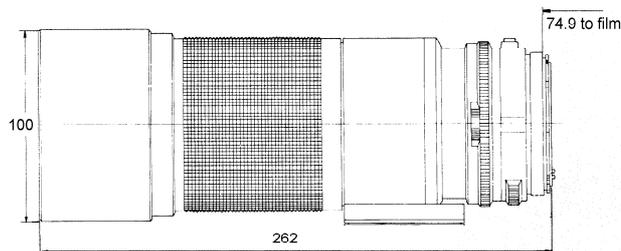
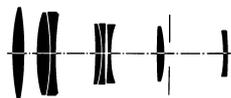


Tele-Tessar® T* 4/350 FE



H A S S E L B L A D

The **Tele-Tessar® T* 4/350 FE** lens is probably the most underrated lens in the Hasselblad program. Admittedly, it is big and goes heavy on the shoulder and on the budget. However, it was never cheap or easy for a lens manufacturer to correct aberrations in long focal length lenses considerably faster than f/8 really well. A lot of glass with very special properties and high price is involved. In this lens the correction is on a very high level, so stunning reproduction of fine detail can be achieved – with the maximum resolution at wide open aperture. At f/4 the viewfinder image is bright and detailed, enabling unusually quick and positive focusing is possible, aided by a very smooth internal focusing mechanism of extreme precision. Combined with this **Tele-Tessar®**'s ability to focus down to 1.9 meters (!), framing an object the size of a face, the photographer has unbelievable creative opportunities.

Using the shallow depth of field this lens can provide, it is surprisingly easy to take visually clear and professionally clean photos even in very distracting surroundings: The tremendous background blur will instantly and easily clean up almost any location.

This effect is extremely helpful and time-saving in industrial photography in factories, people shots and portraits on location – even in rather unfavourable surroundings. The narrow angle of view frames only a small background area, and even if this area is rather cluttered, the **Tele-Tessar® T* 4/350 FE** lens will clean it up photographically, saving time and labour, thus paying itself off pretty well.

Preferred use: glamour, close-up portraits, demanding location work (fashion, editorial), sports

Cat. No. of lens	10 45 41	Close limit field size	420 mm x 420 mm
Number of elements	8	Max. scale	1 : 4
Number of groups	6	Entrance pupil*	
Max. aperture	f/4	Position	303.5 mm behind the first lens vertex
Focal length	349.9 mm	Diameter	86.4 mm
Negative size	55 x 55 mm	Exit pupil*	
Angular field*	width 9.0°, height 9.0°, diagonal 13°	Position	49.4 mm in front of the last lens vertex
Min. aperture	32	Diameter	41.8 mm
Camera mount	FE	Position of principal planes	
Filter connection	M 96x1	H	75.7 mm in front of the first lens vertex
	clip-on, diameter 100 mm	H'	231.5 mm in front of the last lens vertex
Focusing range	infinity to 1.9 m	Back focal distance	118.4 mm
Working distance (between mechanical front end of lens and subject)	1.6 m	Distance between first and last lens vertex	212.7 mm
		Weight	2000 g

*for infinity



Performance data:

Tele-Tessar® T* 4/350 FE

Cat. No. 10 45 41

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

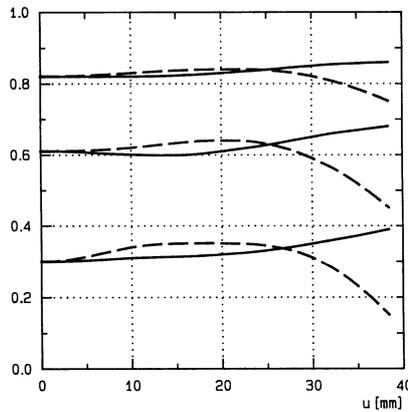
In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E , both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.

3. Distortion

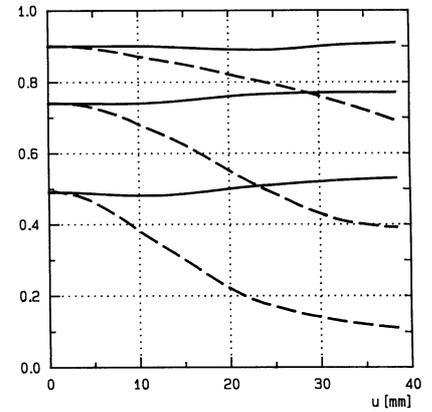
Here again the image height u is entered on the horizontal axis in mm. The vertical axis gives the distortion V in % of the relevant image height. A positive value for V means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion distortion);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

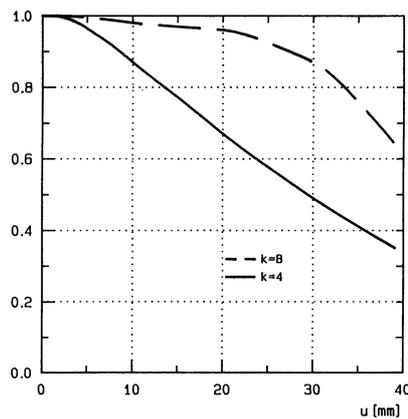
T f-number $k = 4$



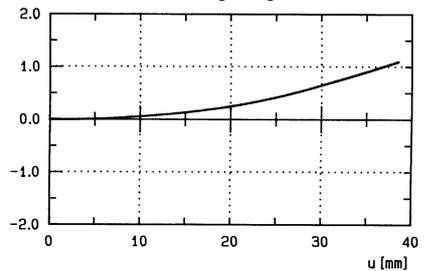
T f-number $k = 8$



E Relative illuminance



V Distortion in % of image height u



Subject to change.

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