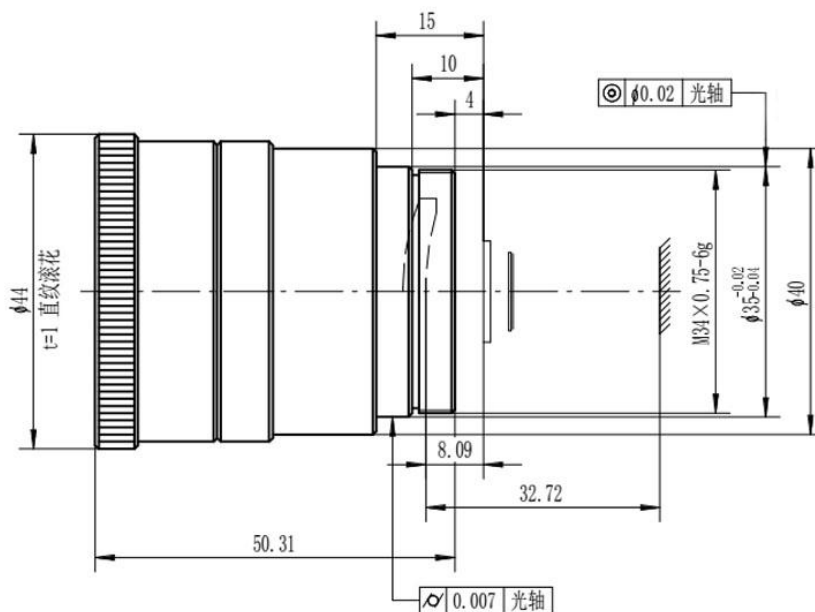


## 27mm/F2.0 Optical Athermalized Lens for MWIR Thermal

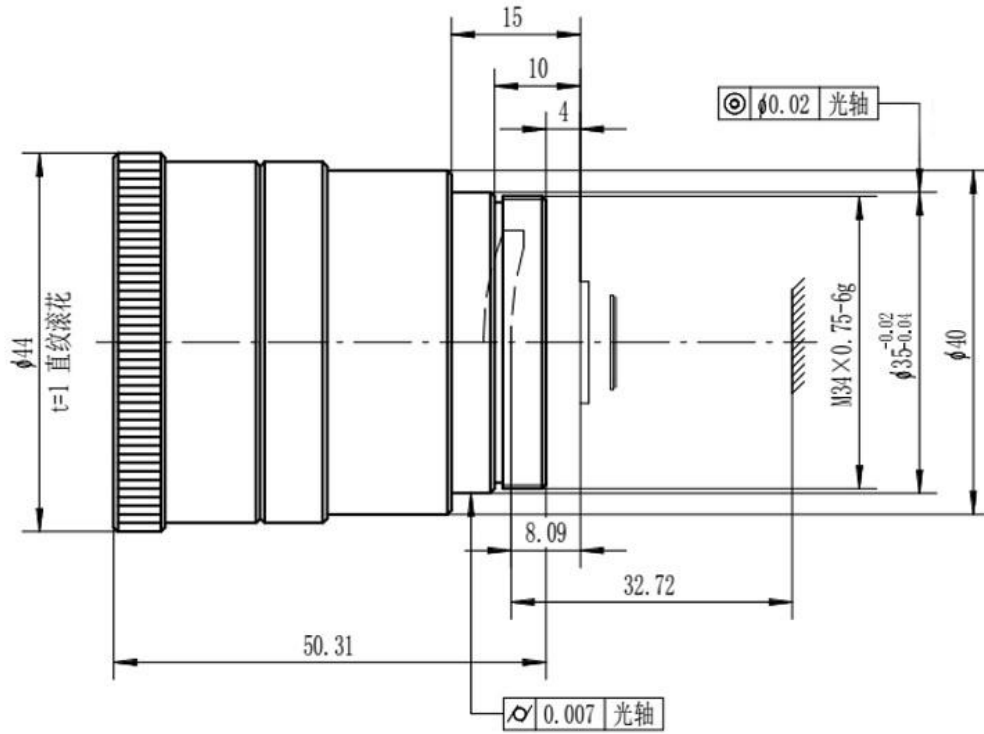
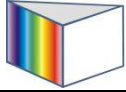
### Cameras

