



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 15mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	14' 9"	infinity	10' 5"	infinity	7' 5"	infinity	5' 3"	infinity	3' 8"	infinity	2' 7"	infinity	1' 10"	infinity	1' 4"	infinity
50'	11' 5"	infinity	8' 8"	infinity	6' 5"	infinity	4' 9"	infinity	3' 5"	infinity	2' 6"	infinity	1' 9"	infinity	1' 3"	infinity
30'	9' 11"	infinity	7' 9"	infinity	5' 11"	infinity	4' 5"	infinity	3' 3"	infinity	2' 5"	infinity	1' 9"	infinity	1' 3"	infinity
20'	8' 6"	infinity	6' 10"	infinity	5' 5"	infinity	4' 2"	infinity	3' 1"	infinity	2' 4"	infinity	1' 8"	infinity	1' 3"	infinity
15'	7' 5"	infinity	6' 2"	infinity	4' 11"	infinity	3' 11"	infinity	3' 0"	infinity	2' 3"	infinity	1' 8"	infinity	1' 2"	infinity
12'	6' 8"	63' 0"	5' 7"	infinity	4' 7"	infinity	3' 8"	infinity	2' 10"	infinity	2' 2"	infinity	1' 7"	infinity	1' 2"	infinity
10'	6' 0"	30' 8"	5' 1"	212' 11"	4' 3"	infinity	3' 5"	infinity	2' 8"	infinity	2' 1"	infinity	1' 7"	infinity	1' 2"	infinity
9'	5' 7"	22' 10"	4' 10"	63' 1"	4' 1"	infinity	3' 4"	infinity	2' 8"	infinity	2' 0"	infinity	1' 6"	infinity	1' 2"	infinity
8'	5' 2"	17' 4"	4' 6"	33' 6"	3' 10"	infinity	3' 2"	infinity	2' 6"	infinity	2' 0"	infinity	1' 6"	infinity	1' 2"	infinity
7'6"	5' 0"	15' 2"	4' 5"	26' 2"	3' 9"	infinity	3' 1"	infinity	2' 6"	infinity	1' 11"	infinity	1' 6"	infinity	1' 1"	infinity
7'	4' 9"	13' 3"	4' 2"	20' 11"	3' 7"	119' 10"	3' 0"	infinity	2' 5"	infinity	1' 11"	infinity	1' 6"	infinity	1' 1"	infinity
6'6"	4' 6"	11' 7"	4' 0"	17' 0"	3' 6"	51' 6"	2' 11"	infinity	2' 4"	infinity	1' 10"	infinity	1' 5"	infinity	1' 1"	infinity
6'	4' 3"	10' 1"	3' 10"	13' 11"	3' 4"	30' 11"	2' 10"	infinity	2' 4"	infinity	1' 10"	infinity	1' 5"	infinity	1' 1"	infinity
5'6"	4' 0"	8' 9"	3' 7"	11' 6"	3' 2"	21' 0"	2' 8"	infinity	2' 3"	infinity	1' 9"	infinity	1' 5"	infinity	1' 1"	infinity
5'	3' 9"	7' 6"	3' 5"	9' 6"	3' 0"	15' 2"	2' 7"	96' 9"	2' 2"	infinity	1' 9"	infinity	1' 4"	infinity	1' 1"	infinity
4'6"	3' 5"	6' 5"	3' 2"	7' 10"	2' 10"	11' 4"	2' 5"	30' 6"	2' 0"	infinity	1' 8"	infinity	1' 4"	infinity	1' 0"	infinity
4'3"	3' 4"	5' 11"	3' 0"	7' 1"	2' 9"	9' 10"	2' 4"	21' 9"	2' 0"	infinity	1' 8"	infinity	1' 4"	infinity	1' 0"	infinity
4'	3' 2"	5' 6"	2' 11"	6' 5"	2' 7"	8' 7"	2' 3"	16' 5"	1' 11"	infinity	1' 7"	infinity	1' 3"	infinity	1' 0"	infinity
3'9"	3' 0"	5' 0"	2' 9"	5' 10"	2' 6"	7' 6"	2' 2"	12' 11"	1' 10"	infinity	1' 7"	infinity	1' 3"	infinity	1' 0"	infinity
3'6"	2' 10"	4' 7"	2' 7 1/2"	5' 2 1/2"	2' 4 1/2"	6' 7"	2' 1 1/2"	10' 4"	1' 9 1/2"	53' 9"	1' 6"	infinity	1' 2 1/2"	infinity	0' 11 1/2"	infinity
3'3"	2' 8"	4' 2"	2' 6"	4' 8"	2' 3"	5' 9"	2' 0"	8' 5"	1' 9"	24' 5 1/2"	1' 5 1/2"	infinity	1' 2 1/2"	infinity	0' 11 1/2"	infinity
3'	2' 6"	3' 9"	2' 4"	4' 2"	2' 1 1/2"	5' 0"	1' 11"	6' 11"	1' 8"	14' 11 1/2"	1' 5"	infinity	1' 2"	infinity	0' 11"	infinity
2'9"	2' 4"	3' 4 1/2"	2' 2"	3' 8 1/2"	2' 0"	4' 4"	1' 9 1/2"	5' 8 1/2"	1' 7"	10' 3"	1' 4"	infinity	1' 1 1/2"	infinity	0' 10 1/2"	infinity
2'6"	2' 1 1/2"	3' 0"	2' 1/2"	3' 3"	1' 10 1/2"	3' 9"	1' 8 1/2"	4' 8 1/2"	1' 6"	7' 5 1/2"	1' 3 1/2"	41' 0"	1' 1"	infinity	0' 10 1/2"	infinity
2'3"	1' 11 1/2"	2' 7 1/2"	1' 10 1/2"	2' 10"	1' 9"	3' 2 1/2"	1' 7"	3' 10 1/2"	1' 5"	5' 7"	1' 2 1/2"	14' 4"	1' 1/2"	infinity	0' 10"	infinity
2'	1' 9"	2' 3 1/2"	1' 8"	2' 5 1/2"	1' 7"	2' 8 1/2"	1' 5 1/2"	3' 2 1/2"	1' 3 1/2"	4' 3"	1' 1 1/2"	7' 11"	0' 11 1/2"	infinity	0' 9 1/2"	infinity
1'9"	1' 7"	1' 11 1/2"	1' 6"	2' 1"	1' 5"	2' 3 1/2"	1' 4"	2' 7"	1' 2 1/2"	3' 3"	1' 1/2"	5' 1/2"	0' 11"	22' 4"	0' 9"	infinity
1'6"	1' 4 1/2"	1' 8"	1' 4"	1' 9"	1' 3"	1' 10 1/2"	1' 2"	2' 1"	1' 1"	2' 5 1/2"	0' 11 1/2"	3' 4 1/2"	0' 10"	7' 0"	0' 8 1/2"	infinity
1'4"	1' 2 1/2"	1' 5 1/2"	1' 2"	1' 6"	1' 1 1/2"	1' 7 1/2"	1' 1"	1' 9"	1' 0"	2' 1/2"	0' 10 1/2"	2' 7 1/2"	0' 9 1/2"	4' 4"	0' 8"	72' 3"
1'2"	1' 1"	1' 3"	1' 1/2"	1' 3 1/2"	1' 0"	1' 4 1/2"	0' 11 1/2"	1' 5 1/2"	0' 10 1/2"	1' 8"	0' 10"	2' 0"	0' 8 1/2"	2' 11"	0' 7 1/2"	7' 10"
1'	0' 11 1/2"	1' 1"	0' 11"	1' 1"	0' 10 1/2"	1' 2"	0' 10"	1' 2 1/2"	0' 9 1/2"	1' 4"	0' 9"	1' 7"	2' 1"	0' 7"	3' 8"	



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 18mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	21' 3"	infinity	15' 0"	infinity	10' 8"	infinity	7' 6"	infinity	5' 4"	infinity	3' 9"	infinity	2' 8"	infinity	1' 11"	infinity
50'	14' 11"	infinity	11' 7"	infinity	8' 9"	infinity	6' 6"	infinity	4' 10"	infinity	3' 6"	infinity	2' 6"	infinity	1' 10"	infinity
20'	10' 4"	322' 5"	8' 7"	infinity	6' 11"	infinity	5' 6"	infinity	4' 3"	infinity	3' 2"	infinity	2' 4"	infinity	1' 9"	infinity
