

Hyperfocal Distance Chart

(in feet) for sensor 36 x 24 mm, Crop Factor 1x, DoF CoC 0.03 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	0.99	0.71	0.5	0.36	0.26	0.18	0.13	0.097	0.071	0.053	0.041	0.032
4 mm	1.76	1.25	0.89	0.63	0.45	0.32	0.23	0.17	0.12	0.09	0.068	0.052
5 mm	2.75	1.95	1.38	0.98	0.7	0.5	0.36	0.26	0.19	0.14	0.1	0.077
6 mm	3.96	2.8	1.99	1.41	1	0.72	0.51	0.37	0.27	0.19	0.14	0.11
7 mm	5.38	3.81	2.7	1.92	1.36	0.97	0.69	0.5	0.36	0.26	0.19	0.14
8 mm	7.02	4.97	3.53	2.5	1.78	1.26	0.9	0.64	0.46	0.34	0.24	0.18
9 mm	8.89	6.29	4.46	3.16	2.24	1.6	1.14	0.81	0.58	0.42	0.31	0.23
10 mm	11	7.76	5.5	3.9	2.77	1.97	1.4	1	0.72	0.52	0.37	0.27
11 mm	13.3	9.39	6.65	4.71	3.34	2.37	1.69	1.21	0.86	0.62	0.45	0.33
12 mm	15.8	11.2	7.91	5.61	3.98	2.82	2.01	1.43	1.02	0.74	0.53	0.39
14 mm	21.5	15.2	10.8	7.62	5.4	3.83	2.72	1.94	1.39	0.99	0.72	0.52
15 mm	24.7	17.4	12.4	8.75	6.2	4.4	3.12	2.22	1.59	1.14	0.82	0.59
16 mm	28	19.8	14	9.95	7.05	5	3.55	2.53	1.8	1.29	0.93	0.67
17 mm	31.7	22.4	15.9	11.2	7.96	5.64	4.01	2.85	2.03	1.45	1.04	0.75
18 mm	35.5	25.1	17.8	12.6	8.92	6.32	4.49	3.19	2.27	1.62	1.17	0.84
19 mm	39.5	28	19.8	14	9.93	7.04	5	3.55	2.53	1.81	1.3	0.93
20 mm	43.8	31	21.9	15.5	11	7.8	5.53	3.93	2.8	2	1.43	1.03
21 mm	48.3	34.2	24.2	17.1	12.1	8.59	6.1	4.33	3.08	2.2	1.58	1.13
24 mm	63.1	44.6	31.6	22.3	15.8	11.2	7.95	5.65	4.02	2.86	2.05	1.47
25 mm	68.4	48.4	34.3	24.2	17.2	12.2	8.62	6.12	4.35	3.1	2.22	1.59
28 mm	85.8	60.7	43	30.4	21.5	15.2	10.8	7.67	5.45	3.88	2.77	1.99
35 mm	134	94.8	67.1	47.5	33.6	23.8	16.9	12	8.49	6.03	4.3	3.07
40 mm	175	124	87.6	62	43.9	31.1	22	15.6	11.1	7.86	5.6	4
45 mm	222	157	111	78.4	55.5	39.3	27.8	19.7	14	9.93	7.07	5.04
50 mm	274	193	137	96.8	68.5	48.5	34.3	24.3	17.2	12.2	8.71	6.2
55 mm	331	234	166	117	82.9	58.7	41.5	29.4	20.9	14.8	10.5	7.49
58 mm	368	260	184	130	92.1	65.2	46.2	32.7	23.2	16.4	11.7	8.32
60 mm	394	279	197	139	98.6	69.8	49.4	35	24.8	17.6	12.5	8.9
70 mm	536	379	268	190	134	94.9	67.2	47.6	33.7	23.9	17	12.1
75 mm	615	435	308	218	154	109	77.1	54.6	38.7	27.4	19.5	13.8
85 mm	790	559	395	280	198	140	99	70.1	49.7	35.2	25	17.7
90 mm	886	627	443	313	222	157	111	78.6	55.7	39.4	28	19.9
105 mm	1210	853	603	427	302	213	151	107	75.7	53.6	38	27
135 mm	1990	1410	997	705	499	353	250	177	125	88.5	62.7	44.5
150 mm	2460	1740	1230	870	616	435	308	218	154	109	77.4	54.9
200 mm	4370	3090	2190	1550	1090	774	547	387	274	194	137	97.3
300 mm	9840	6960	4920	3480	2460	1740	1230	871	616	436	309	218
400 mm	17500	12400	8750	6190	4380	3090	2190	1550	1090	774	548	388

