

Componon S 4.0/80



The Componon S 4.0/80 (Version -0022) is an 80 mm focal length macro lens with 80.6 mm image circle for large format sensors and short working distance. This macro lens is developed and corrected for the close-up range of 1:20 to 1:1 and can also be used in reverse position, depending on the field of vision and pixel size with the symmetrical V-Mount interface without additional accessories.

The modular system with wide-ranging accessories such as helical focus barrel (Unifoc 7 and 12), extension tubes, and adapters for various cameras, can be used for all kind of sophisticated applications from OLED inspection to food processing control. This, the fast F/# of 4.0 and low longitudinal and lateral chromatic aberration, as well as extremely low distortion all combined make these lens unique. Vibration insensitivity for stable imaging performance even when the lens used in harsh industrial environmental, as common in food processing control and web inspection systems.

The Unifoc Series offers more macro lenses with 35 mm, 40 mm, 45 mm, 50 mm, 60 mm, 80 mm, 90 mm, 100 mm focal length and a line scan lens series plus a enlarging lens series for Unifoc 58 and 76 helicoid focus barrels.



Componon S 4.0/80

Key features

- Large Format
- Short working distance
- Modular: Unifoc 7 and 12 focus helical barrels, extension tubes, various camera adapters
- Possibility to be used in retro position
- Vibration insensitivity for stable imaging performance

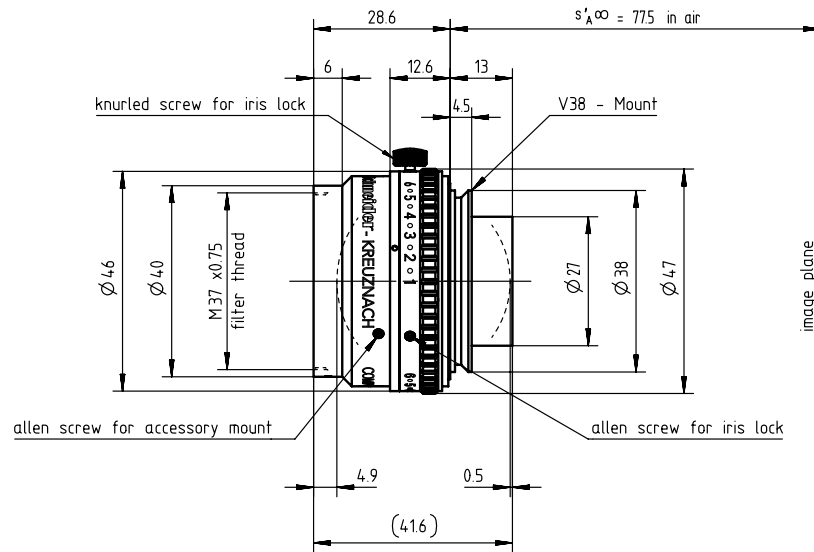
Applications

- OLED inspection
- Web inspection
- Medical applications
- Laser triangulation
- Quality control

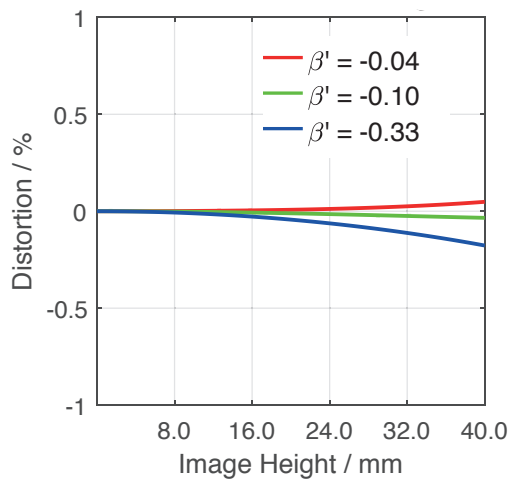
Name	Componon S 4.0/80
Type	-0022
Focal Length [mm]	80
Magnification	-0.5
Image circle [mm]	80
Resolution [μm]	6.45
F/# range	4 ... 22
NA	0.12
Interface	V38-Mount
Working distance [mm]	∞ - 220
AoV [$^\circ$]	52
Focus control	manual
Transmission [nm]	400 - 1000
Filter thread [mm]	M37 x 0,75