12'	7' 8"	27' 5"	6' 8"	58' 4"	5' 8"	infinity	4' 8"	infinity	3' 8"	infinity	2' 10"	infinity	2' 2"	infinity	1' 8"	infinity
9'	6' 4"	15' 6"	5' 8"	22' 2"	4' 11"	56' 8"	4' 1"	infinity	3' 4"	infinity	2' 8"	infinity	2' 1"	infinity	1' 7"	infinity
6'6"	5' 0"	9' 4"	4' 7"	11' 4"	4' 1"	16' 6"	3' 6"	45' 5"	2' 11"	infinity	2' 5"	infinity	1' 11"	infinity	1' 6"	infinity
5'6"	4' 5"	7' 5"	4' 0"	8' 7"	3' 8"	11' 3"	3' 2"	19' 11"	2' 9"	infinity	2' 3"	infinity	1' 10"	infinity	1' 5"	infinity
4'6"	3' 9"	5' 8"	3' 6"	6' 5"	3' 2"	7' 9"	2' 10"	11' 0"	2' 5"	27' 4"	2' 1"	infinity	1' 8"	infinity	1' 4"	infinity
3'9"	3' 2"	4' 6"	3' 0"	5' 0"	2' 9"	5' 9"	2' 6"	7' 4"	2' 3"	12' 3"	1' 11"	209' 9"	1' 7"	infinity	1' 3"	infinity
3'6"	3' 0"	4' 2"	2' 10"	4' 6"	2' 8"	5' 2"	2' 5"	6' 5"	2' 1"	9' 11"	1' 10"	41' 6"	1' 6"	infinity	1' 3"	infinity
3'3"	2' 10"	3' 10"	2' 8"	4' 2"	2' 6"	4' 8"	2' 3"	5' 8"	2' 0"	8' 2"	1' 9"	21' 6"	1' 6"	infinity	1' 2"	infinity
3'	2' 8"	3' 6"	2' 6"	3' 9"	2' 4"	4' 2"	2' 2"	4' 11"	1' 11"	6' 9"	1' 8"	13' 10"	1' 5"	infinity	1' 2"	infinity
2'9"	2' 5 1/2"	3' 2"	2' 4"	3' 4"	2' 2 1/2"	3' 8"	2' 1/2"	4' 3 1/2"	1' 10"	5' 7"	1' 7"	9' 8"	1' 4 1/2"	infinity	1' 1 1/2"	infinity
2'6"	2' 3"	2' 10"	2' 2"	3' 0"	2' 1/2"	3' 3"	1' 10 1/2"	3' 8 1/2"	1' 8 1/2"	4' 7 1/2"	1' 6"	7' 2"	1' 3 1/2"	30' 8"	1' 1"	infinity
2'3"	2' 1/2"	2' 6"	1' 11 1/2"	2' 7 1/2"	1' 10 1/2"	2' 10"	1' 9"	3' 2"	1' 7"	3' 10"	1' 5"	5' 5"	1' 3"	12' 10"	1' 1/2"	infinity
2'	1' 10"	2' 2 1/2"	1' 9 1/2"	2' 3 1/2"	1' 8 1/2"	2' 5 1/2"	1' 7"	2' 8 1/2"	1' 5 1/2"	3' 2"	1' 4"	4' 2"	1' 2"	7' 5"	1' 0"	infinity
1'9"	1' 7 1/2"	1' 11"	1' 7"	1' 11 1/2"	1' 6"	2' 1"	1' 5"	2' 3"	1' 4"	2' 7"	1' 2 1/2"	3' 2"	1' 1"	4' 10"	0' 11"	17' 6"
1'6"	1' 5"	1' 7 1/2"	1' 4 1/2"	1' 8"	1' 4"	1' 9"	1' 3"	1' 10 1/2"	1' 2"	2' 1/2"	1' 1"	2' 5"	0' 11 1/2"	3' 3"	0' 10"	6' 5"
1'3"	1' 2"	1' 4"	1' 2"	1' 4 1/2"	1' 1 1/2"	1' 5"	1' 1"	1' 6"	1' 1/2"	1' 7 1/2"	0' 11 1/2"	1' 10"	0' 10 1/2"	2' 3"	0' 9"	3' 5"
1'	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1"	0' 11"	1' 1"	0' 10 1/2"	1' 1 1/2"	0' 10"	1' 2 1/2"	0' 9 1/2"	1' 4"	0' 9"	1' 7"	0' 8"	2' 0"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 21mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	28' 11"	infinity	20' 6"	infinity	14' 6"	infinity	10' 3"	infinity	7' 3"	infinity	5' 1"	infinity	3' 7"	infinity	2' 7"	infinity
50'	18' 4"	infinity	14' 6"	infinity	11' 3"	infinity	8' 6"	infinity	6' 4"	infinity	4' 8"	infinity	3' 5"	infinity	2' 5"	infinity
30'	14' 9"	infinity	12' 2"	infinity	9' 9"	infinity	7' 8"	infinity	5' 10"	infinity	4' 5"	infinity	3' 3"	infinity	2' 4"	infinity
15'	9' 11"	31' 0"	8' 8"	55' 6"	7' 5"	infinity	6' 1"	infinity	4' 11"	infinity	3' 10"	infinity	2' 11"	infinity	2' 2"	infinity
12'	8' 6"	20' 5"	7' 7"	28' 9"	6' 7"	68' 5"	5' 6"	infinity	4' 6"	infinity	3' 7"	infinity	2' 10"	infinity	2' 1"	infinity
10'	7' 5"	15' 3"	6' 9"	19' 5"	5' 11"	31' 11"	5' 1"	339' 8"	4' 3"	infinity	3' 5"	infinity	2' 8"	infinity	2' 1"	infinity
9'	6' 11"	13' 0"	6' 3"	16' 0"	5' 7"	23' 6"	4' 10"	70' 9"	4' 0"	infinity	3' 3"	infinity	2' 7"	infinity	2' 0"	infinity
8'	6' 3"	11' 0"	5' 9"	13' 1"	5' 2"	17' 8"	4' 6"	35' 7"	3' 10"	infinity	3' 2"	infinity	2' 6"	infinity	1' 11"	infinity
7'	5' 8"	9' 2"	5' 3"	10' 7"	4' 9"	13' 5"	4' 2"	21' 8"	3' 7"	167' 1"	3' 0"	infinity	2' 5"	infinity	1' 11"	infinity
6'	5' 0"	7' 7"	4' 8"	8' 5"	4' 3"	10' 2"	3' 10"	14' 3"	3' 4"	33' 4"	2' 9"	infinity	2' 3"	infinity	1' 10"	infinity
5'6"	4' 8"	6' 9"	4' 4"	7' 6"	4' 0"	8' 10"	3' 7"	11' 9"	3' 2"	22' 1"	2' 8"	infinity	2' 2"	infinity	1' 9"	infinity
5'	4' 3"	6' 0"	4' 0"	6' 7"	3' 9"	7' 7"	3' 4"	9' 8"	3' 0"	15' 8"	2' 7"	138' 7"	2' 1"	infinity	1' 8"	infinity
4'9"	4' 1"	5' 8"	3' 10"	6' 2"	3' 7"	7' 0"	3' 3"	8' 9"	2' 11"	13' 6"	2' 6"	55' 11"	2' 1"	infinity	1' 8"	infinity
4'6"	3' 11"	5' 4"	3' 8"	5' 9"	3' 5"	6' 6"	3' 2"	7' 11"	2' 9"	11' 7"	2' 5"	33' 8"	2' 0"	infinity	1' 8"	infinity
4'3"	3' 9"	5' 0"	3' 6"	5' 4"	3' 4"	6' 0"	3' 0"	7' 2"	2' 8"	10' 1"	2' 4"	23' 3"	2' 0"	infinity	1' 7"	infinity
4'	3' 6"	4' 8"	3' 4"	4' 11"	3' 2"	5' 6"	2' 11"	6' 6"	2' 7"	8' 9"	2' 3"	17' 3"	1' 11"	infinity	1' 7"	infinity
3'9"	3' 4"	4' 4"	3' 2"	4' 7"	3' 0"	5' 0"	2' 9"	5' 10"	2' 6"	7' 8"	2' 2"	13' 4"	1' 10"	infinity	1' 6"	infinity
3'6"	3' 2"	4' 0"	3' 0"	4' 2"	2' 10"	4' 7"	2' 7"	5' 3"	2' 4"	6' 8"	2' 1"	10' 8"	1' 10"	68' 1"	1' 6"	infinity
3'3"	2' 11"	3' 8"	2' 10"	3' 10"	2' 8"	4' 2"	2' 6"	4' 9"	2' 3"	5' 10"	2' 0"	8' 7"	1' 9"	27' 0"	1' 5"	infinity
3'	2' 9"	3' 4"	2' 7"	3' 6"	2' 6"	3' 9"	2' 4"	4' 2"	2' 2"	5' 1"	1' 11"	7' 0"	1' 8"	15' 10"	1' 5"	infinity