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in feet) for sensor 24 x 16 mm, Crop Factor 1.5x, DoF CoC 0.02 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	1.49	1.05	0.75	0.53	0.38	0.27	0.19	0.14	0.1	0.075	0.056	0.042
4 mm	2.64	1.87	1.33	0.94	0.67	0.48	0.34	0.25	0.18	0.13	0.095	0.071
5 mm	4.12	2.92	2.07	1.47	1.04	0.74	0.53	0.38	0.27	0.2	0.14	0.11
6 mm	5.92	4.19	2.97	2.11	1.5	1.06	0.76	0.54	0.39	0.28	0.2	0.15
7 mm	8.06	5.71	4.04	2.86	2.03	1.44	1.03	0.73	0.53	0.38	0.27	0.2
8 mm	10.5	7.45	5.27	3.74	2.65	1.88	1.34	0.95	0.68	0.49	0.35	0.26
9 mm	13.3	9.42	6.67	4.73	3.35	2.38	1.69	1.2	0.86	0.62	0.44	0.32
10 mm	16.4	11.6	8.23	5.83	4.13	2.93	2.08	1.48	1.06	0.76	0.55	0.4
11 mm	19.9	14.1	9.96	7.05	5	3.54	2.52	1.79	1.28	0.91	0.66	0.47
12 mm	23.7	16.7	11.8	8.39	5.94	4.21	2.99	2.13	1.52	1.08	0.78	0.56
14 mm	32.2	22.8	16.1	11.4	8.08	5.73	4.06	2.89	2.06	1.47	1.05	0.76
15 mm	37	26.1	18.5	13.1	9.28	6.57	4.66	3.31	2.36	1.68	1.2	0.86
16 mm	42	29.7	21	14.9	10.5	7.48	5.3	3.76	2.68	1.91	1.36	0.98
17 mm	47.5	33.6	23.8	16.8	11.9	8.44	5.98	4.25	3.02	2.15	1.54	1.1
18 mm	53.2	37.6	26.6	18.8	13.3	9.45	6.7	4.76	3.38	2.41	1.72	1.23
19 mm	59.3	41.9	29.7	21	14.9	10.5	7.46	5.3	3.76	2.68	1.91	1.37
20 mm	65.7	46.5	32.9	23.3	16.5	11.7	8.27	5.86	4.17	2.97	2.12	1.52
21 mm	72.4	51.2	36.2	25.6	18.2	12.9	9.11	6.46	4.59	3.27	2.33	1.67
24 mm	94.6	66.9	47.3	33.5	23.7	16.8	11.9	8.43	5.98	4.25	3.03	2.17
25 mm	103	72.6	51.3	36.3	25.7	18.2	12.9	9.14	6.49	4.61	3.29	2.35
28 mm	129	91	64.4	45.6	32.2	22.8	16.2	11.5	8.13	5.77	4.11	2.93
35 mm	201	142	101	71.2	50.3	35.6	25.2	17.9	12.7	8.99	6.39	4.55
40 mm	263	186	131	92.9	65.7	46.5	32.9	23.3	16.5	11.7	8.33	5.93
45 mm	332	235	166	118	83.2	58.9	41.7	29.5	20.9	14.8	10.5	7.49
50 mm	410	290	205	145	103	72.6	51.4	36.4	25.8	18.3	13	9.22
55 mm	496	351	248	176	124	87.9	62.2	44	31.2	22.1	15.7	11.1
58 mm	552	390	276	195	138	97.7	69.2	49	34.7	24.6	17.4	12.4
60 mm	591	418	295	209	148	105	74	52.4	37.1	26.3	18.6	13.2
70 mm	804	569	402	284	201	142	101	71.3	50.5	35.7	25.3	18
75 mm	923	653	462	326	231	163	116	81.8	57.9	41	29.1	20.6
85 mm	1190	838	593	419	297	210	148	105	74.3	52.6	37.3	26.5
90 mm	1330	940	665	470	332	235	166	118	83.3	59	41.8	29.7
105 mm	1810	1280	904	640	452	320	226	160	113	80.3	56.9	40.3
135 mm	2990	2110	1500	1060	748	529	374	265	187	133	93.9	66.5
150 mm	3690	2610	1850	1310	923	653	462	327	231	164	116	82
200 mm	6560	4640	3280	2320	1640	1160	821	581	411	291	206	146
300 mm	14800	10400	7380	5220	3690	2610	1850	1310	924	653	462	327
400 mm	26200	18600	13100	9280	6560	4640	3280	2320	1640	1160	821	581

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in feet) for sensor 22.5 x 15 mm, Crop Factor 1.6x, DoF CoC 0.0188 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	1.58	1.12	0.8	0.57	0.4	0.29	0.21	0.15	0.11	0.079	0.059	0.045
4 mm	2.81	1.99	1.41	1	0.71	0.51	0.36	0.26	0.19	0.14	0.1	0.075
5 mm	4.39	3.11	2.2	1.56	1.11	0.79	0.56	0.4	0.29	0.21	0.15	0.11
6 mm	6.32	4.47	3.17	2.25	1.59	1.13	0.81	0.58	0.41	0.3	0.22	0.16
7 mm	8.6	6.08	4.31	3.05	2.17	1.54	1.09	0.78	0.56	0.4	0.29	0.21
8 mm	11.2	7.94	5.62	3.98	2.83	2.01	1.43	1.02	0.73	0.52	0.38	0.27
9 mm	14.2	10	7.12	5.04	3.57	2.53	1.8	1.28	0.92	0.66	0.47	0.34
10 mm	17.5	12.4	8.78	6.22	4.41	3.13	2.22	1.58	1.13	0.81	0.58	0.42
11 mm	21.2	15	10.6	7.52	5.33	3.78	2.68	1.91	1.36	0.97	0.7	0.5
12 mm	25.2	17.9	12.6	8.95	6.34	4.49	3.19	2.27	1.61	1.15	0.83	0.6
14 mm	34.3	24.3	17.2	12.2	8.62	6.11	4.33	3.08	2.19	1.56	1.12	0.8
15 mm	39.4	27.9	19.7	14	9.89	7.01	4.97	3.53	2.51	1.79	1.28	0.92
16 mm	44.8	31.7	22.4	15.9	11.2	7.97	5.65	4.01	2.85	2.03	1.45	1.04
17 mm	50.6	35.8	25.3	17.9	12.7	8.99	6.38	4.52	3.22	2.29	1.64	1.17
18 mm	56.7	40.1	28.4	20.1	14.2	10.1	7.14	5.07	3.6	2.56	1.83	1.31
19 mm	63.2	44.7	31.6	22.4	15.9	11.2	7.96	5.64	4.01	2.85	2.04	1.46
20 mm	70	49.5	35.1	24.8	17.6	12.4	8.81	6.25	4.44	3.16	2.25	1.61
21 mm	77.2	54.6	38.6	27.3	19.4	13.7	9.71	6.89	4.89	3.48	2.48	1.77
24 mm	101	71.3	50.5	35.7	25.3	17.9	12.7	8.99	6.38	4.53	3.23	2.31
25 mm	109	77.4	54.8	38.7	27.4	19.4	13.8	9.75	6.92	4.91	3.5	2.5
28 mm	137	97.1	68.7	48.6	34.4	24.3	17.2	12.2	8.66	6.15	4.38	3.12
35 mm	214	152	107	75.9	53.7	38	26.9	19.1	13.5	9.59	6.81	4.85
40 mm	280	198	140	99.1	70.1	49.6	35.1	24.9	17.6	12.5	8.88	6.32
45 mm	354	251	177	125	88.7	62.8	44.4	31.5	22.3	15.8	11.2	7.98
50 mm	438	309	219	155	110	77.5	54.8	38.8	27.5	19.5	13.8	9.83
55 mm	529	374	265	187	132	93.7	66.3	47	33.3	23.6	16.7	11.9
58 mm	589	416	294	208	147	104	73.8	52.2	37	26.2	18.6	13.2
60 mm	630	446	315	223	158	112	78.9	55.9	39.6	28	19.9	14.1
70 mm	857	606	429	303	215	152	107	76	53.8	38.1	27	19.2
75 mm	984	696	492	348	246	174	123	87.2	61.8	43.7	31	22
85 mm	1260	894	632	447	316	224	158	112	79.3	56.1	39.8	28.2
90 mm	1420	1000	709	501	355	251	177	126	88.9	62.9	44.6	31.6
105 mm	1930	1360	965	682	483	341	241	171	121	85.6	60.6	43
135 mm	3190	2260	1590	1130	798	564	399	282	200	141	100	70.9
150 mm	3940	2780	1970	1390	985	696	493	348	247	174	124	87.5
200 mm	7000	4950	3500	2470	1750	1240	875	619	438	310	219	155
300 mm	15700	11100	7870	5570	3940	2780	1970	1390	985	697	493	349
400 mm	28000	19800	14000	9900	7000	4950	3500	2480	1750	1240	876	620

