

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



8.0mm Focal Length

Stock #63-761 4 In Stock

-

1

+

€159⁰⁰

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Qty 1+	€159,00 each
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SPECIFICATIONS

General

HEO Series	Series:
M12 Imaging Lens	Type:

No	IR Cut Filter:
Meets IEC IPX7 and IPX9K	Imaging Lens Type:
Physical & Mechanical Properties	
Fixed	Iris Option:
15.00	Length (mm):
14	Maximum Diameter (mm):
14	Outer Diameter (mm):
4	Weight (g):
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°	
10.00	Maximum Image Circle (mm):
0.0040	Numerical Aperture NA, Object Side:
Resolution, On-Axis: 145 lp/mm @ 20% Contrast	
6 (5)	Number of Elements (Groups):
600 - 1050	Wavelength Range (nm):
8.00	Focal Length FL (mm):
400 - ∞	Working Distance (mm):
f/2.5	Aperture (f/#):
-9.12 @ Full Field	Distortion (%):
8.72 - 8.57	Back Focal Length BFL (mm):
600 - 1050nm BBAR	Coating Specification:
3.70	Entrance Pupil Position (mm):
7.86	Object Space Principal Plane (mm):
0.98	Image Space Principal Plane (mm):
-9.12	Maximum Distortion (%):
-7.66	Exit Pupil Position (mm):
NIR	Lens Wavelength Range:
Sensor	
1/2"	Maximum Sensor Format:
5.00	Pixel Size (µm):
Threading & Mounting	
Filter Thread:	

N/A	
S-Mount (M12 x0.5)	
Mount:	
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 1/2", 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

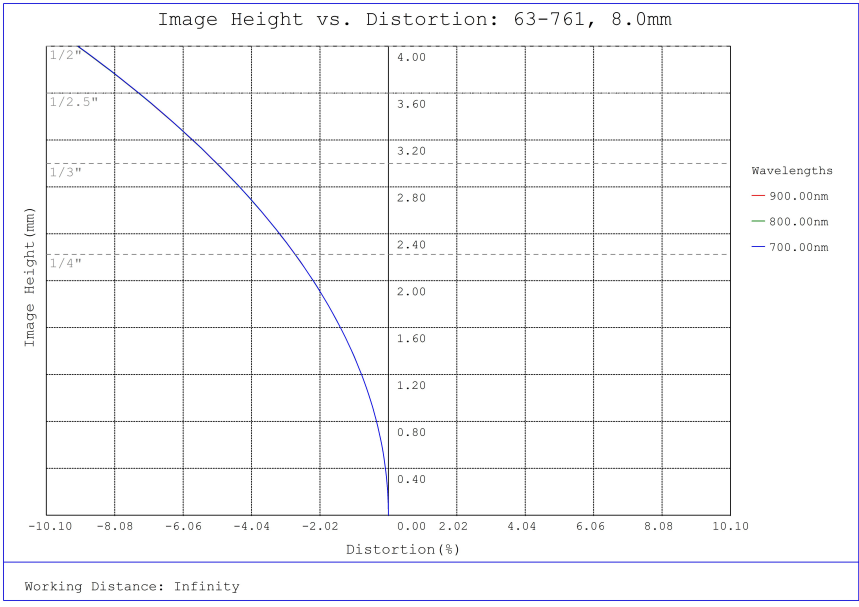
TECHSPEC® HEO Series M12 Lenses integrate high performance optics into a sealed, ruggedized enclosure. Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high-pressure, high-temperature water spray downs. Threaded for M12 x0.5, these lenses are optimized for 1/3" and 1/2" 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.

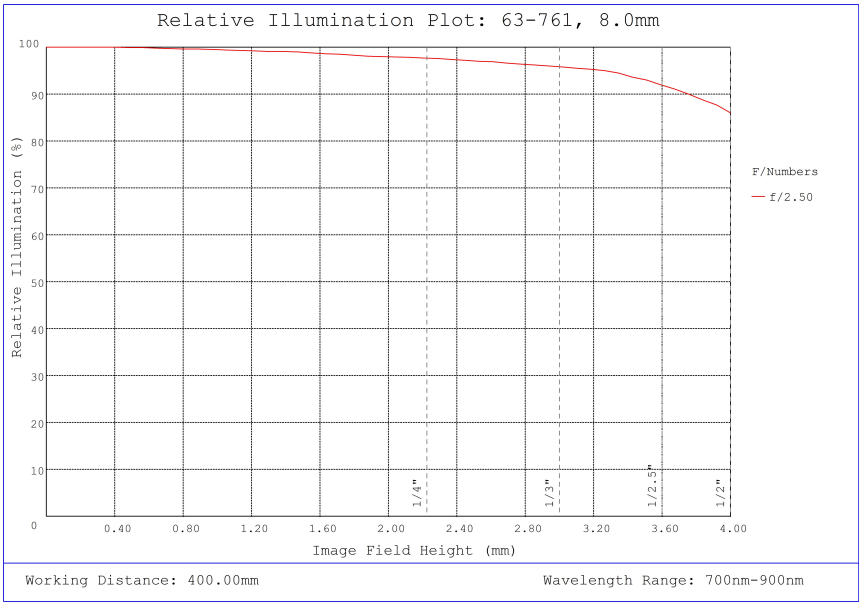
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

