

MVL-LF5040M-F

FULL Frame 50mm FA LENS

LF series large format FA Lens are optimized for machine vision light sources and sensors, with excellent imaging quality and high image uniformity, magnification range from 0.01x to 0.33x. It is suitable for high resolution machine vision industry applications.



Key Features

- High resolution, limit resolution 3.1μm
- Excellent image uniformity
- Low distortion, high relative illumination
- Maximum image circle up to Φ46mm, apply to full frame area array camera and linear array camera
- F-Mount removable design, convenient to extend other interfaces

Order Model

MVL-LF5040M-F

Specification

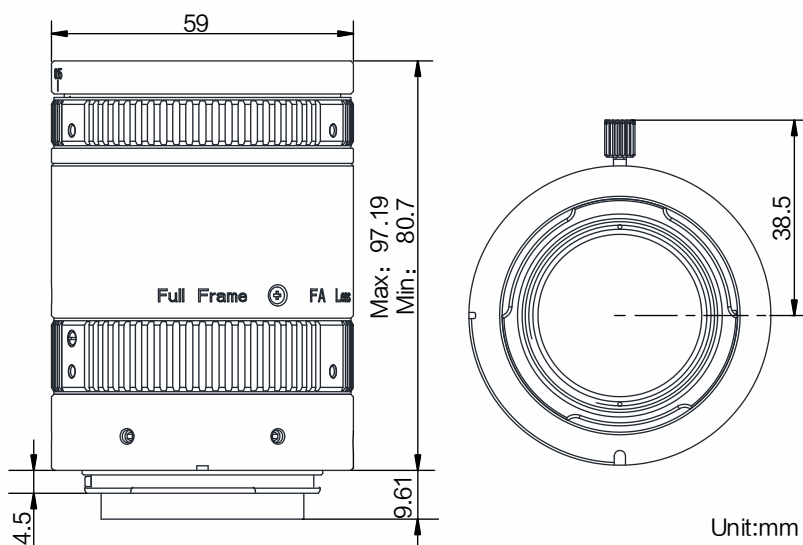
Model		MVL-LF5040M-F	
Parameter		Fixed focal length, Manual iris, Large format lens	
Focal Length		50mm	Mount
F-Number		F4.0~F32	Flange Back Length
Image Size		Φ46mm	Filter Thread
Optical Distortion		-0.22%	Minimum Operation Distance
Control	Manual	Manual	Dimension
	Manual	Manual	
Operating Temperature		-10~50℃	Weight
Angle of View		Full Frame	D (43.47mm)
			H (36.17mm)
			V (24.11mm)