2'9"	2' 6"	3' 1/2"	2' 5"	3' 2"	2' 4"	3' 4 1/2"	2' 2"	3' 8 1/2"	2' 0"	4' 4"	1' 9 1/2"	5' 9"	1' 7"	10' 8"	1' 4"	infinity
2'6"	2' 3 1/2"	2' 9"	2' 3"	2' 10"	2' 11/2"	3' 0"	2' 0"	3' 3 1/2"	1' 10 1/2"	3' 9"	1' 8 1/2"	4' 9"	1' 6"	7' 7"	1' 3 1/2"	50' 6"
2'3"	2' 1"	2' 5"	2' 1/2"	2' 6"	1' 11 1/2"	2' 8"	1' 10 1/2"	2' 10 1/2"	1' 8 1/2"	3' 2 1/2"	1' 7"	3' 11"	1' 5"	5' 8"	1' 2 1/2"	15' 3"
2'	1' 10 1/2"	2' 11/2"	1' 10"	2' 2 1/2"	1' 9"	2' 3 1/2"	1' 8"	2' 5 1/2"	1' 7"	2' 8 1/2"	1' 5 1/2"	3' 3"	1' 3 1/2"	4' 3"	1' 1 1/2"	8' 2"
1'9"	1' 8"	1' 10 1/2"	1' 7 1/2"	1' 11"	1' 7"	2' 0"	1' 6"	2' 1"	1' 5"	2' 3 1/2"	1' 4"	2' 7"	1' 2 1/2"	3' 3"	1' 1/2"	5' 1"
1'6"	1' 5"	1' 7"	1' 5"	1' 7 1/2"	1' 4 1/2"	1' 8"	1' 4"	1' 9"	1' 3"	1' 10 1/2"	1' 2"	2' 1"	1' 1"	2' 6"	0' 11 1/2"	3' 5"
1'3"	1' 2 1/2"	1' 3 1/2"	1' 2"	1' 4"	1' 2"	1' 4 1/2"	1' 1 1/2"	1' 5"	1' 1"	1' 6"	1' 0"	1' 8"	0' 11 1/2"	1' 10"	0' 10 1/2"	2' 4"
1'	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1"	0' 11"	1' 1"	0' 10 1/2"	1' 2"	0' 10"	1' 2 1/2"	0' 9 1/2"	1' 4"	0' 9"	1' 7"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 25mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	41' 0"	infinity	29' 0"	infinity	20' 6"	infinity	14' 6"	infinity	10' 3"	infinity	7' 3"	infinity	5' 2"	infinity	3' 7"	infinity
50'	22' 7"	infinity	18' 4"	infinity	14' 7"	infinity	11' 3"	infinity	8' 6"	infinity	6' 4"	infinity	4' 8"	infinity	3' 5"	infinity
30'	17' 4"	110' 11"	14' 9"	infinity	12' 2"	infinity	9' 10"	infinity	7' 8"	infinity	5' 10"	infinity	4' 5"	infinity	3' 3"	infinity
15'	11' 0"	23' 7"	9' 11"	30' 11"	8' 8"	55' 1"	7' 5"	infinity	6' 1"	infinity	4' 11"	infinity	3' 10"	infinity	2' 11"	infinity
12'	9' 4"	16' 11"	8' 6"	20' 4"	7' 7"	28' 8"	6' 7"	67' 5"	5' 7"	infinity	4' 6"	infinity	3' 7"	infinity	2' 10"	infinity
10'	8' 1"	13' 2"	7' 5"	15' 2"	6' 9"	19' 4"	5' 11"	31' 8"	5' 1"	306' 4"	4' 3"	infinity	3' 5"	infinity	2' 8"	infinity
9'	7' 5"	11' 6"	6' 11"	13' 0"	6' 3"	15' 11"	5' 7"	23' 5"	4' 10"	69' 2"	4' 0"	infinity	3' 3"	infinity	2' 7"	infinity
8'	6' 8"	9' 11"	6' 3"	11' 0"	5' 9"	13' 0"	5' 2"	17' 8"	4' 6"	35' 2"	3' 10"	infinity	3' 2"	infinity	2' 6"	infinity
7'	6' 0"	8' 5"	5' 8"	9' 2"	5' 3"	10' 7"	4' 9"	13' 5"	4' 2"	21' 6"	3' 7"	152' 9"	3' 0"	infinity	2' 5"	infinity
6'6"	5' 7"	7' 8"	5' 4"	8' 4"	4' 11"	9' 6"	4' 6"	11' 8"	4' 0"	17' 5"	3' 5"	56' 8"	2' 11"	infinity	2' 4"	infinity
6'	5' 3"	7' 0"	5' 0"	7' 6"	4' 8"	8' 5"	4' 3"	10' 2"	3' 10"	14' 2"	3' 4"	32' 8"	2' 9"	infinity	2' 3"	infinity
5'6"	4' 10"	6' 4"	4' 8"	6' 9"	4' 4"	7' 6"	4' 0"	8' 9"	3' 7"	11' 8"	3' 2"	21' 9"	2' 8"	infinity	2' 2"	infinity
5'	4' 6"	5' 8"	4' 3"	6' 0"	4' 0"	6' 7"	3' 9"	7' 7"	3' 5"	9' 7"	3' 0"	15' 7"	2' 7"	123' 0"	2' 1"	infinity
4'6"	4' 1"	5' 1"	3' 11"	5' 4"	3' 8"	5' 9"	3' 5"	6' 6"	3' 2"	7' 11"	2' 10"	11' 6"	2' 5"	32' 7"	2' 0"	infinity
4'	3' 8"	4' 5"	3' 6"	4' 7"	3' 4"	4' 11"	3' 2"	5' 6"	2' 11"	6' 6"	2' 7"	8' 8"	2' 3"	17' 0"	1' 11"	infinity
3'9"	3' 5"	4' 1"	3' 4"	4' 4"	3' 2"	4' 7"	3' 0"	5' 0"	2' 9"	5' 10"	2' 6"	7' 7"	2' 2"	13' 2"	1' 10"	infinity
3'6"	3' 3"	3' 10"	3' 2"	4' 0"	3' 0"	4' 2"	2' 10"	4' 7"	2' 7"	5' 3"	2' 5"	6' 7"	2' 1"	10' 6"	1' 10"	61' 4"
3'3"	3' 0"	3' 6"	2' 11"	3' 8"	2' 10"	3' 10"	2' 8"	4' 2"	2' 6"	4' 8"	2' 3"	5' 9"	2' 0"	8' 6"	1' 9"	25' 9"
3'	2' 10"	3' 3"	2' 9"	3' 4"	2' 8"	3' 6"	2' 6"	3' 9"	2' 4"	4' 2"	2' 2"	5' 0"	1' 11"	7' 0"	1' 8"	15' 5"
2'9"	2' 7"	2' 11"	2' 6"	3' 0"	2' 5"	3' 2"	2' 4"	3' 4"	2' 2"	3' 9"	2' 0"	4' 4"	1' 10"	5' 9"	1' 7"	10' 5"
2'6"	2' 4 1/2"	2' 8"	2' 3 1/2"	2' 8 1/2"	2' 3"	2' 10"	2' 1 1/2"	3' 0"	2' 1/2"	3' 3"	1' 10 1/2"	3' 9"	1' 8 1/2"	4' 9"	1' 6"	7' 6"
2'3"	2' 1 1/2"	2' 4 1/2"	2' 1"	2' 5"	2' 1/2"	2' 6"	1' 11 1/2"	2' 7 1/2"	1' 10 1/2"	2' 10"	1' 9"	3' 3"	1' 7"	3' 11"	1' 5"	5' 7"
2'	1' 11"	2' 1"	1' 10 1/2"	2' 1 1/2"	1' 10"	2' 2 1/2"	1' 9"	2' 3 1/2"	1' 8"	2' 5 1/2"	1' 7"	2' 9"	1' 5 1/2"	3' 2"	1' 3 1/2"	4' 3"
1'9"	1' 8"	1' 10"	1' 8"	1' 10 1/2"	1' 7 1/2"	1' 11"	1' 7"	1' 11 1/2"	1' 6"	2' 1"	1' 5"	2' 3"	1' 4"	2' 7"	1' 2 1/2"	3' 3"
1'6"	1' 5 1/2"	1' 6 1/2"	1' 5"	1' 7"	1' 5"	1' 7 1/2"	1' 4 1/2"	1' 8"	1' 4"	1' 9"	1' 3"	1' 10"	1' 2"	2' 1"	1' 1"	2' 6"
1'3"	1' 2 1/2"	1' 3 1/2"	1' 2 1/2"	1' 3 1/2"	1' 2"	1' 4"	1' 2"	1' 4 1/2"	1' 1 1/2"	1' 5"	1' 1"	1' 6"	1' 0"	1' 7"	0' 11 1/2"	1' 10"
1'	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1"	0' 11"	1' 1"	0' 10 1/2"	1' 2"	0' 10"	1' 3"	0' 9 1/2"	1' 4"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 29mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	55' 2"	infinity	39' 0"	infinity	27' 7"	infinity	19' 6"	infinity	13' 10"	infinity	9' 9"	infinity	6' 11"	infinity	4' 11"	infinity
