"	3'10.88"	3'7.1"	3'11.12"	3'6.88"	3'11.4"	3'6.63"	3'11.72"	3'6.36"	4'0.08"	3'6.07"	4'0.49"	3'5.74"	4'0.96"
3'4.97"	3'7.1"	3'4.85"	3'7.24"	3'4.71"	3'7.39"	3'4.56"	3'7.57"	3'4.39"	3'7.78"	3'4.21"	3'8.01"	3'4"	3'8.27"	3'3.77"	3'8.57"	3'3.52"	3'8.91"	3'3.24"	3'9.3"
3'2.15"	3'3.9"	3'2.05"	3'4.02"	3'1.93"	3'4.15"	3'1.81"	3'4.29"	3'1.67"	3'4.46"	3'1.51"	3'4.65"	3'1.34"	3'4.86"	3'1.15"	3'5.1"	3'0.94"	3'5.38"	3'0.7"	3'5.7"
2'11.31"	3'0.73"	2'11.23"	3'0.82"	2'11.13"	3'0.92"	2'11.03"	3'1.04"	2'10.92"	3'1.18"	2'10.79"	3'1.33"	2'10.65"	3'1.5"	2'10.49"	3'1.69"	2'10.32"	3'1.91"	2'10.13"	3'2.17"

Focal Length 75mm

Circle of Confusion 0.025mm

T/No	2.8	3.2	3.5	4	4.5	5	5.6	6.3	7.1
Hyperfocal Distance (m)	79.284	70.662	62.979	56.135	50.038	44.606	39.766	35.455	31.614

T/No	2.8		3.2		3.5		4		4.5		5		5.6		6.3		7.1	
Focus Distance (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
Infinity	79.24	Infinity	70.618	Infinity	62.937	Infinity	56.094	Infinity	49.997	Infinity	44.566	Infinity	39.727	Infinity	35.415	Infinity	31.575	Infinity
30.00	21.853	47.984	21.152	51.797	20.417	56.875	19.651	63.912	18.857	74.232	18.041	90.682	17.205	120.752	16.356	192.483	15.498	579.242
15.00	12.674	18.394	12.438	18.92	12.184	19.547	11.911	20.304	11.62	21.227	11.309	22.37	10.98	23.81	10.633	25.667	10.269	28.133
10.00	8.925	11.378	8.809	11.574	8.683	11.802	8.546	12.069	8.397	12.385	8.236	12.759	8.062	13.207	7.876	13.751	7.678	14.417
9.00	8.124	10.095	8.028	10.248	7.924	10.425	7.81	10.632	7.686	10.875	7.551	11.161	7.406	11.5	7.25	11.908	7.082	12.402
8.00	7.304	8.847	7.227	8.964	7.143	9.098	7.051	9.255	6.951	9.437	6.841	9.65	6.722	9.901	6.594	10.2	6.456	10.557
7.00	6.466	7.634	6.406	7.72	6.34	7.819	6.268	7.933	6.189	8.065	6.103	8.219	6.009	8.399	5.907	8.611	5.797	8.863
6.00	5.607	6.454	5.563	6.515	5.514	6.584	5.46	6.664	5.4	6.756	5.335	6.863	5.264	6.986	5.187	7.131	5.103	7.3
5.50	5.17	5.877	5.133	5.926	5.091	5.983	5.046	6.049	4.995	6.124	4.94	6.21	4.879	6.311	4.813	6.428	4.741	6.564
5.00	4.728	5.306	4.697	5.347	4.663	5.393	4.625	5.445	4.583	5.505	4.537	5.575	4.486	5.655	4.43	5.747	4.37	5.855
4.50	4.281	4.744	4.256	4.776	4.228	4.812	4.197	4.853	4.162	4.901	4.125	4.955	4.083	5.017	4.038	5.089	3.988	5.173
4.00	3.828	4.189	3.808	4.213	3.786	4.241	3.762	4.273	3.734	4.309	3.704	4.35	3.671	4.398	3.635	4.452	3.595	4.515
3.80	3.646	3.969	3.628	3.991	3.608	4.015	3.585	4.044	3.561	4.076	3.534	4.112	3.504	4.155	3.471	4.203	3.435	4.258
3.60	3.462	3.75	3.446	3.769	3.428	3.791	3.408	3.816	3.386	3.845	3.362	3.877	3.335	3.914	3.305	3.957	3.273	4.006
