Sonnar T*
f/4 – 150 mm
Cat. No. 101025

HASSELBLAD

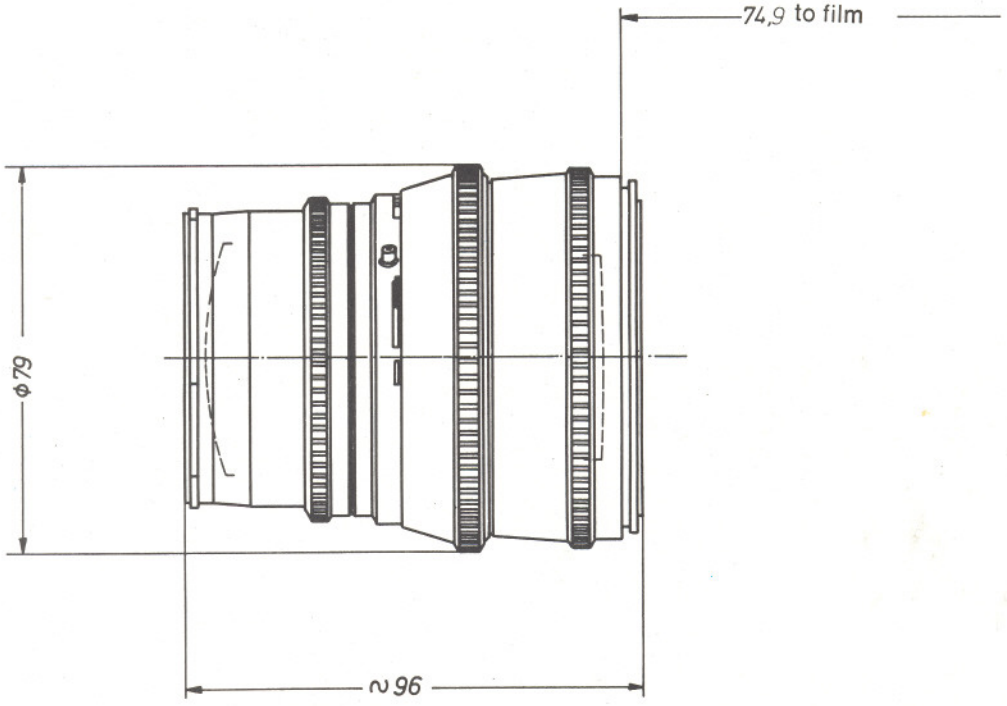
ZEISS

Carl Zeiss
D-7082 Oberkochen
West Germany

Many photographers consider the Sonnar T* f/4 - 150 mm the most important supplementary lens for the Hasselblad camera. Even at full aperture the lens covers the entire 6 x 6 cm format and produces pictures of excellent sharpness and brilliance.

The compact design which is characteristic of all Sonnar-type lenses offers excellent corner-to-corner illumination of the image field.

The Sonnar T* f/4 - 150 mm is suited above all for portraiture, press, sports, and stage photography. Owing to its high speed this lens allows short exposure times and thus hand-held exposure also under unfavorable light conditions, e. g. on the stage or for documentary series in bad weather.



Number of lens elements:	5
Number of components:	3
f-number:	4
Focal length:	151.2 mm
Negative size:	56.5 x 56.5 mm
Angular field 2 w:	diagonal 29°, side 21°
Spectral range:	visible spectrum
f-stop scale:	4 - 5.6 - 8 - 11 - 16 - 22 - 32
Mount:	Compur interchangeable reflex shutter size 0 with automatic iris diaphragm
Filter mounting:	bayonet for Hasselblad series 50
Weight:	approx. 710 g

