LEICA **SUMMICRON-M** 35 mm f/2 ASPH.

Technical Data.

Illustrations 1:1

Lens	Leica Summicron-M 35 mm f/2 ASPH.
Order number	Black: 11 673, silver: 11 674
Angle view (diagonal, horizontal, vertical)	For 35 mm (24 x 36 mm): approx. 63°/54°/38°; for M8 (18 x 27 mm): approx. 50°/42°/29°
Optical design	Number of elements/groups: 7/5 Entrance pupil for bayonet: 18,4 mm Focusing range: 0,7 m to infinity
Distance setting	Scala: combined meter-/feet-increments Smallest object field: for 35 mm: 420 x 630 mm, for M8: 315 x 472 mm Highest reproduction ratio: 1:17,4
Diaphragm	Setting/type: preset, with click-stops, half values available Smallest aperture: f/16 Number of aperture blades: 11
Bayonet	Leica M quick-change bayonet
Filter thread	E39
Lens hood	Available, screwable (supplied)
Dimensions and weight	Lenght: approx. 35,7/54,4 mm (without/with lens hood) Largest diameter without lens hood: approx. 53 mm Weight: approx. 252 g/287 g (without/with lens hood and covers)

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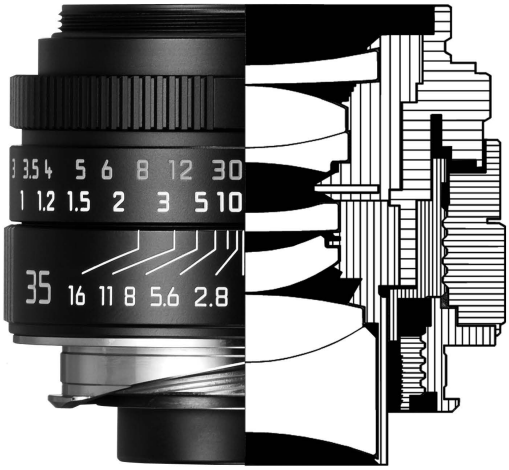
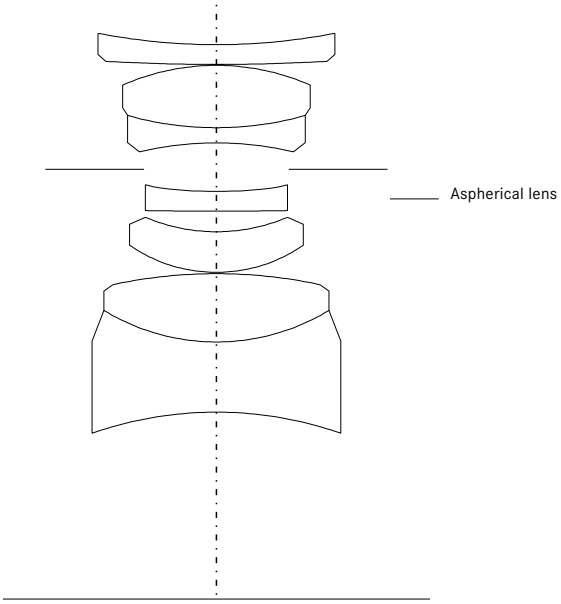
ENGINEERING DRAWING



Illustrations 1:1

LENS SHAPE



Excellent sharpness, high contrast and a very good resolving power over the entire focusing range are evident at full aperture. With its aperture stopped down modestly to f/4, this versatile lens delivers a maximum of resolving power and contrast. It is all the more impressive because of its virtually perfect absence of distortion. That makes it a world-class lens among fast wide-angle lenses. In spite of its high speed and its superb imaging performance, it is surprisingly small. Every Leica M camera fitted with this lens becomes a highly compact and elegant unit.