3.40	3.278	3.533	3.263	3.549	3.247	3.569	3.23	3.591	3.21	3.616	3.188	3.644	3.164	3.676	3.138	3.714	3.109	3.756
3.20	3.092	3.316	3.08	3.331	3.066	3.348	3.05	3.367	3.033	3.388	3.013	3.413	2.992	3.441	2.969	3.474	2.943	3.511
3.00	2.906	3.101	2.895	3.113	2.883	3.128	2.869	3.145	2.854	3.163	2.837	3.185	2.818	3.209	2.798	3.237	2.775	3.268
2.90	2.813	2.993	2.802	3.005	2.791	3.019	2.778	3.034	2.764	3.051	2.748	3.071	2.731	3.094	2.712	3.119	2.69	3.148
2.80	2.719	2.886	2.709	2.897	2.699	2.91	2.687	2.924	2.674	2.94	2.659	2.958	2.643	2.979	2.625	3.002	2.605	3.029
2.70	2.625	2.78	2.616	2.79	2.606	2.801	2.595	2.814	2.583	2.829	2.57	2.846	2.555	2.865	2.538	2.886	2.519	2.911
2.60	2.531	2.673	2.523	2.683	2.514	2.693	2.503	2.705	2.492	2.718	2.48	2.734	2.466	2.751	2.45	2.771	2.433	2.794
2.50	2.437	2.567	2.429	2.576	2.421	2.585	2.411	2.596	2.401	2.608	2.389	2.622	2.377	2.638	2.362	2.656	2.347	2.677
2.40	2.342	2.461	2.335	2.469	2.327	2.478	2.319	2.488	2.309	2.499	2.299	2.512	2.287	2.526	2.274	2.543	2.259	2.561
2.30	2.247	2.356	2.241	2.363	2.234	2.371	2.226	2.38	2.217	2.39	2.208	2.401	2.197	2.414	2.185	2.429	2.172	2.446
2.20	2.152	2.25	2.146	2.257	2.14	2.264	2.133	2.272	2.125	2.281	2.116	2.292	2.106	2.303	2.095	2.317	2.083	2.332
2.10	2.057	2.145	2.052	2.151	2.046	2.157	2.039	2.165	2.032	2.173	2.024	2.182	2.015	2.193	2.006	2.205	1.995	2.219
2.00	1.961	2.041	1.957	2.046	1.951	2.051	1.946	2.058	1.939	2.065	1.932	2.074	1.924	2.083	1.915	2.094	1.905	2.106
1.95	1.913	1.988	1.909	1.993	1.904	1.999	1.899	2.005	1.892	2.012	1.886	2.019	1.878	2.028	1.87	2.038	1.86	2.05
1.90	1.865	1.936	1.861	1.941	1.857	1.946	1.851	1.951	1.846	1.958	1.839	1.965	1.832	1.974	1.824	1.983	1.815	1.994
1.85	1.817	1.884	1.814	1.888	1.809	1.893	1.804	1.898	1.799	1.905	1.793	1.911	1.786	1.919	1.779	1.928	1.77	1.938
1.80	1.769	1.832	1.766	1.836	1.762	1.84	1.757	1.845	1.752	1.851	1.746	1.858	1.74	1.865	1.733	1.873	1.725	1.883
1.75	1.721	1.78	1.718	1.784	1.714	1.788	1.71	1.793	1.705	1.798	1.7	1.804	1.694	1.811	1.687	1.819	1.68	1.827
1.70	1.673	1.728	1.67	1.731	1.666	1.735	1.662	1.74	1.658	1.745	1.653	1.75	1.647	1.757	1.641	1.764	1.634	1.772
1.65	1.625	1.676	1.622	1.679	1.619	1.683	1.615	1.687	1.611	1.692	1.606	1.697	1.601	1.703	1.595	1.71	1.588	1.717
1.60	1.577	1.624	1.574	1.627	1.571	1.631	1.567	1.634	1.563	1.639	1.559	1.644	1.554	1.649	1.549	1.656	1.543	1.663
1.55	1.528	1.572	1.526	1.575	1.523	1.578	1.519	1.582	1.516	1.586	1.512	1.591	1.507	1.596	1.502	1.601	1.497	1.608