**27mmF2.0 athermalized lens module** is designed for cooled detector ( InSb FPA Focal Plane Arrays ) of 640x512-15 $\mu$ m at MWIR wavelength range 3.7~4.8 $\mu$ m, it is optical passively athermalized, and is optimized optically for good MTF and low distortion at temperature range of -40 $^{\circ}$ C to +50 $^{\circ}$ C. Please see the following data sheet and curves to get more information about this lens module. The improvements and changes of the design is available for customer's special request.

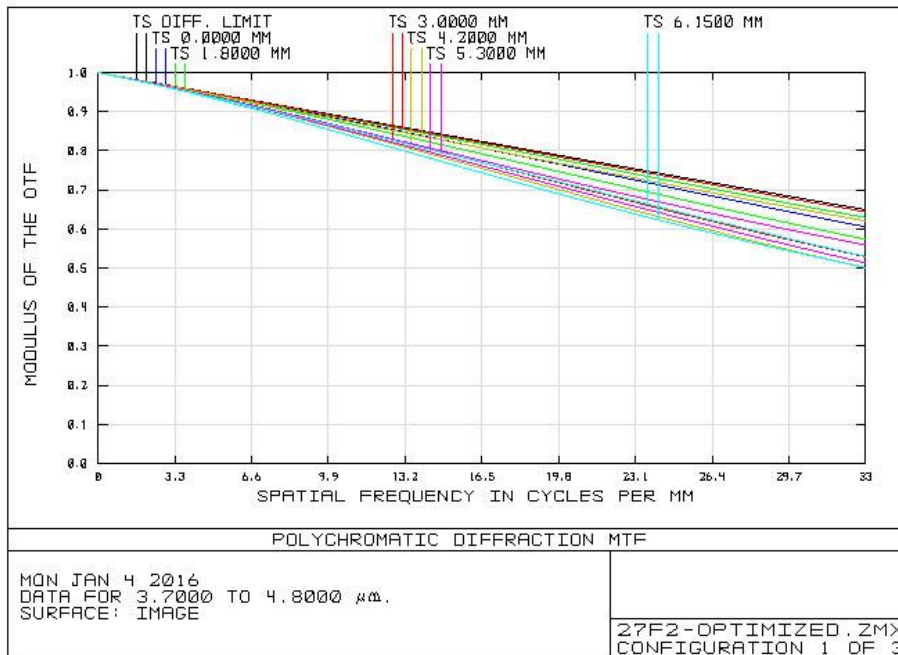


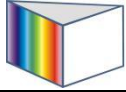
### SPECIFICATIONS

Optical Parameters	
EFL :	27mm
f Number (f#)	2.0
Wavelength range	3.7~4.8 micro
Detector	640x512-15micro
FOV	20.16 $^{\circ}$ x16.19 $^{\circ}$ (25.65 $^{\circ}$ )
Coating	DLC+AR
Average Transmittance	>81%
Working temperature range	-40 $^{\circ}$ C ~ +50 $^{\circ}$ C (Need not to refocus)
Maxium Diameter	32mm
Overall Optical Length	74.57mm
BFL	32.72mm (8.09mm in air, 24.63mm in detector)
Distortion	<4%

