

# Xenon-RUBY Lens

## Xenon-RUBY 2.2/10

The Xenon-Ruby lens is optimized in accordance with the sensitivity of modern image sensors up to 1 / 1.8" (9mm). This lens is the perfect trade-off between price and performance: By having a practice-oriented speed of 2.2, a very high optical performance is achieved.

Even under production and / or extreme conditions, the robust mechanical design with lockable focus and iris setting mechanism guarantees reliable continuous use in which the set optical parameters remain in place.



Xenon-RUBY 2.2/25

### Key Features

- Robust mechanics for rough industrial environment
- Compact design and low weight
- Focus and iris setting lockable
- High resolution optics
- Transmission 400 - 1000 nm (VIS - NIR)
- Designed for Sensors up to 1 / 1.8" (9mm)

### Applications

- Traffic
- Security/Surveillance
- Machine vision and other imaging applications
- Quality control
- Surface inspection
- 2D / 3D Measurement

### Technical Specifications

F-stop range	2.2 - 16
Focal length	10.46 mm
Image circle	9 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Filter Thread	M25.5 x 0.5
Weight	50 gr.

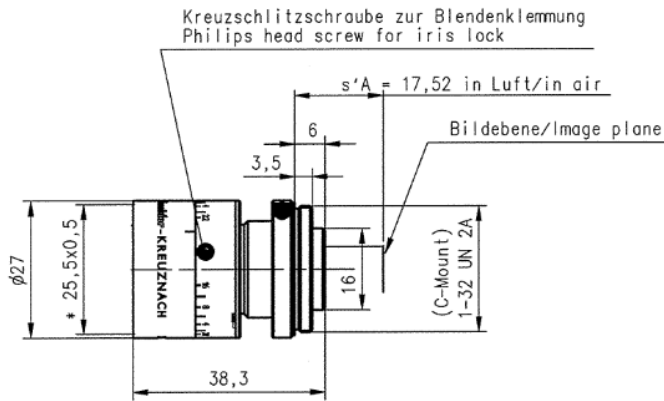
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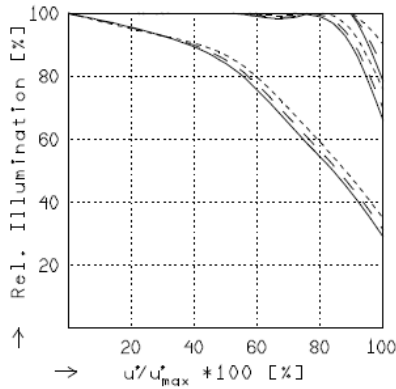
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## XR 2.2/10

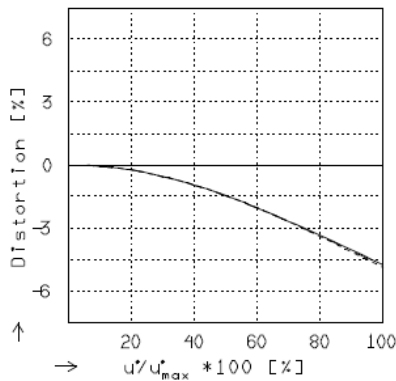
$f^*$ = 10.5 mm	$\beta_p^*$ = 3.453
$s_F$ = 9.2 mm	$s_{EP}$ = 12.3 mm
$s_{F^*}$ = 11.6 mm	$s_{AP}^*$ = -24.6 mm
$HH^*$ = 14.3 mm	$\Sigma d$ = 32.9 mm



## RELATIVE ILLUMINATION

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

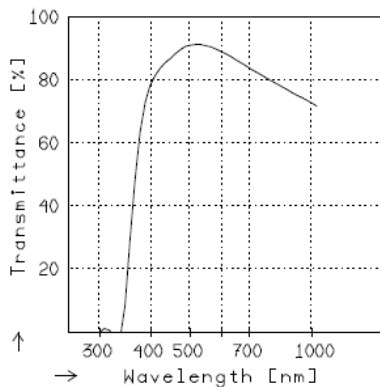
	$f / 2.3$	$f / 4.0$	$f / 5.6$
— $\beta^* = -0.0200$	$u_{max}^* = 4.5$	$00' = 559.$	
- - $\beta^* = -0.0500$	$u_{max}^* = 4.5$	$00' = 245.$	
... $\beta^* = -0.1000$	$u_{max}^* = 4.5$	$00' = 141.$	



## DISTORTION

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

— $\beta^* = -0.0200$	$u_{max}^* = 4.5$	$00' = 559.$
- - $\beta^* = -0.0500$	$u_{max}^* = 4.5$	$00' = 245.$
... $\beta^* = -0.1000$	$u_{max}^* = 4.5$	$00' = 141.$



## TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

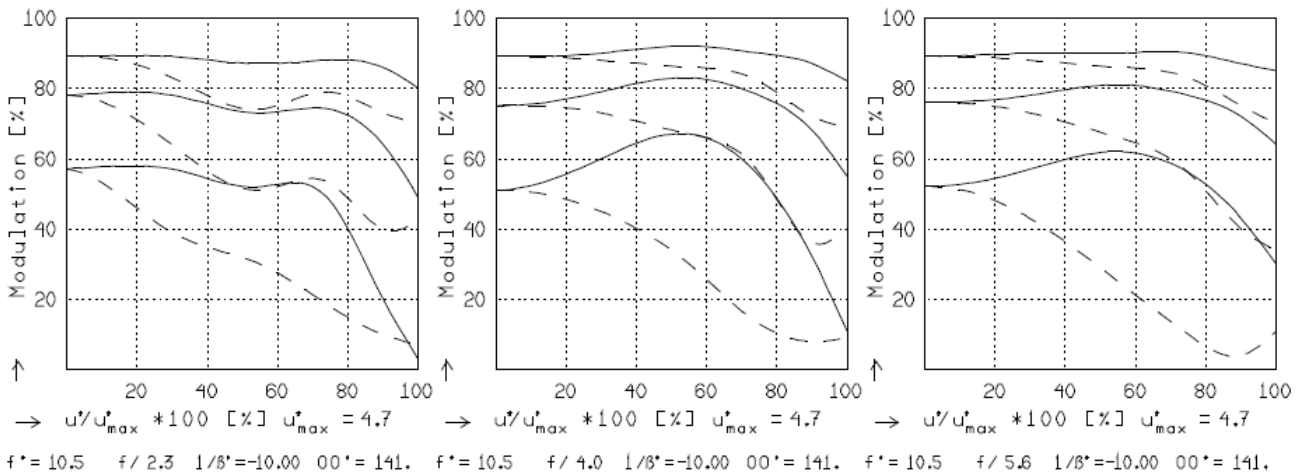
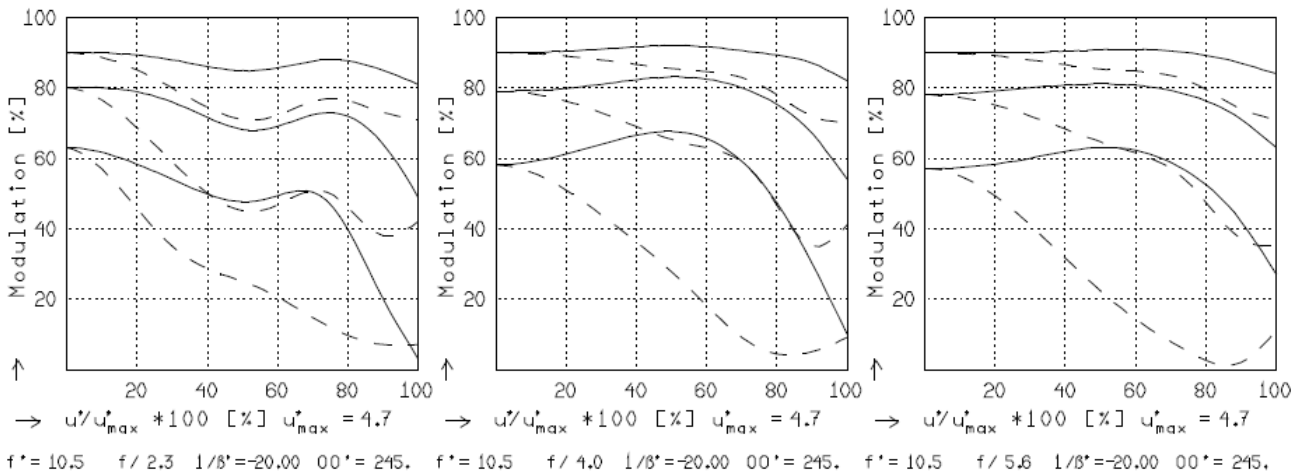
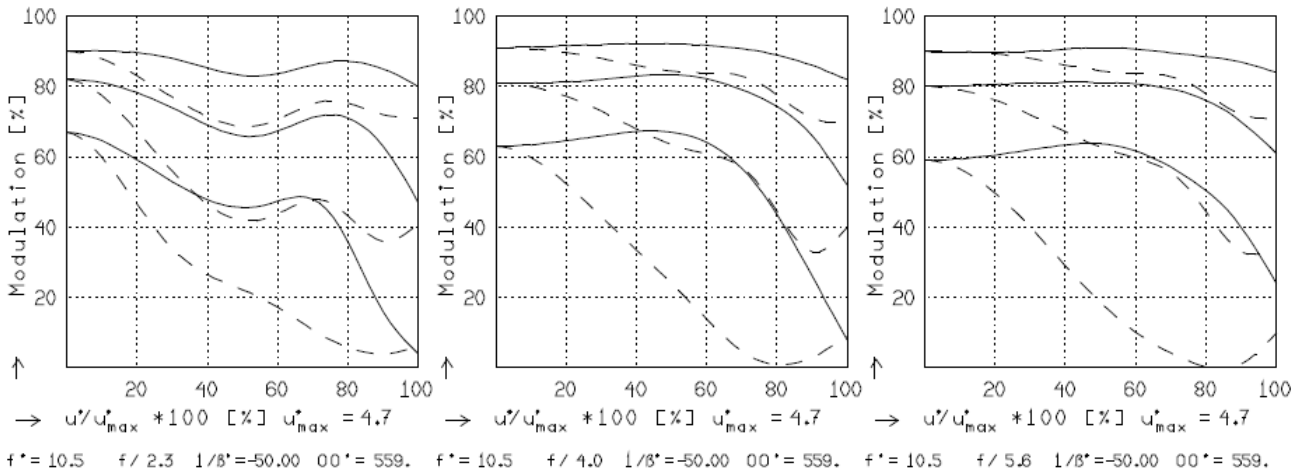
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XR 2.2/10

MODULATION with reference to the relative image height

Wavelength $\lambda$	[nm] :	555	655	605	505	455	405
Spectral weighting	[%] :	19.8	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm] :	20	40	80			
Format	[mm X mm] :	0.0	9.0				
Diagonal $2u'$	[mm] :	9.0					

radial —  
tangential - -



Focusing :  $MTF_{max}$  at  $f / 2.2 \quad \bullet \quad R = 80 \quad 1/mm, \quad u'/u'_{max} = 0$