



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 15mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	4.50	infinity	3.21	infinity	2.25	infinity	1.61	infinity	1.12	infinity	0.82	infinity	0.56	infinity	0.41	infinity
20	3.68	infinity	2.77	infinity	2.02	infinity	1.49	infinity	1.07	infinity	0.79	infinity	0.55	infinity	0.40	infinity
10	3.11	infinity	2.44	infinity	1.84	infinity	1.39	infinity	1.01	infinity	0.76	infinity	0.53	infinity	0.39	infinity
7.5	2.82	infinity	2.25	infinity	1.73	infinity	1.33	infinity	0.98	infinity	0.74	infinity	0.52	infinity	0.39	infinity
5	2.37	infinity	1.96	infinity	1.55	infinity	1.22	infinity	0.92	infinity	0.70	infinity	0.51	infinity	0.38	infinity
4	2.12	34.95	1.79	infinity	1.44	infinity	1.15	infinity	0.88	infinity	0.68	infinity	0.49	infinity	0.37	infinity
3	1.80	8.91	1.56	42.06	1.29	infinity	1.05	infinity	0.82	infinity	0.65	infinity	0.48	infinity	0.36	infinity
2.5	1.61	5.58	1.41	11.02	1.19	infinity	0.98	infinity	0.78	infinity	0.62	infinity	0.46	infinity	0.35	infinity
2	1.39	3.58	1.24	5.23	1.06	16.98	0.89	infinity	0.72	infinity	0.58	infinity	0.44	infinity	0.34	infinity
1.8	1.29	2.98	1.16	4.05	1.00	8.71	0.85	infinity	0.70	infinity	0.57	infinity	0.43	infinity	0.34	infinity
1.6	1.18	2.47	1.07	3.16	0.94	5.41	0.81	116.13	0.66	infinity	0.54	infinity	0.42	infinity	0.33	infinity
1.5	1.13	2.24	1.03	2.79	0.90	4.41	0.78	19.74	0.65	infinity	0.53	infinity	0.41	infinity	0.32	infinity
1.4	1.07	2.02	0.98	2.46	0.87	3.64	0.75	10.13	0.63	infinity	0.52	infinity	0.40	infinity	0.32	infinity
1.3	1.01	1.82	0.93	2.17	0.83	3.03	0.72	6.49	0.61	infinity	0.51	infinity	0.40	infinity	0.31	infinity
1.2	0.95	1.63	0.88	1.90	0.79	2.54	0.69	4.57	0.58	infinity	0.49	infinity	0.39	infinity	0.31	infinity
1.1	0.89	1.45	0.82	1.66	0.74	2.12	0.66	3.39	0.56	30.94	0.47	infinity	0.38	infinity	0.30	infinity
1	0.82	1.28	0.77	1.44	0.70	1.78	0.62	2.58	0.53	8.04	0.45	infinity	0.36	infinity	0.29	infinity
0.9	0.75	1.12	0.71	1.24	0.65	1.48	0.58	2.00	0.50	4.22	0.43	infinity	0.35	infinity	0.28	infinity
0.8	0.68	0.97	0.64	1.06	0.59	1.23	0.54	1.56	0.47	2.65	0.41	19.73	0.33	infinity	0.27	infinity
0.7	0.61	0.83	0.58	0.89	0.54	1.01	0.49	1.22	0.44	1.79	0.38	4.30	0.32	infinity	0.26	infinity
0.6	0.53	0.69	0.51	0.73	0.48	0.81	0.44	0.94	0.39	1.25	0.35	2.11	0.29	infinity	0.25	infinity
0.5	0.45	0.56	0.43	0.59	0.41	0.64	0.38	0.72	0.35	0.88	0.31	1.23	0.27	3.63	0.23	infinity
0.45	0.41	0.50	0.40	0.52	0.38	0.56	0.35	0.62	0.32	0.73	0.29	0.96	0.25	1.99	0.22	infinity
0.4	0.37	0.44	0.36	0.45	0.34	0.48	0.32	0.53	0.30	0.61	0.27	0.76	0.24	1.27	0.21	6.79
0.35	0.33	0.38	0.32	0.39	0.30	0.41	0.29	0.44	0.27	0.50	0.25	0.59	0.22	0.87	0.19	1.93
0.3	0.28	0.32	0.28	0.33	0.27	0.34	0.25	0.36	0.24	0.40	0.22	0.46	0.20	0.61	0.18	0.99



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 18mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	6.48	infinity	4.58	infinity	3.24	infinity	2.29	infinity	1.62	infinity	1.15	infinity	0.81	infinity	0.57	infinity
15	4.53	infinity	3.51	infinity	2.67	infinity	1.99	infinity	1.46	infinity	1.07	infinity	0.77	infinity	0.55	infinity
12	4.21	infinity	3.32	infinity	2.55	infinity	1.93	infinity	1.43	infinity	1.05	infinity	0.76	infinity	0.55	infinity
10	3.94	infinity	3.15	infinity	2.45	infinity	1.87	infinity	1.40	infinity	1.03	infinity	0.75	infinity	0.54	infinity
5	2.83	21.63	2.40	infinity	1.97	infinity	1.57	infinity	1.23	infinity	0.93	infinity	0.70	infinity	0.52	infinity
