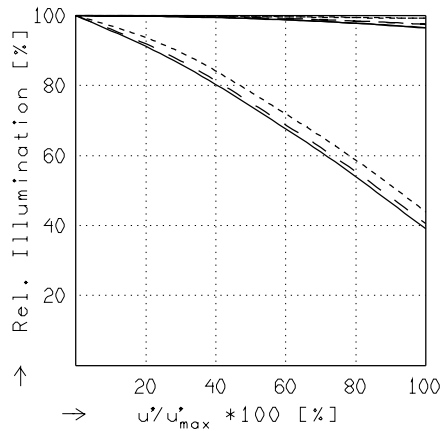
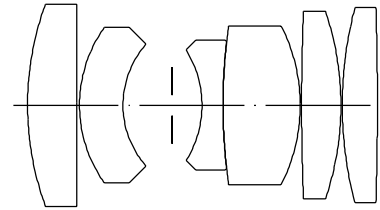


XENOPLAN 1.4/17MM

$$\begin{aligned}
 f' &= 17.6 \text{ mm} & \beta_p &= 2.975 \\
 s_F &= 6.1 \text{ mm} & s_{EP} &= 12.0 \text{ mm} \\
 s_{F'} &= 13.2 \text{ mm} & s_{AP} &= -39.1 \text{ mm} \\
 HH' &= -3.2 \text{ mm} & \Sigma d &= 24.9 \text{ mm}
 \end{aligned}$$

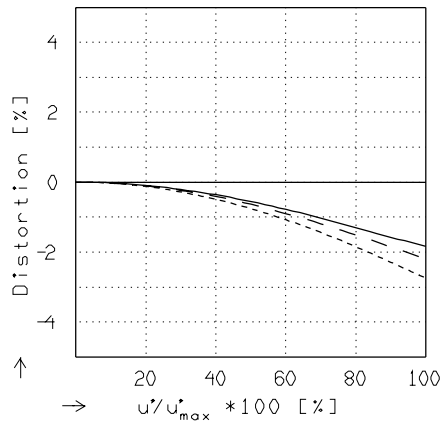


RELATIVE ILLUMINATION

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

$$f / 1.5 \qquad f / 4.0 \qquad f / 8.0$$

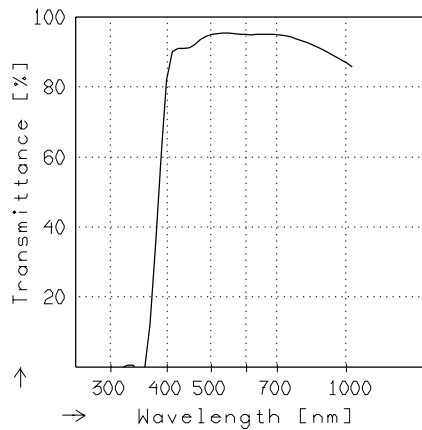
$$\begin{aligned}
 \text{—} \quad \beta' &= -0.0200 & u'_{\max} &= 5.5 & 00' &= 911. \\
 \text{--} \quad \beta' &= -0.0500 & u'_{\max} &= 5.5 & 00' &= 384. \\
 \text{---} \quad \beta' &= -0.1000 & u'_{\max} &= 5.5 & 00' &= 209.
 \end{aligned}$$



DISTORTION

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

$$\begin{aligned}
 \text{—} \quad \beta' &= -0.0200 & u'_{\max} &= 5.5 & 00' &= 911. \\
 \text{--} \quad \beta' &= -0.0500 & u'_{\max} &= 5.5 & 00' &= 384. \\
 \text{---} \quad \beta' &= -0.1000 & u'_{\max} &= 5.5 & 00' &= 209.
 \end{aligned}$$