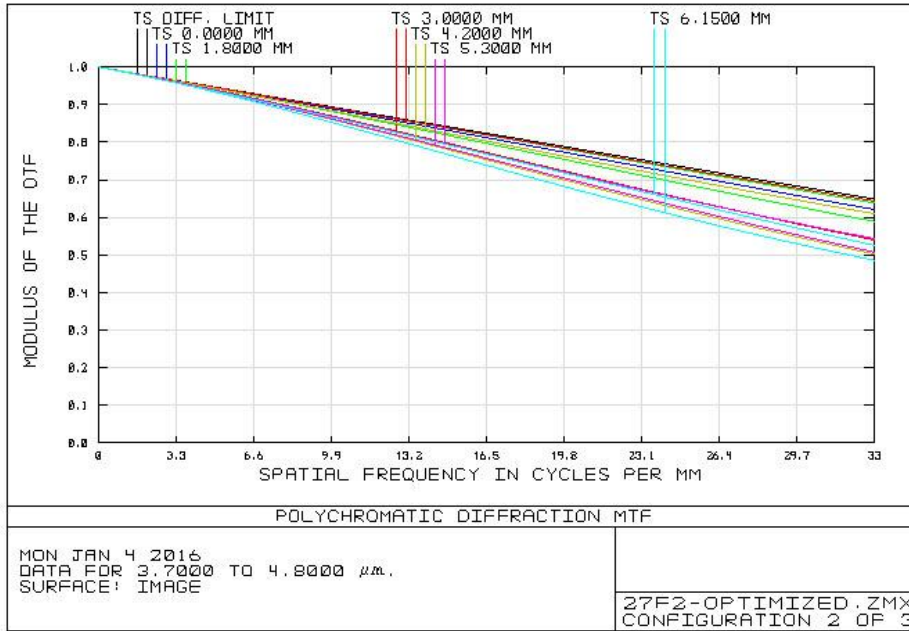


20° MTF (@33lp/mm)

