

**TECHSPEC® f/1.9, 8mm Focal Length Green Series M12 Lens**

8mm Focal Length, #54-853

Stock **#54-853 20+ In Stock**   **A\$126<sup>.00</sup>****ADD TO CART**

Volume Pricing	
Qty 1-49	A\$126.00 each
Qty 50+	A\$100.00 each
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**SPECIFICATIONS****General**

Series:

Green Series

Type:

M12 Imaging Lens

No  
**IR Cut Filter:**

Standard Lens  
**Imaging Lens Type:**

**Physical & Mechanical Properties**

Fixed  
**Iris Option:**

20.40  
**Length (mm):**

14  
**Maximum Diameter (mm):**

14  
**Outer Diameter (mm):**

5  
**Weight (g):**

**Optical Properties**

**Horizontal Field of View @ Max Sensor Format:**  
95.7mm - 34.4°

**Field of View at Max Sensor Format:**  
Horizontal: 95.7mm - 34.4°  
Vertical: 70.8mm - 25.8°  
Diagonal: 121.8mm - 43°

**Horizontal Field of View, 1/3" Sensor:**  
95.7mm - 34.4°

**Horizontal Field of View, 1/4" Sensor:**  
70.8mm - 25.8°

**Resolution:**  
108 lp/mm @ 20% Contrast

**Maximum Image Circle (mm):**  
11.00

**Numerical Aperture NA, Object Side:**  
0.0134

**Number of Elements (Groups):**  
5(5)

**Wavelength Range (nm):**  
400 - 700

**Focal Length FL (mm):**  
8.00

**Working Distance (mm):**  
150 - ∞

**Aperture (f#):**  
f/1.9

**Distortion (%):**  
-5.035 @ Full Field

**Back Focal Length BFL (mm):**  
8.9 - 8.7

**Coating Specification:**  
N4 MgF<sub>2</sub> @ 580nm

**Entrance Pupil Position (mm):**  
68.00

**Object Space Principal Plane (mm):**  
10.70

**Image Space Principal Plane (mm):**  
1.83

**Maximum Distortion (%):**  
-5.035

**Exit Pupil Position (mm):**  
-9.47

**Lens Wavelength Range:**  
VIS

**Sensor**

**Maximum Sensor Format:**  
1/3"

**Pixel Size (μm):**  
8.30

**Threading & Mounting**

**Filter Thread:**  
N/A

**Mounting Threads:**  
M12 x 0.5

**Mount:**

## Regulatory Compliance

RoHS 2015:  
CompliantCertificate of Conformance:  
ViewREACH 2014:  
Compliant

## PRODUCT DETAILS

Optimized Working Distance: 150 - 250mm

- Up to 1/2", S-Mount Lens
- Up to 0.4 MegaPixels, 8.3 $\mu$ m Pixel Size Sensors
- Board Camera Lens Optimized for Close WD and Finite Conjugate
- 6mm to 25mm Focal Lengths

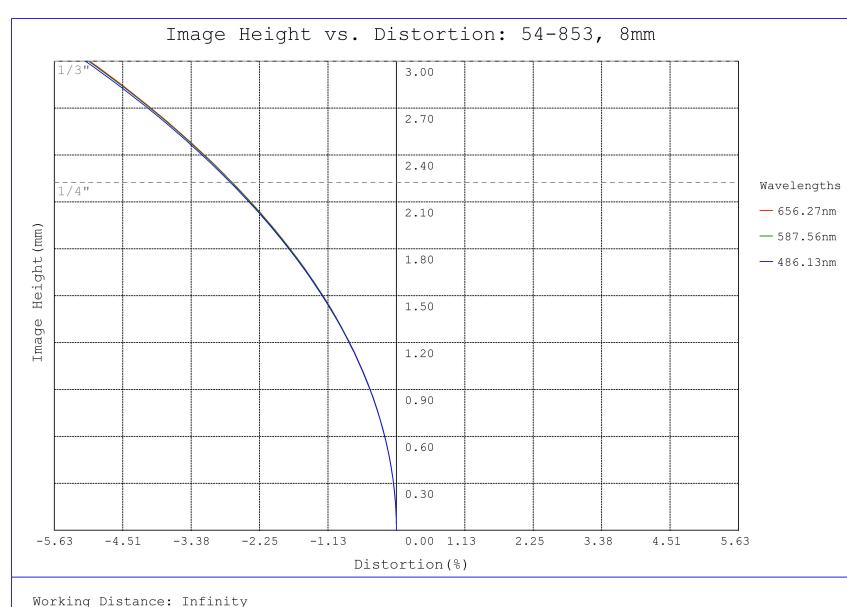
TECHSPEC® Green Series M12 Lenses designed for use in compact and board level cameras provide excellent image quality in a small, versatile package. Optimized to cover 1/3" and 1/2" sensor formats and weighing only a few grams, these machine vision lenses meet the most demanding space and weight restrictions. Each lens is threaded for M12 x 0.5, except the 25.0mm focal length option (#54-855). TECHSPEC® Green Series M12 Lenses are ideal for wide angle and close focus applications, large area inspect for the automotive, forensic, pharmaceutical, and food industries. Prescription data is available by submitting a [Request for Prescription Form](#).

