

TECHSPEC® f/2, 12mm Focal Length Green Series M12 Lens



12mm Focal Length, #54-854

Stock **#54-854** **20+ In Stock**

⊖ 1 ⊕ A\$126⁰⁰

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

Green Series **Product Family:**

M12 Imaging Lens **Type:**

No **IR Cut Filter:**

Standard Lens **Imaging Lens Type:**

Physical & Mechanical Properties

Fixed	Iris Option:
19.50	Length (mm):
16	Maximum Diameter (mm):
16	Outer Diameter (mm):
6	Weight (g):

Optical Properties

Horizontal Field of View @ Max Sensor Format:
80.5mm - 30.1°

Field of View at Max Sensor Format:
Horizontal: 80.5mm - 30.1°
Vertical: 60mm - 22.7°
Diagonal: 101.5mm - 37.5°

Horizontal Field of View, 1/2" Sensor:
80.5mm - 30.1°

Horizontal Field of View, 1/2.5" Sensor:
72.7mm - 27.4°

Horizontal Field of View, 1/3" Sensor:
60.0mm - 22.7°

Horizontal Field of View, 1/4" Sensor:
44.9mm - 17.1°

Resolution:
150 lp/mm @20% Contrast

Maximum Image Circle (mm):
8.00

Numerical Aperture NA, Object Side:
0.0191

Number of Elements (Groups):
5(5)

Wavelength Range (nm):
400 - 700

Focal Length FL (mm):
12.00

Working Distance (mm):
150 - ∞

Aperture (f/#):
f/2

Distortion (%):
-2.2 @ Full Field

Back Focal Length BFL (mm):
7.1 - 6.75

Coating Specification:
M4 MgF₂ @ 580nm

Entrance Pupil Position (mm):
7.50

Object Space Principal Plane (mm):
10.41

Image Space Principal Plane (mm):
-3.73

Maximum Distortion (%):
-2.2

Exit Pupil Position (mm):
-7.56

Lens Wavelength Range:
VIS

Sensor

Maximum Sensor Format:
1/2"

Pixel Size (µm):
8.30

Threading & Mounting

Filter Thread:
N/A

Mounting Threads:
M12 x 0.5

Mount:

Regulatory Compliance

Compliant

RoHS 2015:

View

Certificate of Conformance:

Compliant

REACH 241:

Product Details

Optimized Working Distance: 150 - 250mm

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

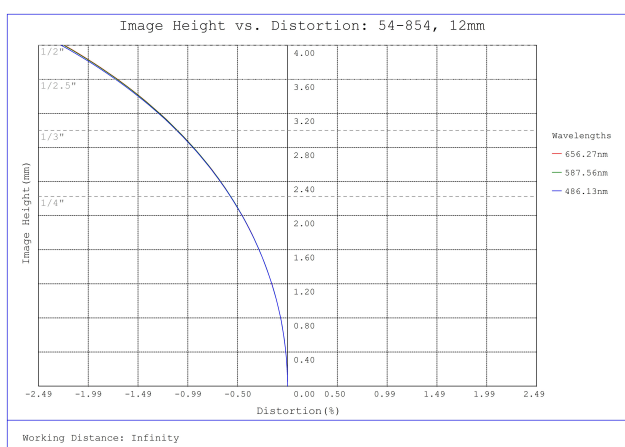
TECHSPEC® Green Series M12 Lenses designed for use in compact and board level cameras provide excellent image quality in a small, versatile package. Optimized to cover 1/3" and 1/2" sensor formats and weighing only a few grams, these machine vision lenses meet the most demanding space and weight restrictions. Each lens is threaded for M12 x0.5, 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.

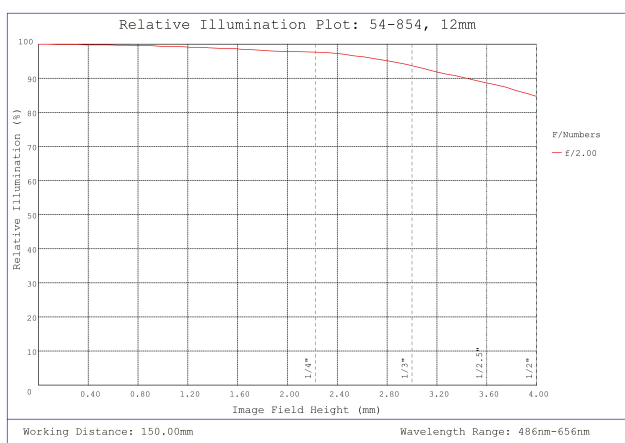
Edmund Optics has created multiple product families of our TECHSPEC® M12 S-Mount Lenses, which are designed to provide high resolution. These high performance lenses feature precision glass designs in a metal housing and have optimized specifications between each product family to meet your application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

