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12mm Focal Length

Stock #15-634 **20+ In Stock** **A\$346⁰⁰****ADD TO CART**

Volume Pricing

Qty 1+	A\$346.00 each
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SPECIFICATIONS**General**

Series:

Cw Series

Note:

C-Mount compatible with O-ring 25mm ID x2mm

Type:

Physical & Mechanical Properties

Iris Option: Fixed

Length (mm): 38.10

Outer Diameter (mm): 36

Maximum Rear Protrusion (mm): 0.6

Optical Properties

Field of View at Max Sensor Format:

Horizontal: 41.0°

Vertical: 31.3°

Diagonal: 50.5°

Horizontal Field of View, 2/3" Sensor: 41.0°

Horizontal Field of View, 1/1.8" Sensor: 33.8°

Horizontal Field of View, 1/2" Sensor: 30.2°

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

Horizontal Field of View, 1/3" Sensor: 22.8°

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

Maximum Image Circle (mm): 11.00

Numerical Aperture NA, Object Side: 0.0084

Number of Elements (Groups): 7 (7)

Focal Length FL (mm): 12.00

Working Distance (mm): 100 - ∞

Aperture (f/#): f/5.6

Coating Specification: 425 - 675nm BBAR

Entrance Pupil Position (mm): 17.6208

Object Space Principal Plane (mm): 23.93

Image Space Principal Plane (mm): 1.98

Maximum Distortion (%): 2.11

Exit Pupil Position (mm): -11.3801

Lens Wavelength Range: MS

Sensor

Maximum Sensor Format: 2/3"

Pixel Size (μm): 2.74

Threading & Mounting

Filter Thread: M80.5 x 0.50 (Female)

Mount: C-Mount

Environmental & Durability Factors

Environmental Rating: IPX7 and IPX9K

Storage Temperature (°C): -20 to +60

Type of Ruggedization: Waterproof (IPX7 and IPX9K)

Regulatory Compliance

Certificate of Conformance:

[View](#)

PRODUCT DETAILS

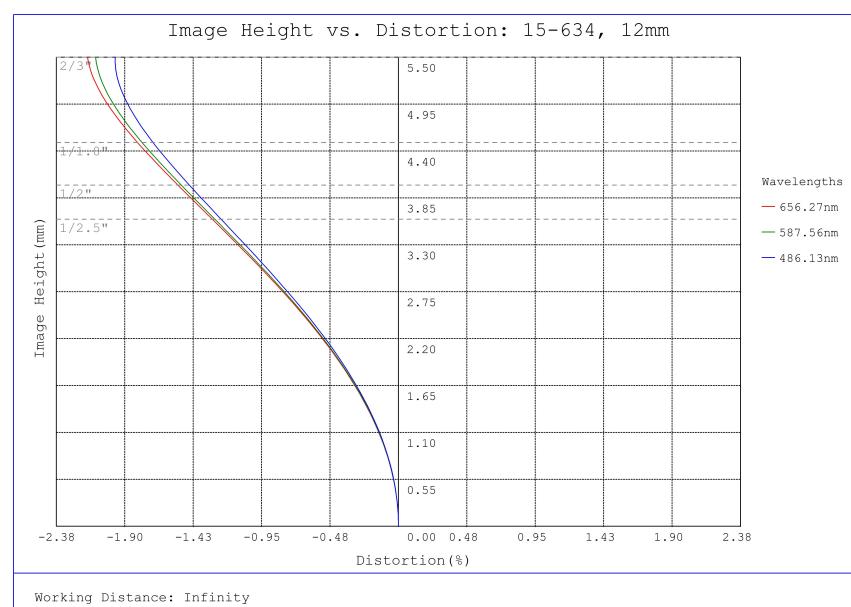
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

TECHSPEC® Cw Series Fixed Focal Length Lenses are waterproof versions of our [TECHSPEC® C Series Fixed Focal Length Lenses](#). Designed to meet IEC Ingress Protection Codes IPX7 and IPX9K, these lenses withstand exposure to water up to 1 meter depth for 30 minutes and operate in close-range high pressure, high temperature water spray downs with the exception of all 3.5 and 4.5mm options which are IPX7. These lenses include a hydrophobic coated window to prevent water droplets from settling on the lens' surface. To prevent moisture from entering the housing, the lenses are sealed with multiple O-rings. TECHSPEC® Cw Series Fixed Focal Length Lenses are designed for up to 7.5 MegaPixel, 2/3" sensors and are ideal for applications including food, pharma, automotive, and security. These lenses won the Bronze-Level 2021 Vision Systems Design Innovators Award.