50'	26' 3"	522' 8"	21' 11"	infinity	17' 10"	infinity	14' 1"	infinity	10' 10"	infinity	8' 2"	infinity	6' 1"	infinity	4' 5"	infinity
30'	19' 5"	65' 6"	17' 0"	128' 4"	14' 5"	infinity	11' 10"	infinity	9' 6"	infinity	7' 5"	infinity	5' 7"	infinity	4' 2"	infinity
15'	11' 10"	20' 7"	10' 10"	24' 3"	9' 9"	32' 7"	8' 6"	63' 7"	7' 3"	infinity	5' 11"	infinity	4' 9"	infinity	3' 8"	infinity
12'	9' 10"	15' 4"	9' 2"	17' 3"	8' 5"	21' 1"	7' 5"	30' 9"	6' 5"	87' 7"	5' 5"	infinity	4' 5"	infinity	3' 6"	infinity
10'	8' 6"	12' 2"	8' 0"	13' 5"	7' 4"	15' 7"	6' 8"	20' 4"	5' 10"	35' 5"	5' 0"	infinity	4' 1"	infinity	3' 4"	infinity
9'	7' 9"	10' 9"	7' 4"	11' 8"	6' 10"	13' 3"	6' 2"	16' 7"	5' 6"	25' 5"	4' 8"	103' 2"	3' 11"	infinity	3' 2"	infinity
8'	7' 0"	9' 4"	6' 8"	10' 0"	6' 3"	11' 3"	5' 8"	13' 5"	5' 1"	18' 9"	4' 5"	42' 2"	3' 9"	infinity	3' 1"	infinity
7'	6' 3"	8' 0"	5' 11"	8' 6"	5' 7"	9' 4"	5' 2"	10' 10"	4' 8"	14' 0"	4' 1"	23' 11"	3' 6"	infinity	2' 11"	infinity
6'	5' 5"	6' 9"	5' 3"	7' 1"	4' 11"	7' 8"	4' 7"	8' 7"	4' 2"	10' 6"	3' 9"	15' 2"	3' 3"	41' 8"	2' 9"	infinity
5'6"	5' 0"	6' 1"	4' 10"	6' 5"	4' 7"	6' 10"	4' 4"	7' 7"	3' 11"	9' 1"	3' 6"	12' 4"	3' 1"	25' 5"	2' 7"	infinity
5'	4' 7"	5' 6"	4' 5"	5' 9"	4' 3"	6' 1"	4' 0"	6' 8"	3' 8"	7' 9"	3' 4"	10' 1"	2' 11"	17' 4"	2' 6"	infinity
4'9"	4' 5"	5' 2"	4' 3"	5' 5"	4' 1"	5' 9"	3' 10"	6' 3"	3' 7"	7' 2"	3' 3"	9' 1"	2' 10"	14' 7"	2' 5"	104' 0"
4'6"	4' 2"	4' 11"	4' 1"	5' 1"	3' 11"	5' 4"	3' 8"	5' 10"	3' 5"	6' 7"	3' 1"	8' 2"	2' 9"	12' 5"	2' 4"	46' 5"
4'3"	3' 11"	4' 7"	3' 10"	4' 9"	3' 8"	5' 0"	3' 6"	5' 5"	3' 3"	6' 1"	3' 0"	7' 5"	2' 8"	10' 8"	2' 4"	28' 8"
4'	3' 9"	4' 4"	3' 8"	4' 5"	3' 6"	4' 8"	3' 4"	5' 0"	3' 1"	5' 7"	2' 10"	6' 8"	2' 7"	9' 3"	2' 3"	20' 1"
3'9"	3' 6"	4' 0"	3' 5"	4' 2"	3' 4"	4' 4"	3' 2"	4' 7"	3' 0"	5' 1"	2' 9"	6' 0"	2' 5"	8' 0"	2' 2"	14' 11"
3'6"	3' 4"	3' 9"	3' 3"	3' 10"	3' 1"	4' 0"	3' 0"	4' 3"	2' 10"	4' 8"	2' 7"	5' 5"	2' 4"	6' 11"	2' 1"	11' 7"
3'3"	3' 1"	3' 5"	3' 0"	3' 6"	2' 11"	3' 8"	2' 10"	3' 11"	2' 8"	4' 3"	2' 5"	4' 10"	2' 3"	6' 0"	2' 0"	9' 2"
3'	2' 10"	3' 2"	2' 10"	3' 3"	2' 9"	3' 4"	2' 7"	3' 6"	2' 6"	3' 10"	2' 4"	4' 3"	2' 1"	5' 2"	1' 11"	7' 5"
2'9"	2' 7 1/2"	2' 10 1/2"	2' 7"	2' 11 1/2"	2' 6"	3' 1/2"	2' 5"	3' 2"	2' 3 1/2"	3' 5"	2' 2"	3' 9"	2' 0"	4' 6"	1' 9 1/2"	6' 0"
2'6"	2' 4 1/2"	2' 7 1/2"	2' 4 1/2"	2' 8"	2' 3 1/2"	2' 9"	2' 2 1/2"	2' 10"	2' 1 1/2"	3' 1/2"	2' 0"	3' 4"	1' 10"	3' 10"	1' 8"	4' 11"
2'3"	2' 2"	2' 4"	2' 1 1/2"	2' 4 1/2"	2' 1"	2' 5 1/2"	2' 1/2"	2' 6 1/2"	1' 11 1/2"	2' 8"	1' 10"	2' 11"	1' 8 1/2"	3' 3"	1' 6 1/2"	4' 0"
2'	1' 11"	2' 1"	1' 11"	2' 1"	1' 10 1/2"	2' 2"	1' 10"	2' 2 1/2"	1' 9"	2' 4"	1' 8"	2' 6"	1' 7"	2' 9"	1' 5 1/2"	3' 3"
1'9"	1' 8 1/2"	1' 9 1/2"	1' 8"	1' 10"	1' 8"	1' 10 1/2"	1' 7 1/2"	1' 11"	1' 7"	2' 0"	1' 6"	2' 1"	1' 5"	2' 4"	1' 3 1/2"	2' 8"
1'6"	1' 5 1/2"	1' 6 1/2"	1' 5 1/2"	1' 6 1/2"	1' 5"	1' 7"	1' 5"	1' 7 1/2"	1' 4 1/2"	1' 8"	1' 3 1/2"	1' 9"	1' 3"	1' 11"	1' 2"	2' 1"
1'3"	1' 2 1/2"	1' 3 1/2"	1' 2 1/2"	1' 3 1/2"	1' 2 1/2"	1' 3 1/2"	1' 2"	1' 4"	1' 2"	1' 4 1/2"	1' 1 1/2"	1' 5"	1' 1"	1' 6"	1' 0"	1' 8"
1'	1' 0"	1' 0"	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1/2"	0' 11 1/2"	1' 1"	0' 11"	1' 1"	0' 10 1/2"	1' 2"	0' 10"	1' 3"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 35mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	80' 5"	infinity	56' 10"	infinity	40' 2"	infinity	28' 5"	infinity	20' 1"	infinity	14' 3"	infinity	10' 1"	infinity	7' 1"	infinity
50'	30' 10"	131' 9"	26' 8"	408' 4"	22' 4"	infinity	18' 2"	infinity	14' 4"	infinity	11' 1"	infinity	8' 5"	infinity	6' 3"	infinity
30'	21' 10"	47' 9"	19' 8"	63' 3"	17' 2"	117' 0"	14' 7"	infinity	12' 1"	infinity	9' 8"	infinity	7' 7"	infinity	5' 9"	infinity
15'	12' 8"	18' 5"	11' 11"	20' 4"	10' 11"	23' 10"	9' 10"	31' 6"	8' 7"	57' 10"	7' 4"	infinity	6' 1"	infinity	4' 10"	infinity
12'	10' 5"	14' 1"	9' 11"	15' 2"	9' 3"	17' 0"	8' 6"	20' 8"	7' 6"	29' 4"	6' 6"	73' 4"	5' 6"	infinity	4' 6"	infinity
10'	8' 11"	11' 5"	8' 6"	12' 1"	8' 0"	13' 3"	7' 5"	15' 4"	6' 8"	19' 8"	5' 11"	32' 10"	5' 0"	618' 8"	4' 2"	infinity
9'	8' 1"	10' 1"	7' 9"	10' 8"	7' 4"	11' 7"	6' 10"	13' 1"	6' 3"	16' 2"	5' 6"	24' 0"	4' 9"	77' 10"	4' 0"	infinity
8'	7' 3"	8' 10"	7' 0"	9' 3"	6' 8"	9' 11"	6' 3"	11' 1"	5' 9"	13' 2"	5' 2"	18' 0"	4' 6"	37' 2"	3' 10"	infinity
7'	6' 5"	7' 8"	6' 3"	8' 0"	6' 0"	8' 5"	5' 8"	9' 3"	5' 3"	10' 8"	4' 9"	13' 7"	4' 2"	22' 3"	3' 7"	226' 5"
6'6"	6' 0"	7' 1"	5' 10"	7' 4"	5' 7"	7' 9"	5' 4"	8' 5"	4' 11"	9' 6"	4' 6"	11' 10"	4' 0"	17' 10"	3' 5"	64' 2"
6'	5' 7"	6' 6"	5' 5"	6' 8"	5' 3"	7' 0"	5' 0"	7' 7"	4' 8"	8' 6"	4' 3"	10' 3"	3' 9"	14' 6"	3' 3"	34' 11"
