

[See all 65 Products in Family](#)

TECHSPEC® 12mm, f/1.8 Cw Series Fixed Focal Length Lens



12mm Focal Length



Stock #15-631 **20+ In Stock**

MRP ₹23,819

! Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1+	₹23,819 each
Need More?	Request Quote

Product Downloads

General

Cw Series **Product Family:**

C-Mount compatible with O-ring 25mm ID x2mm **Note:**

Fixed Focal Length Lens **Type:**

Imaging Lens Type:

Physical & Mechanical Properties

Fixed	Iris Option:
38.10	Length (mm):
36	Outer Diameter (mm):
0.6	Maximum Rear Protrusion (mm):

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:
 0.0262

Number of Elements (Groups):
 7 (7)

Focal Length FL (mm):
 12.00

Working Distance (mm):
 100 - ∞

Aperture (f/#):
 f/1.8

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:
 VIS

Sensor

Maximum Sensor Format:
 2/3"

Pixel Size (µm):
 2.74

Threading & Mounting

Filter Thread:
 M30.5 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](#)

Country of Origin:

China

Imported By:

Edmund Optics India Private Limited
267, Greystone Building, Second Floor,
6th Cross Rd, Binnamangala,
Stage 1, Indiranagar, Bengaluru,
Karnataka, India 560038
Phone: +91- 80-6845 0000

Product Details

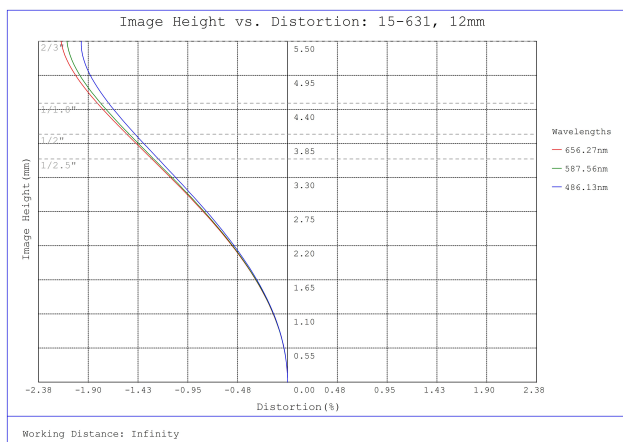
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

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.

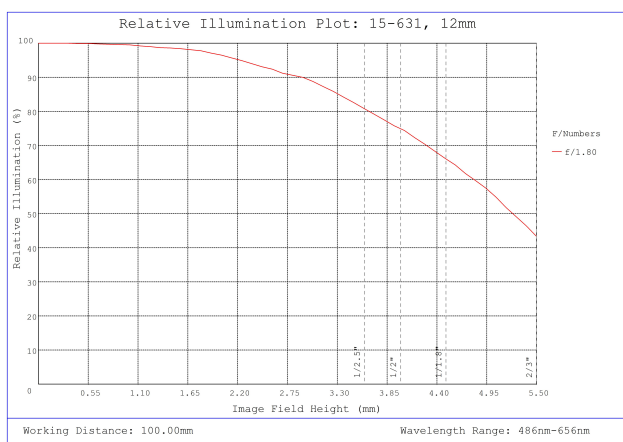
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

