

Wide 4k HDR Lens, Large Format



Description

The DSL427 is a high-performance lens designed for 1" large format sensors. No-ghost HDR provides for excellent image quality. The all-glass, all-metal construction makes it thermally and environmentally stable and ideally-suited for indoor and outdoor applications in harsh environments.

Key Features

- All glass construction
- Environmental and thermal stability
- HDR-Optimized for low flare and ghost

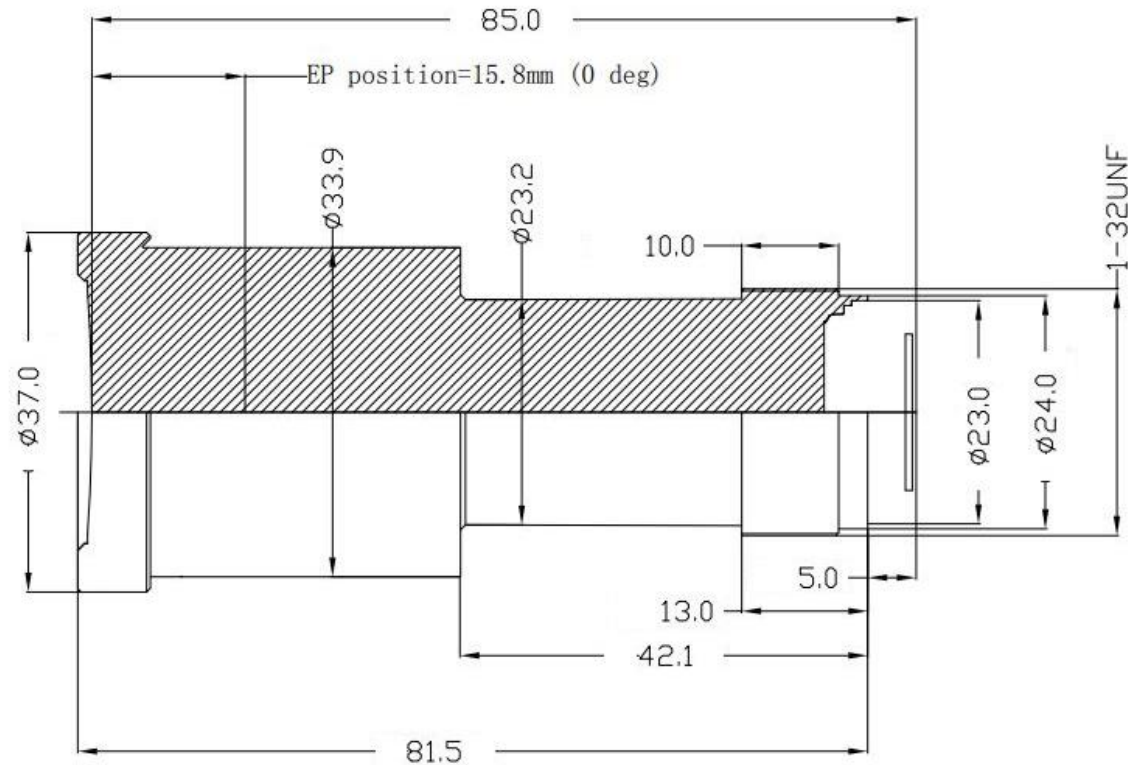
Optical Specifications

Sunex PN DSL427	
Description	4k, HDR, all glass
Imager Format	1"
Nominal Imager Resolution	8MP
Focal Length	18.57mm
Relative Aperture (F/#)	1.8
Image Circle	16.2mm
Field of View	52° @16.21mm image circle
Total Track Length	83.4mm w/ filter, 85.0mm no filter
Distortion	-10.5% f-tan theta
Chief Ray Angle	7.1° @16.2mm image circle
IR cut-off filter	Optional IR cut filter

Applications

- Automotive
- Security
- Computer vision
- Industrial

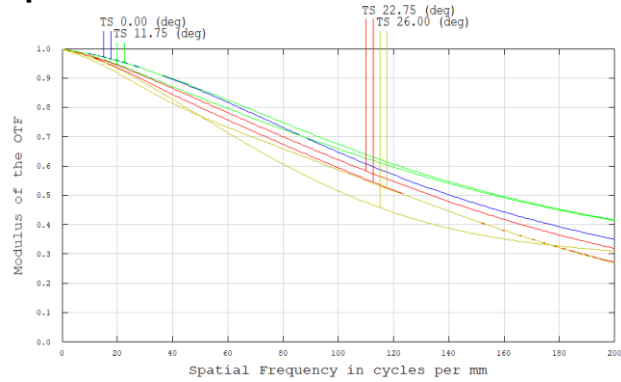
DSL427E-670-F1.8 and DSL427E-NIR-F1.8 Mechanical Dimensions [mm]:



