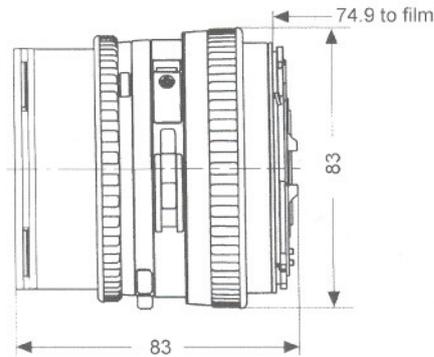
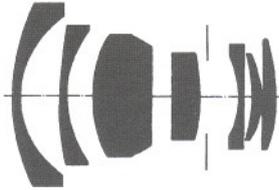


# Distagon® T\* 3.5/60 CB



H A S S E L B L A D

Experienced photographers utilize the **Distagon® T\* 3.5/60 CB** lens as interior specialist. It is great for portraits of people in their environment, where space would be too limited for the **Planar® T\* 2.8/80 CFE** lens and the pronounced wide angle perspective of the **Distagon® T\* 4/50 CFi** lens may distort heads of people located close to the edge of the frame. Groups indoors are such a typical task for wedding photographers, and a rewarding one: Photos like these will sell successfully, if people like the way they are depicted. And photos of wedding groups have to be tremendously sharp to ensure everyone in a hundred-people group can be clearly and pleasantly recognised!

The **Distagon® T\* 3.5/60 CB** lens is the perfect tool. Its performance goes clearly beyond the ability of today's sharpest color films. No professional wedding photographer should be without one. Aerial photography from low flying aircraft is another field benefitting from the resolving power of the **Distagon® T\* 3.5/60 CB** lens and so is industrial documentation.

To put it quite frankly: The **Distagon® T\* 3.5/60 CB** lens is very favourable value for money.

Preferred use: people, groups indoors, weddings, aerials shot rather wide open

<b>Cat. No. of lens</b>	<b>10 49 40</b>		
Number of elements	7	Close limit field size	417 mm x 417 mm
Number of groups	7	Max. scale	1 : 7.0
Max. aperture	f/3.5	Entrance pupil	
Focal length	60.2 mm	Position	32.2 mm behind the first lens vertex
Negative size	55 x 55 mm	Diameter	17.0 mm
Angular field	width 50°, height 50°, diagonal 66°	Exit pupil	
Min. aperture	22	Position	22.7 mm in front of the last lens vertex
Camera mount	CB	Diameter	26.7 mm
Shutter	Prontor CB	Position of principal planes	
Filter connection	Hasselblad series 60	H	53.8 mm behind the first lens vertex
Focusing range	infinity to 0.6 m	H'	11.0 mm
Working distance (between mechanical front end of lens and subject)	0.4 m	Back focal distance	71.1 mm
		Distance between first and last lens vertex	75.3 mm
		Weight	680 g



Performance data:

**Distagon® T\* 3.5/60 CB**

Cat. No. 10 49 40

### 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

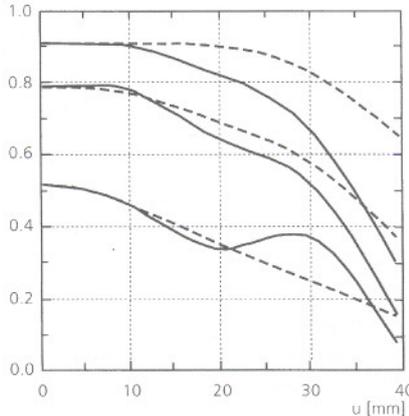
In this diagram the horizontal axis gives the image height  $u$  in mm and the vertical axis the relative illuminance  $E$ , both for full aperture and a moderately stopped-down lens. The values for  $E$  are determined taking into account vignetting and natural light decrease.

### 3. Distortion

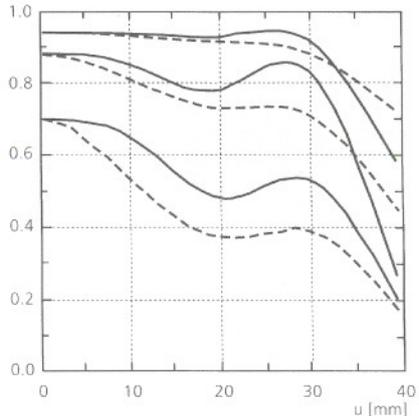
Here again the image height  $u$  is entered on the horizontal axis in mm. The vertical axis gives the distortion  $V$  in % of the relevant image height. A positive value for  $V$  means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion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

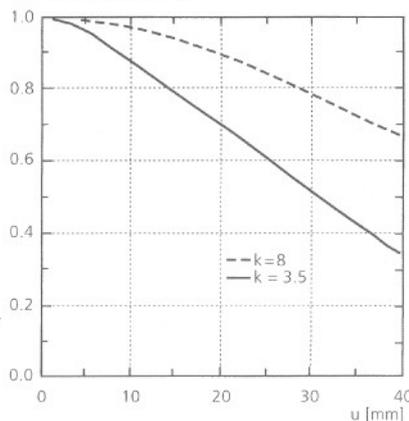
T f-number  $k = 3.5$  at  $\infty$



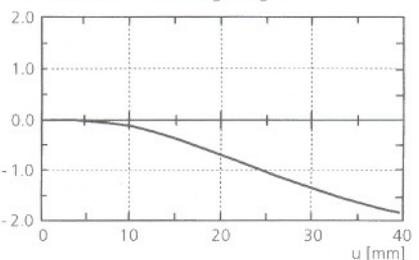
T f-number  $k = 8$  at  $\infty$



E Relative illuminance



V Distortion in % of image height  $u$



Subject to change.

Printed in Germany 26.05.2000



**Carl Zeiss**  
Photoobjektive  
D-73446 Oberkochen  
Telephone (07364) 20-6175  
Fax (07364) 20-4045  
eMail: photo@zeiss.de  
http://www.zeiss.de