1.50	1.48	1.521	1.477	1.523	1.475	1.526	1.472	1.53	1.468	1.533	1.465	1.537	1.46	1.542	1.456	1.548	1.45	1.554
1.45	1.431	1.469	1.429	1.472	1.427	1.474	1.424	1.477	1.421	1.481	1.417	1.485	1.413	1.489	1.409	1.494	1.404	1.499
1.40	1.383	1.418	1.381	1.42	1.379	1.422	1.376	1.425	1.373	1.428	1.37	1.432	1.366	1.436	1.362	1.44	1.358	1.445
1.35	1.334	1.366	1.332	1.368	1.33	1.37	1.328	1.373	1.325	1.376	1.322	1.379	1.319	1.383	1.315	1.387	1.311	1.392
1.30	1.286	1.315	1.284	1.317	1.282	1.319	1.28	1.321	1.277	1.324	1.275	1.326	1.272	1.33	1.268	1.334	1.265	1.338
1.25	1.237	1.263	1.235	1.265	1.234	1.267	1.232	1.269	1.229	1.271	1.227	1.274	1.224	1.277	1.221	1.28	1.218	1.284
1.20	1.188	1.212	1.187	1.214	1.185	1.215	1.183	1.217	1.181	1.219	1.179	1.222	1.177	1.224	1.174	1.228	1.171	1.231
1.15	1.139	1.161	1.138	1.162	1.137	1.164	1.135	1.165	1.133	1.167	1.131	1.17	1.129	1.172	1.127	1.175	1.124	1.178
1.10	1.091	1.11	1.089	1.111	1.088	1.112	1.087	1.114	1.085	1.115	1.083	1.117	1.081	1.12	1.079	1.122	1.076	1.125
1.05	1.042	1.059	1.041	1.06	1.039	1.061	1.038	1.062	1.037	1.064	1.035	1.065	1.033	1.067	1.031	1.07	1.029	1.072
1.00	0.993	1.008	0.992	1.009	0.991	1.01	0.99	1.011	0.988	1.012	0.987	1.014	0.985	1.015	0.983	1.017	0.982	1.019
0.95	0.943	0.957	0.943	0.957	0.942	0.958	0.941	0.959	0.94	0.961	0.938	0.962	0.937	0.963	0.936	0.965	0.934	0.967
0.91	0.904	0.916	0.903	0.917	0.903	0.917	0.902	0.918	0.901	0.919	0.9	0.921	0.898	0.922	0.897	0.923	0.896	0.925

8	9	10	11	13	14	16	18	20	22
28.192	25.143	22.427	20.007	17.851	15.931	14.22	12.696	11.337	10.128

8		9		10		11		13		14		16		18		20		22	
Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)	Short Focus (m)	Long Focus (m)
28.153	Infinity	25.104	Infinity	22.388	Infinity	19.969	Infinity	17.813	Infinity	15.892	Infinity	14.182	Infinity	12.657	Infinity	11.299	Infinity	10.089	Infinity
14.638	Infinity	13.781	Infinity	12.933	Infinity	12.099	Infinity	11.284	Infinity	10.493	Infinity	9.729	Infinity	8.997	Infinity	8.299	Infinity	7.636	Infinity
9.89	31.539	9.497	36.511	9.092	44.377	8.678	58.574	8.257	91.517	7.831	249.381	7.404	Infinity	6.978	Infinity	6.557	Infinity	6.142	Infinity
7.467	15.248	7.244	16.305	7.01	17.683	6.765	19.54	6.51	22.16	6.246	26.097	5.976	32.624	5.699	45.419	5.419	81.381	5.137	758.047
6.904	13.009	6.714	13.766	6.513	14.73	6.302	15.989	6.081	17.691	5.852	20.1	5.615	23.738	5.371	29.817	5.123	41.911	4.871	77.223
6.308	10.991	6.15	11.523	5.982	12.186	5.805	13.029	5.618	14.13	5.423	15.614	5.22	17.709	5.01	20.861	4.795	26.094	4.575	36.383