4	2.48	10.38	2.14	30.51	1.79	infinity	1.46	infinity	1.16	infinity	0.89	infinity	0.68	infinity	0.50	infinity
3	2.05	5.56	1.82	8.59	1.56	37.67	1.30	infinity	1.06	infinity	0.83	infinity	0.64	infinity	0.48	infinity
2.5	1.81	4.05	1.62	5.45	1.42	10.69	1.20	infinity	0.99	infinity	0.79	infinity	0.62	infinity	0.47	infinity
2	1.53	2.88	1.40	3.52	1.24	5.15	1.07	14.83	0.90	infinity	0.73	infinity	0.58	infinity	0.45	infinity
1.9	1.47	2.68	1.35	3.22	1.20	4.53	1.04	10.64	0.88	infinity	0.72	infinity	0.57	infinity	0.44	infinity
1.8	1.41	2.48	1.30	2.95	1.16	4.00	1.01	8.10	0.86	infinity	0.70	infinity	0.56	infinity	0.44	infinity
1.7	1.35	2.30	1.24	2.69	1.12	3.54	0.98	6.40	0.83	infinity	0.69	infinity	0.55	infinity	0.43	infinity
1.6	1.29	2.12	1.19	2.44	1.08	3.13	0.95	5.17	0.81	68.21	0.67	infinity	0.54	infinity	0.43	infinity
1.5	1.22	1.94	1.13	2.22	1.03	2.76	0.91	4.25	0.78	17.61	0.65	infinity	0.53	infinity	0.42	infinity
1.4	1.15	1.78	1.08	2.00	0.98	2.44	0.87	3.53	0.76	9.53	0.63	infinity	0.52	infinity	0.41	infinity
1.3	1.09	1.62	1.02	1.80	0.93	2.15	0.83	2.95	0.73	6.23	0.61	infinity	0.50	infinity	0.40	infinity
1.2	1.01	1.47	0.95	1.62	0.88	1.89	0.79	2.48	0.69	4.44	0.59	infinity	0.49	infinity	0.39	infinity
1.1	0.94	1.32	0.89	1.44	0.82	1.65	0.75	2.08	0.66	3.31	0.57	19.82	0.47	infinity	0.38	infinity
1	0.87	1.18	0.82	1.27	0.77	1.43	0.70	1.75	0.62	2.54	0.54	7.00	0.45	infinity	0.37	infinity
0.9	0.79	1.04	0.75	1.11	0.71	1.24	0.65	1.46	0.58	1.98	0.51	3.91	0.43	infinity	0.35	infinity
0.8	0.71	0.91	0.68	0.96	0.64	1.05	0.60	1.21	0.54	1.55	0.48	2.52	0.41	23.14	0.34	infinity
0.7	0.63	0.78	0.61	0.82	0.58	0.89	0.54	1.00	0.49	1.21	0.44	1.73	0.38	4.43	0.32	infinity
0.6	0.55	0.66	0.53	0.69	0.51	0.73	0.48	0.80	0.44	0.94	0.40	1.22	0.35	2.13	0.30	infinity
0.5	0.47	0.54	0.45	0.56	0.44	0.59	0.41	0.63	0.39	0.71	0.35	0.86	0.31	1.23	0.27	3.16
0.4	0.38	0.43	0.37	0.44	0.36	0.45	0.34	0.48	0.32	0.52	0.30	0.60	0.27	0.76	0.24	1.20
0.3	0.29	0.31	0.28	0.32	0.28	0.33	0.27	0.34	0.26	0.36	0.24	0.40	0.22	0.46	0.20	0.59



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 21mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		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)
∞	8.82	infinity	6.24	infinity	4.41	infinity	3.12	infinity	2.20	infinity	1.56	infinity	1.10	infinity	0.78	infinity
15	5.56	infinity	4.41	infinity	3.41	infinity	2.58	infinity	1.92	infinity	1.41	infinity	1.03	infinity	0.74	infinity
10	4.69	infinity	3.85	infinity	3.06	infinity	2.38	infinity	1.81	infinity	1.35	infinity	0.99	infinity	0.72	infinity
5	3.20	11.48	2.78	24.78	2.35	infinity	1.93	infinity	1.53	infinity	1.19	infinity	0.91	infinity	0.68	infinity
4	2.76	7.29	2.44	11.05	2.10	40.93	1.76	infinity	1.43	infinity	1.13	infinity	0.87	infinity	0.66	infinity
3	2.24	4.53	2.03	5.74	1.79	9.25	1.53	67.17	1.28	infinity	1.03	infinity	0.81	infinity	0.62	infinity
2.5	1.95	3.48	1.79	4.15	1.60	5.71	1.39	12.19	1.18	infinity	0.97	infinity	0.77	infinity	0.60	infinity
2	1.63	2.58	1.52	2.93	1.38	3.63	1.22	5.47	1.05	19.51	0.88	infinity	0.72	infinity	0.57	infinity
1.8	1.50	2.25	1.40	2.52	1.28	3.02	1.15	4.19	1.00	9.32	0.84	infinity	0.69	infinity	0.55	infinity
1.7	1.43	2.10	1.34	2.33	1.23	2.75	1.11	3.68	0.97	7.13	0.82	infinity	0.67	infinity	0.54	infinity
1.6	1.36	1.95	1.28	2.14	1.18	2.49	1.06	3.24	0.93	5.64	0.79	infinity	0.66	infinity	0.53	infinity