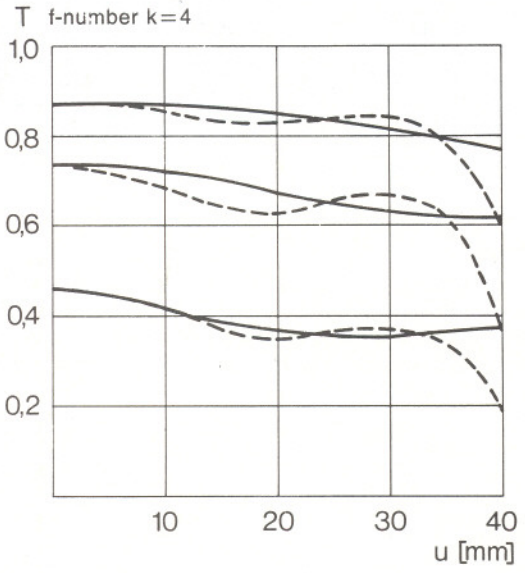
Distance range:	∞ to 1.4 m
Automatic depth-of-field indication for z = 0.06 mm *)	
Position of entrance pupil:	63.8 mm behind the first lens vertex
Diameter of entrance pupil:	37.4 mm
Position of exit pupil:	32.1 mm in front of the last lens vertex
Diameter of exit pupil:	28.0 mm
Position of principal plane H:	11.6 mm behind the first lens vertex
Position of principal plane H':	70.8 mm in front of the last lens vertex
Distance between first and last lens vertex:	81.8 mm

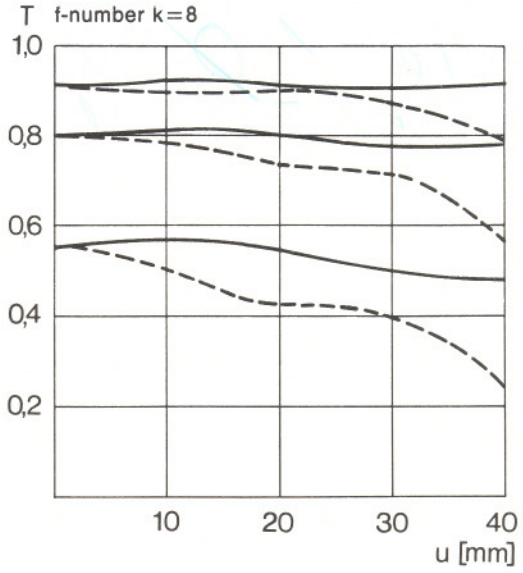
*) z = circle-of-confusion diameter

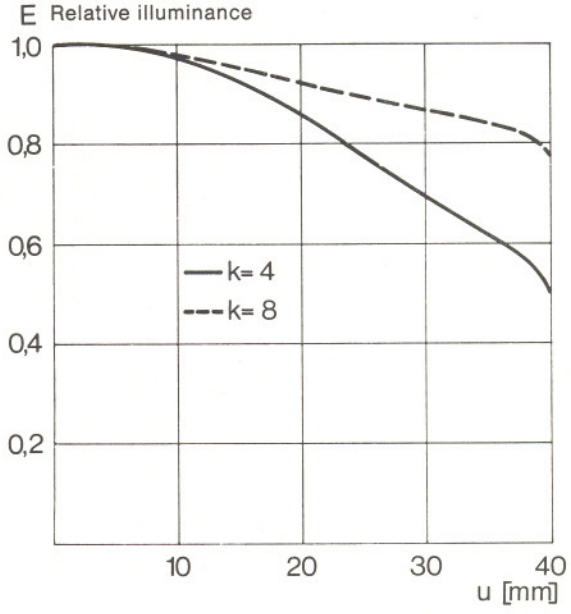
Performance data: Sonnar T* f/4–150 mm Cat. No. 101025

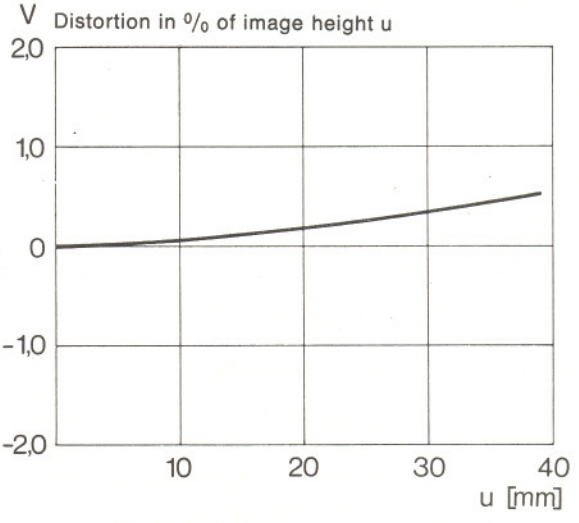
Modulation transfer T as a function of image height u
Slit orientation tangential – – – – – –
sagittal ————

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 = **M**odulation **T**ransfer **F**actor) 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.

Subject to technical amendment