

TECHSPEC[®] 3mm FL f/5.6, Blue Series M12 Lens



3mm FL Blue Series M12 Lens



Stock **#89-342** 8 In Stock

-

1

+

€81^{.00}

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Qty 1+	€81,00 each
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Product Downloads

SPECIFICATIONS

General

Blue Series

Series:

M12 Imaging Lens	Type:
No	IR Cut Filter:
High Performance M12 Lens	Imaging Lens Type:
Physical & Mechanical Properties	
Fixed	Iris Option:
17.10	Length (mm):
14	Maximum Diameter (mm):
14	Outer Diameter (mm):
5	Weight (g):
Optical Properties	
Horizontal Field of View @ Max Sensor Format: 91.3°	
Field of View at Max Sensor Format: Horizontal: 211.6mm - 91.3° Vertical: 141.6mm - 68.6° Diagonal: 315.6mm - 113.8°	
Horizontal Field of View, 1/3" Sensor: 211.1mm - 91.3°	
Horizontal Field of View, 1/4" Sensor: 141.3mm - 68.6°	
Maximum Image Circle (mm): 6.00	
Numerical Aperture NA, Object Side: 0.0017	
Number of Elements (Groups): 6(5)	
Wavelength Range (nm): 400 - 700	
Focal Length FL (mm): 3.00	
Working Distance (mm): 100 - ∞	
Aperture (f/#): f/5.6	
Distortion (%): -34.8 @ Full Field	
Back Focal Length BFL (mm): 4.8 - 4.7	
Coating Specification: N4 MgF2 @ 550nm	
Entrance Pupil Position (mm): 4.90	
Object Space Principal Plane (mm): 6.84	
Image Space Principal Plane (mm): 2.22	
Maximum Distortion (%): -34.8	
Exit Pupil Position (mm): -3.23	
Lens Wavelength Range: VS	
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	
Compliant	RoHS 2015:
	View
Compliant	Certificate of Conformance:
	View
Compliant	Reach 247:
	View

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

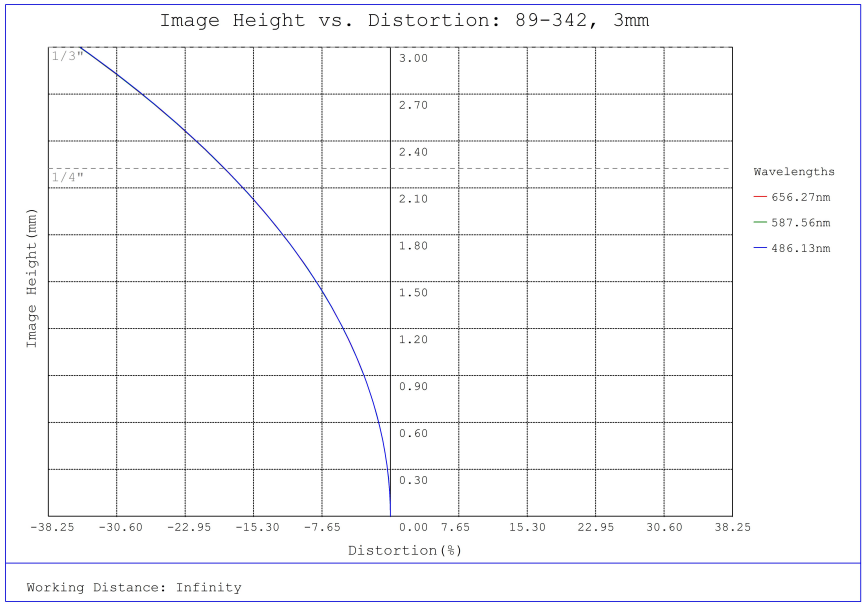
TECHSPEC® Blue Series M12 Lenses feature high resolution performance, along with the same great versatility of our [TECHSPEC® Green Series M12 Lenses](#). Each lens consists of several precision glass elements mounted in a compact, aluminum housing. These lenses can connect to C-Mount cameras using the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