**Note:** Compatible [TECHSPEC M12 Imaging Lens Accessories](#) available.

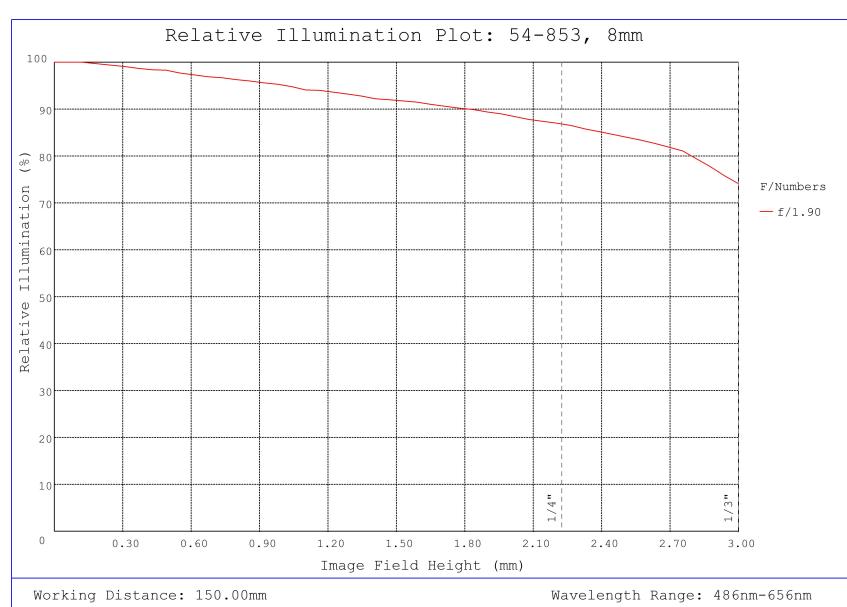
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

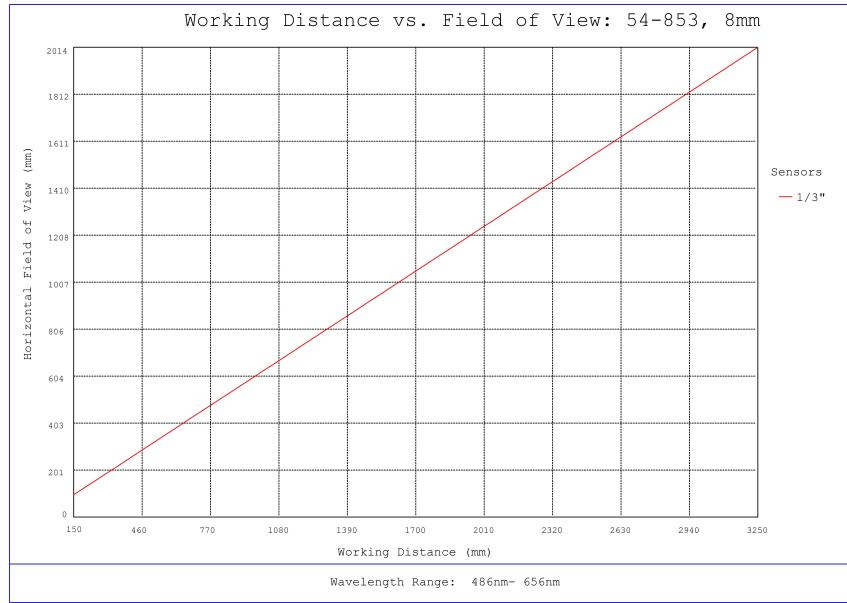
## TECHNICAL INFORMATION



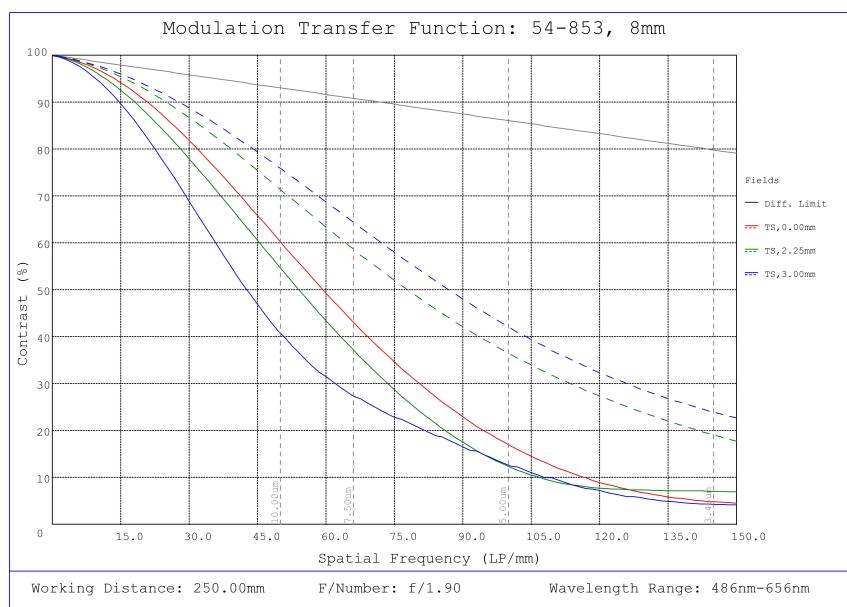
#54-853, f/1.9, 8mm Focal Length Green Series M12 Lens, Distortion Plot



#54-853, f/1.9, 8mm Focal Length Green Series M12 Lens, Relative Illumination Plot



#54-853, f/1.9, 8mm Focal Length Green Series M12 Lens, Working Distance versus Field of View Plot



#54-853, f/1.9, 8mm Focal Length Green Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f1.9



#54-853, f/1.9, 8mm Focal Length Green Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f1.9

Focal Length	A	B	C*	D	Mounting Thread
6.00	14.0	11.70	4.0 - 3.9	3.5	M12x0.5
8.00	14.0	20.40	8.9 - 8.7	6.0	M12x0.5
12.00	16.0	19.50	7.1 - 6.75	6.0	M12x0.5
25.00	18.0	24.40	12.6 - 11.9	9.0	M16x0.5

Mounting Thread

Image Plane

A

B

C

D

