

TECHSPEC[®] 8mm FL f/8, Blue Series M12 Lens



8mm Blue Series M12 Lens



Stock **#83-951** 2 In Stock

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1

+

₹7,395

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Qty 1+	₹7,395 each
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SPECIFICATIONS

General

Blue Series	Series:
	Type:

M12 Imaging Lens	
No	IR Cut Filter:
High Performance M12 Lens	Imaging Lens Type:
Physical & Mechanical Properties	
Fixed	Iris Option:
12.30	Length (mm):
14	Maximum Diameter (mm):
14	Outer Diameter (mm):
3	Weight (g):
Optical Properties	
34.2°	Horizontal Field of View @ Max Sensor Format:
Field of View at Max Sensor Format: Horizontal: 92.8mm - 34.2° Vertical: 68.9mm - 25.7° Diagonal: 117.5mm - 42.6°	
94.0mm - 34.2°	Horizontal Field of View, 1/3" Sensor:
69.8mm - 25.7°	Horizontal Field of View, 1/4" Sensor:
6.00	Maximum Image Circle (mm):
0.0032	Numerical Aperture NA, Object Side:
5(5)	Number of Elements (Groups):
400 - 700	Wavelength Range (nm):
8.00	Focal Length FL (mm):
150 - ∞	Working Distance (mm):
f/8	Aperture (f/#):
-3.63 @ Full Field	Distortion (%):
8.8 - 8.6	Back Focal Length BFL (mm):
λ/4 MgF ₂ @ 550nm	Coating Specification:
5.04	Entrance Pupil Position (mm):
8.13	Object Space Principal Plane (mm):
0.94	Image Space Principal Plane (mm):
-3.63	Maximum Distortion (%):
-4.09	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-Mbunt (M12 x 0.5)	Mount:
Regulatory Compliance	

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 247:

PRODUCT DETAILS

- Up to ½", 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.

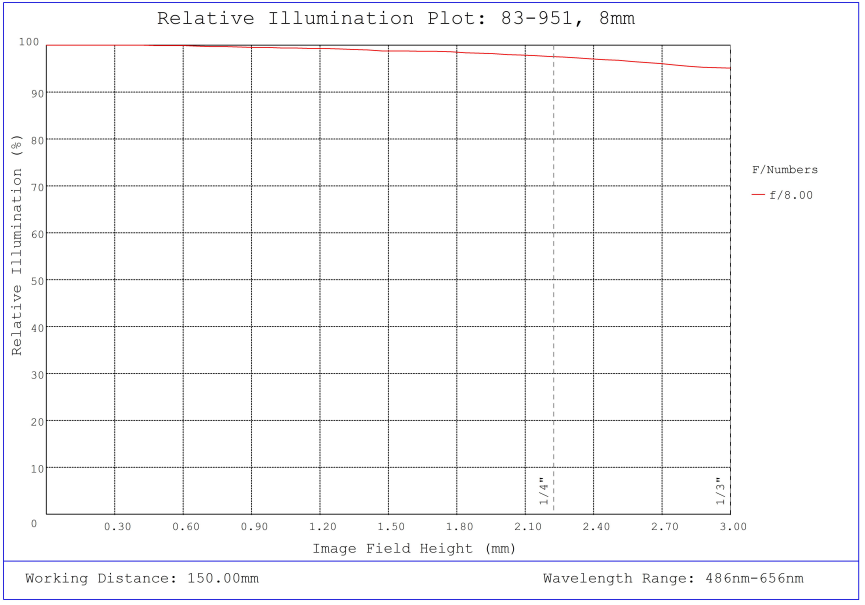
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

