

TECHSPEC[®] 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens



4.5mm Focal Length



Stock **#15-615** 1 In Stock

-

1

+

£417^{.00}

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Volume Pricing	
Qty 1+	£417.00 each
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Product Downloads

SPECIFICATIONS

General

Cw Series

Series:

C-Mbunt compatible with O-ring 25mm ID x2mm		Note:
Fixed Focal Length Lens		Type:
Physical & Mechanical Properties		
Fixed		Iris Option:
40.82		Length (mm):
54.00		Maximum Diameter (mm):
54		Outer Diameter (mm):
3.3		Maximum Rear Protrusion (mm):
Optical Properties		
Field of View at Max Sensor Format: Horizontal: 84.7° Vertical: 66.1° Diagonal: 100.0°		
84.7°		Horizontal Field of View, 1/1.8" Sensor:
76.8°		Horizontal Field of View, 1/2" Sensor:
70.1°		Horizontal Field of View, 1/2.5" Sensor:
59.34°		Horizontal Field of View, 1/3" Sensor:
9.00		Maximum Image Circle (mm):
0.0130		Numerical Aperture NA, Object Side:
9 (8)		Number of Elements (Groups):
4.50		Focal Length FL (mm):
75 - ∞		Working Distance (mm):
f/4		Aperture (f/#):
425 - 675nm BBAR		Coating Specification:
27.308		Entrance Pupil Position (mm):
-31.12		Object Space Principal Plane (mm):
35.70		Image Space Principal Plane (mm):
15.959		Maximum Distortion (%):
-9.272		Exit Pupil Position (mm):
VIS		Lens Wavelength Range:
Sensor		
1/1.8"		Maximum Sensor Format:
2.74		Pixel Size (μm):
Threading & Mounting		
M49 x0.75 (Female)		Filter Thread:
C-Mbunt		Mount:
Environmental & Durability Factors		
IPX7		Environmental Rating:
Waterproof (IPX7)		Type of Ruggedization:

PRODUCT DETAILS

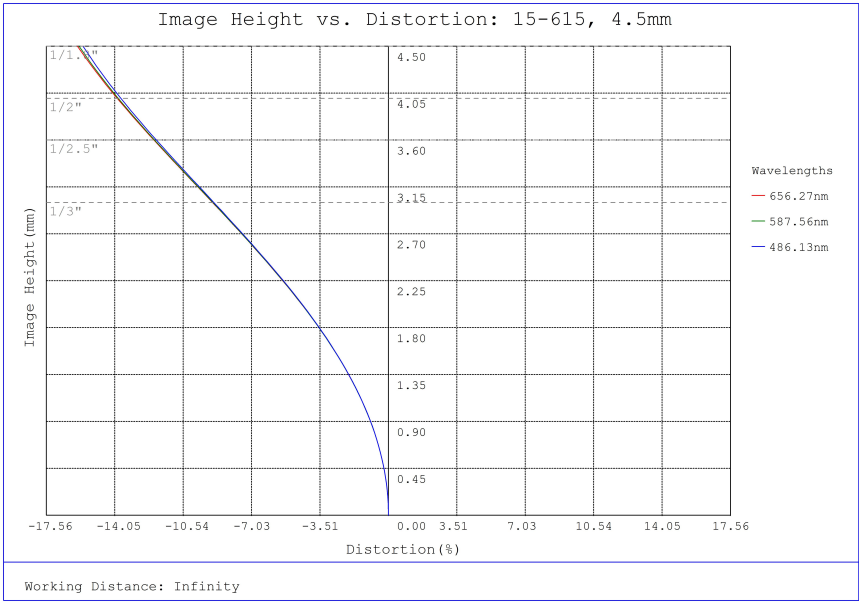
- Up to 2/3", C-Mount Lens
- Waterproof (Cw) Versions of C Series Fixed Focal Length Lenses
- Meets IEC Ingress Protection Ratings of IPX7 and IPX9K
- Designed to Eliminate the Need for a Protective Lens Cover

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.

