

MVL-KF1228M-12MP 1.1" 12mm 12MP FA LENS

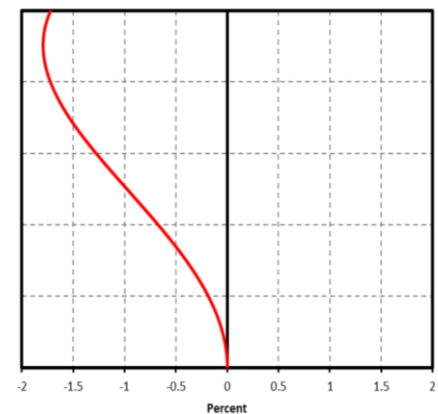
KF series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, high transmittance and good stability. Featured with fixed focal length, manual aperture and compact size, it is suitable for machine vision industry applications.



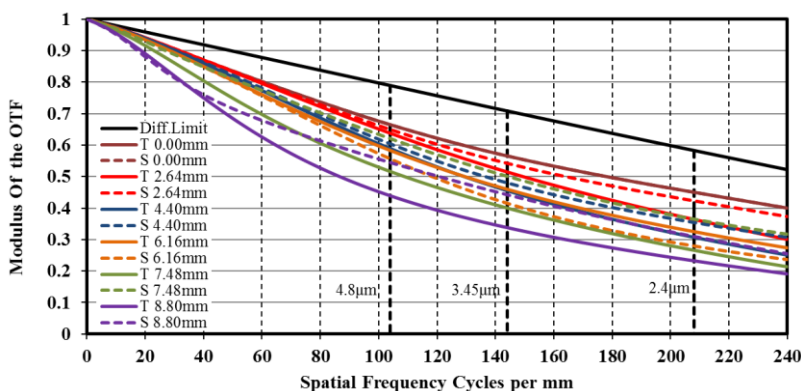
Key Features

- High resolution, high definition of the whole image
- Low distortion, high illumination relative
- Maximum image circle of 1.1"
- Support ultra-short working distance, maintaining excellent optical properties at different object distances

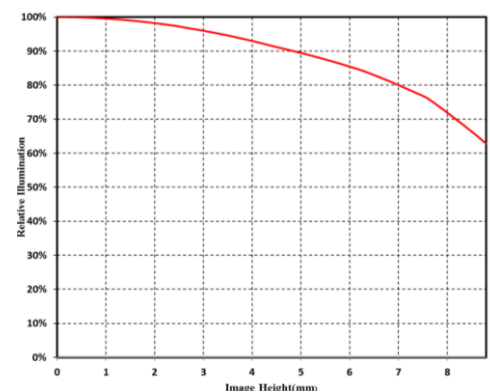
Distortion



MTF



Relative Illumination



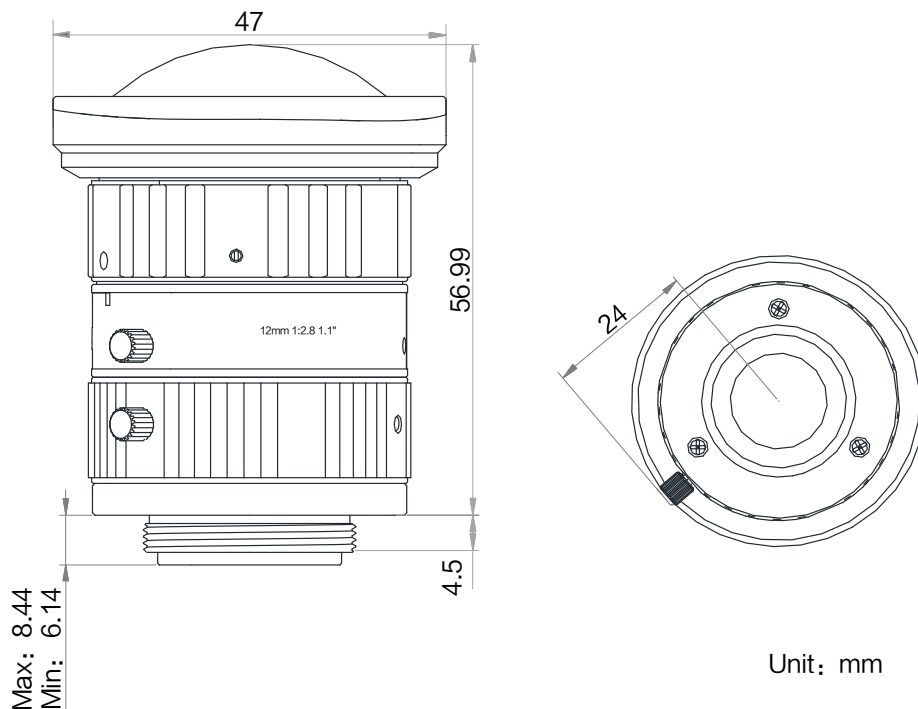
Note: The above curves are the simulate results based on F2.8, $\beta=-0.038$, WD=300 mm.



Specification

Parameter	Model	MVL-KF1228M-12MP
	Fixed focal length, Manual iris, 12MP, FA Lens	
Performance		
Focal Length	12 mm	
F-Number	F2.8 ~ F16	
Image Size	Φ17.6 mm(1.1")	
Optical Distortion	-1.79%	
Minimum Object Distance	0.1 m	
Field of View	D (17.52mm) : 70.5° H (14.14mm) : 59.8° V (10.35mm) : 46.2°	
Mechanical		
Iris Control	Manual	
Focus Control	Manual	
Mount	C-Mount	
Flange Back Length	17.526 mm	
Dimension	Φ47 × 56.99 mm	
Weight	186 g	
Temperature	-10 ~ 50°C	
General		
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)
2	25	-0.256	58.39	41.75	50.84	39.54	33.76	28.08
1	50	-0.169	87.61	62.98	76.49	59.68	51.02	42.49
	75	-0.126	116.61	84.19	102.04	79.82	68.31	56.92
0	100	-0.100	145.95	105.37	127.71	99.90	85.49	71.25
	150	-0.071	203.80	147.63	178.63	140.01	119.92	100.00
	200	-0.055	261.51	189.80	229.44	180.04	154.27	128.69
	250	-0.045	319.15	231.94	280.20	220.04	188.60	157.37
	300	-0.038	376.77	274.05	330.93	260.01	222.92	186.03
	350	-0.033	434.36	316.16	381.64	299.98	257.22	214.69
	400	-0.029	491.94	358.25	432.34	339.94	291.52	243.34
	450	-0.026	549.52	400.34	483.04	379.89	325.81	271.99
	500	-0.024	607.09	442.43	533.74	419.84	360.11	300.63
	550	-0.022	664.65	484.51	584.43	459.79	394.40	329.28
	600	-0.020	722.21	526.59	635.11	499.74	428.69	357.92
	650	-0.018	779.77	568.67	685.80	539.68	462.97	386.56
	700	-0.017	837.33	610.75	736.48	579.63	497.26	415.21
	750	-0.016	894.89	652.83	787.16	619.57	531.54	443.85
	800	-0.015	952.44	694.90	837.84	659.51	565.83	472.49
	850	-0.014	1010.00	736.98	888.52	699.45	600.11	501.13
	900	-0.013	1067.55	779.06	939.20	739.39	634.40	529.76
	1000	-0.012	1182.57	863.25	1040.56	819.32	703.02	587.09



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