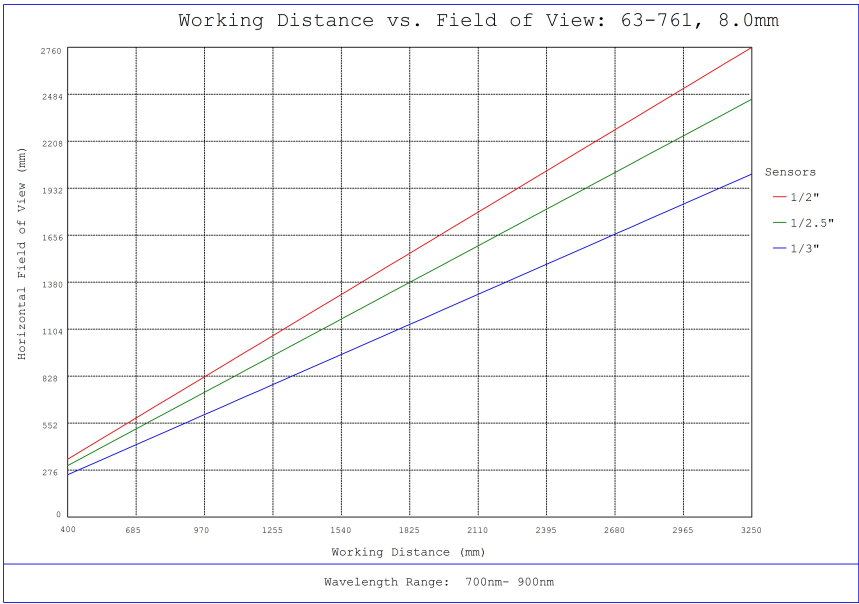
TECHNICAL INFORMATION



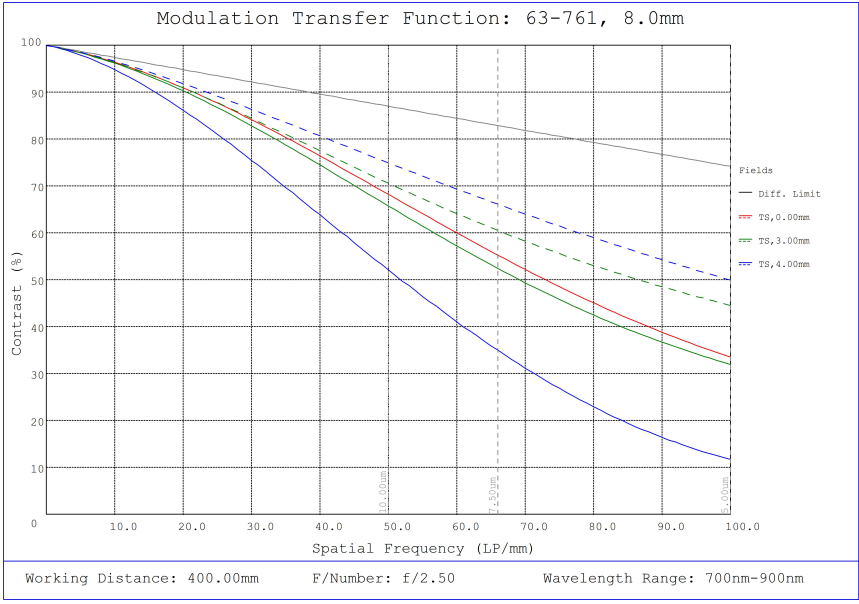
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Distortion Plot



