Planar T* 1,4/85 ZF

Features

- The fast f/1.4 aperture produces bright images even under difficult lighting conditions
- The lens design produces distortion-free images
- over the entire frame
- Outstanding image definition enables you to clearly recognize even the edges of the object
- 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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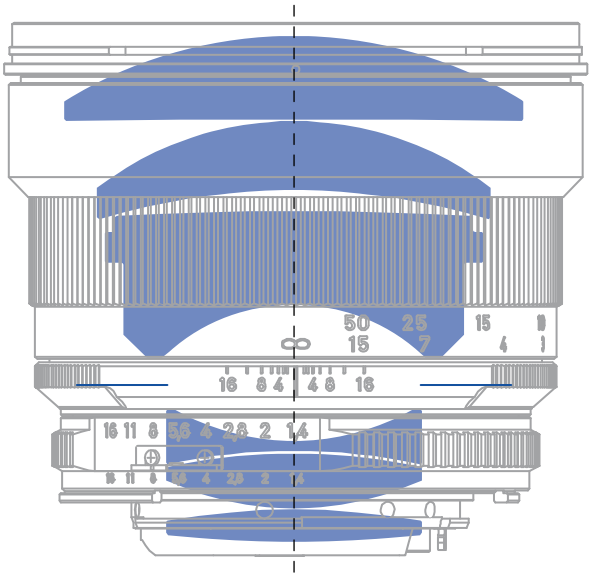
Technical Specifications



Focal length	85 mm
Aperture range	f/1.4 – f/16 (1/ 2 stop intervals)
Number of elements / groups	6 / 5
Working distance (object to sensor)	88.3 cm (2.90 ft) – ∞
Angular field* (diag. / horiz. / vert.)	29 / 24 / 16 °
Max. diameter of image field	43 mm (1.7")
Flange focal length	46.5 mm (1.8")
Coverage at close range	24 x 36 cm (9.4 x 14")
Image ratio at close range	1:10
Filter-thread	M 72 x 0.75
Length (without caps)**	61.8 mm (2.4")
Diameter	77 mm (3")
Weight	600 g (21 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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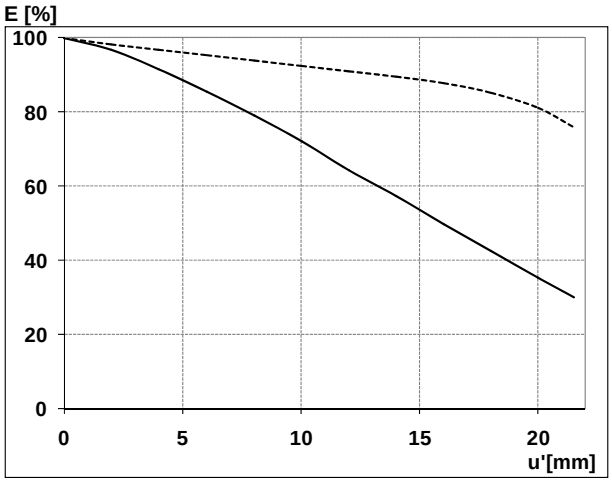
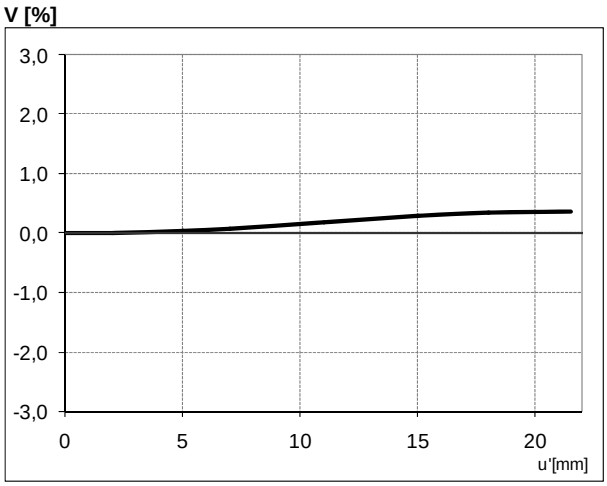
Relative Illuminance