5'6"	5' 2"	5' 11"	5' 0"	6' 1"	4' 10"	6' 4"	4' 7"	6' 9"	4' 4"	7' 6"	4' 0"	8' 10"	3' 7"	11' 10"	3' 2"	22' 9"
5'	4' 9"	5' 4"	4' 7"	5' 6"	4' 5"	5' 8"	4' 3"	6' 0"	4' 0"	6' 7"	3' 9"	7' 7"	3' 4"	9' 9"	3' 0"	16' 0"
4'6"	4' 3"	4' 9"	4' 2"	4' 11"	4' 1"	5' 1"	3' 11"	5' 4"	3' 8"	5' 9"	3' 5"	6' 6"	3' 2"	8' 0"	2' 9"	11' 9"
4'	3' 10"	4' 2"	3' 9"	4' 4"	3' 8"	4' 5"	3' 6"	4' 8"	3' 4"	5' 0"	3' 2"	5' 6"	2' 11"	6' 6"	2' 7"	8' 10"
3'9"	3' 7"	3' 11"	3' 6"	4' 0"	3' 5"	4' 1"	3' 4"	4' 4"	3' 2"	4' 7"	3' 0"	5' 0"	2' 9"	5' 11"	2' 6"	7' 8"
3'6"	3' 4"	3' 8"	3' 4"	3' 9"	3' 3"	3' 10"	3' 2"	4' 0"	3' 0"	4' 3"	2' 10"	4' 7"	2' 7"	5' 3"	2' 4"	6' 8"
3'3"	3' 2"	3' 5"	3' 1"	3' 5"	3' 0"	3' 6"	2' 11"	3' 8"	2' 10"	3' 10"	2' 8"	4' 2"	2' 6"	4' 9"	2' 3"	5' 10"
3'	2' 11"	3' 1"	2' 10"	3' 2"	2' 10"	3' 3"	2' 9"	3' 4"	2' 7"	3' 6"	2' 6"	3' 9"	2' 4"	4' 3"	2' 2"	5' 1"
2'9"	2' 8"	2' 10"	2' 8"	2' 11"	2' 7"	2' 11"	2' 6"	3' 0"	2' 5"	3' 2"	2' 4"	3' 5"	2' 2"	3' 9"	2' 0"	4' 4"
2'6"	2' 5"	2' 7"	2' 5"	2' 7 1/2"	2' 4 1/2"	2' 8"	2' 3 1/2"	2' 8 1/2"	2' 3"	2' 10"	2' 1 1/2"	3' 0"	2' 0"	3' 3"	1' 10 1/2"	3' 9"
2'3"	2' 2 1/2"	2' 3 1/2"	2' 2"	2' 4"	2' 1 1/2"	2' 4 1/2"	2' 1"	2' 5"	2' 1/2"	2' 6"	1' 11 1/2"	2' 8"	1' 10 1/2"	2' 10"	1' 9"	3' 3"
2'	1' 11 1/2"	2' 1/2"	1' 11"	2' 1"	1' 11"	2' 1"	1' 10 1/2"	2' 1 1/2"	1' 10"	2' 2 1/2"	1' 9"	2' 4"	1' 8"	2' 6"	1' 7"	2' 9"
1'9"	1' 8 1/2"	1' 9 1/2"	1' 8 1/2"	1' 9 1/2"	1' 8"	1' 10"	1' 8"	1' 10 1/2"	1' 7 1/2"	1' 11"	1' 7"	2' 0"	1' 6"	2' 1"	1' 5"	2' 3"
1'6"	1' 5 1/2"	1' 6 1/2"	1' 5 1/2"	1' 6 1/2"	1' 5 1/2"	1' 6 1/2"	1' 5"	1' 7"	1' 5"	1' 7 1/2"	1' 4 1/2"	1' 8"	1' 4"	1' 9"	1' 3"	1' 10"
1'3"	1' 3"	1' 3"	1' 2 1/2"	1' 3 1/2"	1' 2 1/2"	1' 3 1/2"	1' 2 1/2"	1' 3 1/2"	1' 2"	1' 4"	1' 2"	1' 4"	1' 1 1/2"	1' 5"	1' 1"	1' 6"
1'2"	1' 1 1/2"	1' 2"	1' 1 1/2"	1' 2"	1' 1 1/2"	1' 2 1/2"	1' 1 1/2"	1' 2 1/2"	1' 1"	1' 2 1/2"	1' 1"	1' 3"	1' 1/2"	1' 4"	1' 0"	1' 4"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 40mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	105' 0"	infinity	74' 3"	infinity	52' 6"	infinity	37' 1"	infinity	26' 3"	infinity	18' 7"	infinity	13' 1"	infinity	9' 3"	infinity
100'	51' 3"	2051' 3"	42' 8"	infinity	34' 5"	infinity	27' 1"	infinity	20' 10"	infinity	15' 8"	infinity	11' 7"	infinity	8' 6"	infinity
50'	33' 11"	95' 3"	29' 11"	152' 3"	25' 8"	1000' 0"	21' 4"	infinity	17' 3"	infinity	13' 7"	infinity	10' 5"	infinity	7' 10"	infinity
30'	23' 4"	41' 11"	21' 5"	50' 2"	19' 1"	69' 7"	16' 7"	153' 7"	14' 0"	infinity	11' 6"	infinity	9' 2"	infinity	7' 1"	infinity
20'	16' 10"	24' 8"	15' 9"	27' 4"	14' 6"	32' 2"	13' 0"	43' 0"	11' 5"	82' 4"	9' 8"	infinity	7' 11"	infinity	6' 4"	infinity
15'	13' 2"	17' 6"	12' 6"	18' 9"	11' 8"	20' 11"	10' 9"	25' 0"	9' 7"	34' 7"	8' 4"	75' 5"	7' 0"	infinity	5' 9"	infinity
12'	10' 9"	13' 6"	10' 4"	14' 3"	9' 9"	15' 6"	9' 1"	17' 8"	8' 3"	21' 11"	7' 4"	33' 3"	6' 4"	125' 6"	5' 3"	infinity
10'	9' 2"	11' 0"	8' 10"	11' 6"	8' 5"	12' 4"	7' 11"	13' 7"	7' 3"	16' 0"	6' 6"	21' 4"	5' 8"	40' 4"	4' 10"	infinity
9'	8' 4"	9' 10"	8' 0"	10' 3"	7' 8"	10' 10"	7' 3"	11' 10"	6' 9"	13' 7"	6' 1"	17' 3"	5' 4"	27' 9"	4' 7"	203' 2"
8'	7' 5"	8' 8"	7' 3"	8' 11"	6' 11"	9' 5"	6' 7"	10' 2"	6' 2"	11' 5"	5' 7"	13' 11"	5' 0"	20' 0"	4' 4"	52' 7"
7'6"	7' 0"	8' 1"	6' 10"	8' 4"	6' 7"	8' 9"	6' 3"	9' 4"	5' 10"	10' 5"	5' 4"	12' 5"	4' 10"	17' 1"	4' 2"	36' 5"
7'	6' 7"	7' 6"	6' 5"	7' 9"	6' 2"	8' 1"	5' 11"	8' 7"	5' 7"	9' 6"	5' 1"	11' 1"	4' 7"	14' 8"	4' 0"	26' 11"
6'6"	6' 2"	6' 11"	6' 0"	7' 1"	5' 10"	7' 5"	5' 7"	7' 10"	5' 3"	8' 7"	4' 10"	9' 11"	4' 5"	12' 8"	3' 10"	20' 9"
6'	5' 8"	6' 4"	5' 7"	6' 6"	5' 5"	6' 9"	5' 2"	7' 2"	4' 11"	7' 9"	4' 7"	8' 9"	4' 2"	10' 10"	3' 8"	16' 4"
5'6"	5' 3"	5' 10"	5' 2"	5' 11"	5' 0"	6' 2"	4' 10"	6' 5"	4' 7"	6' 11"	4' 3"	7' 9"	3' 11"	9' 4"	3' 6"	13' 1"
5'	4' 9"	5' 3"	4' 8"	5' 4"	4' 7"	5' 6"	4' 5"	5' 9"	4' 3"	6' 2"	4' 0"	6' 9"	3' 8"	7' 11"	3' 3"	10' 6"
4'9"	4' 7"	5' 0"	4' 6"	5' 1"	4' 4"	5' 2"	4' 3"	5' 5"	4' 0"	5' 9"	3' 10"	6' 4"	3' 6"	7' 4"	3' 2"	9' 5"
4'6"	4' 4"	4' 8"	4' 3"	4' 9"	4' 2"	4' 11"	4' 0"	5' 1"	3' 10"	5' 5"	3' 8"	5' 11"	3' 5"	6' 9"	3' 1"	8' 6"
4'3"	4' 1"	4' 5"	4' 0"	4' 6"	3' 11"	4' 7"	3' 10"	4' 9"	3' 8"	5' 0"	3' 6"	5' 6"	3' 3"	6' 2"	2' 11"	7' 8"
4'	3' 10"	4' 2"	3' 10"	4' 3"	3' 9"	4' 4"	3' 7"	4' 6"	3' 6"	4' 8"	3' 4"	5' 1"	3' 1"	5' 8"	2' 10"	6' 10"
3'9"	3' 7 1/2"	3' 10 1/2"	3' 7"	3' 11 1/2"	3' 6"	4' 1/2"	3' 5"	4' 2"	3' 3 1/2"	4' 4"	3' 1 1/2"	4' 8"	2' 11 1/2"	5' 2"	2' 8 1/2"	6' 2"
3'6"	3' 4 1/2"	3' 7 1/2"	3' 4"	3' 8"	3' 3 1/2"	3' 9"	3' 2 1/2"	3' 10"	3' 1"	4' 0"	2' 11 1/2"	4' 3"	2' 9 1/2"	4' 9"	2' 7"	5' 6"
