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# OPTIMO ULTRA 12X

## Configuration U35

DEPTH-OF-FIELD TABLES  
DISTANCE IN FEET

| **Angénieux**<sup>®</sup>

REFERENCE : 321262 - A





## **DEPTH-OF-FIELD TABLES**

**F = 26 - 320 mm**

The depths of field tables are provided for information purposes only and are estimated with a circle of confusion of 0.013mm (1/2000inch).

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.





## **TABLES DE PROFONDEUR DE CHAMP** **F = 26 - 320 mm**

*Les tables de profondeur de champ sont fournies à titre indicatif pour un cercle de confusion moyen de 0.013mm (1/2000inch).*

*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.*





APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		70.709	57.95	42.063	29.96	22.197	15.702	11.797
50 feet	Far	165.361	354.004	∞	∞	∞	∞	∞
	Near	29.918	27.485	23.488	19.341	15.921	12.414	9.935
30 feet	Far	50.314	59.637	99.153	∞	∞	∞	∞
	Near	21.603	20.347	18.14	15.638	13.391	10.889	8.986
20 feet	Far	26.92	29.256	35.967	55.666	190.939	∞	∞
	Near	16.03	15.357	14.117	12.615	11.167	9.435	8.023
16 feet	Far	19.964	21.174	24.345	31.66	51.77	∞	∞
	Near	13.43	12.97	12.102	11.015	9.928	8.573	7.423
13 feet	Far	15.381	16.059	17.739	21.153	28.151	66.757	INFINI
	Near	11.311	10.996	10.389	9.607	8.799	7.754	6.832

Distance in feet | Confusion circle : 0.025 mm

**F = 26 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		70.709	57.95	42.063	29.96	22.197	15.702	11.797
11 feet	Far	12.582	13.013	14.048	16.009	19.531	31.716	157.696
	Near	9.81	9.581	9.134	8.546	7.923	7.095	6.34
9 feet	Far	9.965	10.217	10.805	11.855	13.554	18.073	31.497
	Near	8.23	8.078	7.775	7.368	6.925	6.316	5.741
7 feet	Far	7.512	7.641	7.933	8.428	9.166	10.813	14.025
	Near	6.567	6.478	6.3	6.053	5.777	5.382	4.993
5 feet	Far	5.21	5.26	5.373	5.554	5.807	6.305	7.074
	Near	4.812	4.772	4.691	4.576	4.442	4.242	4.034
4 feet	Far	4.197	4.225	4.286	4.382	4.513	4.759	5.111
1 inch	Near	3.972	3.949	3.902	3.833	3.752	3.629	3.496

Distance in feet | Confusion circle : 0.013 mm

**F = 26 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		98.413	80.535	58.287	41.343	30.477	21.386	15.921
50 feet	Far	99.06	127.842	338.375	∞	∞	∞	∞
	Near	33.733	31.46	27.557	23.273	19.544	15.52	12.544
30 feet	Far	42.055	46.325	59.193	103.047	2021.158	∞	∞
	Near	23.451	22.367	20.385	18.016	15.766	13.115	10.985
20 feet	Far	24.466	25.786	29.154	36.443	53.604	284.738	∞
	Near	16.979	16.428	15.378	14.045	12.694	10.983	9.504
16 feet	Far	18.626	19.354	21.122	24.555	31.006	56.646	∞
	Near	14.066	13.698	12.984	12.051	11.073	9.786	8.629
13 feet	Far	14.605	15.031	16.03	17.846	20.871	29.471	61.021
	Near	11.741	11.494	11.006	10.353	9.649	8.692	7.798

Distance in feet | Confusion circle : 0.013 mm

**F = 33 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		98.413	80.535	58.287	41.343	30.477	21.386	15.921
11 feet	Far	12.078	12.356	12.995	14.112	15.854	20.131	30.416
	Near	10.118	9.941	9.588	9.107	8.578	7.84	7.13
9 feet	Far	9.665	9.831	10.207	10.84	11.774	13.822	17.67
	Near	8.434	8.317	8.082	7.757	7.391	6.865	6.342
7 feet	Far	7.357	7.443	7.636	7.95	8.392	9.276	10.682
	Near	6.683	6.617	6.481	6.289	6.067	5.738	5.4
5 feet	Far	5.147	5.182	5.258	5.379	5.541	5.843	6.268
	Near	4.864	4.834	4.774	4.686	4.582	4.423	4.251
4 feet	Far	4.162	4.182	4.224	4.289	4.376	4.532	4.742
1 inch	Near	4.002	3.985	3.95	3.899	3.837	3.741	3.634