TRANSMITTANCE

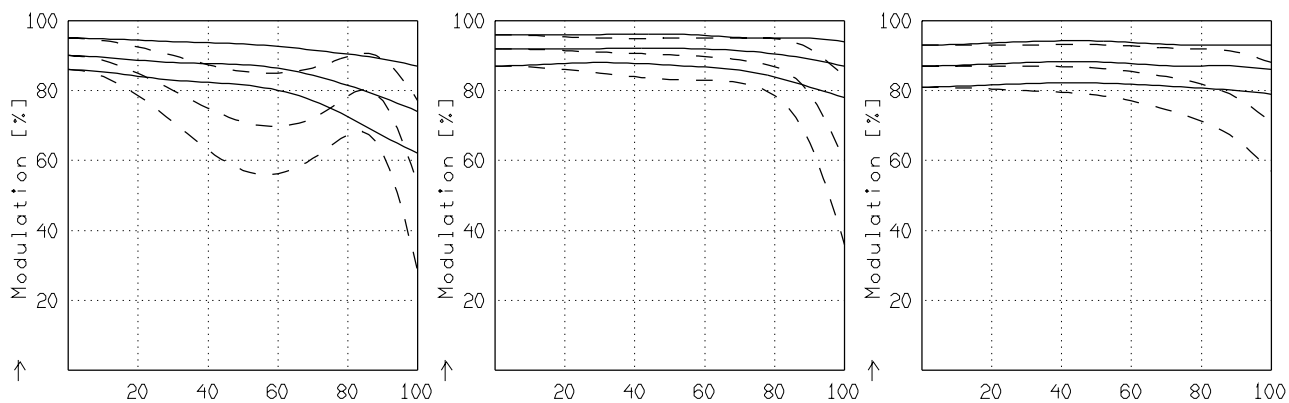
Relative spectral transmittance is shown with reference to wavelength.

XENOPLAN 1.4/17MM

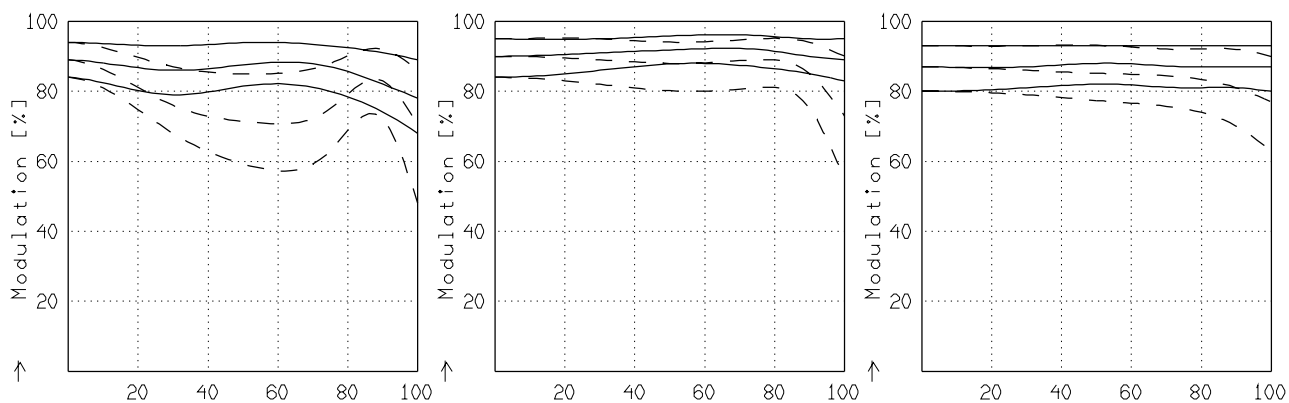
MODULATION with reference to the relative image height

Wavelength λ [nm] : 555 655 605 505 455 405
Spectral weighting [%] : 19.6 23.7 22.2 15.7 12.1 6.7
Spatial frequency R [1/mm] : 10 20 30
Format [mm X mm] : 6.6 X 8.8
Diagonal $2u'$ [mm] : 11.0

