

**MVL-KF0818M-12MP**  
**1" 8mm 12MP FA LENS**

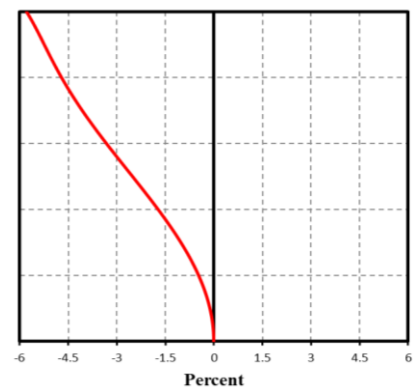
KF series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity and good stability. Featured with fixed focal length, manual iris and compact size, it is suitable for machine vision industry applications.



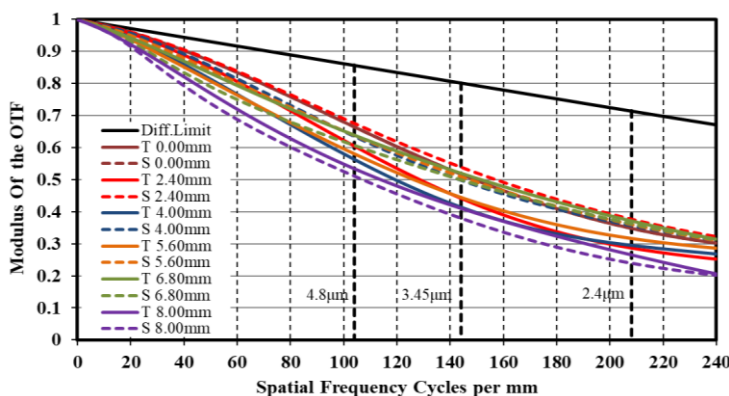
**Key Features**

- High resolution, high picture clarity and uniformity
- Low distortion, high illumination relative
- Maximum image size  $\Phi 16\text{mm}$
- Support ultra-short working distance, maintaining excellent optical characteristics at different object distances

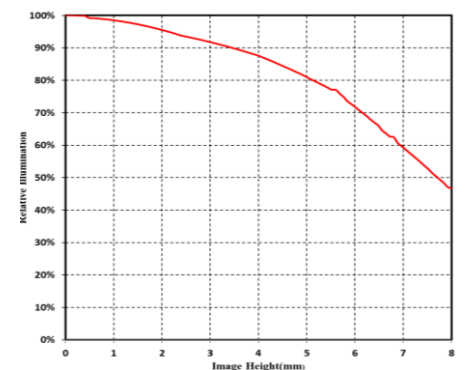
**Distortion**



**MTF**



**Relative Illumination**



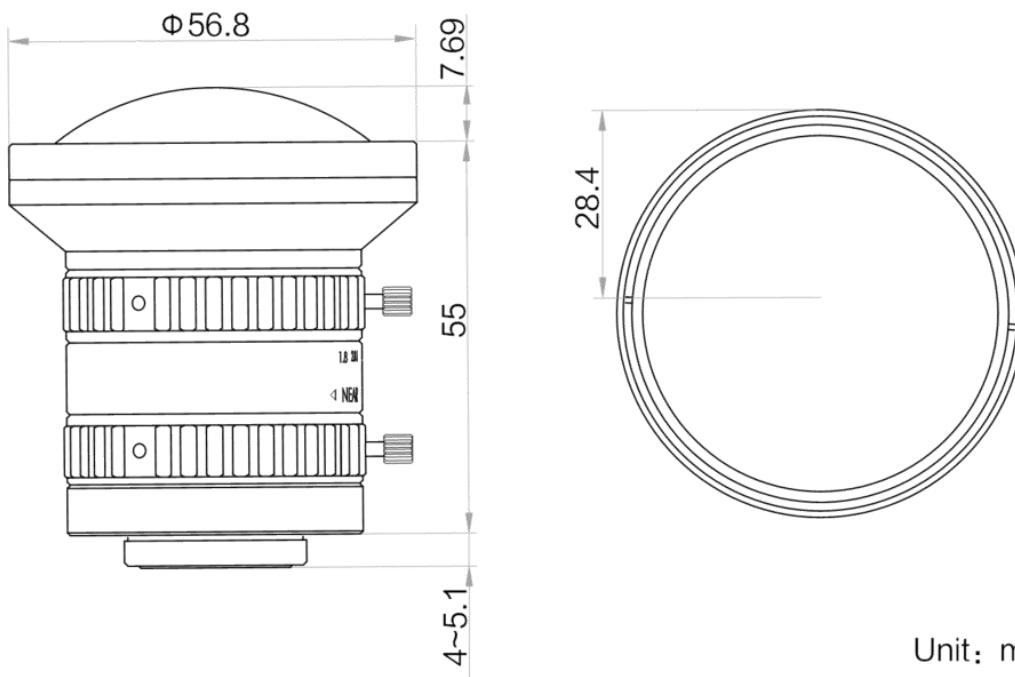
Note: The above curves are the simulate results based on F1.8,  $\beta=-0.016$ , WD=500 mm



## Specification

Parameter	Model	MVL-KF0818M-12MP
		Fixed focal length, Manual iris, 12MP, FA Lens
<b>Performance</b>		
Focal Length		8 mm
F-Number		F1.8 ~ C
Image Size		Φ16 mm(1")
Distortion		-4.12%
Minimum Object Distance		0.3 m
Field of View		D (15.86): 90.06° H (12.45): 77.16° V (9.83): 61.3°
<b>Mechanical</b>		
Iris Control		Manual
Focus Control		Manual
Mount		C-Mount
Flange Back Length		17.526 mm
Dimension		Φ56.8 × 55 mm
Weight		236 g
Temperature		-10 ~ 50°C
<b>General</b>		
Certification		RoHS2.0

## Dimension



Unit: mm

## Field of View

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)					
				1.1" (14.14mm×10.35mm)		1" (12.45mm×9.83mm)		2/3" (8.45mm×7.07mm)	
				H	V	H	V	H	V
2	near	6.2	-0.3029	56.1	38.1	48.1	35.8	30.0	24.5
	far	18.5	-0.2128	78.3	53.2	66.5	50.1	42.2	34.7
1	near	25	-0.1789	92.2	62.9	78.4	59.2	49.9	41.1
	far	70	-0.0925	169.4	119.0	146.3	112.4	95.4	78.9
0.5	near	49	-0.1175	135.8	94.3	116.6	89.0	75.3	62.2
	far	250	-0.0323	485.0	347.9	423.4	329.4	280.8	233.1
0	300		-0.0258	582.0	417.8	508.2	395.6	337.4	280.1
	350		-0.0224	670.3	481.9	585.8	456.4	389.3	323.3
	400		-0.0197	758.6	546.0	663.4	517.1	441.2	366.5
	450		-0.0176	847.0	610.0	740.9	577.9	493.2	409.7
	500		-0.0160	935.3	674.1	818.5	638.6	545.1	452.8
	550		-0.0146	1023.6	738.2	896.0	699.3	597.0	496.0
	600		-0.0134	1111.9	802.3	973.5	760.1	648.9	539.2
	650		-0.0124	1200.2	866.3	1051.1	820.8	700.8	582.4
	700		-0.0115	1288.5	930.4	1128.6	881.6	752.8	625.6
	800		-0.0101	1465.1	1058.6	1283.7	1003.0	856.6	711.9
	900		-0.0090	1641.7	1186.7	1438.8	1124.5	960.4	798.3
1000		-0.0082	1818.3	1314.8	1593.9	1246.0	1064.3	884.6	

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