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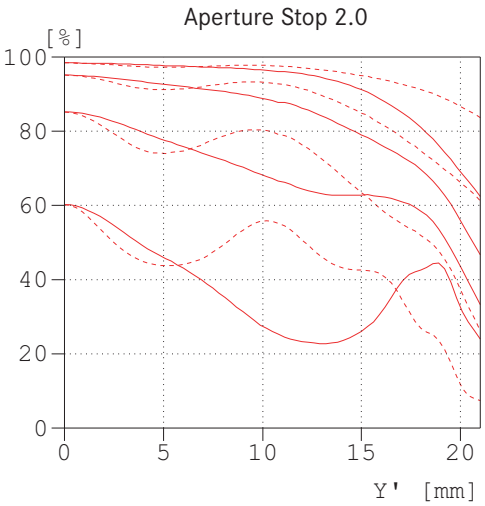
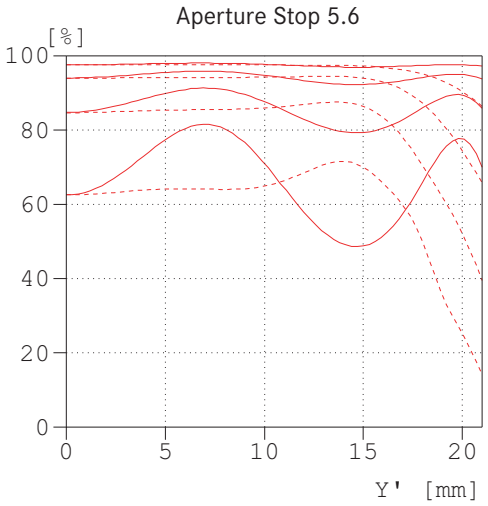
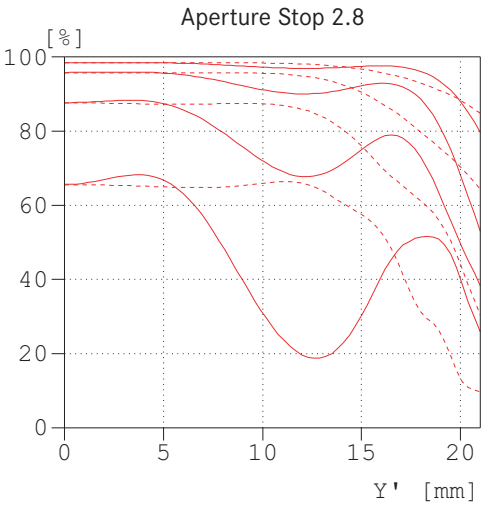
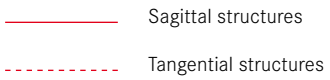
MTF-GRAPHS









MTF GRAPHS The MTF is indicated both at full aperture and at f/5.6 at long taking distances (infinity). Shown is the contrast in percentage for 5, 10, 20 and 40 lp/mm accross the height of the 35 mm film format, for tangential (dotted line) and sagittal (solid line) structures, in white light. The 5 and 10 lp/mm will give an indication regarding the contrast ratio for large object structures. The 20 and 40 lp/mm records the resolution of finer and finest object structures.