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in feet) for sensor 17.3 x 13 mm, Crop Factor 2x, DoF CoC 0.015 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	1.98	1.4	0.99	0.71	0.5	0.36	0.26	0.18	0.13	0.097	0.071	0.053
4 mm	3.51	2.49	1.76	1.25	0.89	0.63	0.45	0.32	0.23	0.17	0.12	0.09
5 mm	5.48	3.88	2.75	1.95	1.38	0.98	0.7	0.5	0.36	0.26	0.19	0.14
6 mm	7.89	5.59	3.96	2.8	1.99	1.41	1	0.72	0.51	0.37	0.27	0.19
7 mm	10.7	7.6	5.38	3.81	2.7	1.92	1.36	0.97	0.69	0.5	0.36	0.26
8 mm	14	9.92	7.02	4.97	3.53	2.5	1.78	1.26	0.9	0.64	0.46	0.34
9 mm	17.7	12.6	8.89	6.29	4.46	3.16	2.24	1.6	1.14	0.81	0.58	0.42
10 mm	21.9	15.5	11	7.76	5.5	3.9	2.77	1.97	1.4	1	0.72	0.52
11 mm	26.5	18.7	13.3	9.39	6.65	4.71	3.34	2.37	1.69	1.21	0.86	0.62
12 mm	31.5	22.3	15.8	11.2	7.91	5.61	3.98	2.82	2.01	1.43	1.02	0.74
14 mm	42.9	30.4	21.5	15.2	10.8	7.62	5.4	3.83	2.72	1.94	1.39	0.99
15 mm	49.3	34.8	24.7	17.4	12.4	8.75	6.2	4.4	3.12	2.22	1.59	1.14
16 mm	56	39.6	28	19.8	14	9.95	7.05	5	3.55	2.53	1.8	1.29
17 mm	63.3	44.7	31.7	22.4	15.9	11.2	7.96	5.64	4.01	2.85	2.03	1.45
18 mm	70.9	50.2	35.5	25.1	17.8	12.6	8.92	6.32	4.49	3.19	2.27	1.62
19 mm	79	55.9	39.5	28	19.8	14	9.93	7.04	5	3.55	2.53	1.81
20 mm	87.5	61.9	43.8	31	21.9	15.5	11	7.8	5.53	3.93	2.8	2
21 mm	96.5	68.3	48.3	34.2	24.2	17.1	12.1	8.59	6.1	4.33	3.08	2.2
24 mm	126	89.1	63.1	44.6	31.6	22.3	15.8	11.2	7.95	5.65	4.02	2.86
25 mm	137	96.7	68.4	48.4	34.3	24.2	17.2	12.2	8.62	6.12	4.35	3.1
28 mm	172	121	85.8	60.7	43	30.4	21.5	15.2	10.8	7.67	5.45	3.88
35 mm	268	190	134	94.8	67.1	47.5	33.6	23.8	16.9	12	8.49	6.03
40 mm	350	248	175	124	87.6	62	43.9	31.1	22	15.6	11.1	7.86
45 mm	443	313	222	157	111	78.4	55.5	39.3	27.8	19.7	14	9.93
50 mm	547	387	274	193	137	96.8	68.5	48.5	34.3	24.3	17.2	12.2
55 mm	662	468	331	234	166	117	82.9	58.7	41.5	29.4	20.9	14.8
58 mm	736	520	368	260	184	130	92.1	65.2	46.2	32.7	23.2	16.4
60 mm	787	557	394	279	197	139	98.6	69.8	49.4	35	24.8	17.6
70 mm	1070	758	536	379	268	190	134	94.9	67.2	47.6	33.7	23.9
75 mm	1230	870	615	435	308	218	154	109	77.1	54.6	38.7	27.4
85 mm	1580	1120	790	559	395	280	198	140	99	70.1	49.7	35.2
90 mm	1770	1250	886	627	443	313	222	157	111	78.6	55.7	39.4
105 mm	2410	1710	1210	853	603	427	302	213	151	107	75.7	53.6
135 mm	3990	2820	1990	1410	997	705	499	353	250	177	125	88.5
150 mm	4920	3480	2460	1740	1230	870	616	435	308	218	154	109
200 mm	8750	6190	4370	3090	2190	1550	1090	774	547	387	274	194
300 mm	19700	13900	9840	6960	4920	3480	2460	1740	1230	871	616	436
400 mm	35000	24700	17500	12400	8750	6190	4380	3090	2190	1550	1090	774

