

OPTIMO 42 - 420 A2S

DEPTH-OF-FIELD TABLES
DISTANCE IN METERS

Angénieux®

REFERENCE : 323468 - A

Distance in meters | Confusion circle : 0.025 mm

DEPTH-OF-FIELD TABLES

ZOOM 35 mm → F = 42 - 420 mm

The depths of field tables are provided for information purposes only and are estimated with a circle of confusion of 0.025mm (1/1000inch). The width of the sharpness zone grows proportionally with the focus distance and aperture and it is inversely proportional to the focal length. In practice the depth of field limits can only be defined accurately by performing screen tests in true shooting conditions.

* : data given for information only.

TABLES DE PROFONDEUR DE CHAMP
ZOOM 35 mm → F = 42 - 420 mm

Les tables de profondeur de champ sont fournies à titre indicatif pour un cercle de confusion moyen de 0.025mm (1/1000inch).

La profondeur de champ augmente proportionnellement avec la distance de mise au point ainsi qu'avec le diaphragme et est inversement proportionnelle à la focale.

Dans la pratique, seuls les essais filmés dans des conditions de tournage vous permettront de définir les bornes de cette profondeur de champ avec un maximum de précision.

** : information donnée à titre indicatif*

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		13,269	10,617	7,61	5,491	3,995	2,938	2,191
40 m	Far	∞	∞	∞	∞	∞	∞	∞
	Near	10,092	8,503	6,485	4,899	3,687	2,778	2,108
15 m	Far	∞	∞	∞	∞	∞	∞	∞
	Near	7,212	6,383	5,201	4,153	3,266	2,547	1,984
8 m	Far	19,316	31,187	∞	∞	∞	∞	∞
	Near	5,152	4,73	4,072	3,421	2,816	2,281	1,831
5 m	Far	7,651	8,923	13,6	58,898	∞	∞	∞
	Near	3,767	3,548	3,181	2,788	2,39	2,009	1,666
4 m	Far	5,457	6,048	7,797	13,536	∞	∞	∞
	Near	3,194	3,04	2,776	2,481	2,17	1,861	1,571

F = 42 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		13,269	10,617	7,61	5,491	3,995	2,938	2,191
3 m	Far	3,693	3,938	4,561	5,938	10,788	∞	∞
	Near	2,547	2,454	2,289	2,096	1,881	1,656	1,433
2.4 m	Far	2,792	2,92	3,226	3,809	5,209	11,816	∞
	Near	2,118	2,057	1,946	1,813	1,659	1,49	1,316
2 m	Far	2,246	2,322	2,497	2,807	3,44	5,232	28,869
	Near	1,812	1,77	1,692	1,597	1,483	1,354	1,217
1.5 m	Far	1,615	1,648	1,722	1,843	2,056	2,492	3,722
	Near	1,405	1,383	1,341	1,288	1,222	1,143	1,055
1.24 m	Far	1,307	1,327	1,368	1,433	1,542	1,74	2,173
	Near	1,182	1,168	1,141	1,107	1,063	1,01	0,947

F = 42 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		26,005	20,726	14,745	10,532	7,557	5,456	3,97
40 m	Far	∞	∞	∞	∞	∞	∞	∞
	Near	15,923	13,806	10,908	8,449	6,447	4,872	3,666
15 m	Far	34,673	53,077	∞	∞	∞	∞	∞
	Near	9,672	8,869	7,607	6,354	5,178	4,134	3,251
8 m	Far	11,272	12,638	16,802	31,96	∞	∞	∞
	Near	6,24	5,909	5,342	4,715	4,058	3,409	2,804
5 m	Far	6,037	6,386	7,245	8,981	13,771	63,46	∞
	Near	4,285	4,134	3,862	3,539	3,173	2,78	2,382
4 m	Far	4,61	4,804	5,254	6,074	7,851	13,754	∞
	Near	3,544	3,444	3,26	3,034	2,77	2,475	2,164

F = 60 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		26,005	20,726	14,745	10,532	7,557	5,456	3,97
3 m	Far	3,308	3,4	3,605	3,948	4,578	5,977	10,971
	Near	2,751	2,694	2,586	2,45	2,285	2,091	1,877
2.4 m	Far	2,58	2,632	2,745	2,926	3,234	3,824	5,248
	Near	2,247	2,211	2,143	2,055	1,944	1,81	1,656
2 m	Far	2,115	2,147	2,217	2,325	2,502	2,814	3,456
	Near	1,9	1,875	1,829	1,768	1,691	1,594	1,48
1.5 m	Far	1,555	1,57	1,602	1,65	1,724	1,846	2,061
	Near	1,45	1,438	1,414	1,382	1,34	1,287	1,22
1.24 m	Far	1,273	1,281	1,3	1,327	1,369	1,435	1,544
	Near	1,21	1,202	1,187	1,167	1,141	1,106	1,062