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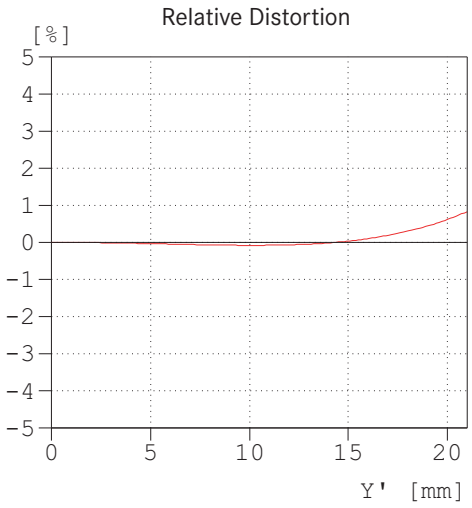
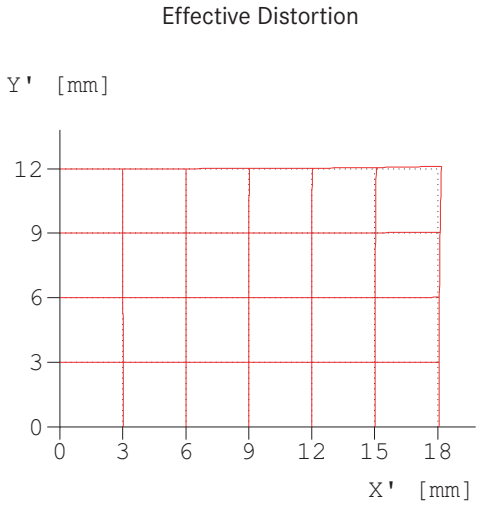
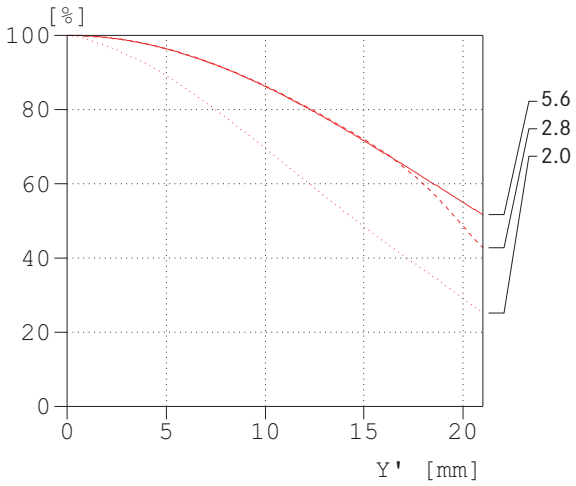
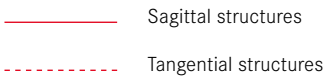
DISTORTION





VIGNETTING





DISTORTION Distortion is the deviation of the real image height (in the picture) from the ideal image height. The relative distortion is the percentage deviation. The ideal image height results from the object height and the magnification. The image height of 21.6 mm is the radial distance between the edge and the middle of the image field for the format 24 mm x 36 mm. The graph of the effective distortion illustrates the appearance of straight horizontal and vertical lines in the picture.

VIGNETTING Vignetting is a continous decrease of the illumination to the edges of the image field. The graph shows the percentage loss of illumination over the image height. 100% means no vignetting.