1.5	1.28	1.80	1.21	1.97	1.12	2.26	1.02	2.85	0.90	4.56	0.77	29.14	0.64	infinity	0.52	infinity
1.4	1.21	1.66	1.15	1.80	1.07	2.04	0.97	2.51	0.86	3.74	0.74	12.11	0.62	infinity	0.51	infinity
1.3	1.14	1.52	1.08	1.64	1.01	1.83	0.92	2.20	0.82	3.10	0.71	7.23	0.60	infinity	0.49	infinity
1.2	1.06	1.39	1.01	1.48	0.95	1.64	0.87	1.93	0.78	2.58	0.68	4.92	0.58	infinity	0.48	infinity
1.1	0.98	1.25	0.94	1.33	0.88	1.46	0.82	1.68	0.74	2.15	0.65	3.57	0.56	51.61	0.46	infinity
1	0.90	1.12	0.86	1.19	0.82	1.29	0.76	1.46	0.69	1.80	0.61	2.69	0.53	8.93	0.44	infinity
0.9	0.82	1.00	0.79	1.05	0.75	1.12	0.70	1.25	0.64	1.50	0.58	2.06	0.50	4.44	0.42	infinity
0.8	0.74	0.88	0.71	0.91	0.68	0.97	0.64	1.07	0.59	1.24	0.53	1.60	0.47	2.73	0.40	1040.17
0.7	0.65	0.76	0.63	0.79	0.61	0.83	0.57	0.89	0.54	1.01	0.49	1.24	0.43	1.82	0.37	5.42
0.6	0.56	0.64	0.55	0.66	0.53	0.69	0.51	0.74	0.48	0.81	0.44	0.95	0.39	1.26	0.34	2.33
0.5	0.47	0.53	0.46	0.54	0.45	0.56	0.43	0.59	0.41	0.64	0.38	0.72	0.35	0.88	0.31	1.30
0.4	0.38	0.42	0.38	0.43	0.37	0.44	0.36	0.46	0.34	0.48	0.32	0.53	0.30	0.61	0.27	0.78
0.3	0.29	0.31	0.29	0.31	0.28	0.32	0.28	0.33	0.27	0.34	0.25	0.37	0.24	0.40	0.22	0.47



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 25mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	12.50	infinity	8.84	infinity	6.25	infinity	4.42	infinity	3.12	infinity	2.21	infinity	1.56	infinity	1.10	infinity
15	6.82	infinity	5.57	infinity	4.42	infinity	3.42	infinity	2.59	infinity	1.93	infinity	1.42	infinity	1.03	infinity
12	6.13	285.71	5.10	infinity	4.12	infinity	3.23	infinity	2.48	infinity	1.87	infinity	1.39	infinity	1.01	infinity
10	5.56	49.50	4.70	infinity	3.85	infinity	3.07	infinity	2.39	infinity	1.81	infinity	1.35	infinity	1.00	infinity
5	3.58	8.31	3.20	11.44	2.78	24.51	2.35	infinity	1.93	infinity	1.54	infinity	1.20	infinity	0.91	infinity
4	3.03	5.87	2.76	7.27	2.44	10.99	2.11	39.79	1.76	infinity	1.43	infinity	1.13	infinity	0.87	infinity
3	2.42	3.94	2.24	4.52	2.03	5.73	1.79	9.18	1.54	62.50	1.28	infinity	1.03	infinity	0.81	infinity
2.5	2.09	3.12	1.95	3.47	1.79	4.14	1.60	5.68	1.40	12.02	1.18	infinity	0.97	infinity	0.77	infinity
2	1.73	2.38	1.63	2.58	1.52	2.92	1.38	3.62	1.23	5.43	1.06	18.82	0.88	infinity	0.72	infinity
1.9	1.65	2.24	1.57	2.41	1.46	2.71	1.33	3.30	1.19	4.75	1.03	12.54	0.86	infinity	0.70	infinity
1.8	1.58	2.10	1.50	2.25	1.40	2.51	1.28	3.01	1.15	4.17	1.00	9.15	0.84	infinity	0.69	infinity
1.7	1.50	1.96	1.43	2.10	1.34	2.32	1.23	2.74	1.11	3.66	0.97	7.02	0.82	infinity	0.68	infinity
1.6	1.42	1.83	1.36	1.95	1.28	2.14	1.18	2.49	1.06	3.23	0.93	5.57	0.80	infinity	0.66	infinity
1.5	1.34	1.70	1.29	1.80	1.21	1.96	1.12	2.25	1.02	2.84	0.90	4.51	0.77	26.79	0.64	infinity
1.4	1.26	1.57	1.21	1.66	1.15	1.79	1.07	2.03	0.97	2.50	0.86	3.71	0.74	11.67	0.62	infinity
1.3	1.18	1.45	1.14	1.52	1.08	1.63	1.01	1.83	0.92	2.20	0.82	3.07	0.72	7.07	0.60	infinity
1.2	1.10	1.32	1.06	1.38	1.01	1.48	0.95	1.63	0.87	1.92	0.78	2.56	0.68	4.84	0.58	infinity
1.1	1.01	1.20	0.98	1.25	0.94	1.33	0.88	1.45	0.82	1.68	0.74	2.14	0.65	3.53	0.56	40.68
1	0.93	1.08	0.90	1.12	0.87	1.18	0.82	1.28	0.76	1.45	0.69	1.79	0.62	2.66	0.53	8.51
0.9	0.84	0.97	0.82	1.00	0.79	1.05	0.75	1.12	0.70	1.25	0.64	1.49	0.58	2.05	0.50	4.33
0.8	0.75	0.85	0.74	0.88	0.71	0.91	0.68	0.97	0.64	1.06	0.59	1.23	0.53	1.59	0.47	2.68
0.7	0.66	0.74	0.65	0.76	0.63	0.78	0.61	0.83	0.58	0.89	0.54	1.01	0.49	1.23	0.43	1.80
