



LEICA **SUMMILUX-SL** 50 mm f/1.4 ASPH.

Technical Data.



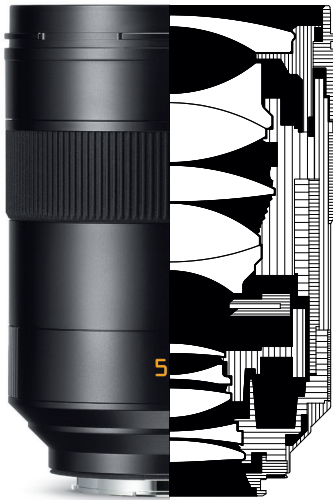
Illustration 1:2

Lens	Leica Summilux-SL 50 mm f/1.4 ASPH.
Field angle (diagonal, horizontal, vertical)	47.9° / 40.5° / 27.7°
Optical design	
Number of lenses/groups	11/9
Number of aspherical lenses	2
Entrance pupil position	76.8 mm
Working range	0.6 m to infinity
Distance setting	
Smallest object field	241 × 362 mm
Largest reproduction ratio	1:10
Aperture	
Setting/function	Electronically controlled aperture, set using turn/push wheel on camera, including half values
Aperture setting range	1.4-22
Lowest value	22
Bayonet/sensor format	Leica L bayonet, full-frame 35 mm format
Filter mount	E82
Dimensions and weight	
Length to bayonet mount	124 mm
Largest diameter	88 mm
Weight	1.065 g



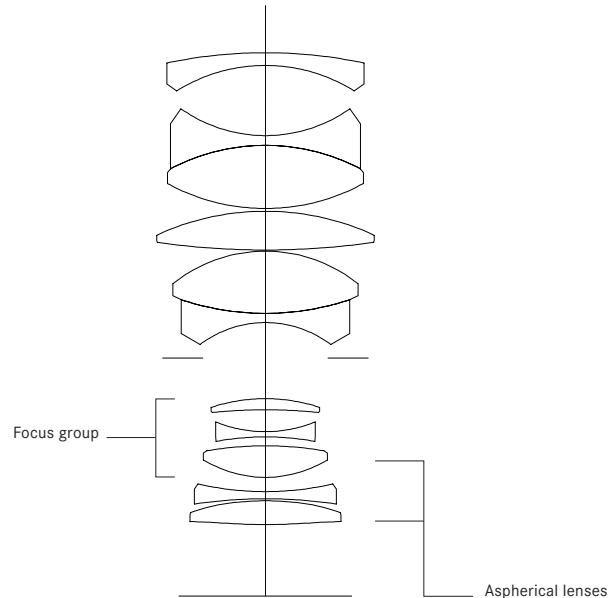
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ENGINEERING DRAWING



Illustrations 1:2

LENS SHAPE



The Leica Summilux-SL 50 mm f/1.4 ASPH. is the first prime lens in the SL-System portfolio and the new reference lens in its class. This extremely fast, high-performance standard lens is ideal for capturing subjects in natural lighting and offers the advantages of shallow depth of focus as a creative tool. Thanks to the outstanding precision of its autofocus, it allows you to concentrate fully on your subject and the composition of a perfect picture. The imaging performance of the lens fulfills even the most stringent standards. Particularly at maximum aperture, its high resolving power and the pleasingly soft bokeh in out of focus areas isolate the subject clearly from its surroundings. Thanks to the consistent contrast rendition throughout the focusing range, this applies equally for all distance settings.

CONSTRUCTION DETAILS

A special feature of its construction is the motorized focusing system. In contrast to manually focused prime lenses, where the length generally varies when focusing, the Leica Summilux-SL 50 mm f/1.4 ASPH. has internal focusing*. To ensure high imaging performance throughout the entire focusing range, the focusing group is elaborately constructed with an aspherical element, yet remains light enough to guarantee fast automatic focusing. Its optical design contains a total of 11 elements. Of these, two are aspherical elements and a further four are made from glasses with anomalous partial dispersion for the correction of chromatic aberrations. This complex optical construction reduces all monochromatic and chromatic aberrations to a hardly perceptible minimum. Advanced multilayer coating on all lens surfaces, the optimum design of the lens tubes, and the rectangular lens hood provided with the lens significantly reduce reflections and stray light.

