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 2.2/10

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.
Code No.	1074625

Contact

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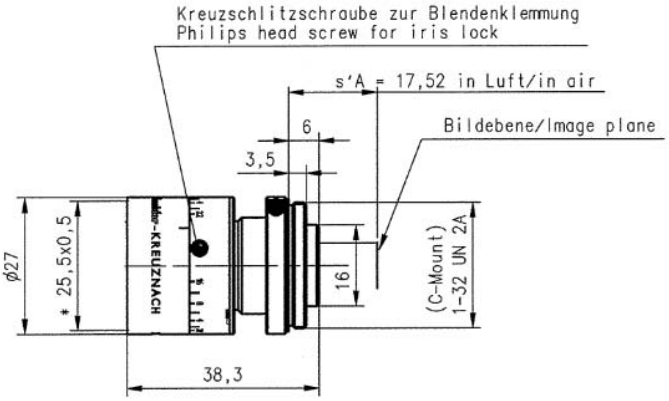
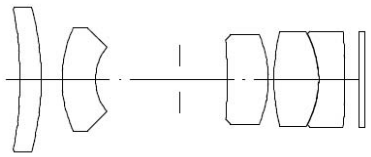
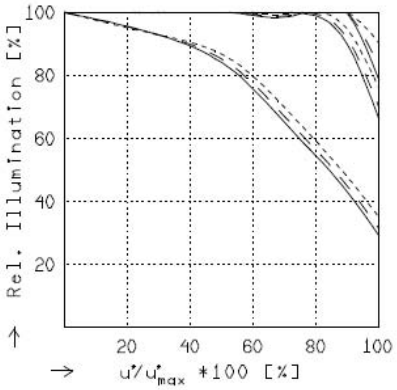
Xenon-RUBY 2.2/10





XR 2.2/10

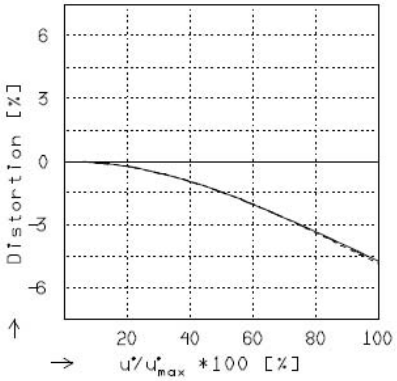
f'	=	10.5 mm	β'_p	=	3.453
s_F	=	9.2 mm	s_{EP}	=	12.3 mm
$s'_{F'}$	=	11.6 mm	s'_{AP}	=	-24.6 mm
HH'	=	14.3 mm	Σ d	=	32.9 mm



RELATIVE ILLUMINATION

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

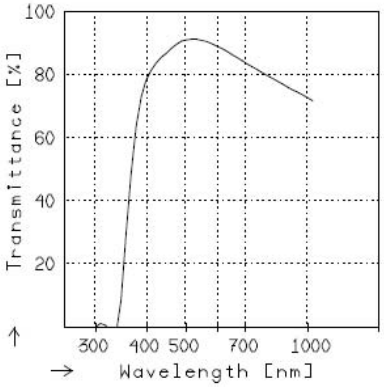
	f / 2.3	f / 4.0	f / 5.6
——	β' = -0.0200	u'_{max} = 4.5	ω' = 559.
— —	β' = -0.0500	u'_{max} = 4.5	ω' = 245.
-----	β' = -0.1000	u'_{max} = 4.5	ω' = 141.



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} = 4.5	ω' = 559.
— —	β' = -0.0500	u'_{max} = 4.5	ω' = 245.
-----	β' = -0.1000	u'_{max} = 4.5	ω' = 141.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

Xenon-RUBY 2.2/10

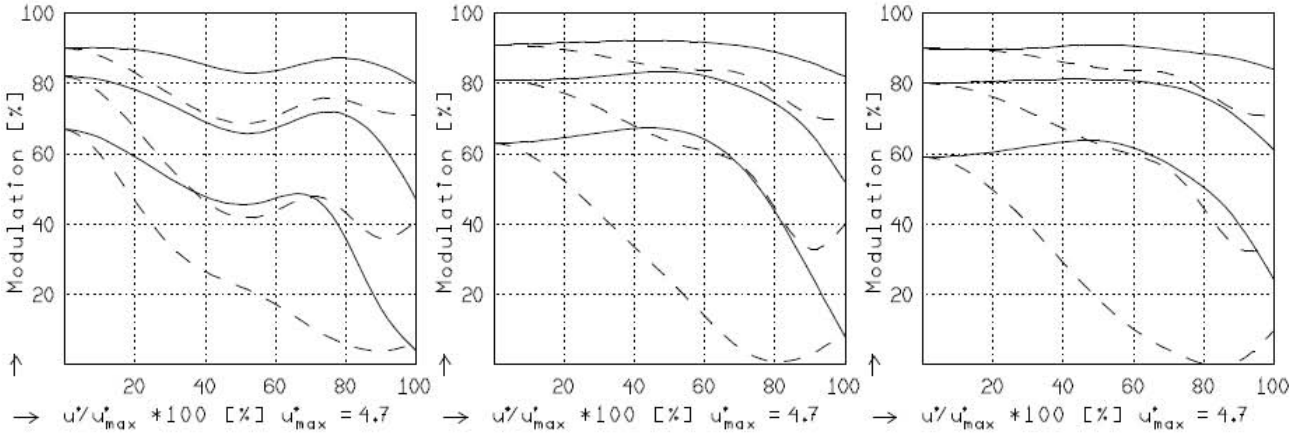
XR 2.2/10

MODULATION with reference to the relative image height

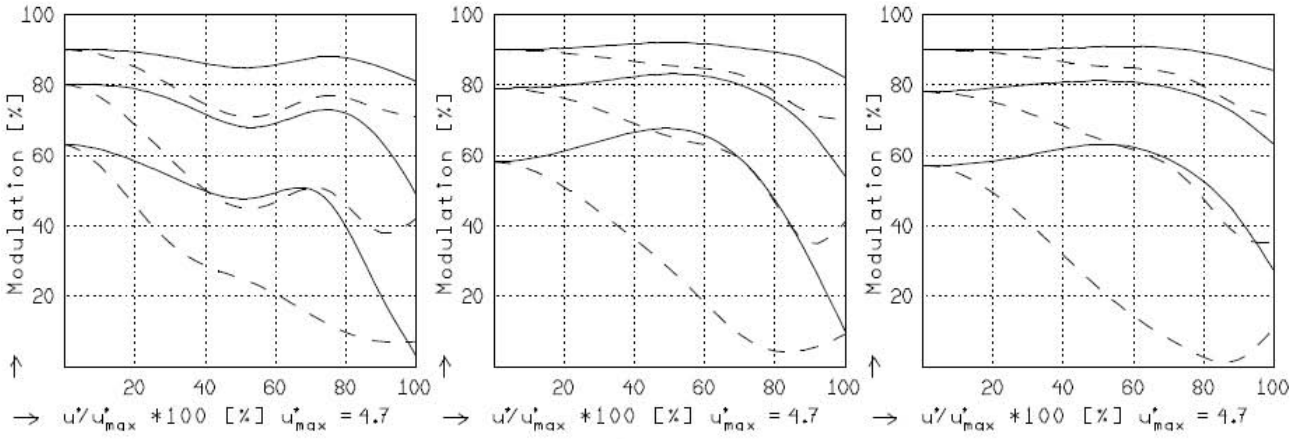
Wavelength	λ	[nm] :	555	655	605	505	455	405
Spectral weighting		[%] :	19.8	23.7	22.2	15.7	12.1	6.7
Spatial frequency R		[1/mm] :	20	40	80			
Format		[mm X mm] :	0.0		9.0			
Diagonal 2u'		[mm] :	9.0					

radial ——

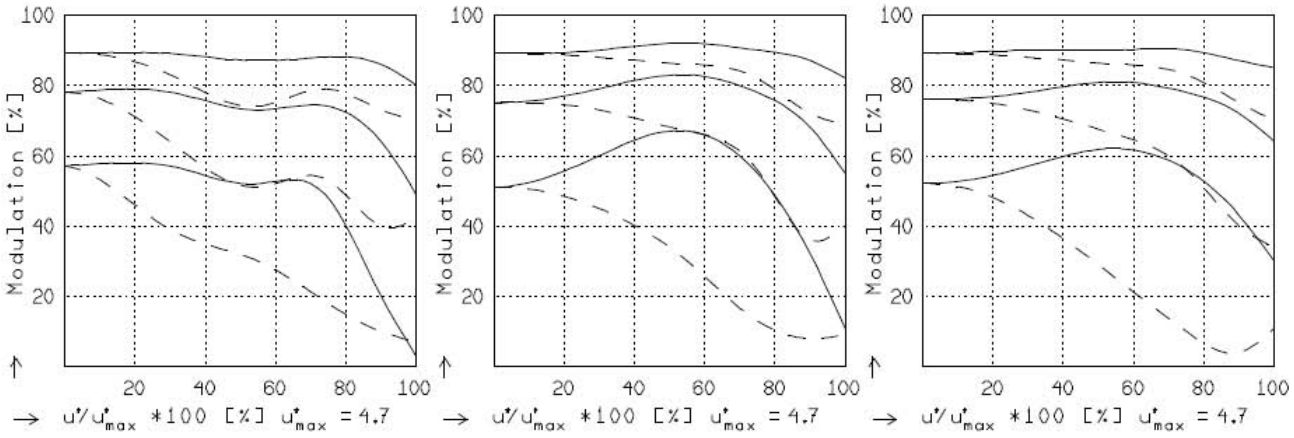
tangential — —



f'= 10.5 f/ 2.3 l/β'=-50.00 OO'= 559. f'= 10.5 f/ 4.0 l/β'=-50.00 OO'= 559. f'= 10.5 f/ 5.6 l/β'=-50.00 OO'= 559.



f'= 10.5 f/ 2.3 l/β'=-20.00 OO'= 245. f'= 10.5 f/ 4.0 l/β'=-20.00 OO'= 245. f'= 10.5 f/ 5.6 l/β'=-20.00 OO'= 245.



f'= 10.5 f/ 2.3 l/β'=-10.00 OO'= 141. f'= 10.5 f/ 4.0 l/β'=-10.00 OO'= 141. f'= 10.5 f/ 5.6 l/β'=-10.00 OO'= 141.

Focusing : MTF_{max} at f / 2.2 , R = 80 l/mm, u'/u'_{max} = 0

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Xenon-RUBY Lens

Xenon-RUBY 2.2/25

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	25.2 mm
Image circle	9 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Filter Thread	M25.5 x 0.5
Weight	29 gr.
Code No.	1068908

Contact

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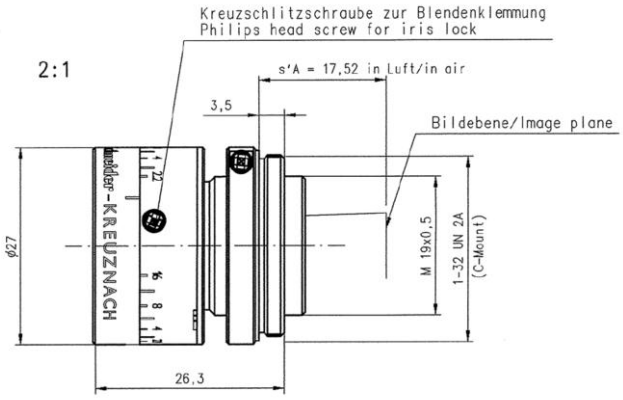
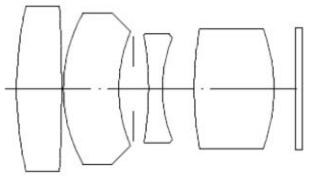
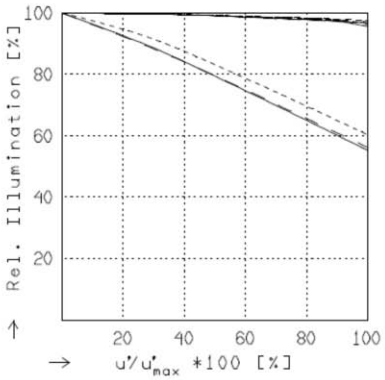
Xenon-RUBY 2.2/25





XENAR 2.2/25

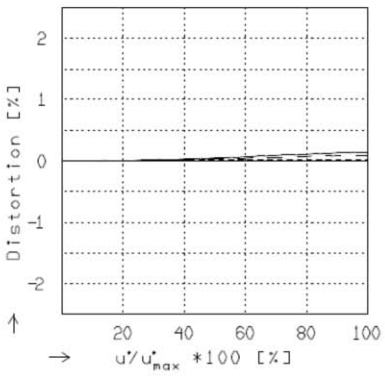
f' = 25.2 mm	β'_P = 1.162		
s_F = -14.5 mm	s_{EP} = 7.2 mm		
s'_F = 14.8 mm	s'_{AP} = -14.5 mm		
HH' = -1.8 mm	Σ d = 19.3 mm		



RELATIVE ILLUMINATION

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

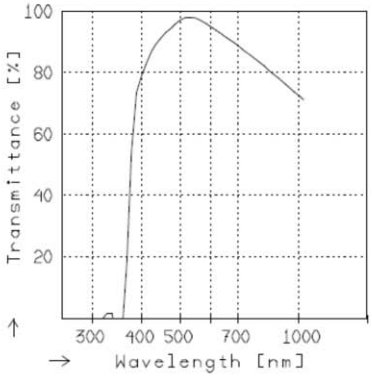
	f / 2.3	f / 4.0	f / 5.6
——	β' = -0.0200	u'_{max} = 4.5	ω' = 1310.
— —	β' = -0.0500	u'_{max} = 4.5	ω' = 554.
-----	β' = -0.1000	u'_{max} = 4.5	ω' = 303.



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} = 4.5	ω' = 1310.
— —	β' = -0.0500	u'_{max} = 4.5	ω' = 554.
-----	β' = -0.1000	u'_{max} = 4.5	ω' = 303.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

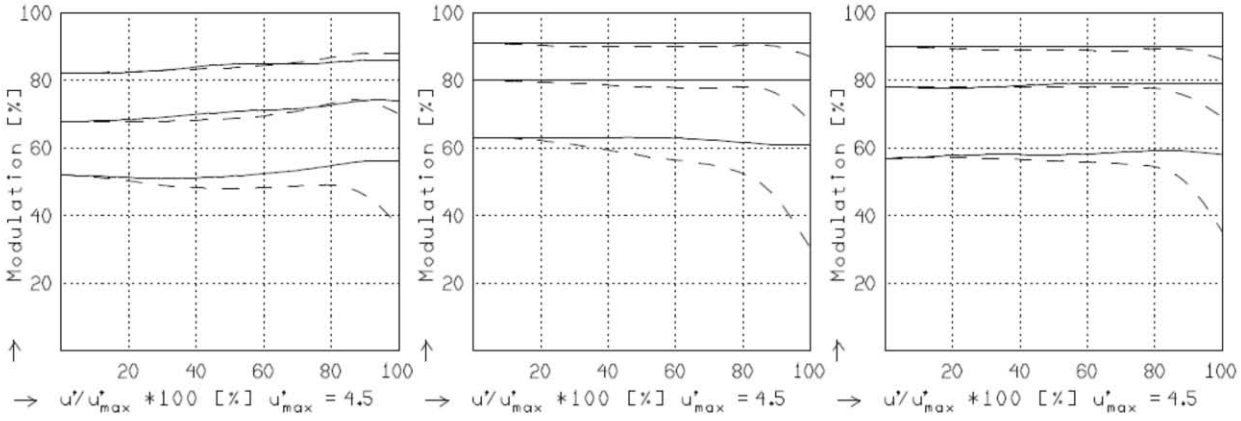
XENAR 2.2/25

MODULATION with reference to the relative image height

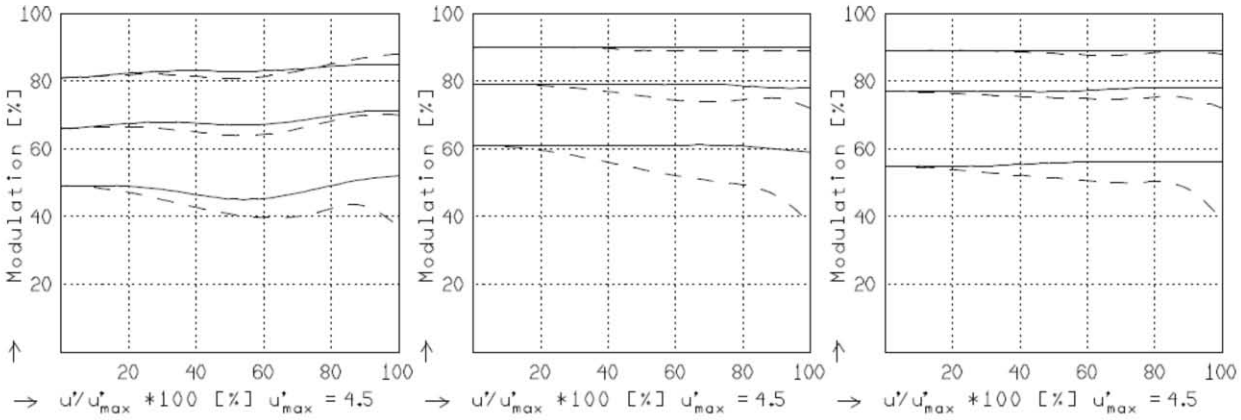
Wavelength	λ	[nm] :	555	655	605	505	455	405
Spectral weighting		[%] :	19.8	23.7	22.2	15.7	12.1	6.7
Spatial frequency	R	[1/mm] :	20	40	80			
Format		[mm X mm] :	0.0		9.0			
Diagonal 2u'		[mm] :	9.0					

radial ——

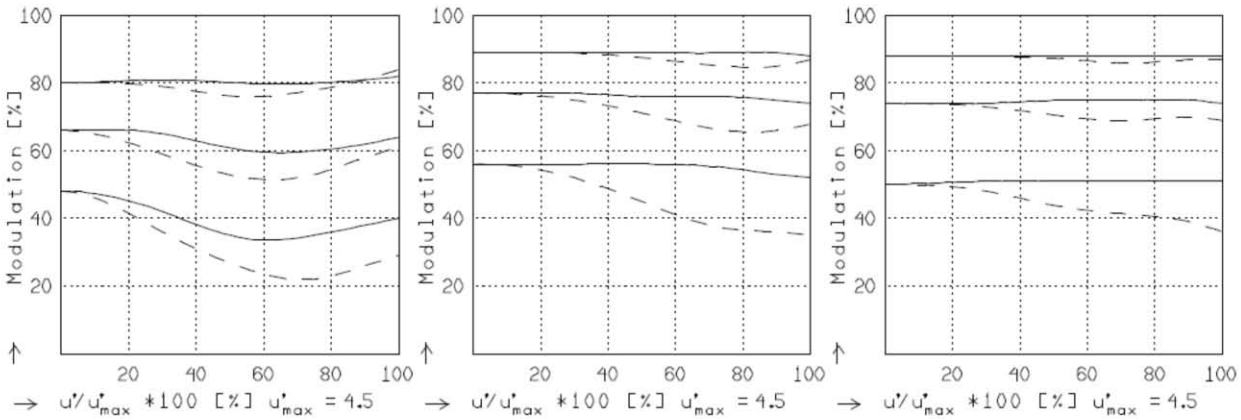
tangential — —



f'= 25.2 f/ 2.3 1/ß'=-50.00 OO'= 1310. f'= 25.2 f/ 4.0 1/ß'=-50.00 OO'= 1310. f'= 25.2 f/ 5.6 1/ß'=-50.00 OO'= 1310.



f'= 25.2 f/ 2.3 1/ß'=-20.00 OO'= 554. f'= 25.2 f/ 4.0 1/ß'=-20.00 OO'= 554. f'= 25.2 f/ 5.6 1/ß'=-20.00 OO'= 554.



f'= 25.2 f/ 2.3 1/ß'=-10.00 OO'= 303. f'= 25.2 f/ 4.0 1/ß'=-10.00 OO'= 303. f'= 25.2 f/ 5.6 1/ß'=-10.00 OO'= 303.

Focusing : MTF_{max} at f / 2.2 . R = 80 1/mm. u'/u'_{max} = 0

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Xenon-RUBY Lens

Xenon-RUBY 2.3/16

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.

Xenon-RUBY 2.3/16

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	15.9 mm
Image circle	9 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Filter Thread	M25.5 x 0.5
Weight	60 gr.
Code No.	1074626

Contact

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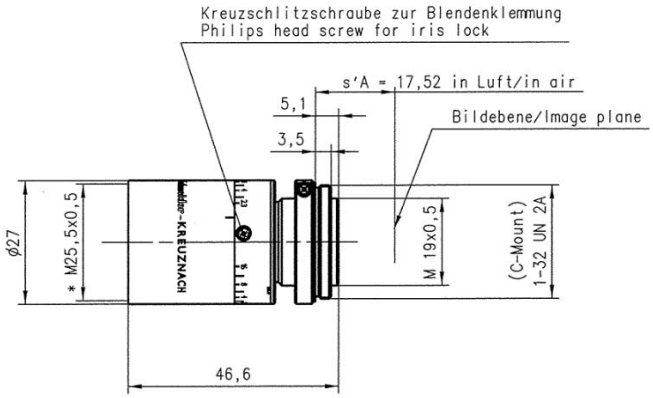
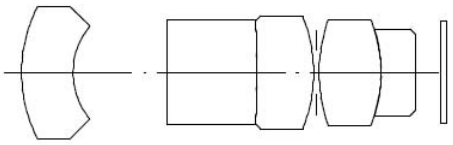
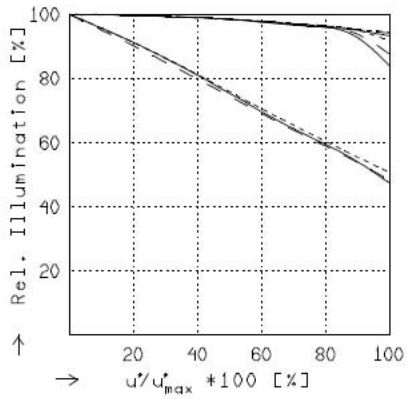
Xenon-RUBY 2.3/16





XR 2.3/16

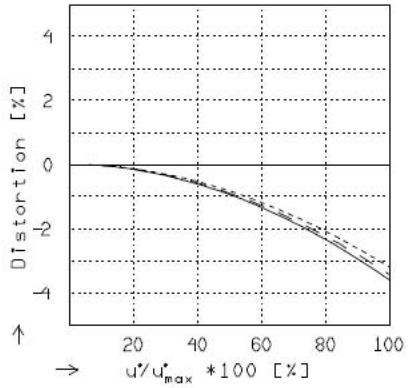
f'	=	15.9 mm	β'_P	=	1.446
s_F	=	9.2 mm	s_{EP}	=	20.2 mm
s'_F	=	14.1 mm	s'_{AP}	=	-8.9 mm
HH'	=	16.1 mm	Σ d	=	42.9 mm



RELATIVE ILLUMINATION

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

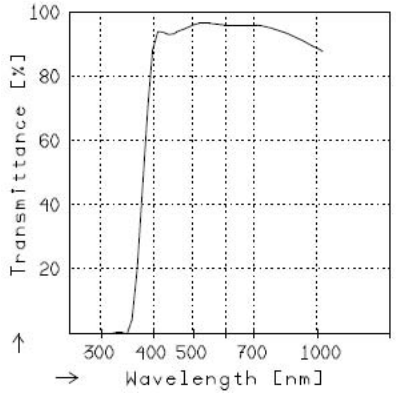
	f / 2.3	f / 4.0	f / 5.6
——	β' = -0.0200	u'_{max} = 4.4	00' = 843.
— —	β' = -0.0500	u'_{max} = 4.4	00' = 367.
-----	β' = -0.1000	u'_{max} = 4.5	00' = 208.



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} = 4.5	00' = 843.
— —	β' = -0.0500	u'_{max} = 4.5	00' = 367.
-----	β' = -0.1000	u'_{max} = 4.5	00' = 208.



TRANSMITTANCE

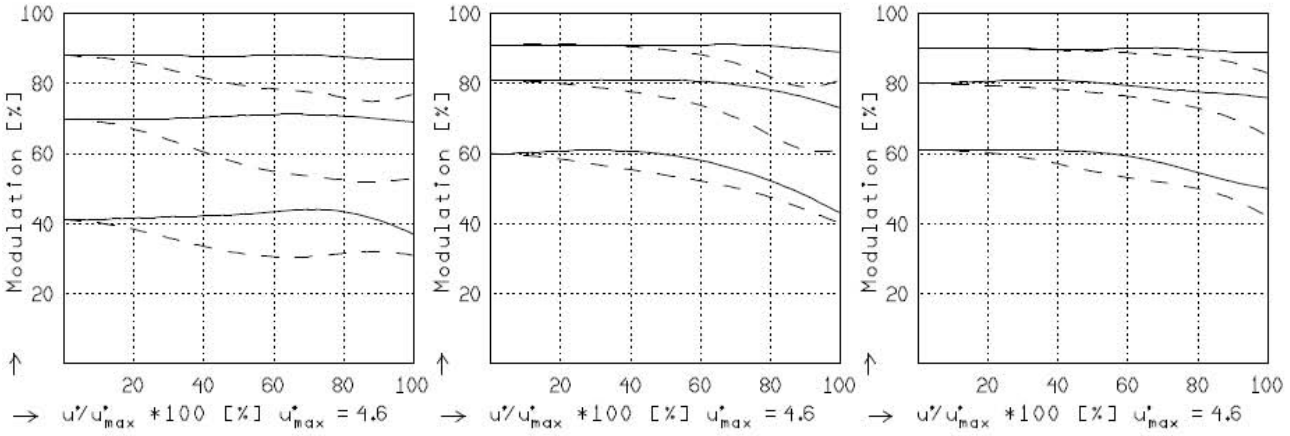
Relative spectral transmittance is shown with reference to wavelength.