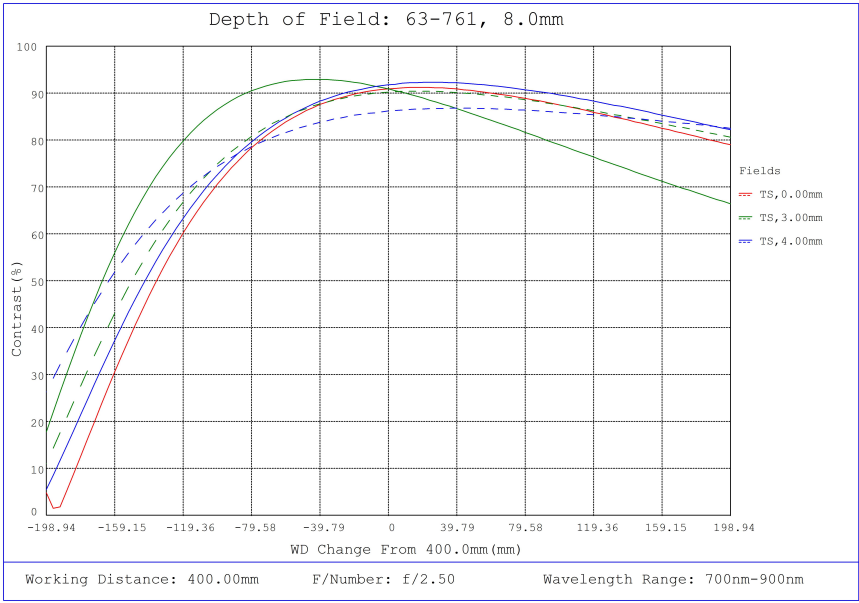
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Relative Illumination Plot



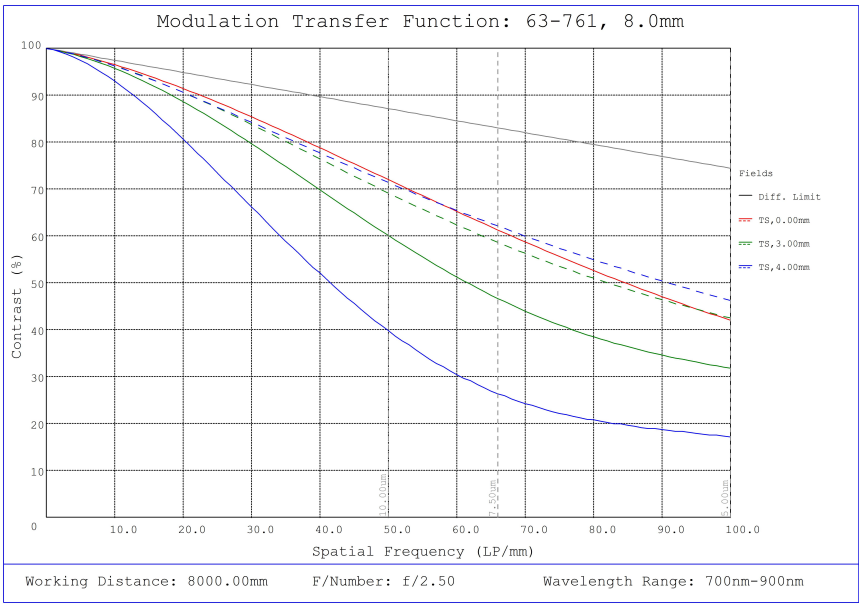
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Working Distance versus Field of View Plot



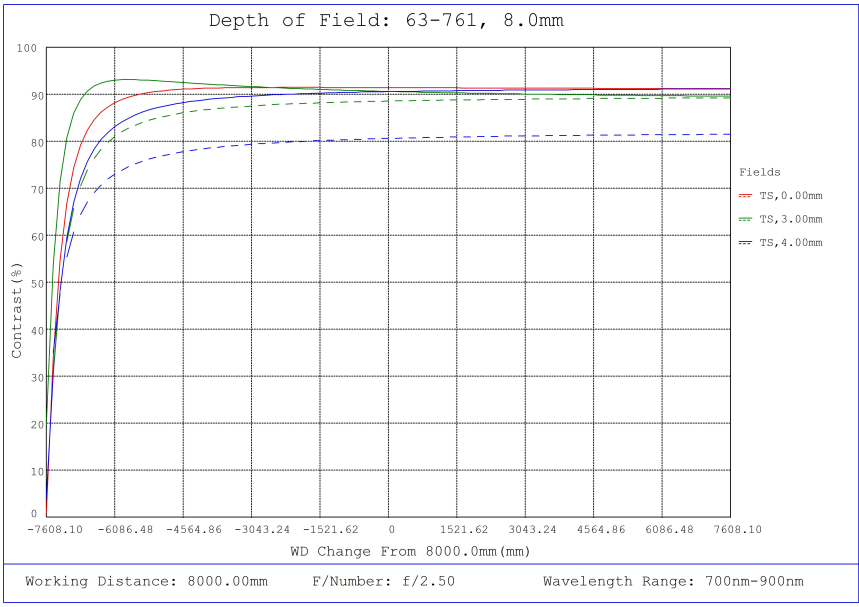
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f2.5



#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

M12 x 0.5 Mounting Thread

The diagram shows a cross-section of the lens assembly. Dimension A is the height of the lens. Dimension B is the total length of the assembly. Dimension C is the distance from the lens to the image plane. Dimension D is the thickness of the lens. The image plane is indicated by a vertical line labeled 'Image Plane'.