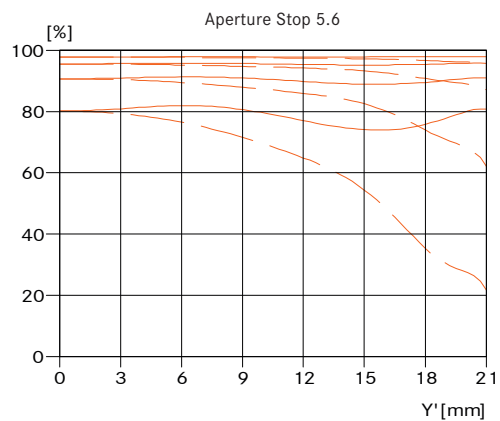
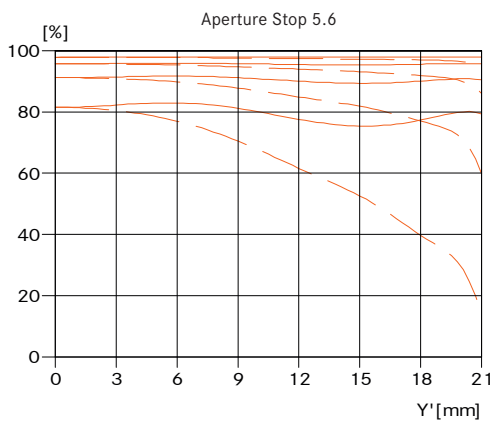
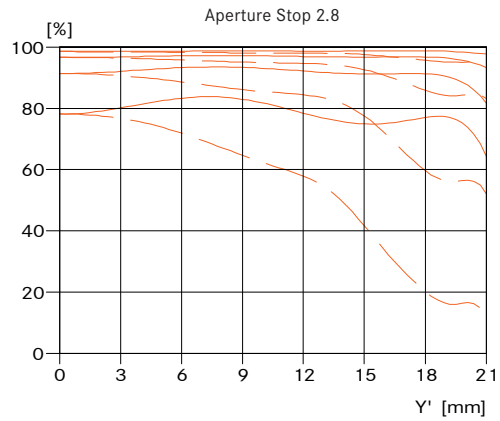
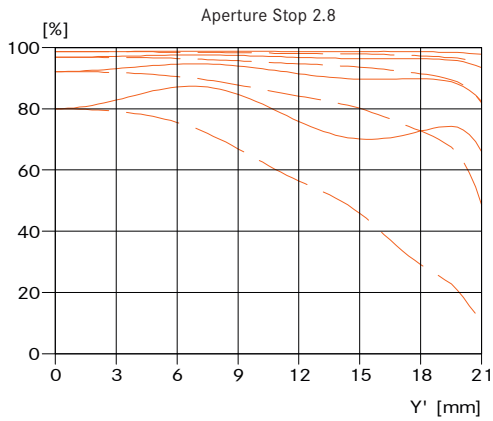
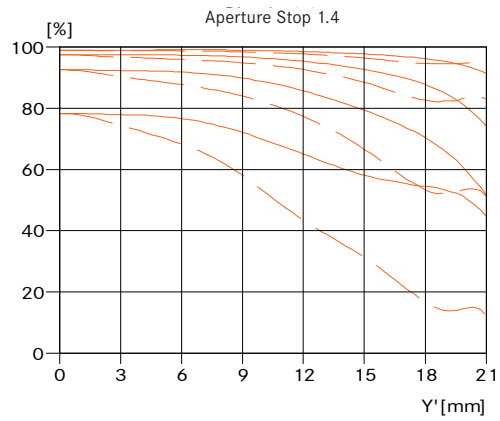
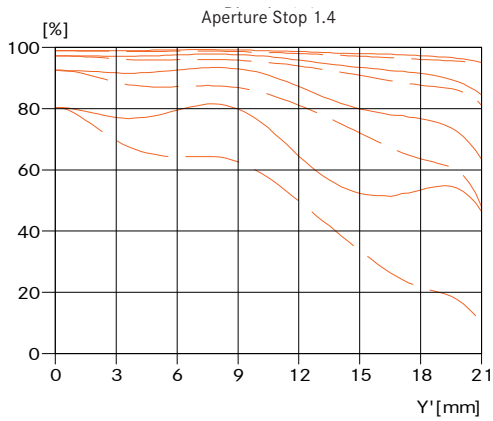


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MTF DIAGRAMS

Infinity (∞)

Close distance (1 m)



- 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.