



LEICA **VARIO-ELMAR-TL** 18-56 mm f/3.5-5.6 ASPH.

Technical data.



Illustration 1:1

Lens	Leica Vario-Elmar-TL 18-56 mm f/3.5-5.6 ASPH.
Order no.	11 080
Compatible cameras	All Leica cameras with Leica L bayonet
Field angle (diagonal, horizontal, vertical)	At 18 mm: approx. 75°, 62°, 41°, at 56 mm: approx. 28°, 23°, 15°, corresponding to around 28 - 85 mm focal length in 35 mm format
Optical design	Number of lenses/groups: 10/7 Aspherical surfaces: . Position of entrance pupil at infinity: at 18 mm: -37.8 mm, at 56 mm: -28 mm
Distance setting	Setting/Function: Electronically controlled Mode selectable using camera menu: Automatic (AF) or manual (M), in AF mode manual override possible at any times with setting dial Focusing range: 0.3/0.45 m (at 18/56 mm) to ∞ Smallest object field/largest scale: at 18 mm: approx. 312 x 207 mm/1:13.2, at 56 mm: approx. 110 x 73 mm/1:7.5
Aperture	Setting/Function: Electronically controlled, adjustment using dial on camera, third values also available Lowest value: 16
Bayonet fitting	Leica L bayonet
Filter mount/ Lens hood	External bayonet fitting for lens hood (included), internal thread for E52 filters, filter mount does not rotate
Finish	Black anodized
Dimensions and Weight	Length to bayonet mount: approx. 60/99 mm (without/with lens hood) Largest diameter: approx. 63/73 mm (without/with lens hood) Weight: approx. 256/287 g (without/with lens hood)



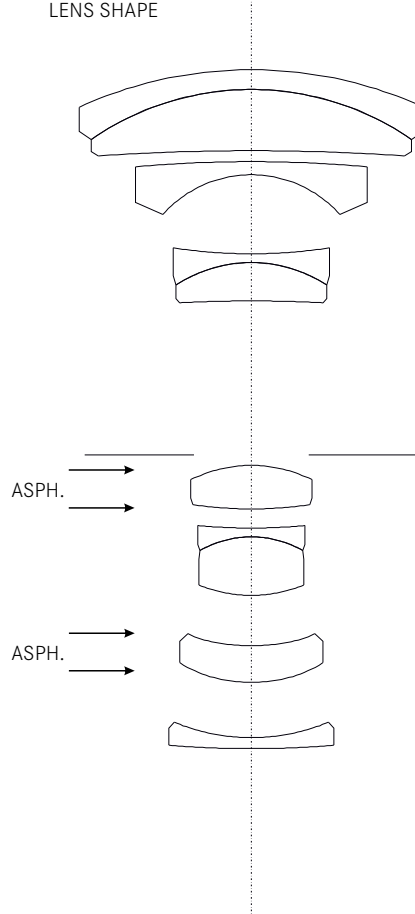
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ENGINEERING DRAWING



Illustration 1:1

LENS SHAPE





LEICA VARIO-ELMAR-TL 18-56 mm f/3.5-5.6 ASPH.

MTF DIAGRAMS

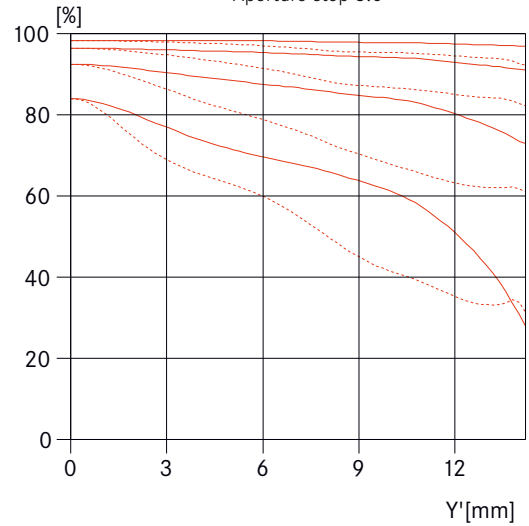
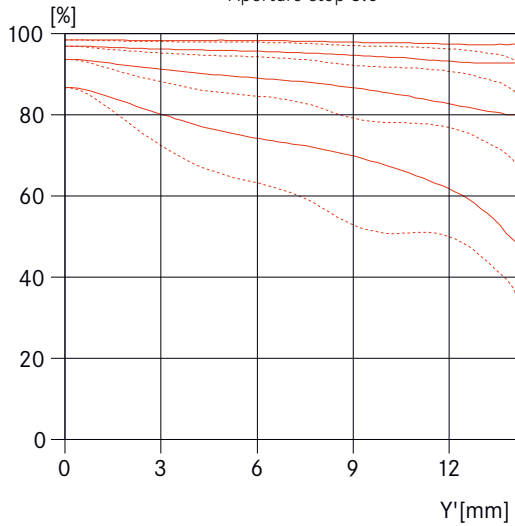
Focal length 18 mm