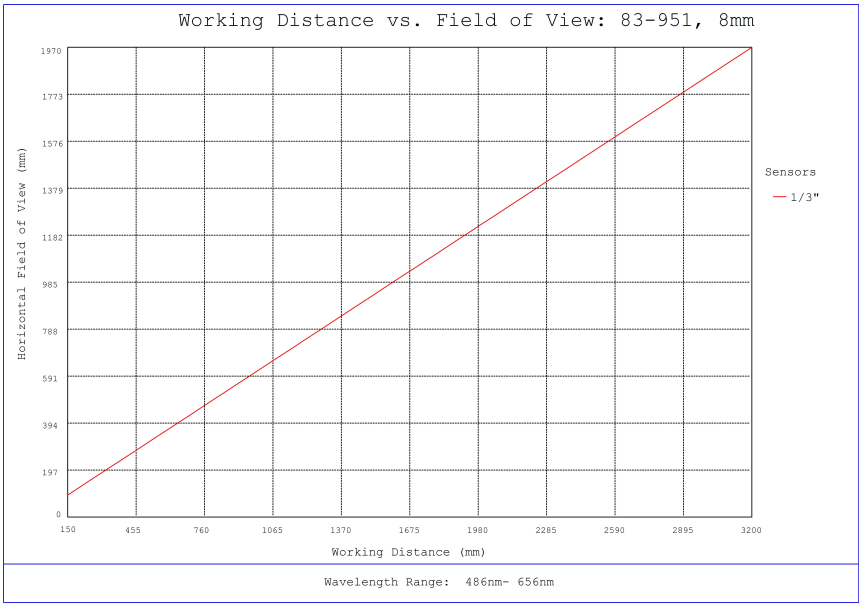
TECHNICAL INFORMATION



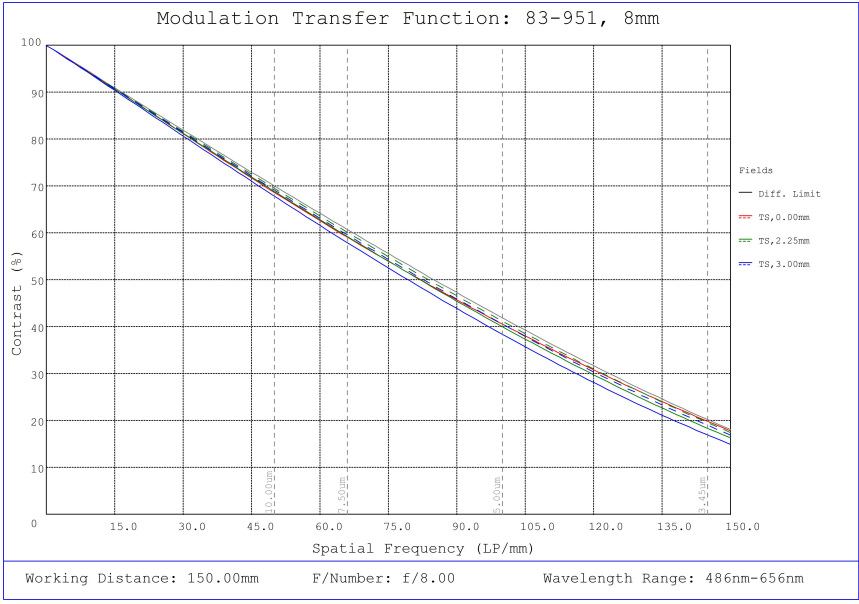
#83-951, 8mm FL f/8, Blue Series M12 Lens, Distortion Plot



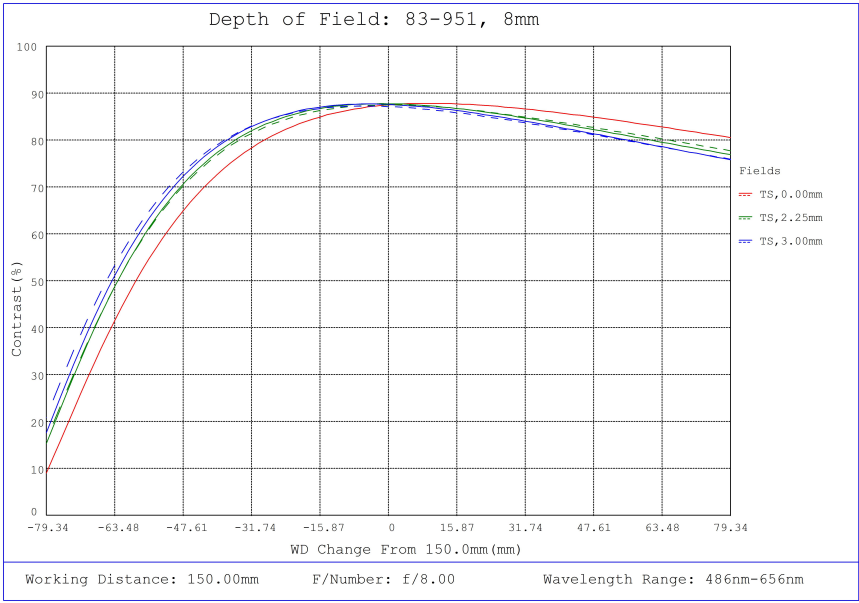
#83-951, 8mm FL f/8, Blue Series M12 Lens, Relative Illumination Plot



