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TECHSPEC® 2mm FL f/5.6, Blue Series M12 Lens



2mm FL Blue Series M12 Imaging Lens



Stock #89-338 **20+ In Stock**

⊖ 1 ⊕ **S\$141⁰⁰**

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| Qty 1-49 | S\$141.00 each |
| Qty 50+ | S\$112.00 each |
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General

Blue Series **Product Family:**

M12 Imaging Lens **Type:**

No **IR Cut Filter:**

Imaging Lens Type:
High Performance M12 Lens

Physical & Mechanical Properties

Fixed Iris Option:
21.74 Length (mm):
18 Maximum Diameter (mm):
18 Outer Diameter (mm):
9 Weight (g):

Optical Properties

Horizontal Field of View @ Max Sensor Format:
133.1°

Field of View at Max Sensor Format:
Horizontal: 477.2mm - 133.1°
Vertical: 249.3mm - 100.2°
Diagonal: 1590.3mm - 165.3°

Horizontal Field of View, 1/3" Sensor:
464.4mm - 131.5°

Horizontal Field of View, 1/4" Sensor:
243.3mm - 98.6°

6.00 Maximum Image Circle (mm):

0.0017 Numerical Aperture NA, Object Side:

6(5) Number of Elements (Groups):

400 - 700 Wavelength Range (nm):

2.00 Focal Length FL (mm):

100 - ∞ Working Distance (mm):

f/5.6 Aperture (f/#):

-81.065 @ Full Field Distortion (%):

2.26 Back Focal Length BFL (mm):

M4 MgF₂ @ 550nm Coating Specification:

4.51 Entrance Pupil Position (mm):

6.31 Object Space Principal Plane (mm):

0.96 Image Space Principal Plane (mm):

-81.065 Maximum Distortion (%):

-13.41 Exit Pupil Position (mm):

VIS Lens Wavelength Range:

Sensor

1/3" Maximum Sensor Format:

1.40 Pixel Size (µm):

Threading & Mounting

N/A Filter Thread:

S-Mount (M12 x0.5) Mount:

Regulatory Compliance

Compliant RoHS 2015:

Product Details

- Up to 1/2", S-Mount Lens
- Up to 5 MegaPixels, 1.4µm Pixel Size Sensors
- High Resolution Board Camera Lens Optimized for Close WD
- 2mm to 35mm Focal Length
- **Ruggedized Designs** Also Available

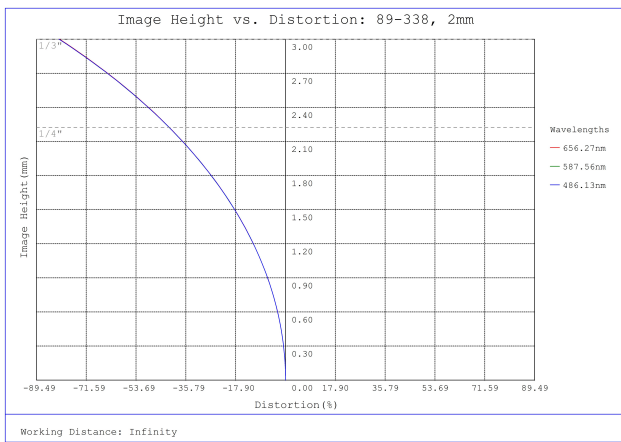
TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our **TECHSPEC® Green Series M12 Lenses**. Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the M12 x 0.5 Adapter for C-Mount Cameras (**#53-675**) or the M12 x 0.5 C-Mount Adapter with Rubber O-Ring (**#59-241**) for vibration-sensitive environments. TECHSPEC® Blue Series M12 Lenses are ideal for automotive, industrial, and medical imaging application. Prescription data is available by submitting a **Request for Prescription Form**.

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

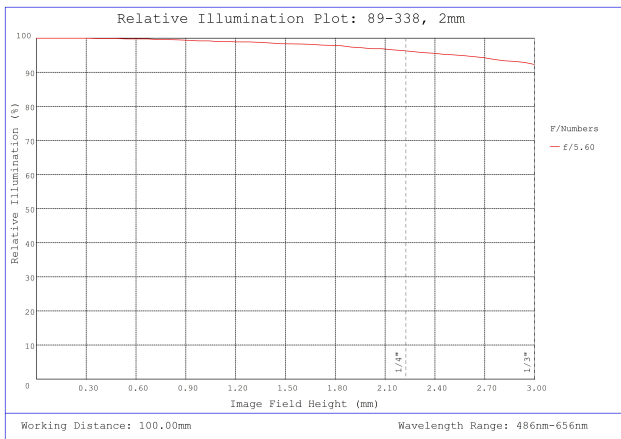
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