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in feet) for sensor 13.3 x 8.86 mm, Crop Factor 2.71x, DoF CoC 0.0111 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	2.68	1.9	1.34	0.95	0.68	0.48	0.34	0.25	0.18	0.13	0.093	0.069
4 mm	4.75	3.37	2.38	1.69	1.2	0.85	0.61	0.43	0.31	0.22	0.16	0.12
5 mm	7.42	5.25	3.72	2.64	1.87	1.33	0.94	0.67	0.48	0.34	0.25	0.18
6 mm	10.7	7.56	5.35	3.79	2.69	1.91	1.35	0.96	0.69	0.49	0.35	0.26
7 mm	14.5	10.3	7.28	5.16	3.65	2.59	1.84	1.31	0.93	0.66	0.48	0.34
8 mm	19	13.4	9.51	6.73	4.77	3.38	2.4	1.7	1.21	0.86	0.62	0.45
9 mm	24	17	12	8.52	6.03	4.27	3.03	2.15	1.53	1.09	0.78	0.56
10 mm	29.7	21	14.8	10.5	7.44	5.27	3.74	2.65	1.88	1.34	0.96	0.69
11 mm	35.9	25.4	18	12.7	9	6.37	4.52	3.21	2.28	1.62	1.16	0.83
12 mm	42.7	30.2	21.4	15.1	10.7	7.58	5.37	3.81	2.71	1.93	1.37	0.98
14 mm	58.1	41.1	29.1	20.6	14.6	10.3	7.31	5.18	3.68	2.61	1.86	1.33
15 mm	66.7	47.2	33.4	23.6	16.7	11.8	8.38	5.94	4.22	3	2.13	1.52
16 mm	75.9	53.7	38	26.9	19	13.5	9.53	6.76	4.79	3.41	2.42	1.73
17 mm	85.7	60.6	42.9	30.3	21.5	15.2	10.8	7.63	5.41	3.84	2.73	1.95
18 mm	96.1	67.9	48.1	34	24.1	17	12.1	8.55	6.06	4.3	3.06	2.18
19 mm	107	75.7	53.5	37.9	26.8	19	13.4	9.52	6.75	4.79	3.41	2.43
20 mm	119	83.9	59.3	42	29.7	21	14.9	10.5	7.47	5.3	3.77	2.68
21 mm	131	92.5	65.4	46.3	32.7	23.2	16.4	11.6	8.24	5.84	4.15	2.96
24 mm	171	121	85.4	60.4	42.7	30.3	21.4	15.2	10.7	7.62	5.41	3.85
25 mm	185	131	92.7	65.6	46.4	32.8	23.2	16.5	11.7	8.27	5.87	4.17
28 mm	232	164	116	82.2	58.2	41.2	29.1	20.6	14.6	10.4	7.35	5.23
35 mm	363	257	182	128	90.9	64.3	45.5	32.2	22.8	16.2	11.5	8.14
40 mm	474	335	237	168	119	83.9	59.4	42	29.8	21.1	14.9	10.6
45 mm	600	424	300	212	150	106	75.2	53.2	37.7	26.7	18.9	13.4
50 mm	741	524	371	262	185	131	92.8	65.6	46.5	32.9	23.3	16.5
55 mm	897	634	448	317	224	159	112	79.4	56.2	39.8	28.2	20
58 mm	997	705	499	353	249	176	125	88.3	62.5	44.2	31.3	22.2
60 mm	1070	755	534	377	267	189	134	94.5	66.9	47.3	33.5	23.8
70 mm	1450	1030	726	514	363	257	182	129	91	64.4	45.6	32.3
75 mm	1670	1180	834	590	417	295	209	148	104	73.9	52.3	37.1
85 mm	2140	1510	1070	757	536	379	268	190	134	94.9	67.2	47.6
90 mm	2400	1700	1200	849	600	425	300	212	150	106	75.3	53.3
105 mm	3270	2310	1630	1160	817	578	409	289	205	145	102	72.5
135 mm	5400	3820	2700	1910	1350	955	676	478	338	239	169	120
150 mm	6670	4710	3330	2360	1670	1180	834	590	417	295	209	148
200 mm	11900	8380	5930	4190	2960	2100	1480	1050	741	524	371	263
300 mm	26700	18900	13300	9430	6670	4720	3330	2360	1670	1180	834	590
400 mm	47400	33500	23700	16800	11900	8380	5930	4190	2960	2100	1480	1050

