Sonnar® T* 5,6/250 CFi

74.9 to film

83

155

H A S S E L B L A D
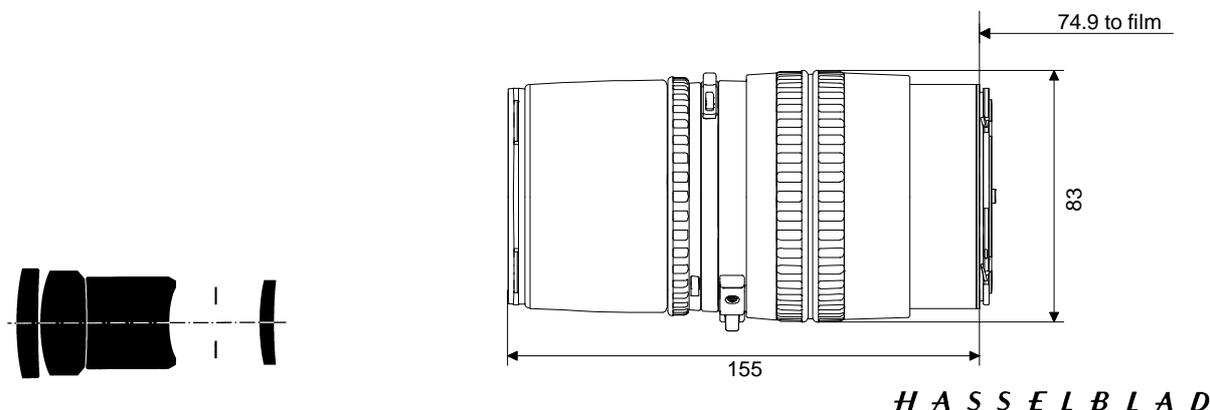
This lens is frequently used for distortion-free close-up portraits, particularly in fashion and in advertising photography involving kids that need to be photographed from a distance to appear natural. The optical performance, although optimized for infinity, has been kept very high, even close-up, to enable professional results in studio portrait and product photography. The shallow depth of field makes the **Sonnar**® T* 5,6/250 CFi lens ideal for blurring out unwanted backgrounds, making the subject stand out impressively.

The optical system is designed for high performance and corner-to-corner uniformity at wide open aperture. The optical materials chosen make this lens very unsusceptible to thermal fluctuations, so it can be safely used in radiant heat from direct summer sunshine, heavy industry furnaces, jet propulsion test beds, rocket launch sites and the like.

<u>Preferred use:</u> portraits, fashion, industrial, advertising, landscapes

Cat. No. of lens	**10 11 37**		Close limit field size	427 mm x 427 mm
Number of elements	4		Max. scale	1 : 7.8
Number of groups	3		Entrance pupil	
Max. aperture	f/5.6		Position	125.5 mm behind the first lens vertex
Focal length	243.4 mm		Diameter	43.8 mm
Negative size	55 x 55 mm		Exit pupil	
Angular field	width 13°, height 13°, diagonal 18°		Position	21.3 mm in front of the last lens vertex
Min. aperture	45		Diameter	25.0 mm
Camera mount	CFi		Position of principal planes	
Shutter	Prontor CFi 1s-1/500s, b, f		H	62.8 mm in front of the first lens vertex
Filter connection	bayonett series 60		H'	128.5 mm in front of the last lens vertex
Focusing range	infinity to 2.5 m		Back focal distance	120.0 mm
Working distance (between mechanical front end of lens and subject)	2.2 m		Distance between first and last lens vertex	105.5 mm
			Weight	1000 g

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Performance data:
Sonnar® T* 5,6/250 CFi
Cat. No. 10 11 37

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 = M odulation 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.
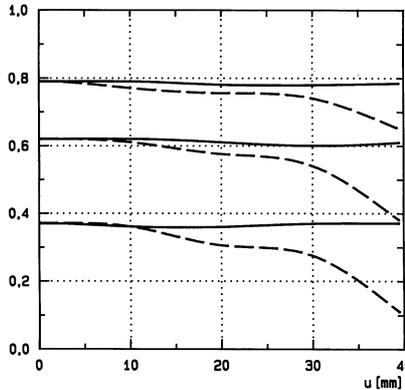
2. Relative illuminance

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.
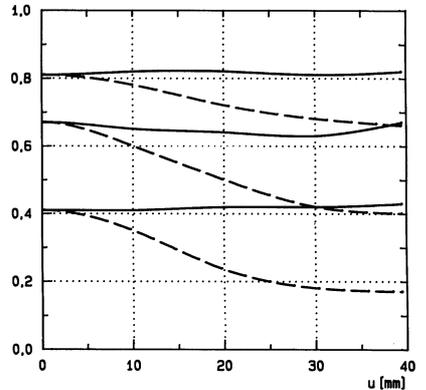
3. Distortion

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 ———
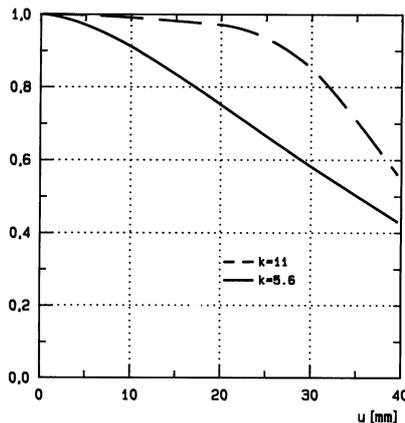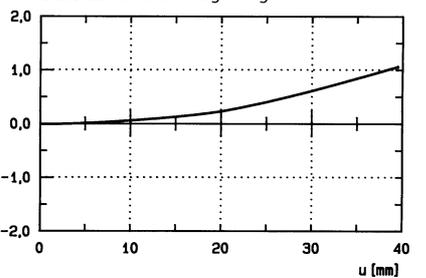White light. Spatial frequencies R = 10, 20 and 40 cycles/mm