

**TECHSPEC® 16mm, f/16 UCi Series Fixed Focal Length Lens**



16mm UCi Series Fixed Focal Length Lens



Stock #33-889 **2 In Stock**

⊖ 1 ⊕ **\$309<sup>00</sup>**

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**General**

UCi Series **Product Family:**

Fixed Focal Length Lens **Type:**

No **IR Cut Filter:**

**Physical & Mechanical Properties**

Fixed	Iris Option:
26.70	Length (mm):
18	Maximum Diameter (mm):
25	Outer Diameter (mm):
13	Weight (g):
0	Maximum Rear Protrusion (mm):
25.5	Maximum Length (mm):

## Optical Properties

98.5mm - 25.3°	Horizontal Field of View @ Max Sensor Format:
Horizontal: 93.6mm - 25.3° Vertical: 70.2mm - 19.1° Diagonal: 117mm - 31.3°	Field of View at Max Sensor Format:
93.6mm - 25.3°	Horizontal Field of View, 1/1.8" Sensor:
83.2mm - 22.5°	Horizontal Field of View, 1/2" Sensor:
75.4mm - 20.5°	Horizontal Field of View, 1/2.5" Sensor:
62.4mm - 17.0°	Horizontal Field of View, 1/3" Sensor:
46.8mm - 12.8°	Horizontal Field of View, 1/4" Sensor:
9.00	Maximum Image Circle (mm):
0.0023	Numerical Aperture NA, Object Side:
7 (5)	Number of Elements (Groups):
16.00	Focal Length FL (mm):
200 - ∞	Working Distance (mm):
f/16	Aperture (f/#):
M4 MgF <sub>2</sub>	Coating:
M4 MgF <sub>2</sub>	Coating Specification:
10.68	Entrance Pupil Position (mm):
20.18	Object Space Principal Plane (mm):
-6.67	Image Space Principal Plane (mm):
-0.53	Maximum Distortion (%):
-29.94	Exit Pupil Position (mm):
VIS	Lens Wavelength Range:

## Sensor

1/2.5"	Optimized Sensor Format:
1/1.8"	Maximum Sensor Format:
1.85	Pixel Size (μm):

## Threading & Mounting

M18 x0.50 (Male)	Filter Thread:
S-Mount (M12 x0.5)	Mount:

## Environmental & Durability Factors

Storage Temperature (°C):

-20 to +60

Type of Ruggedization:

Industrial (Fixed Aperture with Simplified Mechanics)

## Regulatory Compliance

Certificate of Conformance:

[View](#)

## Product Details

- Up to 1/1.8", C-Mount, S-Mount Lens
- Up to 12 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (UCi) versions of our UC Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 4mm to 35mm Focal Length

TECHSPEC® UCi Series Fixed Focal Length Lenses utilize the same optics as the TECHSPEC UC Series Lenses and feature 4K resolution. These lenses are designed for small pixels  $\leq 2.2\mu\text{m}$  and offer a wide range of fixed apertures for a variety of applications. While optimized for 1/2.5" sensors, many focal length options can be used on sensors up to 1/1.8". TECHSPEC® UCi Series Fixed Focal Length Lenses are ideal for OEM applications that require small, robust, and lightweight imaging solutions.

**Note:** For adjustable aperture options, see our [TECHSPEC® UC Series Fixed Focal Length Lenses](#).

Edmund Optics has created a family of high-performance ultra-compact optical designs (the UC Series family) and developed 3 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the UC Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

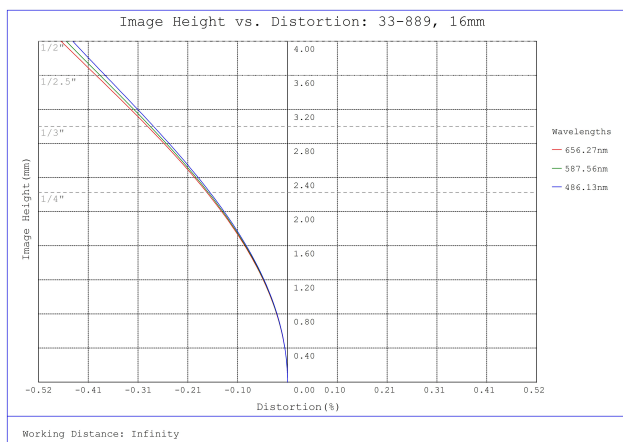
**UC Series:** Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

**UCi Series:** Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.

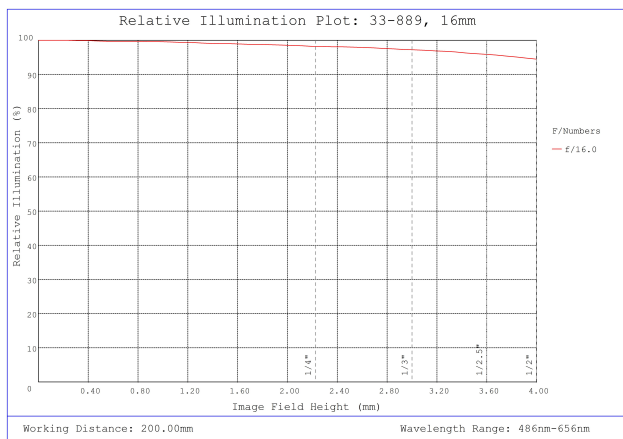
**UCr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

**UCw Series:** Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 to withstand exposure to water up to 1 meter depth for 30 minutes.