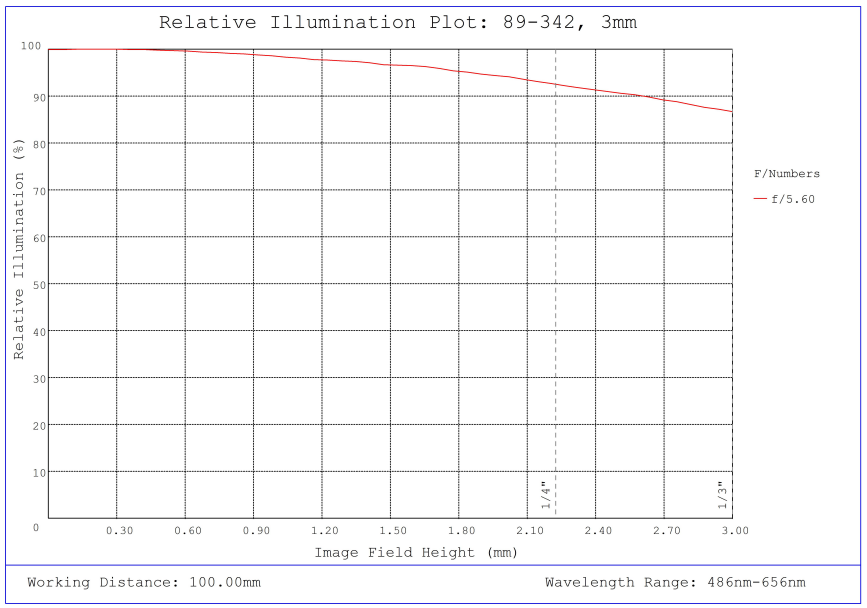
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

