Xenon-RUBY Lens

Xenon-RUBY 2.3/35

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 2.3, 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.

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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	2.3 - 16
Focal length	34.84 mm
Image circle	9 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Filter Thread	M25.5 x 0.5
Weight	55 gr.
Code No.	1074627

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Kreuzschlitzschraube zur Blendenklemmung
Philips head screw for iris lock

s'A = 17,52 in Luft/in air

3,5

Bildebene/Image plane

ø27

* M25,5x0,5

M 19x0,5

(C-Mount)
1-32 UN 2A

7,1

51,2
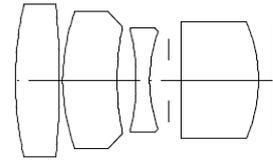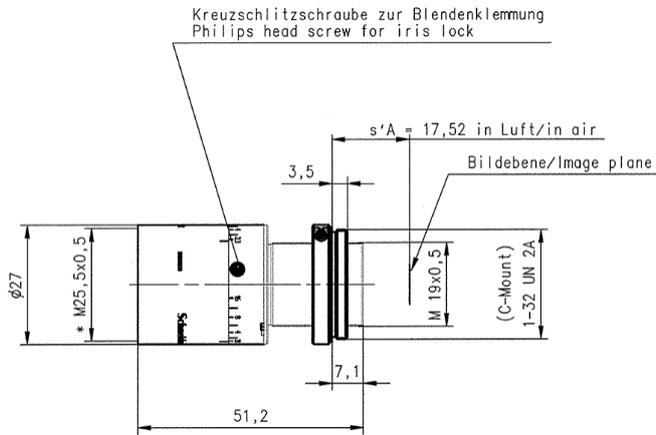
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f' = 34.8 mm $\beta_P^{\cdot}$ = 0.903

s_F = −11.0 mm s_{EP} = 27.6 mm

$s_{F'}^{\cdot}$ = 22.0 mm $s_{AP}^{\cdot}$ = −9.5 mm

HH' = −1.3 mm $\Sigma\,d$ = 35.3 mm
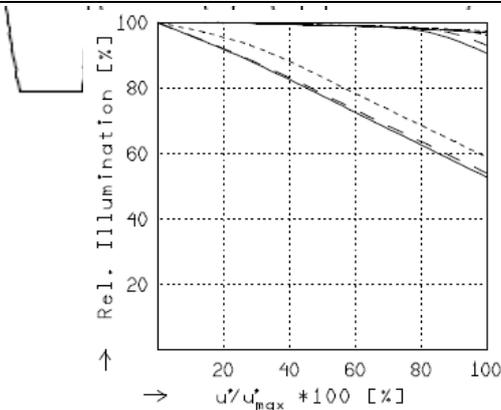
RELATIVE ILLUMINATION

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

f / 2.4   f / 4.0   f / 5.6

——— β' = −0.0200 $u_{max}^{\cdot}$ = 4.5 OO' = 1811.
— — β' = −0.0500 $u_{max}^{\cdot}$ = 4.5 OO' = 767.
----- β' = −0.1000 $u_{max}^{\cdot}$ = 4.5 OO' = 420.

Rel. Illumination [%]

$u'/u_{max}^{\cdot}$ *100 [%]
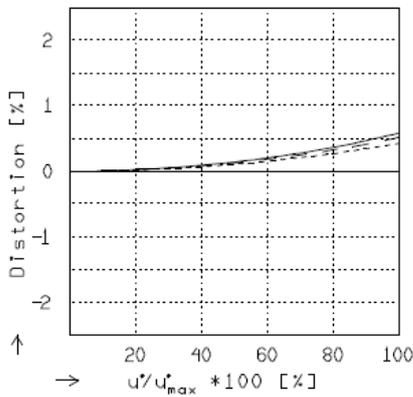
DISTORTION

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

——— β' = −0.0200 $u_{max}^{\cdot}$ = 4.5 OO' = 1811.
— — β' = −0.0500 $u_{max}^{\cdot}$ = 4.5 OO' = 767.
----- β' = −0.1000 $u_{max}^{\cdot}$ = 4.5 OO' = 420.