XR 2.3/16

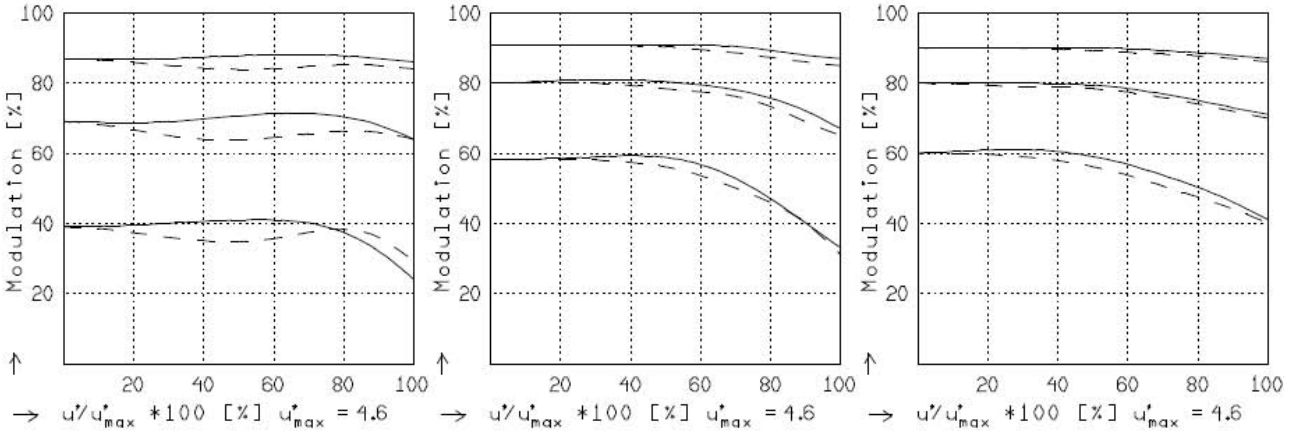
MODULATION with reference to the relative image height

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			
Diagonal 2u'		[mm] :	9.0					

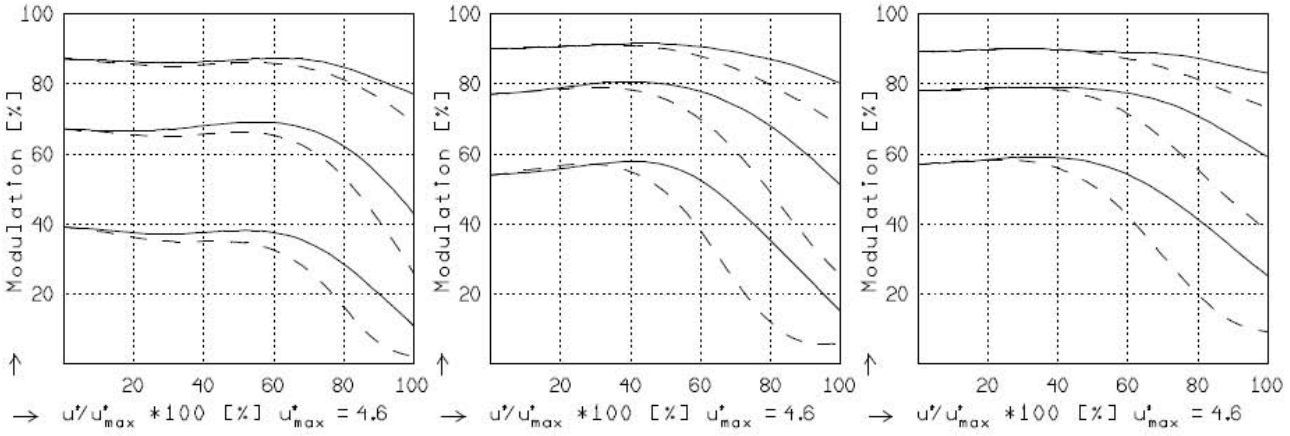
radial ——
tangential — —



f' = 15.9 f/ 2.3 l/8' =-50.00 00' = 843. | f' = 15.9 f/ 4.0 l/8' =-50.00 00' = 843. | f' = 15.9 f/ 5.6 l/8' =-50.00 00' = 843.



f' = 15.9 f/ 2.3 l/8' =-20.00 00' = 367. | f' = 15.9 f/ 4.0 l/8' =-20.00 00' = 367. | f' = 15.9 f/ 5.6 l/8' =-20.00 00' = 367.



f' = 15.9 f/ 2.3 l/8' =-10.00 00' = 208. | f' = 15.9 f/ 4.0 l/8' =-10.00 00' = 208. | f' = 15.9 f/ 5.6 l/8' =-10.00 00' = 208.

Focusing : MTF_{max} at f / 2.3 , R = 80 l/mm, u'/u'_{max} = 0

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.

Xenon-RUBY 2.3/35

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

Contact

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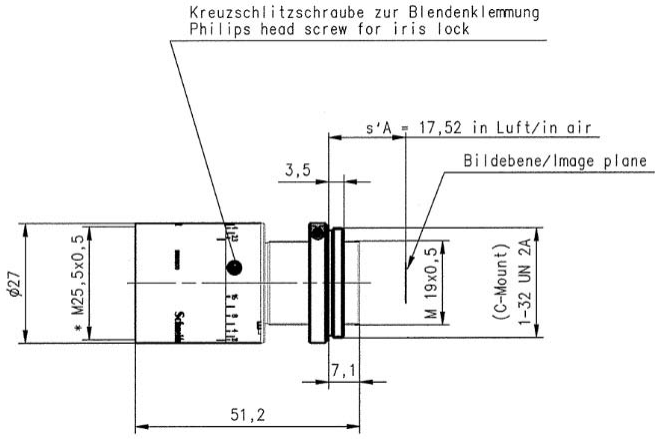
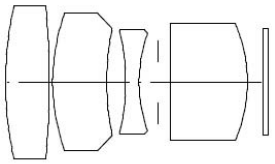
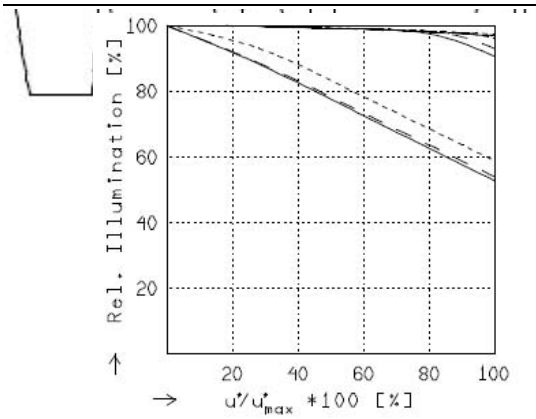
Xenon-RUBY 2.3/35





XR 2.3/35

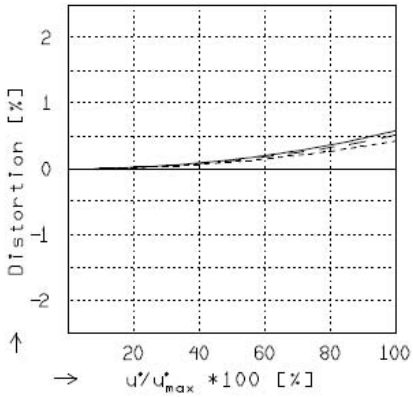
f'	=	34.8 mm	β'_P	=	0.903
s_F	=	-11.0 mm	s_{EP}	=	27.6 mm
s'_F	=	22.0 mm	s'_{AP}	=	-9.5 mm
HH'	=	-1.3 mm	Σd	=	35.3 mm



RELATIVE ILLUMINATION

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

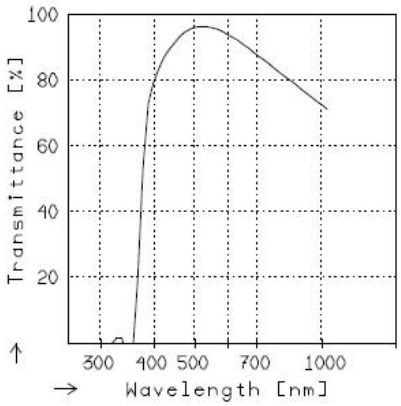
	f / 2.4	f / 4.0	f / 5.6
——	$\beta' = -0.0200$	$u'_{max} = 4.5$	$\omega' = 1811.$
— —	$\beta' = -0.0500$	$u'_{max} = 4.5$	$\omega' = 767.$
-----	$\beta' = -0.1000$	$u'_{max} = 4.5$	$\omega' = 420.$



DISTORTION

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

——	$\beta' = -0.0200$	$u'_{max} = 4.5$	$\omega' = 1811.$
— —	$\beta' = -0.0500$	$u'_{max} = 4.5$	$\omega' = 767.$
-----	$\beta' = -0.1000$	$u'_{max} = 4.5$	$\omega' = 420.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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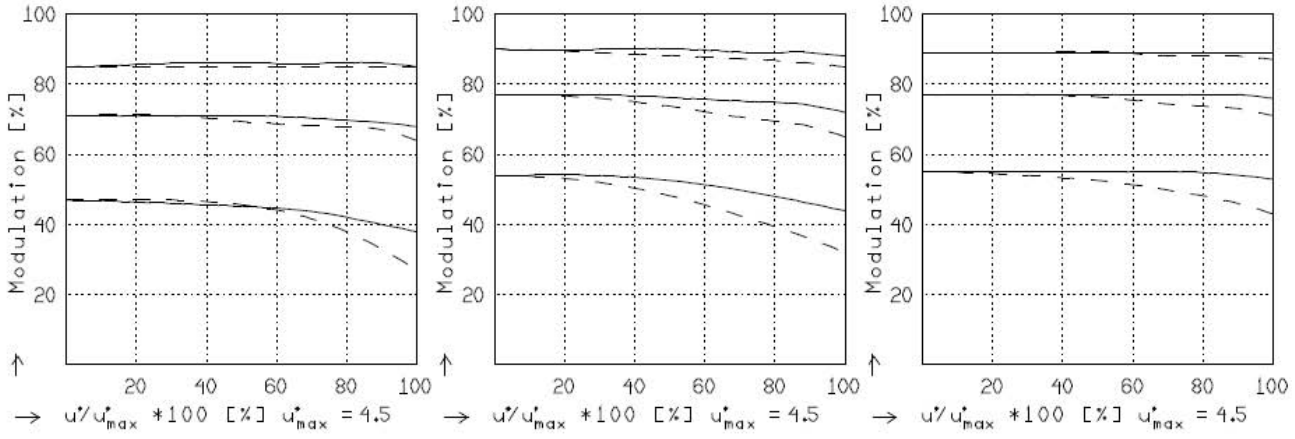
XR 2.3/35

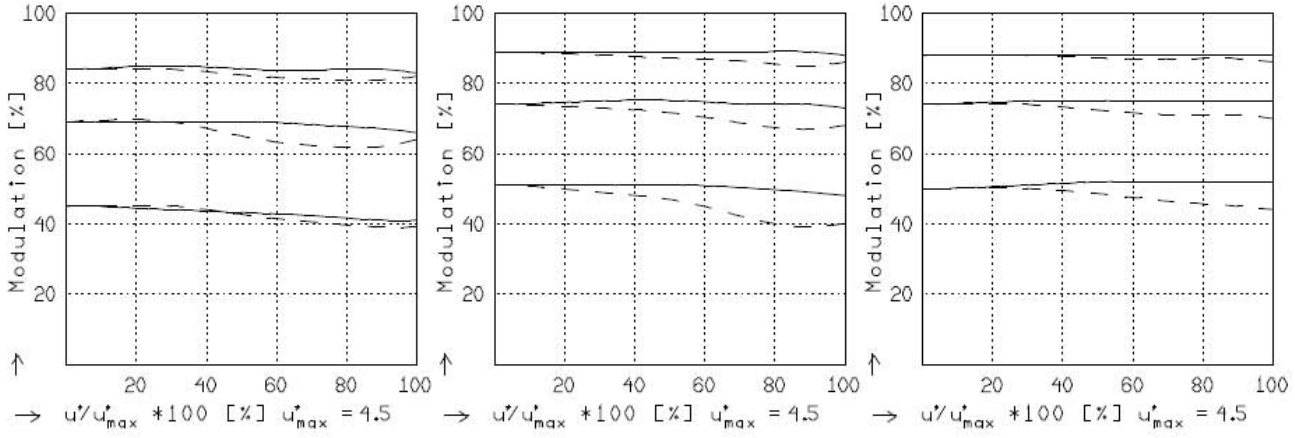
MODULATION with reference to the relative image height

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			
Diagonal 2u' [mm] :	9.0					

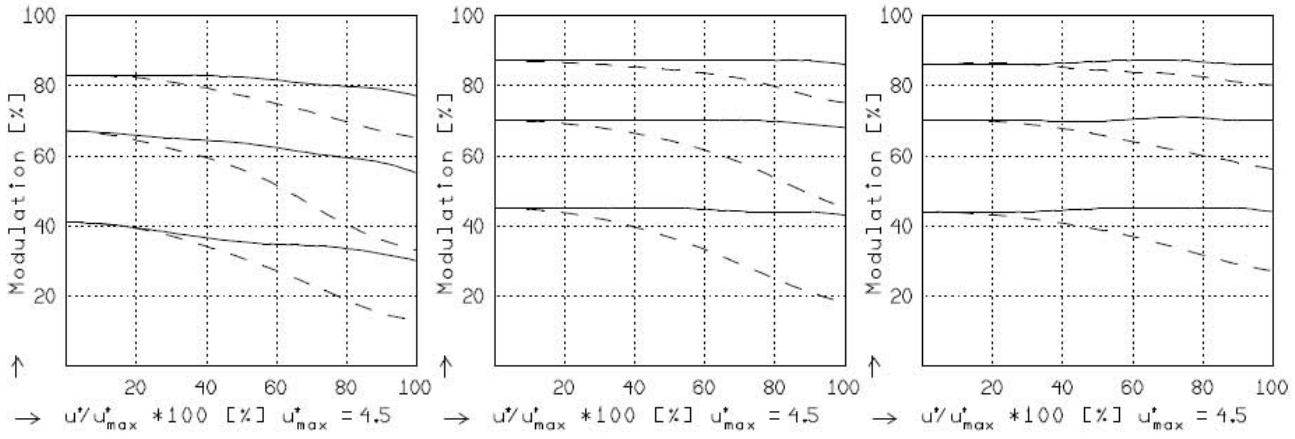
radial ——
tangential — —



f'= 34.8 f/ 2.4 l/s'=-50.00 OO'= 1811. f'= 34.8 f/ 4.0 l/s'=-50.00 OO'= 1811. f'= 34.8 f/ 5.6 l/s'=-50.00 OO'= 1811.



f'= 34.8 f/ 2.4 l/s'=-20.00 OO'= 767. f'= 34.8 f/ 4.0 l/s'=-20.00 OO'= 767. f'= 34.8 f/ 5.6 l/s'=-20.00 OO'= 767.



f'= 34.8 f/ 2.4 l/s'=-10.00 OO'= 420. f'= 34.8 f/ 4.0 l/s'=-10.00 OO'= 420. f'= 34.8 f/ 5.6 l/s'=-10.00 OO'= 420.

Focusing : MTF_{max} at f / 2.3 , R = 80 1/mm, u'/u'_{max} = 0

C-Mount Objektive / Lenses IR (400 - 1000 nm)

Die 2/3" C-Mount-Objektive sind von 400-1000 nm korrigiert und damit im sichtbaren und nahen infraroten Bereich praktisch ohne Fokusdifferenz einsetzbar.

Die hervorragende Abbildungsleistung wurde unter anderem erzielt duch eine aufwendige Optikkonstruktion und den Einsatz von speziellen „ultra low dispersion" Gläsern. Eine Breitbandentspiegelung reduziert Streulicht und erhöht die Transmission über den gesamten Spektralbereich.

Die Objektive sind wahlweise mit manueller, motorischer oder videosignalgesteuerter Blende erhältlich, und damit gleichermaßen zur Videoüberwachung als auch für technische Anwendungen geeignet.

The 2/3" C-Mount lenses are designed for a spectral range of 400-1000 nm and can be used in the visible and near infrared range, practically without focus difference.

The high optical performance is achieved by a sophisticated optical design and the use of ultra low dispersion glass. A special broadband coating reduces stray light and increases transmission over the whole spectral range.

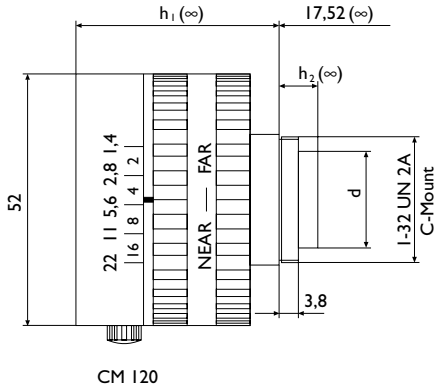
The lenses are available with manual, motorized or video signal controlled iris, which makes them suitable for video surveillance as well as for technical applications.

Schneider KREUZNACH

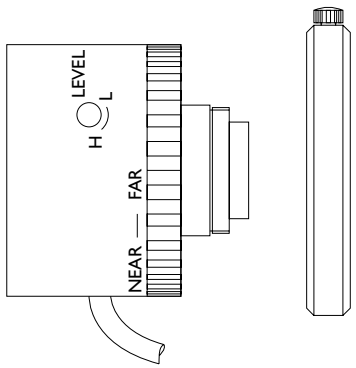
Objektivdaten / Lens data

Objektiv Lens	Blendenbereich f/stop range ohne / mit Verlauffilter without / with spot filter	Bildwinkel Angle of view 2/3"	1/2"	1/3"	MOD * (mm)	Objektabmessungen (B x H) Object dimensions (W x H) (mm) MOD * 1 m 5 m 2/3"	1/2"	1/3"	Abmessungen Dimensions (mm) h_1 h_2 d	Gewicht Weight (g) CM 120 CP 100...	Art.-Nr. Code No. CM 120 CP 100 VF CP 100 VS
Cinegon 1,8/4,8	k = 1,8...22 T = 2,1...>2000	91 71 105	69 53 84	53 40 65	1	24 x 18 1650 x 1240 8610 x 6460	17 x 13 1200 x 900 6260 x 4700	13 x 10 900 x 680 4700 x 3520	43,8 5,0 16,3	170 185	10432 10550 10551
Cinegon 1,4/8	k = 1,4...22 T = 1,6...>2000	55 42 67	42 32 52	33 25 40	5	18 x 14 1000 x 750 5200 x 3900	13 x 10 730 x 550 3780 x 2840	10 x 7 550 x 410 2840 x 2130	36,2 5,1 16,8	135 150	12543 10982 10667
Cinegon 1,4/12	k = 1,4...22 T = 1,6...>2000	38 29 48	29 22 36	22 16 27	20	28 x 21 670 x 500 3470 x 2600	20 x 15 480 x 370 2520 x 1890	15 x 11 370 x 270 1890 x 1420	43,8 5,6 18,3	145 160	10423 10568 10576
Xenoplan 1,4/17	k = 1,4...22 T = 1,6...>2000	28 21 35	21 16 26	16 12 20	70	39 x 29 480 x 360 2480 x 1860	28 x 21 350 x 260 1800 x 1350	21 x 16 260 x 200 1350 x 1020	36,8 4,9 18,5	130 145	10623 10578 10579
Xenoplan 1,4/23	k = 1,4...22 T = 1,6...>2000	22 16 27	16 12 20	12 9 15	115	50 x 37 370 x 280 1940 x 1450	36 x 27 270 x 200 1410 x 1060	27 x 20 200 x 150 1060 x 790	40,5 3,8 -	140 155	10425 10581 10582
Xenoplan 1,9/35	k = 1,9...22 T = 2,1...>2000	14 11 18	10 8 13	7,9 5,9 9,8	310	77 x 58 250 x 190 1260 x 940	56 x 42 180 x 140 920 x 690	42 x 32 140 x 100 690 x 510	38,5 3,8 -	140 155	39959 39957 39956
Tele-Xenar 2,2/70	k = 2,2...22 T = 2,3...>2000	7,2 5,4 8,9	5,2 3,9 6,5	3,9 2,9 4,9	1250	154 x 116 - 620 x 470	112 x 84 - 450 x 340	84 x 63 - 340 x 260	74,2 3,8 -	230 245	39963 39961 39960

* MOD: Kürzeste Einstellentfernung ab Frontlinse, ohne Zwischenringe / Minimum object distance from first lens element, without extension tubes



CM 120



CP 100 VS

Fokus-Feststellring
Clamping device for focus

Ausführung

CM 120:	manuelle Blende
CP 100:	motorisierte Blende (auf Anfrage)
CP 100 VF:	motorisierte Blende mit Verlauffilter
CP 100 VS:	motorisierte Blende mit Verlauffilter und Videosignalvergleichsverstärker

Version

CM 120:	manual iris
CP 100:	motorized iris (upon request)
CP 100 VF:	motorized iris with spot filter
CP 100 VS:	motorized iris with spot filter and video signal control

Technische Daten / Technical Data

	CM 120	CP 100 / CP 100 VF	CP 100 VS
Spannungsversorgung Operating voltage	-	+/- 3 ... 20 V	8 ... 18 V
Stromaufnahme Current consumption	-	≤ 20 mA	≤ 25 mA Normal ≤ 75 mA Spitze / Peak
Eingangsimpedanz Input impedance	-	-	≈ 4,7 kΩ
Eingangssignal Input signal	-	-	Uss = 0,7 ... 1,2 V (BAS) oder / or Uss = 0,2 ... 1 V (BA)
Verstellzeit der Blende Iris adjustment time	-	3 ... 7 s	≤ 3 s
Regelabweichung Cotrol deviation	-	-	≤ 10 %
Kabelposition Cable position	-	einstellbar adjustable	
Kabeldurchmesser Cable diameter	-	4,5 mm	
Temperaturbereich Temperature range	- 20° C ... + 55 °C		
Rüttelfestigkeit Vibration strength	entspr. / acc. DIN 58390-36-03-1		
Auflagemaß Flange focal distance	17,52 mm		
Zubehörgewinde Accessories thread	M 49 x 0,75 (CNG 1,8 / 4,8: Aufsteckfassung A 51 / Push-on mount A 51)		
Zubehör Accessories	Fokus-Feststellring / Clamping device for focus Zwischenringe / Extension tubes CS-Mount Adapter		

400-1000.3/99.5000.A

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Exclusive Distributor for the USA

3 Mega Pixel lens

Cinegon 1.4/8

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Cinegon 1.4/8

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.4
Focal length	8.2 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	90 gr.
Option	Optical filter

Contact

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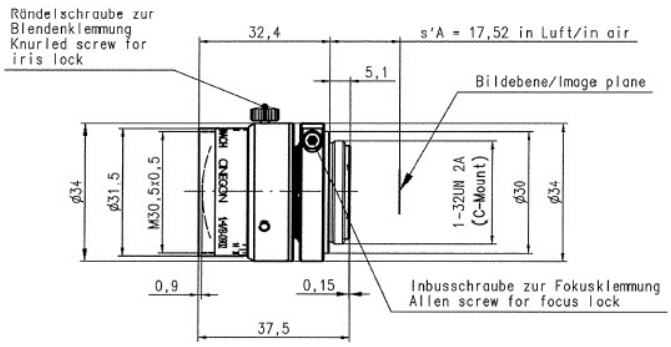
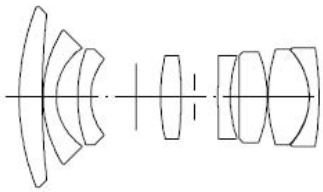
Cinegon 1.4/8





CINEGON 1.4/8.0MM

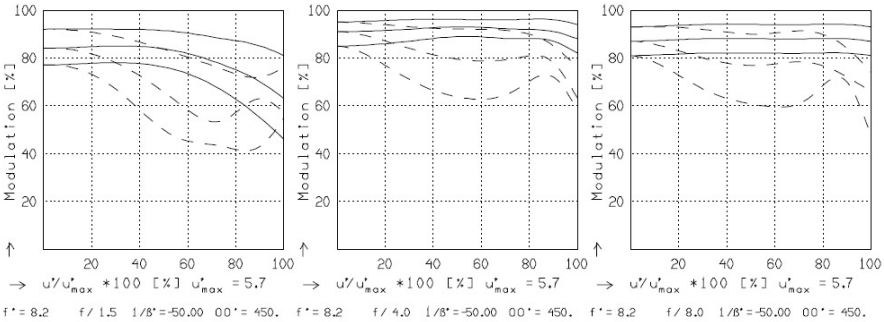
f'	=	8.2 mm	β'_p	=	4.796
s_F	=	11.7 mm	s_{EP}	=	13.4 mm
$s'_{F'}$	=	12.6 mm	s'_{AP}	=	-27.0 mm
HH'	=	20.9 mm	Σ d	=	36.5 mm

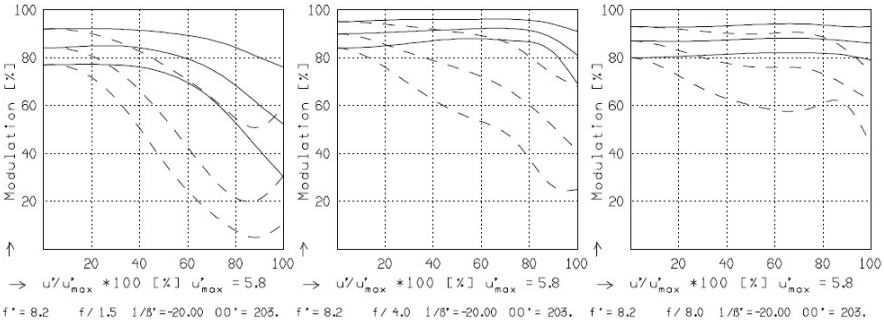
CINEGON 1.4/8.0MM

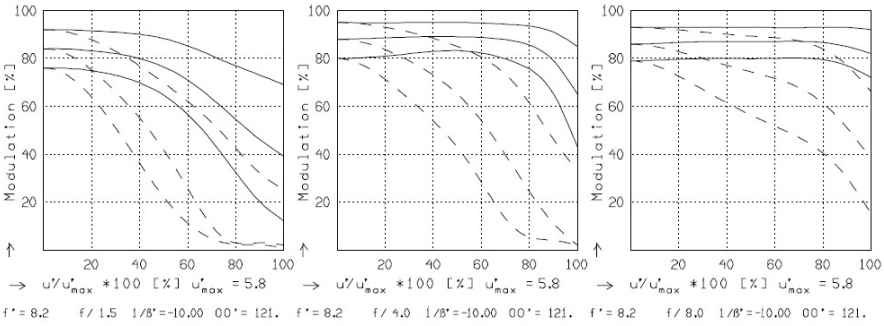
MODULATION with reference to the relative image height

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 — —







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

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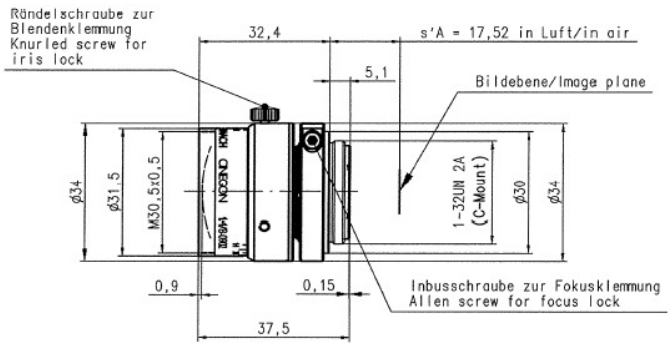
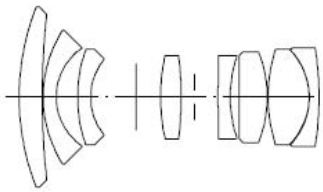
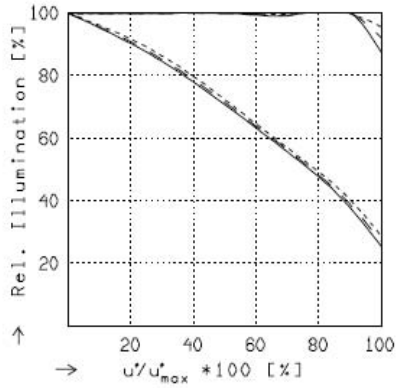
Cinegon 1.4/8





CINEGON 1.4/8.0MM

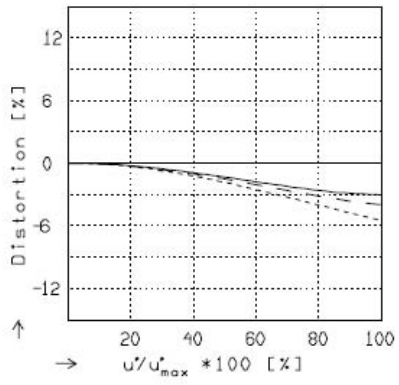
f'	=	8.2 mm	β'_p	=	4.796
s_F	=	11.7 mm	s_{EP}	=	13.4 mm
s'_F	=	12.6 mm	s'_{AP}	=	-27.0 mm
HH'	=	20.9 mm	Σ d	=	36.5 mm



RELATIVE ILLUMINATION

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

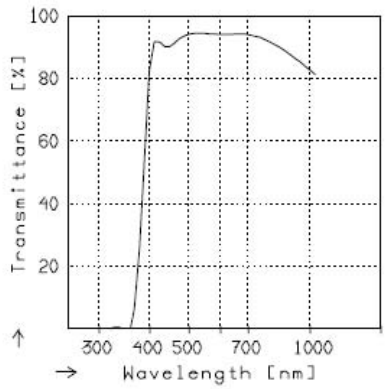
	f / 1.5	f / 4.0	f / 8.0
——	β' = -0.0200	u'_{max} = 5.5	00' = 450.
— —	β' = -0.0500	u'_{max} = 5.5	00' = 203.
-----	β' = -0.1000	u'_{max} = 5.5	00' = 121.



