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TECHSPEC®

16mm, f/2.8 UCi Series Fixed Focal Length Lens



16mm UCi Series Fixed Focal Length Lens



Stock **#33-884** 20+ In Stock

-

1

+

C\$378<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1+         | C\$378.00 each                |
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Product Downloads

| General                          |                |
|----------------------------------|----------------|
| UCi Series                       | Series:        |
| 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   |                                                                                                                          |
|----------------------|--------------------------------------------------------------------------------------------------------------------------|
|                      | Horizontal Field of View @ Max Sensor Format:<br>98.5mm - 25.3°                                                          |
|                      | Field of View at Max Sensor Format:<br>Horizontal: 93.6mm - 25.3°<br>Vertical: 70.2mm - 19.1°<br>Diagonal: 117mm - 31.3° |
|                      | Horizontal Field of View, 1/1.8" Sensor:<br>93.6mm - 25.3°                                                               |
|                      | Horizontal Field of View, 1/2" Sensor:<br>83.2mm - 22.5°                                                                 |
|                      | Horizontal Field of View, 1/2.5" Sensor:<br>75.4mm - 20.5°                                                               |
|                      | Horizontal Field of View, 1/3" Sensor:<br>62.4mm - 17.0°                                                                 |
|                      | Horizontal Field of View, 1/4" Sensor:<br>46.8mm - 12.8°                                                                 |
|                      | Maximum Image Circle (mm):<br>9.00                                                                                       |
| 0.0133               | Numerical Aperture NA, Object Side:                                                                                      |
|                      | Number of Elements (Groups):<br>7 (5)                                                                                    |
| 16.00                | Focal Length FL (mm):                                                                                                    |
|                      | Working Distance (mm):<br>200 - ∞                                                                                        |
| f/2.8                | Aperture (f/#):                                                                                                          |
|                      | Coating:<br>λ/4 MgF <sub>2</sub>                                                                                         |
| λ/4 MgF <sub>2</sub> | Coating Specification:                                                                                                   |
|                      | Entrance Pupil Position (mm):<br>10.68                                                                                   |
| 20.18                | Object Space Principal Plane (mm):                                                                                       |
|                      | Image Space Principal Plane (mm):<br>-6.67                                                                               |
| -0.53                | Maximum Distortion (%):                                                                                                  |
|                      | Exit Pupil Position (mm):<br>-29.94                                                                                      |
| VIS                  | Lens Wavelength Range:                                                                                                   |

| Sensor |                          |
|--------|--------------------------|
| 1/2.5" | Optimized Sensor Format: |
|        | Maximum Sensor Format:   |
| 1/1.8" |                          |
|        | Pixel Size (μm):<br>1.85 |

| Threading & Mounting |                              |
|----------------------|------------------------------|
| M18 x0.50 (Male)     | Filter Thread:               |
|                      | Mount:<br>S-Mount (M12 x0.5) |

Environmental & Durability Factors

|                                                                                                              |                                      |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <div><div>-20 to +60</div></div>                                                                             | <div>Storage Temperature (°C):</div> |
| <div><div>Type of Ruggedization:</div><div>Industrial (Fixed Aperture with Simplified Mechanics)</div></div> |                                      |

Regulatory Compliance

|                            |                                        |
|----------------------------|----------------------------------------|
| <div><div>View</div></div> | <div>Certificate of Conformance:</div> |
|----------------------------|----------------------------------------|

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 ≤2.2µm 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:

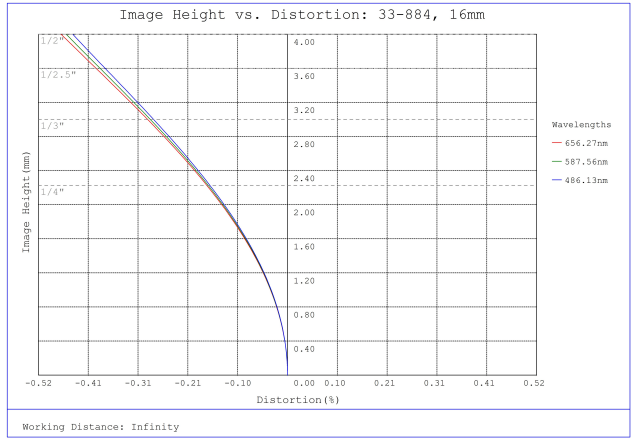
**UC Series:** Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

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

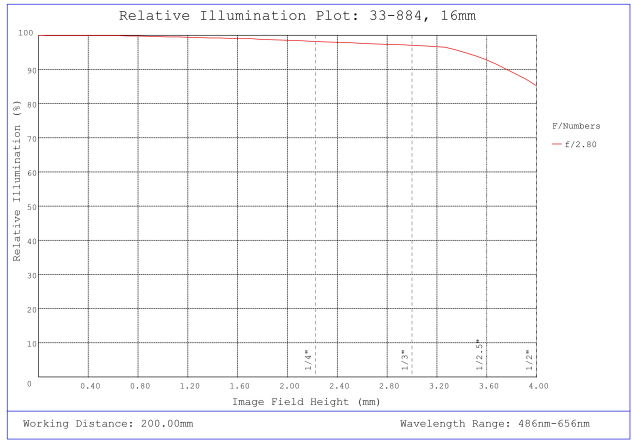
**UCr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

