



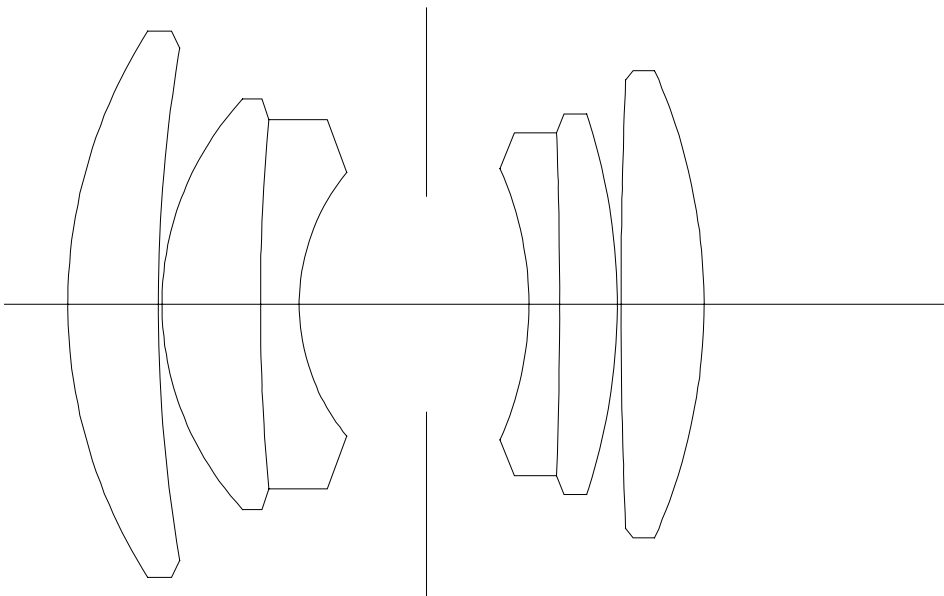
LEICA SUMMARIT-M 50 mm f/2.5



Powerful, lightweight and designed to be easy to operate, the LEICA SUMMARIT-M 50 mm f/2.5's applications are as varied as life itself. It corresponds closely to the field of vision and viewing patterns of the human eye and offers an impressively neutral and natural perspective. On analog cameras, it is a brilliant standard lens while on the digital LEICA M8, its 67 mm equivalent focal length makes it ideal for portraits or picking out precise details.

The 50 mm Summarit-M is tailor-made for everyday photography. Its lens speed is perfectly adapted for all common applications. It is an updated double-Gauss six-element construction based on our tried and tested design. All of this means that this particular Summarit-M makes the Leica M easier to experience than ever before, without cutting any corners in terms of optical performance.

— Lens shape



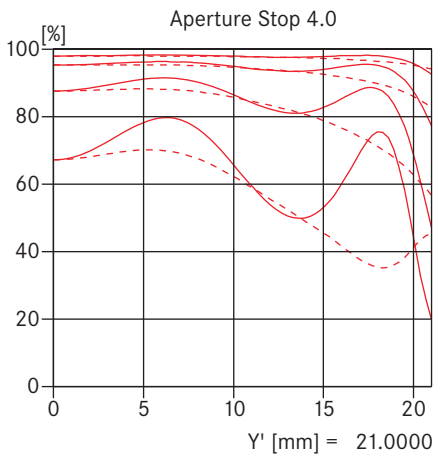
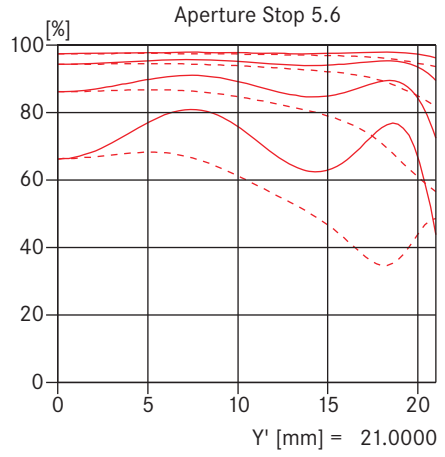
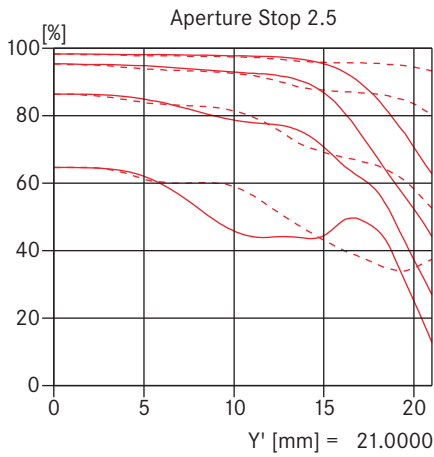


