

**MVL-KF5028M-12MP**  
**1.1" 50mm 12MP FA LENS**

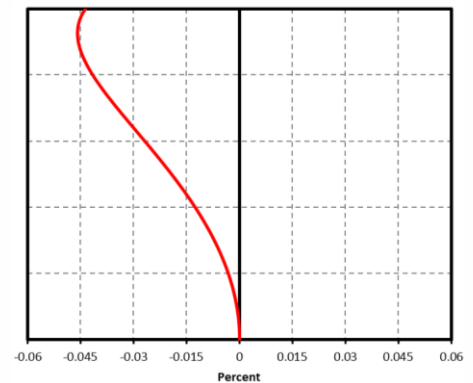
KF series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



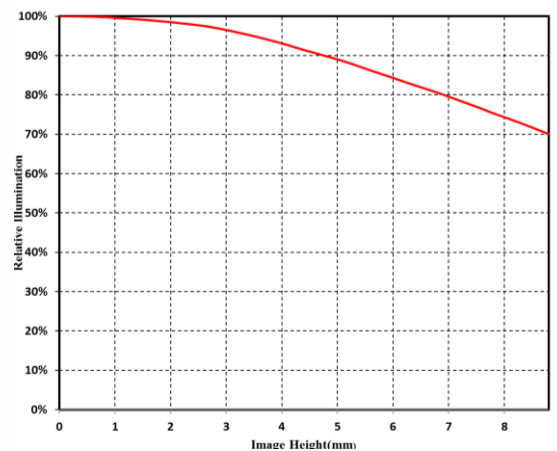
**Key Features**

- High resolution, high definition of the whole image
- Low distortion, high illumination relative
- Excellent mechanism design, improve the shock resistance and high/low temperature stability
- Multilayer wide band coating, ensuring high transmittance of visible and near infrared light
- Support ultra short working distance, maintaining excellent optical properties at different object distances