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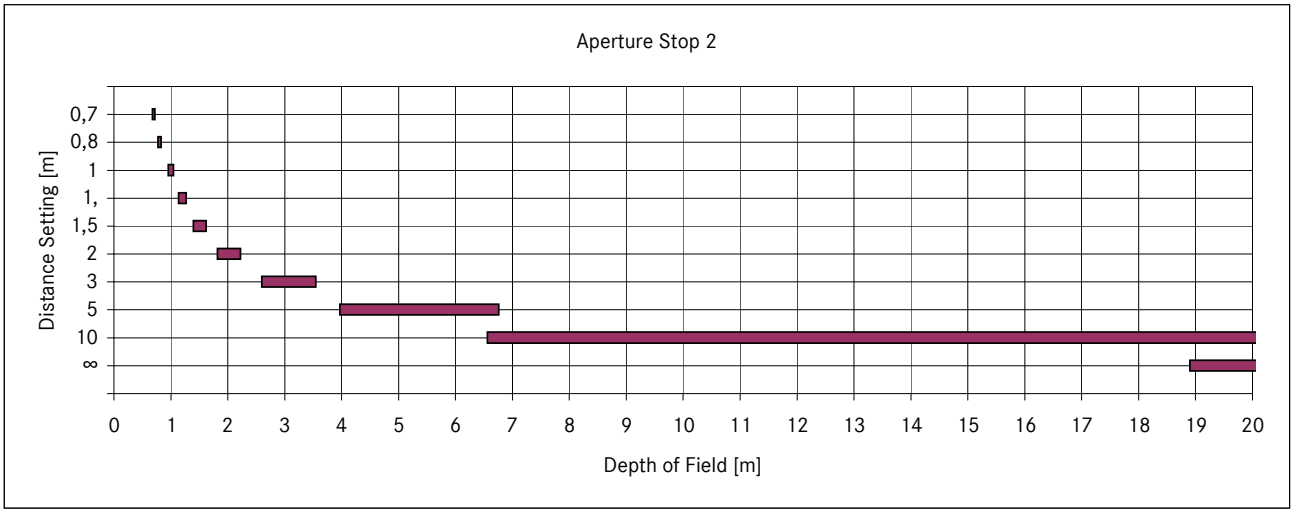
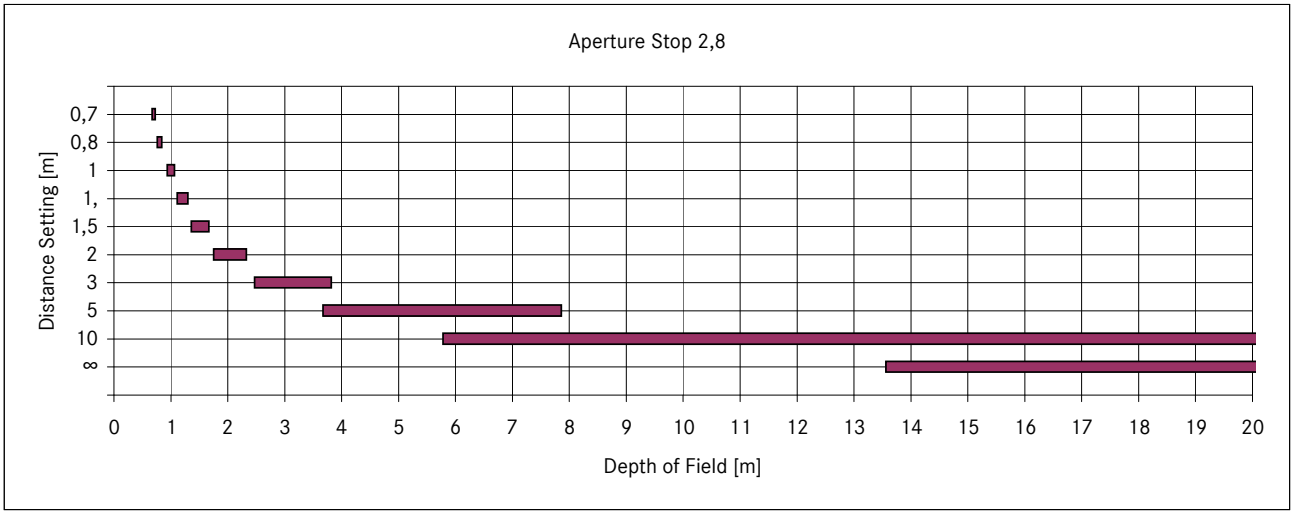
DEPTH OF FIELD TABLE

Distance Setting [m]	Aperture Stop 2,0	2,8	4	5,6	8	11	16	Magnification
0,7	0,678 - 0,723	0,670 - 0,733	0,658 - 0,748	0,643 - 0,770	0,621 - 0,804	0,596 - 0,852	0,559 - 0,948	1/17,4
0,8	0,771 - 0,831	0,760 - 0,844	0,745 - 0,865	0,725 - 0,894	0,697 - 0,942	0,665 - 1,010	0,619 - 1,151	1/20,3
1	0,954 - 1,051	0,937 - 1,072	0,913 - 1,107	0,882 - 1,156	0,840 - 1,240	0,793 - 1,365	0,727 - 1,642	1/25,9
1,2	1,133 - 1,275	1,109 - 1,307	1,075 - 1,360	1,032 - 1,437	0,974 - 1,571	0,911 - 1,781	0,822 - 2,296	1/31,6
1,5	1,396 - 1,622	1,359 - 1,675	1,307 - 1,764	1,243 - 1,898	1,159 - 2,144	1,069 - 2,563	0,947 - 3,816	1/40,1
2	1,816 - 2,226	1,753 - 2,330	1,666 - 2,508	1,562 - 2,794	1,429 - 3,374	1,293 - 4,567	1,116 - 11,27	1/54,3
3	2,600 - 3,549	2,470 - 3,826	2,297 - 4,341	2,102 - 5,294	1,865 - 7,912	1,636 - 20,95	1,360 - ∞	1/82,6
5	3,969 - 6,766	3,671 - 7,867	3,297 - 10,45	2,904 - 18,62	2,466 - ∞	2,076 - ∞	1,647 - ∞	1/139
10	6,560 - 21,14	5,778 - 37,84	4,896 - ∞	4,071 - ∞	3,252 - ∞	2,602 - ∞	1,957 - ∞	1/281
∞	18,90 - ∞	13,56 - ∞	9,505 - ∞	6,802 - ∞	4,775 - ∞	3,485 - ∞	2,411 - ∞	1/∞





