

TECHSPEC<sup>®</sup> f/2.5, Visible, 8.0mm HEO Series M12 Lens



8.0mm Focal Length

Stock **#63-759** 20+ In Stock

-

1

+

S\$209<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-49       | <b>S\$209.00</b> each         |
| Qty 50+        | <b>S\$164.00</b> each         |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

|                          |                    |
|--------------------------|--------------------|
| HEO Series               | Product Family:    |
| 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:<br>390.7mm - 51.9°                                                             |  |
| Field of View at Max Sensor Format:<br>Horizontal: 390.7mm - 51.9°<br>Vertical: 249.7mm - 34.5°<br>Diagonal: 442.8mm - 57.8° |  |
| Horizontal Field of View, 1/1.7" Sensor:<br>390.7mm - 51.9°                                                                  |  |
| Horizontal Field of View, 1/2" Sensor:<br>341.7mm - 46.1°                                                                    |  |
| Horizontal Field of View, 1/2.5" Sensor:<br>306.3mm - 41.8°                                                                  |  |
| Horizontal Field of View, 1/3" Sensor:<br>249.6mm - 34.5°                                                                    |  |
| Horizontal Field of View, 1/4" Sensor:<br>184.6mm - 25.9°                                                                    |  |
| Maximum Image Circle (mm):<br>10.00                                                                                          |  |
| Numerical Aperture NA, Object Side:<br>0.0039                                                                                |  |
| Resolution, On-Axis:<br>145 lp/mm @20% Contrast                                                                              |  |
| Number of Elements (Groups):<br>6 (5)                                                                                        |  |
| Wavelength Range (nm):<br>425 - 675                                                                                          |  |
| Focal Length FL (mm):<br>8.00                                                                                                |  |
| Working Distance (mm):<br>400 - ∞                                                                                            |  |
| Aperture (f/#):<br>f/2.5                                                                                                     |  |
| Distortion (%):<br>-9.15 @Full Field                                                                                         |  |
| Back Focal Length BFL (mm):<br>8.67 - 8.53                                                                                   |  |
| Coating Specification:<br>425 - 625nm BBAR                                                                                   |  |
| Entrance Pupil Position (mm):<br>3.67                                                                                        |  |
| Object Space Principal Plane (mm):<br>7.82                                                                                   |  |
| Image Space Principal Plane (mm):<br>0.97                                                                                    |  |
| Maximum Distortion (%):<br>-9.15                                                                                             |  |
| Exit Pupil Position (mm):<br>-7.65                                                                                           |  |
| Lens Wavelength Range:<br>VIS                                                                                                |  |

Sensor

|                                  |  |
|----------------------------------|--|
| Maximum Sensor Format:<br>1/1.7" |  |
| Pixel Size (µm):<br>5.00         |  |

Threading & Mounting

|                       |  |
|-----------------------|--|
| Filter Thread:<br>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 241:  
Compliant

Product Details

- Up to 1/4", 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

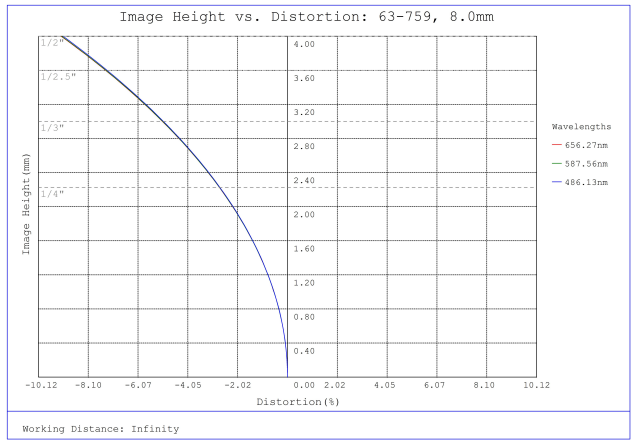
TECHSPEC® HEO Series M12 Lenses integrate high performance optics into a sealed, ruggedized enclosure. Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high-pressure, high-temperature water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

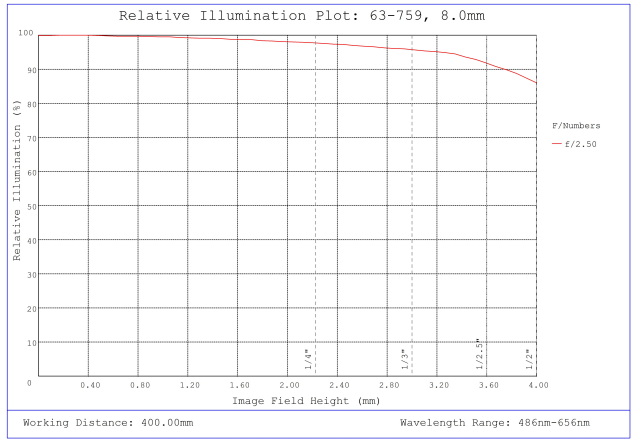
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