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in meters) for sensor 36 x 24 mm, Crop Factor 1x, DoF CoC 0.03 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	0.3	0.22	0.15	0.11	0.078	0.056	0.04	0.03	0.022	0.016	0.012	0.0096
4 mm	0.54	0.38	0.27	0.19	0.14	0.098	0.071	0.051	0.037	0.028	0.021	0.016
5 mm	0.84	0.59	0.42	0.3	0.21	0.15	0.11	0.079	0.057	0.042	0.031	0.023
6 mm	1.21	0.85	0.61	0.43	0.31	0.22	0.16	0.11	0.081	0.059	0.043	0.033
7 mm	1.64	1.16	0.82	0.58	0.42	0.3	0.21	0.15	0.11	0.079	0.058	0.043
8 mm	2.14	1.52	1.07	0.76	0.54	0.39	0.27	0.2	0.14	0.1	0.075	0.055
9 mm	2.71	1.92	1.36	0.96	0.68	0.49	0.35	0.25	0.18	0.13	0.093	0.069
10 mm	3.34	2.37	1.68	1.19	0.84	0.6	0.43	0.3	0.22	0.16	0.11	0.084
11 mm	4.04	2.86	2.03	1.44	1.02	0.72	0.52	0.37	0.26	0.19	0.14	0.1
12 mm	4.81	3.41	2.41	1.71	1.21	0.86	0.61	0.44	0.31	0.22	0.16	0.12
14 mm	6.55	4.63	3.28	2.32	1.65	1.17	0.83	0.59	0.42	0.3	0.22	0.16
15 mm	7.51	5.32	3.76	2.67	1.89	1.34	0.95	0.68	0.48	0.35	0.25	0.18
16 mm	8.55	6.05	4.28	3.03	2.15	1.52	1.08	0.77	0.55	0.39	0.28	0.2
17 mm	9.65	6.83	4.83	3.42	2.42	1.72	1.22	0.87	0.62	0.44	0.32	0.23
18 mm	10.8	7.65	5.42	3.84	2.72	1.93	1.37	0.97	0.69	0.5	0.36	0.26
19 mm	12.1	8.53	6.03	4.27	3.03	2.15	1.52	1.08	0.77	0.55	0.39	0.28
20 mm	13.4	9.45	6.69	4.73	3.35	2.38	1.69	1.2	0.85	0.61	0.44	0.31
21 mm	14.7	10.4	7.37	5.22	3.7	2.62	1.86	1.32	0.94	0.67	0.48	0.35
24 mm	19.2	13.6	9.62	6.81	4.82	3.42	2.42	1.72	1.22	0.87	0.62	0.45
25 mm	20.9	14.8	10.4	7.39	5.23	3.71	2.63	1.87	1.33	0.95	0.68	0.49
28 mm	26.2	18.5	13.1	9.27	6.56	4.65	3.29	2.34	1.66	1.18	0.84	0.61
35 mm	40.9	28.9	20.4	14.5	10.2	7.25	5.14	3.64	2.59	1.84	1.31	0.94
40 mm	53.4	37.7	26.7	18.9	13.4	9.47	6.71	4.75	3.37	2.4	1.71	1.22
45 mm	67.5	47.8	33.8	23.9	16.9	12	8.48	6.01	4.26	3.03	2.15	1.54
50 mm	83.4	59	41.7	29.5	20.9	14.8	10.5	7.41	5.26	3.73	2.65	1.89
55 mm	101	71.3	50.5	35.7	25.3	17.9	12.7	8.97	6.36	4.51	3.21	2.28
58 mm	112	79.3	56.1	39.7	28.1	19.9	14.1	9.97	7.07	5.01	3.56	2.54
60 mm	120	84.9	60.1	42.5	30.1	21.3	15.1	10.7	7.56	5.36	3.81	2.71
70 mm	163	116	81.7	57.8	40.9	28.9	20.5	14.5	10.3	7.29	5.17	3.68
75 mm	188	133	93.8	66.4	46.9	33.2	23.5	16.6	11.8	8.36	5.93	4.22
85 mm	241	170	120	85.2	60.3	42.7	30.2	21.4	15.1	10.7	7.61	5.41
90 mm	270	191	135	95.5	67.6	47.8	33.8	24	17	12	8.53	6.06
105 mm	368	260	184	130	92	65.1	46	32.6	23.1	16.3	11.6	8.22
135 mm	608	430	304	215	152	108	76.1	53.8	38.1	27	19.1	13.6
150 mm	750	530	375	265	188	133	93.9	66.4	47	33.3	23.6	16.7
200 mm	1330	943	667	472	333	236	167	118	83.5	59.1	41.9	29.7
300 mm	3000	2120	1500	1060	750	531	375	265	188	133	94	66.6
400 mm	5330	3770	2670	1890	1330	943	667	472	334	236	167	118