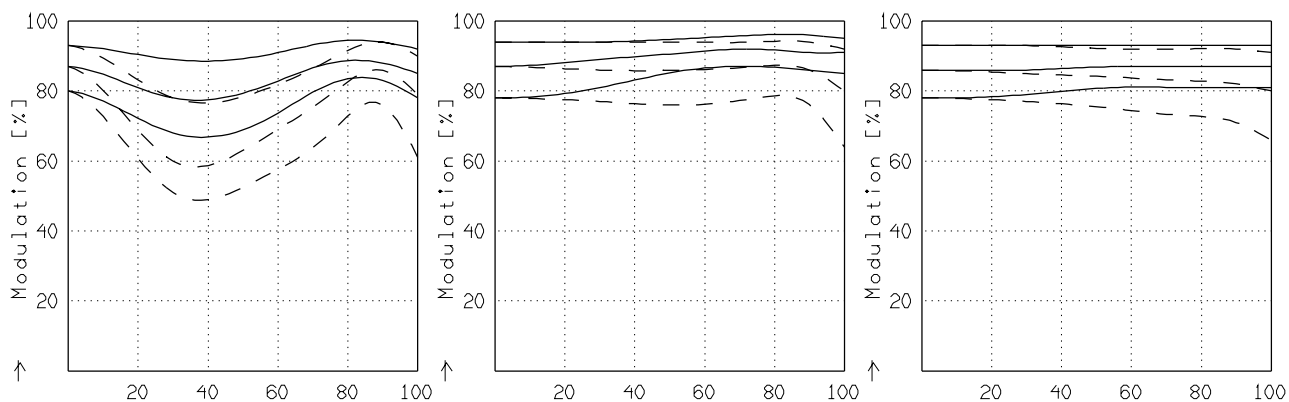
radial —
tangential - -



$f' = 17.6$ $f/1.5$ $1/\beta' = -50.00$ $00' = 911$. $f' = 17.6$ $f/4.0$ $1/\beta' = -50.00$ $00' = 911$. $f' = 17.6$ $f/8.0$ $1/\beta' = -50.00$ $00' = 911$.



$f' = 17.6$ $f/1.5$ $1/\beta' = -20.00$ $00' = 385$. $f' = 17.6$ $f/4.0$ $1/\beta' = -20.00$ $00' = 385$. $f' = 17.6$ $f/8.0$ $1/\beta' = -20.00$ $00' = 385$.

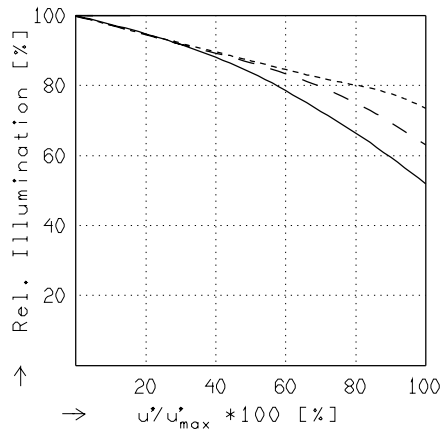
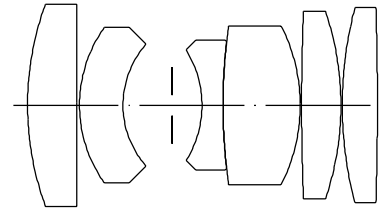


$f' = 17.6$ $f/1.5$ $1/\beta' = -10.00$ $00' = 210$. $f' = 17.6$ $f/4.0$ $1/\beta' = -10.00$ $00' = 210$. $f' = 17.6$ $f/8.0$ $1/\beta' = -10.00$ $00' = 210$.

Focusing : MTF_{max} at $f/1.4$, $R = 30$ 1/mm, $u'/u'_{max} = 0$

XENOPLAN 1.4/17MM

$$\begin{aligned}
 f' &= 17.6 \text{ mm} & \beta_p &= 2.975 \\
 s_F &= 6.1 \text{ mm} & s_{EP} &= 12.0 \text{ mm} \\
 s_{F'} &= 13.2 \text{ mm} & s_{AP} &= -39.1 \text{ mm} \\
 HH' &= -3.2 \text{ mm} & \Sigma d &= 24.9 \text{ mm}
 \end{aligned}$$

