

TECHSPEC<sup>®</sup> 4mm f/4, UCi Series Fixed Focal Length Lens



4mm UCi Series Fixed Focal Length Lens



Stock **#33-857** 20+ In Stock

-

1

+

€235<sup>.00</sup>

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| Qty 1+         | €235,00 each                  |
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Product Downloads

SPECIFICATIONS

General

UCi Series

Series:

|                                                                                                                            |                                     |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Fixed Focal Length Lens                                                                                                    | Type:                               |
| No                                                                                                                         | IR Cut Filter:                      |
| Physical & Mechanical Properties                                                                                           |                                     |
| Fixed                                                                                                                      | Iris Option:                        |
| 48.30                                                                                                                      | Length (mm):                        |
| 40                                                                                                                         | Maximum Diameter (mm):              |
| 40                                                                                                                         | Outer Diameter (mm):                |
| 44                                                                                                                         | Weight (g):                         |
| 0                                                                                                                          | Maximum Rear Protrusion (mm):       |
| Optical Properties                                                                                                         |                                     |
| Horizontal Field of View @ Max Sensor Format:<br>23.0mm - 84.8°                                                            |                                     |
| Field of View at Max Sensor Format:<br>Horizontal: 22.9mm - 84.8°<br>Vertical: 15.6mm - 65.4°<br>Diagonal: 33.6mm - 101.7° |                                     |
| Horizontal Field of View, 1/2" Sensor:<br>23.0mm - 84.8°                                                                   |                                     |
| Horizontal Field of View, 1/2.5" Sensor:<br>20.0mm - 77.8°                                                                 |                                     |
| Horizontal Field of View, 1/3" Sensor:<br>15.6mm - 65.4°                                                                   |                                     |
| Horizontal Field of View, 1/4" Sensor:<br>11.2mm - 49.7°                                                                   |                                     |
| 8.00                                                                                                                       | Maximum Image Circle (mm):          |
| 0.0404                                                                                                                     | Numerical Aperture NA, Object Side: |
| 8 (7)                                                                                                                      | Number of Elements (Groups):        |
| 4.00                                                                                                                       | Focal Length FL (mm):               |
| 0 - ∞                                                                                                                      | Working Distance (mm):              |
| f/4.0                                                                                                                      | Aperture (f/#):                     |
| N/4 MgF <sub>2</sub>                                                                                                       | Coating:                            |
| N/4 MgF <sub>2</sub>                                                                                                       | Coating Specification:              |
| 12.69                                                                                                                      | Entrance Pupil Position (mm):       |
| 16.04                                                                                                                      | Object Space Principal Plane (mm):  |
| 5.84                                                                                                                       | Image Space Principal Plane (mm):   |
| -20.44                                                                                                                     | Maximum Distortion (%):             |
| -12.68                                                                                                                     | Exit Pupil Position (mm):           |
| VS                                                                                                                         | Lens Wavelength Range:              |
| Sensor                                                                                                                     |                                     |
| 1/2.5"                                                                                                                     | Optimized Sensor Format:            |
| 1/2"                                                                                                                       | Maximum Sensor Format:              |
| 1.85                                                                                                                       | Pixel Size (μm):                    |
| Threading & Mounting                                                                                                       |                                     |
| M62 x0.75 (Male)                                                                                                           | Filter Thread:                      |
|                                                                                                                            | Filter Thread Adapter:              |

Mount:

S-Mount (M12 x0.5)

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 ≤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:

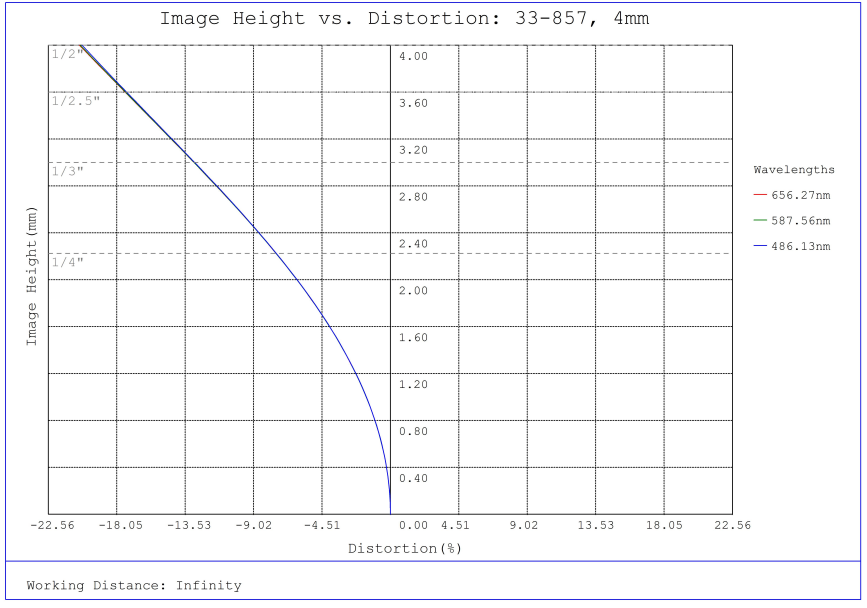
**UC Series:** Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

