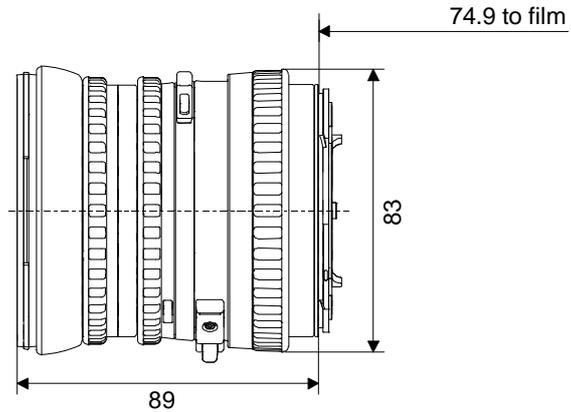
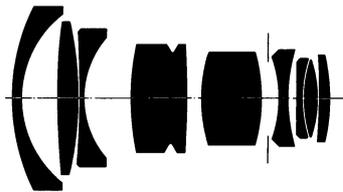


Distagon® T* 4/50 CFi



H A S S E L B L A D

Many photographers consider the **Distagon® T* 4/50 CFi** lens the ideal all-purpose wide angle lens in medium format. The modern optical design guarantees high performance, even close-up, thanks to "floating elements". Corner-to-corner illumination is very even with all aperture settings common in advertising, nature and landscape photography, and veiling glare is extremely well controlled. So the **Distagon® T* 4/50 CFi** lens is well suited for landscape shots with large blue sky areas.

Distortion is kept remarkably low, qualifying the **Distagon® T* 4/50 CFi** lens for both professional architecture and product photography – a unique strength of retrofocus wide angle lenses from Carl Zeiss. On top of all these benefits the **Distagon® T* 4/50 CFi** lens is remarkably compact.
Preferred use: all-purpose, landscapes, calendars, travel

Cat. No. of lens	10 49 49		
Number of elements	9	Working distance (between mechanical front end of lens and subject)	0.3 m
Number of groups	8	Close limit field size	351 mm x 351 mm
Max. aperture	f/4	Max. scale	1 : 6.3
Focal length	51.9 mm	Entrance pupil	
Negative size	55 x 55 mm	Position	31.9 mm behind the first lens vertex
Angular field	width 57°, height 57°, diagonal 74°	Diameter	13.0 mm
Min. aperture	32	Exit pupil	
Camera mount	CFi	Position	22.2 mm in front of the last lens vertex
Shutter	Prontor CFi 1s-1/500s, b, f	Diameter	22.6 mm
Filter connection	bayonett series 70	Position of principal planes	
Focusing range	infinity to 0.5 m	H	53.8 mm behind the first lens vertex
Near ranges, optimized	infinity to 4.0 m	H'	22.2 mm behind the last lens vertex
	4.0 m to 1.2 m	Back focal distance	74.1 mm
	1.2 m to 0.8 m	Distance between first and last lens vertex	87.1 mm
	0.8 m to 0.5 m	Weight	800 g



Performance data:

Distagon® T* 4/50 CFI

Cat. No. 10 49 49

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.

2. Relative illuminance

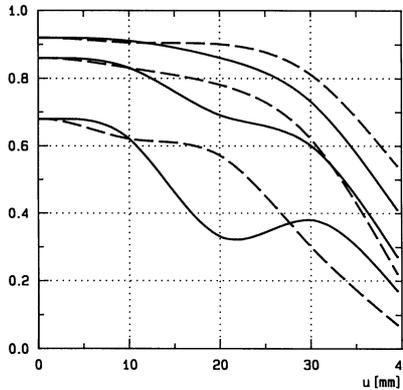
In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E , both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.

3. Distortion

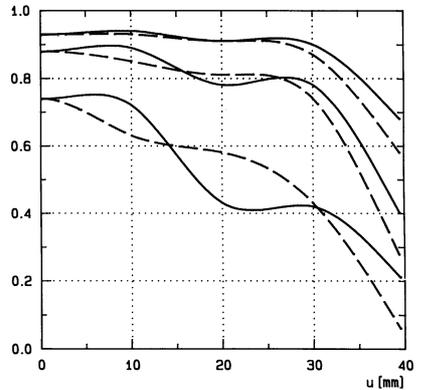
Here again the image height u is entered on the horizontal axis in mm. The vertical axis gives the distortion V in % of the relevant image height. A positive value for V means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion distortion);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

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

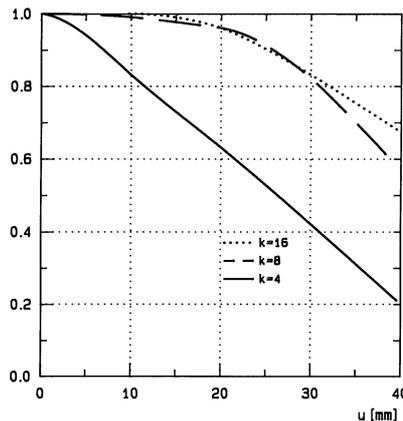
T f-number $k = 4$



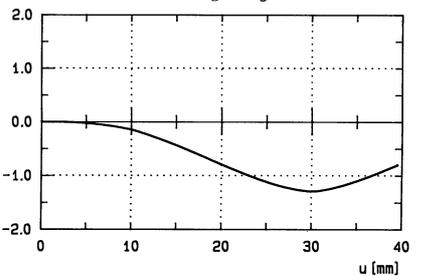
T f-number $k = 8$



E Relative illuminance



V Distortion in % of image height u



Subject to change.

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