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} = 5.5	00' = 450.
— —	β' = -0.0500	u'_{max} = 5.5	00' = 203.
-----	β' = -0.1000	u'_{max} = 5.5	00' = 121.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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3 Mega Pixel lens

Cinegon 1.4/12

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Cinegon 1.4/12

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.4
Focal length	12.7 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	99 gr.
Option	Optical filter

Contact

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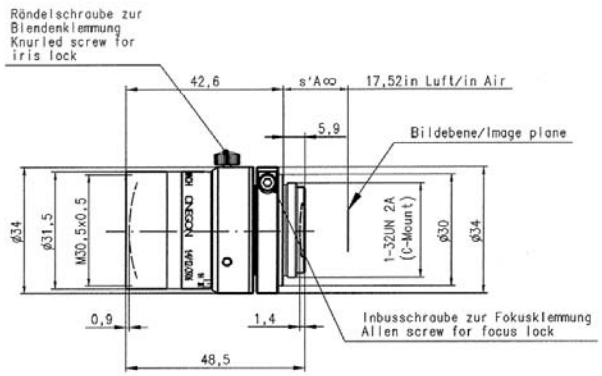
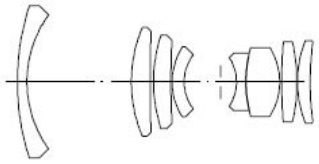
Cinegon 1.4/12





CINEGON 1.4/12MM

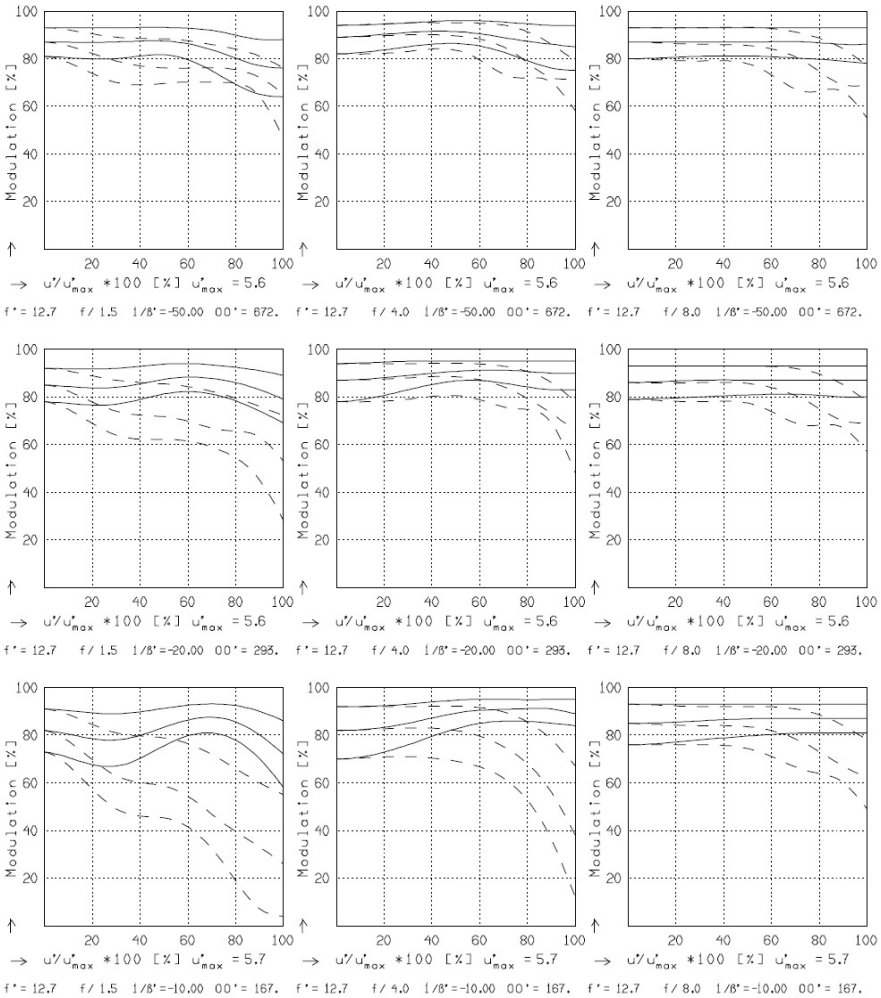
f'	=	12.7 mm	β'_P	=	4.217
s_F	=	20.1 mm	s_{EP}	=	23.1 mm
s'_F	=	12.7 mm	s'_{AP}	=	-40.7 mm
HH'	=	13.5 mm	Σ d	=	46.3 mm

CINEGON 1.4/12MM

MODULATION with reference to the relative image height

Wavelength	λ [nm] :	555	655	605	555	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 — —



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

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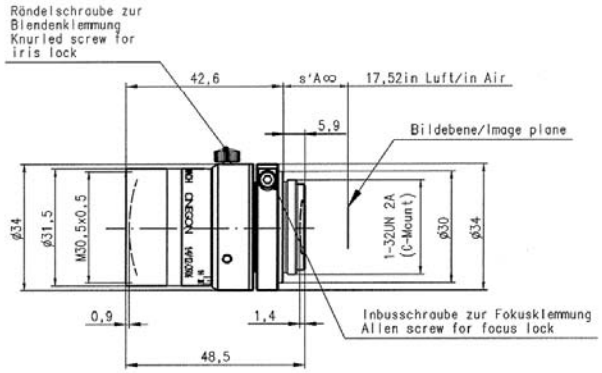
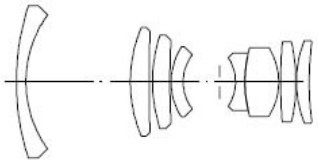
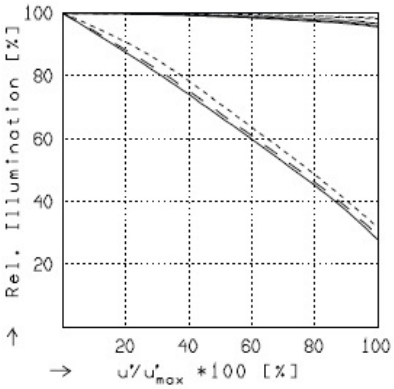
Cinegon 1.4/12





CINEGON 1.4/12MM

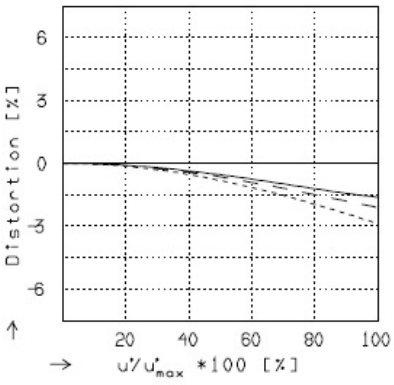
f'	=	12.7 mm	β'_P	=	4.217
s_F	=	20.1 mm	s_{EP}	=	23.1 mm
s'_F	=	12.7 mm	s'_{AP}	=	-40.7 mm
HH'	=	13.5 mm	Σ d	=	46.3 mm



RELATIVE ILLUMINATION

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

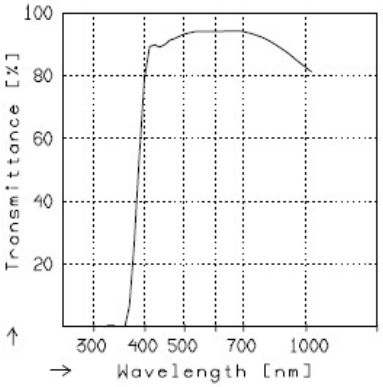
	f / 1.5	f / 4.0	f / 8.0
——	β' = -0.0200	u'_{max} = 5.5	00' = 672.
— —	β' = -0.0500	u'_{max} = 5.5	00' = 293.
-----	β' = -0.1000	u'_{max} = 5.5	00' = 167.



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} = 5.4	00' = 672.
— —	β' = -0.0500	u'_{max} = 5.5	00' = 293.
-----	β' = -0.1000	u'_{max} = 5.5	00' = 167.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

3 Mega Pixel lens

Cinegon 1.8/4.8

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Cinegon 1.8/4.8

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.8
Focal length	5.0 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	90 gr.
Option	Filter holder with M62x0.75x
Code No.	1001955

Contact

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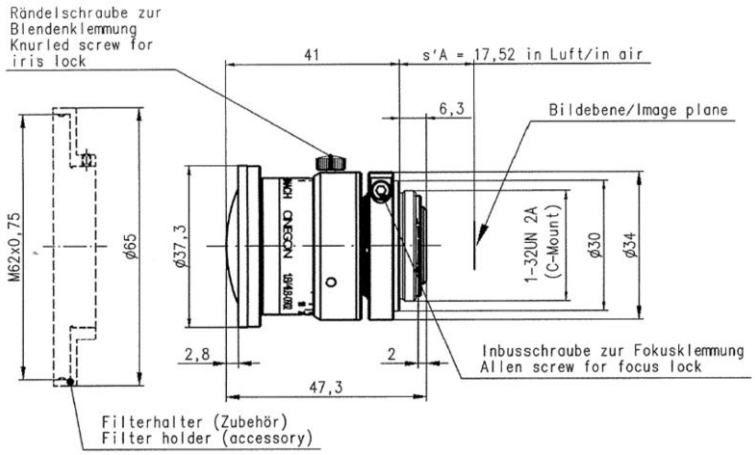
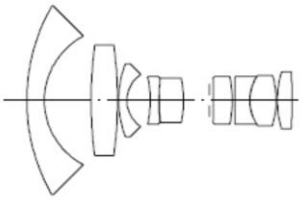
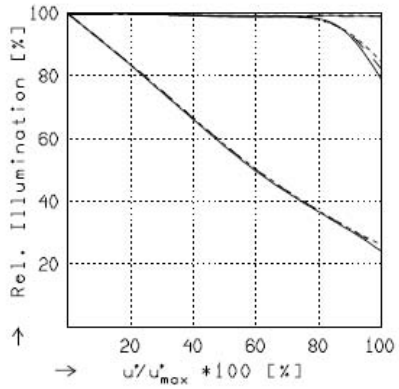
Cinegon 1.8/4.8





CINEGON 1.8/4.8

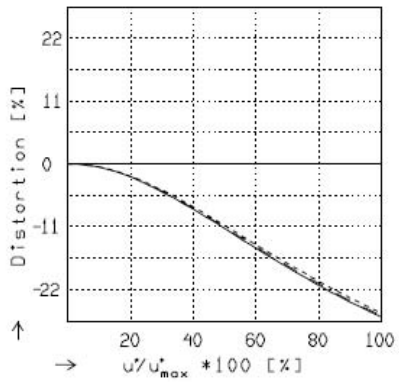
f'	=	5.0 mm	β'_P	=	6.632
s_F	=	13.2 mm	s_{EP}	=	13.9 mm
s'_F	=	13.2 mm	s'_{AP}	=	-19.8 mm
HH'	=	35.4 mm	Σd	=	45.3 mm



RELATIVE ILLUMINATION

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

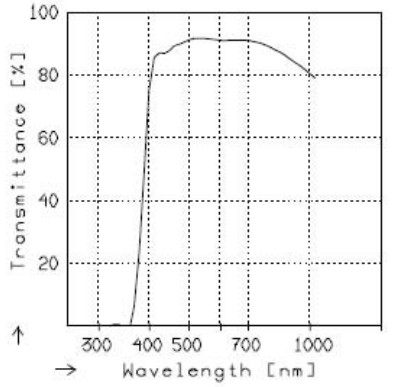
	f / 1.9	f / 4.0	f / 8.0
——	β' = -0.0200	u'_{max} = 5.5	ω' = 294.
— —	β' = -0.0333	u'_{max} = 5.5	ω' = 195.
-----	β' = -0.0500	u'_{max} = 5.5	ω' = 145.



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} = 5.5	ω' = 294.
— —	β' = -0.0333	u'_{max} = 5.5	ω' = 195.
-----	β' = -0.0500	u'_{max} = 5.5	ω' = 145.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

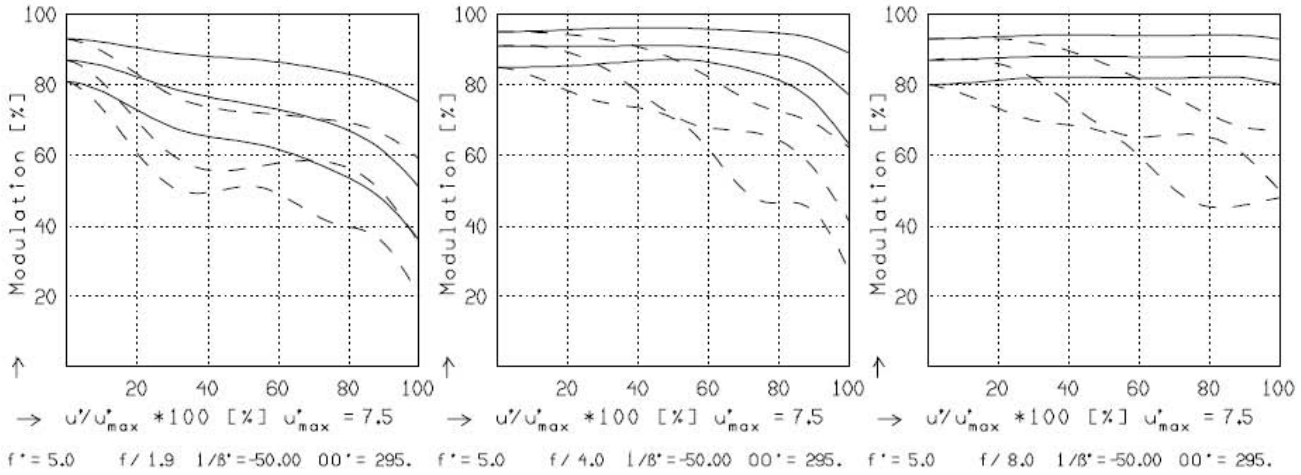
CINEGON 1.8/4.8

MODULATION with reference to the relative image height

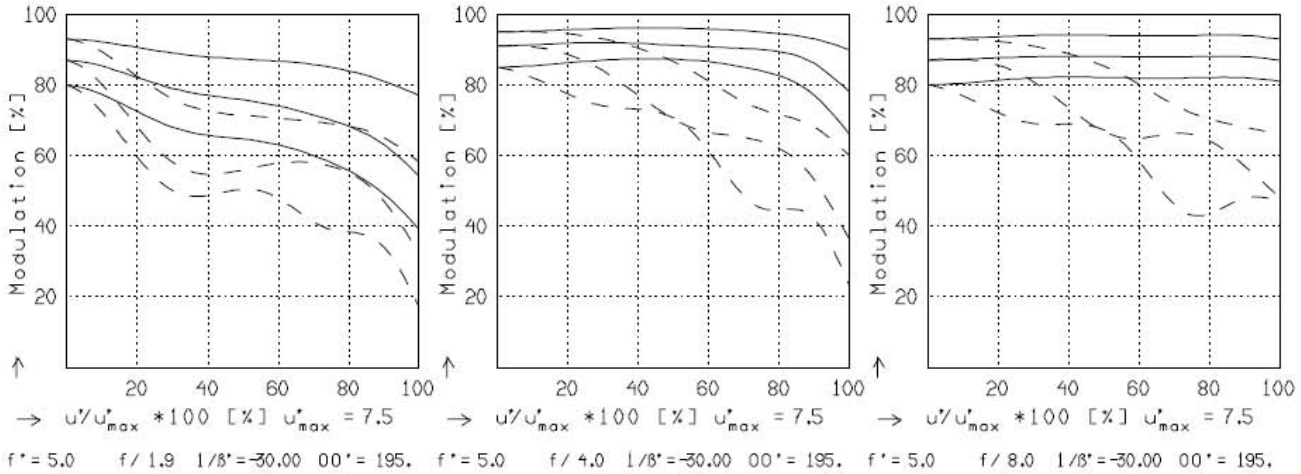
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.4	23.2	21.7	15.4	11.8	8.5
Spatial frequency R [1/mm] :	10	20	30			
Format [mm X mm] :	6.6 X 8.8					
Diagonal 2u' [mm] :	11.0					

radial ——

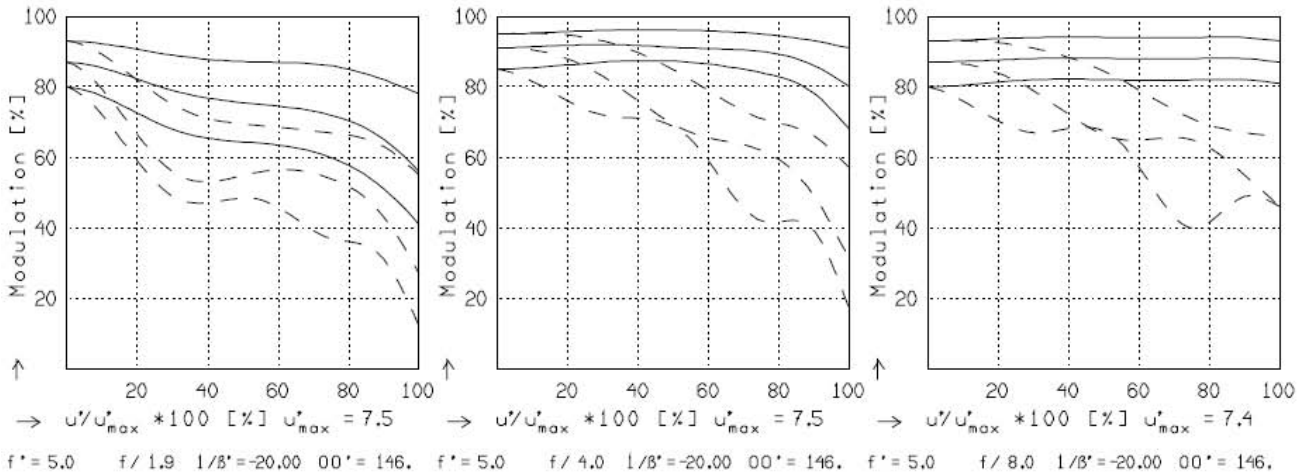
tangential — —



f' = 5.0 f/ 1.9 l/ß' = -50.00 OO' = 295. | f' = 5.0 f/ 4.0 l/ß' = -50.00 OO' = 295. | f' = 5.0 f/ 8.0 l/ß' = -50.00 OO' = 295.



f' = 5.0 f/ 1.9 l/ß' = -30.00 OO' = 195. | f' = 5.0 f/ 4.0 l/ß' = -30.00 OO' = 195. | f' = 5.0 f/ 8.0 l/ß' = -30.00 OO' = 195.



f' = 5.0 f/ 1.9 l/ß' = -20.00 OO' = 146. | f' = 5.0 f/ 4.0 l/ß' = -20.00 OO' = 146. | f' = 5.0 f/ 8.0 l/ß' = -20.00 OO' = 146.

Focusing : MTF_{max} at f / 1.8 , R = 30 1/mm, u'/u'_{max} = 0

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Cinegon 1.8/4.8

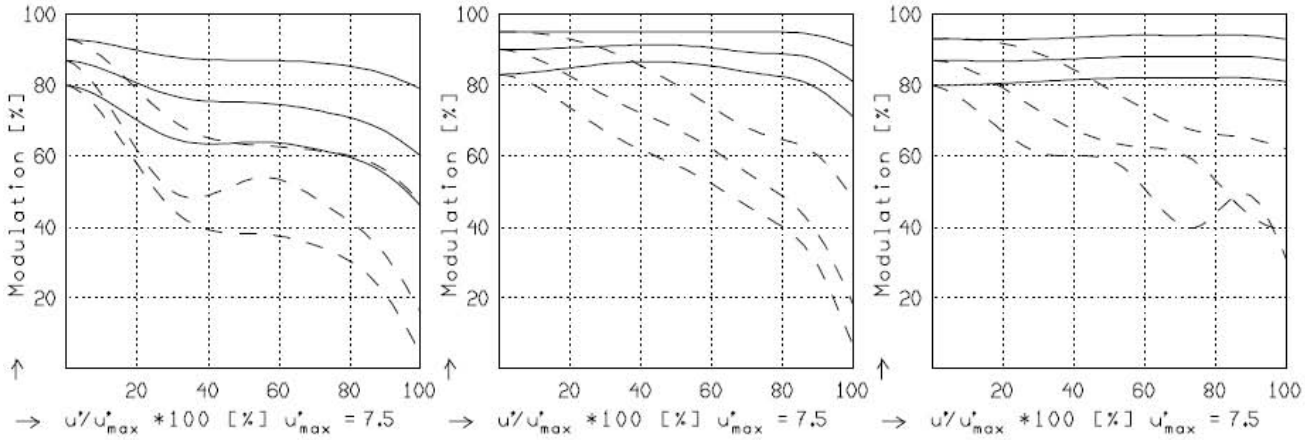
CINEGON 1.8/4.8

MODULATION with reference to the relative image height

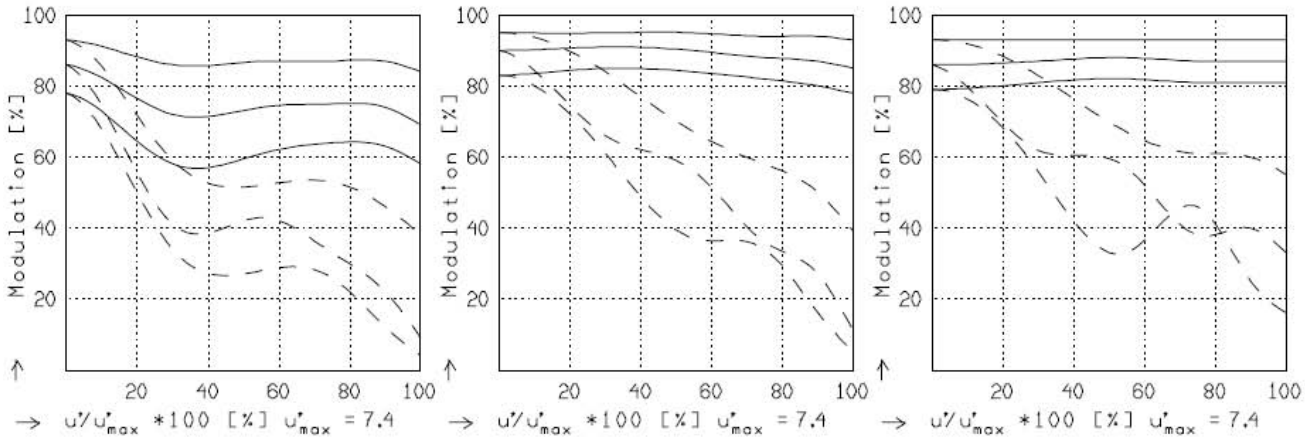
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.4	23.2	21.7	15.4	11.8	8.5
Spatial frequency R [1/mm] :	10	20	30			
Format [mm X mm] :	6.6 X 8.8					
Diagonal 2u' [mm] :	11.0					

radial ——

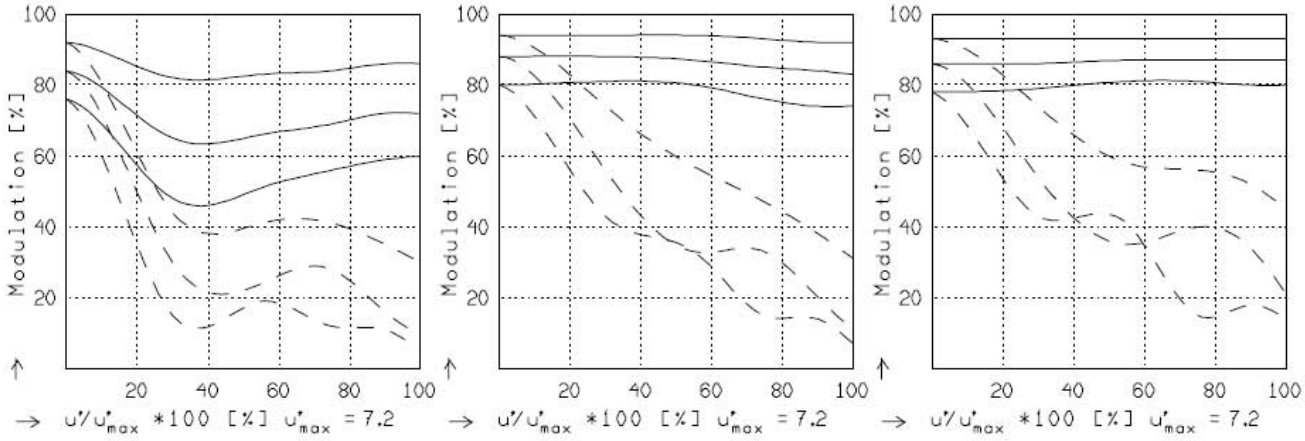
tangential — —



f' = 5.0 f/ 1.9 l/β' = -10.00 OO' = 96. | f' = 5.0 f/ 4.0 l/β' = -10.00 OO' = 96. | f' = 5.0 f/ 8.0 l/β' = -10.00 OO' = 96.



f' = 5.0 f/ 1.9 l/β' = -5.00 OO' = 72. | f' = 5.0 f/ 4.0 l/β' = -5.00 OO' = 72. | f' = 5.0 f/ 8.0 l/β' = -5.00 OO' = 72.



f' = 5.0 f/ 1.9 l/β' = -3.00 OO' = 62. | f' = 5.0 f/ 4.0 l/β' = -3.00 OO' = 62. | f' = 5.0 f/ 8.0 l/β' = -3.00 OO' = 62.

