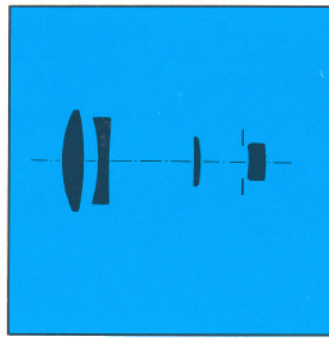


Tele-Tessar T\*  
f/5.6–350 mm  
Cat. No. 104514

H A S S E L B L A D



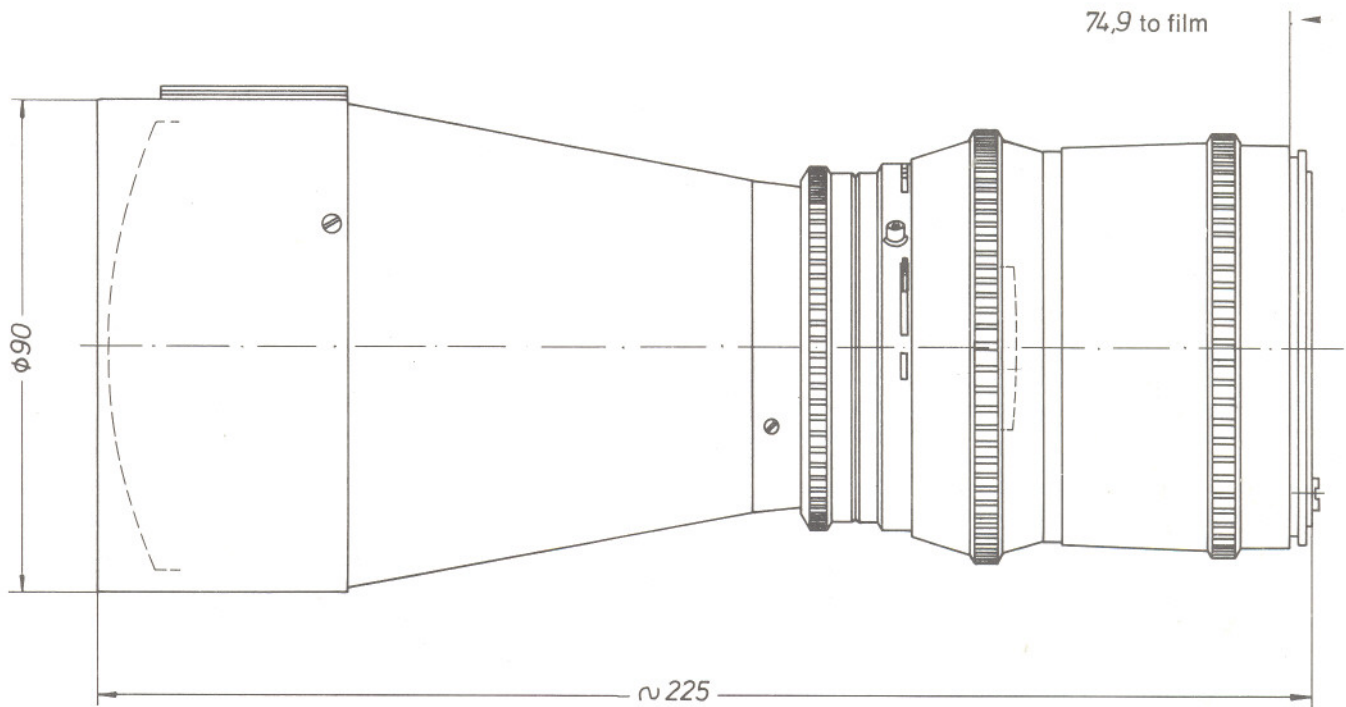
ZEISS

Carl Zeiss  
D-7082 Oberkochen  
West Germany

With a length of only 22.5 cm and a diameter of the mount of max. 9 cm, this tele lens is compact and handy in spite of its long focal length.

Even at full aperture the image quality is excellent for a lens of so long a focal length.

The Tele-Tessar T\* f/5.6–350 mm is well suited for long-range and animal photography and for picture series. Like all lenses with long focal lengths the Tele-Tessar T\* can be applied to achieve effects in the composition, e. g. to separate a motive from its background or to "gather up" the perspective.