Infinity

Close focus distance

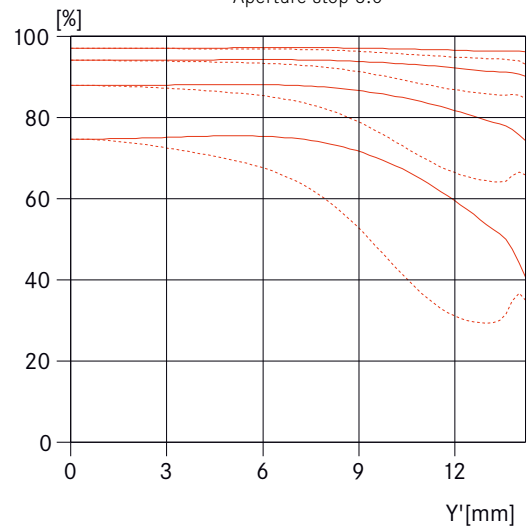
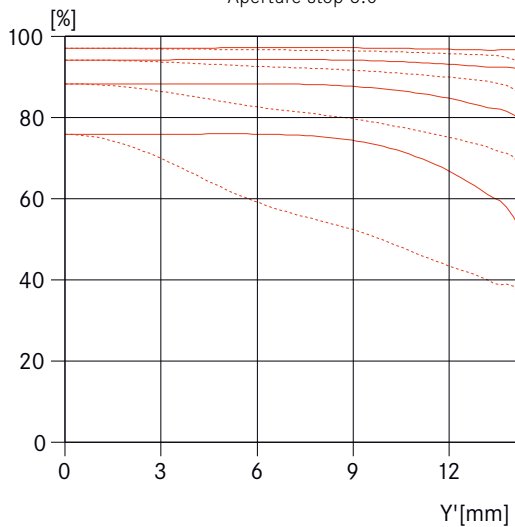
Aperture stop 3.5

Aperture stop 3.5



Aperture stop 8.0

Aperture stop 8.0



— Sagittal structures
- - - Tangential structures

MTF GRAPHS

The MTF is indicated both at full aperture and at f/8.0 for long distances (infinity) and close focussing distance. 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.

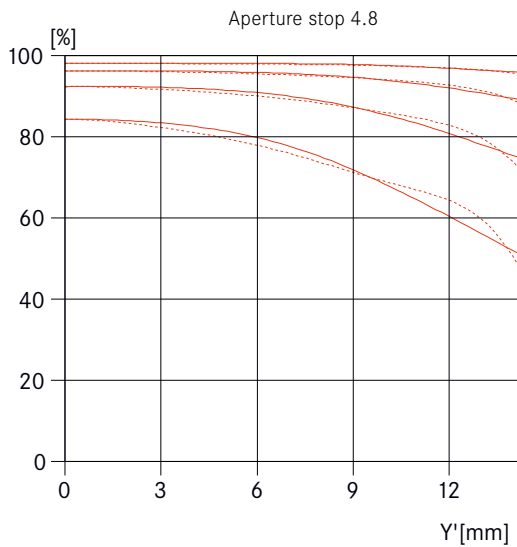


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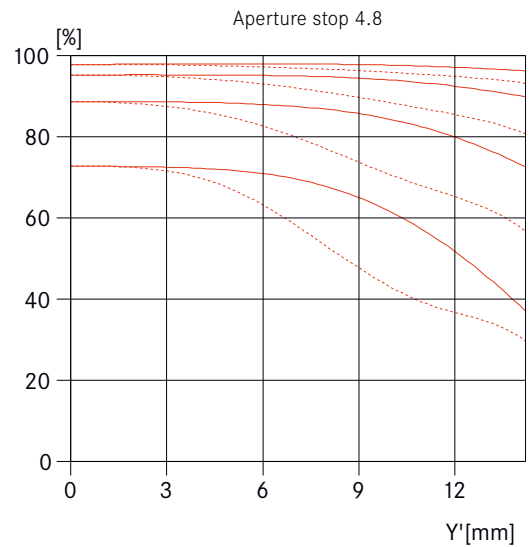
MTF DIAGRAMS

