Planar T* 1,4/50 ZF

Features

- The fast f/1.4 aperture produces bright images even under difficult lighting conditions
- The lens design produces nearly distortion free
- images over the entire frame
- Precise manual focusing
- Robust full-metal construction
- Identical color reproduction of all models assures the quality of products measured by hue difference
- For industrial cameras with F-Mount up to sensor sizes of 24x36 mm.
- Mounts and optical coatings can be modified on request

ZF-I: Industrial Edition
Features special screws to fix focus and aperture settings also in rough situations.

ZF-IR: Infrared Edition
Features special coating for optimized performance in near-infrared applications.

Camera Mounts
Available for other camera mounts such as EF, K or M42 screw mount.

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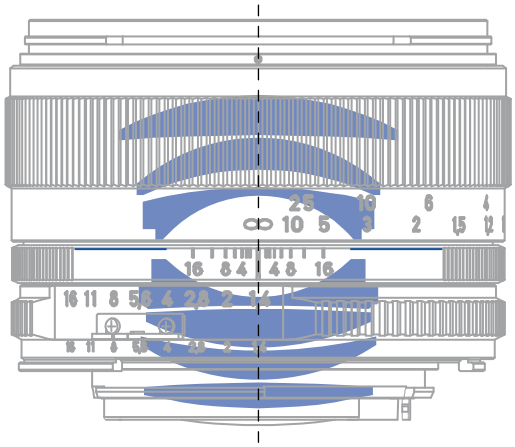
Technical Specifications



Focal length	50 mm
Aperture range	f/1.4 – f/16 (1/ 2 stop intervals)
Number of elements / groups	7 / 6
Working distance (object to sensor)	35.1 cm (1.15 ft) – ∞
Angular field* (diag. / horiz. / vert.)	45 / 38 / 26 °
Max. diameter of image field	43 mm (1.7")
Flange focal length	46.5 mm (1.8")
Coverage at close range	16 x 24 cm (6.3 x 9.4")
Image ratio at close range	1: 6.7
Filter-thread	M 58 x 0.75
Length (without caps)**	44.8 mm (1.75")
Diameter	66 mm (2.6")
Weight	350 g (12 oz.)
Camera mount***	ZF (F bayonet)

* referring to 35 mm format
** from bayonet mount to filter thread when lens focused to infinity
*** other mounts available on request

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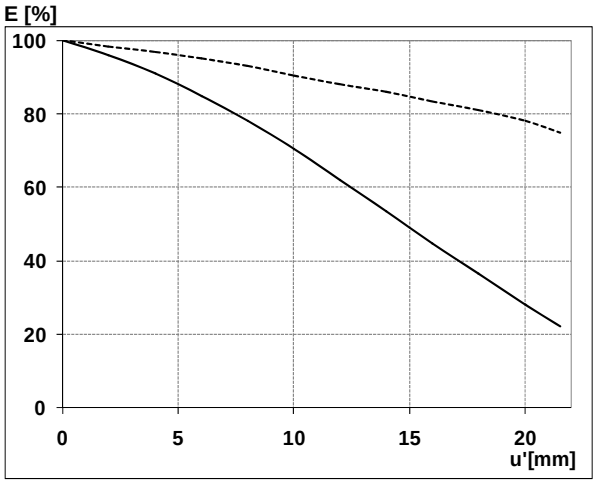
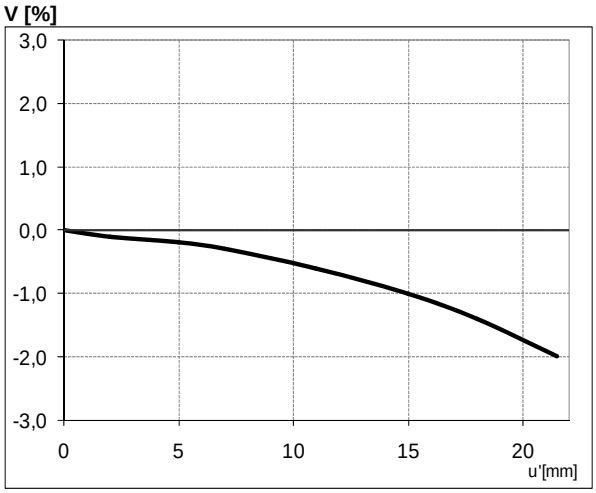
Relative Illuminance



The relative illumination shows in percent the decrease in image brightness from the image center to edge.