3'3"	3' 2"	3' 4"	3' 1 1/2"	3' 4 1/2"	3' 1"	3' 5 1/2"	3' 0"	3' 6 1/2"	2' 11"	3' 8 1/2"	2' 9 1/2"	3' 11"	2' 7 1/2"	4' 3"	2' 5"	4' 11"
3'	2' 11"	3' 1"	2' 10 1/2"	3' 1 1/2"	2' 10"	3' 2"	2' 9 1/2"	3' 3"	2' 8 1/2"	3' 4 1/2"	2' 7"	3' 7"	2' 5 1/2"	3' 10"	2' 3 1/2"	4' 4"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 50mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	164' 1"	infinity	116' 0"	infinity	82' 0"	infinity	58' 0"	infinity	41' 0"	infinity	29' 0"	infinity	20' 6"	infinity	14' 6"	infinity
50'	38' 4"	71' 10"	35' 0"	87' 8"	31' 1"	127' 5"	26' 11"	355' 4"	22' 7"	infinity	18' 5"	infinity	14' 7"	infinity	11' 3"	infinity
30'	25' 5"	36' 8"	23' 10"	40' 5"	22' 0"	47' 2"	19' 10"	61' 9"	17' 4"	110' 1"	14' 9"	infinity	12' 3"	infinity	9' 10"	infinity
20'	17' 10"	22' 9"	17' 1"	24' 1"	16' 1"	26' 5"	14' 11"	30' 5"	13' 6"	38' 9"	11' 11"	63' 3"	10' 2"	612' 9"	8' 5"	infinity
15'	13' 9"	16' 6"	13' 4"	17' 2"	12' 8"	18' 4"	11' 11"	20' 2"	11' 0"	23' 6"	9' 11"	30' 9"	8' 8"	54' 3"	7' 5"	infinity
12'	11' 2"	12' 11"	10' 11"	13' 4"	10' 6"	14' 0"	10' 0"	15' 1"	9' 4"	16' 10"	8' 6"	20' 3"	7' 7"	28' 5"	6' 7"	65' 4"
10'	9' 5"	10' 8"	9' 3"	10' 11"	8' 11"	11' 4"	8' 7"	12' 1"	8' 1"	13' 2"	7' 6"	15' 2"	6' 9"	19' 3"	5' 11"	31' 1"
9'	8' 6"	9' 6"	8' 4"	9' 9"	8' 1"	10' 1"	7' 10"	10' 7"	7' 5"	11' 6"	6' 11"	12' 11"	6' 3"	15' 10"	5' 7"	23' 0"
8'	7' 8"	8' 5"	7' 6"	8' 7"	7' 4"	8' 10"	7' 1"	9' 3"	6' 9"	9' 11"	6' 4"	11' 0"	5' 9"	12' 11"	5' 2"	17' 5"
7'	6' 9"	7' 4"	6' 7"	7' 5"	6' 6"	7' 8"	6' 3"	7' 11"	6' 0"	8' 5"	5' 8"	9' 2"	5' 3"	10' 6"	4' 9"	13' 3"
6'6"	6' 3"	6' 9"	6' 2"	6' 11"	6' 0"	7' 1"	5' 10"	7' 4"	5' 8"	7' 8"	5' 4"	8' 4"	5' 0"	9' 5"	4' 6"	11' 7"
6'	5' 10"	6' 3"	5' 9"	6' 4"	5' 7"	6' 6"	5' 5"	6' 8"	5' 3"	7' 0"	5' 0"	7' 6"	4' 8"	8' 5"	4' 3"	10' 0"
5'6"	5' 4"	5' 8"	5' 3"	5' 9"	5' 2"	5' 11"	5' 0"	6' 1"	4' 10"	6' 4"	4' 8"	6' 9"	4' 4"	7' 5"	4' 0"	8' 8"
5'	4' 10"	5' 2"	4' 10"	5' 3"	4' 9"	5' 4"	4' 7"	5' 5"	4' 6"	5' 8"	4' 3"	6' 0"	4' 1"	6' 7"	3' 9"	7' 6"
4'6"	4' 5"	4' 7"	4' 4"	4' 8"	4' 3"	4' 9"	4' 2"	4' 10"	4' 1"	5' 0"	3' 11"	5' 3"	3' 9"	5' 8"	3' 6"	6' 5"
4'	3' 11"	4' 1"	3' 10"	4' 2"	3' 10"	4' 2"	3' 9"	4' 3"	3' 8"	4' 5"	3' 6"	4' 7"	3' 4"	4' 11"	3' 2"	5' 5"
3'9"	3' 8"	3' 10"	3' 8"	3' 10"	3' 7"	3' 11"	3' 6"	4' 0"	3' 5"	4' 1"	3' 4"	4' 3"	3' 2"	4' 7"	3' 0"	5' 0"
3'6"	3' 5"	3' 7"	3' 5"	3' 7"	3' 4"	3' 8"	3' 4"	3' 9"	3' 3"	3' 10"	3' 2"	3' 11"	3' 0"	4' 2"	2' 10"	4' 7"
3'3"	3' 2"	3' 4"	3' 2"	3' 4"	3' 2"	3' 5"	3' 1"	3' 5"	3' 0"	3' 6"	2' 11"	3' 8"	2' 10"	3' 10"	2' 8"	4' 2"
3'	2' 11"	3' 1"	2' 11"	3' 1"	2' 11"	3' 1"	2' 10"	3' 2"	2' 10"	3' 3"	2' 9"	3' 4"	2' 8"	3' 6"	2' 6"	3' 9"
2'9"	2' 8 1/2"	2' 9 1/2"	2' 8 1/2"	2' 10"	2' 8"	2' 10"	2' 7 1/2"	2' 10 1/2"	2' 7"	2' 11"	2' 6 1/2"	3' 0"	2' 5 1/2"	3' 2"	2' 4"	3' 4"
2'6"	2' 5 1/2"	2' 6 1/2"	2' 5 1/2"	2' 6 1/2"	2' 5"	2' 7"	2' 5"	2' 7 1/2"	2' 4 1/2"	2' 8"	2' 4"	2' 9"	2' 3"	2' 10"	2' 2"	3' 0"
2'3"	2' 2 1/2"	2' 3 1/2"	2' 2 1/2"	2' 3 1/2"	2' 2 1/2"	2' 3 1/2"	2' 2"	2' 4"	2' 1 1/2"	2' 4 1/2"	2' 1"	2' 5"	2' 1/2"	2' 6"	1' 11 1/2"	2' 8"
2'	1' 11 1/2"	2' 1/2"	1' 11 1/2"	2' 1/2"	1' 11 1/2"	2' 1/2"	1' 11 1/2"	2' 1"	1' 11"	2' 1"	1' 10 1/2"	2' 2"	1' 10"	2' 2"	1' 9 1/2"	2' 3"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 75mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	369' 1"	infinity	261' 0"	infinity	184' 7"	infinity	130' 6"	infinity	92' 3"	infinity	65' 3"	infinity	46' 2"	infinity	32' 7"	infinity
100'	78' 9"	137' 0"	72' 4"	161' 10"	64' 11"	217' 8"	56' 8"	424' 6"	48' 1"	infinity	39' 7"	infinity	31' 7"	infinity	24' 8"	infinity
75'	62' 4"	94' 1"	58' 4"	105' 1"	53' 5"	126' 1"	47' 8"	175' 7"	41' 5"	395' 0"	34' 11"	infinity	28' 7"	infinity	22' 9"	infinity
50'	44' 1"	57' 9"	42' 0"	61' 9"	39' 5"	68' 5"	36' 2"	80' 10"	32' 6"	108' 6"	28' 4"	210' 6"	24' 1"	infinity	19' 10"	infinity
30'	27' 9"	32' 8"	26' 11"	33' 10"	25' 10"	35' 9"	24' 5"	38' 10"	22' 8"	44' 3"	20' 7"	55' 2"	18' 3"	84' 6"	15' 8"	341' 0"
20'	19' 0"	21' 2"	18' 7"	21' 8"	18' 1"	22' 5"	17' 4"	23' 7"	16' 6"	25' 5"	15' 4"	28' 8"	14' 0"	35' 0"	12' 5"	50' 8"
15'	14' 5"	15' 7"	14' 2"	15' 11"	13' 11"	16' 4"	13' 6"	16' 11"	12' 11"	17' 10"	12' 3"	19' 5"	11' 4"	22' 1"	10' 4"	27' 5"
12'	11' 8"	12' 5"	11' 6"	12' 7"	11' 3"	12' 10"	11' 0"	13' 2"	10' 8"	13' 9"	10' 2"	14' 8"	9' 7"	16' 1"	8' 10"	18' 9"
10'	9' 9"	10' 3"	9' 8"	10' 5"	9' 6"	10' 7"	9' 4"	10' 10"	9' 1"	11' 2"	8' 8"	11' 9"	8' 3"	12' 8"	7' 8"	14' 3"
9'	8' 9"	9' 3"	8' 8"	9' 4"	8' 7"	9' 5"	8' 5"	9' 8"	8' 3"	9' 11"	7' 11"	10' 5"	7' 7"	11' 1"	7' 1"	12' 4"
8'	7' 10"	8' 2"	7' 9"	8' 3"	7' 8"	8' 4"	7' 7"	8' 6"	7' 5"	8' 9"	7' 2"	9' 1"	6' 10"	9' 7"	6' 6"	10' 6"
