



# LEICA **SUMMILUX-M** 50 f/1.4

## Technical Data



Lens	Leica Summilux-M 50 f/1.4
Order number Silver chrome	11 714
Angle of view (diagonal/horizontal/vertical) Full-frame (24 x 36 mm)	45°, 38°, 26°
Lens system	
Number of lenses/assemblies	7/5
Position of the entrance pupil before the bayonet	29.8 mm
Focus range	0.7 m to ∞
Focusing	
Scale	Combined scale meters (m)/feet (ft)
Smallest object field	Full-frame: 275 x 413 mm
Largest scale	1:12.5
Diaphragm	
Setting/function	Click-stop diaphragm with half-increment lock settings
Smallest aperture	16
Number of diaphragm blades	12
Bayonet	Leica M bayonet with 6-bit encoding
Filter thread	E46
Lens hood	Click-on (included)
Dimensions	
Length	Approx. 45 mm/71 mm (with lens hood)
Diameter	Approx. 58 mm
Weight	Approx. 417 g



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## TECHNICAL DRAWING

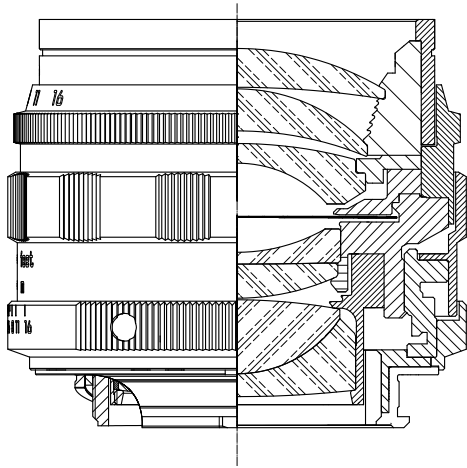
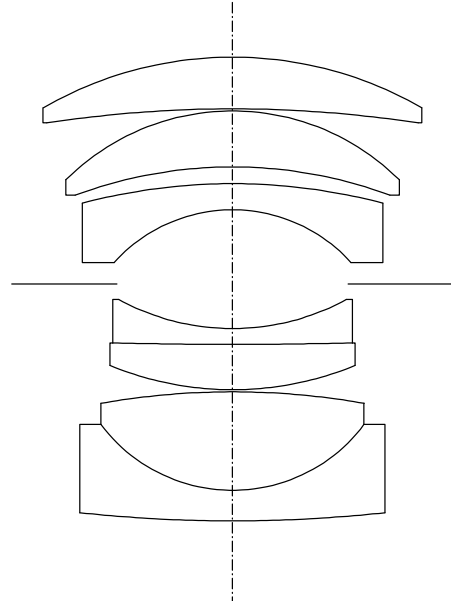


Figure 1:1

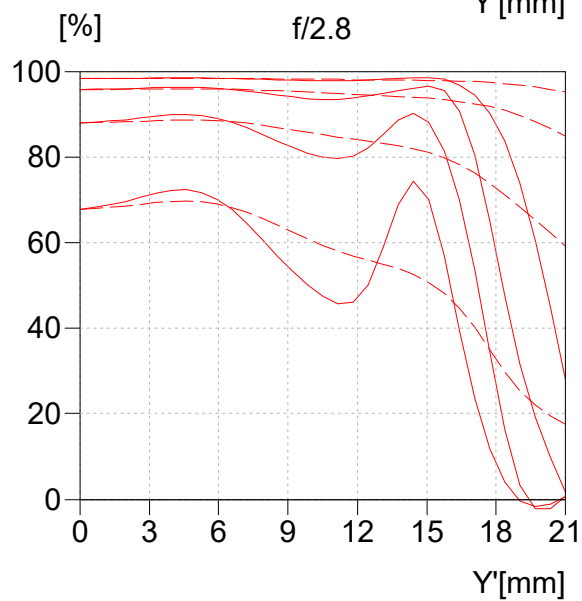
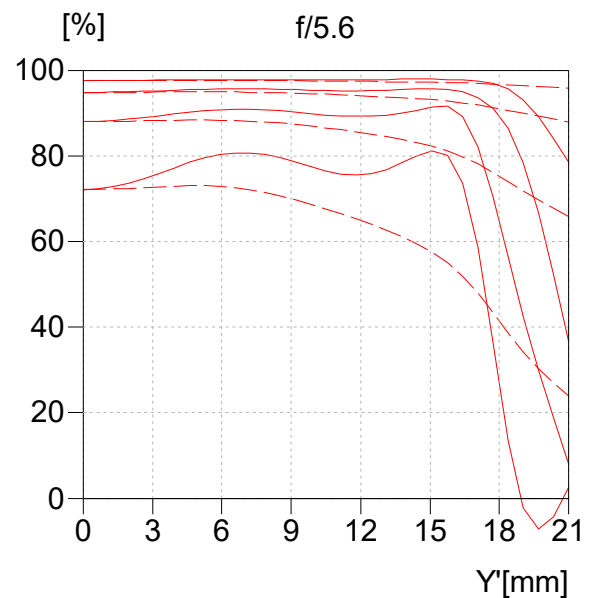
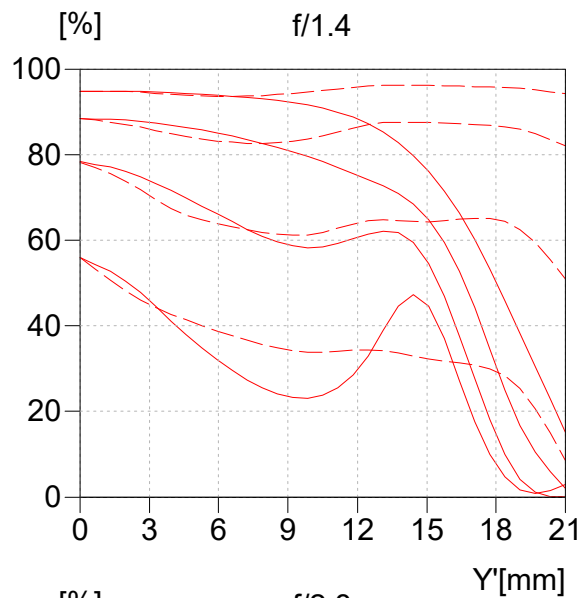
## LENS CROSS-SECTION





