



SUPER-VARIO-ELMAR-SL 16-35 f/3.5-4.5 ASPH.

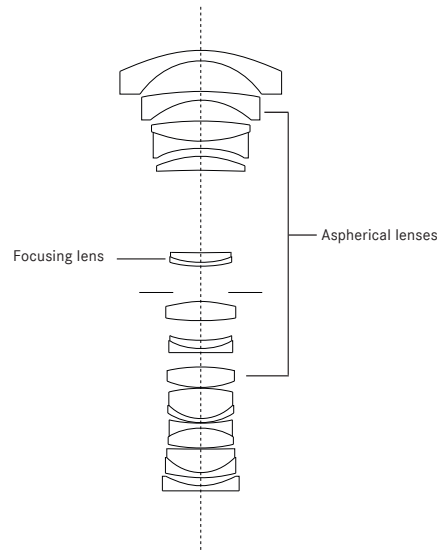
Technical Data.

ENGINEERING DRAWING



Illustration 1:2

LENS SHAPE



Lens	Super-Vario-Elmar-SL 16-35 f/3.5-4.5 ASPH.
Order number	11 177
Field angle (diagonal, horizontal, vertical)	Focal length 16mm: 105.6° / 95.3° / 72° Focal length 24mm: 84.7° / 74.4° / 53.7° Focal length 35mm: 64.6° / 55.5° / 38.7°
Optical design	
Number of lenses/groups	18/12
Number of asph. surfaces / lenses	4/2
Entrance pupil position	Focal length 16mm: 105.9mm Focal length 24mm: 101.5mm Focal length 35mm: 105.0mm
Distance setting	
Working range	250mm to infinity
Smallest object field	Focal length 35mm: 90 x 135 mm
Largest reproduction ratio	Focal length 16mm: 1:7.7 Focal length 35mm: 1:3.7
Aperture	
Setting/function	Electronically controlled aperture, set using turn/push wheel on camera, including half and third values
Aperture setting range	Focal length 16mm: 3.5-22 Focal length 35mm: 4.5-22
Lowest value	22
Bayonet/sensor format	L-Mount, full-frame 35mm format
Filter mount	E82
Dimensions and weight	
Length to bayonet mount	123 mm (without lens hood)
Largest diameter	88 mm
Weight	990 g