Distance in feet | Confusion circle : 0.013 mm

**F = 33 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		174.193	142.323	102.682	72.502	53.151	36.965	27.233
50 feet	Far	69.086	75.667	94.945	154.969	780.289	∞	∞
	Near	39.296	37.497	34.195	30.218	26.411	21.886	18.221
30 feet	Far	35.711	37.329	41.322	49.343	65.444	146.705	∞
	Near	25.913	25.146	23.666	21.753	19.772	17.201	14.922
20 feet	Far	22.268	22.858	24.227	26.652	30.524	40.511	67.749
	Near	18.174	17.81	17.087	16.109	15.042	13.566	12.164
16 feet	Far	17.366	17.711	18.492	19.821	21.806	26.269	35.093
	Near	14.847	14.611	14.137	13.483	12.751	11.708	10.68
13 feet	Far	13.85	14.059	14.526	15.299	16.405	18.696	22.565
	Near	12.258	12.103	11.789	11.348	10.845	10.108	9.361

Distance in feet | Confusion circle : 0.013 mm

**F = 45 mm**





APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		174.193	142.323	102.682	72.502	53.151	36.965	27.233
11 feet	Far	11.577	11.717	12.026	12.529	13.23	14.616	16.771
	Near	10.484	10.375	10.152	9.836	9.47	8.924	8.358
9 feet	Far	9.359	9.445	9.633	9.934	10.342	11.117	12.241
	Near	8.671	8.601	8.456	8.248	8.003	7.631	7.236
7 feet	Far	7.195	7.24	7.34	7.497	7.704	8.084	8.603
	Near	6.818	6.778	6.696	6.577	6.434	6.213	5.971
5 feet	Far	5.081	5.1	5.141	5.203	5.285	5.429	5.616
	Near	4.922	4.905	4.869	4.817	4.753	4.651	4.537
4 feet	Far	4.126	4.136	4.159	4.194	4.238	4.316	4.415
1 inch	Near	4.036	4.026	4.005	3.975	3.938	3.878	3.81

Distance in feet | Confusion circle : 0.013 mm

**F = 45 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		271.037	221.299	159.441	112.351	82.161	56.907	41.725
50 feet	Far	60.721	63.83	71.631	87.908	123.247	382.592	∞
	Near	42.551	41.172	38.532	35.152	31.692	27.26	23.387
30 feet	Far	33.415	34.302	36.355	39.978	45.729	60.37	98.956
	Near	27.239	26.687	25.59	24.105	22.48	20.228	18.082
20 feet	Far	21.393	21.736	22.505	23.78	25.609	29.423	35.942
	Near	18.787	18.534	18.022	17.304	16.486	15.292	14.084
16 feet	Far	16.847	17.052	17.505	18.239	19.258	21.258	24.334
	Near	15.24	15.079	14.749	14.281	13.737	12.925	12.078
13 feet	Far	13.531	13.657	13.934	14.376	14.975	16.105	17.734
	Near	12.513	12.409	12.193	11.884	11.52	10.965	10.372

Distance in feet | Confusion circle : 0.013 mm

**F = 55 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		271.037	221.299	159.441	112.351	82.161	56.907	41.725
11 feet	Far	11.362	11.447	11.634	11.927	12.32	13.042	14.044
	Near	10.663	10.59	10.439	10.22	9.96	9.558	9.121
9 feet	Far	9.226	9.279	9.394	9.573	9.809	10.234	10.803
	Near	8.786	8.739	8.642	8.5	8.33	8.062	7.767
7 feet	Far	7.123	7.152	7.213	7.308	7.432	7.65	7.932
	Near	6.882	6.856	6.801	6.721	6.624	6.469	6.294
5 feet	Far	5.052	5.063	5.089	5.128	5.178	5.264	5.372
	Near	4.95	4.939	4.915	4.88	4.838	4.768	4.689
4 feet	Far	4.109	4.116	4.13	4.152	4.179	4.227	4.285
1 inch	Near	4.051	4.045	4.032	4.012	3.987	3.947	3.9