Name	Componon S 4.0/80
Dimensions L x D [mm]	41.6 x 47.0
Weight [g]	115
Storage temperature [$^\circ\text{C}$]	-25 ... +70
f'_{eff} [mm]	80.34
S_F [mm]	-57.92
S'_F [mm]	64.67
HH' [mm]	-1.81
β'_p	1.027
S_{EP} [mm]	20.29
S'_{AP} [mm]	-17.86
Σd [mm]	36.28
ID	14780

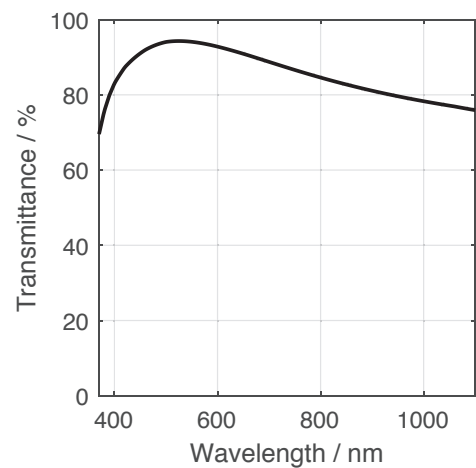




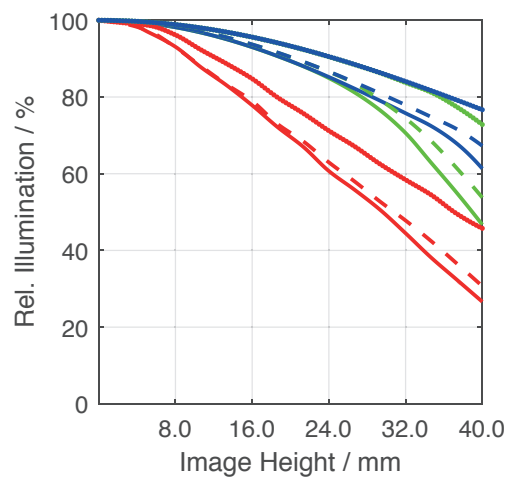
Distortion vs. Image Height



Transmittance vs. Wavelength

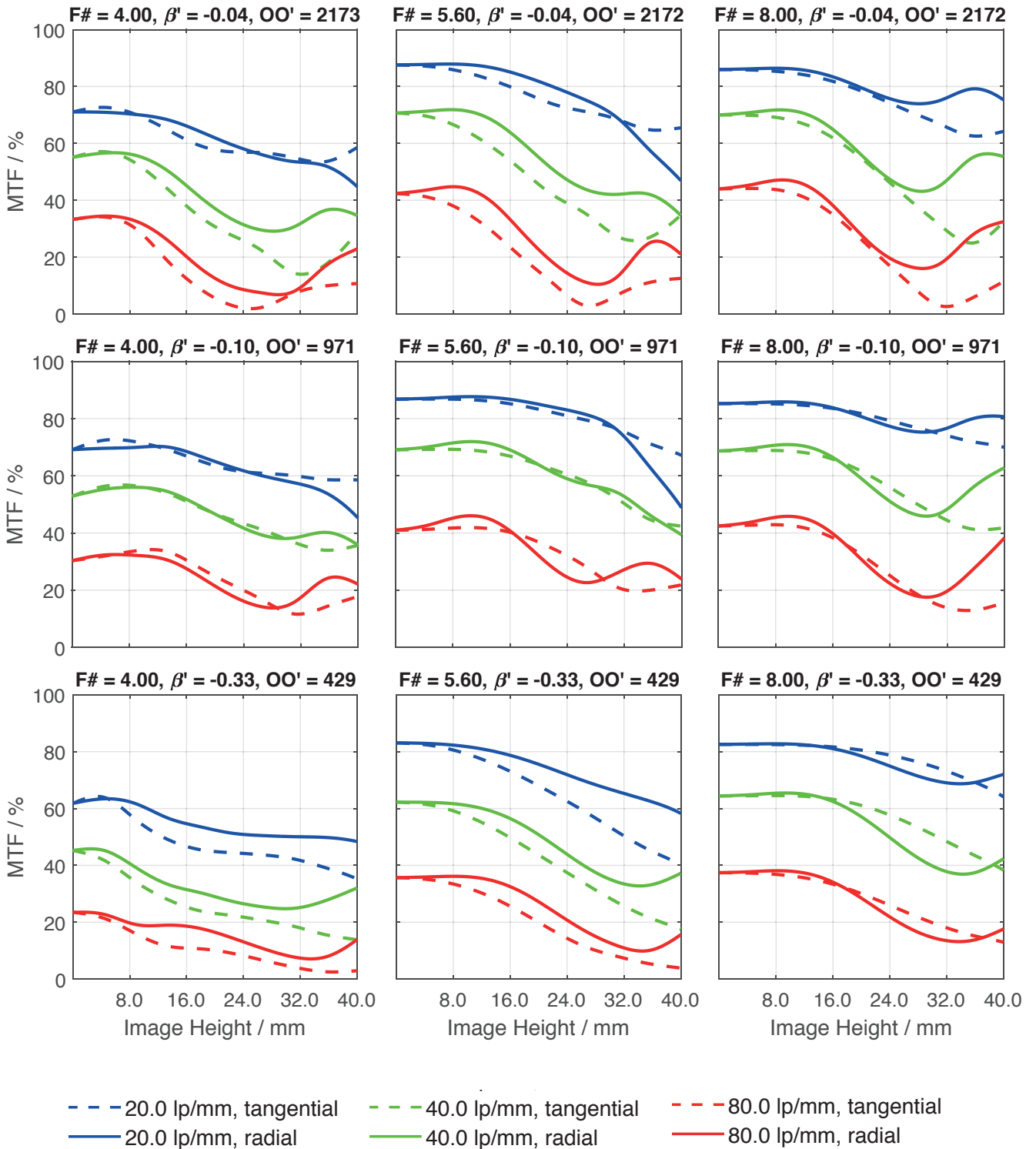


Relative Illumination vs. Image Height

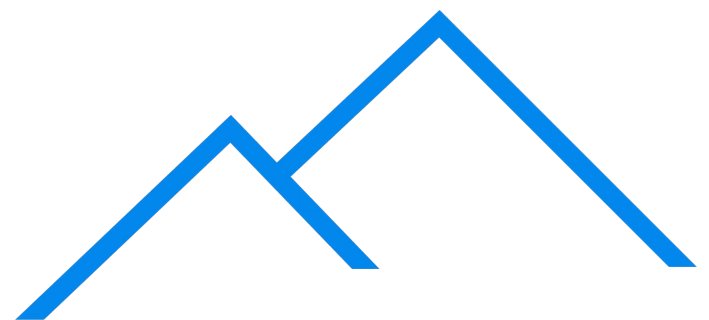


- F# = 4.00, $\beta' = -0.04$
- F# = 5.60, $\beta' = -0.04$
- F# = 8.00, $\beta' = -0.04$
- - F# = 4.00, $\beta' = -0.10$
- - F# = 5.60, $\beta' = -0.10$
- - F# = 8.00, $\beta' = -0.10$
- F# = 4.00, $\beta' = -0.33$
- F# = 5.60, $\beta' = -0.33$
- F# = 8.00, $\beta' = -0.33$

Spectrum Name	VIS					