— Engineering drawing

Technical Data

Angle of view (diagonal, horizontal, vertical)	For 35 mm (24 x 36 mm) : 47°, 40°, 27°, for LEICA M8 (18 x 27 mm) : 36°, 30°, 20°, corresponds to a focal length of approx. 67 mm with 35 mm-format
Optical design	Number of lenses/groups: 6/4 Focus length: 50.1 mm Position of entrance pupil: 28.0 mm (related to the first lens surface in light direction)
Distance setting	Focusing range: 0.8 m to endless Scales: Combined meter/feet graduation Smallest object field / Largest reproduction ratio: For 35 mm, approx. 338 x 508 mm/1:14.1 for LEICA M8, approx. 254 x 380 mm/1:14.1
Aperture	Setting/Function: Preset, with click-stops, half values available Lowest value: 16
Bayonet	Leica M quick-change bayonet with 6 bit lens identification bar code for digital M models
Filter mount/Lens hood	Non-rotating, internal thread for screw-on filters size E39, external thread with stop for lens hood, protection ring for external thread included in delivery, lens hood available as accessory
Dimensions and weight	Length: approx. 33.0 mm Largest diameter: approx. 51.5 mm Weight: approx. 230 g

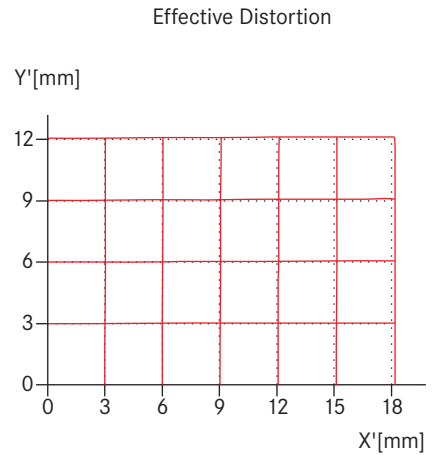
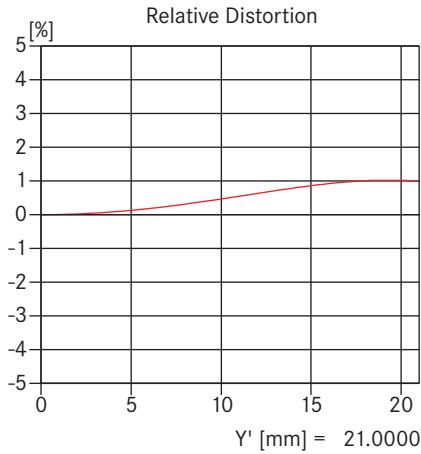
— MTF graphs



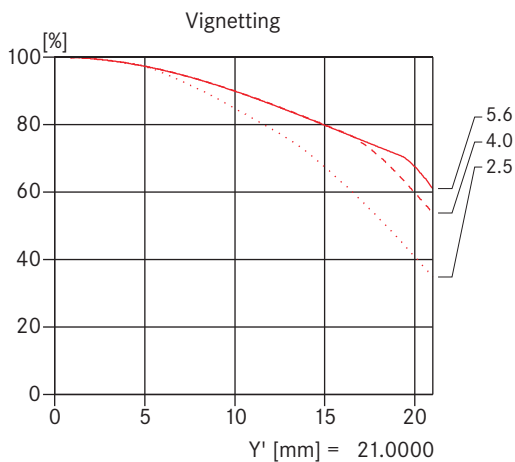
The MTF is indicated both at full aperture and at f/5.6 at long taking distances (infinity). Shown is the contrast in percentage for 5, 10, 20 and 40 lp/mm across the height of the 35 mm film format, for tangential (dotted line) and sagittal (solid line) structures, in white light. The 5 and 10 lp/mm 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.

— sagittal structures
 - - - tangential structures

— Distortion



— Vignetting



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 21.6mm is the radial distance between the edge and the middle of the image field for the format 24mm x 36mm. The graph of the effective distortion illustrates the appearance of straight horizontal and vertical lines in the picture.

Vignetting is a continuous 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.



Depth of field table

Distance Setting [m]	Aperture Stop							Magnification
	2,5	2,8	4	5,6	8	11	16	
0,8	0,781 - 0,820	0,779 - 0,822	0,770 - 0,832	0,759 - 0,846	0,743 - 0,867	0,724 - 0,896	0,694 - 0,947	1/14,1
1	0,970 - 1,032	0,967 - 1,036	0,953 - 1,052	0,936 - 1,074	0,911 - 1,110	0,881 - 1,157	0,837 - 1,247	1/18,1
1,2	1,157 - 1,247	1,152 - 1,252	1,132 - 1,276	1,108 - 1,310	1,072 - 1,363	1,031 - 1,437	0,970 - 1,580	1/22,1
1,5	1,433 - 1,574	1,425 - 1,584	1,395 - 1,623	1,357 - 1,678	1,304 - 1,768	1,243 - 1,896	1,154 - 2,156	1/28,1
2	1,881 - 2,136	1,867 - 2,154	1,815 - 2,228	1,751 - 2,334	1,662 - 2,514	1,564 - 2,783	1,424 - 3,391	1/38,1
3	2,736 - 3,321	2,707 - 3,365	2,599 - 3,550	2,467 - 3,831	2,293 - 4,348	2,108 - 5,234	1,859 - 7,938	1/58,1
5	4,303 - 5,969	4,230 - 6,115	3,970 - 6,760	3,669 - 7,869	3,294 - 10,44	2,922 - 17,69	2,460 - ∞	1/98,1
∞	30,48 - ∞	27,15 - ∞	19,03 - ∞	13,61 - ∞	9,537 - ∞	6,945 - ∞	4,784 - ∞	1/∞