0.6	0.57	0.63	0.56	0.64	0.55	0.66	0.53	0.69	0.51	0.74	0.48	0.81	0.44	0.95	0.39	1.25
0.5	0.48	0.52	0.47	0.53	0.46	0.54	0.45	0.56	0.43	0.59	0.41	0.64	0.38	0.72	0.35	0.88
0.4	0.39	0.41	0.38	0.42	0.38	0.43	0.37	0.44	0.36	0.45	0.34	0.48	0.32	0.53	0.30	0.61
0.3	0.29	0.31	0.29	0.31	0.29	0.31	0.28	0.32	0.28	0.33	0.27	0.34	0.26	0.36	0.24	0.40



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 29mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		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)
∞	16.82	infinity	12.01	infinity	8.41	infinity	6.01	infinity	4.20	infinity	3.06	infinity	2.10	infinity	1.53	infinity
15	7.94	136.45	6.68	infinity	5.40	infinity	4.30	infinity	3.29	infinity	2.54	infinity	1.85	infinity	1.39	infinity
10	6.28	24.56	5.46	58.80	4.58	infinity	3.76	infinity	2.97	infinity	2.35	infinity	1.74	infinity	1.33	infinity
5	3.86	7.10	3.54	8.53	3.14	12.23	2.74	28.99	2.29	infinity	1.90	infinity	1.49	infinity	1.18	infinity
4	3.24	5.24	3.01	5.97	2.72	7.58	2.41	11.80	2.06	71.88	1.74	infinity	1.38	infinity	1.11	infinity
3	2.55	3.64	2.41	3.99	2.22	4.64	2.01	5.94	1.76	10.22	1.52	105.23	1.24	infinity	1.02	infinity
2.5	2.18	2.93	2.07	3.15	1.93	3.54	1.77	4.25	1.57	6.06	1.38	13.02	1.15	infinity	0.96	infinity
2	1.79	2.27	1.72	2.39	1.62	2.61	1.51	2.98	1.36	3.76	1.22	5.63	1.03	31.98	0.87	infinity
1.8	1.63	2.01	1.57	2.11	1.49	2.28	1.39	2.55	1.27	3.11	1.14	4.28	0.98	11.42	0.83	infinity
1.7	1.55	1.89	1.49	1.97	1.42	2.12	1.33	2.36	1.22	2.82	1.10	3.75	0.95	8.28	0.81	infinity
1.6	1.46	1.76	1.41	1.84	1.35	1.97	1.27	2.17	1.16	2.55	1.06	3.29	0.92	6.33	0.79	infinity
1.5	1.38	1.64	1.34	1.71	1.28	1.82	1.20	1.99	1.11	2.31	1.01	2.89	0.88	4.99	0.76	39.48
1.4	1.29	1.52	1.26	1.58	1.20	1.67	1.14	1.81	1.06	2.08	0.97	2.54	0.85	4.02	0.74	13.54
1.3	1.21	1.41	1.18	1.45	1.13	1.53	1.07	1.65	1.00	1.86	0.92	2.22	0.81	3.29	0.71	7.70
1.2	1.12	1.29	1.09	1.33	1.05	1.39	1.00	1.49	0.94	1.66	0.87	1.94	0.77	2.71	0.68	5.12
1.1	1.03	1.17	1.01	1.21	0.98	1.26	0.93	1.34	0.88	1.48	0.81	1.69	0.73	2.24	0.65	3.67
1	0.95	1.06	0.93	1.09	0.90	1.13	0.86	1.19	0.81	1.30	0.76	1.47	0.68	1.86	0.61	2.74
0.9	0.86	0.95	0.84	0.97	0.82	1.00	0.79	1.05	0.75	1.14	0.70	1.26	0.64	1.54	0.57	2.09
0.8	0.76	0.84	0.75	0.85	0.73	0.88	0.71	0.92	0.68	0.98	0.64	1.07	0.59	1.26	0.53	1.61
0.7	0.67	0.73	0.66	0.74	0.65	0.76	0.63	0.79	0.60	0.83	0.57	0.90	0.53	1.03	0.49	1.25
0.6	0.58	0.62	0.57	0.63	0.56	0.64	0.55	0.66	0.53	0.69	0.51	0.74	0.47	0.82	0.44	0.96
0.5	0.49	0.51	0.48	0.52	0.47	0.53	0.46	0.54	0.45	0.56	0.43	0.59	0.41	0.64	0.38	0.72
0.4	0.39	0.41	0.39	0.41	0.38	0.42	0.38	0.43	0.37	0.44	0.36	0.46	0.34	0.49	0.32	0.53
0.3	0.30	0.30	0.29	0.31	0.29	0.31	0.29	0.31	0.28	0.32	0.28	0.33	0.27	0.34	0.25	0.36



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 35mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		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)
∞	24.50	infinity	17.33	infinity	12.25	infinity	8.66	infinity	6.12	infinity	4.33	infinity	3.06	infinity	2.17	infinity
15	9.31	38.54	8.05	110.05	6.75	infinity	5.50	infinity	4.36	infinity	3.37	infinity	2.55	infinity	1.90	infinity
12	8.06	23.45	7.10	38.78	6.07	515.79	5.04	infinity	4.06	infinity	3.19	infinity	2.45	infinity	1.84	infinity
10	7.11	16.86	6.35	23.54	5.51	53.61	4.65	infinity	3.81	infinity	3.03	infinity	2.35	infinity	1.79	infinity
5	4.16	6.27	3.89	7.01	3.56	8.41	3.18	11.72	2.76	26.40	2.33	infinity	1.91	infinity	1.52	infinity