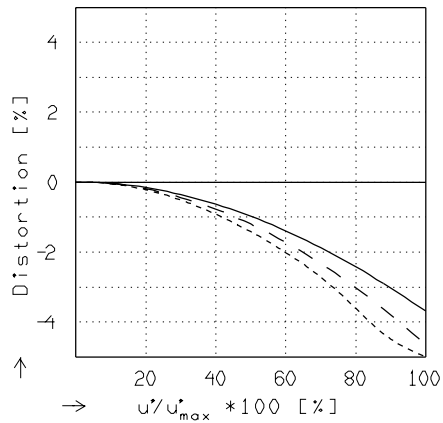


RELATIVE ILLUMINATION

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

$$\begin{array}{ccc}
 f / 1.5 & f / 4.0 & f / 8.0
 \end{array}$$

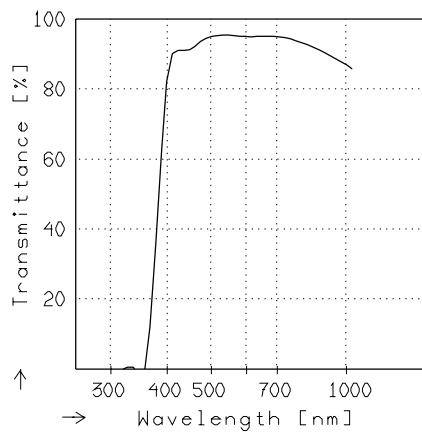
$$\begin{array}{lll}
 \text{—} & \beta' = -0.2000 & u'_{\max} = 5.5 \quad 00' = 123. \\
 \text{--} & \beta' = -0.3333 & u'_{\max} = 5.5 \quad 00' = 91. \\
 \text{---} & \beta' = -0.5000 & u'_{\max} = 5.5 \quad 00' = 76.
 \end{array}$$



DISTORTION

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

$$\begin{array}{lll}
 \text{—} & \beta' = -0.2000 & u'_{\max} = 5.5 \quad 00' = 123. \\
 \text{--} & \beta' = -0.3333 & u'_{\max} = 5.5 \quad 00' = 91. \\
 \text{---} & \beta' = -0.5000 & u'_{\max} = 5.5 \quad 00' = 76.
 \end{array}$$



TRANSMITTANCE

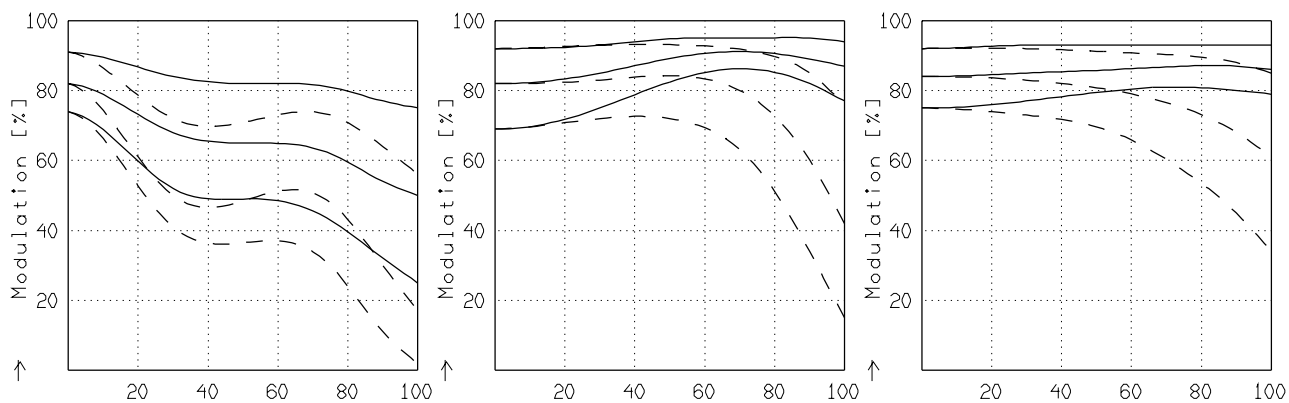
Relative spectral transmittance is shown with reference to wavelength.