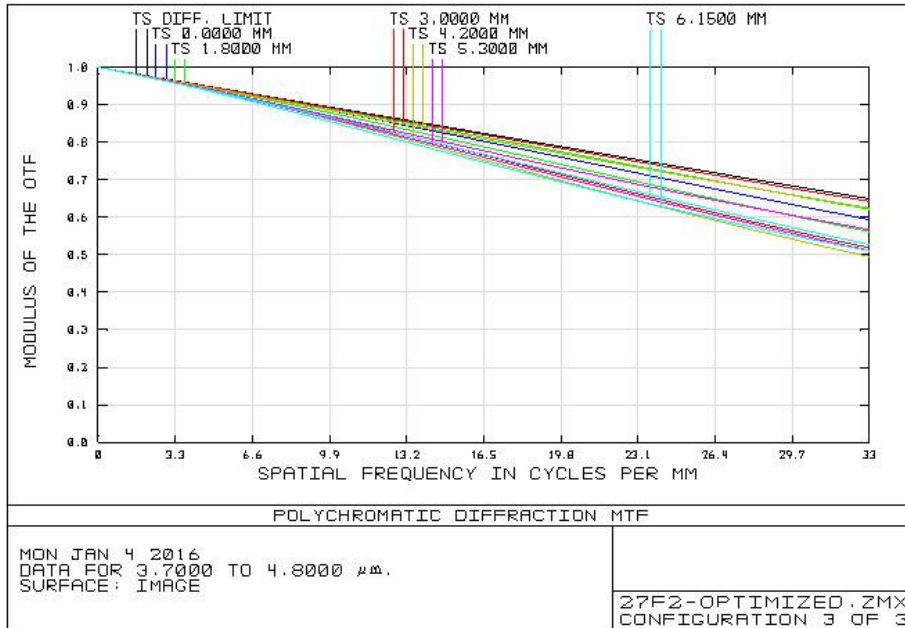




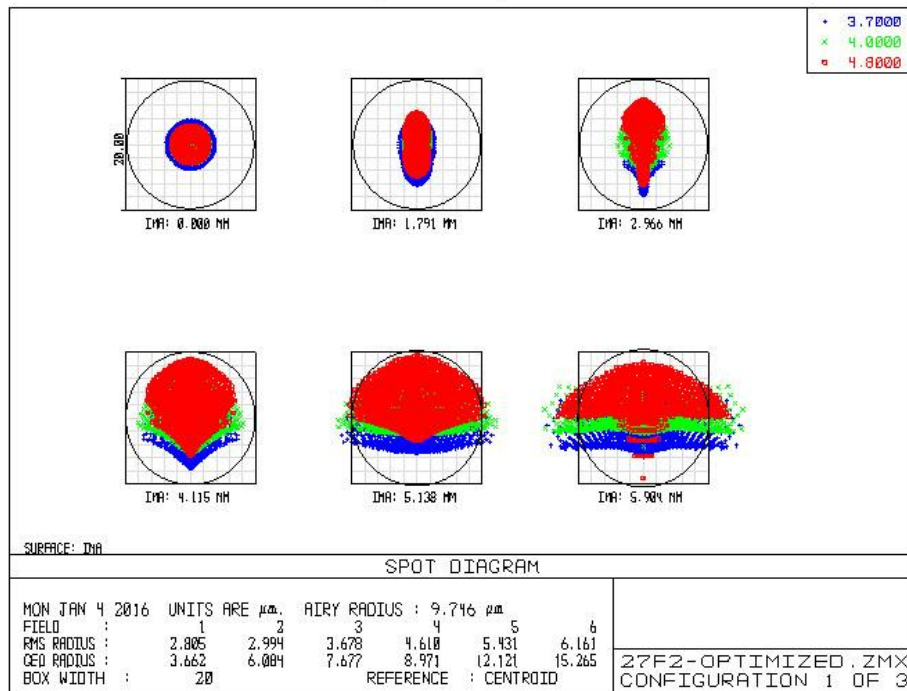
-40° MTF (@331p/mm)



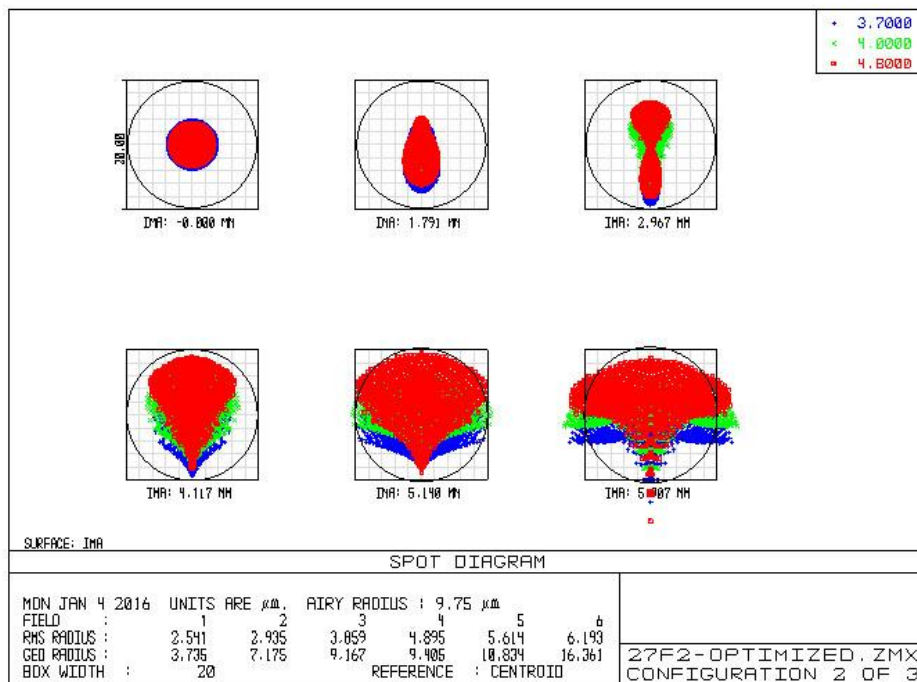
50° MTF (@331p/mm)

