

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



8.0mm Focal Length

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

-

1

+

C\$256²⁰

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Volume Pricing	
Qty 1-49	C\$256.20 each
Qty 50+	C\$201.60 each
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Product Downloads

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°	
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 x0.5)	

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 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

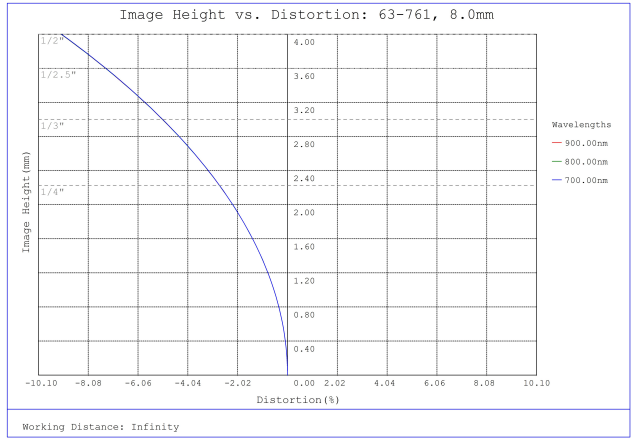
TECHSPEC® HEO Series M12 Lenses integrate high performance optics into a sealed, ruggedized enclosure. Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high-pressure, high-temperature water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

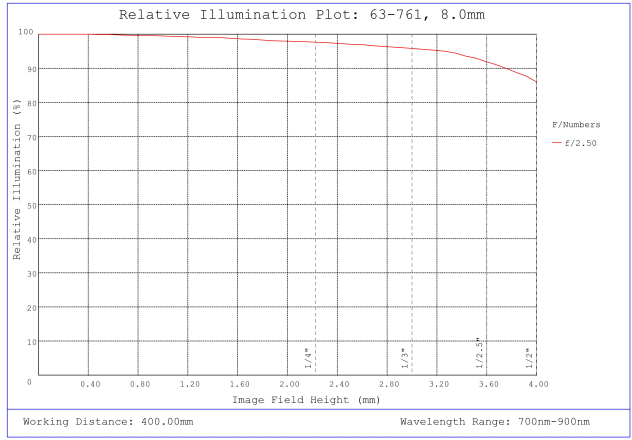
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

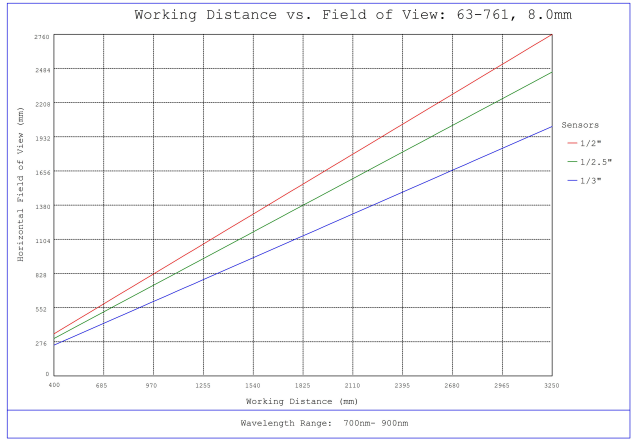
Technical Information



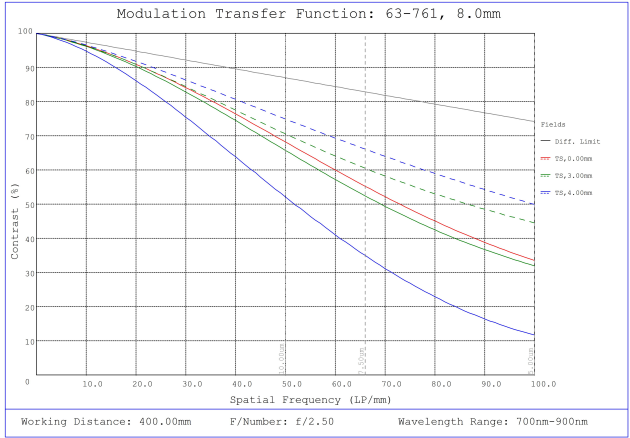
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Distortion Plot



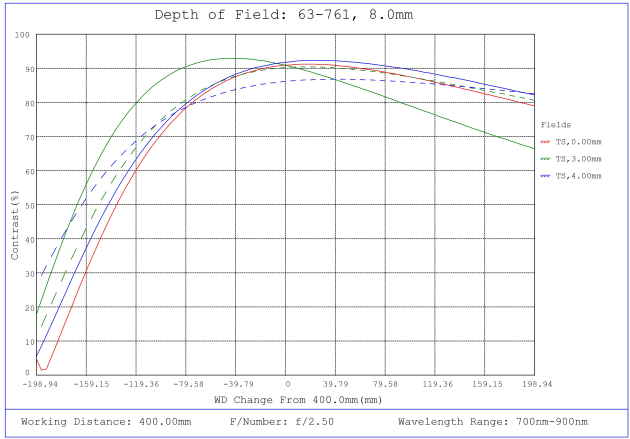
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Relative Illumination Plot



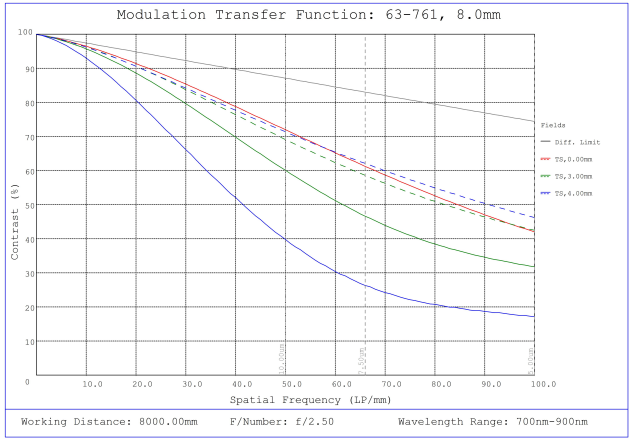
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Working Distance versus Field of View Plot



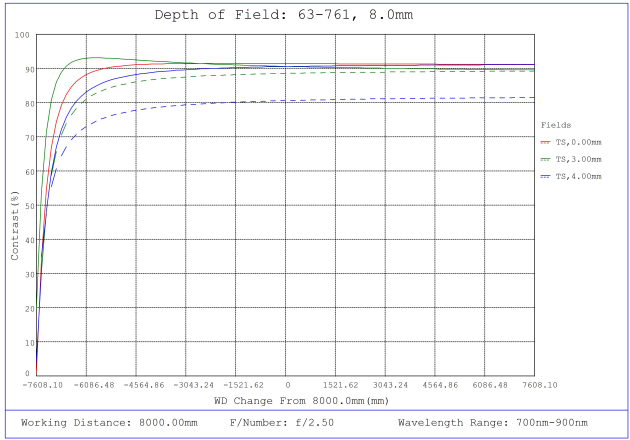
#63-761, f/2.5, NIR, 8.0mm HEO Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f2.5



#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