Distortion [%]

$u'/u_{max}^{\cdot}$ *100 [%]
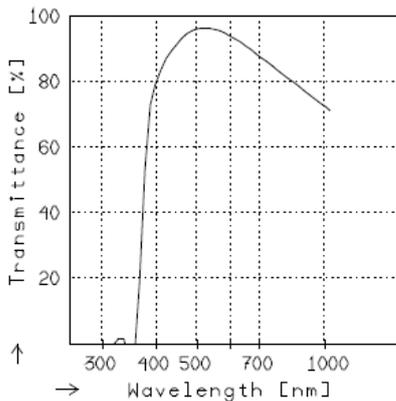
TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

Transmittance [%]

Wavelength [nm]

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MODULATION with reference to the relative image height

Wavelength λ [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		radial ———	
Diagonal 2u' [mm] :	9.0				tangential — —	

f'= 34.8   f / 2.4 1/ß'=-50.00 OO'= 1811.   f'= 34.8   f / 4.0 1/ß'=-50.00 OO'= 1811.   f'= 34.8   f / 5.6 1/ß'=-50.00 OO'= 1811.

f'= 34.8   f / 2.4 1/ß'=-20.00 OO'= 767.   f'= 34.8   f / 4.0 1/ß'=-20.00 OO'= 767.   f'= 34.8   f / 5.6 1/ß'=-20.00 OO'= 767.