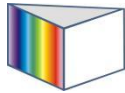


20° Spot diagram

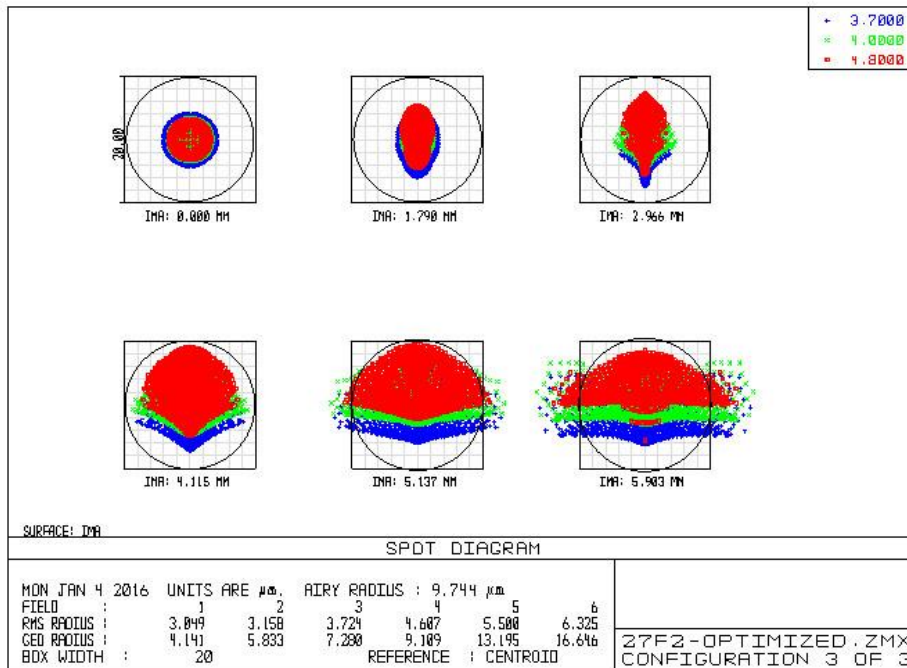


-40° Spot diagram

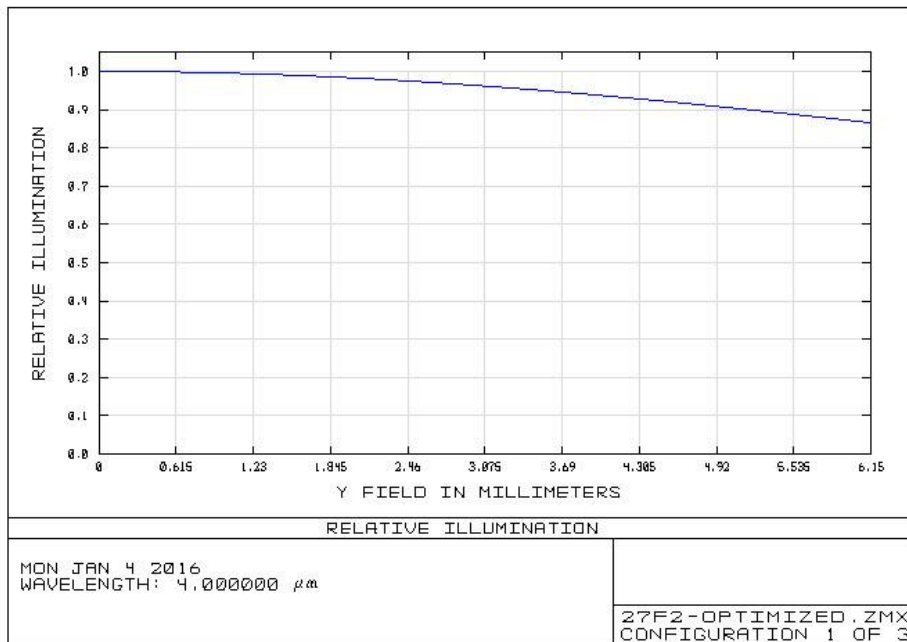


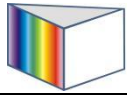


50° Spot diagram



Relative Illumination





### Vignetting