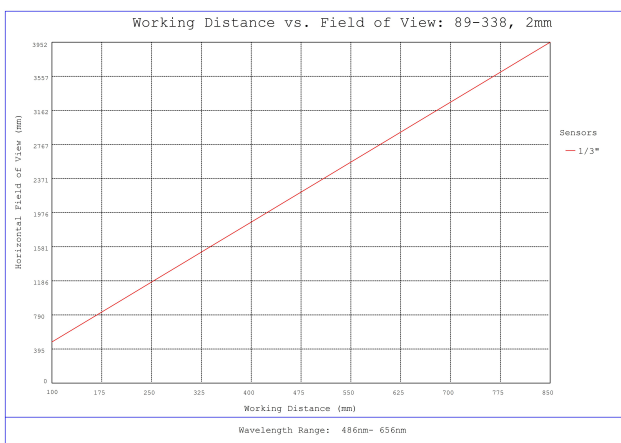
Technical Information



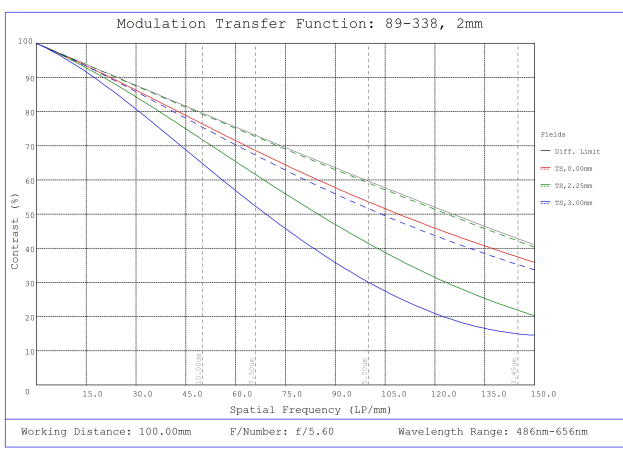
#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Distortion Plot



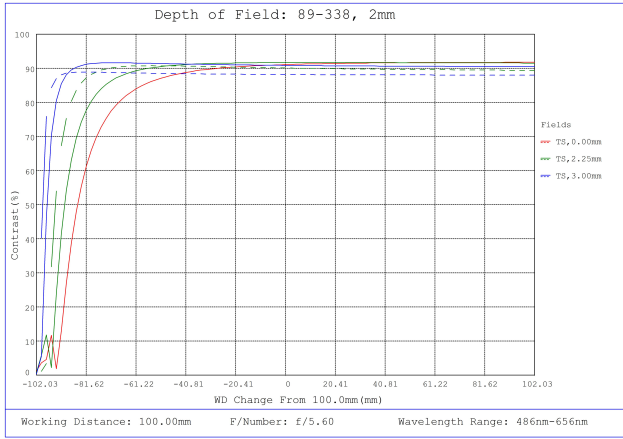
#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Relative Illumination Plot



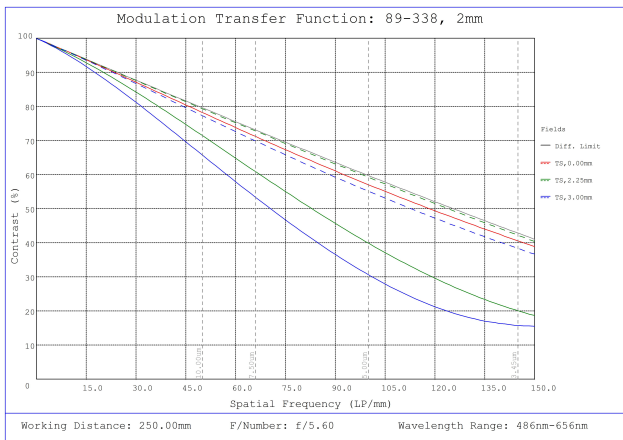
#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Working Distance versus Field of View Plot



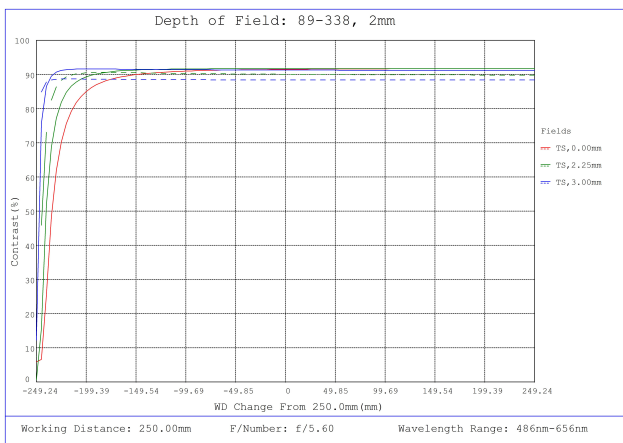
#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 100mm Working Distance, f5.6



#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 100mm Working Distance, f5.6



#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f5.6



#89-338, 2mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f5.6

| Focal Length | A | B | C* | D |
|--------------|--------|--------|-------------|--------|
| 2.0mm | 18.0mm | 21.7mm | 2.26mm | 4.75mm |
| 3.0mm | 14.0mm | 17.1mm | 4.8 - 4.7mm | 5.8mm |
| 4.0mm | 14.0mm | 19.7mm | 6.1 - 6.0mm | 4.4mm |
| 5.0mm | 14.0mm | 14.6mm | 4.0 - 3.9mm | 3.7mm |
| 6.0mm | 14.0mm | 14.1mm | 6.9 - 6.8mm | 4.5mm |
| 8.0mm | 14.0mm | 12.3mm | 8.8 - 8.6mm | 3.7mm |
| 10.0mm | 14.0mm | 17.0mm | 6.6 - 6.3mm | 3.7mm |

| | | | | |
|--------|--------|--------|----------------|--------|
| 12.5mm | 15.0mm | 22.9mm | 10.1 - 9.7mm | 4.8mm |
| 17.5mm | 14.0mm | 20.7mm | 5.8 - 4.9mm | 7.6mm |
| 25.0mm | 18.0mm | 30.0mm | 8.5 - 6.5mm | 11.5mm |
| 35.0mm | 18.0mm | 29.5mm | 18.72 - 14.0mm | 14.5mm |



*Specified for Optimized Working Distance of 150 - 250mm.

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