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

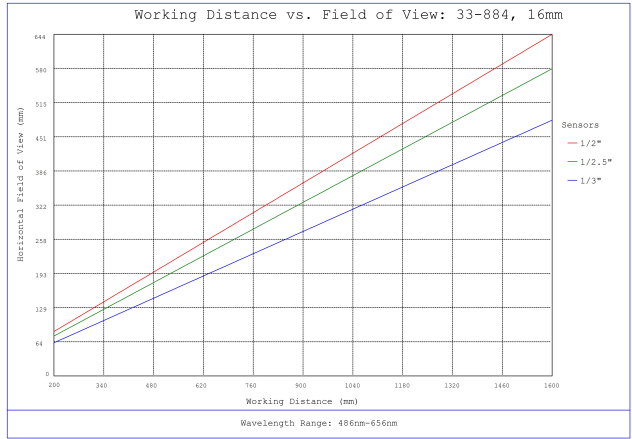
Technical Information



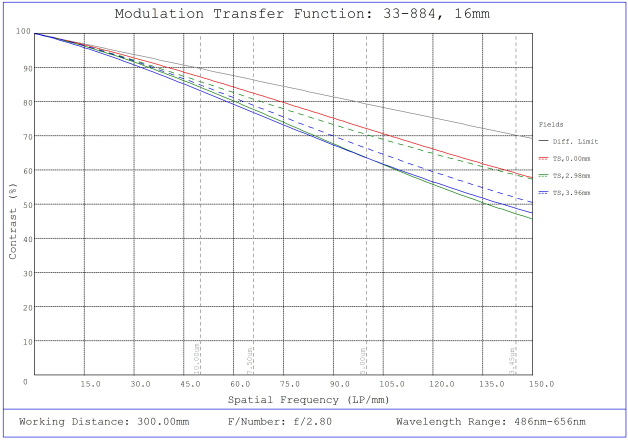
#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Distortion Plot



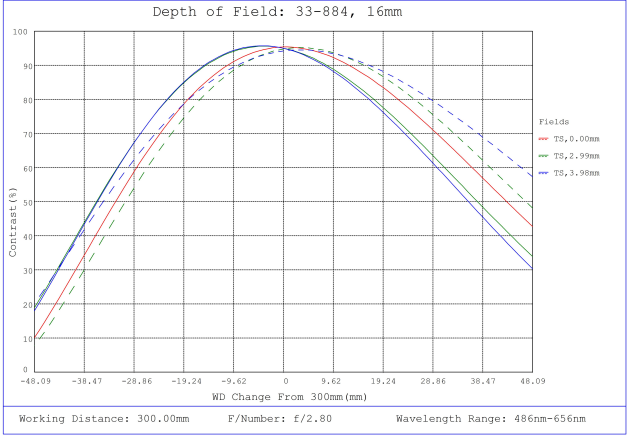
#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Relative Illumination Plot



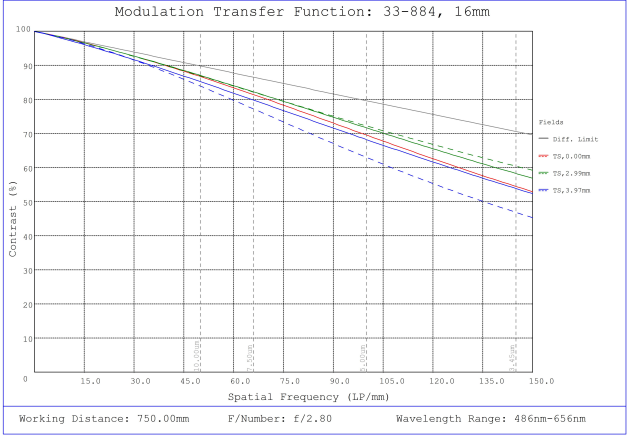
#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



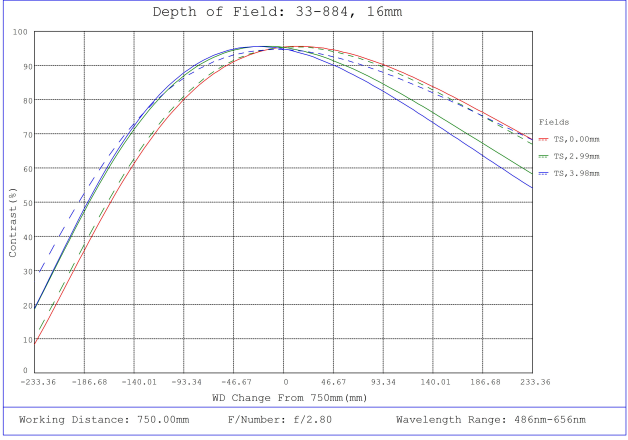
#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 300mm Working Distance, f2.8



#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 300mm Working Distance, f2.8



#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f2.8



#33-884, 16mm, f/2.8 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f2.8

## Compatible Cameras