Notes:

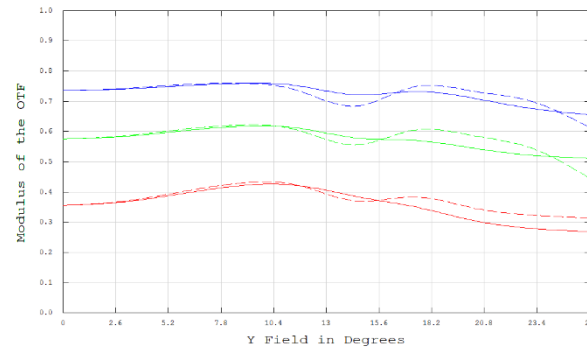
- 1.EFL=18.57
- 2.F#=1.80
- 3.Barrel Material: Anodized AL6061
Cap Material: Anodized AL6061
- 4.IR cut coating
T=50%@670±20nm

Optical Performance:



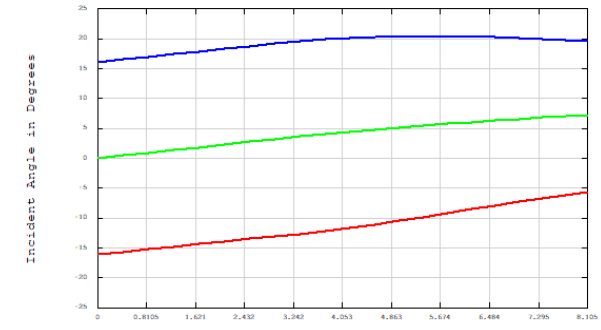
Polychromatic Diffraction MTF

1/15/2020
Data for 0.4500 to 0.6500 μm .
Surface: Image



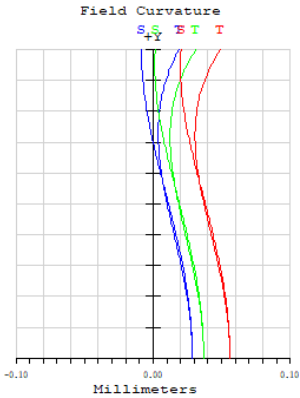
FFT MTF vs. Field

1/15/2020
Data for 0.4500 to 0.6500 μm .
Freq 1: 80.00 cyc/mm
Freq 2: 120.00 cyc/mm
Freq 3: 200.00 cyc/mm



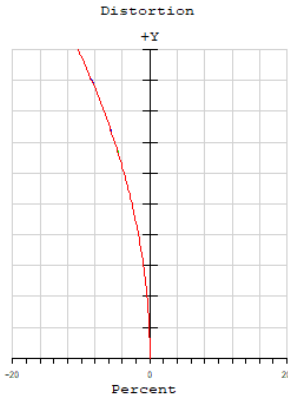
Incident Angle vs. Image Height

1/15/2020
Lower Chief Upper



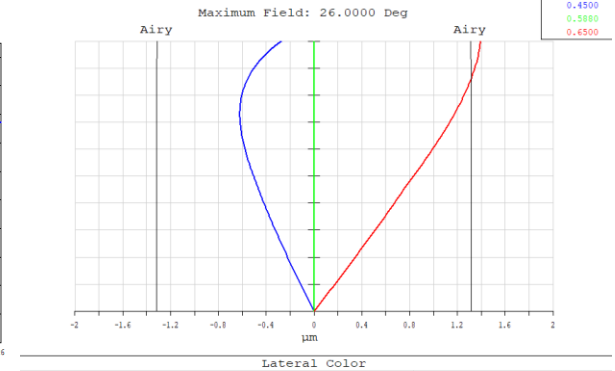
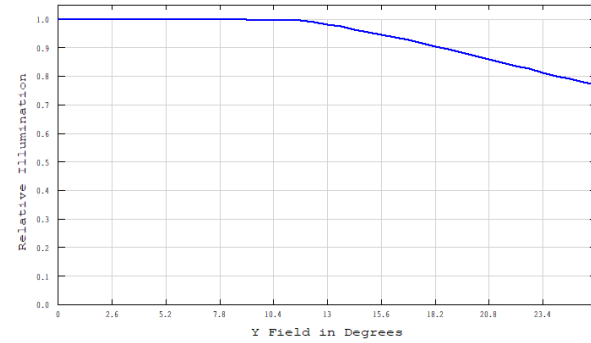
Field Curvature / F-Tan(Theta) Distortion

1/15/2020
Maximum Field is 26.000 Degrees.
Wavelengths: 0.450 0.588 0.650



Relative Illumination

1/15/2020
Wavelength: 0.588000 μm



1/15/2020
Data Referenced to Wavelength 0.588000 μm
Real rays used.