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



12mm Focal Length



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

⊖ 1 ⊕ €316⁰⁰

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Volume Pricing	
Qty 1+	€316,00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Cw Series **Product Family:**

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

Fixed Focal Length Lens **Type:**

Meets IEC IPX7 and IPX9K
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°
41.0°
Horizontal Field of View, 2/3" Sensor:
33.8°
Horizontal Field of View, 1/1.8" Sensor:
30.2°
Horizontal Field of View, 1/2" Sensor:
27.4°
Horizontal Field of View, 1/2.5" Sensor:
22.8°
Horizontal Field of View, 1/3" Sensor:
17.1°
Horizontal Field of View, 1/4" Sensor:
11.00
Maximum Image Circle (mm):
0.0262
Numerical Aperture NA, Object Side:
7 (7)
Number of Elements (Groups):
12.00
Focal Length FL (mm):
100 - ∞
Working Distance (mm):
f/1.8
Aperture (f/#):
425 - 675nm BBAR
Coating Specification:
17.6208
Entrance Pupil Position (mm):
23.93
Object Space Principal Plane (mm):
1.98
Image Space Principal Plane (mm):
2.11
Maximum Distortion (%):
-11.3801
Exit Pupil Position (mm):
VIS
Lens Wavelength Range:

Sensor

2/3"
Maximum Sensor Format:
2.74
Pixel Size (µm):

Threading & Mounting

M30.5 x 0.50 (Female)
Filter Thread:
C-Mount
Mount:

Environmental & Durability Factors

IPX7 and IPX9K
Environmental Rating:
-20 to +60
Storage Temperature (°C):
Type of Ruggedization:

Regulatory Compliance

Certificate of Conformance:

[View](#)

Product Details

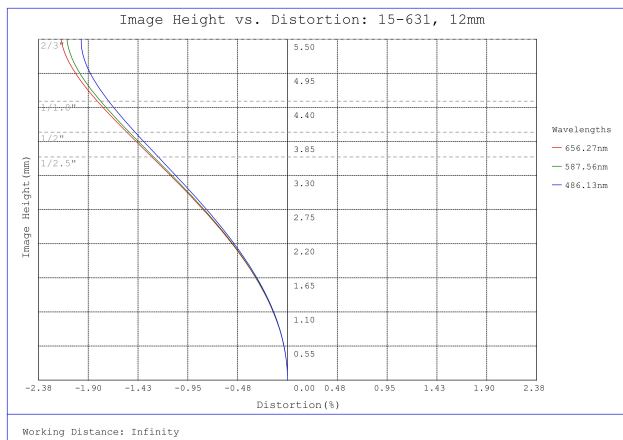
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

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 spraydowns 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.

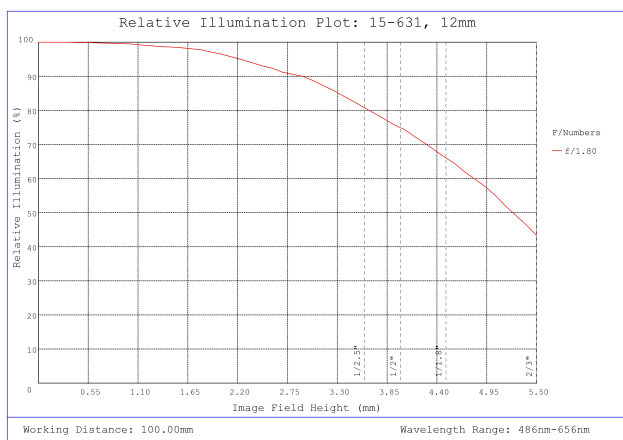
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