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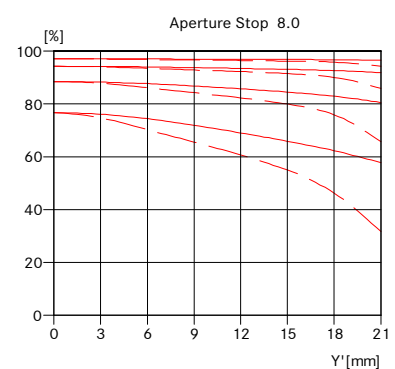
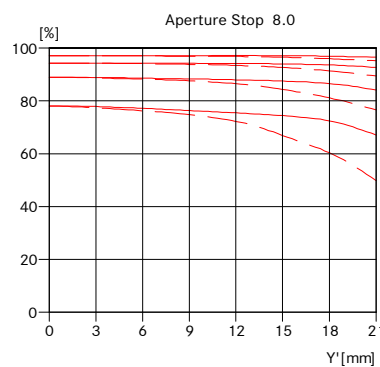
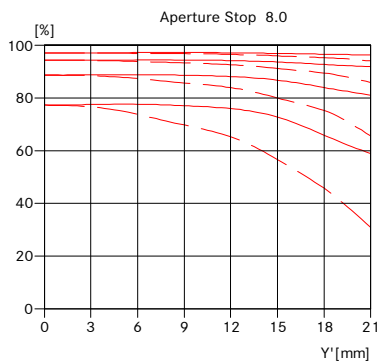
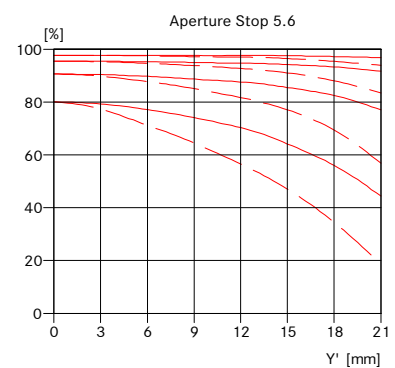
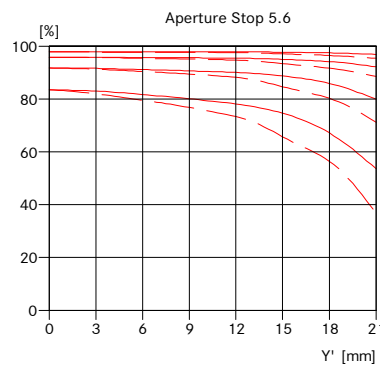
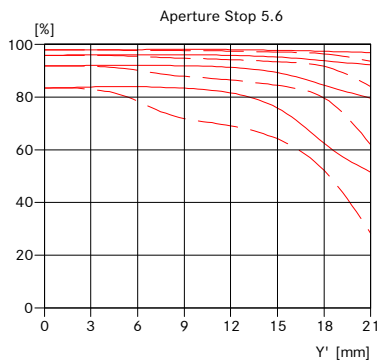
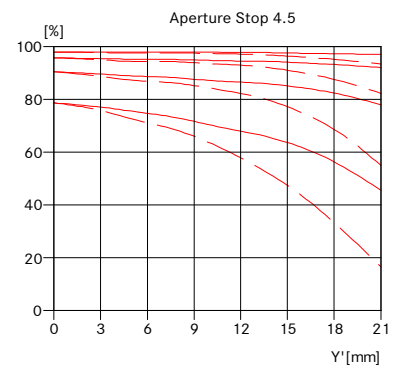
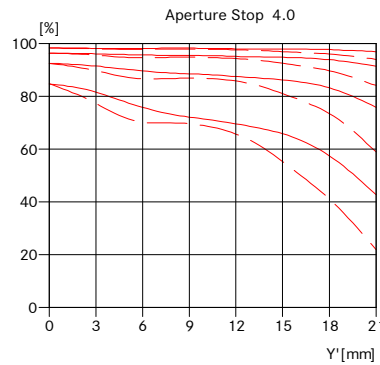
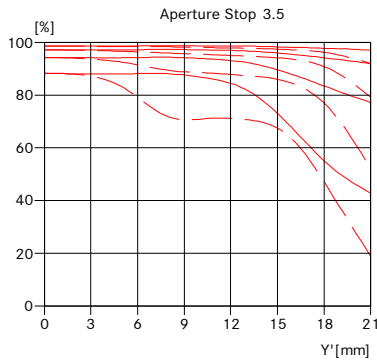
MTF DIAGRAMS

Infinity (∞)

