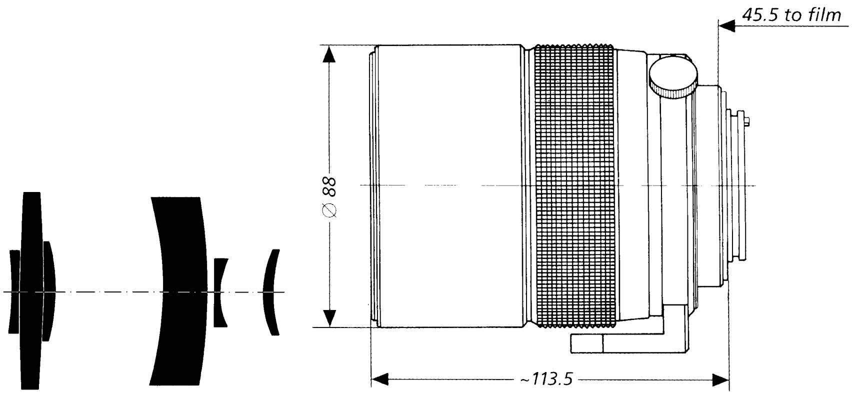
Mirotar® f/8 - 500 mm



This new **Mirotar**® lens has been designed for the **Contax**® SLR Camera System. The design of this lens is fundamentally different from that of the 500 imm Mirotar® f/4.5 and the 600 mm **Mirotar**® f/5.6 lenses currently included in the Zeiss range of camera lenses.

The lens comprises three main components: an element with a mirror-coated back surface, acting as a Mangin mirror, a front group including a secondary mirror, and a correction system. The front group is used for focusing.

The new initial aperture of f/8 and the new optical design made it possible to considerably reduce the volume and the weight of this lens compared with the current **Mirotar**® lenses.

To allow the compensation of extreme temperature influences, no stop has been provided at the ∞ setting. You can turn the lens through 360º and lock it in any position. This allows easy change from the vertical to the horizontal format. It is generally recommended to use the lens hood. For this, pull it out until it snaps in.

Like its predecessors, the new **Mirotar**® lens provides superb image quality.

The new Carl Zeiss 500 mm **Mirotar**® f/8 lens is especially suitable for photographing subjects at long distances. Its main applications are in animal, landscape and sports photography.

Cat. No. of lens:	**10 46 20**	Entrance pupil*:	
Number of elements:	6	Position:	144.0 mm behind the first lens vertex
Number of groups:	4	Diameter:	74.1 mm
Max. aperture:	1:8	Exit pupil*:	
Focal length:	500.0 mm	Position:	68.0 mm in front of the last lens vertex
Negative size:	24 x 36 mm	Diameter:	17.9 mm
Angular field 2w*:	4.9º	Position of principal planes*:	
Spectral region:	visible spectrum	H:	1469.0 mm in front of the first lens vertex
Mount:	Contax/Yashica Mount	H'	447.0 mm in front of the last lens vertex
Filter connection:	screw-type, thread M 82 x 0.75	Back focal distance:	52.6 mm
Focusing range:	∞ to 3.5 m	Distance between first	
Weight:	approx. 802 g	and last lens vertex*:	100.0 mm

* at ∞

ZEISS

Performance data:

Mirotar® f/8 - 500 mm

Cat. No. 10 46 20

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.

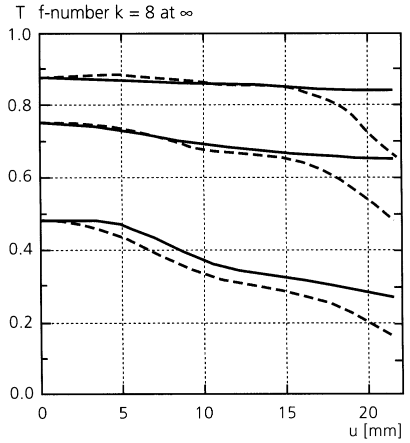
2. Relative illuminance

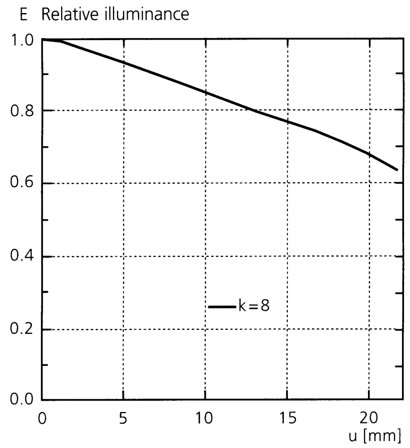
In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E, both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.

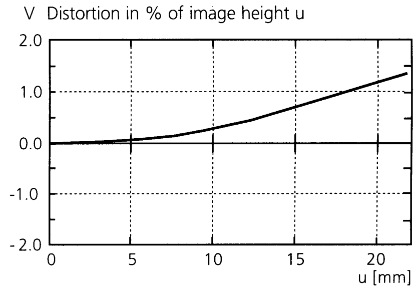
3. Distortion

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







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