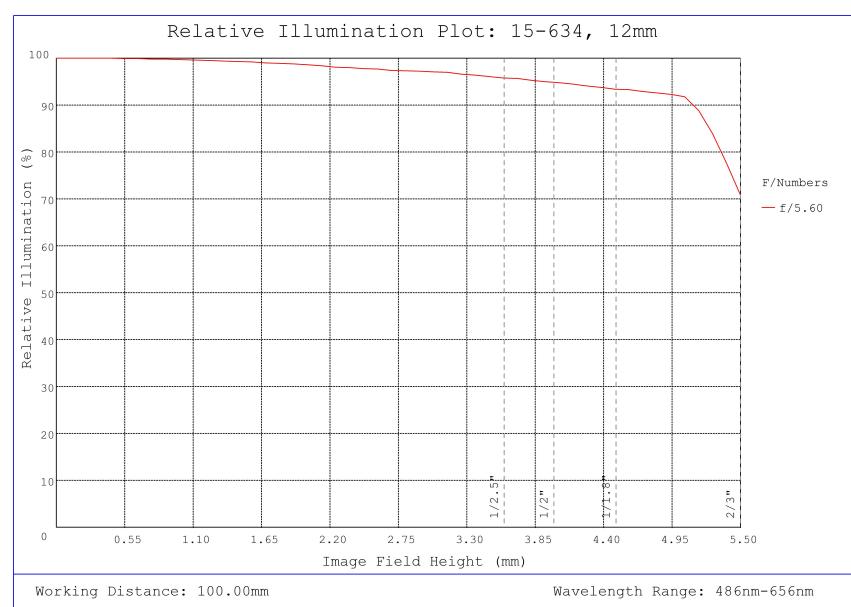
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- **C Series:** Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a [VIS-NIR Broadband Anti-Reflection \(BBAR\) Coating](#).
- **Ci Series:** Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.
- **Cr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.
- **Cx Series:** Modular, flexible mechanics allows lenses to be taken apart for easy integration of accessories such as liquid lenses, apertures, and more.
- **Liquid Lens Cx Series:** Designed with an integrated liquid lens for quick autofocus.
- Cw Series: Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 and IPX9K.