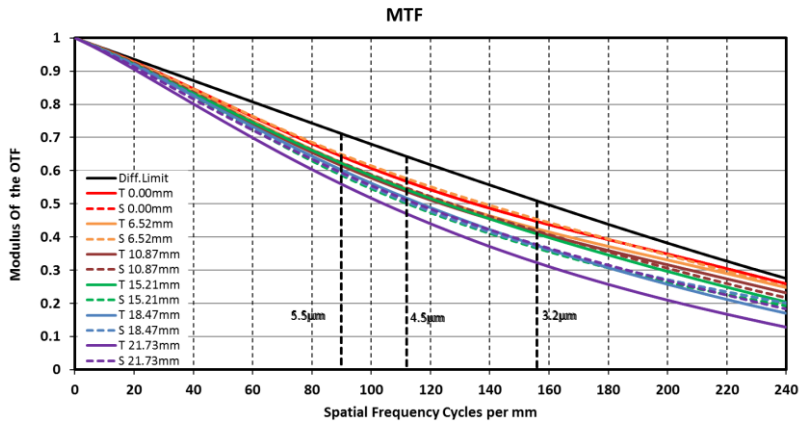
Field of View

Working Distance (mm)	Magnification	Field of View (mm)				
		23mm×23mm		36.17mm×24.11mm		8K 5μm
		H	V	H	V	H
150	-0.331	69.62	69.62	109.29	72.86	123.77
200	-0.249	92.50	92.50	145.20	96.80	164.44
250	-0.200	115.38	115.38	181.12	120.74	205.11
300	-0.167	138.26	138.26	217.03	144.69	245.79
350	-0.143	161.13	161.13	252.95	168.63	286.46
400	-0.125	184.03	184.03	288.88	192.59	327.16
450	-0.111	206.89	206.89	324.78	216.52	367.81
500	-0.100	230.40	230.40	361.68	241.12	409.60
550	-0.091	252.65	252.65	396.61	264.41	449.16
600	-0.084	275.53	275.53	432.52	288.35	489.83
700	-0.072	321.29	321.29	504.37	336.24	571.19
800	-0.063	367.05	367.05	576.20	384.13	652.54
900	-0.056	412.80	412.80	648.01	432.01	733.87
1000	-0.050	458.56	458.56	719.85	479.90	815.22
1100	-0.046	504.31	504.31	791.67	527.78	896.56
1200	-0.042	550.08	550.08	863.51	575.67	977.92
1300	-0.039	595.83	595.83	935.32	623.55	1059.25
1400	-0.036	641.59	641.59	1007.16	671.44	1140.60
1500	-0.034	687.35	687.35	1079.00	719.33	1221.96

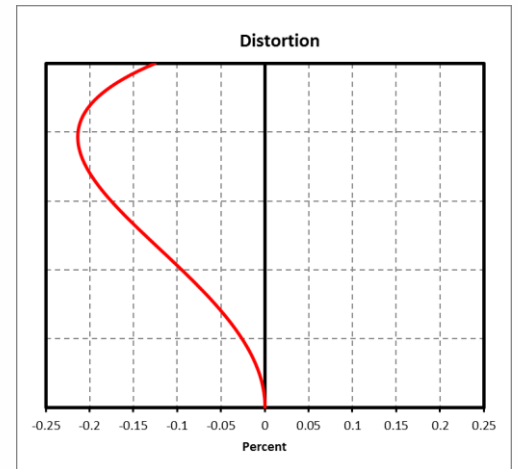
Dimension



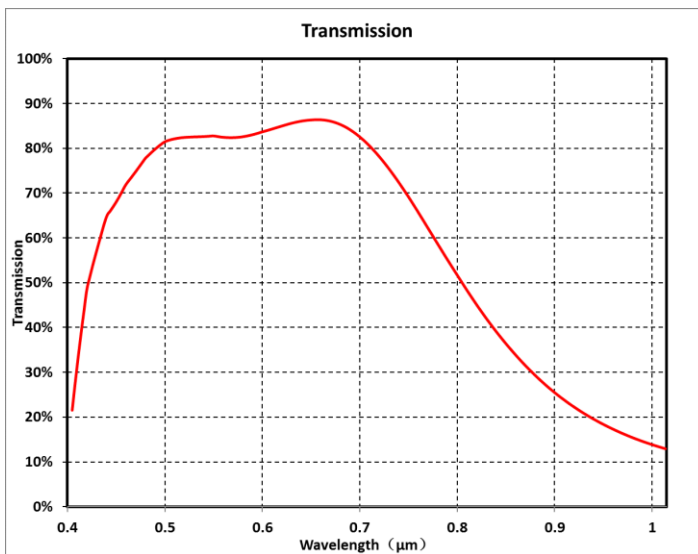
MTF



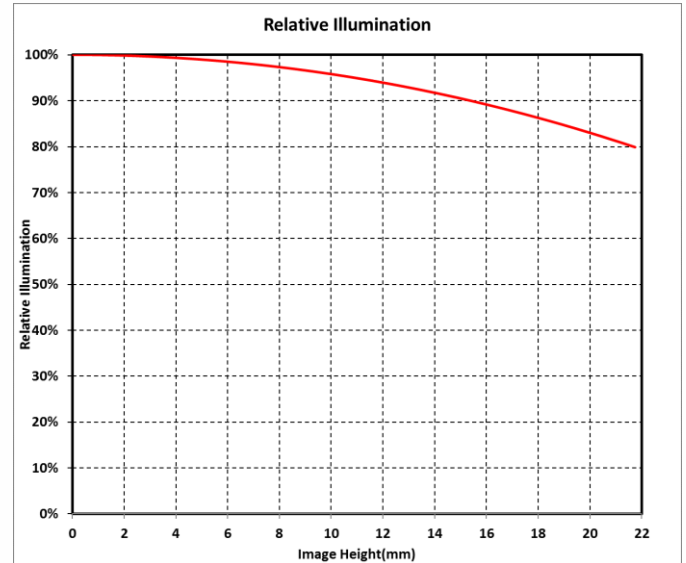
Distortion



Transmission



Relative Illumination



Note: The above curves are the simulate results based on F4.0, $\beta=-0.20X$, WD=249 mm.

HIKROBOT

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