Focal length 16mm

Focal length 24mm

Focal length 35mm



- Sagittal structures
- - - Tangential structures

MTF GRAPHS

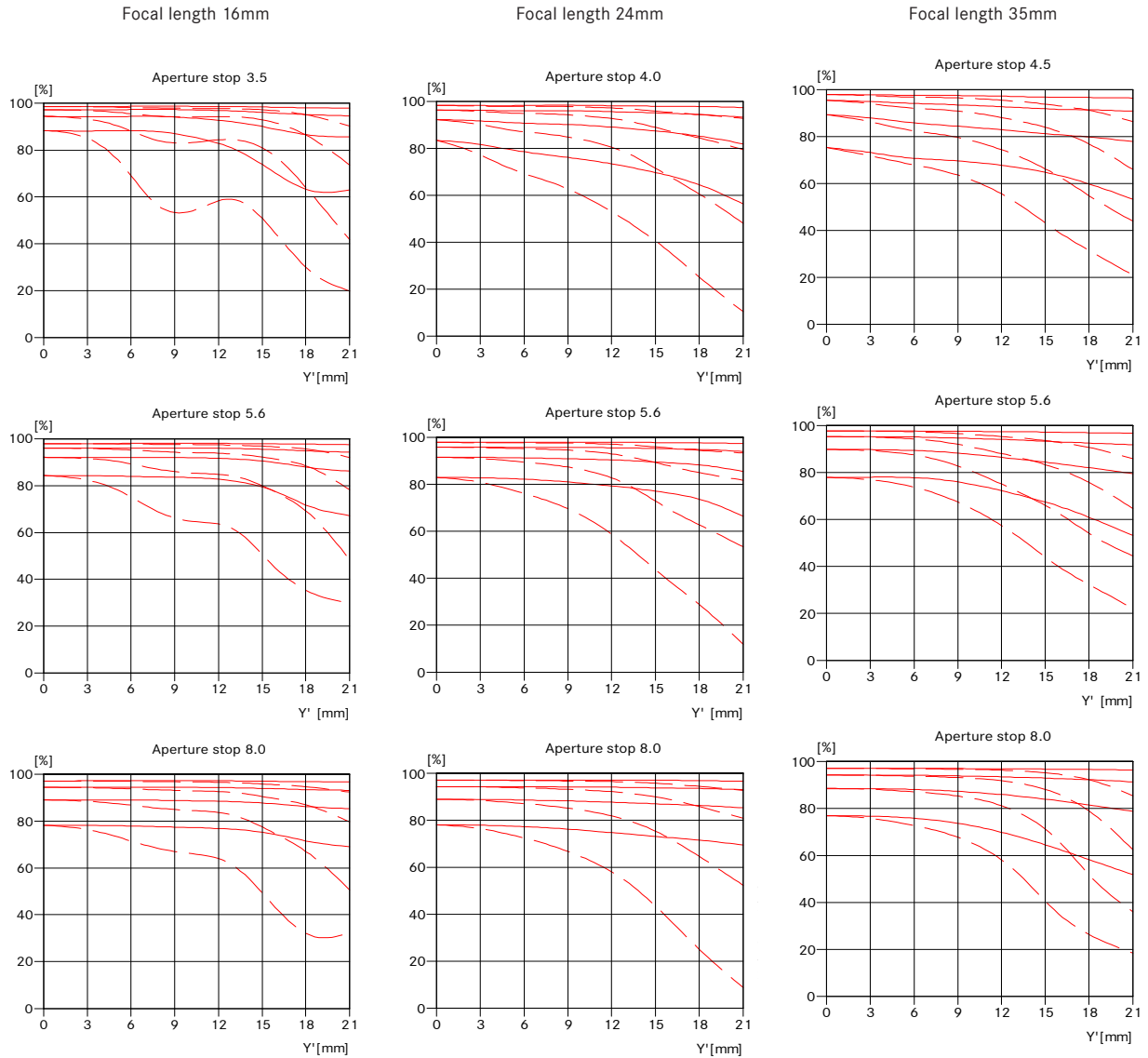
The MTF is shown in each case for the maximum aperture and the aperture values 5.6 and 8.0 for long focusing distances (infinity). The contrast is plotted for 5, 10, 20, 40 lines/mm for the height of the format for tangential (dashed line) and sagittal structures (continuous line) for white light. The plots for 5 and 10 lines/mm provide an impression of the contrast performance for coarser object structures and the 20 and 40 lines/mm plots document the resolving power for fine and finest object structures.



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MTF DIAGRAMS

Close distance (0.5 m)



- Sagittal structures
- - - Tangential structures

MTF GRAPHS

The MTF is shown in each case f or the maximum aperture and the aperture values 5.6 and 8.0 for long focusing distances (infinity). The contrast is plotted for 5, 10, 20, 40 lines/mm for the height of the format for tangential (dashed line) and sagittal structures (continuous line) for white light. The plots for 5 and 10 lines/mm provide an impression of the contrast performance for coarser object structures and the 20 and 40 lines/mm plots document the resolving power for fine and finest object structures.