Distance in feet | Confusion circle : 0.013 mm

**F = 55 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		529.236	431.916	310.856	218.689	159.596	110.166	80.45
50 feet	Far	54.946	56.205	59.08	64.028	71.564	89.161	126.872
	Near	45.886	45.051	43.379	41.085	38.541	34.946	31.447
30 feet	Far	31.649	32.048	32.93	34.357	36.338	40.226	46.202
	Near	28.52	28.206	27.564	26.652	25.594	24.011	22.361
20 feet	Far	20.687	20.849	21.201	21.757	22.499	23.863	25.749
	Near	19.36	19.221	18.934	18.518	18.023	17.258	16.425
16 feet	Far	16.421	16.519	16.732	17.065	17.502	18.287	19.334
	Near	15.602	15.514	15.333	15.068	14.75	14.25	13.696
13 feet	Far	13.265	13.327	13.459	13.665	13.932	14.404	15.019
	Near	12.746	12.69	12.574	12.402	12.194	11.864	11.492

Distance in feet | Confusion circle : 0.013 mm

**F = 80 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		529.236	431.916	310.856	218.689	159.596	110.166	80.45
11 feet	Far	11.182	11.224	11.314	11.453	11.632	11.946	12.349
	Near	10.825	10.786	10.705	10.585	10.439	10.206	9.94
9 feet	Far	9.114	9.14	9.196	9.283	9.393	9.585	9.826
	Near	8.889	8.865	8.813	8.736	8.642	8.491	8.316
7 feet	Far	7.062	7.077	7.107	7.154	7.213	7.314	7.441
	Near	6.939	6.925	6.897	6.854	6.801	6.716	6.616
5 feet	Far	5.026	5.032	5.045	5.064	5.089	5.13	5.181
	Near	4.974	4.968	4.956	4.938	4.915	4.878	4.834
4 feet	Far	4.095	4.098	4.105	4.116	4.13	4.153	4.181
1 inch	Near	4.065	4.062	4.055	4.045	4.032	4.01	3.985

Distance in feet | Confusion circle : 0.013 mm

**F = 80 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		874.277	713.425	513.284	360.889	263.172	181.429	132.285
50 feet	Far	52.876	53.573	55.115	57.618	61.101	67.979	78.651
	Near	47.426	46.882	45.769	44.19	42.362	39.634	36.799
30 feet	Far	30.975	31.205	31.703	32.486	33.526	35.423	38.016
	Near	29.086	28.888	28.476	27.878	27.164	26.055	24.84
20 feet	Far	20.409	20.504	20.709	21.025	21.436	22.161	23.102
	Near	19.608	19.521	19.341	19.075	18.753	18.24	17.663
16 feet	Far	16.252	16.31	16.434	16.626	16.873	17.303	17.852
	Near	15.756	15.702	15.589	15.422	15.218	14.89	14.516
13 feet	Far	13.159	13.195	13.274	13.393	13.547	13.811	14.144
	Near	12.845	12.811	12.738	12.631	12.499	12.286	12.04

Distance in feet | Confusion circle : 0.013 mm

**F = 100 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		874.277	713.425	513.284	360.889	263.172	181.429	132.285
11 feet	Far	11.109	11.134	11.187	11.269	11.373	11.551	11.773
	Near	10.893	10.87	10.819	10.745	10.653	10.504	10.331
9 feet	Far	9.069	9.084	9.118	9.169	9.233	9.343	9.48
	Near	8.933	8.918	8.886	8.838	8.78	8.684	8.572
7 feet	Far	7.038	7.046	7.064	7.092	7.127	7.186	7.259
	Near	6.963	6.955	6.937	6.911	6.878	6.825	6.762
5 feet	Far	5.016	5.019	5.027	5.039	5.053	5.078	5.108
	Near	4.984	4.981	4.973	4.962	4.948	4.925	4.898
4 feet	Far	4.089	4.091	4.095	4.102	4.11	4.124	4.14
1 inch	Near	4.071	4.069	4.065	4.059	4.051	4.038	4.022

