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TECHSPEC® f/2.5, NIR, 8.0mm HEO Series M12 Lens

8.0mm Focal Length

Stock **#63-761** **20+ In Stock**

- 1 + **S$209**.00

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Volume Pricing	
Qty 1-49	**S$209.00** each
Qty 50+	**S$164.00** each
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General

Product Family:	HEO Series
Type:	M12 Imaging Lens
IR Cut Filter:	No
Imaging Lens Type:	Meets IEC IPX7 and IPX9K

Physical & Mechanical Properties

Iris Option:
Fixed

Length (mm):
15.00

Maximum Diameter (mm):
14

Outer Diameter (mm):
14

Weight (g):
4

Optical Properties

Horizontal Field of View @ Max Sensor Format:
341.7mm - 46.1°

Field of View at Max Sensor Format:
Horizontal: 340.1mm - 45.9°
Vertical: 248.5mm - 34.4°
Diagonal: 440.5mm - 57.6°

Horizontal Field of View, 1/2" Sensor:
341.7mm - 46.1°

Horizontal Field of View, 1/2.5" Sensor:
306.3mm - 41.8°

Horizontal Field of View, 1/3" Sensor:
249.6mm - 34.5°

Horizontal Field of View, 1/4" Sensor:
184.6mm - 25.9°

Maximum Image Circle (mm):
10.00

Numerical Aperture NA, Object Side:
0.0040

Resolution, On-Axis:
145 lp/mm @ 20% Contrast

Number of Elements (Groups):
6 (5)

Wavelength Range (nm):
600 - 1050

Focal Length FL (mm):
8.00

Working Distance (mm):
400 - ∞

Aperture (f/#):
f/2.5

Distortion (%):
-9.12 @ Full Field

Back Focal Length BFL (mm):
8.72 - 8.57

Coating Specification:
600 - 1050nm BBAR

Entrance Pupil Position (mm):
3.70

Object Space Principal Plane (mm):
7.86

Image Space Principal Plane (mm):
0.98

Maximum Distortion (%):
-9.12

Exit Pupil Position (mm):
-7.66

Lens Wavelength Range:
NIR

Sensor

Maximum Sensor Format:
1/2"

Pixel Size (µm):
5.00

Threading & Mounting

Filter Thread:
N/A

Mount:
S-Mount (M12 x 0.5)

Environmental & Durability Factors

Environmental Rating:
IPX7 and IPX9K

Type of Ruggedization:
Waterproof (IPX7 and IPX9K)

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 240:
Compliant

Product Details

- Up to ½", S-Mount Lens
- Up to 1.2 MegaPixels, 5µm Pixel Size Sensors
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- 2.2mm to 8mm Focal Length

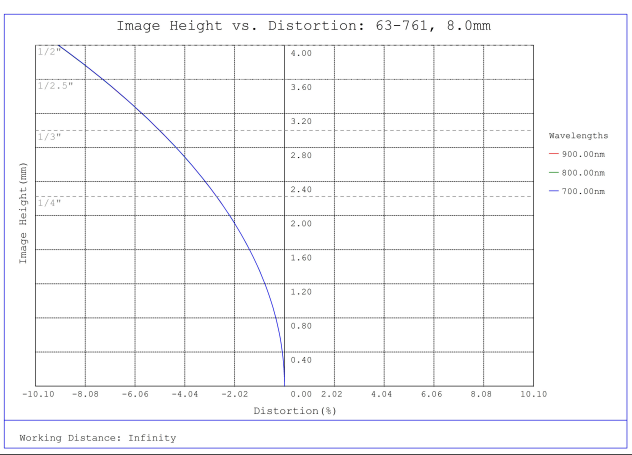
TECHSPEC® HEO Series M12 Lenses integrate high performance optics into a sealed, ruggedized enclosure. Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high-pressure, high-temperature water spray downs. Threaded for M12 x 0.5, these lenses are optimized for 1/3" and ½" sensor formats. Each HEO Series Lens is waterproof, dustproof, and fog proof with the ability to be hermetically sealed to a camera. TECHSPEC® HEO Series M12 Lenses are ideal for harsh environment applications, such as automotive. Prescription data is available by submitting a **Request for Prescription Form**

Note: Compatible **TECHSPEC® M12 Imaging Lens Accessories** available.

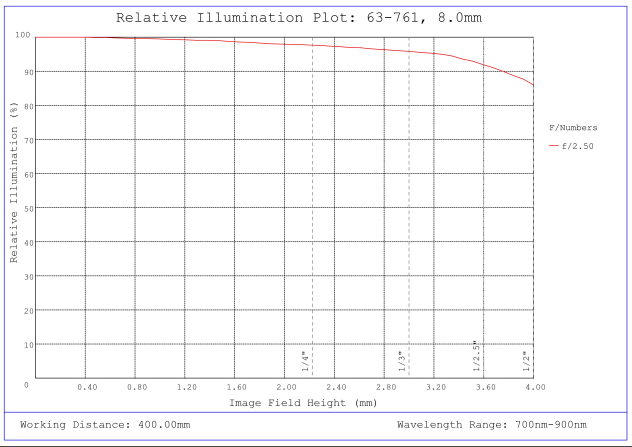
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application needs.