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in meters) for sensor 24 x 16 mm, Crop Factor 1.5x, DoF CoC 0.02 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	0.45	0.32	0.23	0.16	0.12	0.083	0.059	0.043	0.031	0.023	0.017	0.013
4 mm	0.8	0.57	0.4	0.29	0.2	0.15	0.1	0.075	0.054	0.039	0.029	0.022
5 mm	1.25	0.89	0.63	0.45	0.32	0.23	0.16	0.12	0.083	0.06	0.044	0.033
6 mm	1.81	1.28	0.91	0.64	0.46	0.32	0.23	0.17	0.12	0.086	0.062	0.046
7 mm	2.46	1.74	1.23	0.87	0.62	0.44	0.31	0.22	0.16	0.12	0.084	0.061
8 mm	3.21	2.27	1.61	1.14	0.81	0.57	0.41	0.29	0.21	0.15	0.11	0.079
9 mm	4.06	2.87	2.03	1.44	1.02	0.72	0.52	0.37	0.26	0.19	0.14	0.098
10 mm	5.01	3.54	2.51	1.78	1.26	0.89	0.63	0.45	0.32	0.23	0.17	0.12
11 mm	6.06	4.29	3.04	2.15	1.52	1.08	0.77	0.55	0.39	0.28	0.2	0.14
12 mm	7.21	5.1	3.61	2.56	1.81	1.28	0.91	0.65	0.46	0.33	0.24	0.17
14 mm	9.81	6.94	4.91	3.48	2.46	1.75	1.24	0.88	0.63	0.45	0.32	0.23
15 mm	11.3	7.97	5.64	3.99	2.83	2	1.42	1.01	0.72	0.51	0.37	0.26
16 mm	12.8	9.07	6.42	4.54	3.22	2.28	1.62	1.15	0.82	0.58	0.42	0.3
17 mm	14.5	10.2	7.24	5.13	3.63	2.57	1.82	1.29	0.92	0.66	0.47	0.34
18 mm	16.2	11.5	8.12	5.74	4.07	2.88	2.04	1.45	1.03	0.73	0.52	0.38
19 mm	18.1	12.8	9.04	6.4	4.53	3.21	2.27	1.61	1.15	0.82	0.58	0.42
20 mm	20	14.2	10	7.09	5.02	3.55	2.52	1.79	1.27	0.9	0.64	0.46
21 mm	22.1	15.6	11	7.82	5.53	3.92	2.78	1.97	1.4	1	0.71	0.51
24 mm	28.8	20.4	14.4	10.2	7.22	5.11	3.62	2.57	1.82	1.3	0.92	0.66
25 mm	31.3	22.1	15.6	11.1	7.84	5.55	3.93	2.79	1.98	1.41	1	0.72
28 mm	39.2	27.7	19.6	13.9	9.83	6.96	4.93	3.49	2.48	1.76	1.25	0.89
35 mm	61.3	43.3	30.7	21.7	15.3	10.9	7.69	5.45	3.86	2.74	1.95	1.39
40 mm	80	56.6	40	28.3	20	14.2	10	7.11	5.04	3.57	2.54	1.81
45 mm	101	71.6	50.7	35.8	25.4	17.9	12.7	8.99	6.37	4.52	3.21	2.28
50 mm	125	88.4	62.5	44.2	31.3	22.1	15.7	11.1	7.86	5.57	3.96	2.81
55 mm	151	107	75.7	53.5	37.9	26.8	19	13.4	9.51	6.74	4.78	3.4
58 mm	168	119	84.1	59.5	42.1	29.8	21.1	14.9	10.6	7.49	5.31	3.77
60 mm	180	127	90	63.7	45.1	31.9	22.6	16	11.3	8.01	5.68	4.04
70 mm	245	173	123	86.7	61.3	43.4	30.7	21.7	15.4	10.9	7.73	5.48
75 mm	281	199	141	99.5	70.4	49.8	35.2	24.9	17.7	12.5	8.86	6.29
85 mm	361	255	181	128	90.4	63.9	45.2	32	22.7	16	11.4	8.07
90 mm	405	286	203	143	101	71.7	50.7	35.9	25.4	18	12.7	9.04
105 mm	551	390	276	195	138	97.5	69	48.8	34.6	24.5	17.3	12.3
135 mm	911	644	456	322	228	161	114	80.7	57.1	40.4	28.6	20.3
150 mm	1120	796	563	398	281	199	141	99.6	70.5	49.9	35.3	25
200 mm	2000	1410	1000	707	500	354	250	177	125	88.6	62.7	44.4
300 mm	4500	3180	2250	1590	1130	796	563	398	282	199	141	99.7
400 mm	8000	5660	4000	2830	2000	1410	1000	707	500	354	250	177

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in meters) for sensor 22.5 x 15 mm, Crop Factor 1.6x, DoF CoC 0.0188 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	0.48	0.34	0.24	0.17	0.12	0.088	0.063	0.045	0.033	0.024	0.018	0.014
4 mm	0.86	0.61	0.43	0.31	0.22	0.15	0.11	0.079	0.057	0.042	0.031	0.023
5 mm	1.34	0.95	0.67	0.48	0.34	0.24	0.17	0.12	0.088	0.064	0.047	0.034
6 mm	1.93	1.36	0.97	0.68	0.49	0.35	0.25	0.18	0.13	0.091	0.066	0.048
7 mm	2.62	1.85	1.31	0.93	0.66	0.47	0.33	0.24	0.17	0.12	0.089	0.065
8 mm	3.42	2.42	1.71	1.21	0.86	0.61	0.43	0.31	0.22	0.16	0.11	0.083
9 mm	4.33	3.06	2.17	1.54	1.09	0.77	0.55	0.39	0.28	0.2	0.14	0.1
10 mm	5.34	3.78	2.68	1.9	1.34	0.95	0.68	0.48	0.34	0.25	0.18	0.13
11 mm	6.46	4.57	3.24	2.29	1.62	1.15	0.82	0.58	0.41	0.3	0.21	0.15
12 mm	7.69	5.44	3.85	2.73	1.93	1.37	0.97	0.69	0.49	0.35	0.25	0.18
14 mm	10.5	7.4	5.24	3.71	2.63	1.86	1.32	0.94	0.67	0.48	0.34	0.24
15 mm	12	8.5	6.01	4.26	3.01	2.14	1.51	1.08	0.76	0.55	0.39	0.28
16 mm	13.7	9.67	6.84	4.84	3.43	2.43	1.72	1.22	0.87	0.62	0.44	0.32
17 mm	15.4	10.9	7.72	5.47	3.87	2.74	1.94	1.38	0.98	0.7	0.5	0.36
18 mm	17.3	12.2	8.66	6.13	4.34	3.07	2.18	1.55	1.1	0.78	0.56	0.4
19 mm	19.3	13.6	9.64	6.83	4.83	3.42	2.43	1.72	1.22	0.87	0.62	0.44
20 mm	21.4	15.1	10.7	7.56	5.35	3.79	2.69	1.91	1.35	0.96	0.69	0.49
21 mm	23.5	16.6	11.8	8.34	5.9	4.18	2.96	2.1	1.49	1.06	0.76	0.54
24 mm	30.7	21.7	15.4	10.9	7.7	5.45	3.86	2.74	1.94	1.38	0.98	0.7
25 mm	33.4	23.6	16.7	11.8	8.36	5.92	4.19	2.97	2.11	1.5	1.07	0.76
28 mm	41.8	29.6	20.9	14.8	10.5	7.42	5.25	3.72	2.64	1.88	1.33	0.95
35 mm	65.4	46.2	32.7	23.1	16.4	11.6	8.2	5.81	4.12	2.92	2.08	1.48
40 mm	85.4	60.4	42.7	30.2	21.4	15.1	10.7	7.58	5.37	3.81	2.71	1.93
45 mm	108	76.4	54	38.2	27	19.1	13.5	9.59	6.79	4.82	3.42	2.43
50 mm	133	94.3	66.7	47.2	33.4	23.6	16.7	11.8	8.38	5.94	4.22	3
55 mm	161	114	80.7	57.1	40.4	28.6	20.2	14.3	10.1	7.18	5.1	3.62
58 mm	179	127	89.8	63.5	44.9	31.8	22.5	15.9	11.3	7.99	5.66	4.02
60 mm	192	136	96	67.9	48.1	34	24.1	17	12.1	8.54	6.06	4.3
70 mm	261	185	131	92.5	65.4	46.3	32.7	23.2	16.4	11.6	8.24	5.84
75 mm	300	212	150	106	75.1	53.1	37.6	26.6	18.8	13.3	9.45	6.7
85 mm	385	273	193	136	96.4	68.2	48.2	34.1	24.2	17.1	12.1	8.6
90 mm	432	306	216	153	108	76.4	54.1	38.3	27.1	19.2	13.6	9.63
105 mm	588	416	294	208	147	104	73.6	52.1	36.8	26.1	18.5	13.1
135 mm	972	687	486	344	243	172	122	86	60.9	43.1	30.5	21.6
150 mm	1200	849	600	424	300	212	150	106	75.1	53.2	37.6	26.7
200 mm	2130	1510	1070	754	533	377	267	189	134	94.5	66.9	47.3
300 mm	4800	3390	2400	1700	1200	849	600	424	300	212	150	106
400 mm	8530	6030	4270	3020	2130	1510	1070	755	534	377	267	189

