

MVL-HF0828M-6MPE

1/1.8" 8mm 6MP FA LENS

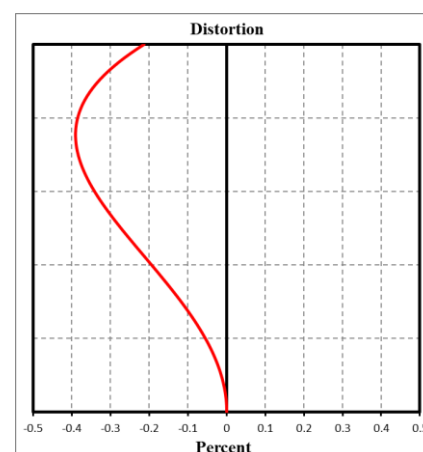
HF-E series FA Lens are optimized for machine vision light sources and sensors, with high resolution, excellent image uniformity, and good stability. Featured with fixed focal length, fixed iris and compact size, it is suitable for machine vision industry applications.



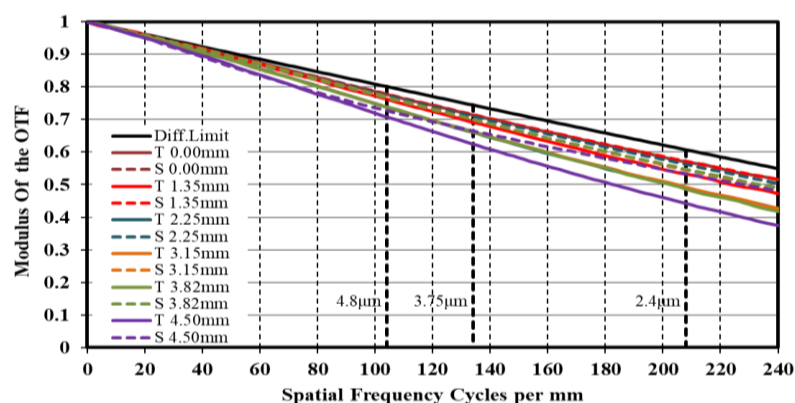
Key Features

- Higher image clarity and contrast ratio
- Ultra-low distortion and higher relative illumination rate
- Good optical performance at ultra-short working distance
- Compact design, convenient for device integration

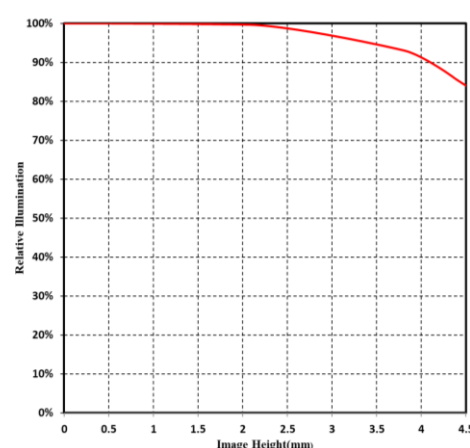
Distortion



MTF



Relative Illumination

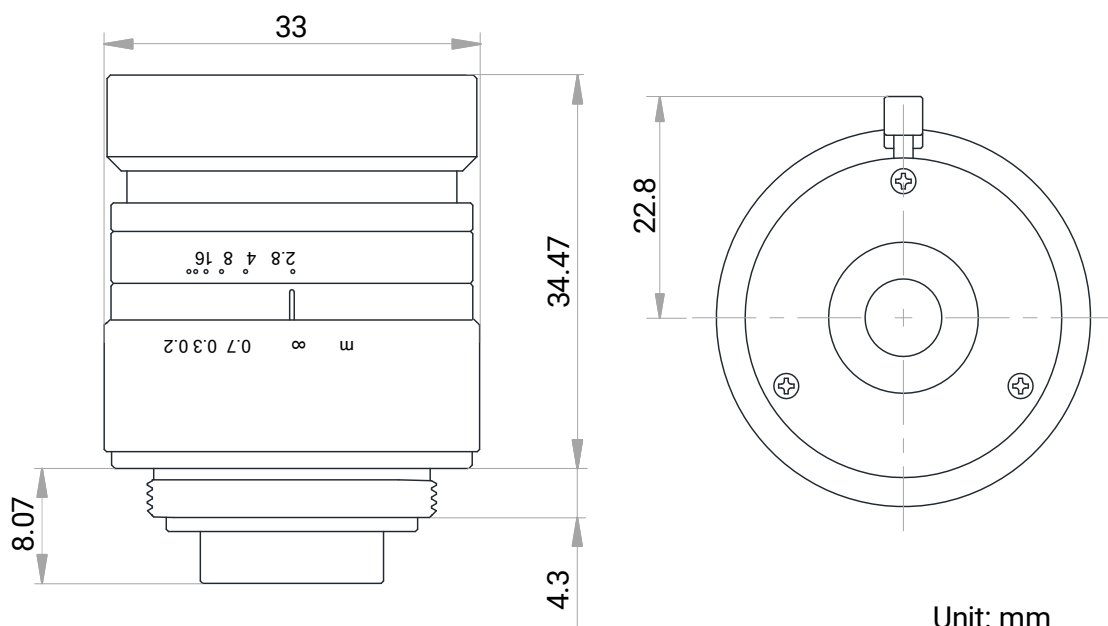


Note: The above curves are the simulated results based on F2.8, $\beta=-0.026$, WD=300 mm.

Specification

Model		MVL-HF0828M-6MPE
Parameter		Fixed focal length, Manual iris, 6MP, FA Lens
Performance		
Focal length	8 mm	
F-number	F2.8 to F16	
Image size	Ø9 mm (1/1.8")	
Distortion	0.049%	
Minimum object distance	0.1 m	
Field of view	D (8.96 mm): 58.50° H (7.38 mm): 49.46° V (4.92 mm): 34.19°	
Mechanical		
Iris control	Manual	
Focus control	Manual	
Filter thread	M30.5 × P0.5	
Mount	C-mount	
Flange back length	17.526 mm	
Dimension	Ø33 mm × 34.5 mm (Ø1.3" × 1.4")	
Weight	63.3 g (0.1 lb.)	
Temperature	−10 °C to 50 °C (14 °F to 122 °F)	
General		
Certification	RoHS 2.0	

Dimension



Field of View

Extension (mm)	Working Distance (mm)		Magnification	Field of View (mm)			
				1/1.8"		1/2"	
				H(7.38mm)	V(4.92mm)	H(6.22mm)	V(4.67mm)
1	near	27.54	-0.195	39.22	25.67	32.74	24.33
	far	52.6	-0.123	61.57	40.56	51.58	38.46
0	100		-0.071	104.96	69.56	88.21	65.98
	150		-0.050	149.83	99.54	126.10	94.45
	200		-0.038	194.66	129.50	163.95	122.88
	250		-0.031	239.47	159.45	201.79	151.31
	300		-0.026	284.27	189.40	239.61	179.74
	350		-0.023	329.07	219.34	277.44	208.16
	400		-0.020	373.86	249.28	315.26	236.58
	450		-0.018	418.64	279.22	353.08	265.00
	500		-0.016	463.43	309.16	390.90	293.42
	550		-0.015	508.21	339.09	428.71	321.83
	600		-0.013	552.99	369.03	466.53	350.25
	650		-0.012	597.77	398.97	504.34	378.67
	700		-0.012	642.56	428.90	542.16	407.08
	800		-0.010	732.12	488.77	617.79	463.91
	900		-0.009	821.67	548.64	693.42	520.74
	1000		-0.008	911.23	608.51	769.04	577.57

