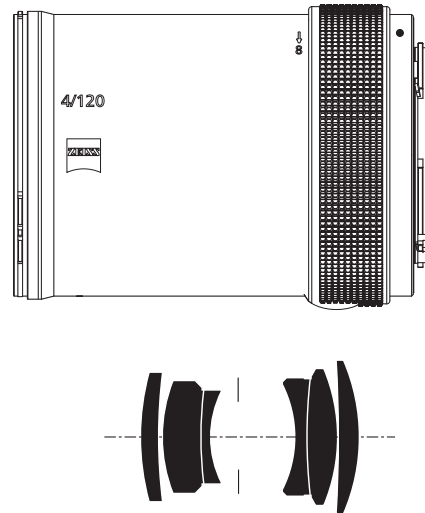


# Makro-Planar T\* 4/120 ZH

## The Close-up Specialist

The Sinaron Digital AF Makro-Planar T\* 4/120 ZH is a high-performance lens for close-up photography.

It is the ideal lens for studio photography, product shots and exceptional images of subjects ranging in size from a postcard to a car. This lens provides excellent sharpness, even illumination, chromatic purity and distortion correction over the entire frame. While this lens is optimized for close-up photography it will deliver equally impressive images across the field at normal object distances when stopped down to f/8 or f/11, and provides a pleasing angle of coverage of 35° at infinity, perfectly suited to portraits.



## Technical Specifications

**Focal Length:** 120 mm

**Aperture range:** 4–32

**No. of elements/groups:** 6/4

**Focusing range:** 0.8 m – infinity

**Image ratio at close range:** 1:4.5

**Coverage at close range:** 16 cm x 22 cm

**Angular field, diag./horiz./vert.:** 28/23/17°

**Filter:** M 86 x 1

**Weight:** 1100 g

**Length:** 136 mm

# sinar

Subject to change.

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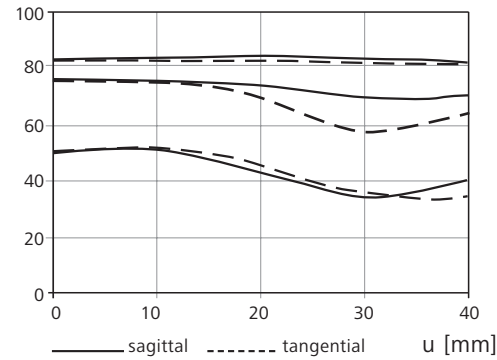
We make it visible.

# Makro-Planar T\* 4/120 ZH

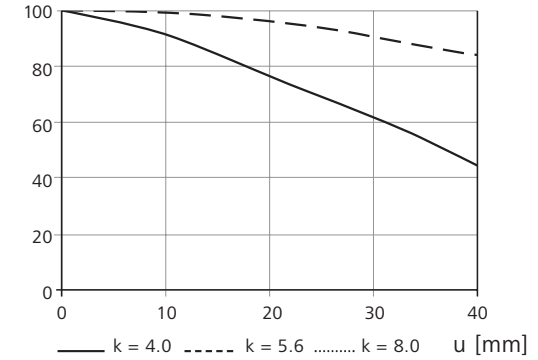
## Performance data

The Modulation Transfer (MTF) as a function of image height (u) and slit orientation (sagittal, tangential) has been measured with white light at spatial frequencies of R = 10, 20 and 40 cycles/mm.

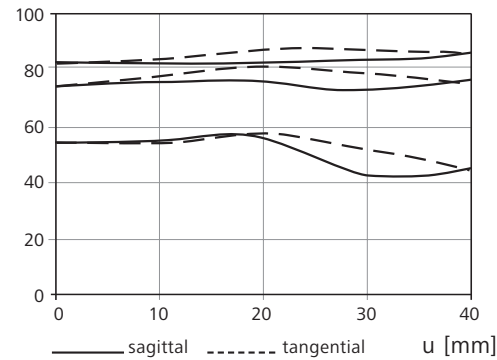
T [%], f-number: k = 4.0



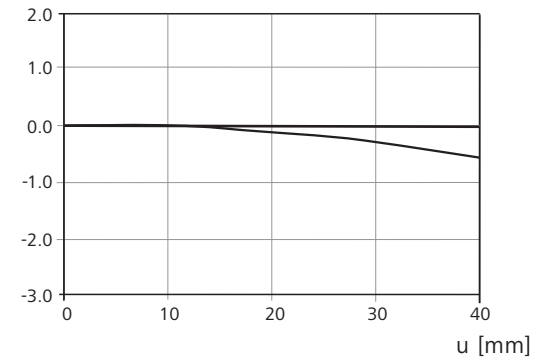
E [%], Relative illuminance



T [%], f-number: k = 8.0



V Distortion in % of image height



Subject to change.

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We make it visible.