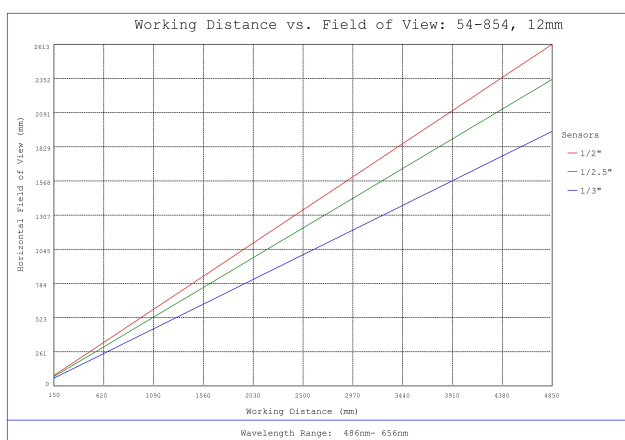
Technical Information



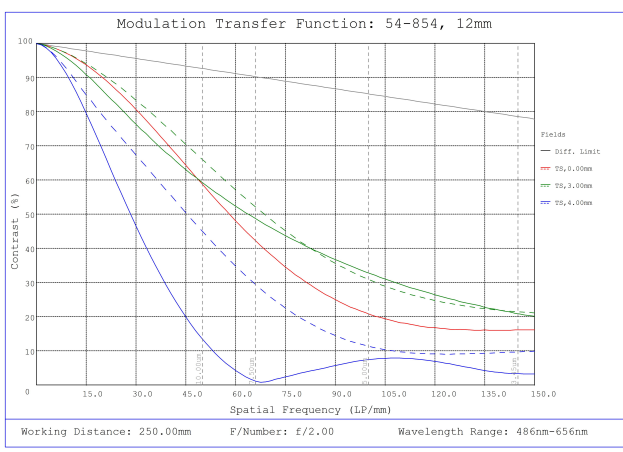
#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Distortion Plot



#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Relative Illumination Plot



#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Working Distance versus Field of View Plot

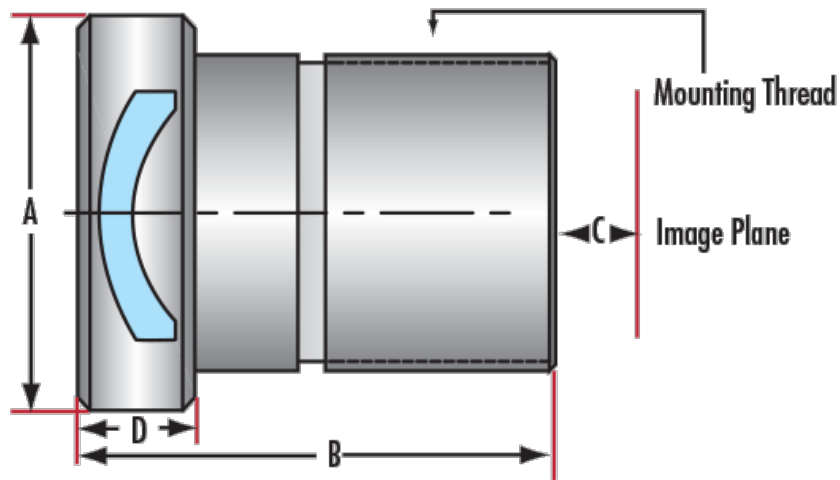


#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Modulated Transfer Function (MTF) Plot, 250mm Working Distance, f2



#54-854, f/2, 12mm Focal Length Green Series M12 Lens, Depth of Field Plot, 250mm Working Distance, f2

Focal Length	A	B	C**	D	Mounting Thread
6.00	14.0	11.70	4.0 - 3.9	3.5	M12 x 0.5
8.00	14.0	20.40	8.9 - 8.7	6.0	M12 x 0.5
12.00	16.0	19.50	7.1 - 6.75	6.0	M12 x 0.5
25.00	18.0	24.40	12.6 - 11.9	9.0	M16 x 0.5



**Minor adjustment required to match WD limits.