

TECHSPEC[®] 3mm FL f/4.0, IR-Cut Blue Series M12 Lens



3mm FL Blue Series M12 Lens



Stock **#20-056** **20+ In Stock**

-

1

+

£63^{.00}

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Volume Pricing	
Qty 1-49	£63.00 each
Qty 50+	£50.00 each
Need More?	Request Quote

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Blue Series

Series:

M12 Imaging Lens

Type:

IR Cut Filter:

Yes	
Imaging Lens Type: High Performance M12 Lens with IR Cut Filter	
Special Type of Lens: IR-Cut Filter	
Physical & Mechanical Properties	
Iris Option: Fixed	
Length (mm): 16.10	
Maximum Diameter (mm): 14	
Outer Diameter (mm): 14	
Optical Properties	
Horizontal Field of View @ Max Sensor Format: 91.3°	
Field of View at Max Sensor Format: Horizontal: 91.2° Vertical: 68.5° Diagonal: 113°	
Horizontal Field of View, 1/3" Sensor: 91.2°	
Maximum Image Circle (mm): 6.00	
Numerical Aperture NA, Object Side: 0.004	
Number of Elements (Groups): 6(5)	
Wavelength Range (nm): 400 - 700	
Focal Length FL (mm): 3.00	
Working Distance (mm): 100 - ∞	
Aperture (f/#): f/4	
Distortion (%): -34.8 @ Full Field	
Back Focal Length BFL (mm): 4.8 - 4.7	
Coating Specification: λ/4 MgF ₂ @ 550nm	
Entrance Pupil Position (mm): 4.90	
Object Space Principal Plane (mm): -6.55	
Image Space Principal Plane (mm): 2.46	
Maximum Distortion (%): -34.8	
Exit Pupil Position (mm): -3.23	
Lens Wavelength Range: VIS (IR-Cut Filter)	
Sensor	
Maximum Sensor Format: 1/3"	
Pixel Size (μm): 1.40	
Threading & Mounting	
Filter Thread: N/A	
Mount: S-Mount (M12 x 0.5)	
Regulatory Compliance	
RoHS 2015: Compliant	
Certificate of Conformance: View	

Product Details

- Up to 1/4", 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

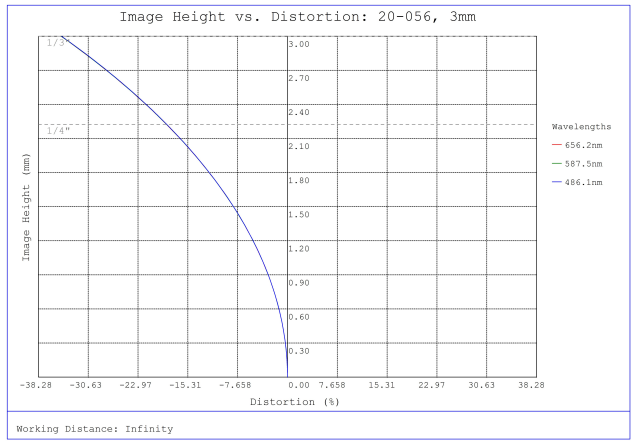
TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our **TECHSPEC® Green Series M12 Lenses**. Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the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

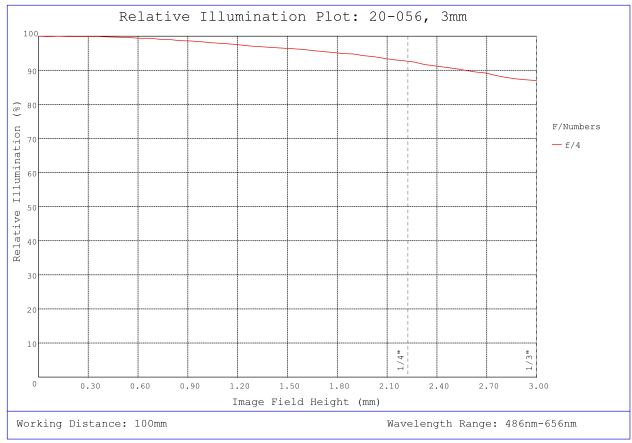
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

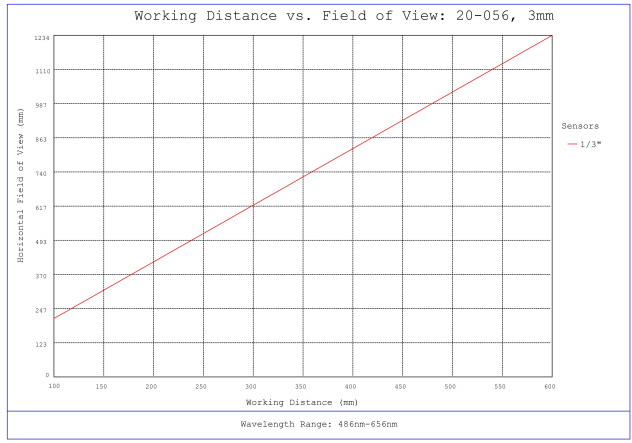
Technical Information



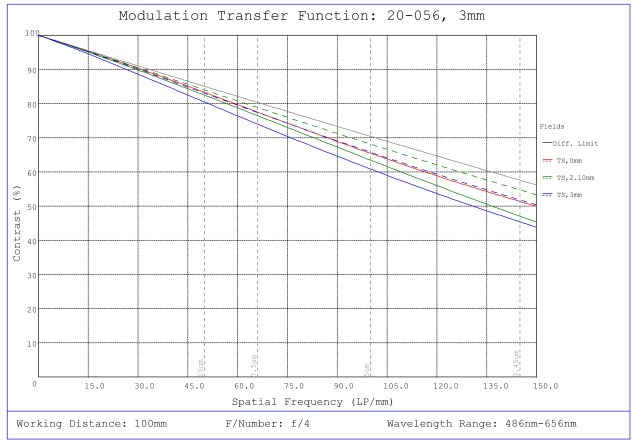
#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Distortion Plot



