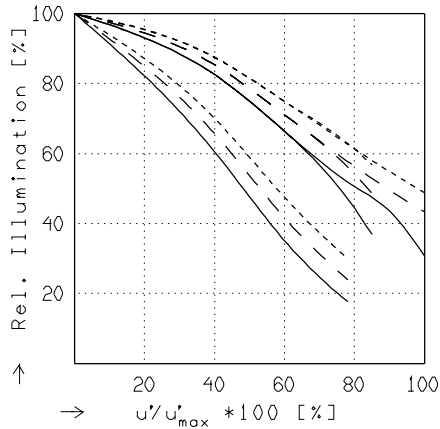
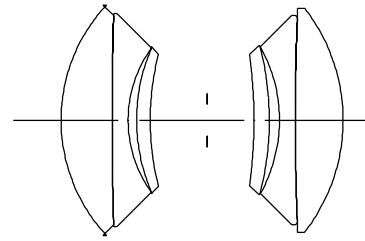


AP0-SYMMAR 5.6/150 L

$$\begin{aligned}
 f' &= 151.5 \text{ mm} & \beta_p' &= 0.986 \\
 s_F &= -125.5 \text{ mm} & s_{EP} &= 28.2 \text{ mm} \\
 s_{F'} &= 124.4 \text{ mm} & s_{A'P} &= -24.9 \text{ mm} \\
 HH' &= -3.5 \text{ mm} & \Sigma d &= 49.6 \text{ mm}
 \end{aligned}$$

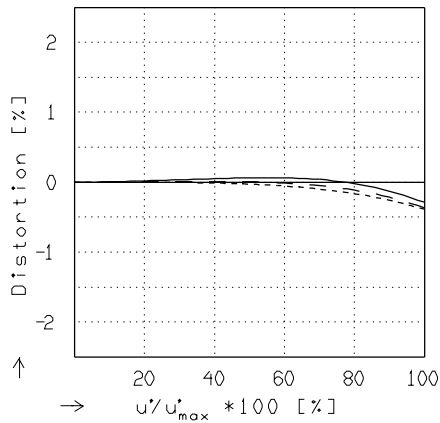


RELATIVE ILLUMINATION

The relative illumination is shown for the given focal distances or magnifications.

$$f / 5.6 \qquad f / 11.0 \qquad f / 22.0$$

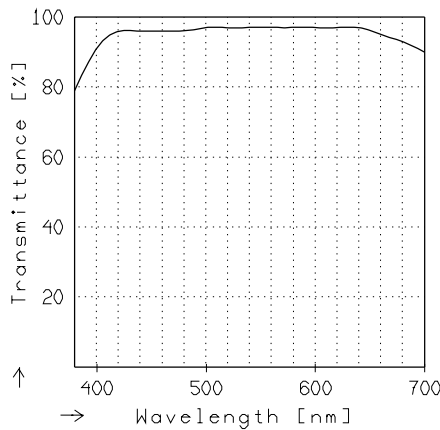
$$\begin{aligned}
 \text{—} & \beta' = 0.0000 & u'_{\max} &= 116.2 & \theta_0' &= \infty \\
 \text{---} & \beta' = -0.1000 & u'_{\max} &= 116.1 & \theta_0' &= 1830. \\
 \text{-.-.-} & \beta' = -0.2000 & u'_{\max} &= 116.0 & \theta_0' &= 1087.
 \end{aligned}$$



DISTORTION

Distortion is shown for the given focal distances or magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

$$\begin{aligned}
 \text{—} & \beta' = 0.0000 & u'_{\max} &= 116.0 & \theta_0' &= \infty \\
 \text{---} & \beta' = -0.1000 & u'_{\max} &= 116.0 & \theta_0' &= 1830. \\
 \text{-.-.-} & \beta' = -0.2000 & u'_{\max} &= 116.0 & \theta_0' &= 1087.
 \end{aligned}$$