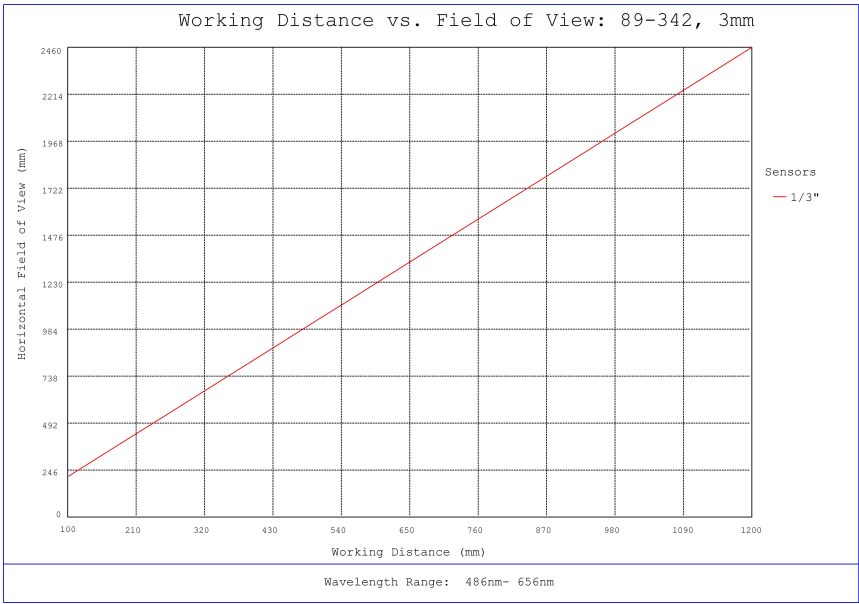
TECHNICAL INFORMATION



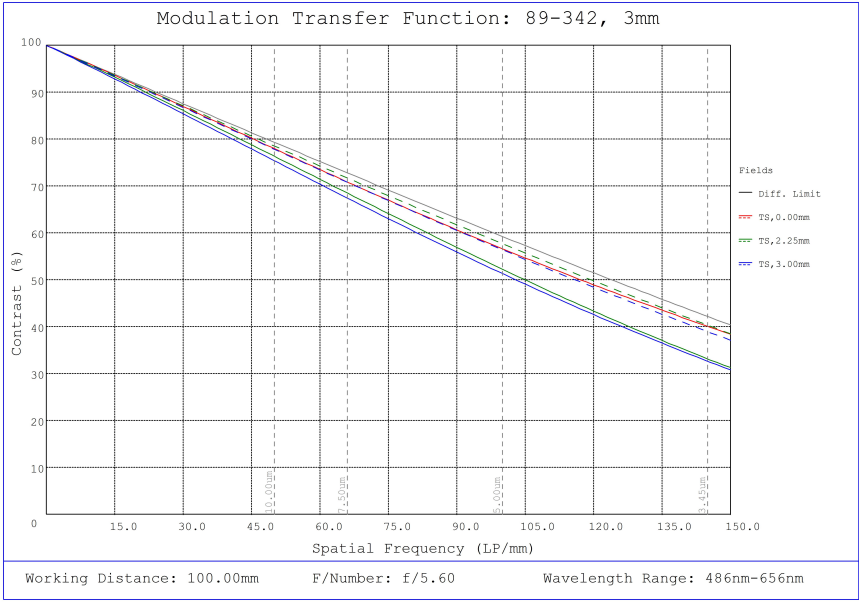
#89-342, 3mm FL f/5.6, Blue Series M12 Lens, Distortion Plot



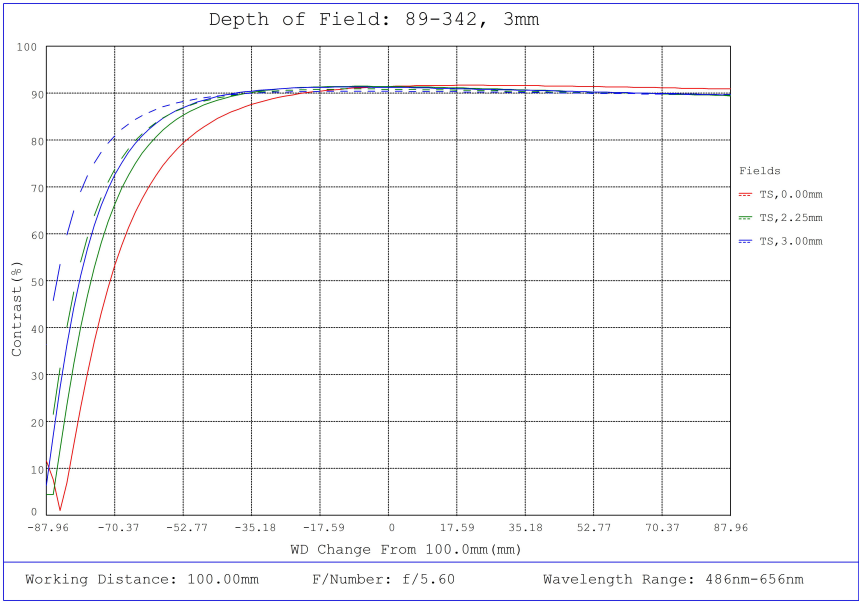
#89-342, 3mm FL f/5.6, Blue Series M12 Lens, Relative Illumination Plot



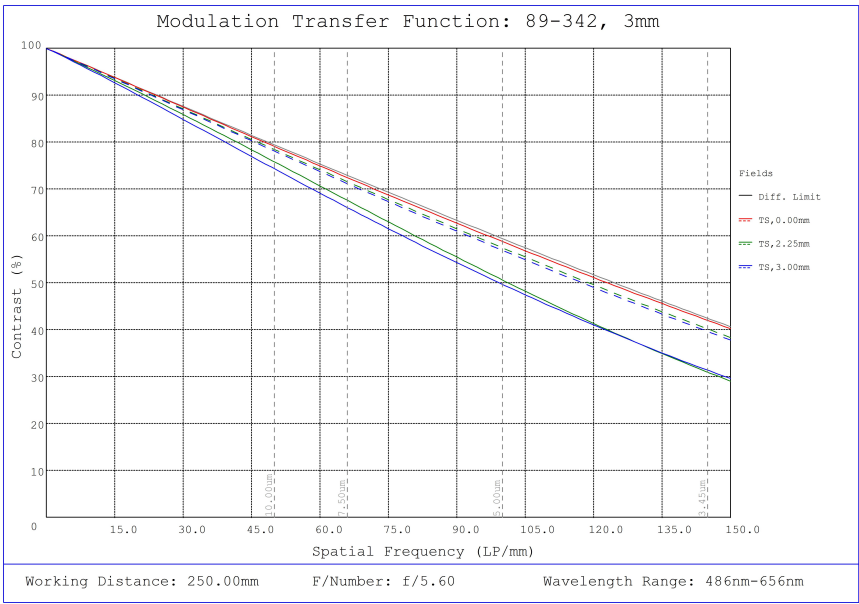
#89-342, 3mm FL f/5.6, Blue Series M12 Lens, Working Distance versus Field of View Plot