7'	6' 10"	7' 2"	6' 10"	7' 2"	6' 9"	7' 3"	6' 8"	7' 5"	6' 6"	7' 7"	6' 4"	7' 10"	6' 1"	8' 2"	5' 10"	8' 10"
6'6"	6' 5"	6' 7"	6' 4"	6' 8"	6' 3"	6' 9"	6' 2"	6' 10"	6' 1"	7' 0"	5' 11"	7' 2"	5' 9"	7' 6"	5' 5"	8' 0"
6'	5' 11"	6' 1"	5' 10"	6' 2"	5' 10"	6' 2"	5' 9"	6' 3"	5' 8"	6' 5"	5' 6"	6' 7"	5' 4"	6' 10"	5' 1"	7' 3"
5'6"	5' 5"	5' 7"	5' 5"	5' 7"	5' 4"	5' 8"	5' 3"	5' 9"	5' 2"	5' 10"	5' 1"	6' 0"	4' 11"	6' 2"	4' 9"	6' 7"
5'	4' 11"	5' 1"	4' 11"	5' 1"	4' 10"	5' 2"	4' 10"	5' 2"	4' 9"	5' 3"	4' 8"	5' 5"	4' 6"	5' 7"	4' 4"	5' 10"
4'9"	4' 8"	4' 10"	4' 8"	4' 10"	4' 8"	4' 10"	4' 7"	4' 11"	4' 6"	5' 0"	4' 5"	5' 1"	4' 4"	5' 3"	4' 2"	5' 6"
4'6"	4' 5"	4' 7"	4' 5"	4' 7"	4' 5"	4' 7"	4' 4"	4' 8"	4' 4"	4' 9"	4' 3"	4' 10"	4' 1"	4' 11"	4' 0"	5' 2"
4'3"	4' 2"	4' 4"	4' 2"	4' 4"	4' 2"	4' 4"	4' 1"	4' 5"	4' 1"	4' 5"	4' 0"	4' 6"	3' 11"	4' 8"	3' 9"	4' 10"
4'	4' 0"	4' 0"	3' 11"	4' 1"	3' 11"	4' 1"	3' 11"	4' 1"	3' 10"	4' 2"	3' 9"	4' 3"	3' 8"	4' 4"	3' 7"	4' 6"
3'9"	3' 8 1/2"	3' 9 1/2"	3' 8 1/2"	3' 9 1/2"	3' 8"	3' 10"	3' 8"	3' 10"	3' 7 1/2"	3' 11"	3' 6 1/2"	4' 0"	3' 6"	4' 1"	3' 4 1/2"	4' 2"
3'6"	3' 5 1/2"	3' 6 1/2"	3' 5 1/2"	3' 6 1/2"	3' 5 1/2"	3' 7"	3' 5"	3' 7"	3' 4 1/2"	3' 7 1/2"	3' 4"	3' 8"	3' 3"	3' 9"	3' 2"	3' 11"
3'3"	3' 2 1/2"	3' 3 1/2"	3' 2 1/2"	3' 3 1/2"	3' 2 1/2"	3' 3 1/2"	3' 2"	3' 4"	3' 2"	3' 4 1/2"	3' 1 1/2"	3' 5"	3' 1/2"	3' 6"	2' 11 1/2"	3' 7"
3'	2' 11 1/2"	3' 1/2"	2' 11 1/2"	3' 1/2"	2' 11 1/2"	3' 1/2"	2' 11 1/2"	3' 1"	2' 11"	3' 1"	2' 10 1/2"	3' 2"	2' 10"	3' 2"	2' 9"	3' 3"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 100mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	656' 2"	infinity	464' 1"	infinity	328' 1"	infinity	232' 0"	infinity	164' 1"	infinity	116' 0"	infinity	82' 0"	infinity	58' 0"	infinity
100'	86' 10"	117' 11"	82' 4"	127' 4"	76' 8"	143' 8"	69' 11"	175' 4"	62' 2"	254' 10"	53' 9"	710' 4"	45' 2"	infinity	36' 9"	infinity
75'	67' 4"	84' 8"	64' 7"	89' 5"	61' 1"	97' 1"	56' 9"	110' 7"	51' 6"	137' 8"	45' 8"	210' 6"	39' 3"	837' 1"	32' 9"	infinity
50'	46' 6"	54' 1"	45' 2"	56' 0"	43' 5"	58' 11"	41' 2"	63' 7"	38' 5"	71' 9"	35' 0"	87' 5"	31' 2"	126' 9"	26' 11"	348' 3"
30'	28' 8"	31' 5"	28' 2"	32' 1"	27' 6"	33' 0"	26' 7"	34' 5"	25' 5"	36' 7"	23' 11"	40' 4"	22' 0"	47' 0"	19' 10"	61' 5"
20'	19' 5"	20' 7"	19' 2"	20' 11"	18' 10"	21' 3"	18' 5"	21' 10"	17' 10"	22' 9"	17' 1"	24' 1"	16' 2"	26' 4"	14' 11"	30' 3"
15'	14' 8"	15' 4"	14' 6"	15' 6"	14' 4"	15' 8"	14' 1"	16' 0"	13' 9"	16' 6"	13' 4"	17' 2"	12' 9"	18' 3"	12' 0"	20' 1"
12'	11' 9"	12' 3"	11' 8"	12' 4"	11' 7"	12' 5"	11' 5"	12' 8"	11' 2"	12' 11"	10' 11"	13' 4"	10' 6"	14' 0"	10' 0"	15' 0"
10'	9' 10"	10' 2"	9' 10"	10' 3"	9' 9"	10' 4"	9' 7"	10' 5"	9' 5"	10' 8"	9' 3"	10' 11"	8' 11"	11' 4"	8' 7"	12' 0"
9'	8' 11"	9' 1"	8' 10"	9' 2"	8' 9"	9' 3"	8' 8"	9' 4"	8' 7"	9' 6"	8' 4"	9' 9"	8' 2"	10' 1"	7' 10"	10' 7"
8'	7' 11"	8' 1"	7' 10"	8' 2"	7' 10"	8' 2"	7' 9"	8' 3"	7' 8"	8' 5"	7' 6"	8' 7"	7' 4"	8' 10"	7' 1"	9' 3"
7'6"	7' 5"	7' 7"	7' 5"	7' 7"	7' 4"	7' 8"	7' 3"	7' 9"	7' 2"	7' 10"	7' 1"	8' 0"	6' 11"	8' 3"	6' 8"	8' 7"
7'	6' 11"	7' 1"	6' 11"	7' 1"	6' 10"	7' 2"	6' 10"	7' 2"	6' 9"	7' 4"	6' 7"	7' 5"	6' 6"	7' 7"	6' 3"	7' 11"
6'6"	6' 5"	6' 7"	6' 5"	6' 7"	6' 5"	6' 7"	6' 4"	6' 8"	6' 3"	6' 9"	6' 2"	6' 10"	6' 1"	7' 0"	5' 10"	7' 3"
6'	5' 11"	6' 1"	5' 11"	6' 1"	5' 11"	6' 1"	5' 10"	6' 2"	5' 10"	6' 3"	5' 9"	6' 4"	5' 7"	6' 5"	5' 6"	6' 8"
5'9"	5' 8"	5' 10"	5' 8"	5' 10"	5' 8"	5' 10"	5' 7"	5' 11"	5' 7"	5' 11"	5' 6"	6' 0"	5' 5"	6' 2"	5' 3"	6' 4"
5'6"	5' 5"	5' 7"	5' 5"	5' 7"	5' 5"	5' 7"	5' 5"	5' 8"	5' 4"	5' 8"	5' 3"	5' 9"	5' 2"	5' 10"	5' 1"	6' 0"
5'3"	5' 3"	5' 3"	5' 2"	5' 4"	5' 2"	5' 4"	5' 2"	5' 4"	5' 1"	5' 5"	5' 0"	5' 6"	4' 11"	5' 7"	4' 10"	5' 9"
5'	5' 0"	5' 0"	4' 11"	5' 1"	4' 11"	5' 1"	4' 11"	5' 1"	4' 10"	5' 2"	4' 10"	5' 3"	4' 9"	5' 4"	4' 8"	5' 5"
4'9"	4' 9"	4' 9"	4' 8"	4' 10"	4' 8"	4' 10"	4' 8"	4' 10"	4' 8"	4' 11"	4' 7"	4' 11"	4' 6"	5' 0"	4' 5"	5' 2"
4'6"	4' 5 1/2"	4' 6 1/2"	4' 5 1/2"	4' 6 1/2"	4' 5 1/2"	4' 6 1/2"	4' 5"	4' 7"	4' 4 1/2"	4' 7"	4' 4"	4' 8"	4' 3 1/2"	4' 9"	4' 2 1/2"	4' 10"
4'3"	4' 2 1/2"	4' 3 1/2"	4' 2 1/2"	4' 3 1/2"	4' 2 1/2"	4' 3 1/2"	4' 2"	4' 4"	4' 2"	4' 4"	4' 1 1/2"	4' 5"	4' 1/2"	4' 6"	4' 0"	4' 7"
4'	3' 11 1/2"	4' 1/2"	3' 11 1/2"	4' 1/2"	3' 11 1/2"	4' 1/2"	3' 11 1/2"	4' 1"	3' 11"	4' 1"	3' 10 1/2"	4' 2"	3' 10"	4' 2"	3' 9"	4' 3"
3'9"	3' 9"	3' 9"	3' 8 1/2"	3' 9 1/2"	3' 8 1/2"	3' 9 1/2"	3' 8 1/2"	3' 9 1/2"	3' 8"	3' 10"	3' 7 1/2"	3' 10"	3' 7"	3' 11"	3' 6 1/2"	4' 0"
3'6"	3' 6"	3' 6"	3' 5 1/2"	3' 6 1/2"	3' 5 1/2"	3' 6 1/2"	3' 5 1/2"	3' 6 1/2"	3' 5"	3' 7"	3' 5"	3' 7"	3' 4 1/2"	3' 8"	3' 4"	3' 8"