#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Relative Illumination Plot



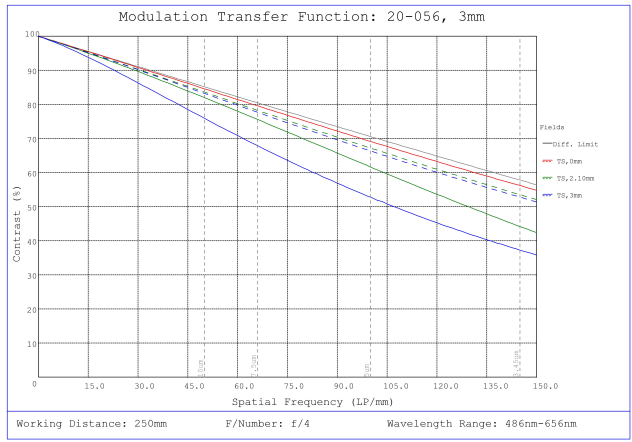
#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Working Distance versus Field of View Plot



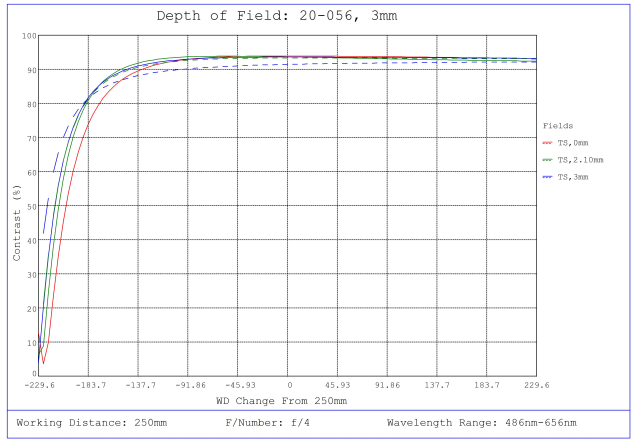
#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 100mm Working Distance, f4



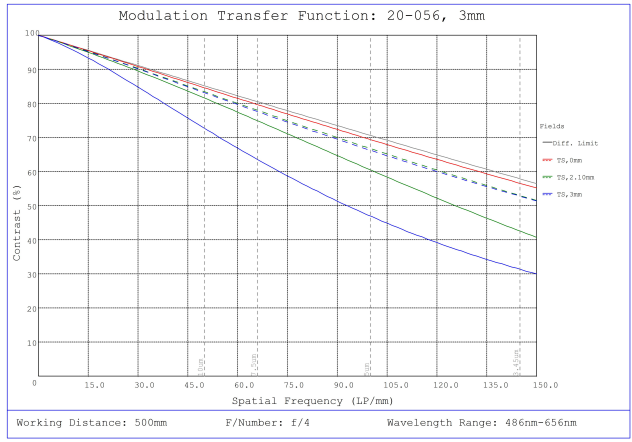
#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Depth of Field Plot, 100mm Working Distance, f4



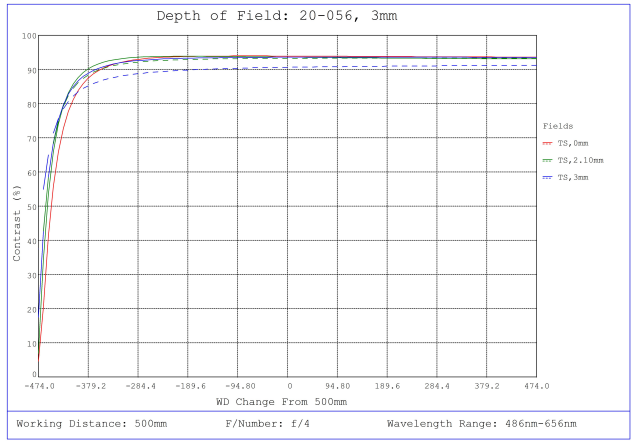
#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f4



#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f4



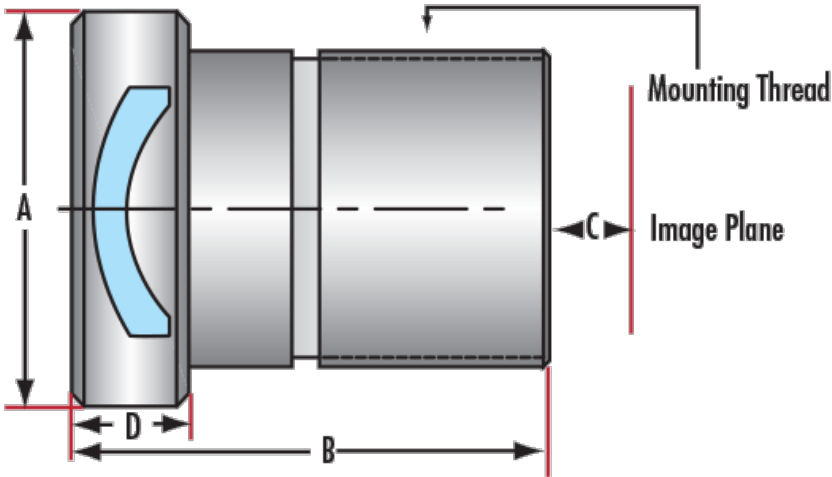
#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#20-056, 3mm FL f/4.0, IR-Cut Blue Series M12 Lens, Depth of Field Plot, 500mm Working Distance, f4

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.