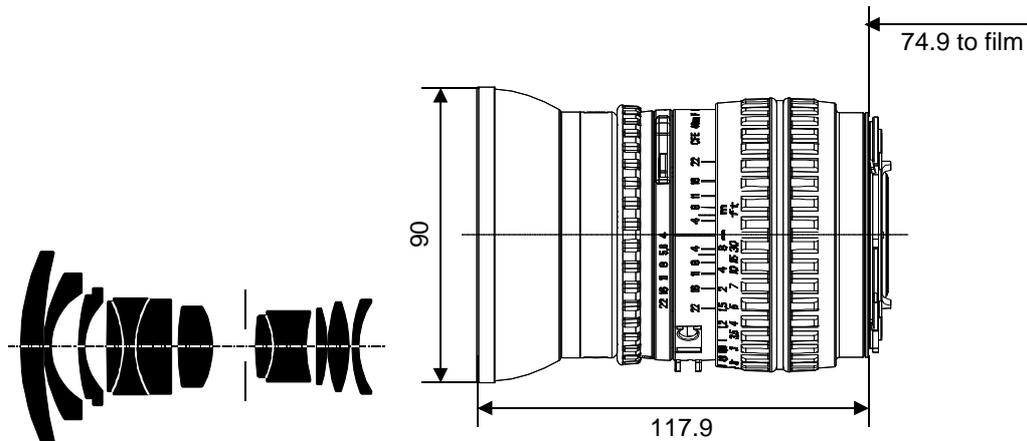


Distagon® T* 4/40 IF CFE



H A S S E L B L A D

The Distagon® T* 4/40 IF CFE lens is a sophisticated super wide angle lens with outstanding performance. It is designed for the 6 x 6 format. Compared to its predecessor it is improved in several aspects:

- The optical performance is unusually good even at wide open aperture. Detail resolutions up to 200 lp/mm can be reached on films with adequate resolving power. With this potential the Distagon® T* 4/40 IF CFE lens recommends itself for aerial photography and other very demanding tasks.
- In the corners of the image the performance is significantly higher than that of the predecessor at all apertures.
- The image angle is slightly wider than that of the predecessor.
- The image quality in the close-up range, especially the image flatness, is much better than that of the predecessor, especially at large apertures.
- At the close-up limit, the Distagon® T* 4/40 IF CFE lens is able to frame slightly smaller objects than its predecessor could.

The Distagon® T* 4/40 IF CFE lens is particularly suited to be used with digital backs in professional studio photography. Here, it is a shorter focal length alternative to the digitally well-accepted lens Makro-Planar® T* 4/120 CFE.

The Distagon® T* 4/40 IF CFE lens features internal focusing and automatic optimisation of correction over the entire focusing range from infinity to close-up. A newly developed focusing mechanism with reduced torque enables smooth and precise focusing. The ergonomics are further enhanced by the focusing ring being much wider and better positioned than that of the predecessor.

Preferred use:

Dynamic landscapes and cityscapes with plenty of detail, documentation, professional digital photography, advertising, interiors, industrial, aerial photography, aerospace

Cat. No. of lens	10 49 66	Close limit field size	473 mm x 473 mm
Number of elements	12	Max. scale	1 : 8.3
Number of groups	9	Entrance pupil*	
Max. aperture	f/4	Position	32.2 mm behind the first lens vertex
Focal length	40.8 mm	Diameter	10.2 mm
Negative size	55 x 55 mm	Exit pupil*	
Angular field 2w*	width 68°, height 68°, diagonal 87°	Position	35.8 mm in front of the last lens vertex
Min. aperture	22	Diameter	27.7 mm
Camera mount	CFE	Position of principal planes*	
Filter connection	series 93	H	57.9 mm behind the first lens vertex
Focusing range	infinity to 0.5 m	H'	33.4 mm behind the last lens vertex
Working distance (between mechanical front end of lens and subject)	0.3 m	Back focal distance	74.2 mm
		Distance between first and last lens vertex*	117.7 mm
		Weight	1130 g

* at infinity



Performance data:

Distagon® T* 4/40 IF CFE

Cat. No. 10 49 66

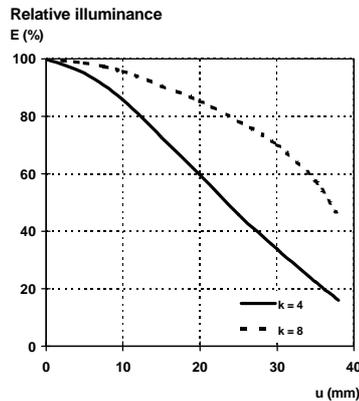
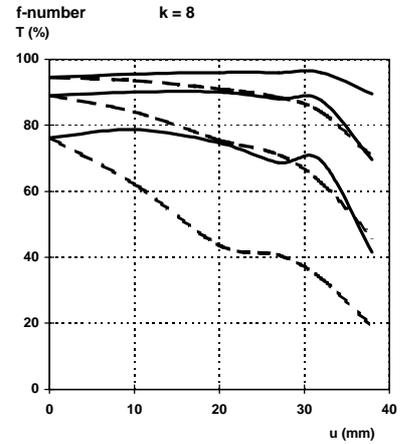
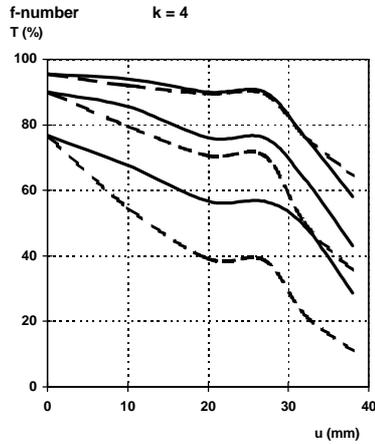
1. MTF Diagrams

The image height u - calculated from the image center - is entered in mm on the horizontal axis of the graph. The modulation transfer T (MTF = Modulation Transfer Factor) is entered on the vertical axis. Parameters of the graph are the spatial frequencies R in cycles (line pairs) per mm given at the top of this page.

The lowest spatial frequency corresponds to the upper pair of curves, the highest spatial frequency to the lower pair. Above each graph, the f-number k is given for which the measurement was made. "White" light means that the measurement was made with a subject illumination having the approximate spectral distribution of daylight. Unless otherwise indicated, the performance data refer to large object distances, for which normal photographic lenses are primarily used.

Modulation transfer T as a function of image height u .
White light. Spatial frequencies $R = 10, 20$ and 40 cycles/mm

Slit orientation: — sag — tan

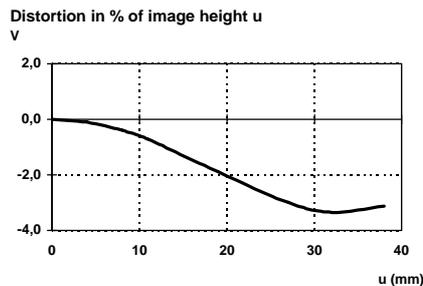


2. Relative illuminance

In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E , both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.

3. Distortion

Here again the image height u is entered on the horizontal axis in mm. The vertical axis gives the distortion V in % of the relevant image height. A positive value for V means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion distortion); a negative V indicates barrel distortion.



Subject to change.
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