F = 60 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		70,309	55,901	39,582	28,088	19,975	14,244	10,194
40 m	Far	92,144	139,84	∞	∞	∞	∞	∞
	Near	25,654	23,483	20,066	16,667	13,475	10,636	8,234
15 m	Far	18,895	20,271	23,792	31,603	59,51	∞	∞
	Near	12,461	11,94	11,014	9,934	8,735	7,478	6,234
8 m	Far	8,943	9,228	9,865	10,94	12,957	17,619	36,675
	Near	7,245	7,073	6,75	6,344	5,852	5,28	4,651
5 m	Far	5,333	5,427	5,63	5,945	6,463	7,384	9,299
	Near	4,709	4,64	4,506	4,331	4,107	3,831	3,505
4 m	Far	4,202	4,258	4,377	4,559	4,845	5,325	6,212
	Near	3,818	3,774	3,688	3,574	3,426	3,238	3,01

F = 100 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		70,309	55,901	39,582	28,088	19,975	14,244	10,194
3 m	Far	3,105	3,134	3,194	3,283	3,42	3,636	4,002
	Near	2,903	2,879	2,832	2,768	2,683	2,574	2,436
2.4 m	Far	2,462	2,479	2,514	2,566	2,643	2,762	2,953
	Near	2,341	2,327	2,298	2,258	2,205	2,135	2,045
2 m	Far	2,04	2,051	2,073	2,106	2,154	2,227	2,341
	Near	1,962	1,952	1,933	1,907	1,871	1,824	1,761
1.5 m	Far	1,519	1,525	1,535	1,551	1,573	1,606	1,657
	Near	1,481	1,476	1,467	1,454	1,436	1,411	1,378
1.24 m	Far	1,252	1,255	1,261	1,27	1,283	1,303	1,331
	Near	1,229	1,226	1,22	1,212	1,201	1,186	1,165

F = 100 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		100,535	79,9	56,531	40,072	28,455	20,248	14,448
40 m	Far	66,071	79,627	136,379	∞	∞	∞	∞
	Near	28,755	26,808	23,591	20,189	16,794	13,596	10,748
15 m	Far	17,518	18,321	20,199	23,642	31,223	57,665	∞
	Near	13,13	12,72	11,968	11,05	9,977	8,784	7,531
8 m	Far	8,635	8,818	9,213	9,84	10,896	12,871	17,403
	Near	7,456	7,328	7,082	6,763	6,361	5,873	5,306
5 m	Far	5,228	5,29	5,423	5,622	5,933	6,442	7,348
	Near	4,793	4,742	4,644	4,511	4,338	4,117	3,844
4 m	Far	4,139	4,177	4,256	4,373	4,552	4,834	5,307
	Near	3,871	3,839	3,777	3,692	3,579	3,432	3,247

F = 120 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		100,535	79,9	56,531	40,072	28,455	20,248	14,448
3 m	Far	3,073	3,092	3,132	3,192	3,28	3,414	3,628
	Near	2,931	2,914	2,88	2,833	2,771	2,687	2,579
2.4 m	Far	2,443	2,455	2,478	2,513	2,564	2,64	2,757
	Near	2,359	2,348	2,327	2,299	2,26	2,207	2,138
2 m	Far	2,028	2,035	2,051	2,073	2,105	2,152	2,224
	Near	1,973	1,966	1,953	1,934	1,908	1,873	1,826
1.5 m	Far	1,514	1,517	1,524	1,535	1,55	1,572	1,605
	Near	1,487	1,483	1,477	1,467	1,454	1,436	1,412
1.24 m	Far	1,248	1,25	1,255	1,261	1,27	1,283	1,302
	Near	1,232	1,23	1,226	1,22	1,212	1,201	1,186

F = 120 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		155,673	123,685	87,457	61,94	43,932	31,209	22,217
40 m	Far	53,637	58,871	73,382	112,826	478,552	∞	∞
	Near	31,934	30,352	27,594	24,468	21,108	17,7	14,441
15 m	Far	16,531	16,983	17,979	19,61	22,515	28,542	46,263
	Near	13,736	13,443	12,889	12,183	11,312	10,281	9,119
8 m	Far	8,398	8,508	8,741	9,094	9,647	10,564	12,226
	Near	7,64	7,552	7,381	7,153	6,856	6,478	6,015
5 m	Far	5,144	5,183	5,264	5,383	5,562	5,838	6,285
	Near	4,864	4,831	4,764	4,673	4,551	4,39	4,183
4 m	Far	4,088	4,112	4,161	4,232	4,338	4,498	4,748
	Near	3,916	3,895	3,853	3,795	3,717	3,613	3,476