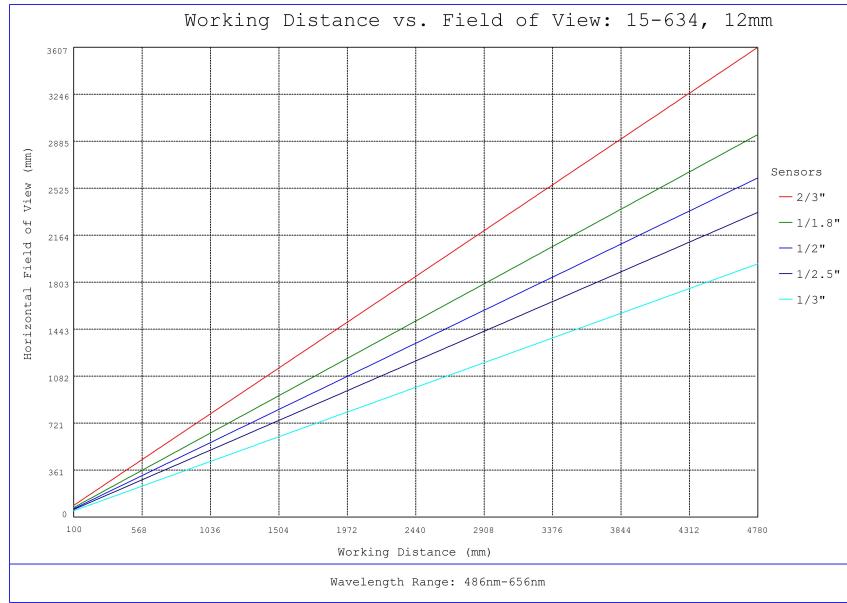
TECHNICAL INFORMATION



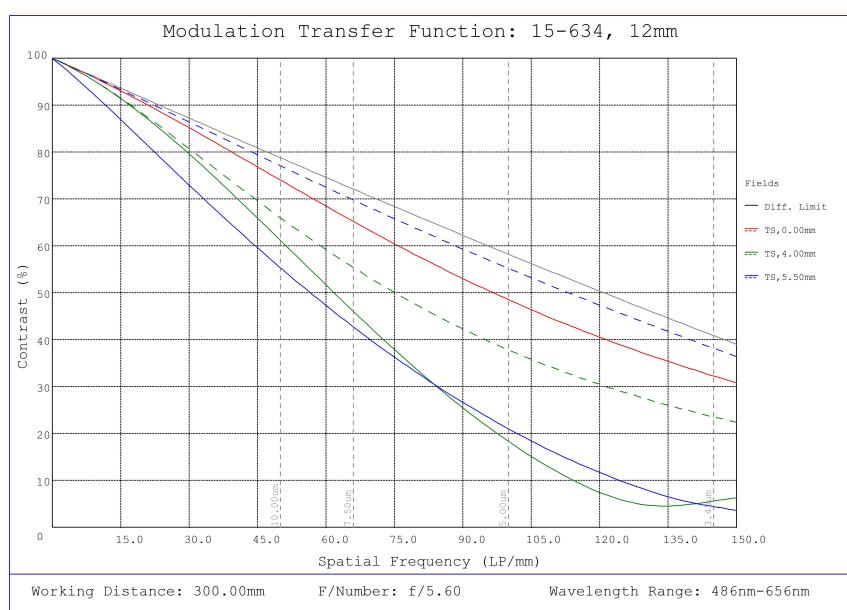
#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Distortion Plot



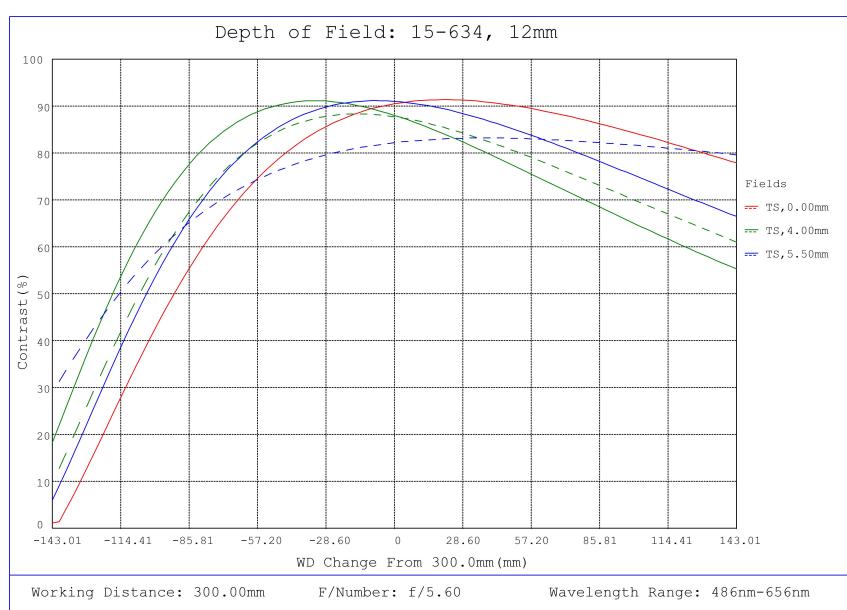
#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Relative Illumination Plot



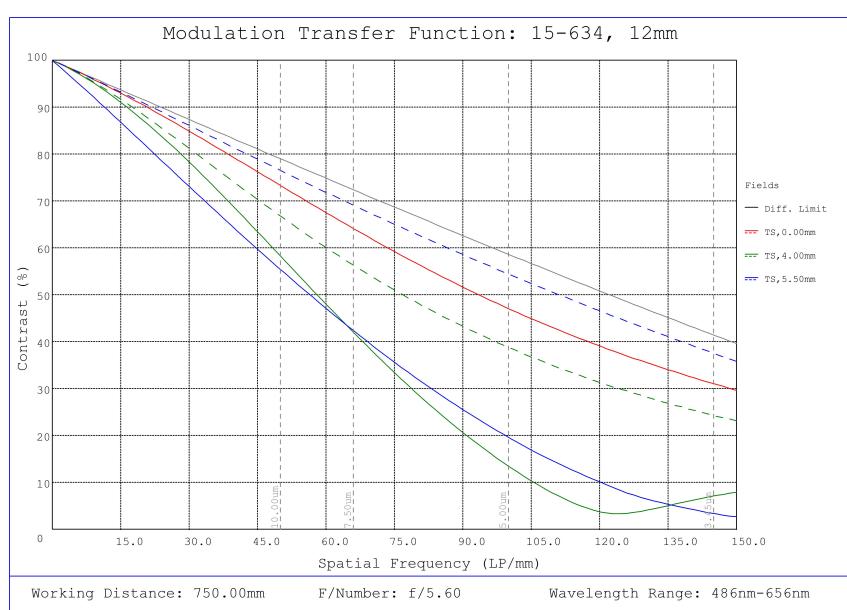
#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f5.6



#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f5.6



#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f5.6



#15-634, 12mm, f/5.6 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f5.6