Focal length 33 mm

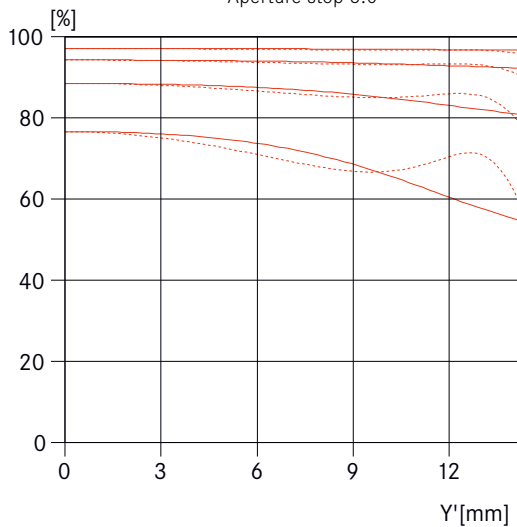
Infinity



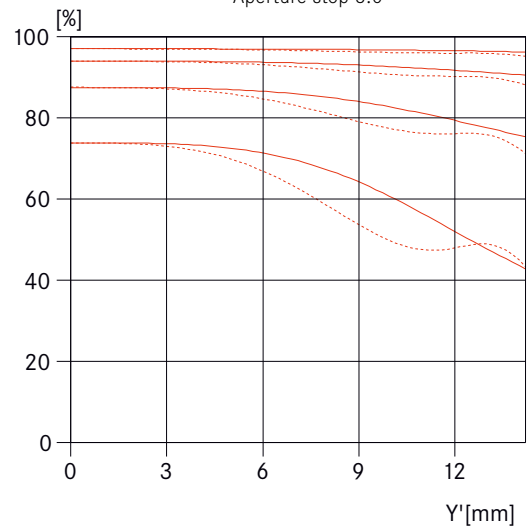
Close focus distance



Aperture stop 8.0



Aperture stop 8.0



— Sagittal structures
- - - Tangential structures

MTF GRAPHS

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MTF DIAGRAMS

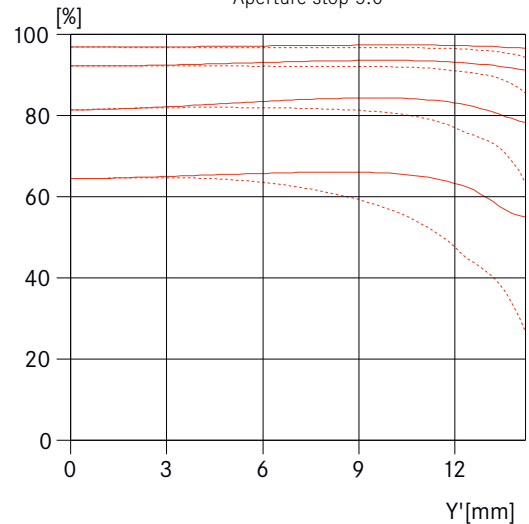
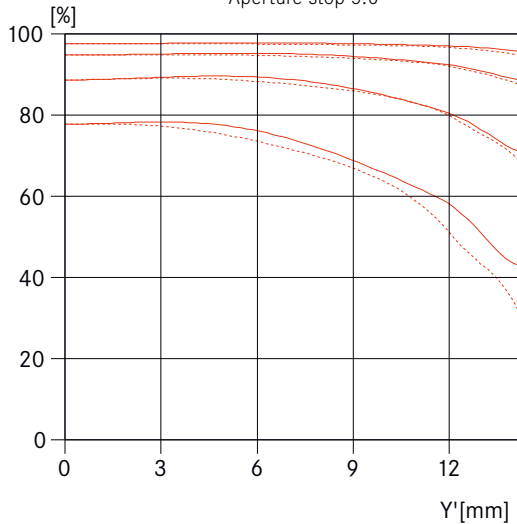
Focal length 56 mm

Infinity

Close focus distance

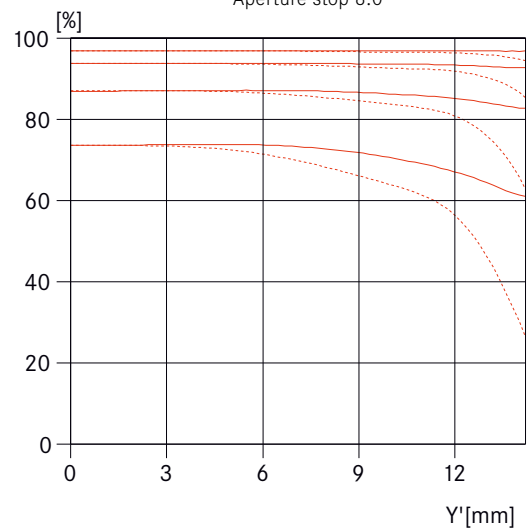
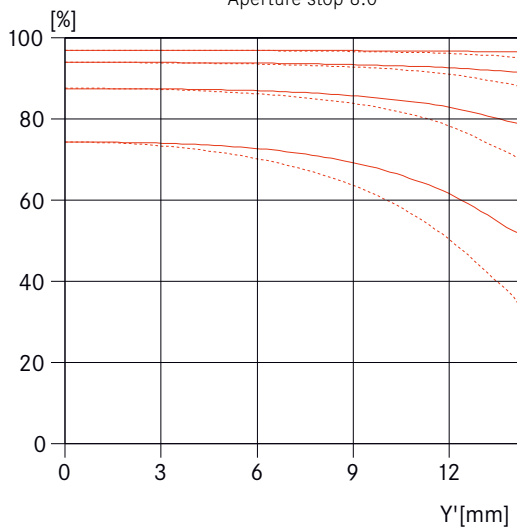
Aperture stop 5.6

Aperture stop 5.6



Aperture stop 8.0

Aperture stop 8.0



— Sagittal structures
 - - - Tangential structures

MTF GRAPHS

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