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

__ f-number 1.4
… f-number 2.8

Relative Distortion



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

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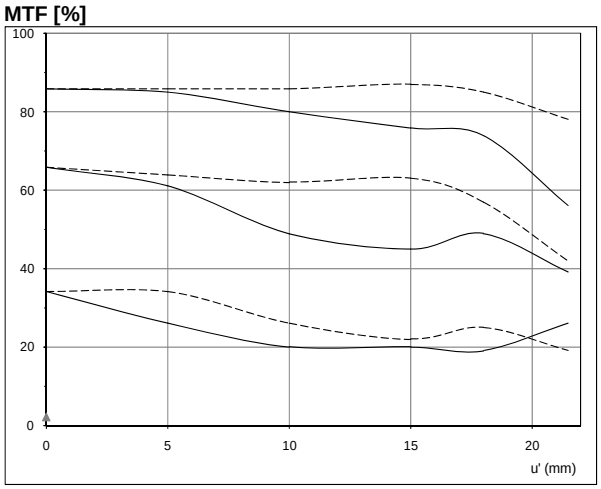
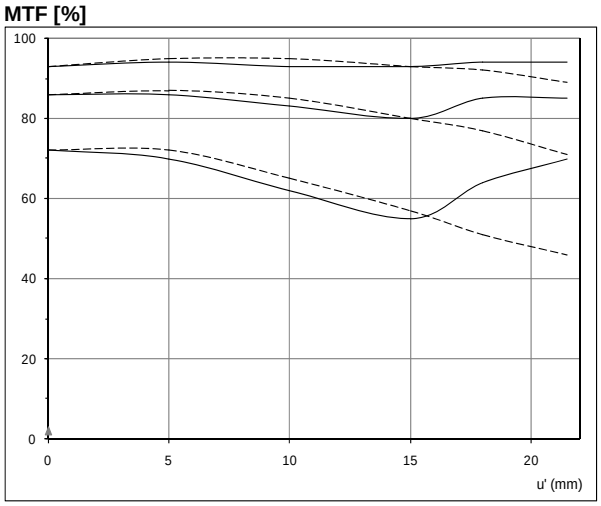
MTF Charts



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 1.4
__ Saggital
… Tangential



f-number 5.6
__ Saggital
… Tangential

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Depth of Field

	Field range			
Aperture	**Object distance 5.00 m (16.40 ft)**		**Object distance 2.00 m (6.56 ft)**	
f / 1.4	5.00 – 5.00 m	(16.40 – 16.40 ft)	1.98 – 2.02 m	(6.50 – 6.63 ft)
f / 2	5.00 – 5.00 m	(16.40 – 16.40 ft)	1.97 – 2.03 m	(6.46 – 6.66 ft)
f / 2.8	5.00 – 5.00 m	(16.40 – 16.40 ft)	1.96 – 2.04 m	(6.43 – 6.69 ft)
f / 4	5.00 – 5.00 m	(16.40 – 16.40 ft)	1.94 – 2.06 m	(6.36 – 6.76 ft)
f / 5.6	4.00 – 6.00 m	(13.12 – 19.68 ft)	1.92 – 2.09 m	(6.30 – 6.86 ft)
f / 8	4.00 – 6.00 m	(13.12 – 19.68 ft)	1.89 – 2.13 m	(6.50 – 6.99 ft)
f / 11	4.10 – 6.40 m	(13.45 – 21.00 ft)	1.85 – 2.18 m	(6.07 – 7.15 ft)
f / 16	3.80 – 7.40 m	(12.47 – 24.28 ft)	1.97 – 2.28 m	(5.87 – 7.48 ft)

Defined circle of confusion: 0.03 mm (0.0012")