Focusing : MTF_{max} at f / 1.8 , R = 30 l/mm, u'/u'_{max} = 0

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3 Mega Pixel lens

Cinegon 2.1/6

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Cinegon 2.1/6

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	2.1
Focal length	6.2 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	110 gr.
Option	Optical filter

Contact

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www.schneideroptics.com/industrial
industrial@schneideroptics.com

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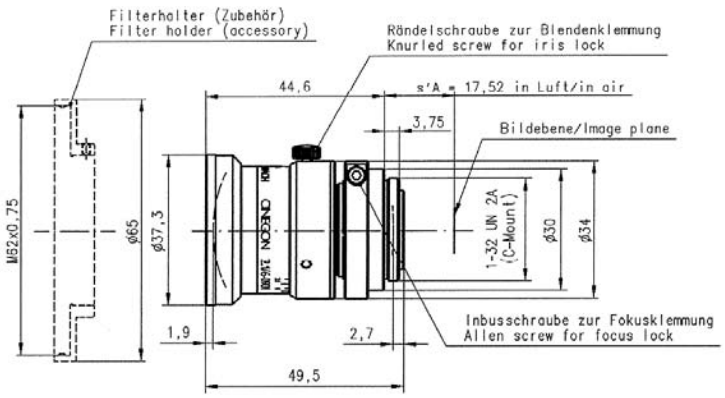
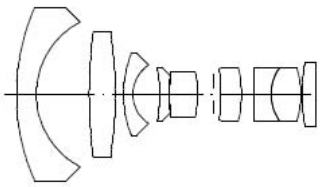
Cinegon 2.1/6





CINEGON 2.1/6.0

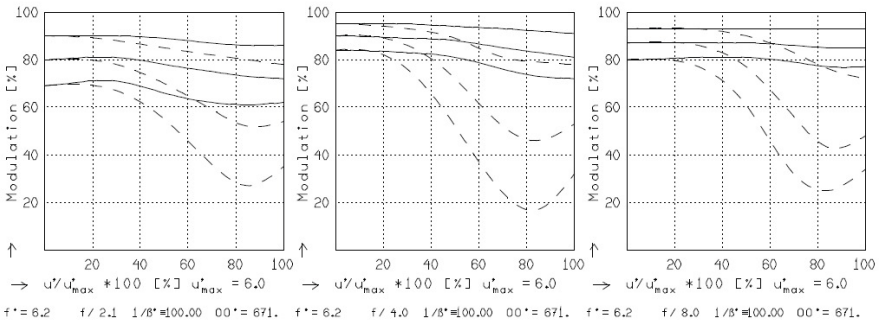
f'	=	6.2 mm	β'_P	=	6.580
s_F	=	13.2 mm	s_{EP}	=	14.1 mm
s'_F	=	15.3 mm	s'_{AP}	=	-25.4 mm
HH'	=	35.0 mm	Σd	=	45.3 mm

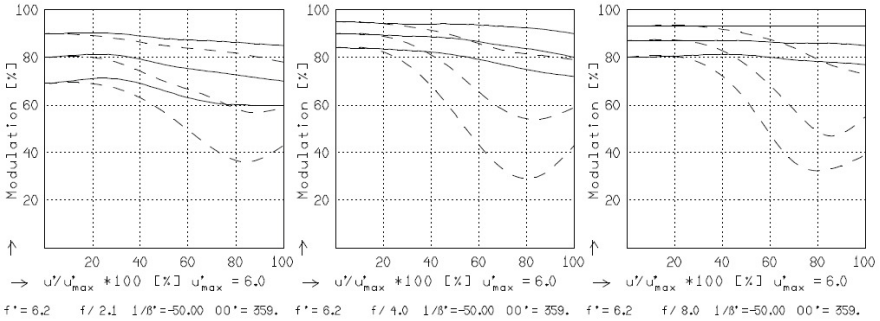
CNG 2.1/6.0

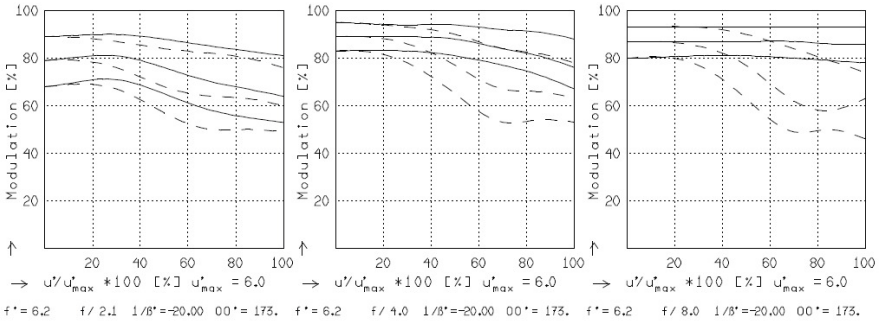
MODULATION with reference to the relative image height

Wavelength	λ	[nm] :	587	655	605	505	455	405
Spectral weighting		[%] :	19.4	23.2	21.7	15.4	11.8	8.5
Spatial frequency	R	[1/mm] :	10	20	30			
Format		[mm X mm] :	6.6		8.8			
Diagonal	2u'	[mm] :	11.0					

radial ——
tangential — —







Focusing : MTF_{max} at f / 2.1 , R = 30 1/mm, u'/u'_{max} = 0

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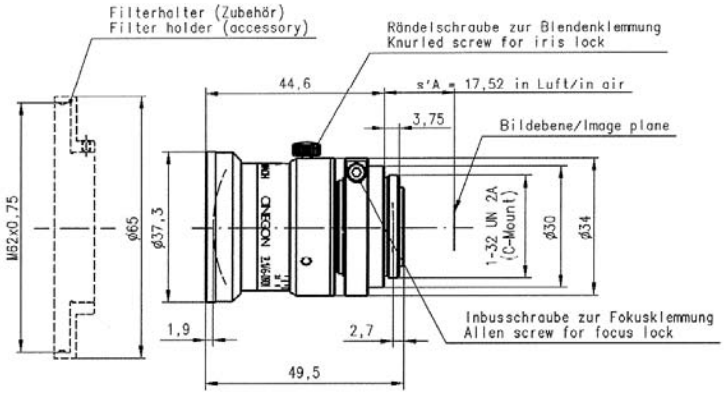
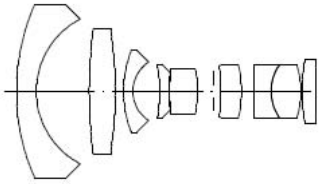
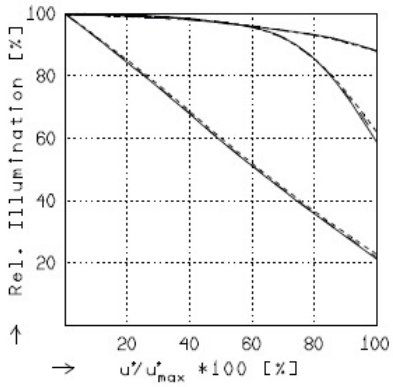
Cinegon 2.1/6





CINEGON 2.1/6.0

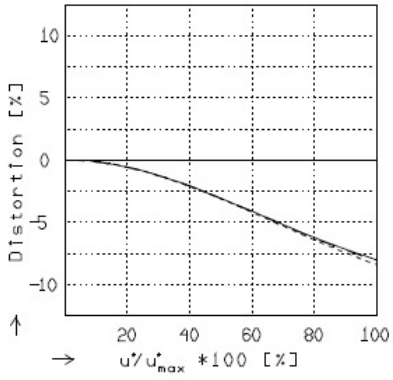
f'	=	6.2 mm	β'_P	=	6.580
s_F	=	13.2 mm	s_{EP}	=	14.1 mm
s'_F	=	15.3 mm	s'_{AP}	=	-25.4 mm
HH'	=	35.0 mm	Σd	=	45.3 mm



RELATIVE ILLUMINATION

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

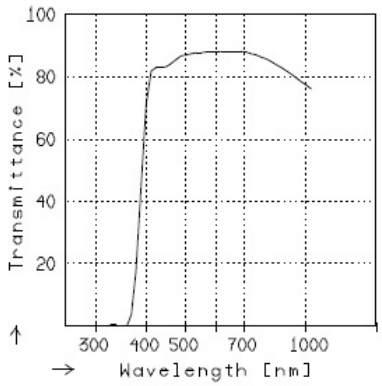
	f / 2.1	f / 4.0	f / 8.0
——	β' = -0.0100	u'_{max} = 5.5	00' = 666.
— —	β' = -0.0200	u'_{max} = 5.5	00' = 357.
-----	β' = -0.0500	u'_{max} = 5.5	00' = 171.



DISTORTION

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

——	β' = -0.0100	u'_{max} = 5.5	00' = 666.
— —	β' = -0.0200	u'_{max} = 5.5	00' = 357.
-----	β' = -0.0500	u'_{max} = 5.5	00' = 171.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

3 Mega Pixel lens

Xenoplan 1.4/17

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Xenoplan 1.4/17

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.4
Focal length	17.6 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	85 gr.
Option	Optical filter

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industrial@schneideroptics.com

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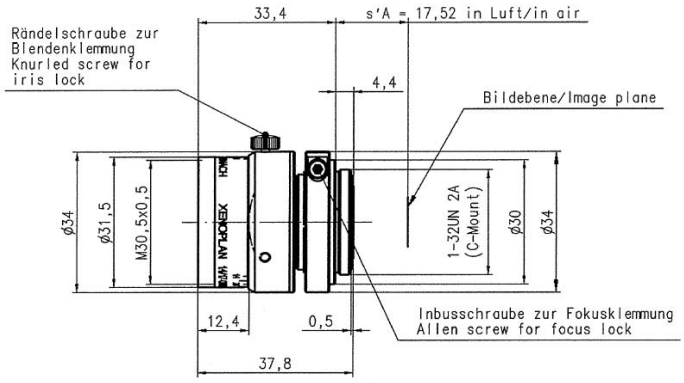
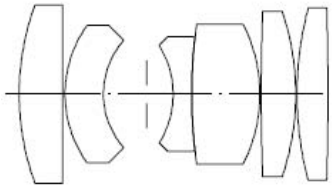
Xenoplan 1.4/17





XENOPLAN 1.4/17MM

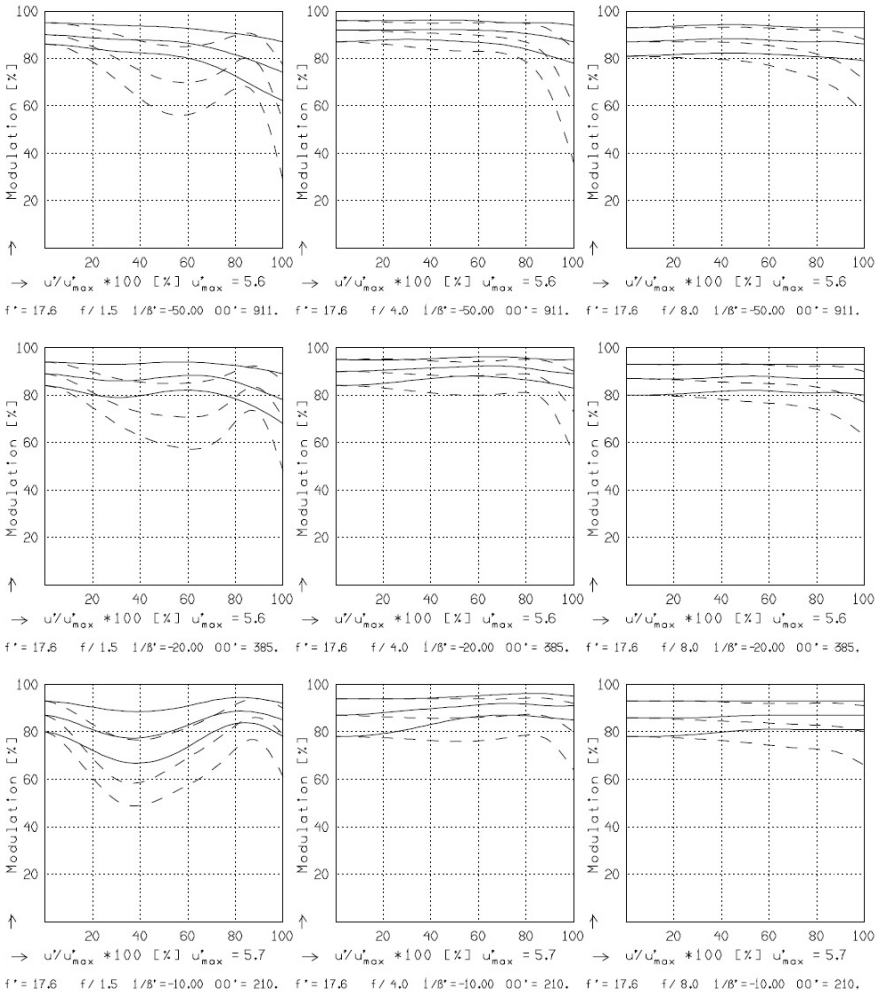
f'	=	17.6 mm	β'_p	=	2.975
s_F	=	6.1 mm	s_{EP}	=	12.0 mm
$s'_{F'}$	=	13.2 mm	s'_{AP}	=	-39.1 mm
HH'	=	-3.2 mm	Σ d	=	24.9 mm

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 — —



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

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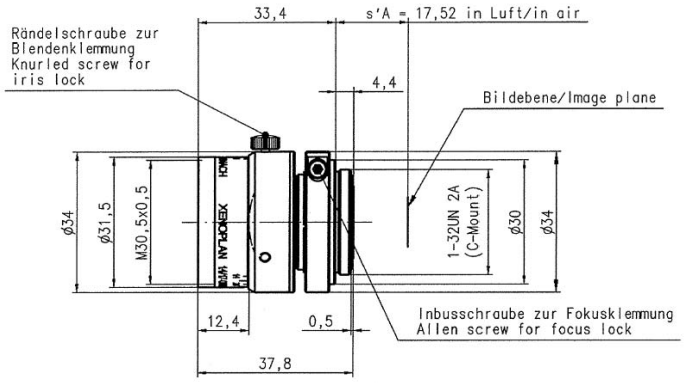
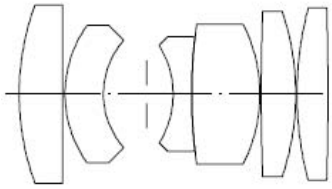
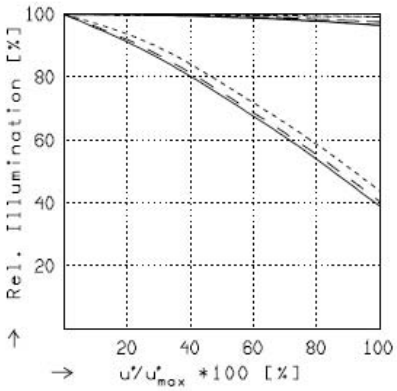
Xenoplan 1.4/17





XENOPLAN 1.4/17MM

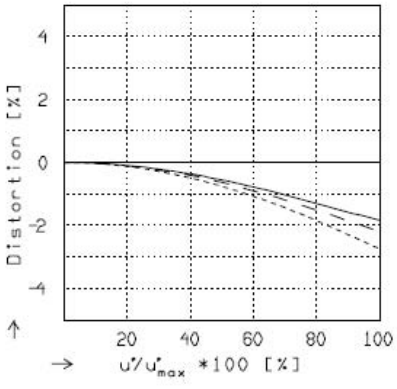
f' = 17.6 mm	β'_p = 2.975		
s_F = 6.1 mm	s_{EP} = 12.0 mm		
$s'_{F'}$ = 13.2 mm	s'_{AP} = -39.1 mm		
HH' = -3.2 mm	Σ d = 24.9 mm		



RELATIVE ILLUMINATION

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

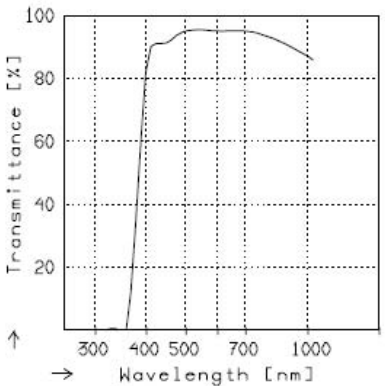
	f / 1.5	f / 4.0	f / 8.0
——	β' = -0.0200	u'_{max} = 5.5	ω' = 911.
— —	β' = -0.0500	u'_{max} = 5.5	ω' = 384.
-----	β' = -0.1000	u'_{max} = 5.5	ω' = 209.



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} = 5.5	ω' = 911.
— —	β' = -0.0500	u'_{max} = 5.5	ω' = 384.
-----	β' = -0.1000	u'_{max} = 5.5	ω' = 209.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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3 Mega Pixel lens

Xenoplan 1.4/23

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Xenoplan 1.4/23

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.4
Focal length	22.5 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	94 gr.
Option	Optical filter

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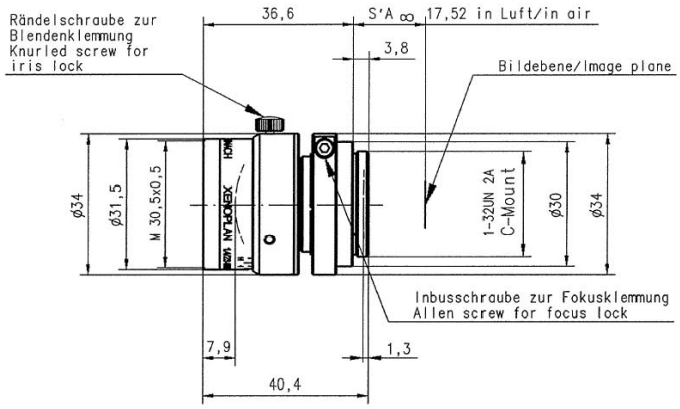
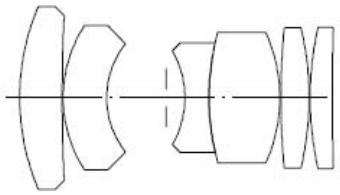
Xenoplan 1.4/23





XENOPLAN 1.4/23MM

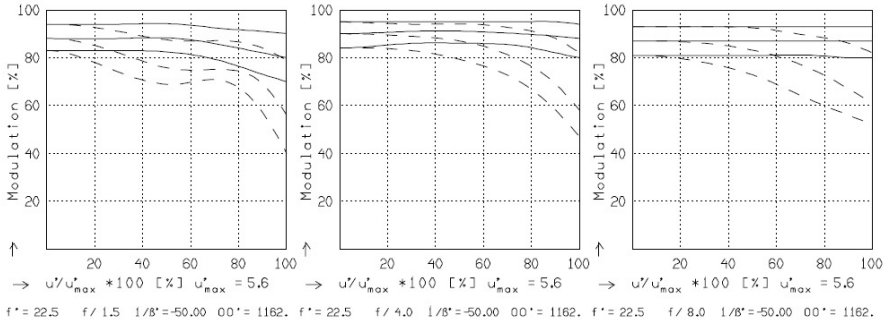
f'	=	22.5 mm	β'_P	=	2.271
s_F	=	10.2 mm	s_{EP}	=	20.1 mm
s'_F	=	15.0 mm	s'_{AP}	=	-36.1 mm
HH'	=	-9.3 mm	Σd	=	30.9 mm

XENOPLAN 1.4/23MM

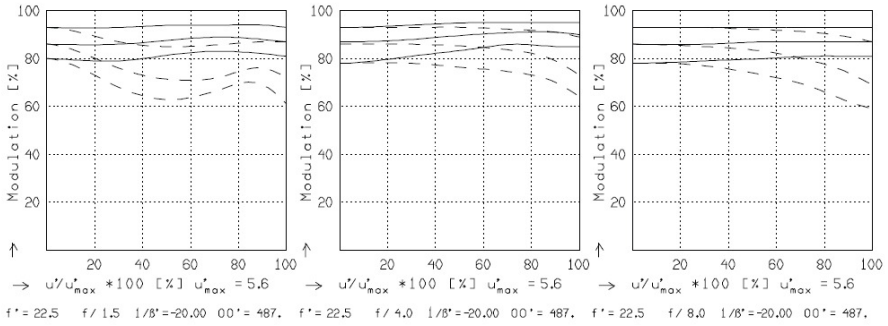
MODULATION with reference to the relative image height

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					

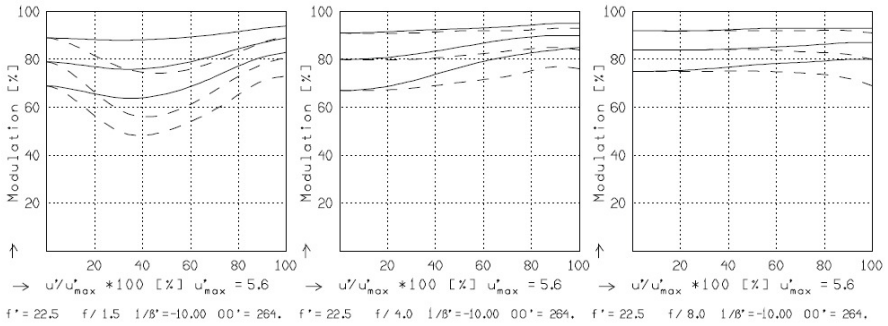
radial ——
tangential — —



f' = 22.5 f/ 1.5 1/β' = -50.00 OO' = 1162. f' = 22.5 f/ 4.0 1/β' = -50.00 OO' = 1162. f' = 22.5 f/ 8.0 1/β' = -50.00 OO' = 1162.



f' = 22.5 f/ 1.5 1/β' = -20.00 OO' = 487. f' = 22.5 f/ 4.0 1/β' = -20.00 OO' = 487. f' = 22.5 f/ 8.0 1/β' = -20.00 OO' = 487.



f' = 22.5 f/ 1.5 1/β' = -10.00 OO' = 264. f' = 22.5 f/ 4.0 1/β' = -10.00 OO' = 264. f' = 22.5 f/ 8.0 1/β' = -10.00 OO' = 264.

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

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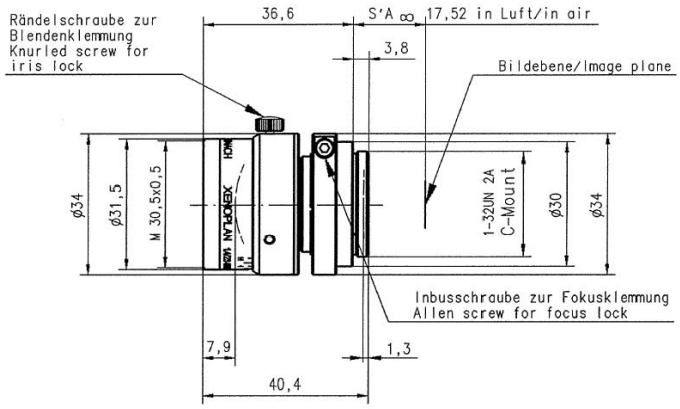
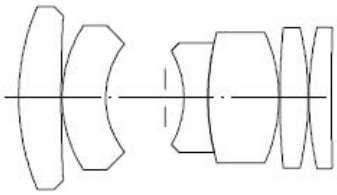
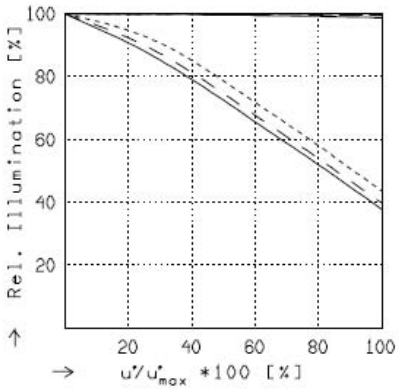
Xenoplan 1.4/23





XENOPLAN 1.4/23MM

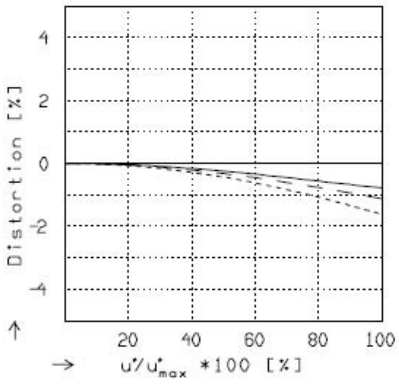
f'	=	22.5 mm	β'_P	=	2.271
s_F	=	10.2 mm	s_{EP}	=	20.1 mm
s'_F	=	15.0 mm	s'_{AP}	=	-36.1 mm
HH'	=	-9.3 mm	Σd	=	30.9 mm



RELATIVE ILLUMINATION

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

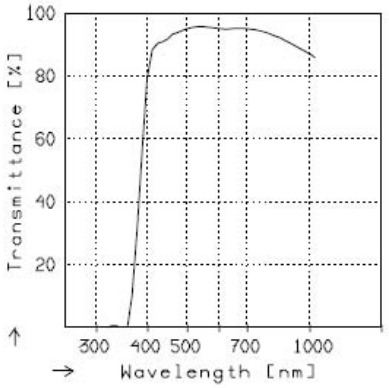
	f / 1.5	f / 4.0	f / 8.0
——	ß' = -0.0200	u'_{max} = 5.5	00' = 1162.
— —	ß' = -0.0500	u'_{max} = 5.5	00' = 487.
-----	ß' = -0.1000	u'_{max} = 5.5	00' = 263.