3'4"	3' 4"	3' 4"	3' 3 1/2"	3' 4"	3' 3 1/2"	3' 4 1/2"	3' 3 1/2"	3' 4 1/2"	3' 3"	3' 4 1/2"	3' 3"	3' 5"	3' 2 1/2"	3' 5"	3' 2"	3' 6"



Depth of Field Chart - Leitz SUMMICRON-C - Feet

Focal Length 135mm

Circle of Confusion .025mm

T/No	2		2.8		4		5.6		8		11		16		22	
Focus distance (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)	Short Focus (ft)	Long Focus (ft)
∞	1195' 10"	infinity	845' 9"	infinity	597' 11"	infinity	422' 9"	infinity	299' 0"	infinity	211' 5"	infinity	149' 6"	infinity	105' 8"	infinity
150'	133' 4"	171' 5"	127' 6"	182' 3"	120' 0"	200' 0"	110' 10"	232' 1"	100' 0"	300' 2"	87' 10"	512' 8"	75' 0"	infinity	62' 1"	infinity
120'	109' 1"	133' 4"	105' 2"	139' 9"	100' 0"	150' 0"	93' 7"	167' 4"	85' 9"	200' 0"	76' 8"	276' 2"	66' 8"	599' 5"	56' 4"	infinity
100'	92' 4"	109' 1"	89' 6"	113' 4"	85' 9"	120' 0"	80' 11"	130' 10"	75' 0"	149' 11"	68' 0"	189' 0"	60' 0"	299' 5"	51' 6"	1720' 0"
70'	66' 2"	74' 4"	64' 8"	76' 3"	62' 8"	79' 3"	60' 1"	83' 9"	56' 9"	91' 3"	52' 8"	104' 4"	47' 9"	130' 11"	42' 3"	204' 8"
60'	57' 2"	63' 2"	56' 1"	64' 7"	54' 7"	66' 8"	52' 7"	69' 10"	50' 0"	74' 11"	46' 10"	83' 6"	42' 11"	99' 9"	38' 5"	137' 5"
50'	48' 0"	52' 2"	47' 3"	53' 1"	46' 2"	54' 6"	44' 9"	56' 8"	42' 11"	59' 11"	40' 6"	65' 4"	37' 7"	74' 10"	34' 0"	94' 2"
40'	38' 9"	41' 4"	38' 3"	42' 0"	37' 6"	42' 10"	36' 7"	44' 2"	35' 4"	46' 1"	33' 8"	49' 2"	31' 8"	54' 5"	29' 1"	63' 11"
30'	29' 3"	30' 9"	29' 0"	31' 1"	28' 7"	31' 7"	28' 0"	32' 3"	27' 4"	33' 3"	26' 4"	34' 11"	25' 1"	37' 5"	23' 5"	41' 8"
25'	24' 6"	25' 6"	24' 4"	25' 9"	24' 0"	26' 1"	23' 8"	26' 6"	23' 1"	27' 3"	22' 5"	28' 3"	21' 6"	29' 11"	20' 3"	32' 7"
20'	19' 8"	20' 4"	19' 7"	20' 6"	19' 4"	20' 8"	19' 1"	21' 0"	18' 9"	21' 5"	18' 4"	22' 0"	17' 8"	23' 0"	16' 11"	24' 6"
17'	16' 9"	17' 3"	16' 8"	17' 4"	16' 7"	17' 6"	16' 4"	17' 8"	16' 1"	18' 0"	15' 9"	18' 5"	15' 4"	19' 1"	14' 8"	20' 2"
16'	15' 10"	16' 3"	15' 9"	16' 4"	15' 7"	16' 5"	15' 5"	16' 7"	15' 3"	16' 11"	14' 11"	17' 3"	14' 6"	17' 10"	13' 11"	18' 9"
15'	14' 10"	15' 2"	14' 9"	15' 3"	14' 8"	15' 4"	14' 6"	15' 6"	14' 4"	15' 9"	14' 0"	16' 1"	13' 8"	16' 7"	13' 2"	17' 5"
14'	13' 10"	14' 2"	13' 9"	14' 3"	13' 8"	14' 4"	13' 7"	14' 6"	13' 5"	14' 8"	13' 2"	15' 0"	12' 10"	15' 5"	12' 5"	16' 1"
13'	12' 10"	13' 2"	12' 10"	13' 2"	12' 9"	13' 3"	12' 8"	13' 5"	12' 6"	13' 7"	12' 3"	13' 10"	12' 0"	14' 2"	11' 7"	14' 9"
12'	11' 11"	12' 1"	11' 10"	12' 2"	11' 9"	12' 3"	11' 8"	12' 4"	11' 7"	12' 6"	11' 5"	12' 8"	11' 2"	13' 0"	10' 10"	13' 6"
11'	10' 11"	11' 1"	10' 10"	11' 2"	10' 10"	11' 2"	10' 9"	11' 3"	10' 7"	11' 5"	10' 6"	11' 7"	10' 3"	11' 10"	10' 0"	12' 3"
10'	9' 11"	10' 1"	9' 11"	10' 1"	9' 10"	10' 2"	9' 9"	10' 3"	9' 8"	10' 4"	9' 7"	10' 6"	9' 5"	10' 8"	9' 2"	11' 0"
9'6"	9' 8"	9' 10"	9' 8"	9' 10"	9' 7"	9' 11"	9' 6"	10' 0"	9' 5"	10' 1"	9' 4"	10' 2"	9' 2"	10' 5"	9' 0"	10' 8"
9'	8' 11"	9' 1"	8' 11"	9' 1"	8' 10 1/2"	9' 1 1/2"	8' 10"	9' 2"	8' 9"	9' 3"	8' 8"	9' 5"	8' 6"	9' 7"	8' 4"	9' 10"
8'6"	8' 5 1/2"	8' 6 1/2"	8' 5"	8' 7"	8' 4 1/2"	8' 7 1/2"	8' 4"	8' 8"	8' 3 1/2"	8' 9"	8' 2 1/2"	8' 10"	8' 1"	9' 0"	7' 11"	9' 2"
8'	7' 11 1/2"	8' 1/2"	7' 11"	8' 1"	7' 11"	8' 1"	7' 10 1/2"	8' 1 1/2"	7' 9 1/2"	8' 2 1/2"	7' 8 1/2"	8' 4"	7' 7 1/2"	8' 5"	7' 5 1/2"	8' 7"
7'6"	7' 5 1/2"	7' 6 1/2"	7' 5 1/2"	7' 7"	7' 5"	7' 7"	7' 4 1/2"	7' 7 1/2"	7' 4"	7' 8"	7' 3"	7' 9"	7' 2"	7' 10"	7' 1/2"	8' 0"
7'	6' 11 1/2"	7' 1/2"	6' 11 1/2"	7' 1/2"	6' 11"	7' 1"	6' 10 1/2"	7' 1 1/2"	6' 10"	7' 2"	6' 9 1/2"	7' 3"	6' 8 1/2"	7' 4"	6' 7"	7' 6"
6'9"	6' 8 1/2"	6' 9 1/2"	6' 8 1/2"	6' 9 1/2"	6' 8"	6' 10"	6' 8"	6' 10"	6' 7 1/2"	6' 10 1/2"	6' 6 1/2"	6' 11"	6' 5 1/2"	7' 1"	6' 4 1/2"	7' 2"
6'6"	6' 5 1/2"	6' 6 1/2"	6' 5 1/2"	6' 6 1/2"	6' 5"	6' 7"	6' 5"	6' 7"	6' 4 1/2"	6' 7 1/2"	6' 4"	6' 8"	6' 3"	6' 9"	6' 2"	6' 11"
6'3"	6' 2 1/2"	6' 3 1/2"	6' 2 1/2"	6' 3 1/2"	6' 2 1/2"	6' 3 1/2"	6' 2"	6' 4"	6' 1 1/2"	6' 4 1/2"	6' 1"	6' 5"	6' 0"	6' 6"	5' 11"	6' 7"
6'	5' 11 1/2"	6' 1/2"	5' 11 1/2"	6' 1/2"	5' 11 1/2"	6' 1/2"	5' 11"	6' 1"	5' 10 1/2"	6' 1 1/2"	5' 10"	6' 2"	5' 9 1/2"	6' 3"	5' 8 1/2"	6' 4"
5'9"	5' 8 1/2"	5' 9 1/2"	5' 8 1/2"	5' 9 1/2"	5' 8 1/2"	5' 9 1/2"	5' 8"	5' 10"	5' 8"	5' 10"	5' 7 1/2"	5' 11"	5' 6 1/2"	6' 0"	5' 5 1/2"	6' 1"
5'6"	5' 5 1/2"	5' 6 1/2"	5' 5 1/2"	5' 6 1/2"	5' 5 1/2"	5' 6 1/2"	5' 5"	5' 7"	5' 5"	5' 7"	5' 4 1/2"	5' 7 1/2"		5' 8"	5' 3"	5' 9"
5'3"	5' 2 1/2"	5' 3 1/2"	5' 2 1/2"	5' 3 1/2"	5' 2 1/2"	5' 3 1/2"	5' 2 1/2"	5' 3 1/2"	5' 2"	5' 4"	5' 1 1/2"	5' 4 1/2"	5' 1"	5' 5"	5' 1/2"	5' 6"
5'	5' 0"	5' 0"	4' 11 1/2"	5' 1/2"	4' 11 1/2"	5' 1/2"	4' 11 1/2"	5' 1/2"	4' 11"	5' 1"	4' 10 1/2"	5' 1 1/2"	4' 10"	5' 2"	4' 9 1/2"	5' 3"