F = 150 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		155,673	123,685	87,457	61,94	43,932	31,209	22,217
3 m	Far	3,046	3,059	3,084	3,12	3,174	3,253	3,374
	Near	2,955	2,944	2,921	2,89	2,847	2,789	2,712
2.4 m	Far	2,428	2,435	2,45	2,471	2,503	2,549	2,617
	Near	2,373	2,366	2,353	2,334	2,307	2,272	2,223
2 m	Far	2,018	2,023	2,032	2,046	2,066	2,095	2,138
	Near	1,983	1,978	1,969	1,957	1,939	1,916	1,883
1.5 m	Far	1,509	1,511	1,516	1,522	1,532	1,546	1,566
	Near	1,491	1,489	1,485	1,479	1,47	1,458	1,442
1.24 m	Far	1,245	1,247	1,249	1,253	1,259	1,267	1,279
	Near	1,235	1,234	1,231	1,227	1,222	1,215	1,205

F = 150 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		274,153	217,794	153,94	108,96	77,212	54,783	38,93
40 m	Far	46,735	48,878	53,882	63,024	83,02	151,32	∞
	Near	34,983	33,883	31,862	29,394	26,504	23,287	19,901
15 m	Far	15,831	16,063	16,553	17,302	18,49	20,49	24,23
	Near	14,255	14,074	13,723	13,257	12,653	11,891	10,965
8 m	Far	8,221	8,28	8,404	8,584	8,855	9,271	9,937
	Near	7,792	7,74	7,636	7,496	7,306	7,056	6,732
5 m	Far	5,081	5,102	5,146	5,21	5,303	5,441	5,652
	Near	4,922	4,902	4,863	4,809	4,734	4,633	4,499
4 m	Far	4,05	4,063	4,09	4,128	4,184	4,267	4,39
	Near	3,952	3,94	3,915	3,881	3,834	3,77	3,683

F = 200 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		274,153	217,794	153,94	108,96	77,212	54,783	38,93
3 m	Far	3,026	3,033	3,047	3,067	3,096	3,138	3,2
	Near	2,974	2,968	2,955	2,937	2,911	2,876	2,829
2.4 m	Far	2,416	2,42	2,428	2,44	2,457	2,482	2,518
	Near	2,385	2,381	2,373	2,362	2,346	2,325	2,296
2 m	Far	2,01	2,013	2,018	2,026	2,037	2,053	2,076
	Near	1,99	1,987	1,982	1,975	1,965	1,951	1,932
1.5 m	Far	1,505	1,506	1,509	1,513	1,518	1,525	1,536
	Near	1,495	1,494	1,491	1,488	1,483	1,476	1,466
1.24 m	Far	1,243	1,244	1,245	1,248	1,251	1,255	1,262
	Near	1,237	1,236	1,235	1,233	1,23	1,225	1,22

F = 200 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		422,679	335,805	237,328	167,942	118,964	84,361	59,903
40 m	Far	44,121	45,336	48,013	52,395	60,188	76,322	123,478
	Near	36,596	35,808	34,315	32,412	30,064	27,284	24,149
15 m	Far	15,528	15,672	15,971	16,414	17,088	18,145	19,9
	Near	14,508	14,386	14,146	13,821	13,388	12,823	12,105
8 m	Far	8,142	8,179	8,257	8,369	8,533	8,779	9,153
	Near	7,864	7,829	7,76	7,665	7,536	7,36	7,128
5 m	Far	5,052	5,066	5,094	5,134	5,192	5,277	5,403
	Near	4,949	4,936	4,91	4,874	4,824	4,755	4,662
4 m	Far	4,032	4,04	4,058	4,082	4,117	4,169	4,244
	Near	3,969	3,961	3,944	3,922	3,891	3,847	3,788