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in meters) for sensor 17.3 x 13 mm, Crop Factor 2x, DoF CoC 0.015 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	0.6	0.43	0.3	0.22	0.15	0.11	0.078	0.056	0.04	0.03	0.022	0.016
4 mm	1.07	0.76	0.54	0.38	0.27	0.19	0.14	0.098	0.071	0.051	0.037	0.028
5 mm	1.67	1.18	0.84	0.59	0.42	0.3	0.21	0.15	0.11	0.079	0.057	0.042
6 mm	2.41	1.7	1.21	0.85	0.61	0.43	0.31	0.22	0.16	0.11	0.081	0.059
7 mm	3.27	2.32	1.64	1.16	0.82	0.58	0.42	0.3	0.21	0.15	0.11	0.079
8 mm	4.27	3.02	2.14	1.52	1.07	0.76	0.54	0.39	0.27	0.2	0.14	0.1
9 mm	5.41	3.83	2.71	1.92	1.36	0.96	0.68	0.49	0.35	0.25	0.18	0.13
10 mm	6.68	4.72	3.34	2.37	1.68	1.19	0.84	0.6	0.43	0.3	0.22	0.16
11 mm	8.08	5.71	4.04	2.86	2.03	1.44	1.02	0.72	0.52	0.37	0.26	0.19
12 mm	9.61	6.8	4.81	3.41	2.41	1.71	1.21	0.86	0.61	0.44	0.31	0.22
14 mm	13.1	9.25	6.55	4.63	3.28	2.32	1.65	1.17	0.83	0.59	0.42	0.3
15 mm	15	10.6	7.51	5.32	3.76	2.67	1.89	1.34	0.95	0.68	0.48	0.35
16 mm	17.1	12.1	8.55	6.05	4.28	3.03	2.15	1.52	1.08	0.77	0.55	0.39
17 mm	19.3	13.6	9.65	6.83	4.83	3.42	2.42	1.72	1.22	0.87	0.62	0.44
18 mm	21.6	15.3	10.8	7.65	5.42	3.84	2.72	1.93	1.37	0.97	0.69	0.5
19 mm	24.1	17	12.1	8.53	6.03	4.27	3.03	2.15	1.52	1.08	0.77	0.55
20 mm	26.7	18.9	13.4	9.45	6.69	4.73	3.35	2.38	1.69	1.2	0.85	0.61
21 mm	29.4	20.8	14.7	10.4	7.37	5.22	3.7	2.62	1.86	1.32	0.94	0.67
24 mm	38.4	27.2	19.2	13.6	9.62	6.81	4.82	3.42	2.42	1.72	1.22	0.87
25 mm	41.7	29.5	20.9	14.8	10.4	7.39	5.23	3.71	2.63	1.87	1.33	0.95
28 mm	52.3	37	26.2	18.5	13.1	9.27	6.56	4.65	3.29	2.34	1.66	1.18
35 mm	81.7	57.8	40.9	28.9	20.4	14.5	10.2	7.25	5.14	3.64	2.59	1.84
40 mm	107	75.5	53.4	37.7	26.7	18.9	13.4	9.47	6.71	4.75	3.37	2.4
45 mm	135	95.5	67.5	47.8	33.8	23.9	16.9	12	8.48	6.01	4.26	3.03
50 mm	167	118	83.4	59	41.7	29.5	20.9	14.8	10.5	7.41	5.26	3.73
55 mm	202	143	101	71.3	50.5	35.7	25.3	17.9	12.7	8.97	6.36	4.51
58 mm	224	159	112	79.3	56.1	39.7	28.1	19.9	14.1	9.97	7.07	5.01
60 mm	240	170	120	84.9	60.1	42.5	30.1	21.3	15.1	10.7	7.56	5.36
70 mm	327	231	163	116	81.7	57.8	40.9	28.9	20.5	14.5	10.3	7.29
75 mm	375	265	188	133	93.8	66.4	46.9	33.2	23.5	16.6	11.8	8.36
85 mm	482	341	241	170	120	85.2	60.3	42.7	30.2	21.4	15.1	10.7
90 mm	540	382	270	191	135	95.5	67.6	47.8	33.8	24	17	12
105 mm	735	520	368	260	184	130	92	65.1	46	32.6	23.1	16.3
135 mm	1210	859	608	430	304	215	152	108	76.1	53.8	38.1	27
150 mm	1500	1060	750	530	375	265	188	133	93.9	66.4	47	33.3
200 mm	2670	1890	1330	943	667	472	333	236	167	118	83.5	59.1
300 mm	6000	4240	3000	2120	1500	1060	750	531	375	265	188	133
400 mm	10700	7540	5330	3770	2670	1890	1330	943	667	472	334	236