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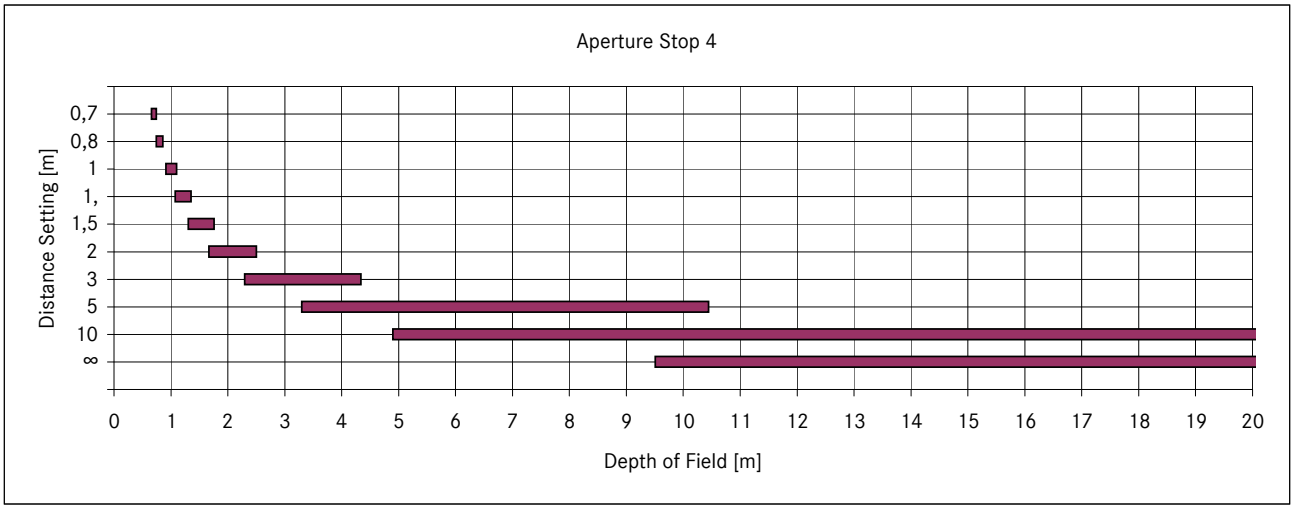