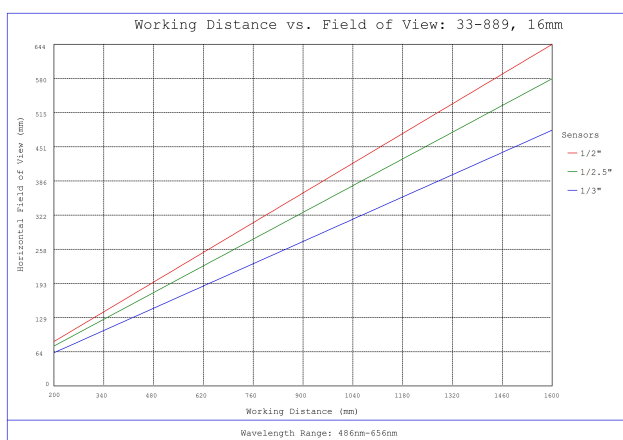
## Technical Information



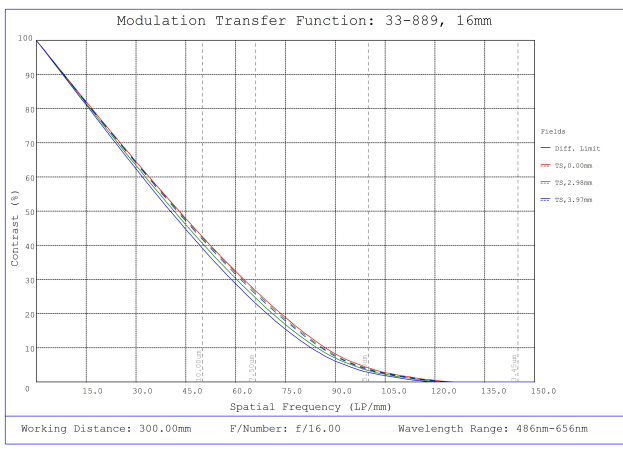
#33-889, 16mm, f/16 UCi Series Fixed Focal Length Lens, Distortion Plot



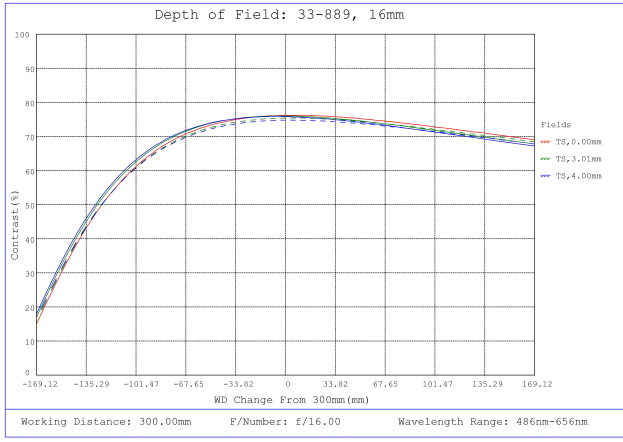
#33-889, 16mm, f/16 UCi Series Fixed Focal Length Lens, Relative Illumination Plot



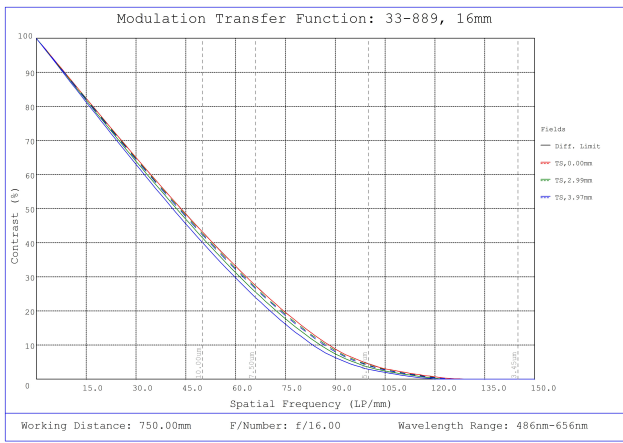
#33-889, 16mm, f/16 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



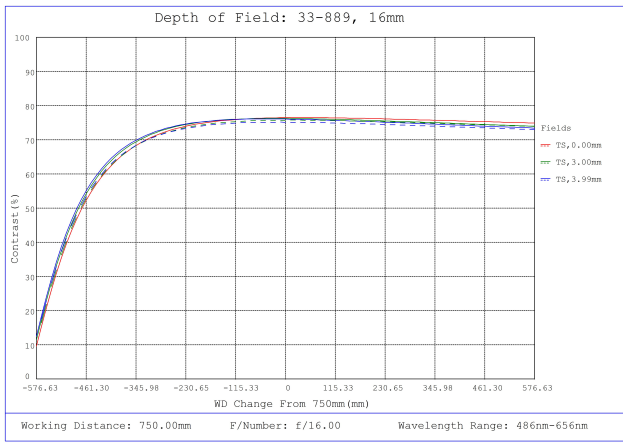
#33-889, 16mm, f/16 UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f16



#33-889, 16mm, f/16 UCI Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f16



#33-889, 16mm, f/16 UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f16



#33-889, 16mm, f/16 UCI Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f16

## Compatible Cameras