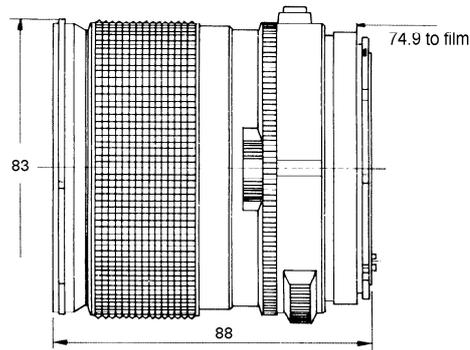
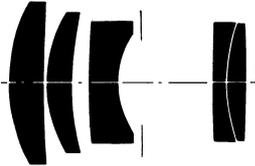


# Sonnar® T\* 2.8/150 FE



H A S S E L B L A D

The **Sonnar® T\* 2.8/150 FE** lens offers the same basic creative possibilities as the **Sonnar® T\* 4/150 CFi** lens, which means it is a very good choice for people and portrait photography, especially on location. It is twice as fast, which speeds up focusing and adds creative possibilities for blurring out unwanted background detail. It can be flash-synchronised up to 1/90 s with the focal plane shutter in the 200 series Hasselblad SLRs.

Compared with the **Planar® T\* 2/110 FE** lens it offers a visibly longer focal length in the same size package, thus catching up significantly less background area. This benefits subjects in the area of travel, landscape, theatrical, and sports (e.g. golf) photography.

Preferred use: candid portraits on location, travel, landscape, sports, theatrical and stage photography

<b>Cat. No. of lens</b>	<b>10 11 24</b>	Close limit field size	390 mm x 390 mm
Number of elements	5	Max. scale	1 : 7.1
Number of groups	4	Entrance pupil	
Max. aperture	f/2.8	Position	58.9 mm behind the first lens vertex
Focal length	151.3 mm	Diameter	52.4 mm
Negative size	55 x 55 mm	Exit pupil	
Angular field	width 21°, height 21°, diagonal 29°	Position	37.1 mm in front of the last lens vertex
Min. aperture	22	Diameter	38.2 mm
Camera mount	FE	Position of principal planes	
Filter connection	bayonett, B 77	H	0.7 mm in front of the first lens vertex
Focusing range	infinity to 1.4 m	H'	79.9 mm in front of the last lens vertex
Working distance (between mechanical front end of lens and subject)	1.2 m	Back focal distance	71.5 mm
		Distance between first and last lens vertex	80.1 mm
		Weight	680 g

**ZEISS**

Performance data:

**Sonnar**<sup>®</sup> T\* 2.8/150 FE

Cat. No. 10 11 24

### 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

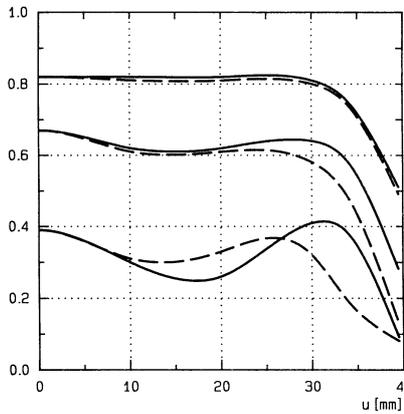
In this diagram the horizontal axis gives the image height  $u$  in mm and the vertical axis the relative illuminance  $E$ , both for full aperture and a moderately stopped-down lens. The values for  $E$  are determined taking into account vignetting and natural light decrease.

### 3. Distortion

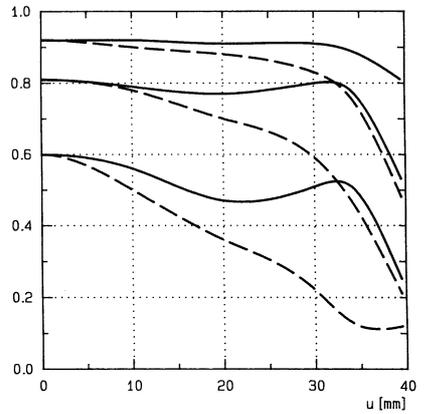
Here again the image height  $u$  is entered on the horizontal axis in mm. The vertical axis gives the distortion  $V$  in % of the relevant image height. A positive value for  $V$  means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion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

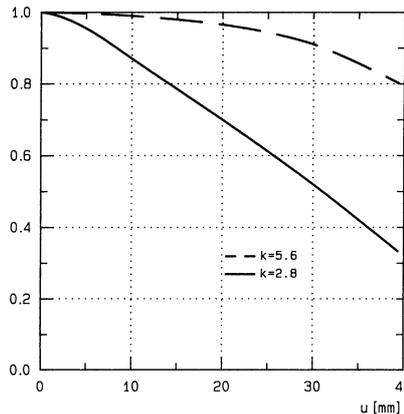
$T$  f-number  $k = 2.8$



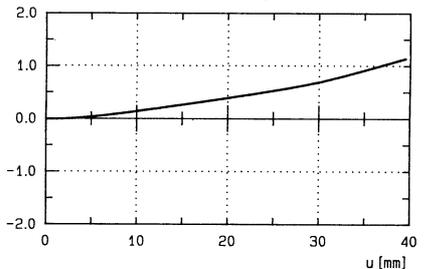
$T$  f-number  $k = 5.6$



$E$  Relative illuminance



$v$  Distortion in % of image height  $u$



Subject to change.

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