DISTORTION

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

——	ß' = -0.0200	u'_{max} = 5.5	00' = 1162.
— —	ß' = -0.0500	u'_{max} = 5.5	00' = 487.
-----	ß' = -0.1000	u'_{max} = 5.5	00' = 263.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

3 Mega Pixel lens

Xenoplan 1.9/35

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Xenoplan 1.9/35

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.9
Focal length	34.9 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	92 gr.
Filter Thread	M30.5 x 0.5
Order No.	1001960

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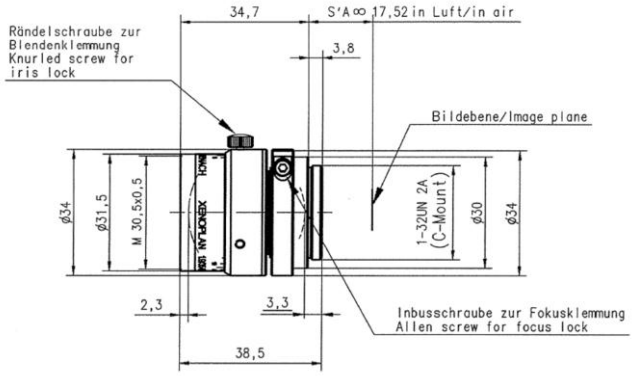
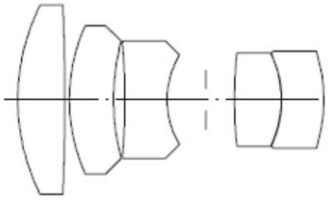
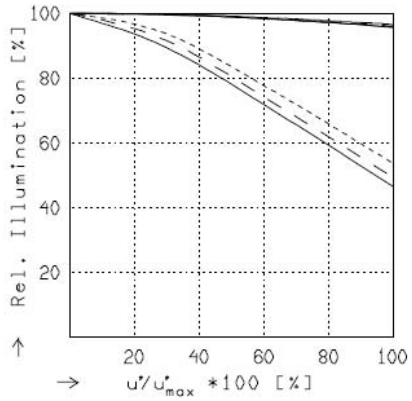
Xenoplan 1.9/35





XENOPLAN 1.9/35MM

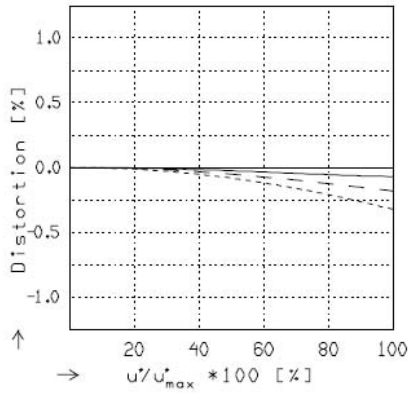
f' = 34.9 mm	β'_p = 0.879		
s_F = -6.5 mm	s_{EP} = 33.3 mm		
$s'_{F'}$ = 17.0 mm	s'_{AP} = -13.7 mm		
HH' = -13.8 mm	Σd = 32.6 mm		



RELATIVE ILLUMINATION

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

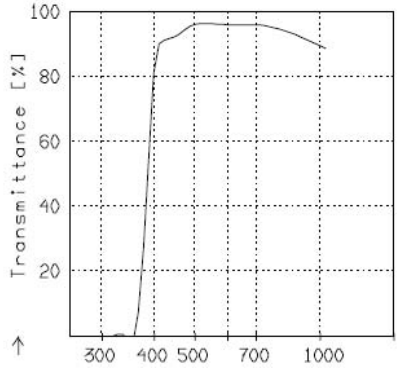
	f / 2.0	f / 4.0	f / 8.0
——	ß' = -0.0200	u'_{max} = 5.5	00' = 1803.
— —	ß' = -0.0500	u'_{max} = 5.5	00' = 756.
-----	ß' = -0.1000	u'_{max} = 5.5	00' = 409.



DISTORTION

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

	f / 2.0	f / 4.0	f / 8.0
——	ß' = -0.0200	u'_{max} = 5.5	00' = 1803.
— —	ß' = -0.0500	u'_{max} = 5.5	00' = 756.
-----	ß' = -0.1000	u'_{max} = 5.5	00' = 409.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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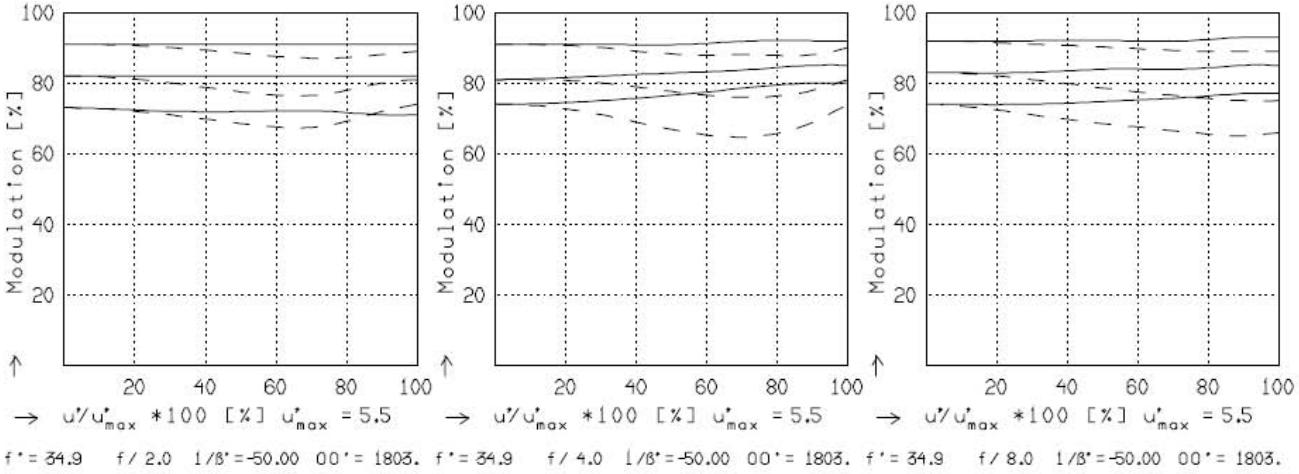
XENOPLAN 1.9/35MM

MODULATION with reference to the relative image height

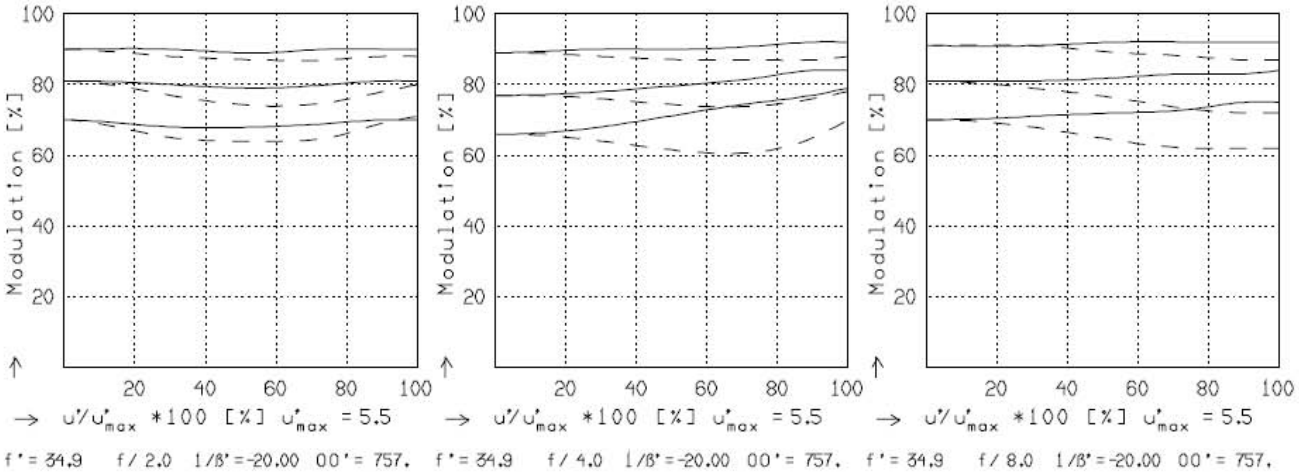
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm] :	10	20	30			
Format [mm X mm] :	6.6	X	8.8			
Diagonal 2u' [mm] :	11.0					

radial ——

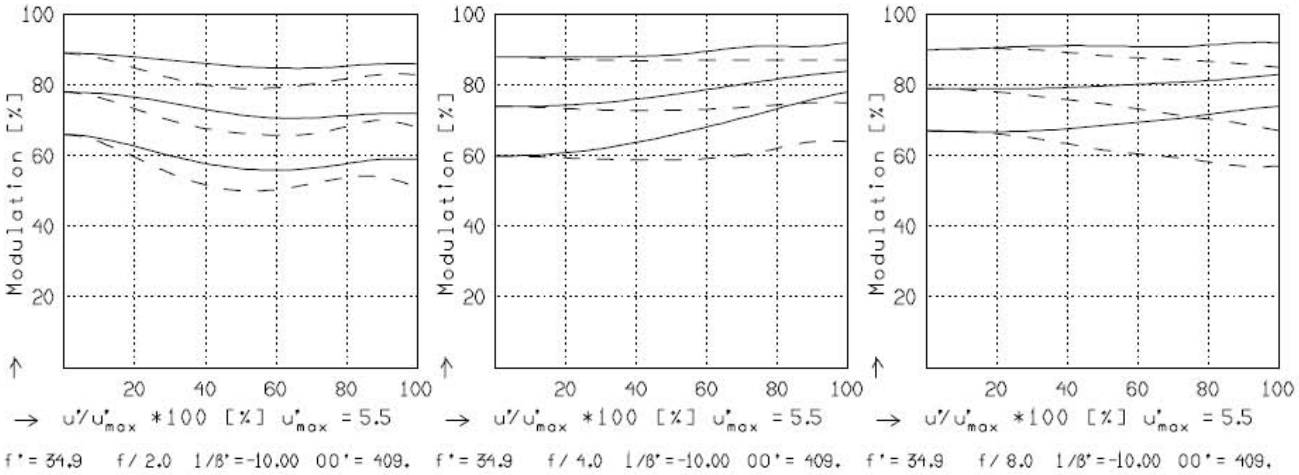
tangential — —



f' = 34.9 f/ 2.0 1/β' = -50.00 OO' = 1803. | f' = 34.9 f/ 4.0 1/β' = -50.00 OO' = 1803. | f' = 34.9 f/ 8.0 1/β' = -50.00 OO' = 1803.



f' = 34.9 f/ 2.0 1/β' = -20.00 OO' = 757. | f' = 34.9 f/ 4.0 1/β' = -20.00 OO' = 757. | f' = 34.9 f/ 8.0 1/β' = -20.00 OO' = 757.



f' = 34.9 f/ 2.0 1/β' = -10.00 OO' = 409. | f' = 34.9 f/ 4.0 1/β' = -10.00 OO' = 409. | f' = 34.9 f/ 8.0 1/β' = -10.00 OO' = 409.

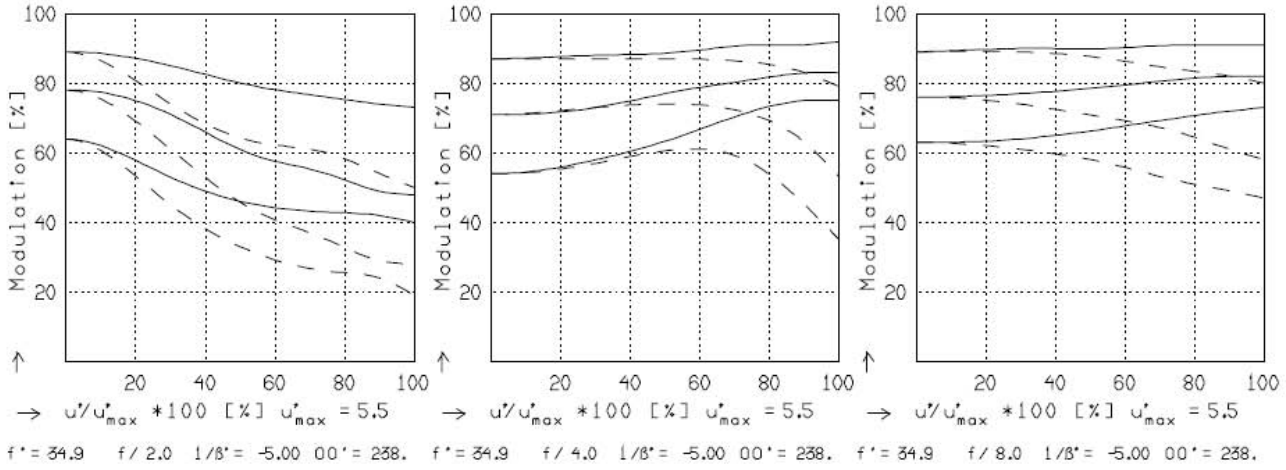
Focusing : MTF_{max} at f / 1.9 , R = 30 1/mm, u'/u'_{max} = 0

XENOPLAN 1.9/35MM

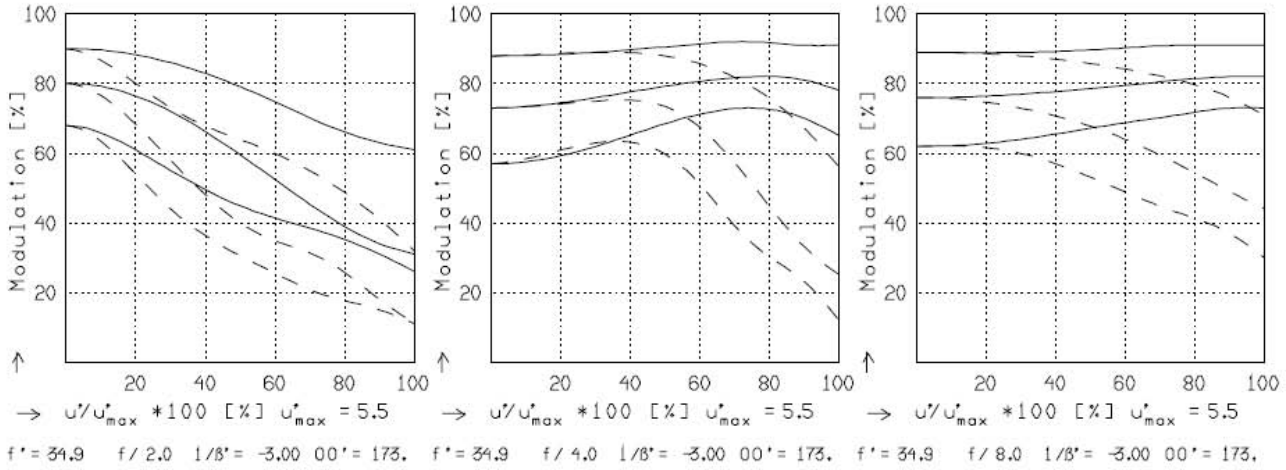
MODULATION with reference to the relative image height

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					

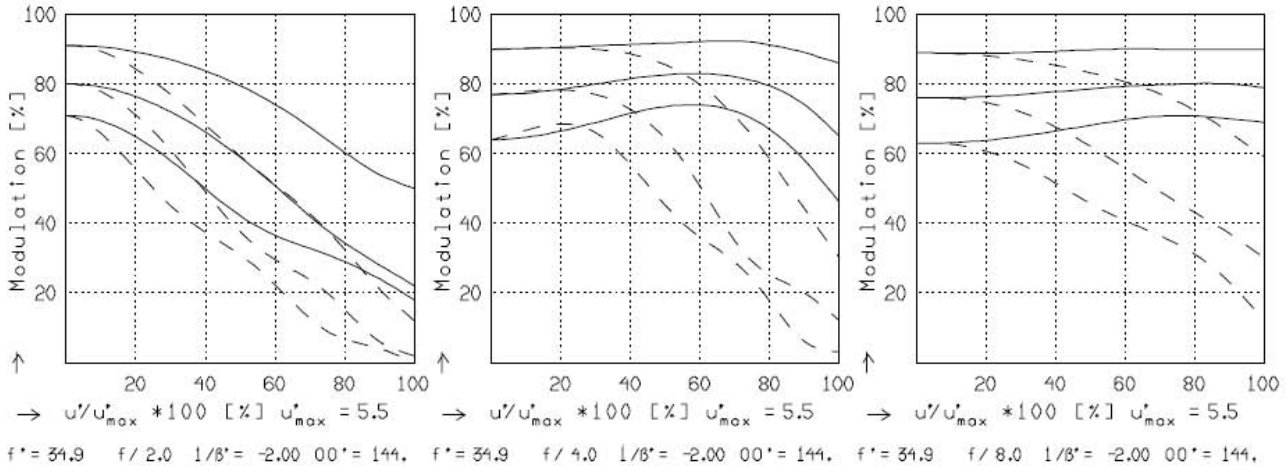
radial ——
tangential — —



f' = 34.9 f/ 2.0 1/β' = -5.00 OO' = 238. f' = 34.9 f/ 4.0 1/β' = -5.00 OO' = 238. f' = 34.9 f/ 8.0 1/β' = -5.00 OO' = 238.



f' = 34.9 f/ 2.0 1/β' = -3.00 OO' = 173. f' = 34.9 f/ 4.0 1/β' = -3.00 OO' = 173. f' = 34.9 f/ 8.0 1/β' = -3.00 OO' = 173.



f' = 34.9 f/ 2.0 1/β' = -2.00 OO' = 144. f' = 34.9 f/ 4.0 1/β' = -2.00 OO' = 144. f' = 34.9 f/ 8.0 1/β' = -2.00 OO' = 144.

Focusing : MTF_{max} at f / 1.9 , R = 30 1/mm, u'/u'_{max} = 0

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3 Mega Pixel lens

Tele-Xenar 2.2/70

In accordance with the sensitivity of modern 2 / 3“ CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Tele-Xenar 2.2/70

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	2.2
Focal length	70.5 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	200 gr.
Option	Optical filter

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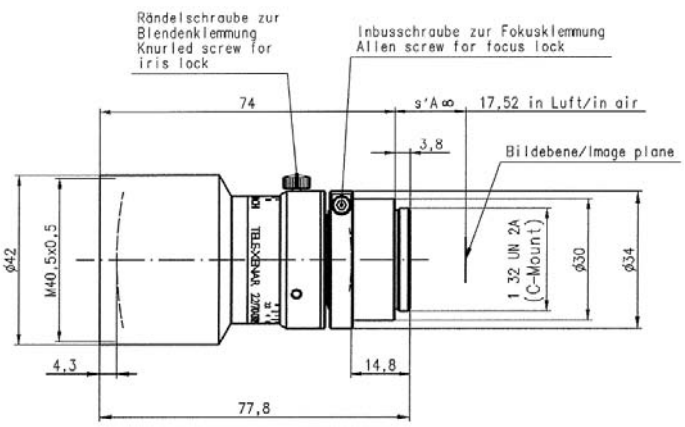
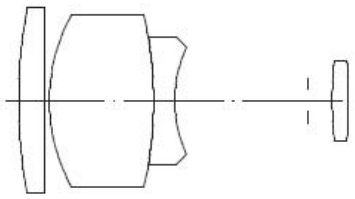
Tele-Xenar 2.2/70





TXR 2.2/70

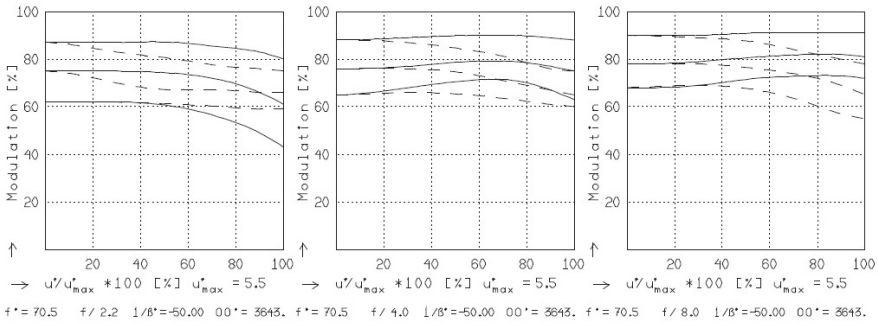
f'	=	70.5 mm	β'_p	=	0.494
s_F	=	-27.8 mm	s_{EP}	=	115.0 mm
s'_F	=	28.5 mm	s'_{AP}	=	-6.3 mm
HH'	=	-26.0 mm	Σ d	=	58.8 mm

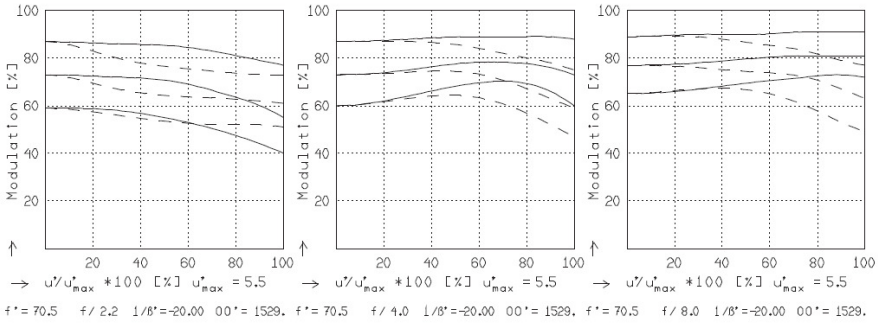
TXR 2.2/70

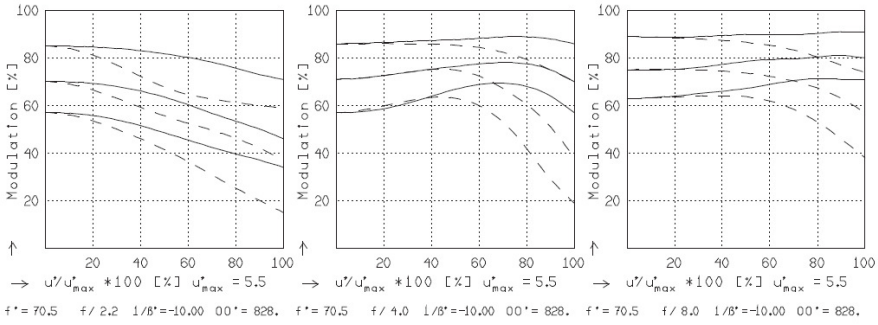
MODULATION with reference to the relative image height

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 — —







Focusing : MTF_{max} at f / 2.2 , R = 30 l/mm, u'/u'_{max} = 0

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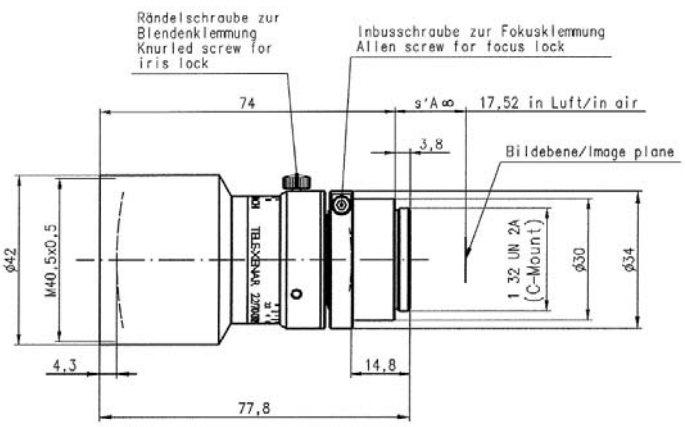
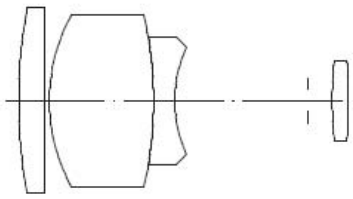
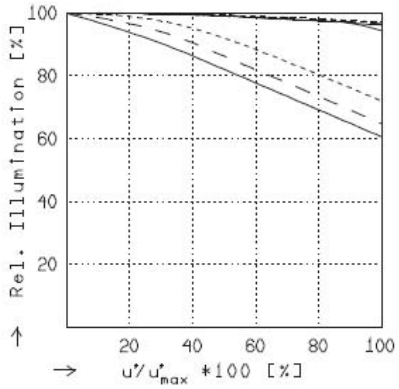
Tele-Xenar 2.2/70





TXR 2.2/70

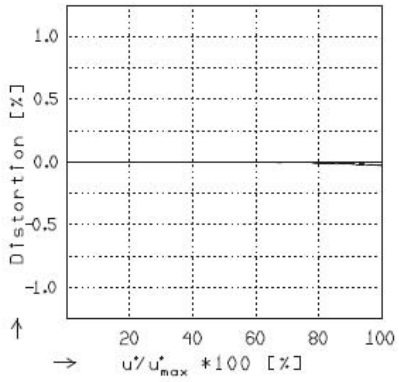
f' = 70.5 mm	ß'p = 0.494		
s_F = -27.8 mm	s_{EP} = 115.0 mm		
s'_F = 28.5 mm	s'_{AP} = -6.3 mm		
HH' = -26.0 mm	Σ d = 58.8 mm		



RELATIVE ILLUMINATION

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

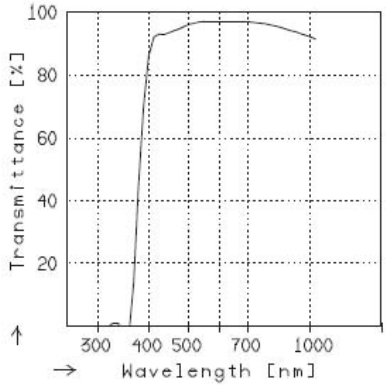
	f / 2.2	f / 4.0	f / 8.0
——	ß' = -0.0200	u'_{max} = 5.5	00' = 3642.
— —	ß' = -0.0500	u'_{max} = 5.5	00' = 1529.
-----	ß' = -0.1000	u'_{max} = 5.5	00' = 827.