4	3.44	4.77	3.26	5.19	3.02	5.91	2.74	7.38	2.43	11.34	2.09	47.30	1.74	infinity	1.41	infinity
3	2.68	3.41	2.56	3.62	2.42	3.96	2.23	4.56	2.02	5.81	1.78	9.51	1.52	94.23	1.27	infinity
2.5	2.27	2.78	2.19	2.91	2.08	3.13	1.95	3.49	1.78	4.18	1.59	5.80	1.39	12.81	1.17	infinity
2	1.85	2.17	1.80	2.26	1.72	2.38	1.63	2.59	1.51	2.94	1.38	3.66	1.22	5.58	1.05	21.60
1.9	1.77	2.06	1.72	2.13	1.65	2.24	1.56	2.42	1.46	2.73	1.33	3.34	1.18	4.86	1.02	13.69
1.8	1.68	1.94	1.63	2.00	1.57	2.10	1.50	2.26	1.40	2.53	1.28	3.04	1.14	4.25	0.99	9.73
1.7	1.59	1.82	1.55	1.88	1.50	1.97	1.43	2.10	1.34	2.33	1.23	2.76	1.10	3.73	0.96	7.35
1.6	1.50	1.71	1.47	1.76	1.42	1.83	1.36	1.95	1.27	2.15	1.18	2.51	1.06	3.27	0.93	5.77
1.5	1.42	1.60	1.38	1.64	1.34	1.70	1.28	1.81	1.21	1.97	1.12	2.27	1.01	2.88	0.89	4.64
1.4	1.33	1.48	1.30	1.52	1.26	1.58	1.21	1.66	1.14	1.80	1.06	2.04	0.97	2.53	0.86	3.79
1.3	1.24	1.37	1.21	1.40	1.18	1.45	1.13	1.52	1.08	1.64	1.01	1.84	0.92	2.21	0.82	3.13
1.2	1.15	1.26	1.12	1.29	1.10	1.33	1.06	1.39	1.01	1.48	0.95	1.64	0.87	1.94	0.78	2.60
1.1	1.05	1.15	1.04	1.17	1.01	1.20	0.98	1.25	0.94	1.33	0.88	1.46	0.82	1.69	0.74	2.16
1	0.96	1.04	0.95	1.06	0.93	1.09	0.90	1.13	0.86	1.19	0.82	1.29	0.76	1.46	0.69	1.80
0.9	0.87	0.93	0.86	0.95	0.84	0.97	0.82	1.00	0.79	1.05	0.75	1.12	0.70	1.25	0.64	1.50
0.8	0.78	0.83	0.77	0.84	0.75	0.85	0.74	0.88	0.71	0.91	0.68	0.97	0.64	1.07	0.59	1.24
0.7	0.68	0.72	0.67	0.73	0.66	0.74	0.65	0.76	0.63	0.79	0.61	0.83	0.58	0.89	0.54	1.01
0.6	0.59	0.61	0.58	0.62	0.57	0.63	0.56	0.64	0.55	0.66	0.53	0.69	0.51	0.74	0.48	0.81
0.5	0.49	0.51	0.49	0.51	0.48	0.52	0.47	0.53	0.46	0.54	0.45	0.56	0.43	0.59	0.41	0.64
0.4	0.39	0.41	0.39	0.41	0.39	0.41	0.38	0.42	0.38	0.43	0.37	0.44	0.36	0.45	0.34	0.48
0.35	0.35	0.35	0.34	0.36	0.34	0.36	0.34	0.36	0.33	0.37	0.33	0.38	0.32	0.39	0.31	0.41



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 40mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	32.00	infinity	22.63	infinity	16.00	infinity	11.32	infinity	8.00	infinity	5.66	infinity	4.00	infinity	2.83	infinity
30	15.49	470.59	12.91	infinity	10.44	infinity	8.22	infinity	6.32	infinity	4.77	infinity	3.53	infinity	2.59	infinity
15	10.22	28.17	9.03	44.25	7.75	230.77	6.46	infinity	5.23	infinity	4.12	infinity	3.16	infinity	2.39	infinity
12	8.74	19.16	7.85	25.45	6.87	47.52	5.83	infinity	4.81	infinity	3.85	infinity	3.01	infinity	2.30	infinity
10	7.63	14.52	6.94	17.86	6.16	26.49	5.32	83.48	4.45	infinity	3.62	infinity	2.87	infinity	2.21	infinity
7	5.75	8.95	5.35	10.11	4.88	12.39	4.33	18.19	3.74	53.85	3.14	infinity	2.55	infinity	2.02	infinity
5	4.33	5.92	4.10	6.40	3.82	7.25	3.48	8.90	3.09	13.16	2.66	40.57	2.23	infinity	1.82	infinity
4	3.56	4.56	3.40	4.85	3.21	5.32	2.96	6.15	2.68	7.92	2.35	13.33	2.01	400.00	1.67	infinity
3	2.75	3.31	2.65	3.45	2.53	3.68	2.38	4.06	2.19	4.76	1.97	6.29	1.72	11.54	1.47	infinity
2.5	2.32	2.71	2.25	2.80	2.17	2.95	2.05	3.19	1.91	3.61	1.74	4.42	1.55	6.49	1.34	19.19
2	1.88	2.13	1.84	2.19	1.78	2.28	1.70	2.42	1.61	2.65	1.49	3.06	1.34	3.92	1.18	6.51
1.9	1.80	2.02	1.76	2.07	1.70	2.15	1.63	2.27	1.54	2.48	1.43	2.83	1.30	3.55	1.15	5.55
1.8	1.71	1.90	1.67	1.95	1.62	2.02	1.56	2.13	1.48	2.31	1.37	2.61	1.25	3.21	1.11	4.76
1.7	1.62	1.79	1.58	1.83	1.54	1.90	1.48	1.99	1.41	2.15	1.31	2.41	1.20	2.91	1.07	4.12
1.6	1.53	1.68	1.50	1.72	1.46	1.77	1.41	1.86	1.34	1.99	1.25	2.21	1.15	2.62	1.03	3.57