5.679	9.163	5.551	9.527	5.415	9.972	5.271	10.525	5.118	11.225	4.956	12.133	4.788	13.35	4.612	15.049	4.43	17.57	4.243	21.658
5.012	7.501	4.913	7.74	4.808	8.027	4.695	8.378	4.574	8.81	4.446	9.354	4.311	10.052	4.17	10.974	4.022	12.24	3.869	14.069
4.663	6.724	4.578	6.914	4.487	7.141	4.389	7.415	4.284	7.749	4.173	8.164	4.055	8.686	3.93	9.361	3.8	10.259	3.664	11.504
4.304	5.981	4.232	6.13	4.155	6.306	4.071	6.517	3.982	6.771	3.886	7.082	3.784	7.469	3.677	7.958	3.563	8.592	3.444	9.439
3.933	5.27	3.874	5.384	3.81	5.518	3.74	5.676	3.665	5.866	3.585	6.096	3.499	6.377	3.408	6.726	3.311	7.168	3.209	7.741
3.551	4.588	3.504	4.673	3.452	4.772	3.395	4.888	3.334	5.027	3.268	5.192	3.198	5.391	3.122	5.635	3.042	5.938	2.957	6.321
3.395	4.323	3.352	4.397	3.304	4.485	3.253	4.587	3.197	4.707	3.137	4.851	3.072	5.024	3.003	5.233	2.929	5.492	2.851	5.815
3.237	4.062	3.198	4.127	3.155	4.204	3.108	4.293	3.058	4.397	3.003	4.522	2.944	4.67	2.881	4.849	2.813	5.069	2.741	5.341
3.077	3.806	3.041	3.862	3.003	3.928	2.961	4.005	2.916	4.096	2.866	4.202	2.813	4.329	2.755	4.482	2.694	4.667	2.628	4.895
2.914	3.553	2.883	3.602	2.849	3.659	2.811	3.725	2.771	3.802	2.726	3.893	2.678	4.001	2.627	4.13	2.571	4.285	2.512	4.474
2.75	3.305	2.722	3.347	2.692	3.395	2.659	3.451	2.623	3.517	2.583	3.594	2.541	3.684	2.495	3.792	2.445	3.921	2.392	4.077
2.667	3.182	2.641	3.221	2.613	3.265	2.582	3.317	2.548	3.377	2.511	3.447	2.471	3.53	2.428	3.628	2.381	3.745	2.331	3.887
2.583	3.06	2.559	3.096	2.533	3.137	2.504	3.184	2.472	3.239	2.438	3.303	2.4	3.379	2.359	3.468	2.315	3.574	2.268	3.702
2.499	2.94	2.477	2.972	2.452	3.009	2.425	3.053	2.396	3.103	2.363	3.161	2.328	3.23	2.29	3.311	2.249	3.407	2.205	3.522
2.414	2.82	2.394	2.849	2.371	2.884	2.346	2.923	2.318	2.969	2.288	3.022	2.256	3.084	2.22	3.157	2.182	3.243	2.14	3.347
2.329	2.701	2.31	2.728	2.289	2.759	2.266	2.795	2.24	2.836	2.212	2.884	2.182	2.94	2.149	3.006	2.113	3.084	2.075	3.176
2.243	2.583	2.226	2.607	2.206	2.635	2.185	2.668	2.161	2.705	2.136	2.748	2.108	2.799	2.077	2.858	2.044	2.927	2.008	3.01
2.157	2.466	2.141	2.488	2.123	2.513	2.103	2.542	2.082	2.576	2.058	2.615	2.032	2.66	2.004	2.713	1.974	2.775	1.941	2.848
2.07	2.349	2.055	2.369	2.039	2.392	2.021	2.418	2.001	2.448	1.98	2.483	1.956	2.523	1.93	2.57	1.902	2.625	1.872	2.69
1.983	2.234	1.969	2.252	1.954	2.272	1.938	2.295	1.92	2.322	1.9	2.353	1.879	2.389	1.855	2.43	1.83	2.479	1.802	2.536
1.894	2.12	1.882	2.136	1.869	2.154	1.854	2.174	1.838	2.198	1.82	2.225	1.801	2.257	1.779	2.293	1.756	2.336	1.73	2.386
1.85	2.063	1.839	2.078	1.826	2.095	1.812	2.114	1.797	2.136	1.78	2.162	1.761	2.191	1.741	2.226	1.718	2.265	1.694	2.312