Number of lens elements: 4  
Number of components: 4  
f-number: 5.6 at  $\infty$   
Focal length: 341.2 mm  
Negative size: 56.5 x 56.5 mm  
Angular field 2w: diagonal 13°, side 9°  
Spectral range: visible spectrum  
f-stop scale: 5.6 - 8 - 11 - 16 - 22 - 32 - 45  
Mount: Compur interchangeable reflex shutter size 0 with automatic iris diaphragm screw thread for Hasselblad series 86  
Filter mounting:  
Weight: approx. 1350 g

Distance range:  $\infty$  to 5 m  
Automatic depth-of-field indication for  $z = 0.06$  mm \*)  
Position of entrance pupil: 325.5 mm behind the first lens vertex  
Diameter of entrance pupil: 59.4 mm  
Position of exit pupil: 13.2 mm in front of the last lens vertex  
Diameter of exit pupil: 24.2 mm  
Position of principal plane H: 173.6 mm in front of the first lens vertex  
Position of principal plane H': 47.5 mm in front of the first lens vertex  
Distance between first and last lens vertex: 168.1 mm

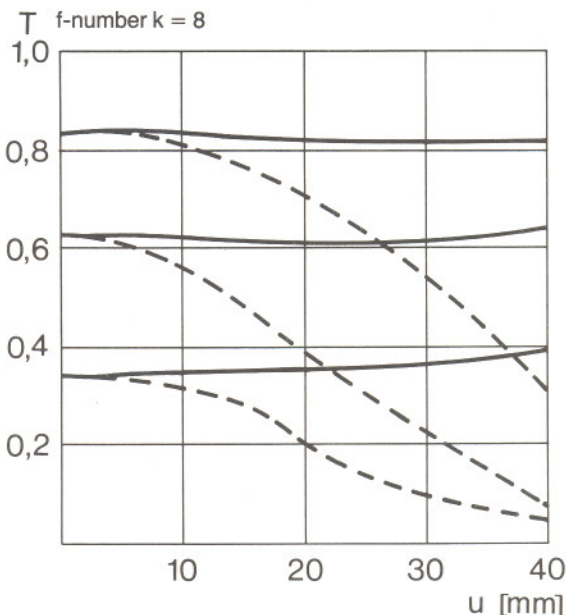
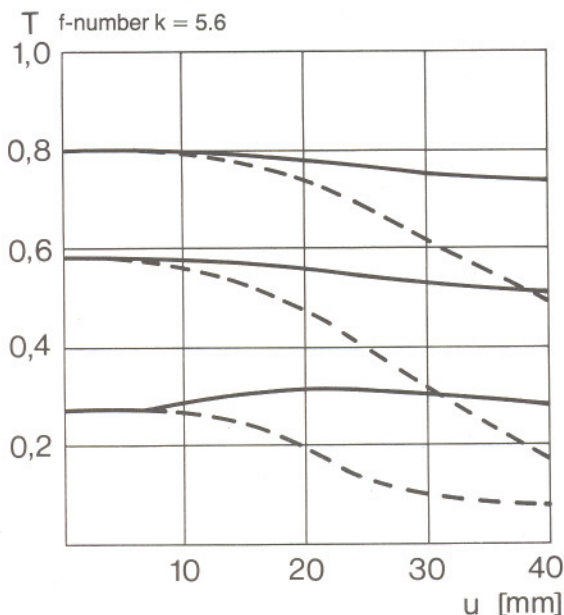
\*)  $z$  = circle-of-confusion diameter

Modulation transfer T as a function of image height u

Slit orientation tangential — — — —  
sagittal —————

White light

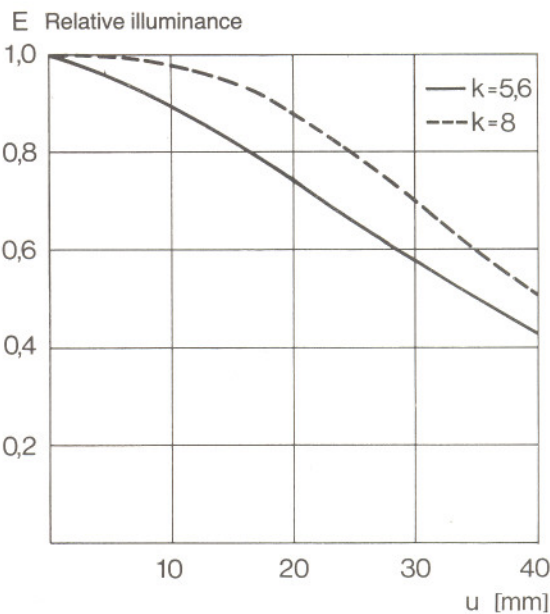
Spatial frequencies R = 10, 20 and 40 cycles/mm



**1. MTF Diagrams**

The image height u – reckoned 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 right hand above the diagrams.

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.