TRANSMITTANCE

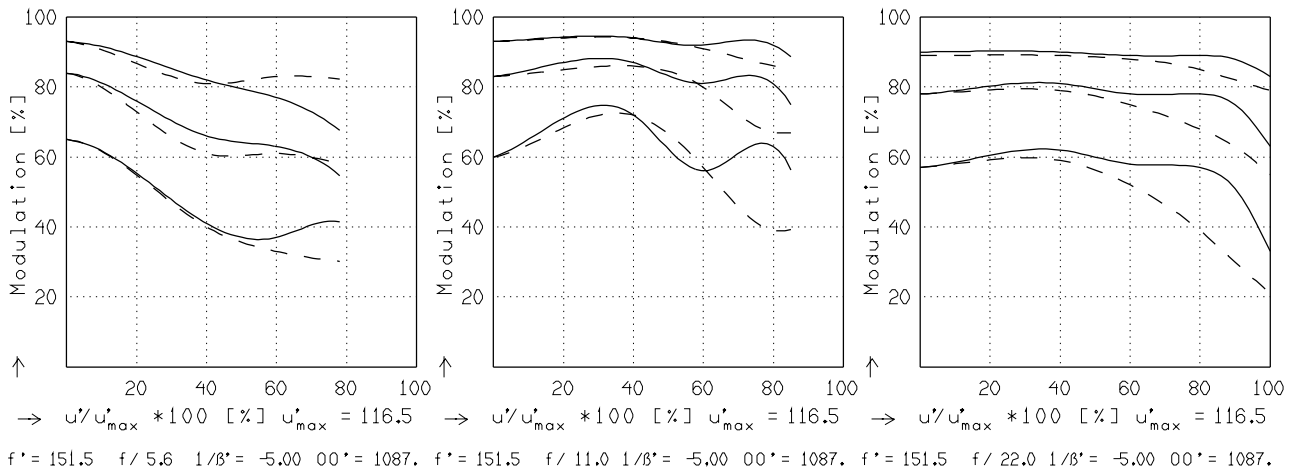
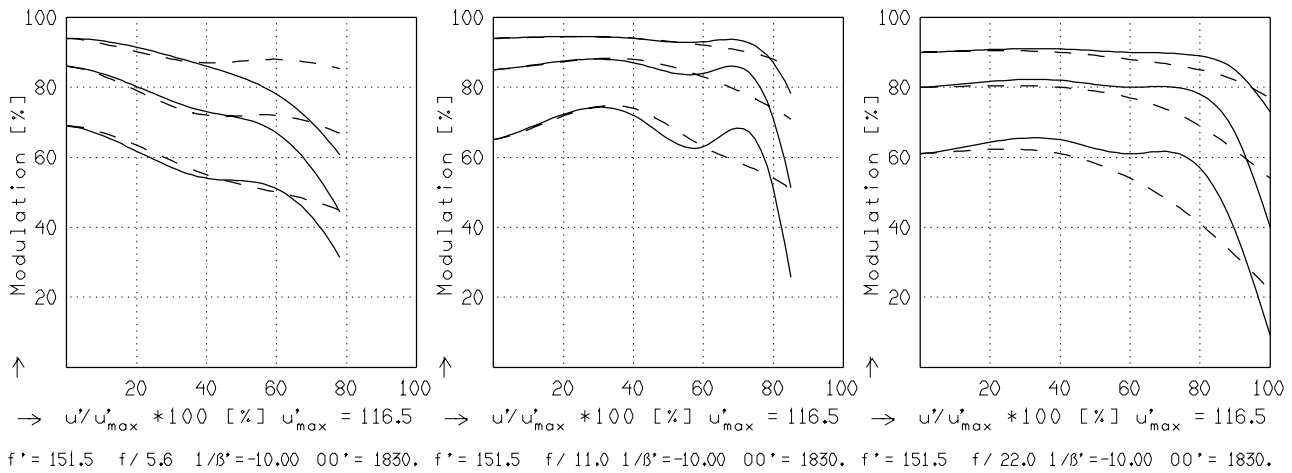
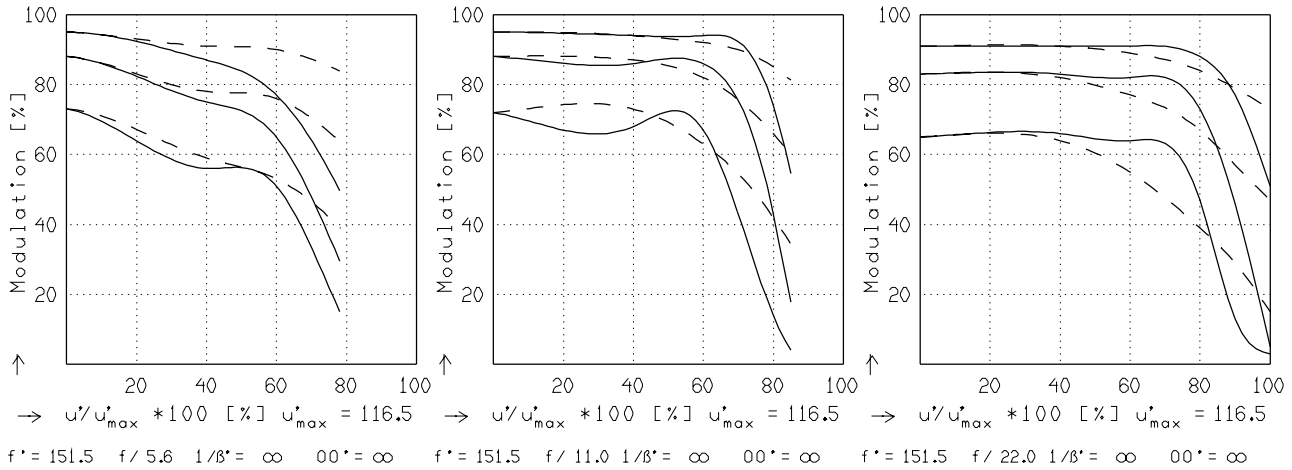
Relative spectral transmittance is shown with reference to wavelength.