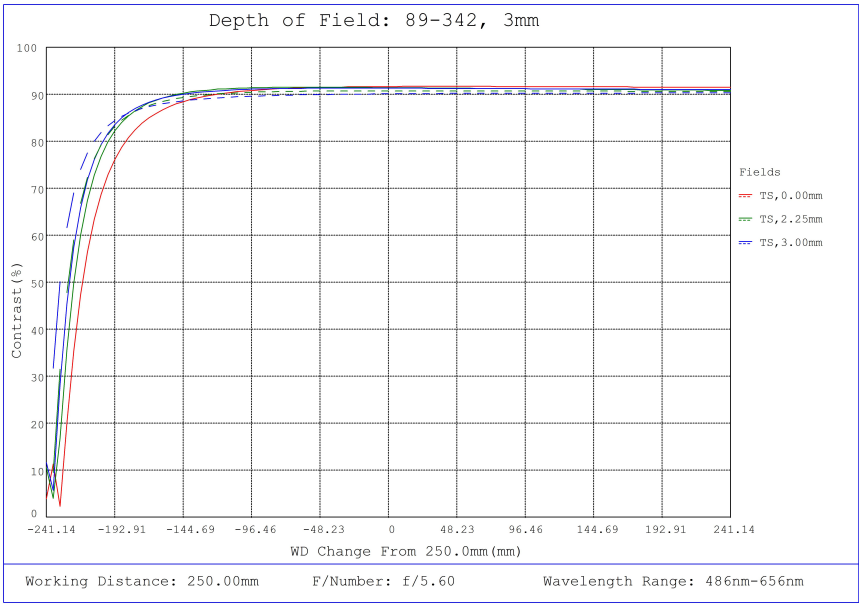
#89-342, 3mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 100mm Working Distance, f5.6



#89-342, 3mm FL f/5.6, Blue Series M12 Lens, Depth of Field Plot, 100mm Working Distance, f5.6

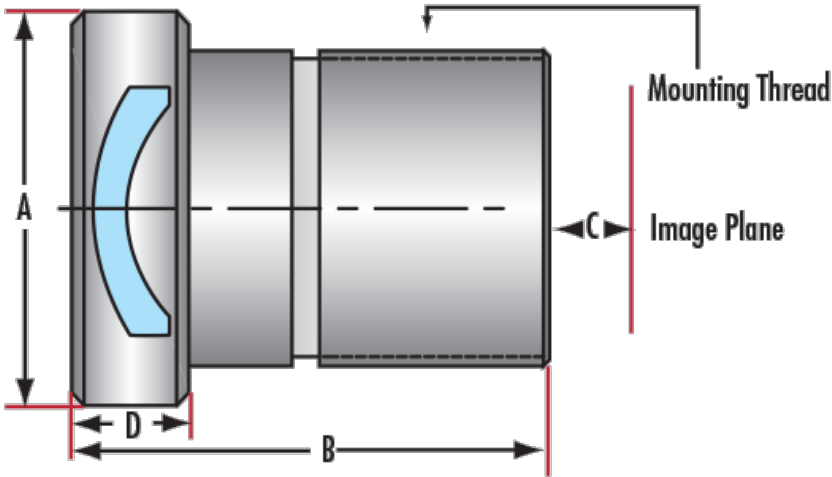


#89-342, 3mm FL f/5.6, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f5.6



#89-342, 3mm 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.