Distance in feet | Confusion circle : 0.013 mm

**F = 100 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		1548.88	1263.835	909.091	638.972	465.758	320.848	233.723
50 feet	Far	51.582	51.953	52.76	54.024	55.698	58.741	62.875
	Near	48.514	48.191	47.52	46.544	45.377	43.558	41.562
30 feet	Far	30.542	30.668	30.937	31.352	31.889	32.828	34.034
	Near	29.477	29.362	29.12	28.764	28.329	27.634	26.845
20 feet	Far	20.229	20.281	20.393	20.565	20.784	21.161	21.633
	Near	19.777	19.727	19.622	19.467	19.276	18.966	18.607
16 feet	Far	16.141	16.173	16.242	16.347	16.48	16.708	16.991
	Near	15.862	15.831	15.766	15.669	15.549	15.353	15.125
13 feet	Far	13.089	13.109	13.153	13.219	13.302	13.444	13.619
	Near	12.912	12.892	12.851	12.789	12.712	12.586	12.439

Distance in feet | Confusion circle : 0.013 mm

**F = 135 mm**





APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		1548.88	1263.835	909.091	638.972	465.758	320.848	233.723
11 feet	Far	11.061	11.075	11.105	11.15	11.207	11.304	11.422
	Near	10.94	10.926	10.897	10.854	10.801	10.714	10.611
9 feet	Far	9.039	9.047	9.066	9.094	9.13	9.19	9.264
	Near	8.962	8.953	8.935	8.908	8.874	8.819	8.753
7 feet	Far	7.021	7.026	7.036	7.051	7.071	7.104	7.143
	Near	6.979	6.974	6.964	6.949	6.931	6.9	6.863
5 feet	Far	5.009	5.011	5.015	5.022	5.03	5.043	5.06
	Near	4.991	4.989	4.985	4.979	4.971	4.957	4.942
4 feet	Far	4.085	4.086	4.089	4.092	4.097	4.105	4.114
1 inch	Near	4.075	4.074	4.071	4.068	4.063	4.056	4.047

Distance in feet | Confusion circle : 0.013 mm

F = 135 mm



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		2425.598	1979.234	1423.472	1000.363	729.065	502.087	365.613
50 feet	Far	50.998	51.229	51.727	52.495	53.491	55.243	57.507
	Near	49.041	48.83	48.387	47.736	46.945	45.683	44.257
30 feet	Far	30.344	30.423	30.591	30.849	31.178	31.744	32.452
	Near	29.664	29.589	29.432	29.198	28.911	28.444	27.903
20 feet	Far	20.145	20.179	20.249	20.357	20.493	20.725	21.011
	Near	19.857	19.825	19.757	19.656	19.531	19.327	19.087
16 feet	Far	16.09	16.11	16.154	16.22	16.303	16.445	16.618
	Near	15.911	15.891	15.85	15.787	15.709	15.581	15.429
13 feet	Far	13.057	13.07	13.097	13.139	13.191	13.28	13.388
	Near	12.944	12.931	12.904	12.864	12.815	12.733	12.636

Distance in feet | Confusion circle : 0.013 mm

**F = 165 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		2425.598	1979.234	1423.472	1000.363	729.065	502.087	365.613
11 feet	Far	11.039	11.048	11.067	11.095	11.131	11.192	11.265
	Near	10.961	10.953	10.934	10.907	10.872	10.815	10.748
9 feet	Far	9.025	9.03	9.042	9.06	9.082	9.12	9.166
	Near	8.976	8.97	8.958	8.941	8.919	8.883	8.84
7 feet	Far	7.013	7.017	7.023	7.033	7.045	7.066	7.091
	Near	6.987	6.984	6.977	6.968	6.956	6.936	6.912
5 feet	Far	5.006	5.007	5.01	5.014	5.019	5.028	5.038
	Near	4.994	4.993	4.99	4.986	4.981	4.973	4.963
4 feet	Far	4.083	4.084	4.085	4.088	4.091	4.096	4.101
1 inch	Near	4.077	4.076	4.075	4.072	4.069	4.065	4.059