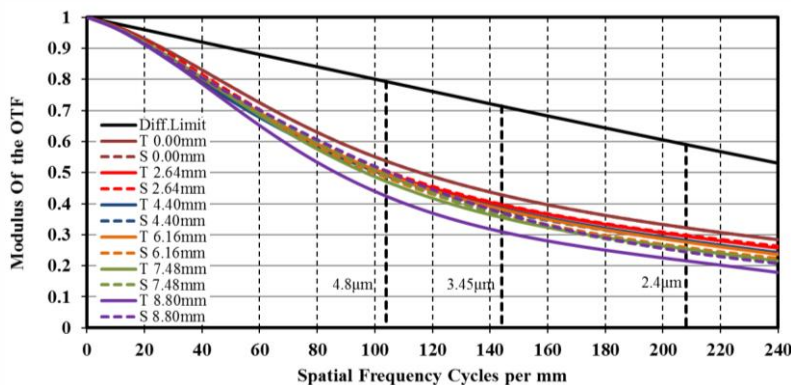
**Distortion**



**Relative Illumination**



**MTF**



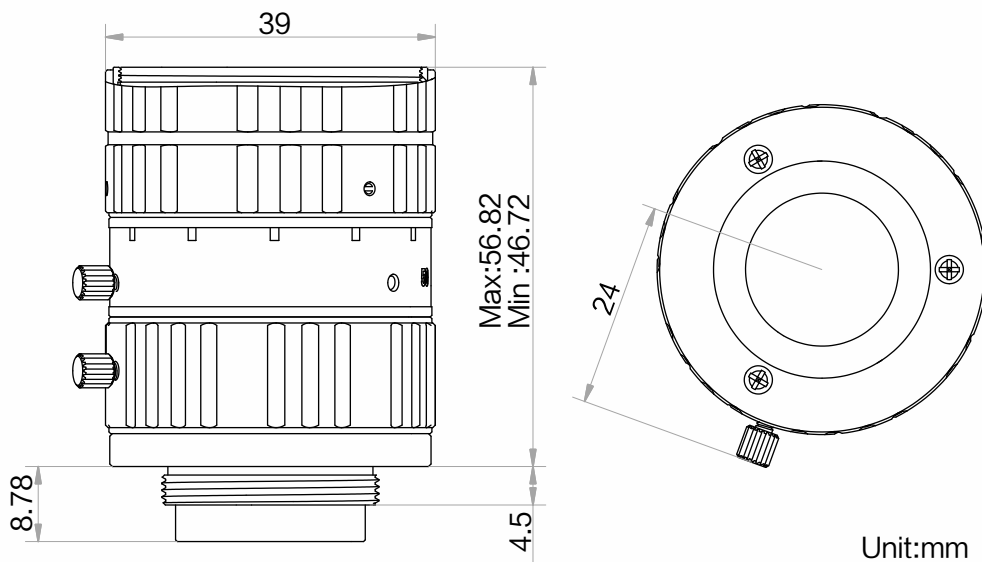
Note: The above curves are the simulate results based on F2.8,  $\beta=-0.128$ , WD=400 mm.



## Specification

	Model	MVL-KF5028M-12MP
Parameter		Fixed focal length, Manual iris, 12MP, FA Lens
<b>Performance</b>		
Focal Length		50 mm
F-Number		F2.8 ~ F16
Image Size		Φ17.6 mm(1.1")
Optical Distortion		-0.05%
Minimum Operation Distance		0.3 m
Field of View		D (17.52mm) : 18.9° H (14.14mm) : 15.1° V (10.35mm) : 11.2°
<b>Mechanical</b>		
Iris Control		Manual
Focus Control		Manual
Filter Thread		M35.5*0.5
Mount		C-Mount
Flange Back Length		17.526 mm
Dimension		Φ39×56.82 mm
Weight		134 g
Temperature		-10 ~ 50°C
<b>General</b>		
Certification		RoHS2.0

## Dimension



## Field of View

Extension (mm)	Working Distance (mm)	Magnification	Field of View (mm)					
			1.1"		1"		2/3"	
			H(14.14mm)	V(10.35mm)	H(12.45mm)	V(9.83mm)	H(8.45mm)	V(7.07mm)
48	50	-1.179	12.00	8.78	10.56	8.34	7.17	6.00
27	75	-0.750	18.86	13.81	16.61	13.11	11.27	9.43
18	100	-0.546	25.88	18.94	22.79	17.99	15.47	12.94
9	150	-0.355	39.82	29.14	35.06	27.68	23.79	19.91
5	200	-0.262	53.90	39.46	47.46	37.47	32.21	26.95
0	250	-0.209	67.73	49.58	59.64	47.08	40.48	33.87
	300	-0.173	81.57	59.71	71.82	56.70	48.75	40.79
	350	-0.147	96.23	70.44	84.73	66.90	57.51	48.12
	400	-0.128	110.90	81.17	97.64	77.09	66.27	55.45
	450	-0.113	125.56	91.91	110.55	87.29	75.04	62.78
	500	-0.101	140.23	102.64	123.47	97.48	83.80	70.12
	550	-0.091	154.90	113.38	136.39	107.68	92.57	77.45
	600	-0.083	169.57	124.12	149.30	117.88	101.33	84.79
	650	-0.077	184.24	134.86	162.22	128.08	110.10	92.12
	700	-0.071	198.91	145.59	175.13	138.27	118.87	99.46
	750	-0.066	213.58	156.33	188.05	148.47	127.63	106.79
	800	-0.062	228.25	167.07	200.97	158.67	136.40	114.13
	850	-0.058	242.92	177.81	213.88	168.87	145.17	121.46
	900	-0.055	257.59	188.54	226.80	179.07	153.93	128.80
	950	-0.052	272.26	199.28	239.72	189.27	162.70	136.13
1000	-0.049	286.93	210.02	252.63	199.46	171.47	143.47	

Distribution Partner:



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