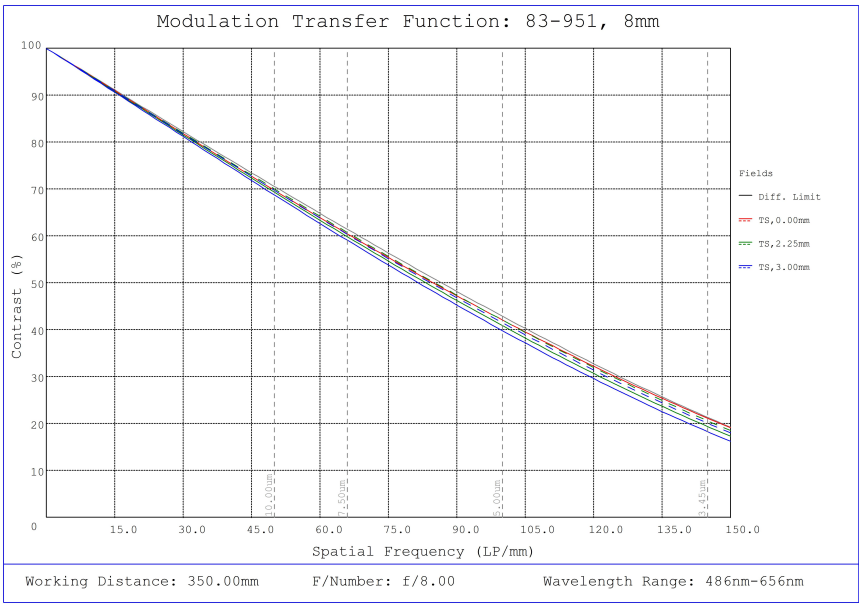
#83-951, 8mm FL f/8, Blue Series M12 Lens, Working Distance versus Field of View Plot



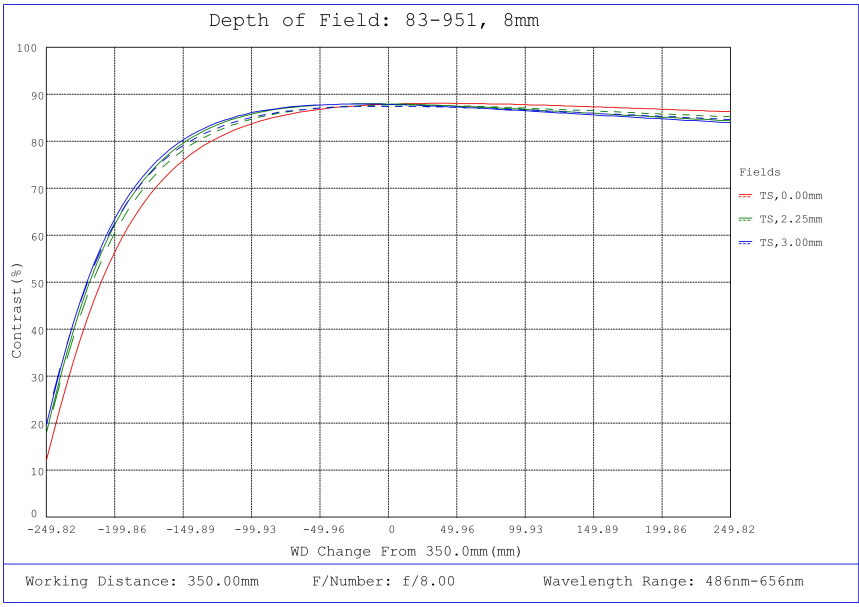
#83-951, 8mm FL f/8, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f8



#83-951, 8mm FL f/8, Blue Series M12 Lens, Depth of Field Plot, 150mm Working Distance, f8

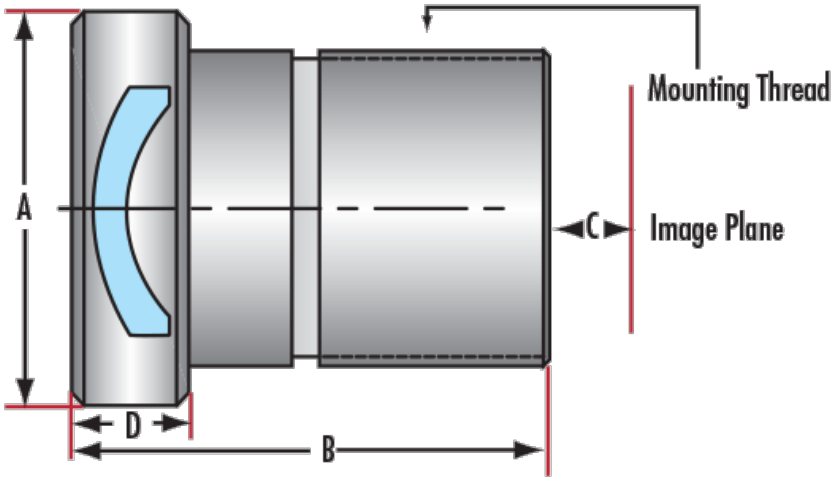


#83-951, 8mm FL f/8, Blue Series M12 Lens, Modulated Transfer Function (MTF) Plot, 350mm Working Distance, f8



#83-951, 8mm FL f/8, Blue Series M12 Lens, Depth of Field Plot, 350mm 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.