

TECHSPEC<sup>®</sup> 3mm FL f/8.0, IR-Cut Blue Series M12 Lens



3mm FL Blue Series M12 Lens



Stock **#20-058** 20+ In Stock

-

1

+

A\$137<sup>00</sup>

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| Volume Pricing |                               |
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| Qty 1-49       | A\$137.00 each                |
| Qty 50+        | A\$108.00 each                |
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Product Downloads

| General          |                |
|------------------|----------------|
| Blue Series      | Series:        |
| M12 Imaging Lens | Type:          |
| Yes              | IR Cut Filter: |

|                                                                                               |                                        |
|-----------------------------------------------------------------------------------------------|----------------------------------------|
| Imaging Lens Type:<br>High Performance M12 Lens with IR Cut Filter                            |                                        |
| IR-Cut Filter                                                                                 | Special Type of Lens:                  |
| Physical & Mechanical Properties                                                              |                                        |
| Fixed                                                                                         | Iris Option:                           |
| 16.10                                                                                         | Length (mm):                           |
| 14                                                                                            | Maximum Diameter (mm):                 |
| 14                                                                                            | Outer Diameter (mm):                   |
| Optical Properties                                                                            |                                        |
| Horizontal Field of View @ Max Sensor Format:<br>91.3°                                        |                                        |
| Field of View at Max Sensor Format:<br>Horizontal: 91.2°<br>Vertical: 68.5°<br>Diagonal: 113° |                                        |
| 91.2°                                                                                         | Horizontal Field of View, 1/3" Sensor: |
| 6.00                                                                                          | Maximum Image Circle (mm):             |
| 0.002                                                                                         | Numerical Aperture NA, Object Side:    |
| 6(5)                                                                                          | Number of Elements (Groups):           |
| 400 - 700                                                                                     | Wavelength Range (nm):                 |
| 3.00                                                                                          | Focal Length FL (mm):                  |
| 100 - ∞                                                                                       | Working Distance (mm):                 |
| f/8                                                                                           | Aperture (f/#):                        |
| -34.8 @Full Field                                                                             | Distortion (%):                        |
| 4.8 - 4.7                                                                                     | Back Focal Length BFL (mm):            |
| M4 MgF <sub>2</sub> @ 550nm                                                                   | Coating Specification:                 |
| 4.90                                                                                          | Entrance Pupil Position (mm):          |
| -6.55                                                                                         | Object Space Principal Plane (mm):     |
| 2.46                                                                                          | Image Space Principal Plane (mm):      |
| -34.8                                                                                         | Maximum Distortion (%):                |
| -3.23                                                                                         | Exit Pupil Position (mm):              |
| VS (IR-Cut Filter)                                                                            | 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:                             |
| View                                                                                          | Certificate of Conformance:            |

# 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

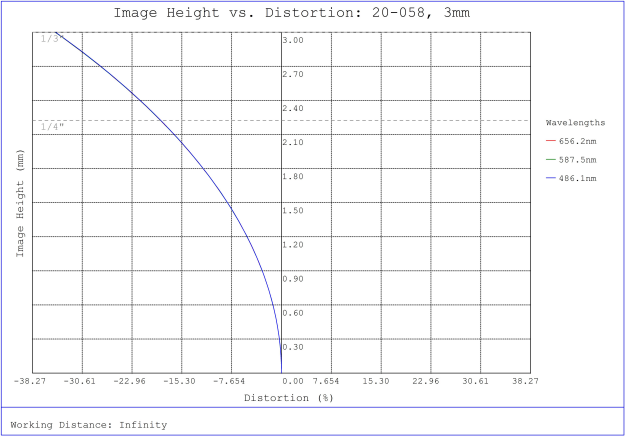
TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our **TECHSPEC® Green Series M12 Lenses**. Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the M12 x0.5 Adapter for C-Mount Cameras (**#53-675**) or the M12 x0.5 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.