f'= 34.8   f / 2.4 1/ß'=-10.00 OO'= 420.   f'= 34.8   f / 4.0 1/ß'=-10.00 OO'= 420.   f'= 34.8   f / 5.6 1/ß'=-10.00 OO'= 420.
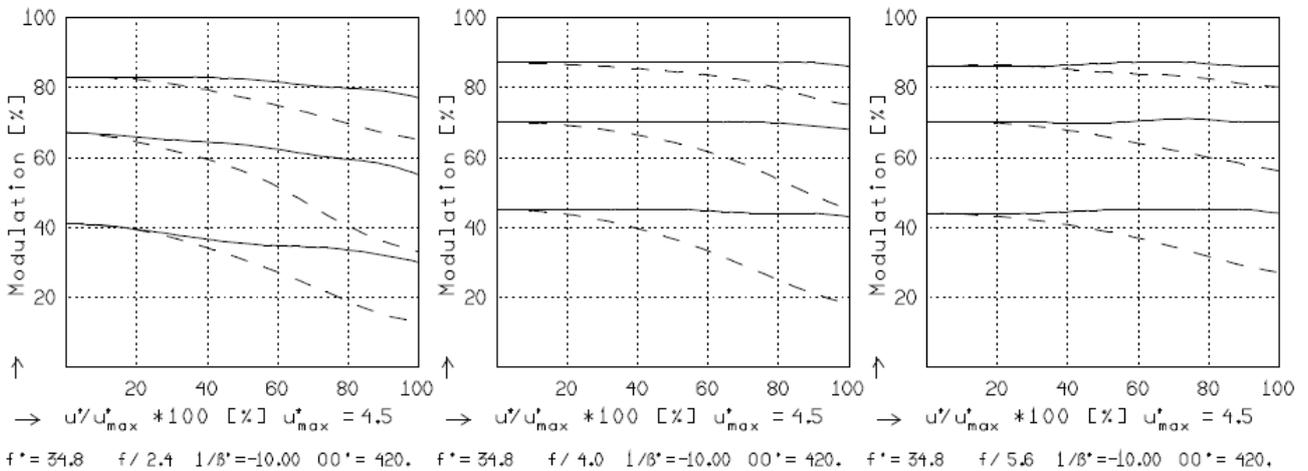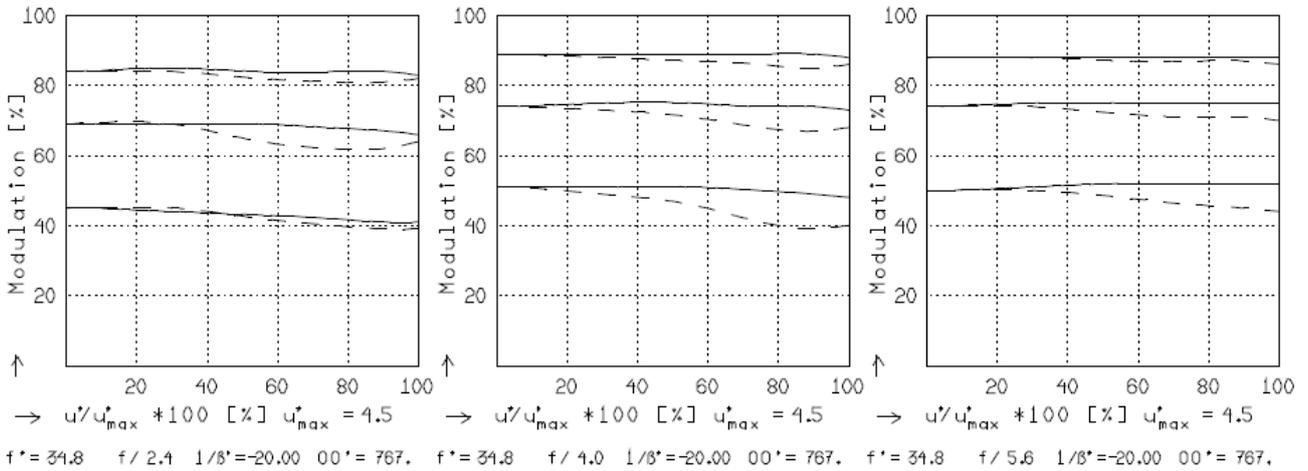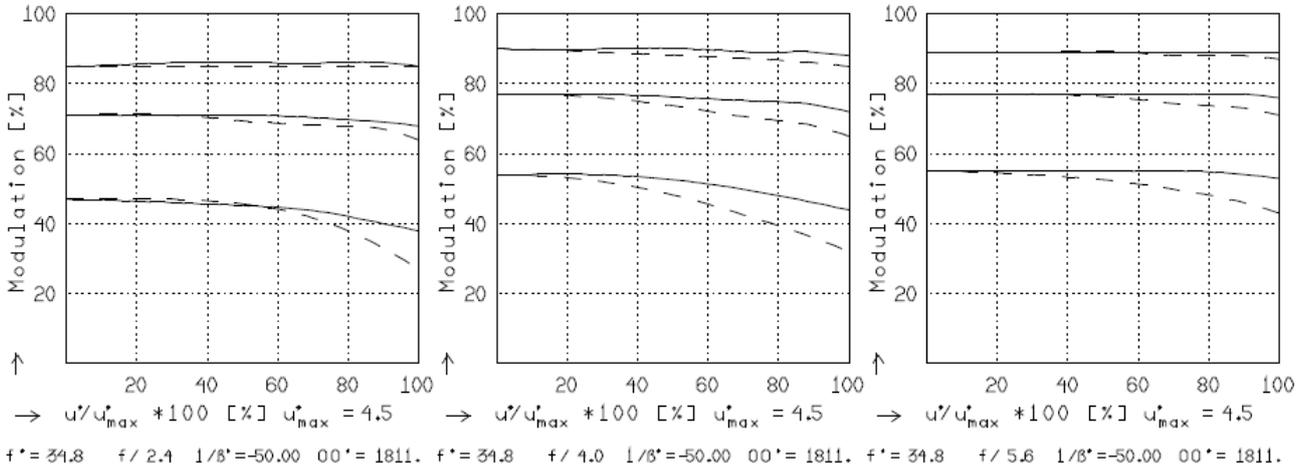
Focusing :   MTF$_{max}$ at f / 2.3 , R = 80 1/mm, u'/u'$_{max}$ = 0