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

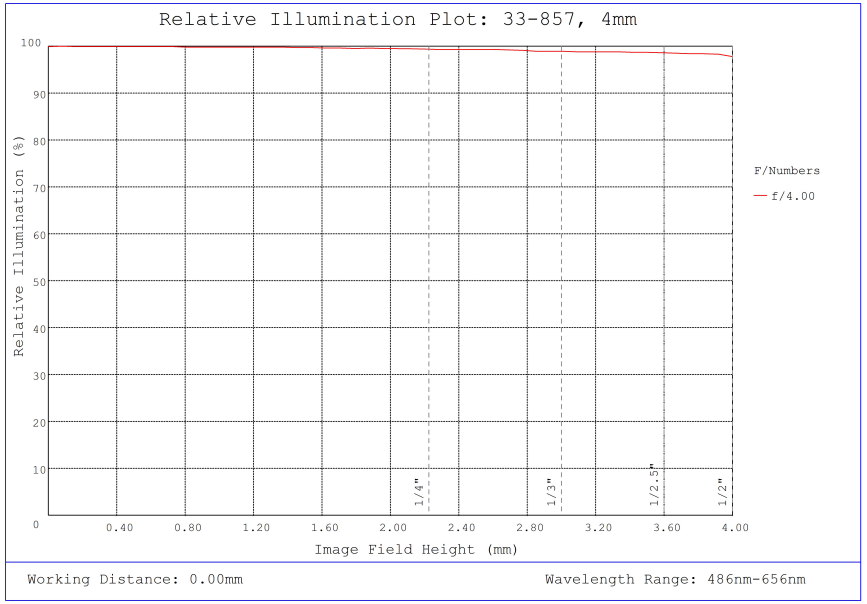
**UCr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