Distance in feet | Confusion circle : 0.013 mm

**F = 165 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		5380.87	4455.252	3204.516	2251.375	1640.53	1129.58	822.342
50 feet	Far	50.445	50.539	50.752	51.078	51.492	52.198	53.073
	Near	49.563	49.473	49.271	48.968	48.595	47.985	47.273
30 feet	Far	30.154	30.186	30.26	30.371	30.512	30.75	31.041
	Near	29.848	29.816	29.745	29.638	29.506	29.288	29.03
20 feet	Far	20.065	20.079	20.11	20.157	20.216	20.315	20.436
	Near	19.935	19.922	19.891	19.846	19.789	19.695	19.583
16 feet	Far	16.04	16.049	16.068	16.097	16.133	16.194	16.268
	Near	15.96	15.952	15.933	15.905	15.869	15.811	15.741
13 feet	Far	13.026	13.031	13.043	13.061	13.084	13.123	13.169
	Near	12.975	12.969	12.957	12.939	12.917	12.88	12.835

Distance in feet | Confusion circle : 0.013 mm

F = 250 mm



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		5380.87	4455.252	3204.516	2251.375	1640.53	1129.58	822.342
11 feet	Far	11.018	11.021	11.03	11.042	11.058	11.084	11.116
	Near	10.983	10.979	10.971	10.958	10.943	10.917	10.887
9 feet	Far	9.011	9.013	9.019	9.026	9.036	9.053	9.073
	Near	8.989	8.987	8.982	8.974	8.964	8.948	8.928
7 feet	Far	7.006	7.007	7.01	7.015	7.02	7.029	7.04
	Near	6.994	6.993	6.99	6.986	6.98	6.971	6.961
5 feet	Far	5.003	5.003	5.004	5.006	5.008	5.012	5.017
	Near	4.997	4.997	4.996	4.994	4.992	4.988	4.983
4 feet	Far	4.081	4.082	4.082	4.083	4.085	4.087	4.09
1 inch	Near	4.079	4.078	4.078	4.077	4.075	4.073	4.071

Distance in feet | Confusion circle : 0.013 mm

**F = 250 mm**



APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		7776.029	7135.531	5130.128	3604.007	2625.683	1807.77	1316.036
50 feet	Far	50.307	50.335	50.467	50.668	50.922	51.351	51.876
	Near	49.697	49.67	49.542	49.35	49.113	48.721	48.26
30 feet	Far	30.106	30.116	30.162	30.231	30.318	30.464	30.642
	Near	29.894	29.885	29.84	29.773	29.689	29.551	29.387
20 feet	Far	20.045	20.049	20.068	20.098	20.134	20.196	20.27
	Near	19.955	19.951	19.932	19.903	19.868	19.808	19.738
16 feet	Far	16.028	16.03	16.042	16.06	16.083	16.121	16.167
	Near	15.972	15.97	15.958	15.94	15.918	15.881	15.837
13 feet	Far	13.018	13.019	13.027	13.038	13.052	13.076	13.105
	Near	12.982	12.981	12.973	12.962	12.948	12.925	12.897

Distance in feet | Confusion circle : 0.013 mm

**F = 320 mm**





APERTURE		T 3.1	T 4	T 5.6	T 8	T11	T16	T22
HYPERFOCAL   DISTANCE		7776.029	7135.531	5130.128	3604.007	2625.683	1807.77	1316.036
11 feet	Far	11.012	11.013	11.018	11.026	11.036	11.052	11.072
	Near	10.988	10.987	10.982	10.974	10.964	10.948	10.929
9 feet	Far	9.008	9.008	9.012	9.017	9.023	9.033	9.045
	Near	8.992	8.992	8.988	8.984	8.977	8.967	8.955
7 feet	Far	7.004	7.005	7.006	7.009	7.012	7.018	7.025
	Near	6.996	6.995	6.994	6.991	6.988	6.982	6.975
5 feet	Far	5.002	5.002	5.003	5.004	5.005	5.008	5.01
	Near	4.998	4.998	4.997	4.996	4.995	4.992	4.99
4 feet	Far	4.081	4.081	4.082	4.082	4.083	4.084	4.086
1 inch	Near	3.999	3.999	3.998	3.997	3.996	3.995	3.993

Distance in feet | Confusion circle : 0.013 mm

**F = 320 mm**