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## MTF DIAGRAMS



— Sagittal structures  
- - - Tangential structures

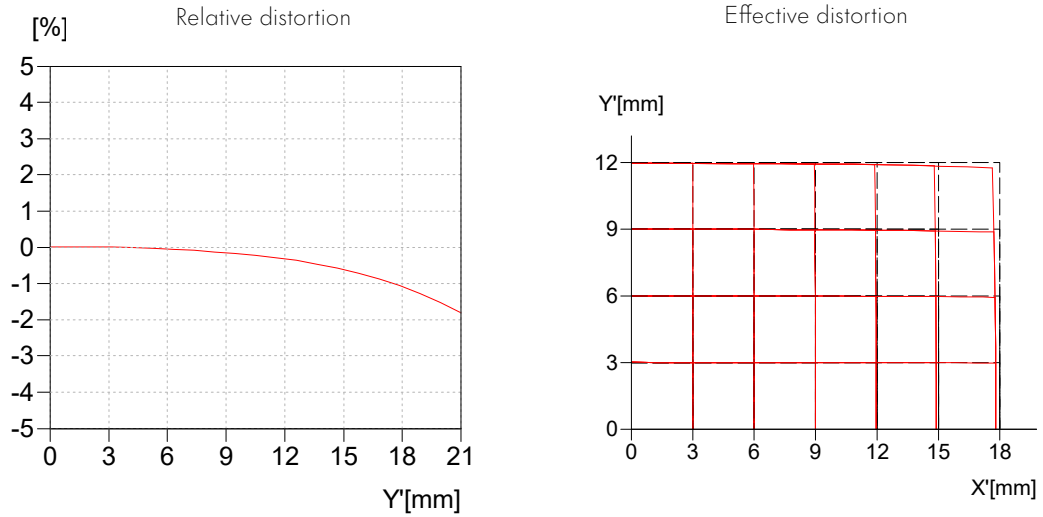
## MTF CURVES

In each case, the MTF is shown for the max. aperture as well as for 2.8 and 5.6 for long focus distances (infinity). The contrast is plotted in percentages for 5, 10, 20 and 40 Lp/mm over the height of the format for tangential (dashed line) and sagittal (continuous line) structures for white light. The plots for 5 and 10 Lp/mm offer an impression of the contrast behavior for coarser object structures, while the 20 and 40 Lp/mm plots document the resolution capability for fine and the finest object structures.

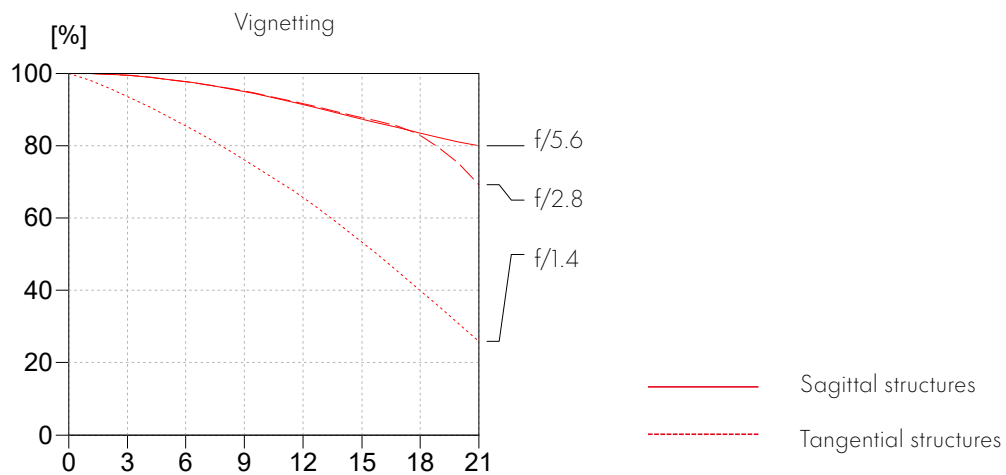


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## DISTORTION



## VIGNETTING



## DISTORTION

Distortion is the deviation of the actual image height from the ideal image height, whereby the ideal image height is calculated from the object height and the reproduction scale. Relative distortion indicates the percentage deviation of the actual to the ideal image height. The image height of 21.6 mm is the radial distance between one corner of the image field and the middle of the image field (image format 24 mm x 36 mm). The graph of the effective distortion illustrates the actual line and the curvature of horizontal and vertical lines in the image plane.

## VIGNETTING

Vignetting is a continuous decrease of image brightness (irradiance) towards the edges of the image (shading compensation, darkening of the image corners). The graph shows the diminishing brightness in percent over the image height. 100% means no vignetting.