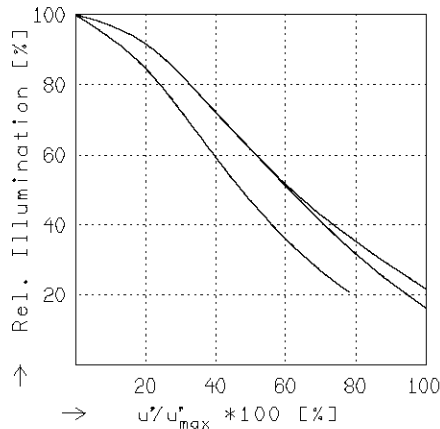
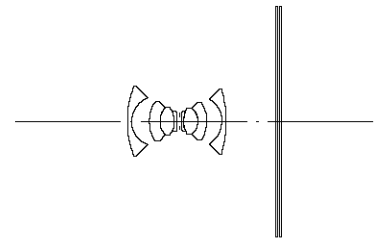


# ALPA Apo Helvetar 5.6/43

$f' = 44.6 \text{ mm}$      $\beta_p = 0.961$   
 $s_F = -30.5 \text{ mm}$      $s_{EP} = 16.0 \text{ mm}$   
 $s_{F'} = 2.3 \text{ mm}$      $s_{AP} = -40.6 \text{ mm}$   
 $HH' = 19.5 \text{ mm}$      $\Sigma d = 76.0 \text{ mm}$

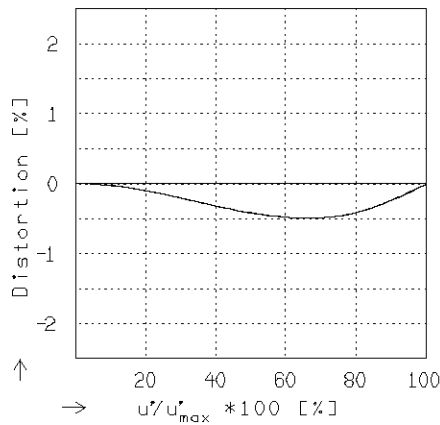


## RELATIVE ILLUMINATION

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

$f / 5.7$        $f / 8.0$        $f / 11.0$

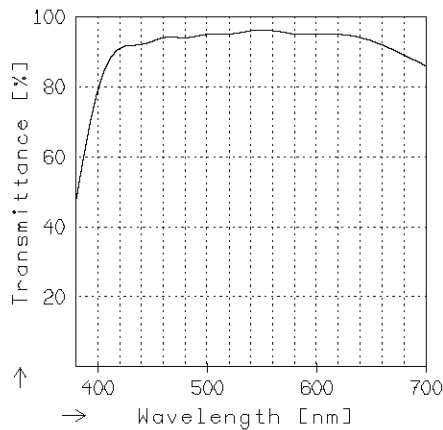
—  $\beta' = 0.0000$      $u'_{max} = 55.0$      $00' = \infty$   
 - -  $\beta' = 0.0000$      $u'_{max} = 55.0$      $00' = \infty$   
 ----  $\beta' = 0.0000$      $u'_{max} = 55.0$      $00' = \infty$



## DISTORTION

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

—  $\beta' = 0.0000$      $u'_{max} = 55.0$      $00' = \infty$   
 - -  $\beta' = 0.0000$      $u'_{max} = 55.0$      $00' = \infty$   
 ----  $\beta' = 0.0000$      $u'_{max} = 55.0$      $00' = \infty$



## TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

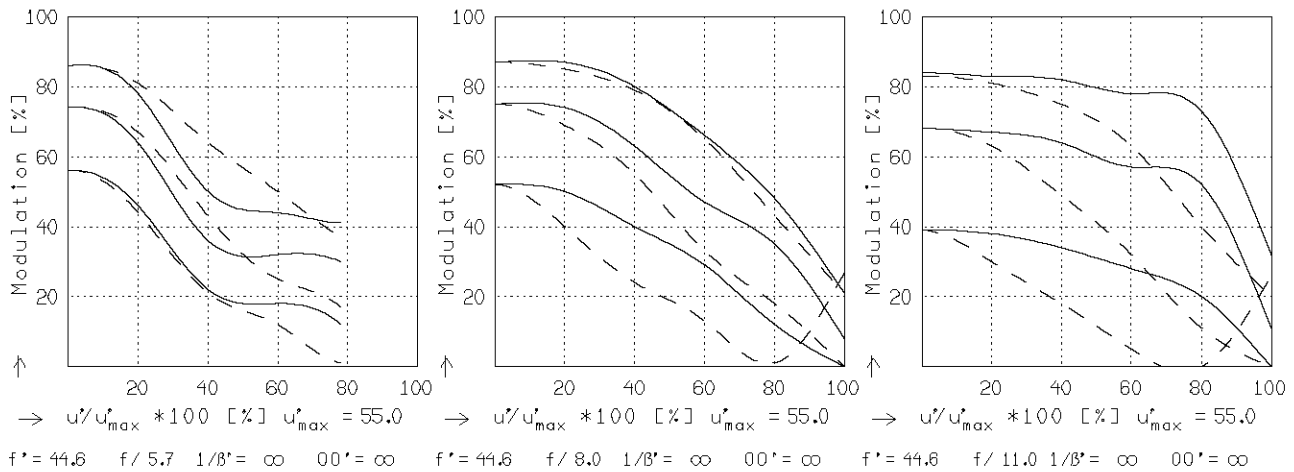
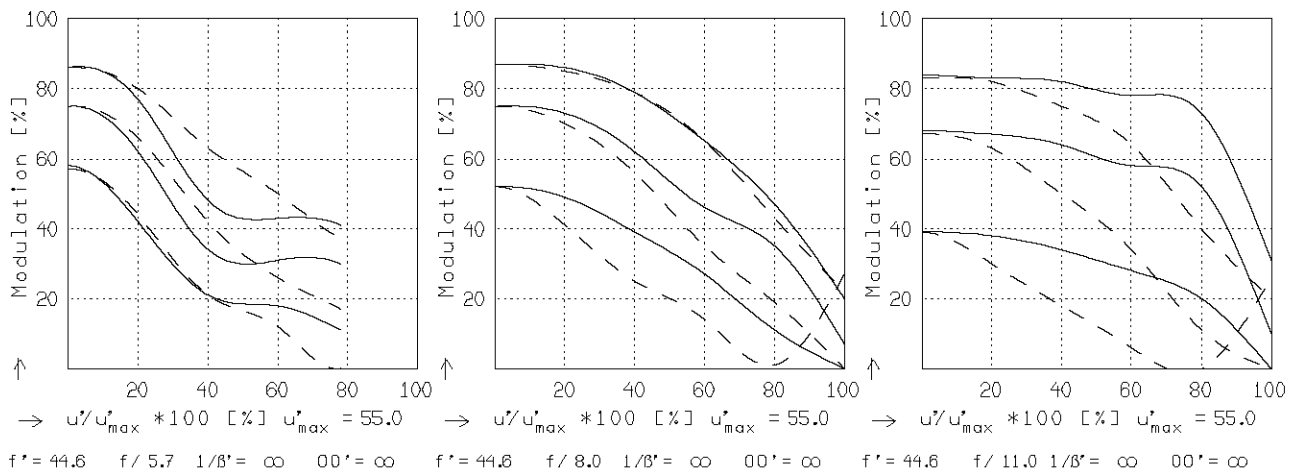
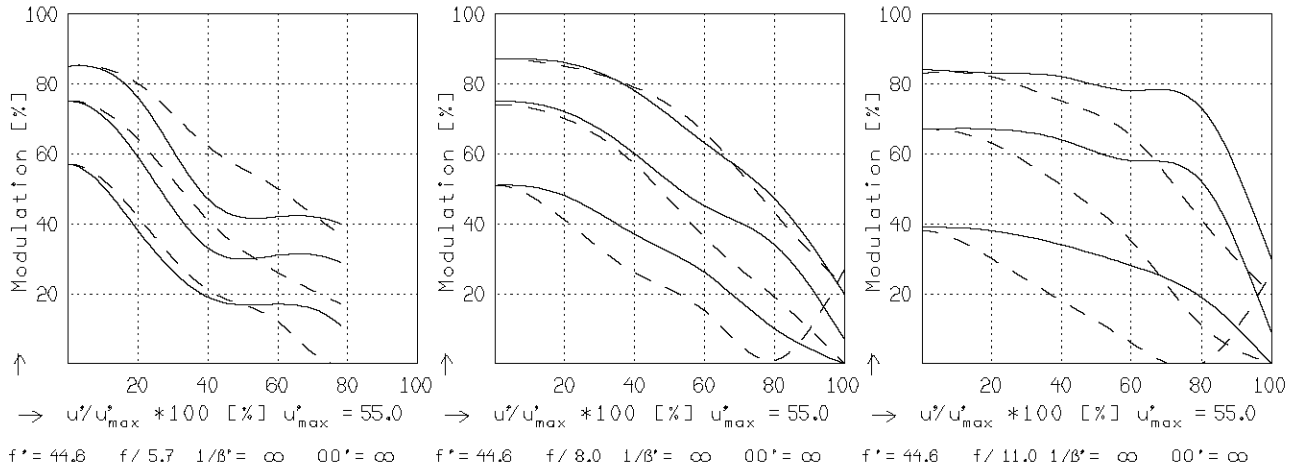
Jos. Schneider Optische Werke GmbH  
 Ringstrasse 132 55543 Bad Kreuznach Germany

# ALPA Apo Helvetar 5.6/43

MODULATION with reference to the relative image height

Wavelength $\lambda$	[nm]	546	644	588	486	436	436
Spectral weighting	[%]	28.7	18.9	25.8	19.2	7.4	0.0
Spatial frequency R	[1/mm]	20	40	80			
Image- $\emptyset$	f / 5.7	[mm]	85.8				
Image- $\emptyset$	f / 11.0	[mm]	110.0				

radial —  
tangential - -



Focusing :  $MTF_{max}$  at f / 5.6 , R = 60 1/mm,  $u'/u'_{max} = 0$