APO-SYMMAR 5.6/150 L

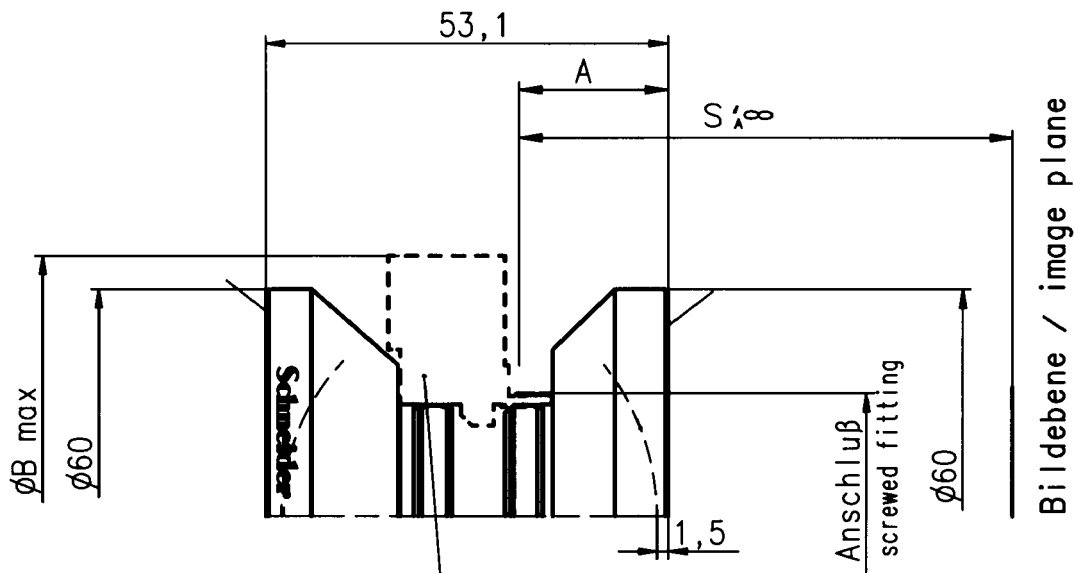
MODULATION with reference to the relative image height

Wavelength λ	[nm]	546	644	588	480	436	405
Spectral weighting	[%]	24.6	18.6	22.1	12.4	15.2	7.1
Spatial frequency R	[1/mm]	5	10	20			
Format	[mm X mm]	90.0	X120.0				
Diagonal $2u'$	[mm]	233.0					

radial —
tangential - -



Focusing : MTF_{max} at $f / 5.6$, $R = 20$ 1/mm, $u'/u'_{max} = 0$



Verschluss / shutter
 (technische Angaben siehe Hersteller)
 (for technical details contact manufacturer)