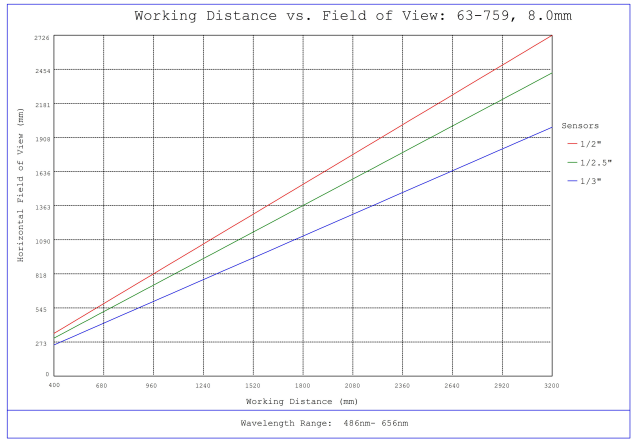
Technical Information



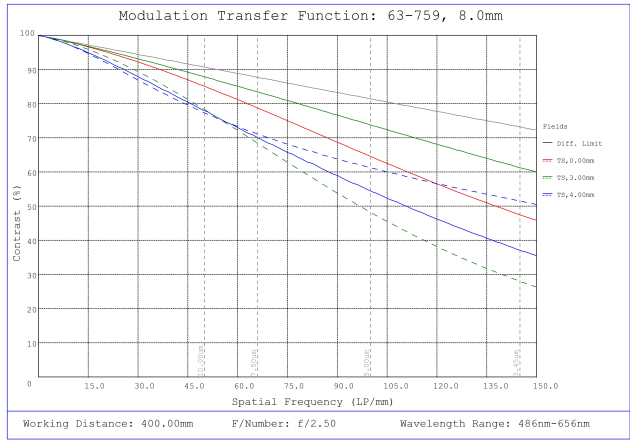
#63-759, f/2.5, Visible, 8.0mm HEO Series M12 Lens, Distortion Plot



#63-759, f/2.5, Visible, 8.0mm HEO Series M12 Lens, Relative Illumination Plot



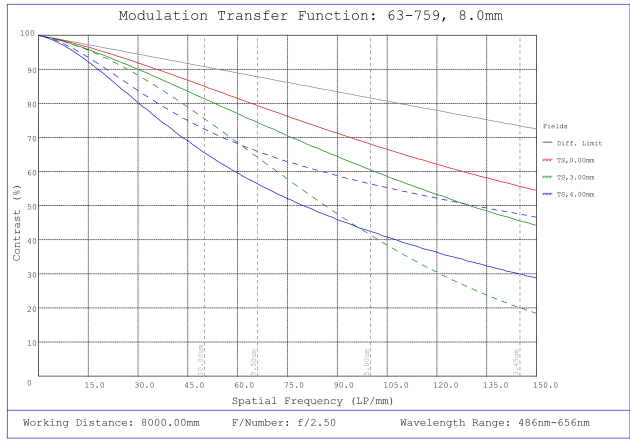
#63-759, f/2.5, Visible, 8.0mm HEO Series M12 Lens, Working Distance versus Field of View Plot



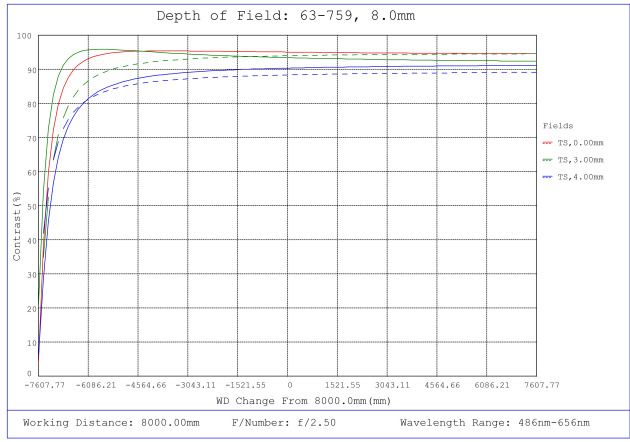
#63-759, f/2.5, Visible, 8.0mm HEO Series M12 Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f2.5



#63-759, f/2.5, Visible, 8.0mm HEO Series M12 Lens, Depth of Field Plot, 400mm Working Distance, f2.5



#63-759, f/2.5, Visible, 8.0mm HEO Series M12 Lens, Modulated Transfer Function (MTF) Plot, 8000mm Working Distance, f2.5



#63-759, f/2.5, Visible, 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 |