DISTORTION

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

——	ß' = -0.0200	u'_{max} = 5.5	00' = 3642.
— —	ß' = -0.0500	u'_{max} = 5.5	00' = 1529.
-----	ß' = -0.1000	u'_{max} = 5.5	00' = 827.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

5 Mega Pixel lens

Apo-Xenoplan 1.4/23

The 5 megapixel high-performance lenses of the C-Mount compact series are extremely robust and insensitive to rough ambient conditions, with the result that the lenses retain their high optical imaging performance in industrial environments. The secure locking of the iris and focus settings and the broadband coating of 400 – 1000 nm is standard for all lenses.

Apo-Xenoplan 1.4/23

Key Features

- Highest optical imaging performance even with smallest pixel sizes from 2.5 µm
- Excellent MTF across the entire sensor size
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical

Technical Specifications

F-number	1.4
Focal length	22.9 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	115 gr.
Option	Optical filter

Contact

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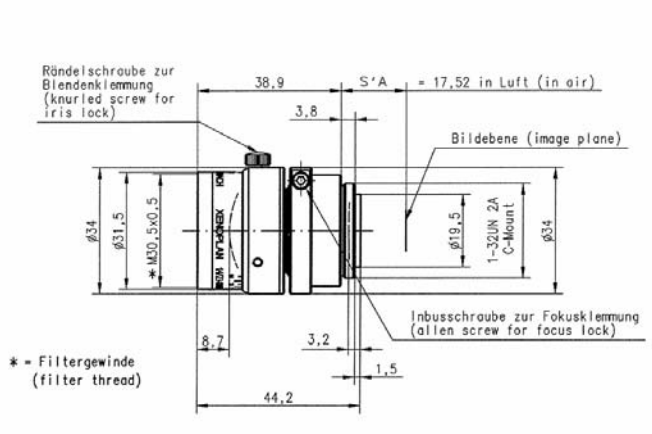
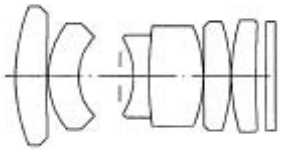
Apo-Xenoplan 1.4/23





APO-XENOPLAN 1.4/23

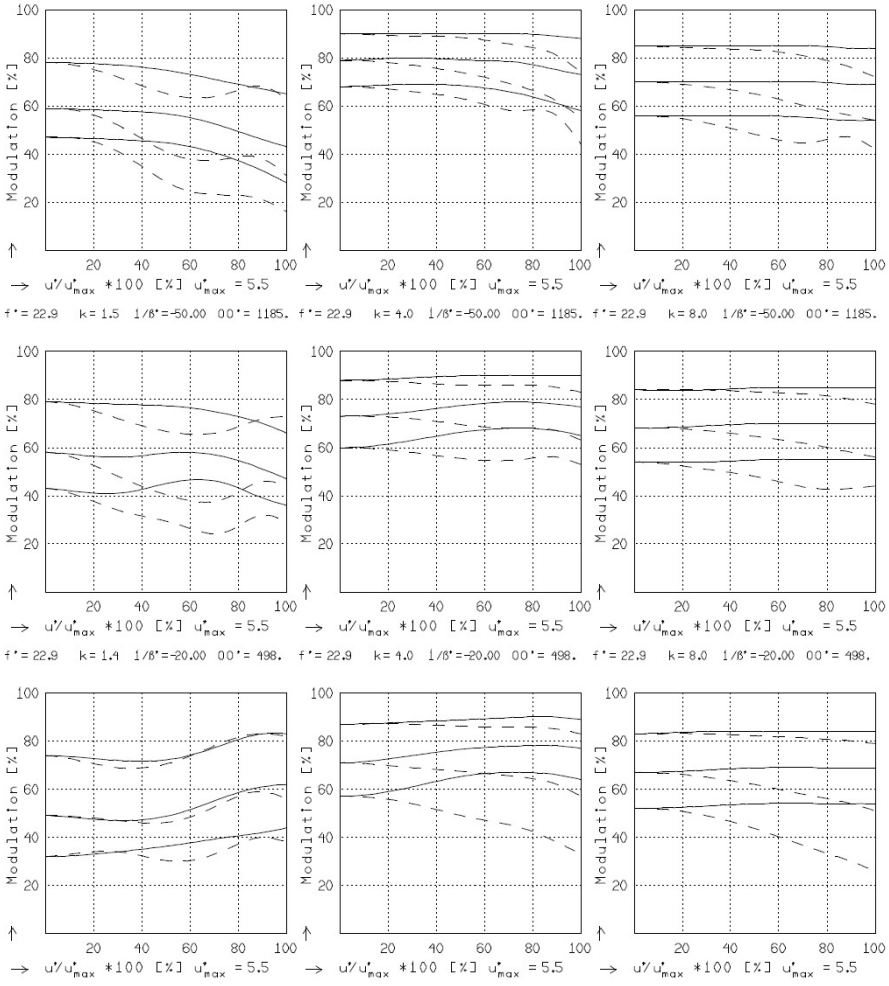
f'	=	22.9 mm	β'_P	=	2.409
s_F	=	9.5 mm	s_{EP}	=	19.1 mm
$s'_{F'}$	=	15.5 mm	s'_{AP}	=	-39.7 mm
HH'	=	-7.7 mm	Σ d	=	32.3 mm

APO-XENOPLAN 1.4/23

MODULATION als Funktion der relativen Bildgröße

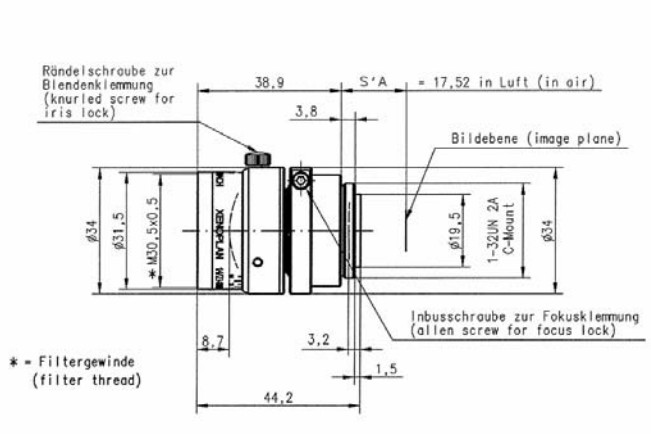
Wellenlänge λ [nm] :	555	655	605	505	455	405
Spektrale Gewichtung [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Ortsfrequenz R [1/mm] :	25	50	75			
Format [mm X mm] :	6.6		8.8			
Diagonale 2u' [mm] :	11.0					

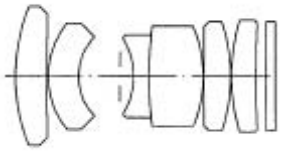
radial ——
tangential — —



Fokussierung MTF_{max} bei k = 1.4 , R = 75 1/mm, $u'/u'_{max} = 0$

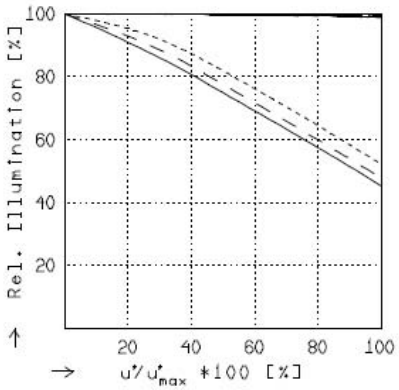
Apo-Xenoplan 1.4/23





APO-XENOPLAN 1.4/23

f'	=	22.9 mm	β'_P	=	2.409
s_F	=	9.5 mm	s_{EP}	=	19.1 mm
$s'_{F'}$	=	15.5 mm	s'_{AP}	=	-39.7 mm
HH'	=	-7.7 mm	Σ d	=	32.3 mm

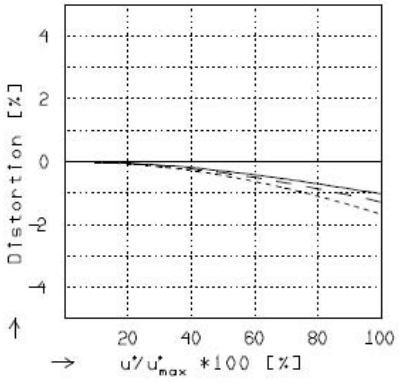


RELATIVE ILLUMINATION

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

f / 1.5 f / 4.0 f / 8.0

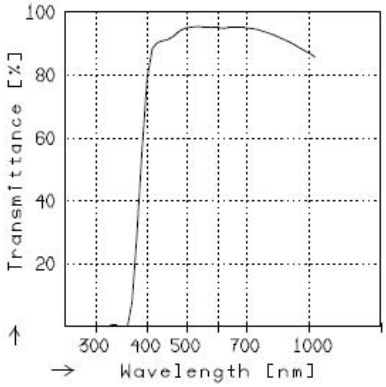
—— β' = -0.0200 u'_{max} = 5.4 ω' = 1184.
— — β' = -0.0500 u'_{max} = 5.4 ω' = 498.
----- β' = -0.1000 u'_{max} = 5.4 ω' = 270.



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} = 5.4 ω' = 1184.
— — β' = -0.0500 u'_{max} = 5.4 ω' = 498.
----- β' = -0.1000 u'_{max} = 5.4 ω' = 270.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

5 Mega Pixel lens

Apo-Xenoplan 1.8/35

The 5 megapixel high-performance lenses of the C-Mount compact series are extremely robust and insensitive to rough ambient conditions, with the result that the lenses retain their high optical imaging performance in industrial environments. The secure locking of the iris and focus settings and the broadband coating of 400 – 1000 nm is standard for all lenses.

Apo-Xenoplan 1.8/35

Key Features

- Highest optical imaging performance even with smallest pixel sizes from 2.5 µm
- Excellent MTF across the entire sensor size
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical

Technical Specifications

F-number	1.8
Focal length	35.2 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	150 gr.
Option	Optical filter

Contact

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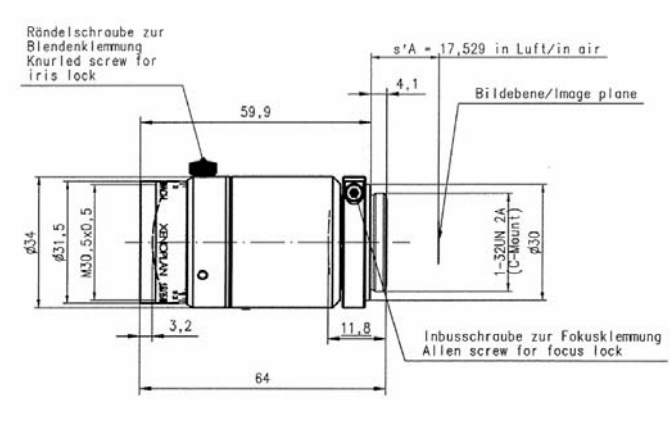
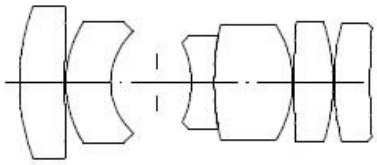
Apo-Xenoplan 1.8/35





XENOPLAN 1.8/35

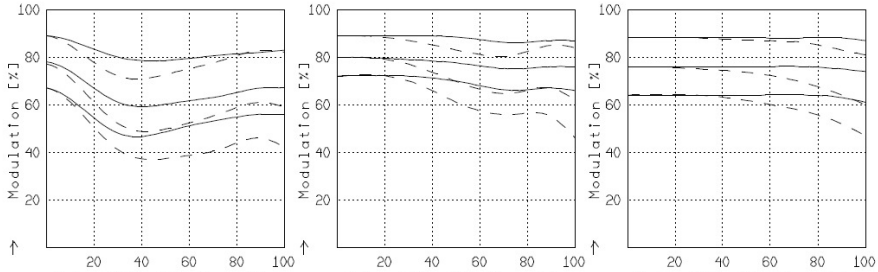
f'	=	35.2 mm	β'_P	=	6.607
s_F	=	19.3 mm	s_{EP}	=	24.6 mm
$s'_{F'}$	=	25.2 mm	s'_{AP}	=	-207.1 mm
HH'	=	-15.4 mm	Σd	=	49.0 mm

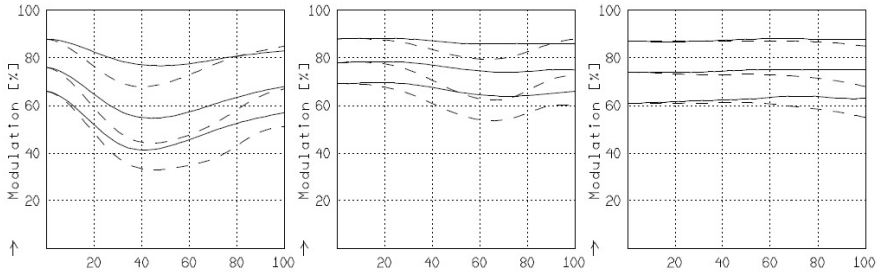
XENOPLAN 1.8/35

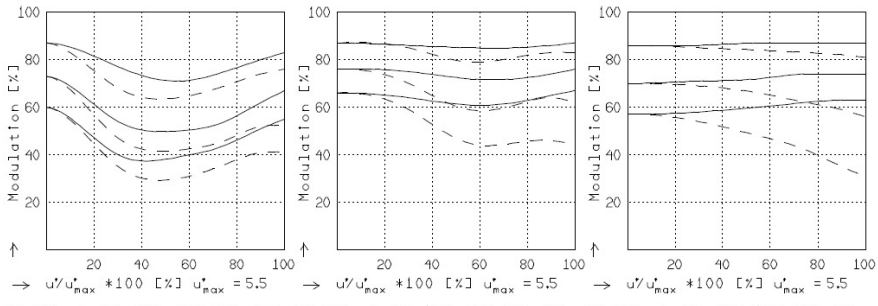
MODULATION als Funktion der relativen Bildgröße

Wellenlänge	λ	[nm] :	555	655	605	505	455	405
Spektrale Gewichtung		[%] :	19.6	23.7	22.2	15.7	12.1	6.7
Ortsfrequenz	R	[1/mm] :	25	50	75			
Format		[mm X mm] :	6.6		8.8			
Diagonale 2u'		[mm] :	11.0					

radial ——
tangential — —







Fokussierung MTF_{max} bei k = 1.8 , R = 80 1/mm, $u'/u'_{max} = 0$

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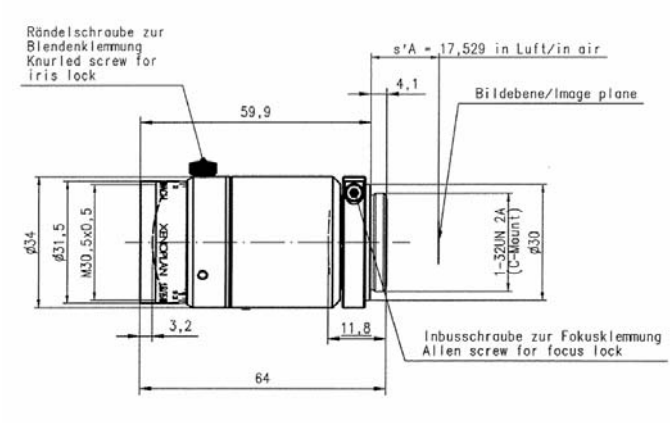
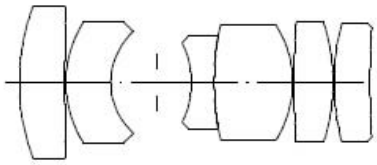
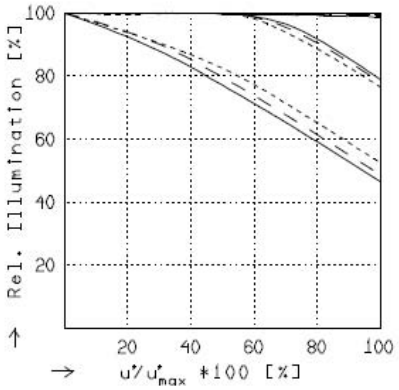
Apo-Xenoplan 1.8/35





XENOPLAN 1.8/35

f' = 35.2 mm		β'_P = 6.607	
s_F = 19.3 mm		s_{EP} = 24.6 mm	
$s'_{F'}$ = 25.2 mm		s'_{AP} = -207.1 mm	
HH' = -15.4 mm		Σ d = 49.0 mm	

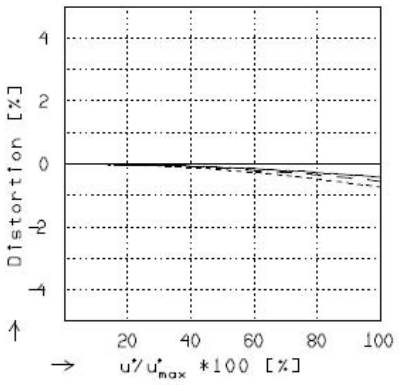


RELATIVE ILLUMINATION

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

f / 1.9 f / 2.8 f / 5.6

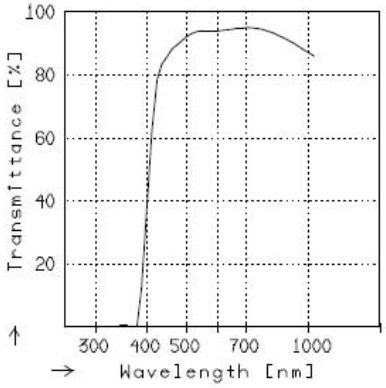
—— β' = -0.0200 u'_{max} = 5.5 00' = 1814.
— — β' = -0.0500 u'_{max} = 5.5 00' = 760.
----- β' = -0.1000 u'_{max} = 5.5 00' = 410.



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} = 5.5 00' = 1814.
— — β' = -0.0500 u'_{max} = 5.5 00' = 760.
----- β' = -0.1000 u'_{max} = 5.5 00' = 410.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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Mega Pixel lens for image circle 16 mm

Cinegon 1.8/16

In accordance with the sensitivity of modern 1“ CCD and CMOS sensors, the megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Cinegon 1.8/16

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.8
Focal length	16.4 mm
Image circle	16 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	102 gr.
Filter Thread	M30.5 x 0.5
Order No.	1001482

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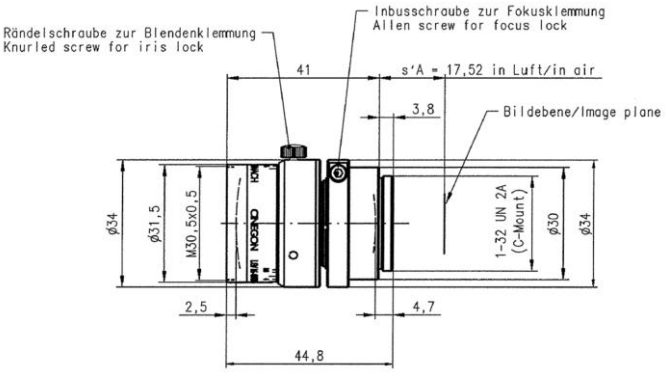
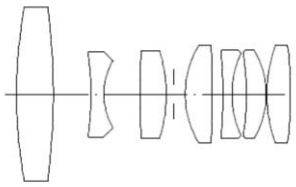
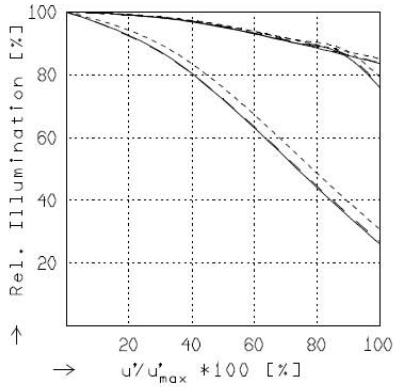
Cinegon 1.8/16





CINEGON 1.8/16

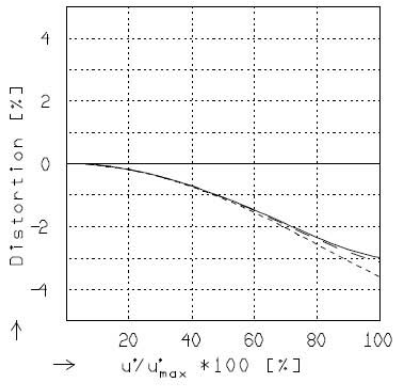
f' = 16.4 mm	β'_P = 2.591		
s_F = 11.1 mm	s_{EP} = 17.4 mm		
s'_F = 18.5 mm	s'_{AP} = -24.1 mm		
HH' = 12.0 mm	Σ d = 37.5 mm		



RELATIVE ILLUMINATION

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

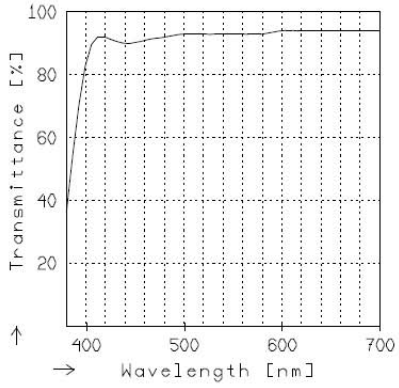
	f / 1.8	f / 4.0	f / 8.0
——	β' = 0.0000	u'_{max} = 8.0	00' = ∞
— —	β' = -0.0200	u'_{max} = 8.0	00' = 867.
-----	β' = -0.1000	u'_{max} = 8.0	00' = 211.



DISTORTION

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

——	β' = 0.0000	u'_{max} = 8.0	00' = ∞
— —	β' = -0.0200	u'_{max} = 8.0	00' = 867.
-----	β' = -0.1000	u'_{max} = 8.0	00' = 211.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

Cinegon 1.8/16

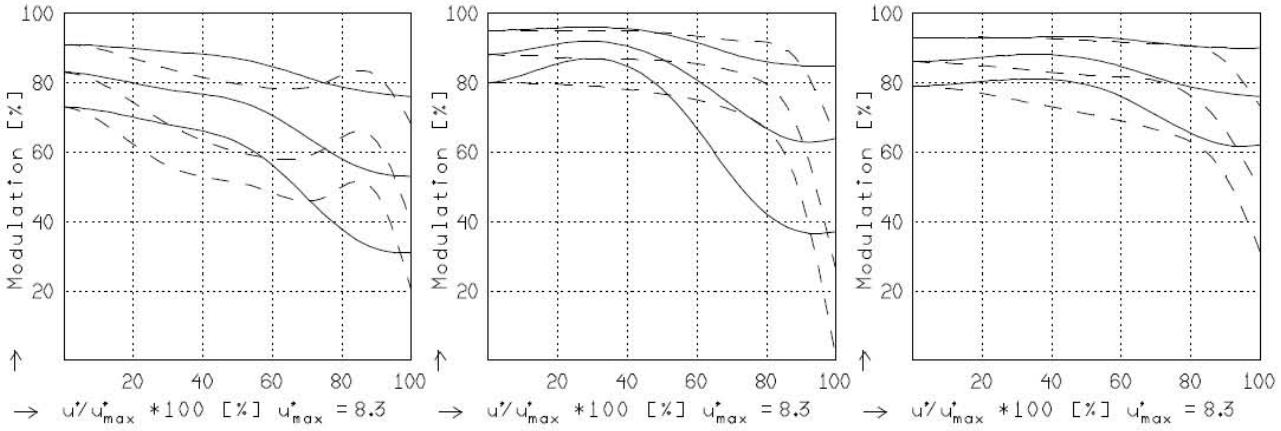
CINEGON 1.8/16

MODULATION with reference to the relative image height

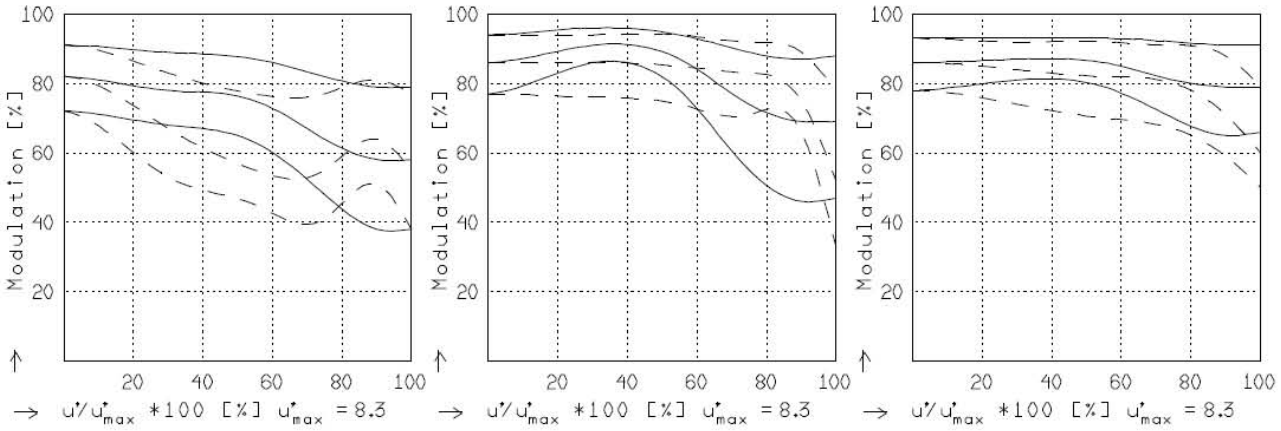
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm] :	10	20	30			
Format [mm X mm] :	9.6 X 12.8					
Diagonal 2u' [mm] :	16.0					

radial ——

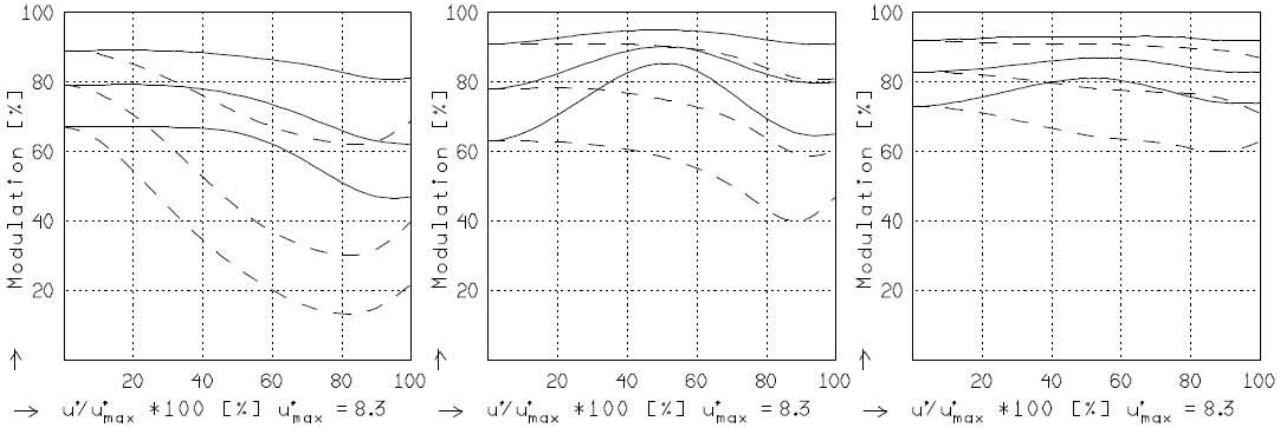
tangential — —



f'= 16.4 f/ 1.8 1/ß'= ∞ 00'= ∞ | f'= 16.4 f/ 4.0 1/ß'= ∞ 00'= ∞ | f'= 16.4 f/ 8.0 1/ß'= ∞ 00'= ∞



f'= 16.4 f/ 1.8 1/ß'=-50.00 00'= 867. | f'= 16.4 f/ 4.0 1/ß'=-50.00 00'= 867. | f'= 16.4 f/ 8.0 1/ß'=-50.00 00'= 867.



f'= 16.4 f/ 1.4 1/ß'=-10.00 00'= 211. | f'= 16.4 f/ 4.0 1/ß'=-10.00 00'= 211. | f'= 16.4 f/ 8.0 1/ß'=-10.00 00'= 211.