1.806	2.006	1.795	2.02	1.783	2.036	1.77	2.054	1.755	2.075	1.739	2.099	1.721	2.127	1.702	2.159	1.681	2.196	1.658	2.239
1.761	1.95	1.751	1.963	1.74	1.978	1.727	1.995	1.713	2.014	1.698	2.037	1.681	2.062	1.663	2.092	1.643	2.127	1.621	2.167
1.716	1.894	1.707	1.906	1.696	1.92	1.684	1.936	1.671	1.954	1.657	1.975	1.641	1.999	1.624	2.026	1.605	2.059	1.584	2.096
1.671	1.837	1.662	1.849	1.652	1.862	1.641	1.877	1.629	1.894	1.615	1.913	1.601	1.935	1.584	1.961	1.566	1.991	1.547	2.026
1.626	1.782	1.618	1.792	1.608	1.804	1.598	1.818	1.586	1.834	1.574	1.852	1.56	1.873	1.544	1.897	1.527	1.924	1.509	1.957
1.581	1.726	1.573	1.736	1.564	1.747	1.555	1.76	1.544	1.775	1.532	1.791	1.519	1.811	1.504	1.833	1.488	1.858	1.471	1.888
1.536	1.671	1.528	1.68	1.52	1.69	1.511	1.702	1.501	1.716	1.49	1.731	1.477	1.749	1.464	1.769	1.449	1.793	1.433	1.82
1.49	1.615	1.483	1.624	1.476	1.634	1.467	1.645	1.458	1.657	1.447	1.671	1.436	1.688	1.423	1.707	1.409	1.728	1.394	1.753
1.445	1.561	1.438	1.568	1.431	1.577	1.423	1.587	1.414	1.599	1.405	1.612	1.394	1.627	1.382	1.644	1.369	1.664	1.355	1.687
1.399	1.506	1.393	1.513	1.386	1.521	1.379	1.53	1.371	1.541	1.362	1.553	1.352	1.567	1.341	1.583	1.329	1.601	1.315	1.622
1.353	1.451	1.347	1.458	1.341	1.465	1.334	1.474	1.327	1.483	1.319	1.494	1.309	1.507	1.299	1.521	1.288	1.538	1.276	1.557
1.307	1.397	1.302	1.403	1.296	1.41	1.29	1.417	1.283	1.426	1.275	1.436	1.267	1.448	1.257	1.461	1.247	1.476	1.236	1.493
1.26	1.343	1.256	1.348	1.251	1.354	1.245	1.361	1.239	1.369	1.231	1.378	1.224	1.389	1.215	1.401	1.206	1.414	1.195	1.43
1.214	1.289	1.21	1.294	1.205	1.299	1.2	1.306	1.194	1.313	1.188	1.321	1.18	1.33	1.173	1.341	1.164	1.353	1.154	1.367
1.167	1.235	1.164	1.239	1.159	1.244	1.154	1.25	1.149	1.257	1.143	1.264	1.137	1.272	1.13	1.282	1.122	1.293	1.113	1.306
1.121	1.181	1.117	1.185	1.113	1.19	1.109	1.195	1.104	1.201	1.099	1.207	1.093	1.215	1.086	1.223	1.079	1.233	1.071	1.244
1.074	1.128	1.071	1.132	1.067	1.136	1.063	1.14	1.059	1.145	1.054	1.151	1.049	1.158	1.043	1.165	1.036	1.174	1.029	1.184
1.027	1.075	1.024	1.078	1.021	1.082	1.017	1.086	1.013	1.09	1.009	1.095	1.004	1.101	0.999	1.108	0.993	1.115	0.987	1.124
0.979	1.022	0.977	1.025	0.974	1.028	0.971	1.031	0.968	1.035	0.964	1.04	0.96	1.045	0.955	1.051	0.95	1.057	0.944	1.065
0.932	0.969	0.93	0.971	0.927	0.974	0.925	0.977	0.922	0.981	0.918	0.985	0.915	0.989	0.91	0.994	0.906	1	0.901	1.007
0.894	0.927	0.892	0.929	0.89	0.932	0.887	0.934	0.885	0.937	0.882	0.941	0.878	0.945	0.875	0.949	0.871	0.954	0.866	0.96