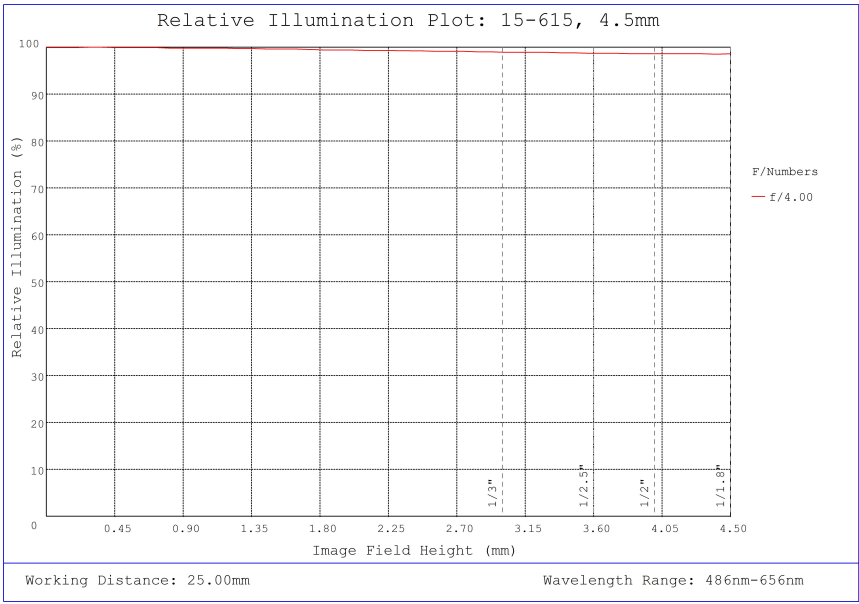
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety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

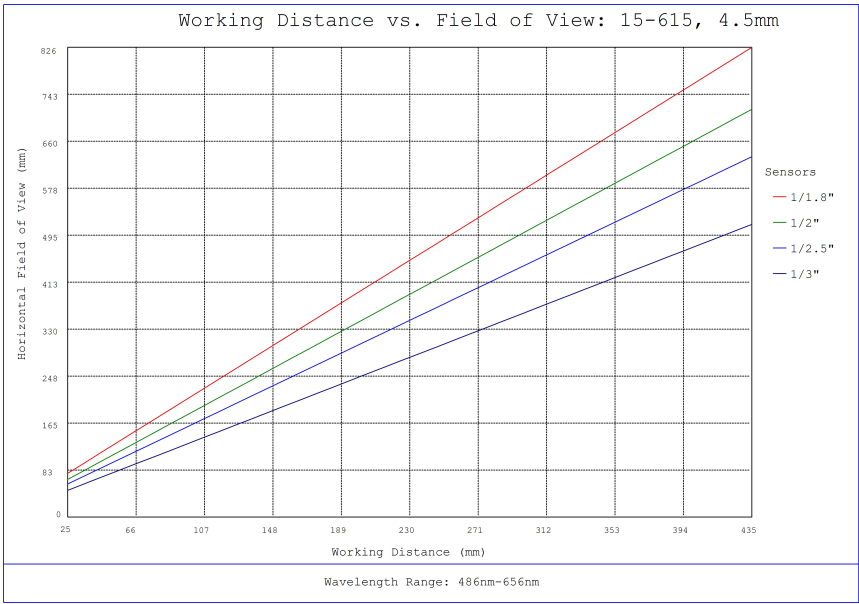
TECHNICAL INFORMATION



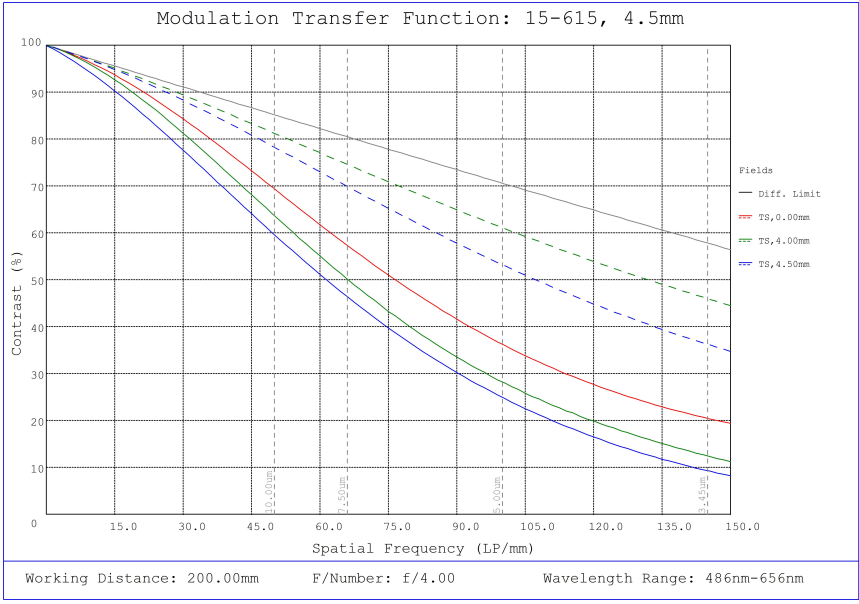
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Distortion Plot