Focusing : MTF_{max} at f / 1.8 , R = 30 1/mm, u'/u'_{max} = 0

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Lens for image circle 16 mm

Tele-Xenar 2.2/70

In accordance with the sensitivity of modern 1“ CCD and CMOS sensors, the lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR).

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.

Tele-Xenar 2.2/70

Key Features

- High-resolution optics
- Highest optical imaging performance even with small pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	2.2
Focal length	70.5 mm
Image circle	16 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	200 g
Filter Thread	M40.5 x 0.5
Code no	1014593

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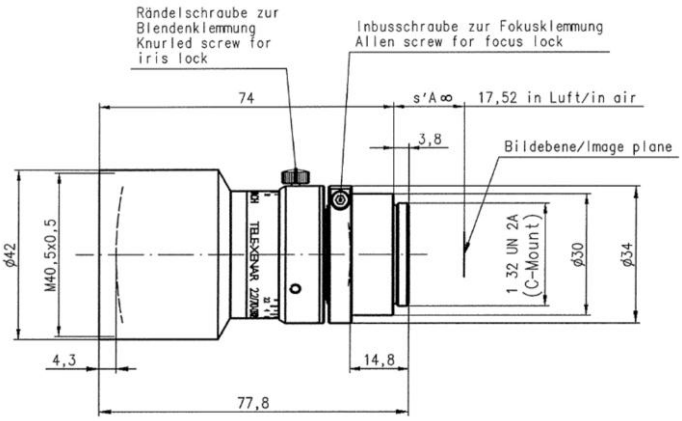
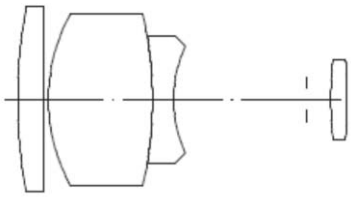
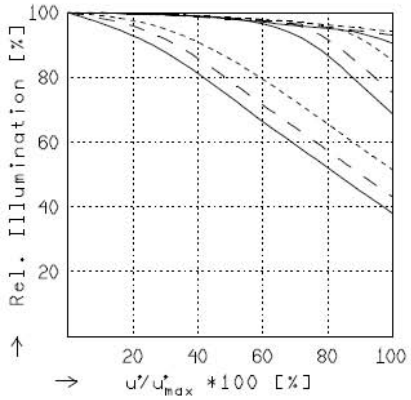
Tele-Xenar 2.2/70





TXR 2.2/70

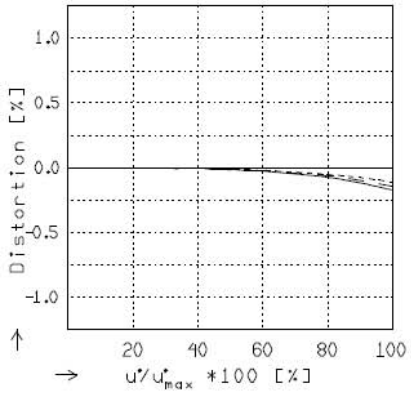
f' = 70.5 mm	β'_p = 0.494		
s_F = -27.8 mm	s_{EP} = 115.0 mm		
s'_F = 28.5 mm	s'_{AP} = -6.3 mm		
HH' = -26.0 mm	Σd = 58.8 mm		



RELATIVE ILLUMINATION

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

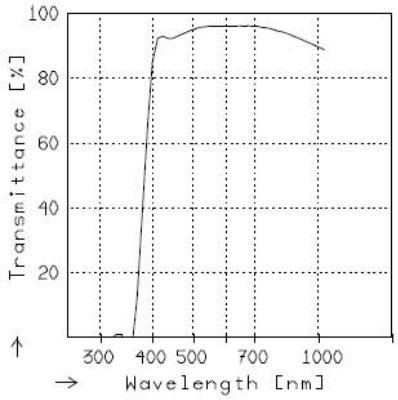
	f / 2.2	f / 4.0	f / 8.0
——	β' = -0.0200	u'_{max} = 8.0	00' = 3643.
— —	β' = -0.0500	u'_{max} = 8.0	00' = 1529.
-----	β' = -0.1000	u'_{max} = 8.0	00' = 828.



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} = 8.0	00' = 3643.
— —	β' = -0.0500	u'_{max} = 8.0	00' = 1529.
-----	β' = -0.1000	u'_{max} = 8.0	00' = 828.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

Tele-Xenar 2.2/70

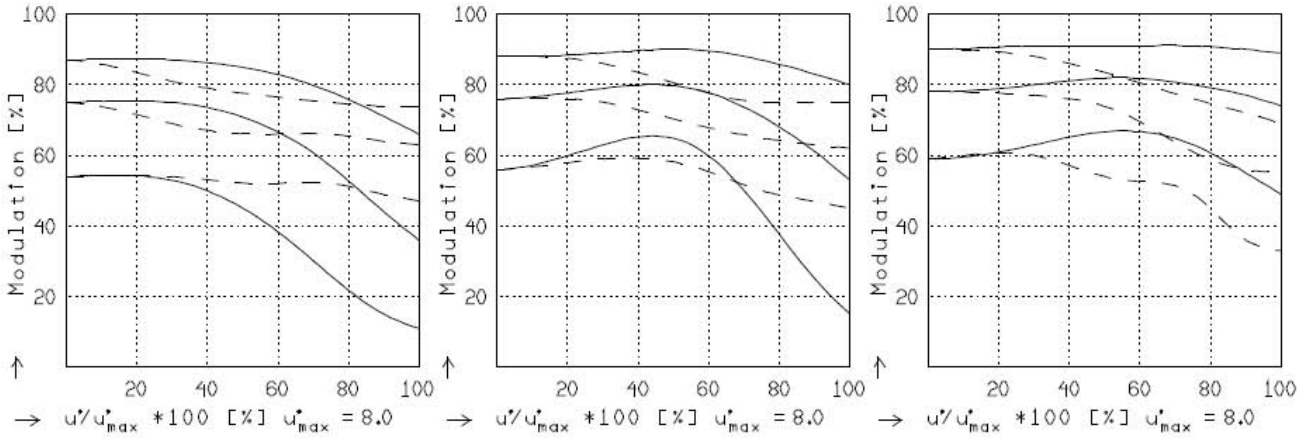
TXR 2.2/70

MODULATION with reference to the relative image height

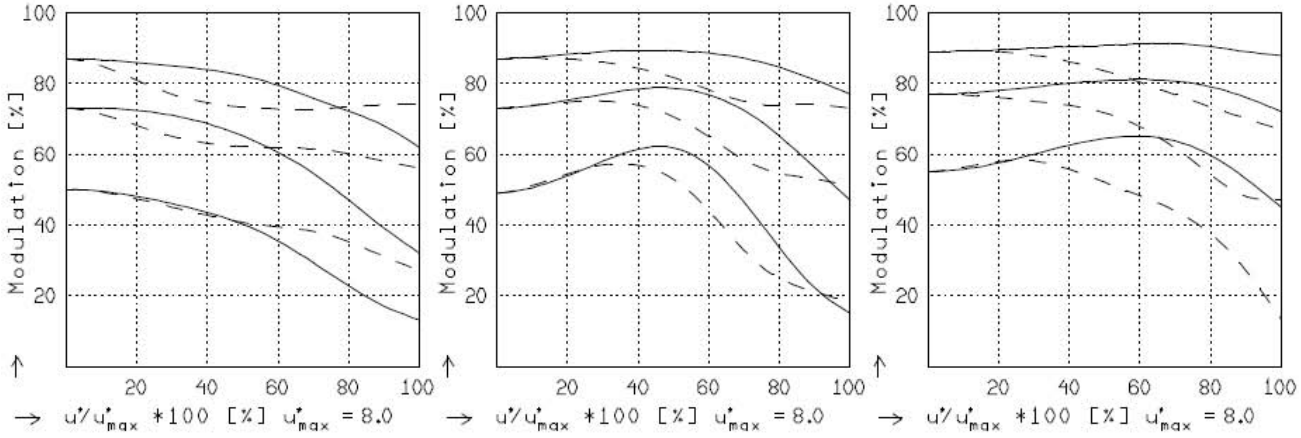
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm] :	10	20	40			
Format [mm X mm] :	9.6		12.8			
Diagonal 2u' [mm] :	16.0					

radial ——

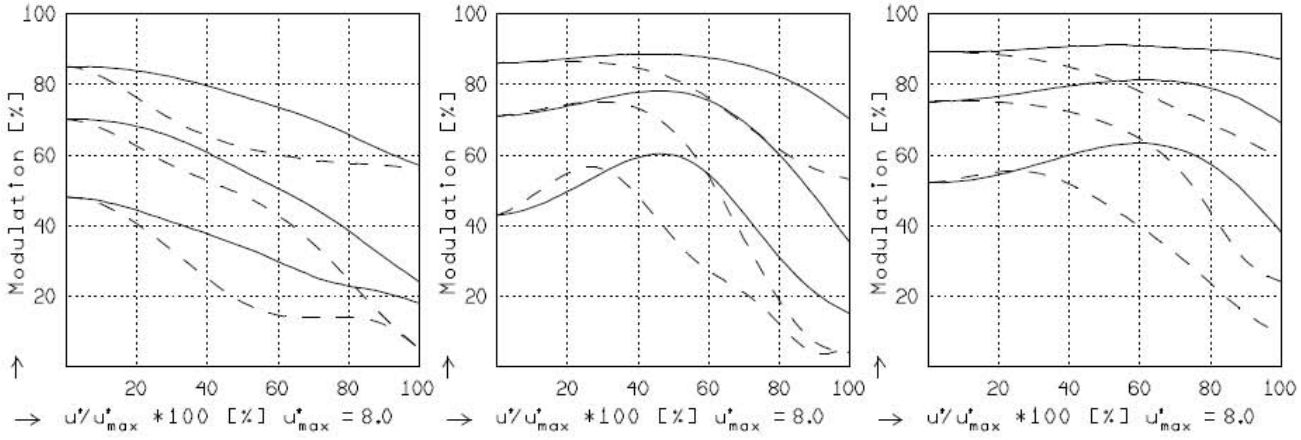
tangential — —



f' = 70.5 f/ 2.2 l/β' =-50.00 OO' = 3643. | f' = 70.5 f/ 4.0 l/β' =-50.00 OO' = 3643. | f' = 70.5 f/ 8.0 l/β' =-50.00 OO' = 3643.



f' = 70.5 f/ 2.2 l/β' =-20.00 OO' = 1529. | f' = 70.5 f/ 4.0 l/β' =-20.00 OO' = 1529. | f' = 70.5 f/ 8.0 l/β' =-20.00 OO' = 1529.



f' = 70.5 f/ 2.2 l/β' =-10.00 OO' = 828. | f' = 70.5 f/ 4.0 l/β' =-10.00 OO' = 828. | f' = 70.5 f/ 8.0 l/β' =-10.00 OO' = 828.

Focusing : MTF_{max} at f / 2.2 , R = 40 1/mm, u'/u'_{max} = 0

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Mega Pixel lens for image circle 16 mm

Cinegon 1.9/10

In accordance with the sensitivity of modern 1“ CCD and CMOS sensors, the megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). 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.

Cinegon 1.9/10

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.9
Focal length	10.4 mm
Image circle	16 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	136 gr.
Option	Adapter for optical filter
Order No.	1001978

Contact

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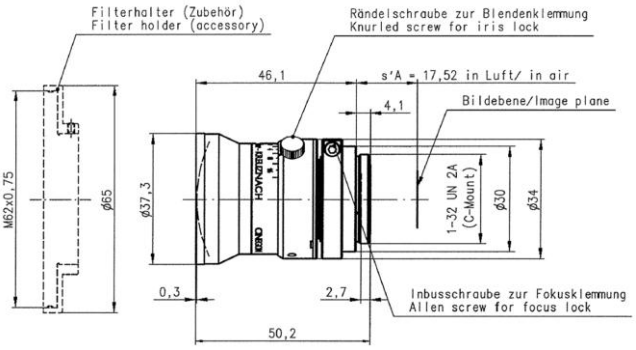
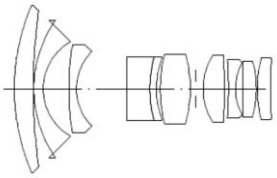
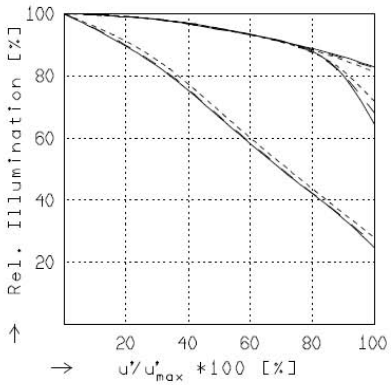
Cinegon 1.9/10





CINEGON 1.9/10MM

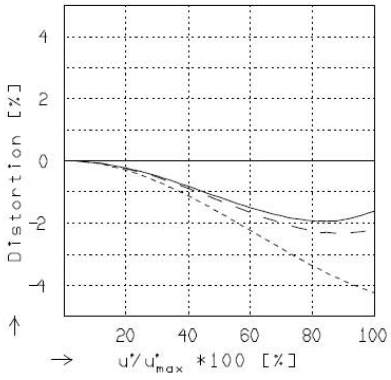
f'	=	10.4 mm	β'_P	=	2.823
s_F	=	13.9 mm	s_{EP}	=	17.5 mm
$s'_{F'}$	=	16.1 mm	s'_{AP}	=	-13.1 mm
HH'	=	28.7 mm	Σ d	=	47.2 mm



RELATIVE ILLUMINATION

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

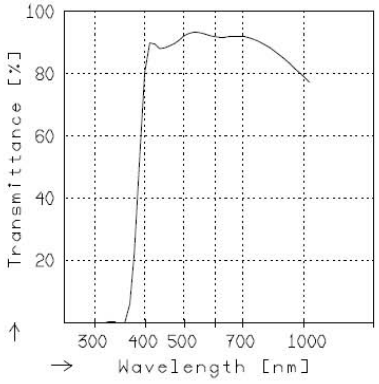
	f / 1.9	f / 4.0	f / 8.0
——	β' = 0.0000	u'_{max} = 8.0	00' = ∞
— —	β' = -0.0200	u'_{max} = 8.0	00' = 567.
-----	β' = -0.1000	u'_{max} = 8.0	00' = 154.



DISTORTION

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

——	β' = 0.0000	u'_{max} = 7.8	00' = ∞
— —	β' = -0.0200	u'_{max} = 7.8	00' = 567.
-----	β' = -0.1000	u'_{max} = 8.0	00' = 154.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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Cinegon 1.9/10

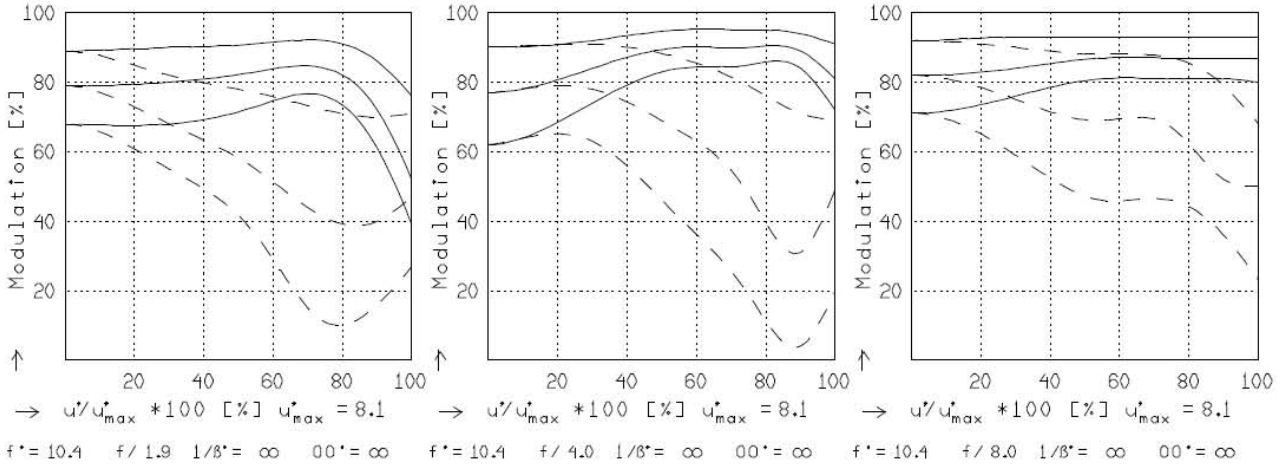
CINEGON 1.9/10MM

MODULATION with reference to the relative image height

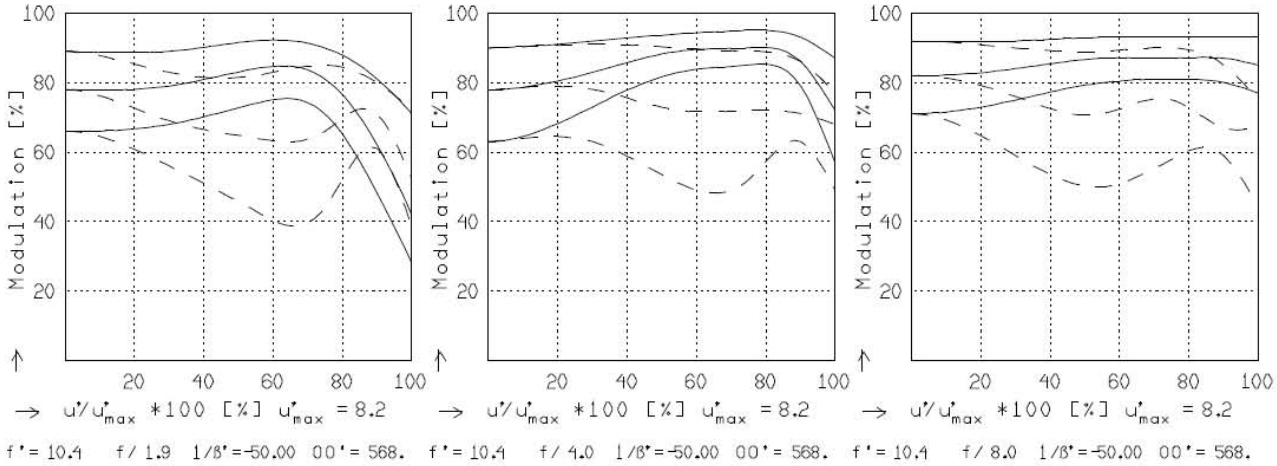
Wavelength	λ	[nm] :	555	655	605	505	455	405
Spectral weighting		[%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R		[1/mm] :	10	20	30			
Format		[mm X mm] :	9.6	X 12.8				
Diagonal 2u'		[mm] :	16.0					

radial ——

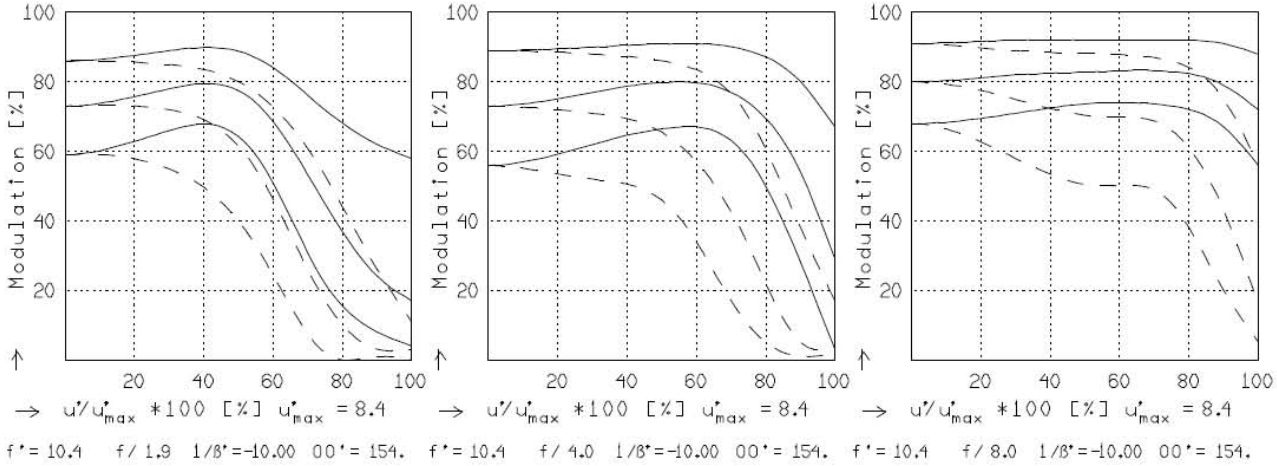
tangential — —



f'= 10.4 f/ 1.9 1/ß'= ∞ OO'= ∞ | f'= 10.4 f/ 4.0 1/ß'= ∞ OO'= ∞ | f'= 10.4 f/ 8.0 1/ß'= ∞ OO'= ∞



f'= 10.4 f/ 1.9 1/ß'=-50.00 OO'= 568. | f'= 10.4 f/ 4.0 1/ß'=-50.00 OO'= 568. | f'= 10.4 f/ 8.0 1/ß'=-50.00 OO'= 568.



f'= 10.4 f/ 1.9 1/ß'=-10.00 OO'= 154. | f'= 10.4 f/ 4.0 1/ß'=-10.00 OO'= 154. | f'= 10.4 f/ 8.0 1/ß'=-10.00 OO'= 154.

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

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Lenses for image circle 22 mm

Xenoplan 2.0/28

These high-resolution, high-speed lenses are optimized for the use of 4 and 8 megapixel 1.3" sensors. The image circles are very large for C-Mount lenses. With a 1.3" sensor, the relatively short focal lengths allow a large coverage range at a short working distance. The lenses are also broadband coated and can be used in the visible range 400 – 700 nm or the near infrared range 700 – 1000 nm.

Xenoplan 2.0/28

Key Features

- Lens for sensor sizes up to 1.3"(image circle 22 mm)
- Designed for 4 Mpix sensors
- High resolution optics 400 - 700 nm (VIS) / 700 - 1000 nm (NIR)
- Very high MTF across the entire sensor
- Robust mechanics for industrial environment
- Compact and low weight
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Etc.

Technical Specifications

F-number	2.0
Focal length	29,3 mm
Image circle	22 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	78 gr.
Option	Optical filter
Code No.	1001972

Contact

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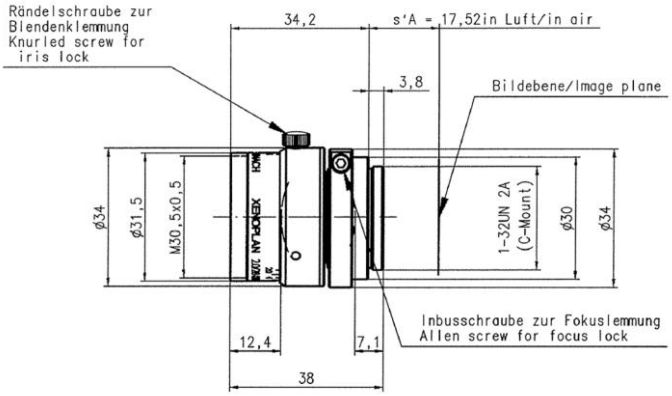
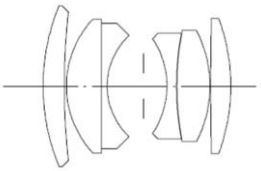
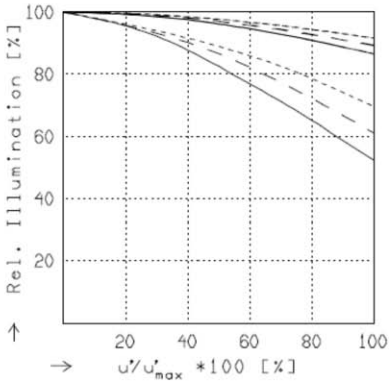
Xenoplan 2.0/28





XENOPLAN 2.0/28

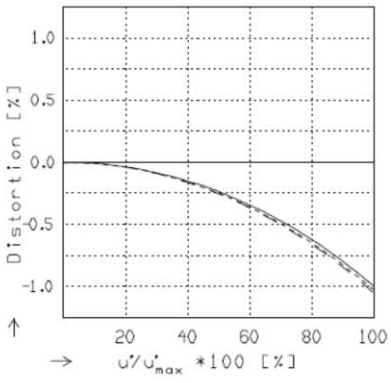
f'	=	29.3 mm	β'_p	=	1.041
s_F	=	-16.3 mm	s_{EP}	=	11.8 mm
s'_F	=	20.8 mm	s'_{AP}	=	-9.7 mm
HH'	=	-2.9 mm	Σ d	=	18.5 mm



RELATIVE ILLUMINATION

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

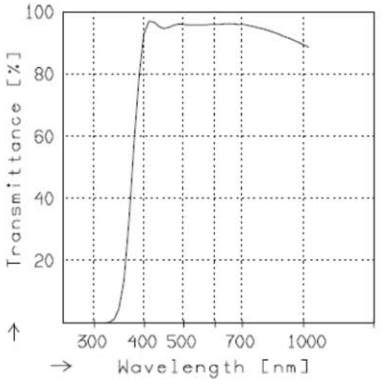
	f / 2.0	f / 4.0	f / 8.0
——	β' = -0.2000	u'_{max} = 10.9	ω' = 208.
— —	β' = -0.3333	u'_{max} = 10.9	ω' = 153.
-----	β' = -0.5000	u'_{max} = 10.9	ω' = 129.