Wavelengths [nm]	425	475	525	575	625	675
Weights	8	16	23	22	19	13



Accessories	Mount	Length	ID
Makro	UNIFOC 12	V38/V38	11726
	UNIFOC 7	V38/V38	1001041
	UNIFOC 7 (M58 x 0,75)	V38/M58 x 0,75	1054532
Zwischenring	Ext. Tube 6 mm	V38 / V38	20176
	Ext. Tube 8 mm	V38 / V38	20177
	Ext. Tube 10 mm	V38 / V38	20178
	Ext. Tube 25 mm	V38 / V38	20179
	Ext. Tube 50 mm	V38 / V38	20154
	Ext. Tube 75 mm	V38 / V38	20155
Adapter	V38 / C-Mount	V38 / C-Mount	20052
	V38 / C-Mount Hub 19.2 - 24.2 mm	V38 / C-Mount	1011634
	V38 / Leica (M39 x 26 Gg.)	V38 / Leica	20054
	V38 / T2 (M42 x 0,75)	V38 / T2	20053
	V38 / M42 x 1	V38 / M42 x 1	20059
	V38 / M42 x 1 - Length 35 mm	V38 / M42 x 1	1001692
	V38 / M58 x 0,75	V38 / M58 x 0,75	1018385
	V38 / Nikon F-Mount	V38 / Nikon	21610



Pyramid Imaging

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