1.5	1.43	1.57	1.41	1.60	1.37	1.65	1.33	1.72	1.27	1.83	1.19	2.02	1.10	2.36	0.99	3.10
1.4	1.34	1.46	1.32	1.49	1.29	1.53	1.25	1.59	1.20	1.69	1.13	1.84	1.04	2.12	0.95	2.70
1.3	1.25	1.35	1.23	1.38	1.21	1.41	1.17	1.46	1.12	1.54	1.06	1.67	0.99	1.90	0.90	2.34
1.2	1.16	1.25	1.14	1.26	1.12	1.29	1.09	1.34	1.05	1.40	1.00	1.51	0.93	1.69	0.85	2.03
1.1	1.06	1.14	1.05	1.15	1.03	1.18	1.01	1.21	0.97	1.27	0.93	1.35	0.87	1.50	0.80	1.76
1	0.97	1.03	0.96	1.04	0.94	1.06	0.92	1.09	0.89	1.14	0.85	1.20	0.81	1.32	0.75	1.51
0.9	0.88	0.92	0.87	0.94	0.85	0.95	0.84	0.97	0.81	1.01	0.78	1.06	0.74	1.15	0.69	1.29
0.8	0.78	0.82	0.77	0.83	0.76	0.84	0.75	0.86	0.73	0.88	0.71	0.92	0.67	0.99	0.63	1.09
0.7	0.69	0.71	0.68	0.72	0.67	0.73	0.66	0.74	0.65	0.76	0.63	0.79	0.60	0.84	0.57	0.91
0.6	0.59	0.61	0.59	0.62	0.58	0.62	0.57	0.63	0.56	0.65	0.55	0.67	0.53	0.70	0.50	0.75
0.5	0.49	0.51	0.49	0.51	0.49	0.51	0.48	0.52	0.47	0.53	0.46	0.54	0.45	0.56	0.43	0.60



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 50mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	50.00	infinity	35.36	infinity	25.00	infinity	17.68	infinity	12.50	infinity	8.84	infinity	6.25	infinity	4.42	infinity
15	11.55	21.40	10.54	25.99	9.39	37.31	8.13	97.23	6.83	infinity	5.57	infinity	4.42	infinity	3.42	infinity
12	9.69	15.77	8.97	18.13	8.12	22.99	7.16	37.04	6.13	272.73	5.10	infinity	4.12	infinity	3.24	infinity
10	8.34	12.48	7.80	13.92	7.15	16.61	6.40	22.88	5.57	49.02	4.70	infinity	3.86	infinity	3.08	infinity
7	6.15	8.13	5.85	8.71	5.48	9.70	5.02	11.54	4.50	15.77	3.92	32.75	3.31	infinity	2.72	infinity
5	4.55	5.55	4.39	5.81	4.17	6.23	3.91	6.94	3.58	8.28	3.21	11.36	2.79	24.04	2.36	infinity
4	3.71	4.34	3.60	4.50	3.45	4.75	3.27	5.15	3.04	5.85	2.76	7.23	2.45	10.87	2.11	37.65
3	2.83	3.19	2.77	3.27	2.68	3.40	2.57	3.60	2.43	3.93	2.25	4.50	2.04	5.68	1.80	9.02
2.5	2.38	2.63	2.34	2.69	2.28	2.77	2.20	2.90	2.09	3.11	1.96	3.46	1.80	4.11	1.61	5.61
2	1.92	2.08	1.90	2.12	1.86	2.17	1.80	2.25	1.73	2.37	1.64	2.57	1.52	2.91	1.39	3.58
1.9	1.83	1.97	1.81	2.00	1.77	2.05	1.72	2.12	1.66	2.23	1.57	2.40	1.47	2.70	1.34	3.27
1.8	1.74	1.87	1.72	1.89	1.68	1.94	1.64	2.00	1.58	2.09	1.50	2.24	1.41	2.50	1.29	2.98
1.7	1.65	1.76	1.62	1.78	1.59	1.82	1.55	1.88	1.50	1.96	1.43	2.09	1.34	2.31	1.24	2.71
1.6	1.55	1.65	1.53	1.67	1.51	1.71	1.47	1.75	1.42	1.83	1.36	1.94	1.28	2.13	1.18	2.46
1.5	1.46	1.54	1.44	1.56	1.42	1.59	1.39	1.63	1.34	1.70	1.29	1.79	1.22	1.95	1.13	2.23
1.4	1.36	1.44	1.35	1.46	1.33	1.48	1.30	1.52	1.26	1.57	1.21	1.65	1.15	1.79	1.07	2.02
1.3	1.27	1.33	1.26	1.35	1.24	1.37	1.21	1.40	1.18	1.44	1.14	1.51	1.08	1.63	1.01	1.81
1.2	1.17	1.23	1.16	1.24	1.15	1.26	1.13	1.28	1.10	1.32	1.06	1.38	1.01	1.47	0.95	1.62
1.1	1.08	1.12	1.07	1.13	1.06	1.15	1.04	1.17	1.01	1.20	0.98	1.25	0.94	1.32	0.89	1.44
1	0.98	1.02	0.97	1.03	0.96	1.04	0.95	1.06	0.93	1.08	0.90	1.12	0.87	1.18	0.82	1.27
0.9	0.88	0.92	0.88	0.92	0.87	0.93	0.86	0.95	0.84	0.97	0.82	1.00	0.79	1.04	0.75	1.11
0.8	0.79	0.81	0.78	0.82	0.78	0.82	0.77	0.84	0.75	0.85	0.74	0.87	0.71	0.91	0.68	0.96
0.7	0.69	0.71	0.69	0.71	0.68	0.72	0.68	0.73	0.67	0.74	0.65	0.76	0.63	0.78	0.61	0.82
0.6	0.59	0.61	0.59	0.61	0.59	0.61	0.58	0.62	0.57	0.63	0.56	0.64	0.55	0.66	0.53	0.69



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 75mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	112.50	infinity	79.56	infinity	56.25	infinity	39.77	infinity	28.12	infinity	19.89	infinity	14.06	infinity	9.94	infinity