DISTORTION

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

——	β' = -0.2000	u'_{max} = 10.9	ω' = 208.
— —	β' = -0.3333	u'_{max} = 10.9	ω' = 153.
-----	β' = -0.5000	u'_{max} = 10.9	ω' = 129.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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Xenoplan 2.0/28

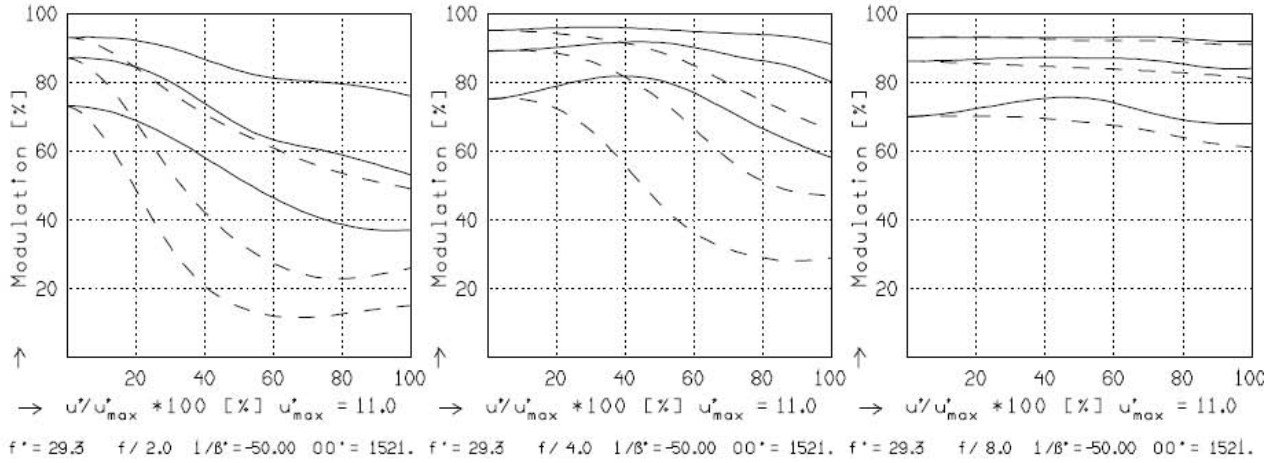
XENOPLAN 2.0/28

MODULATION with reference to the relative image height

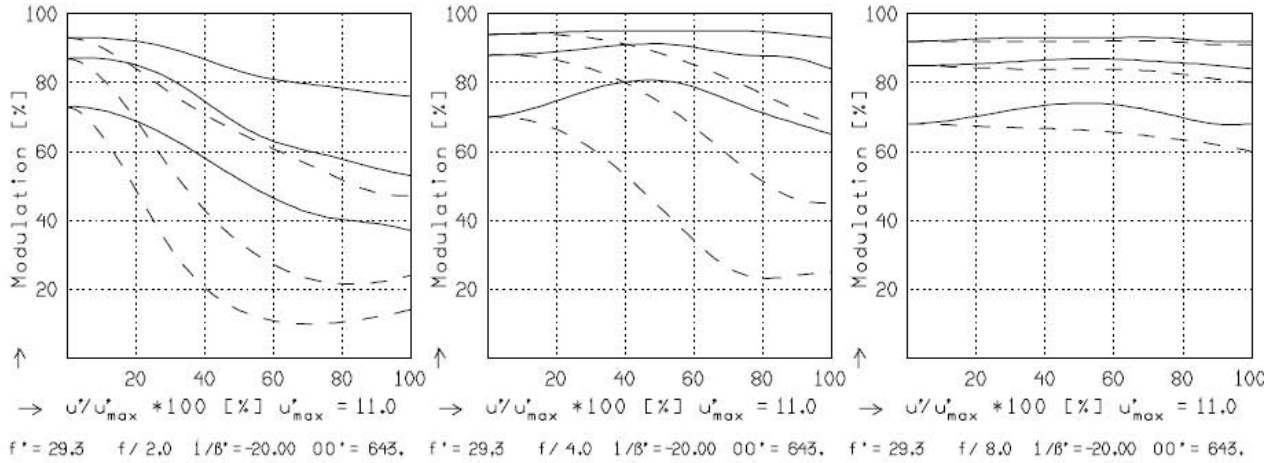
Wavelength λ [nm] :	555	655	605	505	455	405
Spectral weighting [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm] :	10	20	40			
Format [mm X mm] :	15.2 X 15.2					
Diagonal 2u' [mm] :	22.0					

radial ——

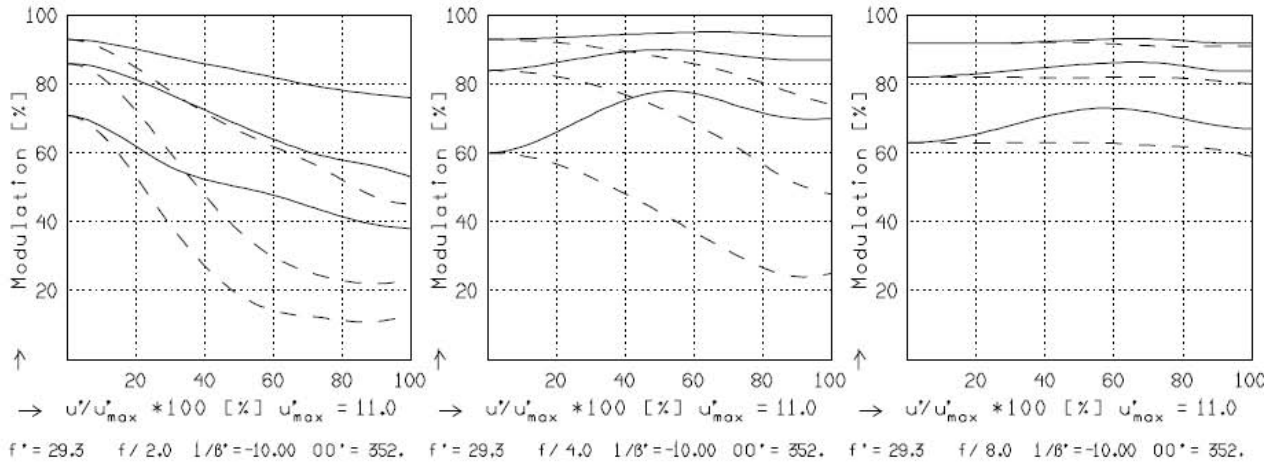
tangential — —



f' = 29.3 f/ 2.0 l/β' = -50.00 OO' = 1521. f' = 29.3 f/ 4.0 l/β' = -50.00 OO' = 1521. f' = 29.3 f/ 8.0 l/β' = -50.00 OO' = 1521.



f' = 29.3 f/ 2.0 l/β' = -20.00 OO' = 643. f' = 29.3 f/ 4.0 l/β' = -20.00 OO' = 643. f' = 29.3 f/ 8.0 l/β' = -20.00 OO' = 643.



f' = 29.3 f/ 2.0 l/β' = -10.00 OO' = 352. f' = 29.3 f/ 4.0 l/β' = -10.00 OO' = 352. f' = 29.3 f/ 8.0 l/β' = -10.00 OO' = 352.

Focusing : MTF_{max} at f / 2.0 , R = 40 l/mm, u'/u'_{max} = 0

Xenoplan 2.0/28

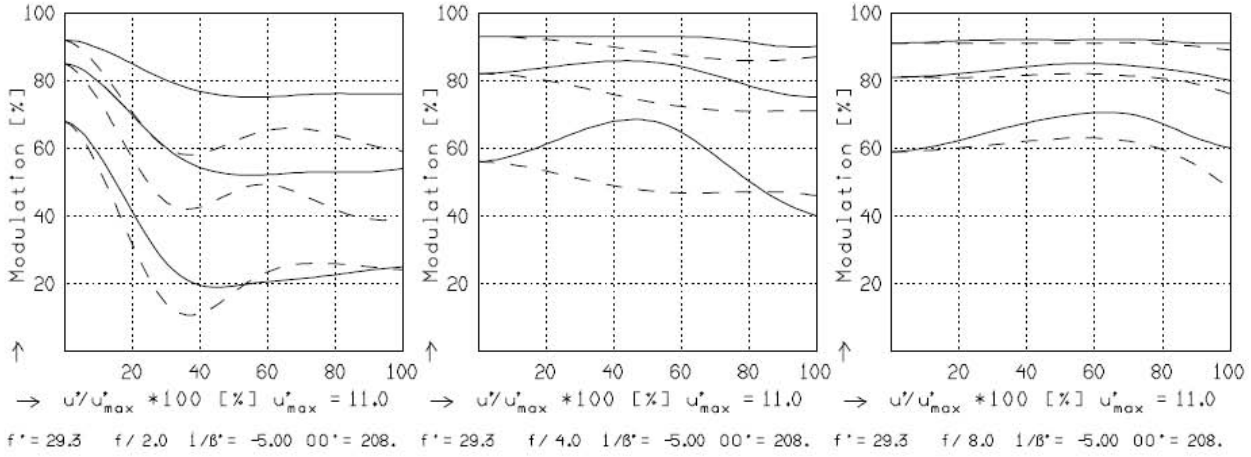
XENOPLAN 2.0/28

MODULATION with reference to the relative image height

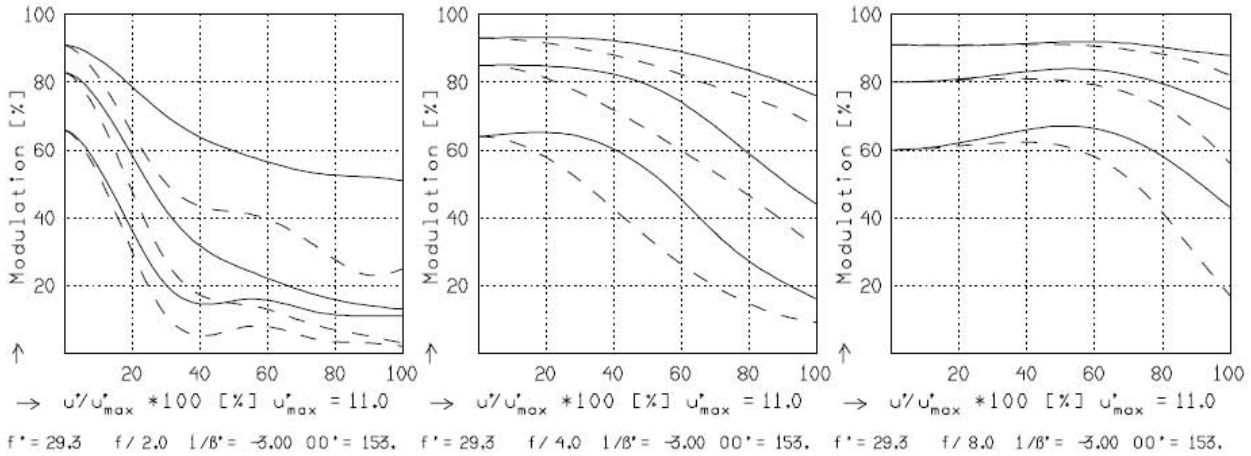
Wavelength	λ	[nm] :	555	655	605	505	455	405
Spectral weighting		[%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R		[1/mm] :	10	20	40			
Format		[mm X mm] :	15.2	X 15.2				
Diagonal 2u'		[mm] :	22.0					

radial ——

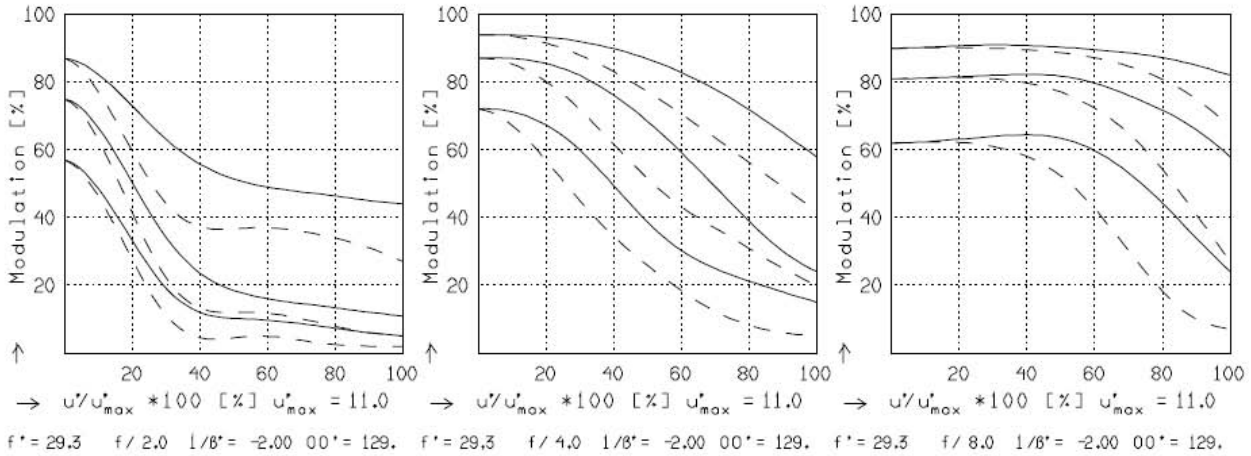
tangential — —



f' = 29.3 f/ 2.0 1/β' = -5.00 00' = 208. | f' = 29.3 f/ 4.0 1/β' = -5.00 00' = 208. | f' = 29.3 f/ 8.0 1/β' = -5.00 00' = 208.



f' = 29.3 f/ 2.0 1/β' = -3.00 00' = 153. | f' = 29.3 f/ 4.0 1/β' = -3.00 00' = 153. | f' = 29.3 f/ 8.0 1/β' = -3.00 00' = 153.



f' = 29.3 f/ 2.0 1/β' = -2.00 00' = 129. | f' = 29.3 f/ 4.0 1/β' = -2.00 00' = 129. | f' = 29.3 f/ 8.0 1/β' = -2.00 00' = 129.

Focusing : MTF_{max} at f / 2.0 . R = 40 1/mm. u'/u'_{max} = 0

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Lenses for image circle 22 mm

Xenoplan 2.0/35-0903

These high-resolution, high-speed lenses are optimized for the use of 4 and 8 megapixel 1.3" sensors with micro-lenses on the sensor surface. The image circles are very large for C-Mount lenses. With a 1.3" sensor, the relatively short focal lengths allow a large coverage range at a short working distance. The lenses are also broadband coated and can be used in the visible range 400 – 700 nm or the near infrared range 700 – 1000 nm.

Xenoplan 2.0/35-0903

Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	2.0 - 16
Focal length	35.1 mm
Image circle	22 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	90 g
Filter Thread	M30.5 x 0.5
Code no.	1075451

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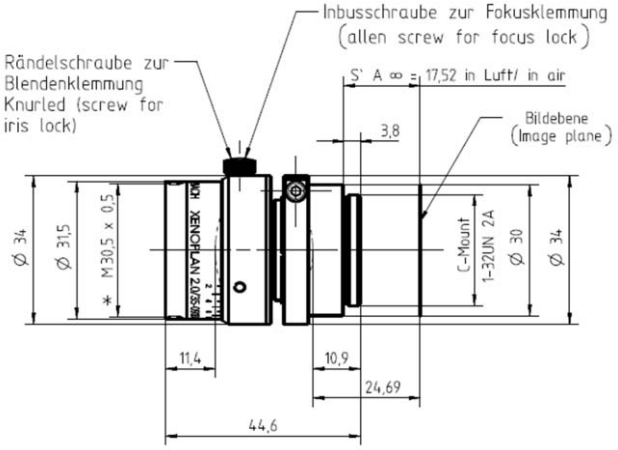
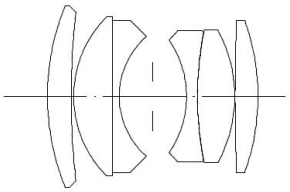
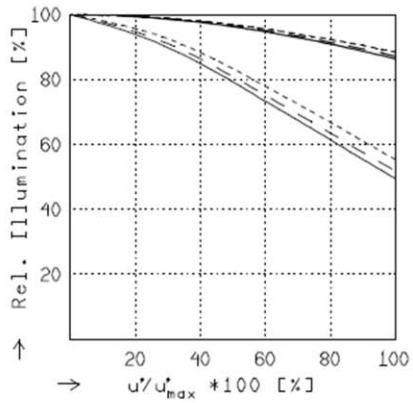




XNP 2.0/35

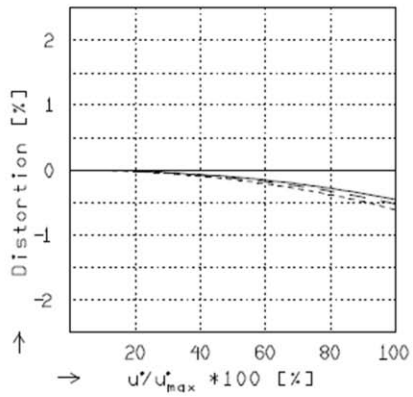
f'	=	35.0 mm	β'_P	=	1.094
s_F	=	-19.5 mm	s_{EP}	=	12.5 mm
s'_F	=	24.8 mm	s'_{AP}	=	-13.4 mm
HH'	=	-3.5 mm	Σd	=	22.1 mm



RELATIVE ILLUMINATION

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

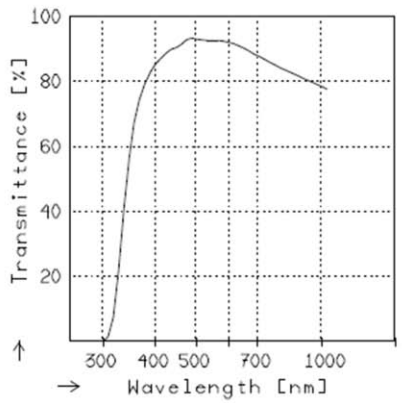
	f / 2.0	f / 4.0	f / 8.0
——	β' = -0.0200	u'_{max} = 11.0	00' = 1816.
— —	β' = -0.0500	u'_{max} = 10.9	00' = 768.
-----	β' = -0.1000	u'_{max} = 10.9	00' = 420.



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} = 10.9	00' = 1816.
— —	β' = -0.0500	u'_{max} = 10.9	00' = 768.
-----	β' = -0.1000	u'_{max} = 10.9	00' = 420.



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

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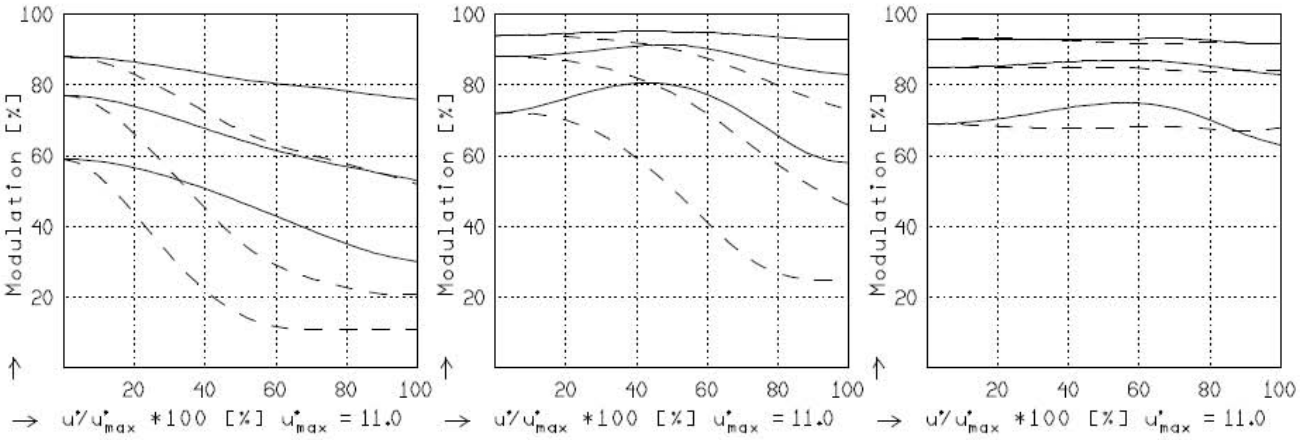
MODULATION with reference to the relative image height

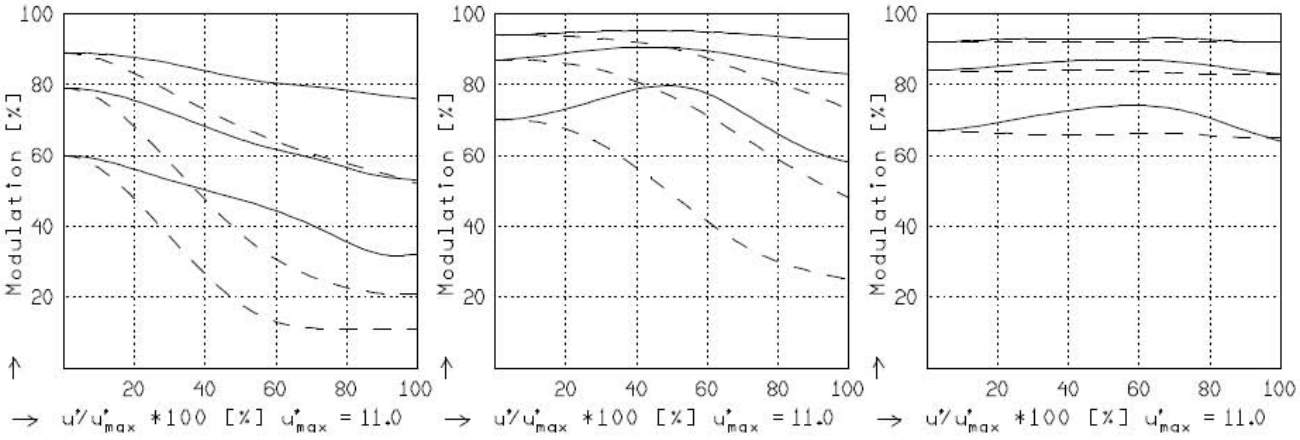
Wavelength λ [nm] :	546	655	605	505	455	405
Spectral weighting [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R [1/mm] :	10	20	40			
Format [mm X mm] :	0.0	22.0				
Diagonal 2u' [mm] :	22.0					

radial ——

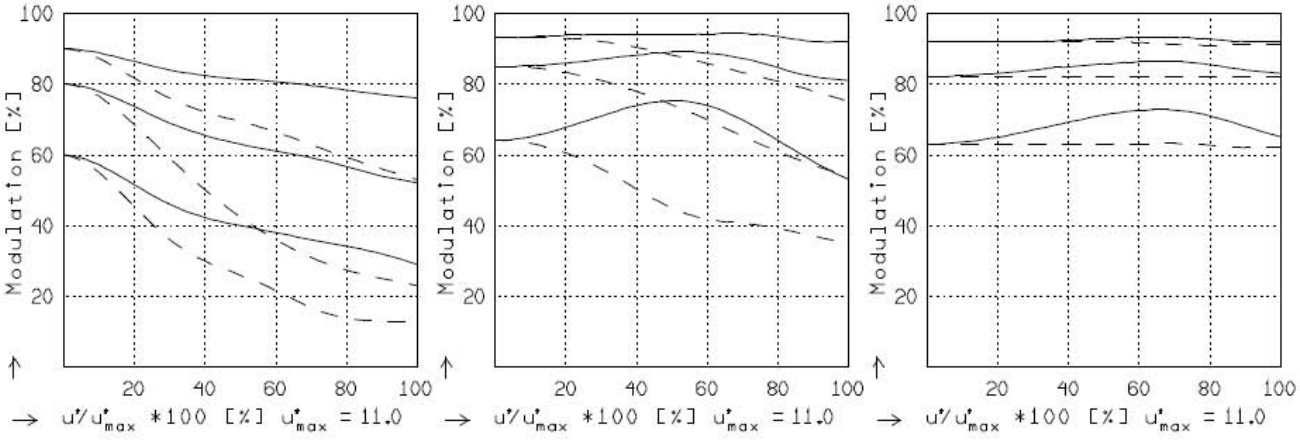
tangential — —



f' = 35.0 f/ 2.0 1/β' =-50.00 00' = 1816. f' = 35.0 f/ 4.0 1/β' =-50.00 00' = 1816. f' = 35.0 f/ 8.0 1/β' =-50.00 00' = 1816.



f' = 35.0 f/ 2.0 1/β' =-20.00 00' = 768. f' = 35.0 f/ 4.0 1/β' =-20.00 00' = 768. f' = 35.0 f/ 8.0 1/β' =-20.00 00' = 768.



f' = 35.0 f/ 2.0 1/β' =-10.00 00' = 420. f' = 35.0 f/ 4.0 1/β' =-10.00 00' = 420. f' = 35.0 f/ 8.0 1/β' =-10.00 00' = 420.

Focusing : MTF_{max} at f / 2.0 , R = 40 1/mm, u'/u'_{max} = 0

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