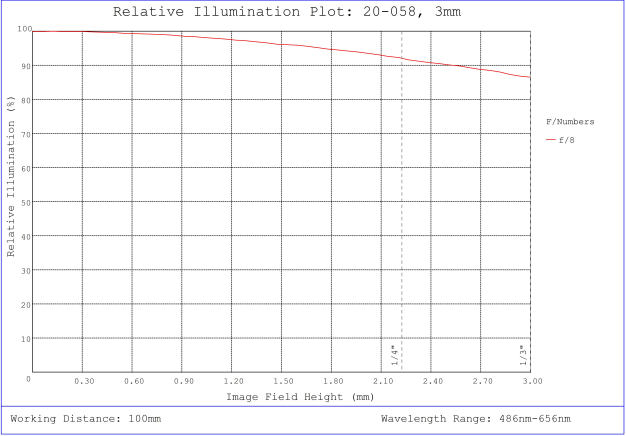
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

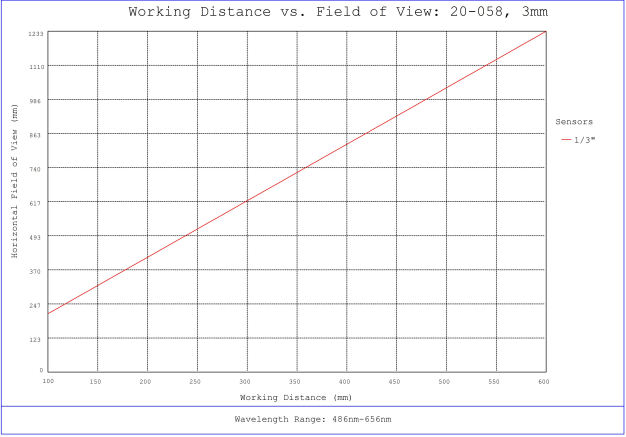
# Technical Information



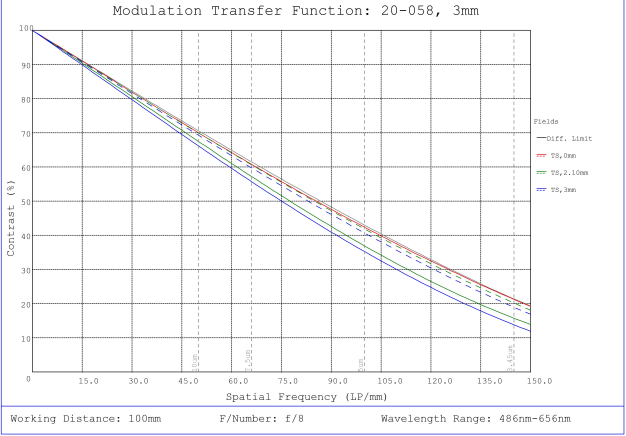
#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Distortion Plot



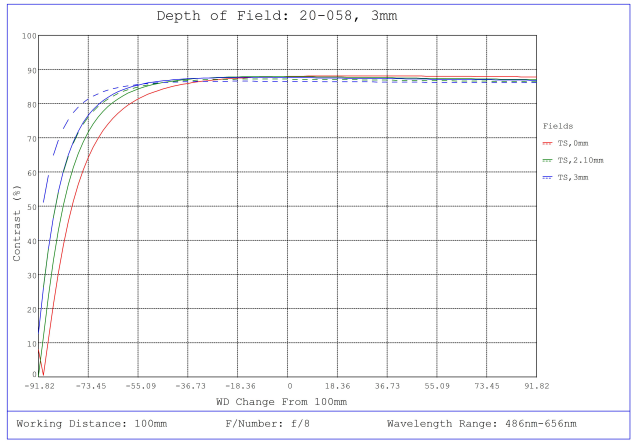
#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Relative Illumination Plot



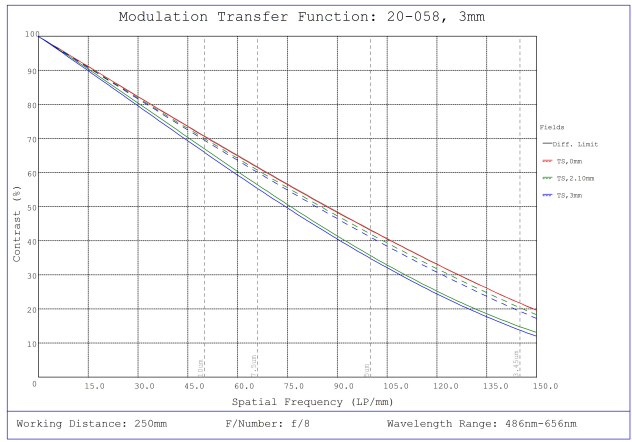
#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Working Distance versus Field of View Plot