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)

Hyperfocal Distance Chart

(in meters) for sensor 13.3 x 8.86 mm, Crop Factor 2.71x, DoF CoC 0.0111 mm

Lens	f/1	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22	f/32	f/64
3 mm	0.82	0.58	0.41	0.29	0.21	0.15	0.1	0.075	0.054	0.039	0.028	0.021
4 mm	1.45	1.03	0.73	0.51	0.37	0.26	0.18	0.13	0.094	0.068	0.049	0.036
5 mm	2.26	1.6	1.13	0.8	0.57	0.4	0.29	0.2	0.15	0.1	0.076	0.055
6 mm	3.26	2.31	1.63	1.16	0.82	0.58	0.41	0.29	0.21	0.15	0.11	0.078
7 mm	4.43	3.14	2.22	1.57	1.11	0.79	0.56	0.4	0.28	0.2	0.15	0.1
8 mm	5.79	4.1	2.9	2.05	1.45	1.03	0.73	0.52	0.37	0.26	0.19	0.14
9 mm	7.32	5.18	3.67	2.6	1.84	1.3	0.92	0.66	0.47	0.33	0.24	0.17
10 mm	9.04	6.4	4.53	3.2	2.27	1.61	1.14	0.81	0.57	0.41	0.29	0.21
11 mm	10.9	7.74	5.48	3.87	2.74	1.94	1.38	0.98	0.69	0.49	0.35	0.25
12 mm	13	9.21	6.52	4.61	3.26	2.31	1.64	1.16	0.82	0.59	0.42	0.3
14 mm	17.7	12.5	8.87	6.27	4.44	3.14	2.23	1.58	1.12	0.8	0.57	0.41
15 mm	20.3	14.4	10.2	7.2	5.1	3.61	2.56	1.81	1.29	0.91	0.65	0.46
16 mm	23.1	16.4	11.6	8.19	5.8	4.1	2.91	2.06	1.46	1.04	0.74	0.53
17 mm	26.1	18.5	13.1	9.25	6.54	4.63	3.28	2.32	1.65	1.17	0.83	0.59
18 mm	29.3	20.7	14.6	10.4	7.33	5.19	3.68	2.6	1.85	1.31	0.93	0.66
19 mm	32.6	23.1	16.3	11.5	8.17	5.78	4.09	2.9	2.06	1.46	1.04	0.74
20 mm	36.1	25.6	18.1	12.8	9.05	6.41	4.54	3.21	2.28	1.62	1.15	0.82
21 mm	39.9	28.2	19.9	14.1	9.98	7.06	5	3.54	2.51	1.78	1.27	0.9
24 mm	52	36.8	26	18.4	13	9.22	6.53	4.62	3.28	2.32	1.65	1.17
25 mm	56.5	39.9	28.2	20	14.1	10	7.08	5.01	3.55	2.52	1.79	1.27
28 mm	70.8	50.1	35.4	25.1	17.7	12.5	8.88	6.29	4.45	3.16	2.24	1.59
35 mm	111	78.3	55.4	39.2	27.7	19.6	13.9	9.81	6.95	4.92	3.49	2.48
40 mm	145	102	72.3	51.1	36.2	25.6	18.1	12.8	9.07	6.43	4.56	3.23
45 mm	183	129	91.5	64.7	45.8	32.4	22.9	16.2	11.5	8.13	5.76	4.09
50 mm	226	160	113	79.9	56.5	40	28.3	20	14.2	10	7.11	5.04
55 mm	273	193	137	96.7	68.4	48.4	34.2	24.2	17.1	12.1	8.59	6.09
58 mm	304	215	152	107	76	53.8	38	26.9	19	13.5	9.55	6.77
60 mm	325	230	163	115	81.3	57.5	40.7	28.8	20.4	14.4	10.2	7.24
70 mm	443	313	221	157	111	78.3	55.4	39.2	27.7	19.6	13.9	9.85
75 mm	508	359	254	180	127	89.9	63.6	45	31.8	22.5	16	11.3
85 mm	653	462	326	231	163	115	81.7	57.8	40.9	28.9	20.5	14.5
90 mm	732	517	366	259	183	129	91.5	64.8	45.8	32.4	23	16.3
105 mm	996	704	498	352	249	176	125	88.1	62.3	44.1	31.2	22.1
135 mm	1650	1160	823	582	412	291	206	146	103	72.9	51.6	36.5
150 mm	2030	1440	1020	719	508	359	254	180	127	90	63.7	45.1
200 mm	3610	2550	1810	1280	903	639	452	320	226	160	113	80
300 mm	8130	5750	4060	2870	2030	1440	1020	719	508	360	254	180
400 mm	14500	10200	7230	5110	3610	2560	1810	1280	904	639	452	320

If focused at Infinity, Depth of Field extends back to Hyperfocal

If focused at Hyperfocal, DoF extends from Half of Hyperfocal to Infinity

Shaded cells are when Half of Hyperfocal is less than 7 feet (2.13 meters)