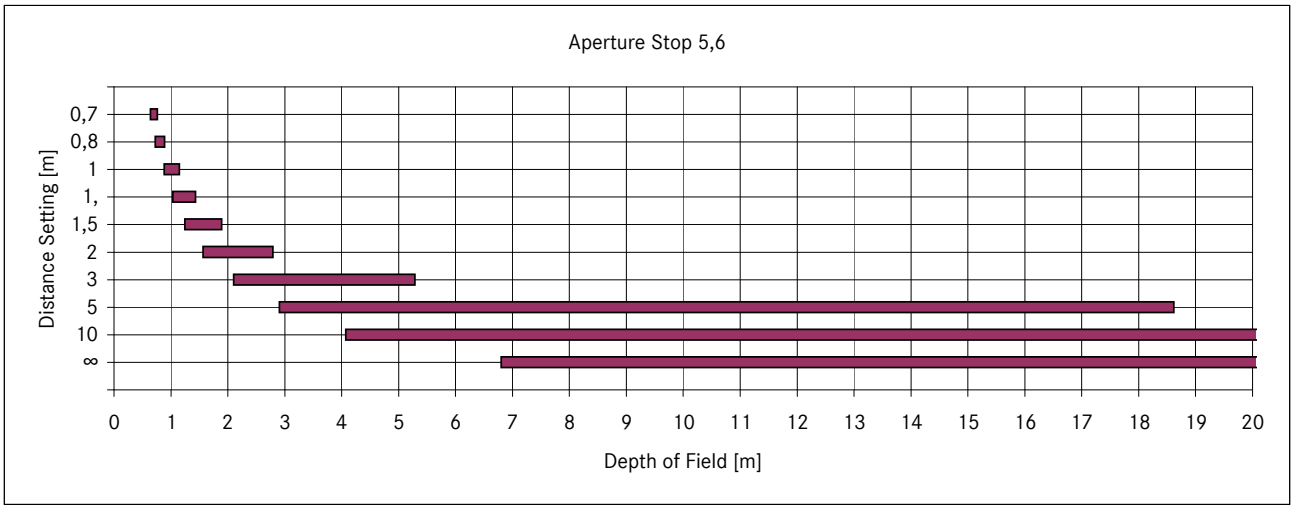

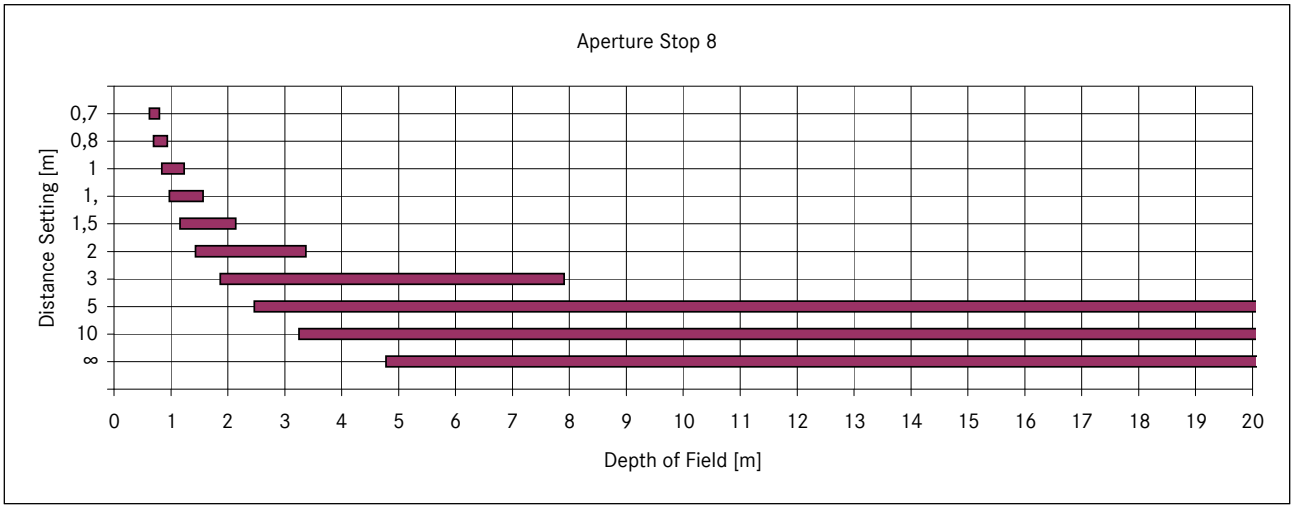

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