30	23.70	40.87	21.80	48.09	19.58	64.10	17.12	121.15	14.53	infinity	11.98	infinity	9.59	infinity	7.48	infinity
25	20.47	32.12	19.04	36.40	17.32	44.89	15.37	66.96	13.25	219.73	11.10	infinity	9.02	infinity	7.13	infinity
20	16.99	24.30	15.99	26.68	14.77	30.97	13.32	40.08	11.71	68.60	9.99	infinity	8.28	infinity	6.66	infinity
15	13.24	17.29	12.63	18.46	11.85	20.42	10.91	24.01	9.80	31.96	8.57	60.10	7.28	infinity	6.00	infinity
12	10.85	13.42	10.44	14.12	9.90	15.23	9.23	17.14	8.43	20.83	7.50	29.97	6.49	78.95	5.46	infinity
10	9.19	10.97	8.89	11.43	8.50	12.14	8.00	13.33	7.39	15.45	6.67	19.96	5.86	33.99	5.00	5269.01
7	6.59	7.46	6.44	7.67	6.23	7.98	5.96	8.48	5.62	9.29	5.19	10.74	4.69	13.79	4.13	23.06
5	4.79	5.23	4.71	5.33	4.60	5.48	4.45	5.71	4.25	6.06	4.01	6.65	3.70	7.69	3.34	9.91
4	3.87	4.14	3.81	4.21	3.74	4.30	3.64	4.44	3.51	4.65	3.34	4.98	3.13	5.55	2.87	6.61
3	2.92	3.08	2.89	3.11	2.85	3.16	2.79	3.24	2.72	3.35	2.62	3.52	2.48	3.79	2.32	4.25
2.5	2.45	2.56	2.43	2.58	2.40	2.61	2.36	2.66	2.30	2.74	2.23	2.85	2.13	3.02	2.01	3.31
2.2	2.16	2.24	2.14	2.26	2.12	2.29	2.09	2.32	2.05	2.38	1.99	2.46	1.91	2.59	1.81	2.80
2	1.97	2.03	1.95	2.05	1.93	2.07	1.91	2.10	1.87	2.15	1.82	2.21	1.76	2.32	1.68	2.48
1.9	1.87	1.93	1.86	1.94	1.84	1.96	1.82	1.99	1.78	2.03	1.74	2.09	1.68	2.18	1.61	2.33
1.8	1.77	1.83	1.76	1.84	1.75	1.86	1.73	1.88	1.70	1.92	1.66	1.97	1.60	2.05	1.53	2.18
1.7	1.68	1.72	1.67	1.74	1.65	1.75	1.63	1.77	1.61	1.80	1.57	1.85	1.52	1.92	1.46	2.03
1.6	1.58	1.62	1.57	1.63	1.56	1.64	1.54	1.66	1.52	1.69	1.49	1.73	1.44	1.79	1.39	1.89
1.5	1.48	1.52	1.47	1.53	1.46	1.54	1.45	1.56	1.43	1.58	1.40	1.62	1.36	1.67	1.31	1.75
1.4	1.38	1.42	1.38	1.42	1.37	1.43	1.35	1.45	1.34	1.47	1.31	1.50	1.28	1.55	1.24	1.62
1.3	1.29	1.31	1.28	1.32	1.27	1.33	1.26	1.34	1.25	1.36	1.22	1.39	1.20	1.42	1.16	1.48
1.2	1.19	1.21	1.18	1.22	1.18	1.22	1.17	1.23	1.15	1.25	1.14	1.27	1.11	1.30	1.08	1.35
1.1	1.09	1.11	1.09	1.11	1.08	1.12	1.07	1.13	1.06	1.14	1.05	1.16	1.03	1.19	1.00	1.23
1	0.99	1.01	0.99	1.01	0.98	1.02	0.98	1.02	0.97	1.03	0.96	1.05	0.94	1.07	0.91	1.10
0.9	0.90	0.92	0.90	0.92	0.90	0.92	0.89	0.93	0.88	0.94	0.87	0.95	0.86	0.97	0.84	0.99



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 100mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		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)
∞	200.00	infinity	141.44	infinity	100.00	infinity	70.71	infinity	50.00	infinity	35.36	infinity	25.00	infinity	17.68	infinity
30	26.10	35.27	24.76	38.04	23.09	42.80	21.08	51.98	18.77	74.63	16.25	194.36	13.66	infinity	11.15	infinity
25	22.23	28.56	21.26	30.34	20.02	33.29	18.49	38.59	16.69	49.80	14.67	84.53	12.53	6250.00	10.38	infinity
20	18.19	22.21	17.53	23.27	16.68	24.97	15.61	27.83	14.31	33.22	12.80	45.75	11.14	98.04	9.41	infinity
15	13.96	16.21	13.57	16.77	13.05	17.63	12.39	19.00	11.56	21.37	10.55	25.93	9.40	37.13	8.14	95.45
12	11.33	12.76	11.07	13.10	10.72	13.62	10.27	14.43	9.69	15.75	8.98	18.09	8.13	22.90	7.17	36.71
10	9.53	10.52	9.35	10.75	9.10	11.10	8.77	11.63	8.35	12.47	7.81	13.89	7.16	16.56	6.41	22.73
9	8.62	9.42	8.47	9.60	8.26	9.88	7.99	10.30	7.64	10.95	7.19	12.03	6.64	13.98	5.99	18.13
8	7.70	8.33	7.58	8.47	7.41	8.69	7.20	9.01	6.91	9.50	6.54	10.30	6.08	11.70	5.53	14.46
7	6.77	7.25	6.67	7.36	6.55	7.52	6.38	7.76	6.15	8.12	5.86	8.70	5.49	9.67	5.03	11.48
6	5.83	6.18	5.76	6.26	5.67	6.38	5.54	6.55	5.37	6.80	5.14	7.20	4.85	7.85	4.50	9.01