XENOPLAN 1.4/17MM

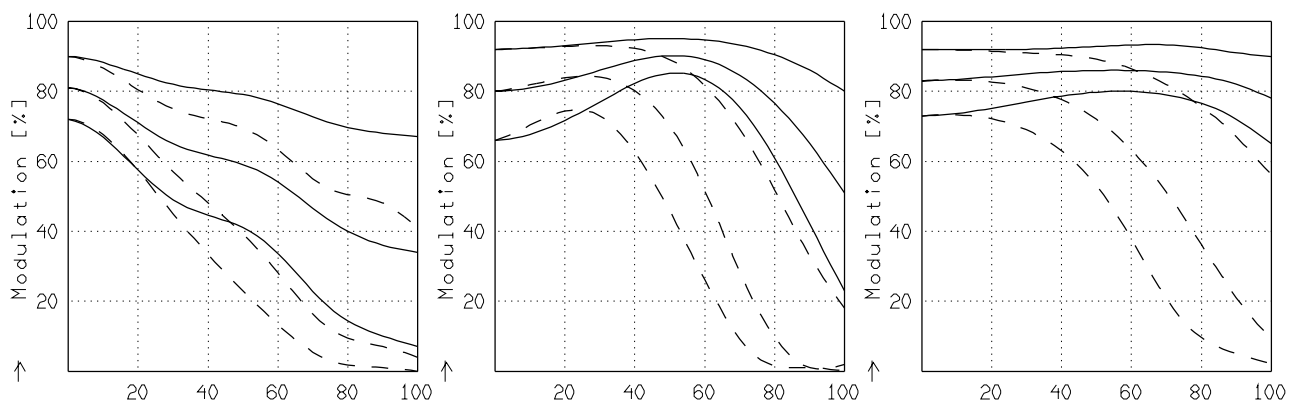
MODULATION with reference to the relative image height

Wavelength λ	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm]	10	20	30			
Format	[mm X mm]	6.6	X	8.8			
Diagonal $2u'$	[mm]	11.0					

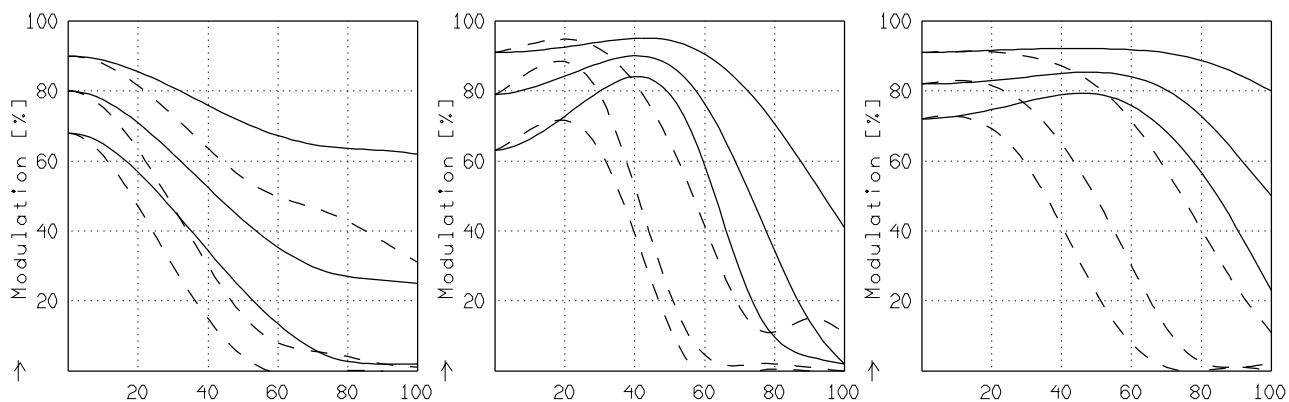
radial —
tangential - -



$\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.7$ $\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.7$ $\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.7$
 $f' = 17.6$ $f/1.5$ $1/\beta' = -5.00$ $00' = 124.$ $f' = 17.6$ $f/4.0$ $1/\beta' = -5.00$ $00' = 124.$ $f' = 17.6$ $f/8.0$ $1/\beta' = -5.00$ $00' = 124.$