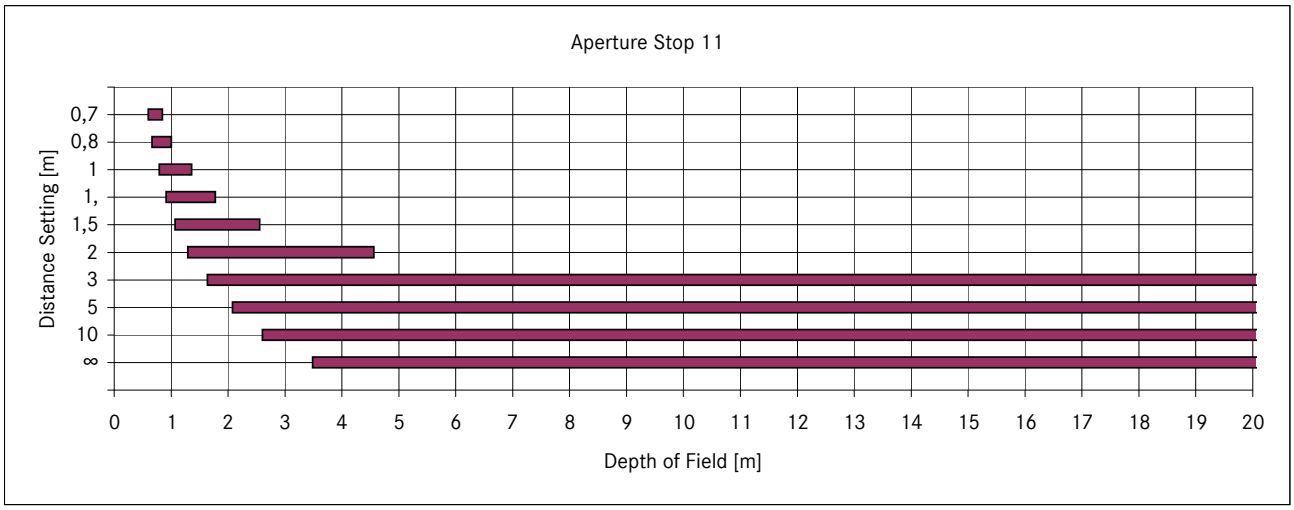

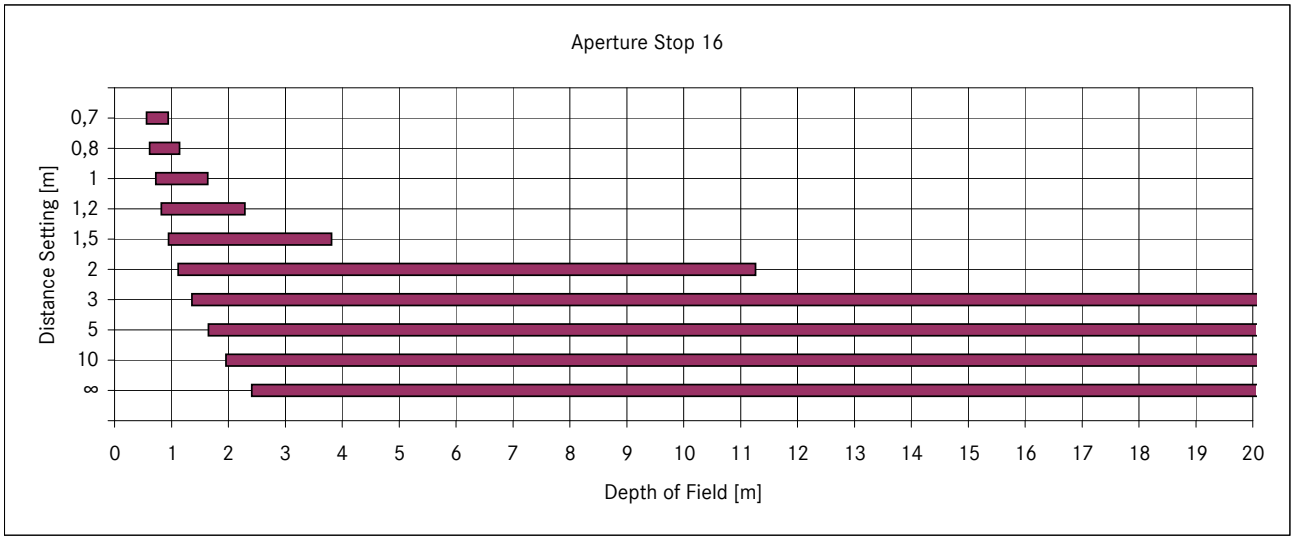

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