5	4.88	5.13	4.83	5.18	4.77	5.26	4.68	5.37	4.55	5.54	4.39	5.80	4.18	6.22	3.91	6.92
4.5	4.40	4.60	4.36	4.64	4.31	4.71	4.24	4.80	4.14	4.93	4.00	5.14	3.83	5.46	3.60	5.99
4	3.92	4.08	3.89	4.11	3.85	4.16	3.79	4.23	3.71	4.34	3.60	4.50	3.46	4.74	3.28	5.13
3	2.96	3.04	2.94	3.06	2.92	3.09	2.88	3.13	2.84	3.18	2.77	3.27	2.69	3.39	2.58	3.59
2	1.98	2.02	1.97	2.03	1.96	2.04	1.95	2.06	1.93	2.08	1.90	2.11	1.86	2.16	1.81	2.24
1.8	1.78	1.82	1.78	1.82	1.77	1.83	1.76	1.84	1.74	1.86	1.72	1.89	1.69	1.93	1.64	1.99
1.5	1.49	1.51	1.49	1.51	1.48	1.52	1.47	1.53	1.46	1.54	1.44	1.56	1.42	1.59	1.39	1.63
1.3	1.29	1.31	1.29	1.31	1.28	1.32	1.28	1.32	1.27	1.33	1.26	1.35	1.24	1.37	1.22	1.39
1	1.00	1.00	0.99	1.01	0.99	1.01	0.99	1.01	0.98	1.02	0.98	1.03	0.97	1.04	0.95	1.05



Depth of Field Chart - Leitz SUMMICRON-C - Meter

Focal Length 135mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
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)
∞	364.50	infinity	257.78	infinity	182.25	infinity	128.87	infinity	91.12	infinity	64.44	infinity	45.56	infinity	32.22	infinity
50	43.98	57.92	41.90	61.99	39.26	68.83	36.05	81.56	32.32	110.43	28.19	221.07	23.87	infinity	19.63	infinity
40	36.06	44.91	34.64	47.32	32.82	51.20	30.55	57.92	27.83	71.11	24.71	104.89	21.33	319.88	17.88	infinity
30	27.73	32.68	26.89	33.93	25.78	35.88	24.36	39.05	22.59	44.63	20.50	55.91	18.12	87.08	15.57	410.75
25	23.40	26.83	22.80	27.67	22.00	28.95	20.96	30.98	19.64	34.38	18.04	40.71	16.17	55.03	14.11	109.54
20	18.97	21.15	18.57	21.67	18.03	22.45	17.33	23.64	16.42	25.58	15.29	28.91	13.93	35.46	12.37	52.16
15	14.41	15.64	14.18	15.92	13.87	16.33	13.45	16.96	12.90	17.92	12.19	19.50	11.31	22.26	10.26	27.85
12	11.62	12.40	11.47	12.58	11.27	12.84	10.99	13.22	10.62	13.80	10.13	14.71	9.52	16.23	8.77	19.00
10	9.74	10.28	9.63	10.40	9.49	10.57	9.29	10.83	9.02	11.21	8.67	11.81	8.22	12.76	7.66	14.41
9	8.79	9.22	8.70	9.32	8.58	9.46	8.42	9.66	8.20	9.97	7.91	10.44	7.53	11.17	7.06	12.42
8	7.83	8.18	7.76	8.25	7.67	8.36	7.54	8.52	7.36	8.76	7.13	9.11	6.82	9.67	6.43	10.58
7	6.87	7.13	6.82	7.19	6.75	7.27	6.65	7.39	6.51	7.57	6.33	7.83	6.08	8.24	5.77	8.90
6	5.90	6.10	5.87	6.14	5.81	6.20	5.74	6.29	5.64	6.41	5.50	6.60	5.32	6.89	5.08	7.34
5	4.93	5.07	4.91	5.10	4.87	5.14	4.82	5.20	4.75	5.28	4.65	5.41	4.52	5.60	4.34	5.89
4.5	4.45	4.55	4.43	4.58	4.39	4.61	4.35	4.66	4.29	4.73	4.21	4.83	4.11	4.98	3.96	5.21
4	3.96	4.04	3.94	4.06	3.92	4.09	3.88	4.12	3.84	4.18	3.77	4.26	3.69	4.37	3.57	4.55
3.5	3.47	3.53	3.45	3.55	3.44	3.57	3.41	3.59	3.38	3.63	3.33	3.69	3.26	3.78	3.17	3.91
3	2.98	3.02	2.97	3.03	2.95	3.05	2.93	3.07	2.91	3.10	2.87	3.14	2.82	3.20	2.76	3.29
2.5	2.48	2.52	2.48	2.52	2.47	2.53	2.45	2.55	2.44	2.57	2.41	2.60	2.38	2.64	2.33	2.70
2.3	2.29	2.31	2.28	2.32	2.27	2.33	2.26	2.34	2.25	2.36	2.23	2.38	2.20	2.41	2.16	2.47
2	1.99	2.01	1.99	2.01	1.98	2.02	1.97	2.03	1.96	2.04	1.94	2.06	1.92	2.09	1.89	2.12
1.9	1.89	1.91	1.89	1.91	1.88	1.92	1.87	1.93	1.86	1.94	1.85	1.95	1.83	1.98	1.80	2.01
1.8	1.79	1.81	1.79	1.81	1.78	1.82	1.78	1.82	1.77	1.83	1.75	1.85	1.74	1.87	1.71	1.90
1.7	1.69	1.71	1.69	1.71	1.69	1.71	1.68	1.72	1.67	1.73	1.66	1.74	1.64	1.76	1.62	1.79
1.6	1.59	1.61	1.59	1.61	1.59	1.61	1.58	1.62	1.57	1.63	1.56	1.64	1.55	1.65	1.53	1.68
1.5	1.49	1.51	1.49	1.51	1.49	1.51	1.48	1.52	1.48	1.52	1.47	1.53	1.46	1.55	1.44	1.57
1.4	1.40	1.40	1.39	1.41	1.39	1.41	1.39	1.41	1.38	1.42	1.37	1.43	1.36	1.44	1.35	1.46