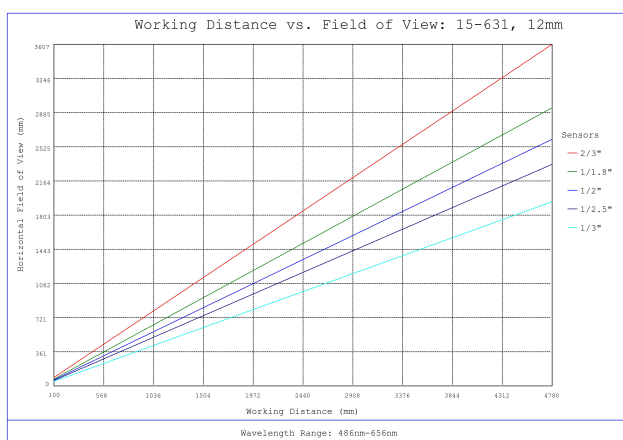
Technical Information



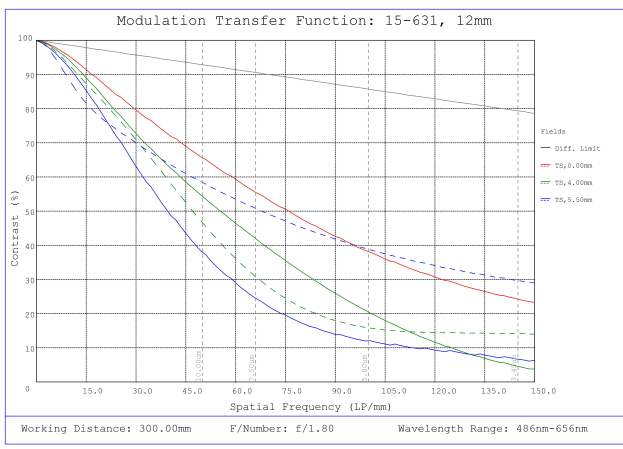
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Distortion Plot



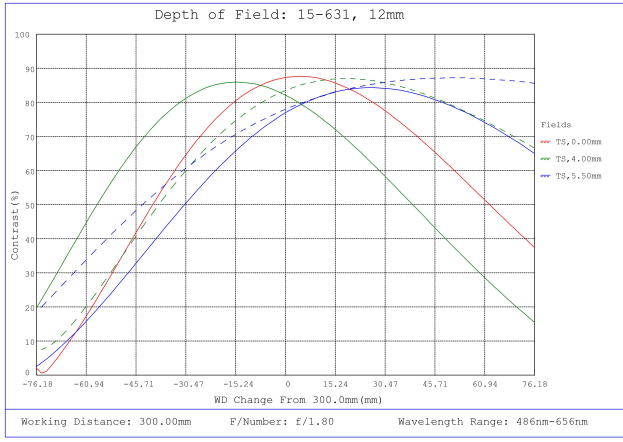
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Relative Illumination Plot



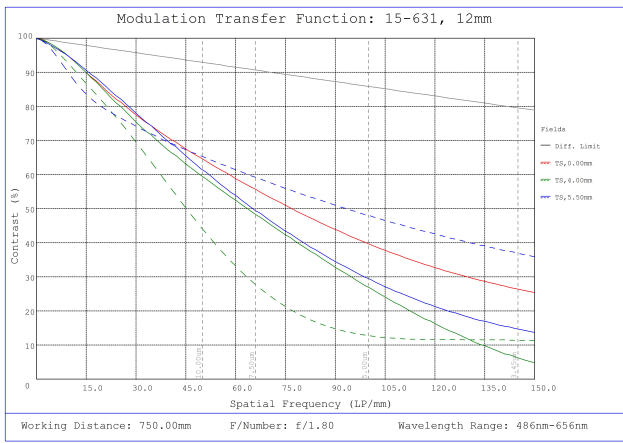
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



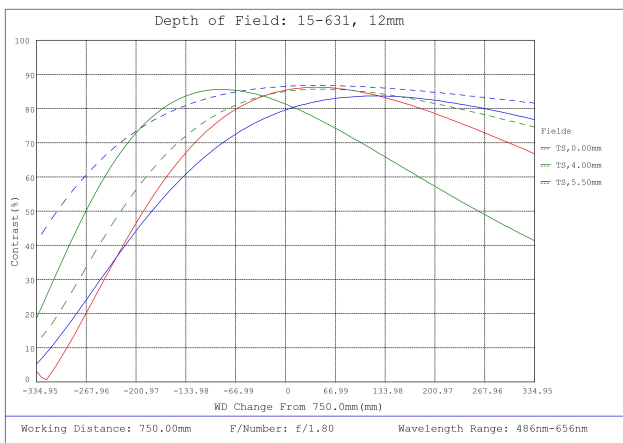
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f1.8



#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f1.8



#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f1.8



#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f1.8