__ f-number 1.4
… f-number 4

Relative Distortion



The relative distortion shows in percent the deviation of the actual from the ideal image height.

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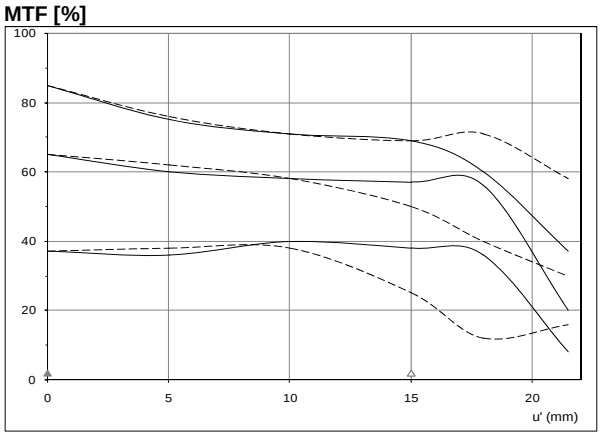
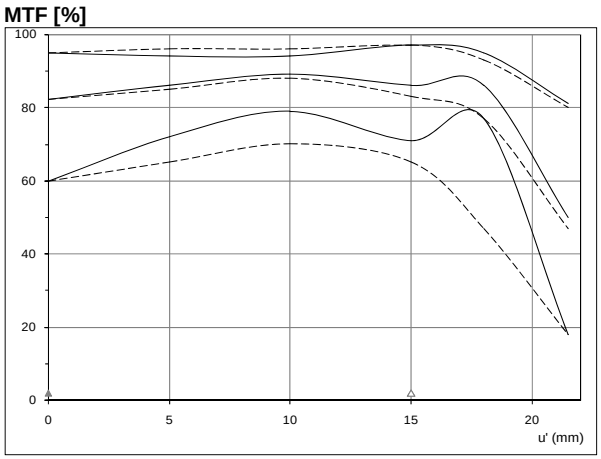
MTF Charts



The Modulation Transfer (MTF) as a function of image height (u) and slit orientation (sagittal, tangential) has been measured with white light at spatial frequencies of R = 10, 20 and 40 cycles/mm.

f-number 2
__ Saggital
… Tangential



f-number 4
__ Saggital
… Tangential

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Depth of Field

	Field range			
Aperture	**Object distance 3.00 m (9.84 ft)**		**Object distance 0.80 m (2.62 ft)**	
f / 1.4	2.87 – 3.14 m	(9.42 – 10.30 ft)	0.99 – 1.01 m	(3.25 – 3.31 ft)
f / 2	2.82 – 3.20 m	(9.25 – 10.50 ft)	0.98 – 1.02 m	(3.22 – 3.35 ft)
f / 2.8	2.75 – 3.29 m	(9.02 – 10.79 ft)	0.97 – 1.03 m	(3.18 – 3.38 ft)
f / 4	2.66 – 3.00 m	(8.73 – 9.84 ft)	0.96 – 1.04 m	(3.15 – 3.41 ft)
f / 5.6	2.55 – 4.00 m	(8.37 – 13.12 ft)	0.95 – 1.06 m	(3.12 – 3.48 ft)
f / 8	2.39 – 4.00 m	(7.84 – 13.12 ft)	0.93 – 1.08 m	(3.05 – 3.54 ft)
f / 11	2.23 – 4.60 m	(7.32 – 15.09 ft)	0.91 – 1.12 m	(2.98 – 3.67 ft)
f / 16	2.00 – 6.20 m	(6.56 – 20.34 ft)	0.87 – 1.18 m	(2.85 – 3.87 ft)

Defined circle of confusion: 0.03 mm (0.0012")