- **Blue Series M12 Lenses**: High resolution finite conjugate designs optimized for machine vision working distances.
- **Rugged Blue Series M12 Lenses**: **Stabilized ruggedization** versions of our Blue Series M12 Lenses, utilizing the same optics.
- **Green Series M12 Lenses**: Finite conjugate designs optimized for machine vision working distances.
- **Red Series M12 Lenses**: Infinite conjugate designs optimized for high resolution performance out to infinity.
- HEO Series M12 Lenses: Harsh Environment Optics (HEO) sealed versions of our Red Series M12 Lenses.
- **Liquid Lens M12 Lenses**: Integrated liquid lens for fast electronic focus.

Technical Information

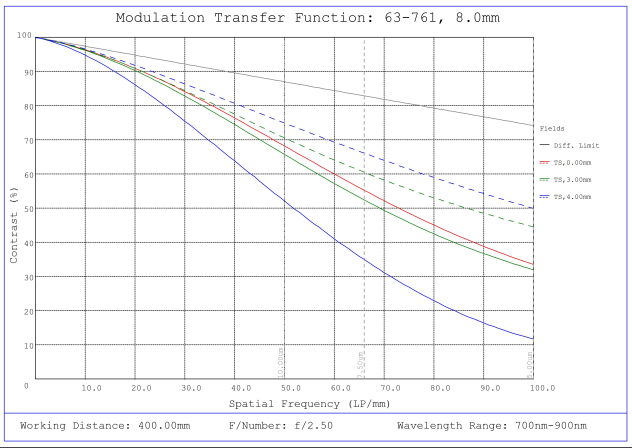


#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Distortion Plot



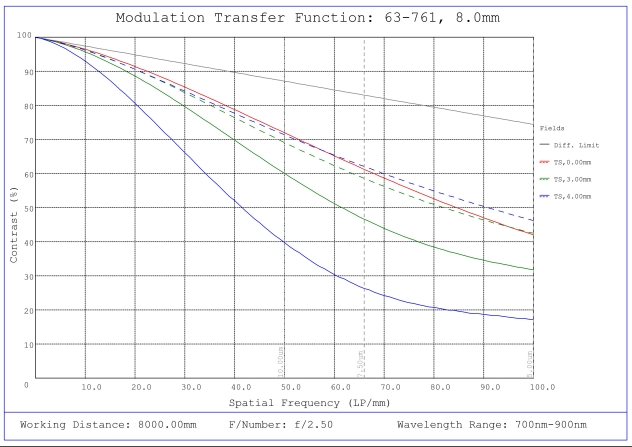
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Relative Illumination Plot

#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Working Distance versus Field of View Plot

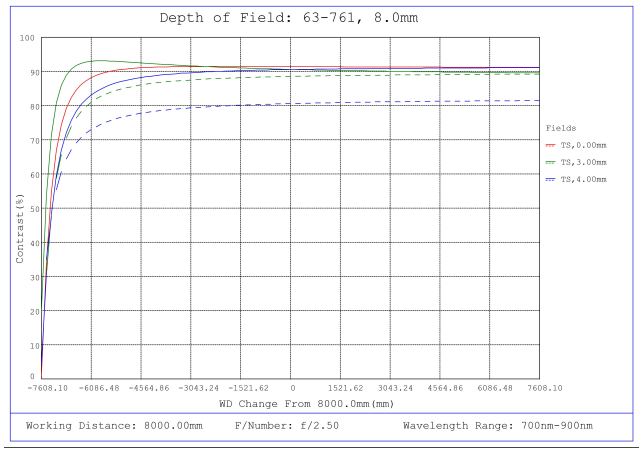


#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f2.5

#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Depth of Field Plot, 400mm Working Distance, f2.5

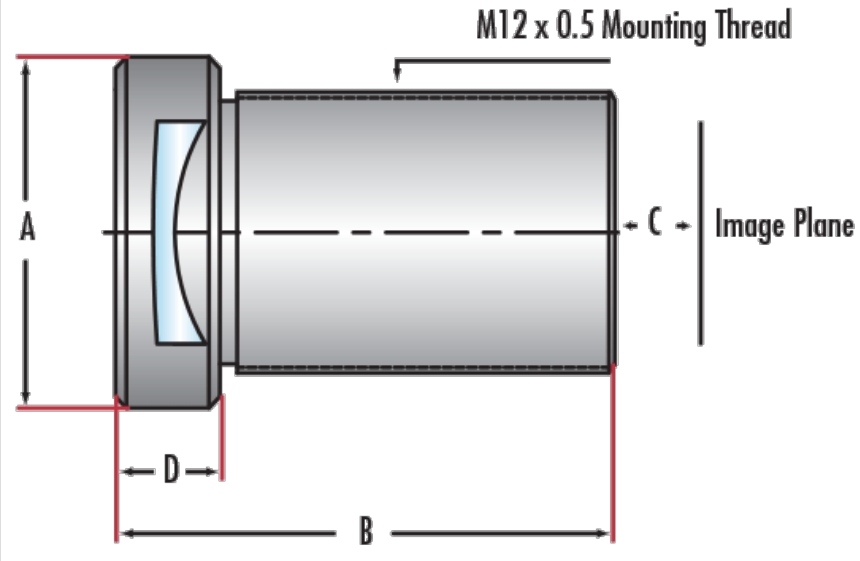


#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Modulated Transfer Function (MTF) Plot, 8000mm Working Distance, f2.5



#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Depth of Field Plot, 8000mm Working Distance, f2.5

Focal Length	**A**	**B**	**C**	**D**
2.2mm	21.0mm	16.4mm	2.2mm	5.4mm
3.6mm	14.0mm	14.1mm	4.5mm	4.5mm
8.0mm	14.0mm	15.0mm	8.7mm	4.0mm



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