F = 250 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		422,679	335,805	237,328	167,942	118,964	84,361	59,903
3 m	Far	3,017	3,021	3,03	3,043	3,061	3,088	3,126
	Near	2,983	2,979	2,971	2,959	2,942	2,919	2,887
2.4 m	Far	2,41	2,413	2,418	2,426	2,437	2,452	2,475
	Near	2,39	2,387	2,382	2,375	2,365	2,351	2,331
2 m	Far	2,007	2,008	2,012	2,017	2,024	2,034	2,048
	Near	1,994	1,992	1,988	1,984	1,977	1,968	1,955
1.5 m	Far	1,503	1,504	1,506	1,508	1,511	1,516	1,523
	Near	1,497	1,496	1,494	1,492	1,489	1,484	1,478
1.24 m	Far	1,242	1,242	1,243	1,245	1,247	1,25	1,254
	Near	1,238	1,238	1,237	1,235	1,233	1,231	1,227

F = 250 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		805,928	640,248	452,419	320,079	226,66	160,658	114,006
40 m	Far	42,059	42,629	43,833	45,658	48,523	53,27	61,884
	Near	38,139	37,686	36,802	35,624	34,087	32,136	29,743
15 m	Far	15,272	15,345	15,494	15,709	16,025	16,497	17,218
	Near	14,738	14,672	14,54	14,358	14,109	13,772	13,326
8 m	Far	8,074	8,093	8,133	8,189	8,271	8,39	8,564
	Near	7,928	7,909	7,872	7,821	7,749	7,651	7,517
5 m	Far	5,027	5,034	5,049	5,069	5,099	5,141	5,203
	Near	4,973	4,966	4,953	4,933	4,906	4,869	4,817
4 m	Far	4,017	4,021	4,03	4,043	4,061	4,087	4,124
	Near	3,983	3,979	3,971	3,959	3,942	3,918	3,886

F = 350 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		805,928	640,248	452,419	320,079	226,66	160,658	114,006
3 m	Far	3,009	3,011	3,016	3,022	3,032	3,045	3,065
	Near	2,991	2,989	2,984	2,978	2,969	2,957	2,939
2.4 m	Far	2,405	2,407	2,409	2,413	2,419	2,427	2,439
	Near	2,395	2,393	2,391	2,387	2,381	2,374	2,363
2 m	Far	2,003	2,004	2,006	2,009	2,012	2,018	2,025
	Near	1,997	1,996	1,994	1,991	1,988	1,983	1,976
1.5 m	Far	1,502	1,502	1,503	1,504	1,506	1,509	1,512
	Near	1,498	1,498	1,497	1,496	1,494	1,492	1,488
1.24 m	Far	1,241	1,241	1,242	1,243	1,244	1,245	1,247
	Near	1,239	1,239	1,238	1,237	1,236	1,235	1,233

F = 350 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		1102,122	907,56	640,938	453,338	320,971	227,466	161,38
40 m	Far	41,485	41,819	42,631	43,833	45,66	48,53	53,295
	Near	38,622	38,339	37,688	36,808	35,635	34,105	32,164
15 m	Far	15,198	15,242	15,345	15,494	15,709	16,026	16,499
	Near	14,808	14,767	14,672	14,541	14,359	14,111	13,777
8 m	Far	8,054	8,065	8,093	8,133	8,133	8,271	8,39
	Near	7,947	7,936	7,91	7,873	7,873	7,75	7,652
5 m	Far	5,02	5,024	5,034	5,049	5,069	5,099	5,141
	Near	4,98	4,976	4,966	4,953	4,933	4,906	4,869
4 m	Far	4,012	4,015	4,021	4,03	4,043	4,061	4,087
	Near	3,988	3,985	3,979	3,971	3,959	3,942	3,919

F = 420 mm

Distance in meters | Confusion circle : 0.025 mm

APERTURE		T4.5	T5.6	T8	T11	T16	T22	T32*
HYPERFOCAL DISTANCE		1102,122	907,56	640,938	453,338	320,971	227,466	161,38
3 m	Far	3,006	3,008	3,011	3,016	3,022	3,032	3,045
	Near	2,994	2,992	2,989	2,985	2,978	2,969	2,957
2.4 m	Far	2,404	2,405	2,407	2,409	2,413	2,419	2,427
	Near	2,396	2,395	2,393	2,391	2,387	2,382	2,374
2 m	Far	2,003	2,003	2,004	2,006	2,009	2,012	2,374
	Near	1,998	1,997	1,996	1,994	1,991	1,988	2,018
1.5 m	Far	1,501	1,501	1,502	1,503	1,504	1,506	1,509
	Near	1,499	1,499	1,498	1,497	1,496	1,494	1,492
1.24 m	Far	1,241	1,241	1,241	1,242	1,243	1,244	1,245
	Near	1,239	1,239	1,239	1,238	1,237	1,236	1,235

F = 420 mm