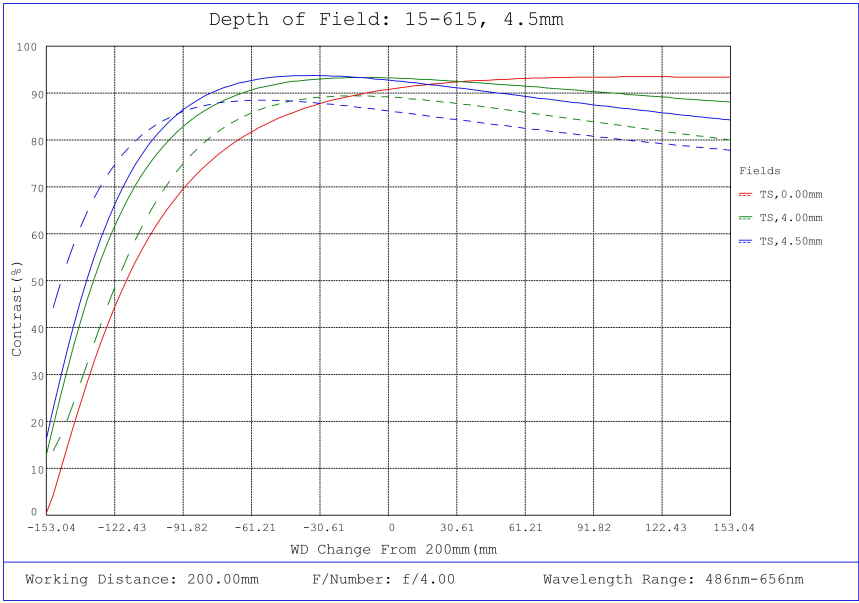
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Relative Illumination Plot



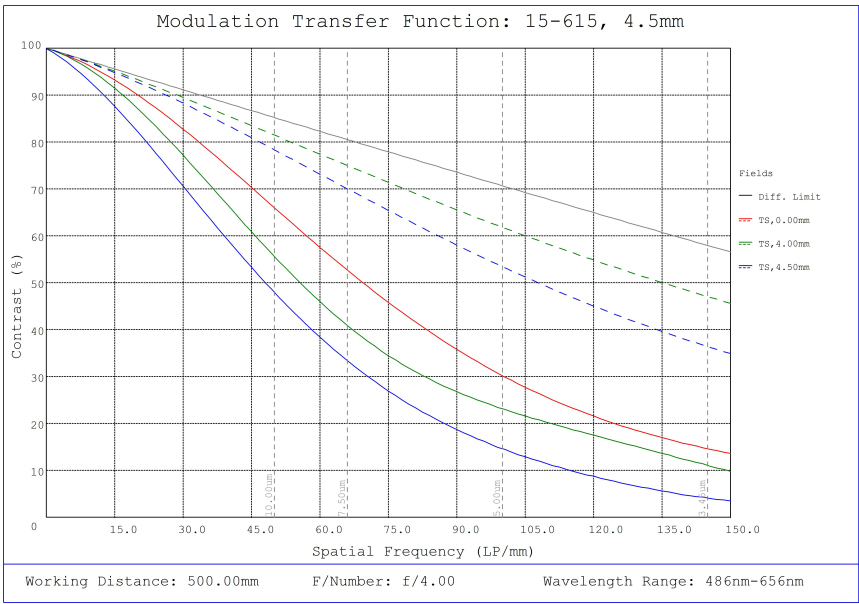
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



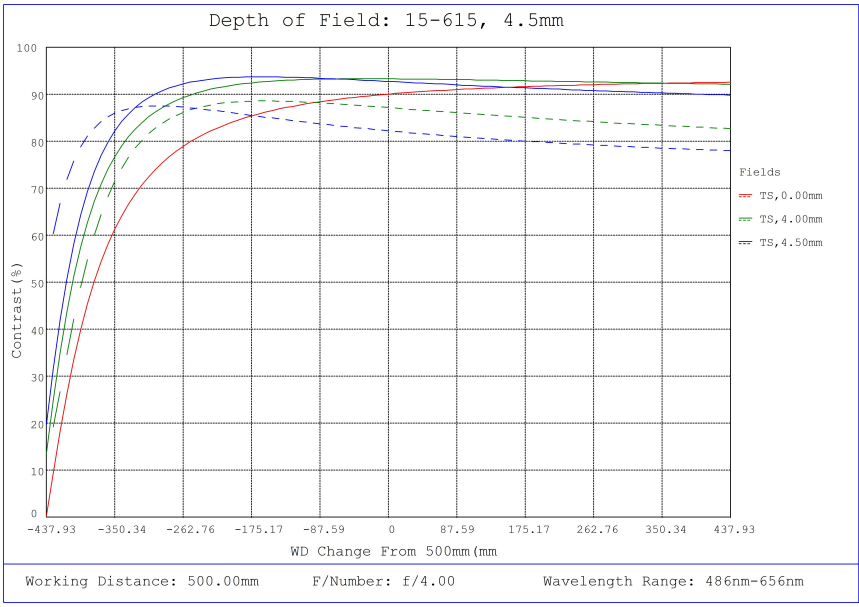
#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f4



#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f4



#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#15-615, 4.5mm f/4.0 Sealed Cw Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f4