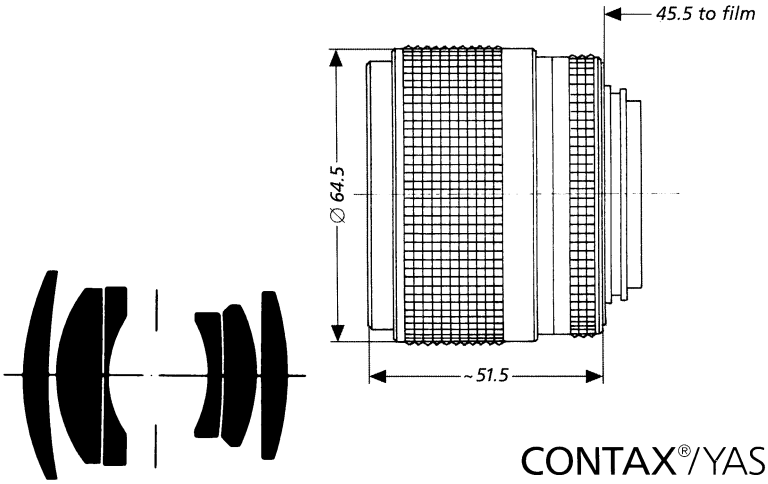
Makro-Planar® T* f/2.8 - 60 mm C



CONTAX®/YASHICA® mount

Like the 60 mm **Makro-Planar**® f/2.8 lens, No.107786, this special lens has been optimized for the close range, and not for long distances. Its optical design is also identical. The helicoid allows stepless focusing from ∞ to an image scale of 1:2. This made it possible to develop a lightweight and compact **Makro-Planar**® lens: its largest diameter is 64.5 mm, its barrel length 51.5 mm when set to infinity and its weight 270 g.

This explains the addition of the letter "C", standing for "compact", to the lens name.

The 60 mm **Makro-Planar**® T* C f/2.8 lens is an extremely light and easy-to-handle lens which should be primarily used for close-ups (focusing distance 0.27 m), but which can also be used with good results for long-range photography.

Cat. No. of lens:	**10 78 30**
Number of elements:	6
Number of groups:	4
Max. aperture:	f/2.8 (at image scale 1:∞)
Focal length:	61.7 mm
Negative size:	24 x 36 mm
Angular field 2w*:	39º diagonal
Mount:	focusing mount with bayonet; TTL metering either at full aperture or in stopped-down position. Aperture priority/Shutter priority/ Automatic programs (Multi-Mode Operation).
Aperture scale:	2.8 - 4 - 5.6 - 8 - 11 - 16 - 22
Filter connection:	clip-on filter, diameter 59 mm screw-in filter, thread M 55 x 0.75

Weight:	approx. 270 g
Focusing range:	1:∞ to 1:2
Entrance pupil*:	
Position:	24.2 mm behind the first lens vertex
Diameter:	21.2 mm
Exit pupil*:	
Position:	22.9 mm in front of the last lens vertex
Diameter:	21.9 mm
Position of principal planes:	
H:	25.2 mm behind the first lens vertex
H':	21.8 mm in front of the last lens vertex
Back focal distance*:	39.9 mm
Distance between first and last lens vertex*:	38.0 mm

* at ∞

Performance data:

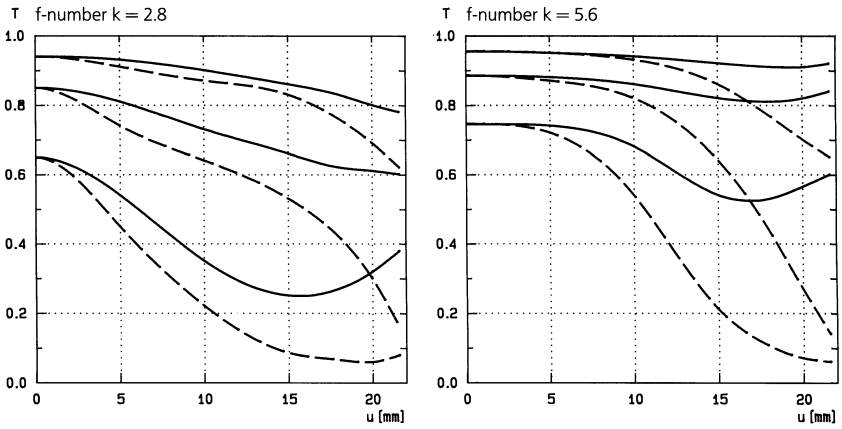
Makro-Planar® T* f/2.8 - 60 mm C

Cat. No. 10 78 30

1. MTF Diagrams

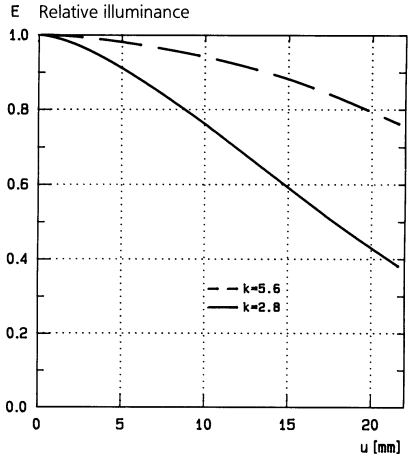
The image height u - calculated from the image center - is entered in mm on the horizontal axis of the graph. The modulation transfer T (MTF = Modulation Transfer Factor) is entered on the vertical axis. Parameters of the graph are the spatial frequencies R in cycles (line pairs) per mm given at the 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.

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



2. Relative illuminance

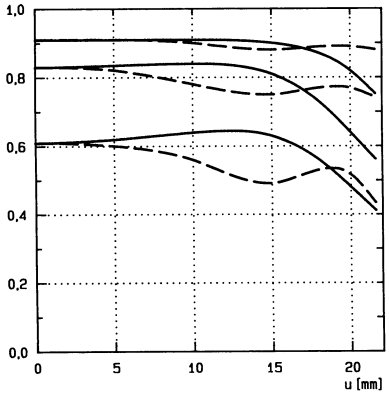
In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E, both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.



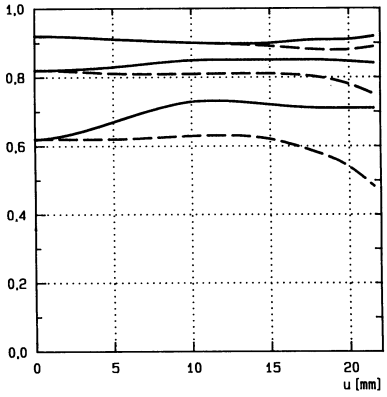
3. Distortion

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.

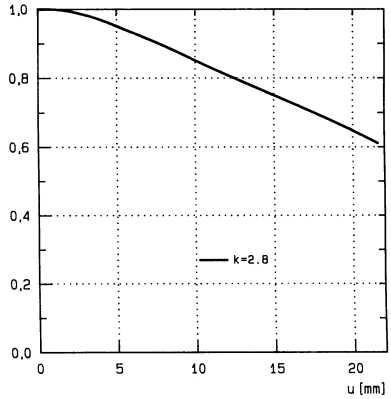
T f-number k = 2.8; i.s. 1:10



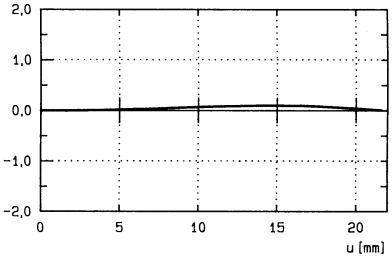
T f-number k = 5.6; i.s. = 1:10



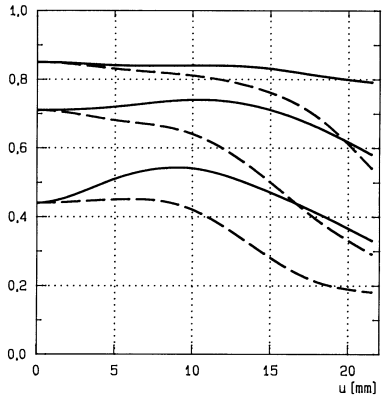
E Relative illuminance; i.s. = 1:10



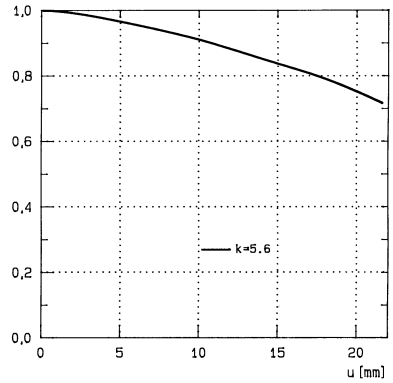
V Distortion in % of image height u; i.s. = 1:10



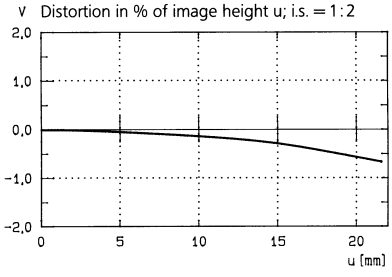
T f-number k = 5.6; i.s. = 1:2



E Relative illuminance; i.s. = 1:2



V Distortion in % of image height u; i.s. = 1:2



i.s. = image scale

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