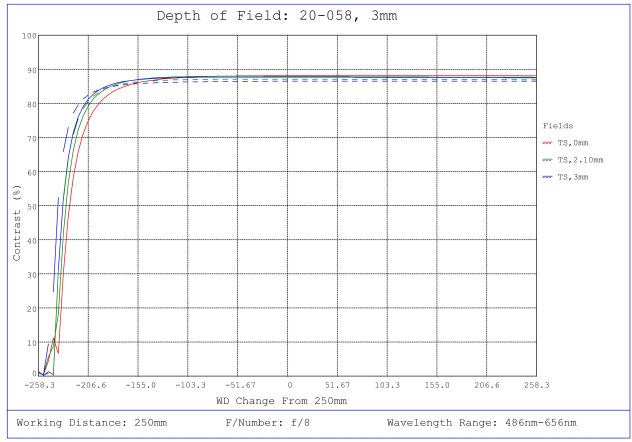
#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 100mm Working Distance, f8



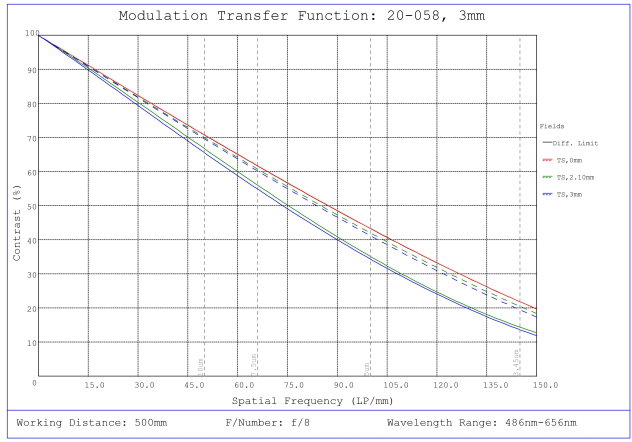
#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Depth of Field Plot, 100mm Working Distance, f8



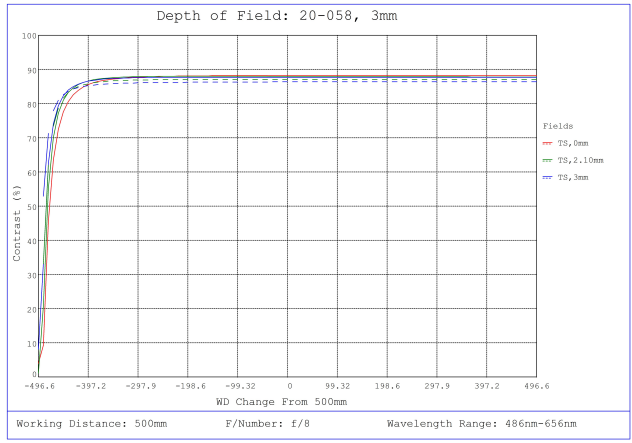
#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f8



#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f8



#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f8

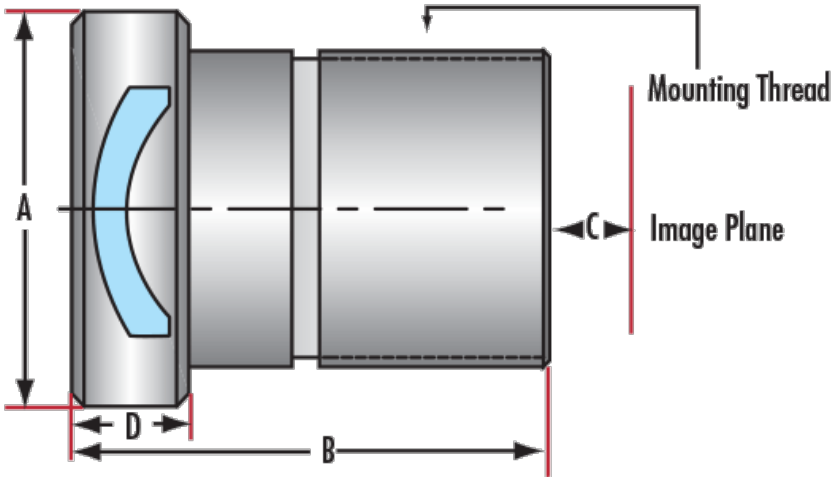


#20-058, 3mm FL f/8.0, IR-Cut Blue Series M12 Lens, Depth of Field Plot, 500mm Working Distance, f8

| 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.