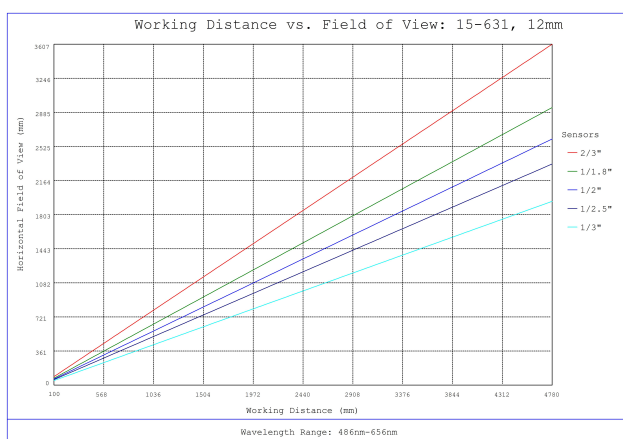
Technical Information



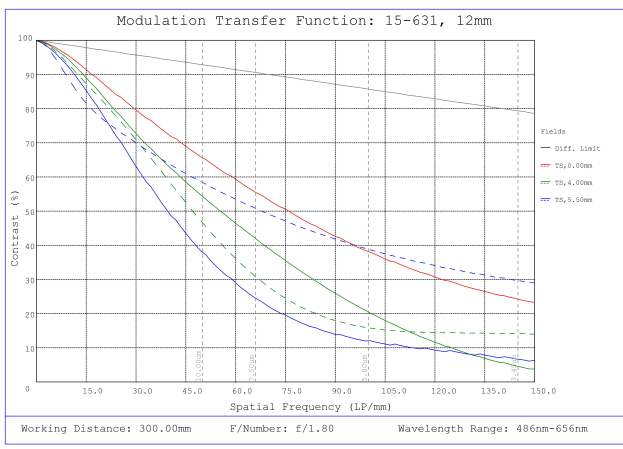
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Distortion Plot



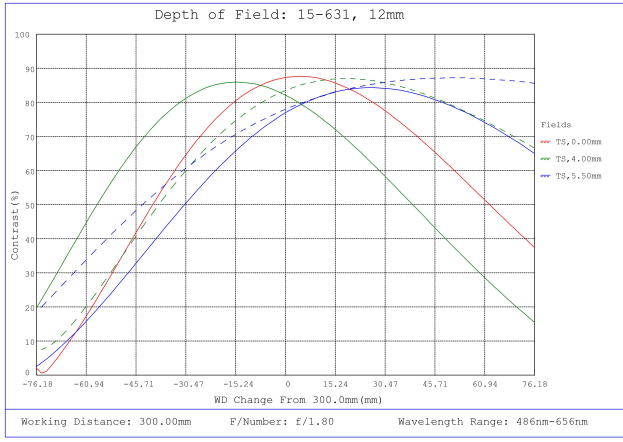
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Relative Illumination Plot



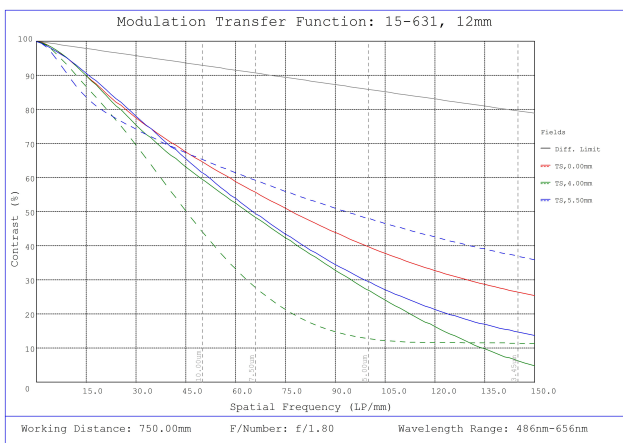
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



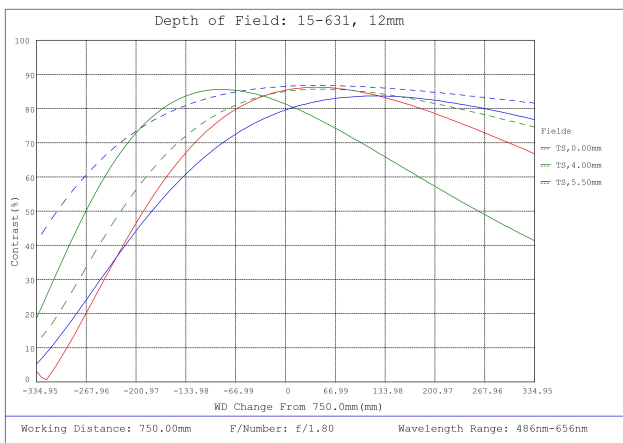
#15-631, 12mm, f/1.8 Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f1.8



#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