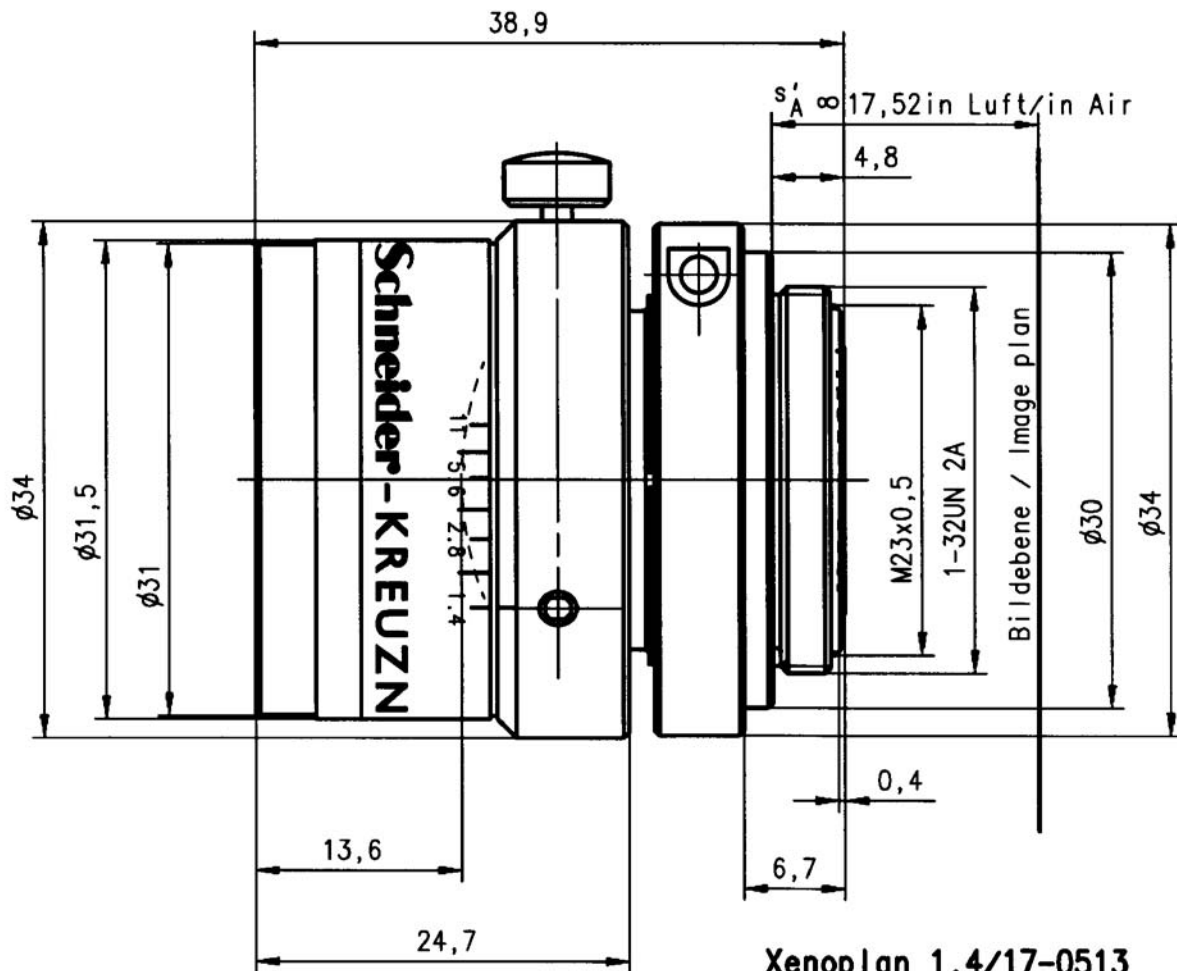


$\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.8$ $\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.8$ $\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.8$
 $f' = 17.6$ $f/1.5$ $1/\beta' = -3.00$ $00' = 91.$ $f' = 17.6$ $f/4.0$ $1/\beta' = -3.00$ $00' = 91.$ $f' = 17.6$ $f/8.0$ $1/\beta' = -3.00$ $00' = 91.$



$\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.8$ $\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.8$ $\rightarrow u'/u'_{\max} * 100$ [%] $u'_{\max} = 5.8$
 $f' = 17.6$ $f/1.5$ $1/\beta' = -2.00$ $00' = 76.$ $f' = 17.6$ $f/4.0$ $1/\beta' = -2.00$ $00' = 76.$ $f' = 17.6$ $f/8.0$ $1/\beta' = -2.00$ $00' = 76.$

Focusing : $MTF_{\max}$ at $f/1.4$, $R = 30$ 1/mm. $u'/u'_{\max} = 0$



Xenoplan 1,4/17-0513