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

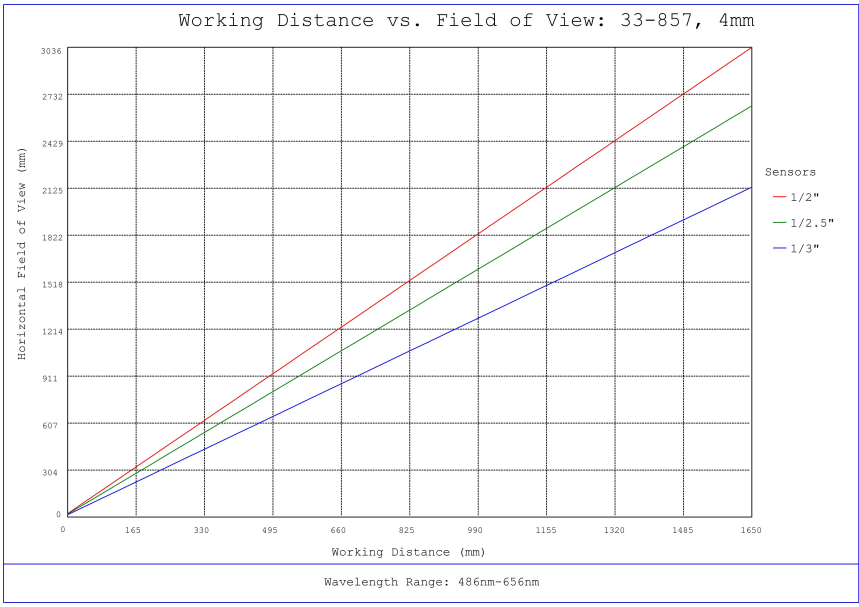
TECHNICAL INFORMATION



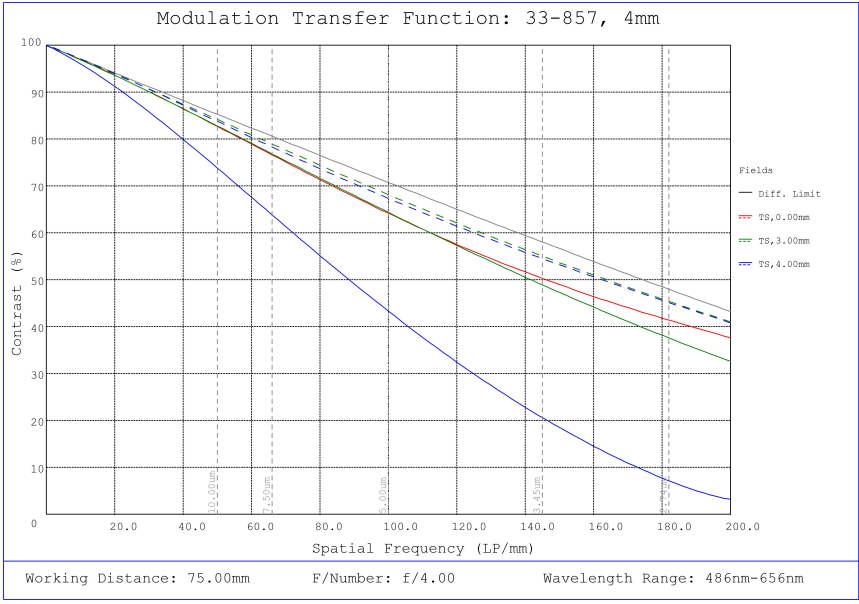
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Distortion Plot



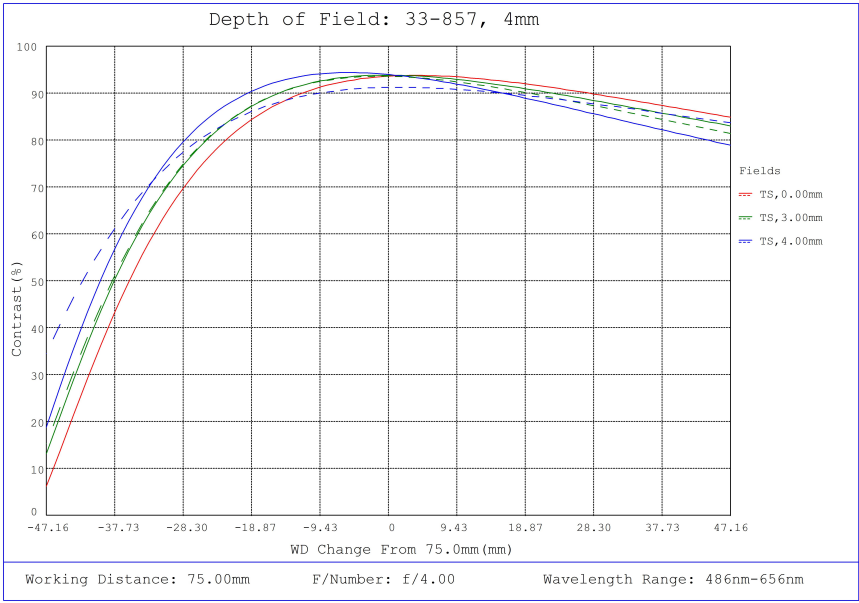
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Relative Illumination Plot



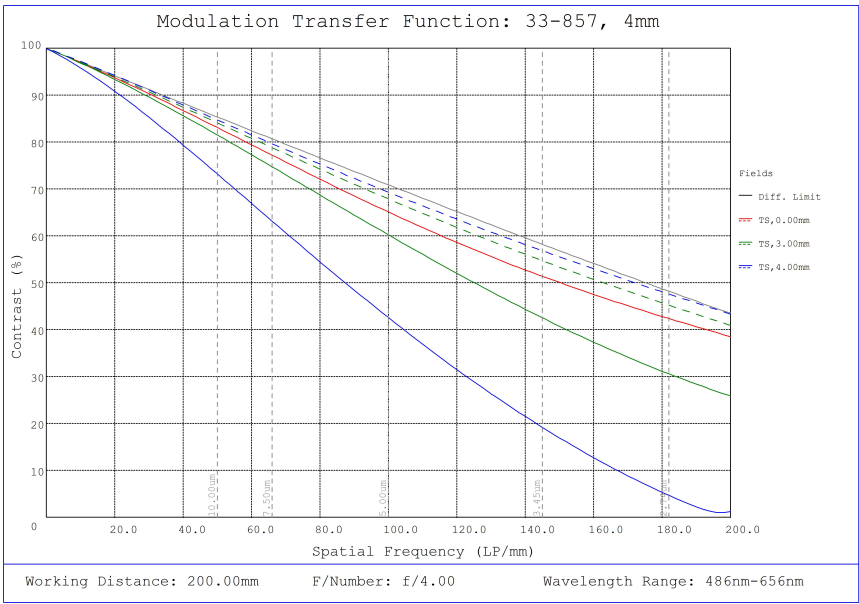
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



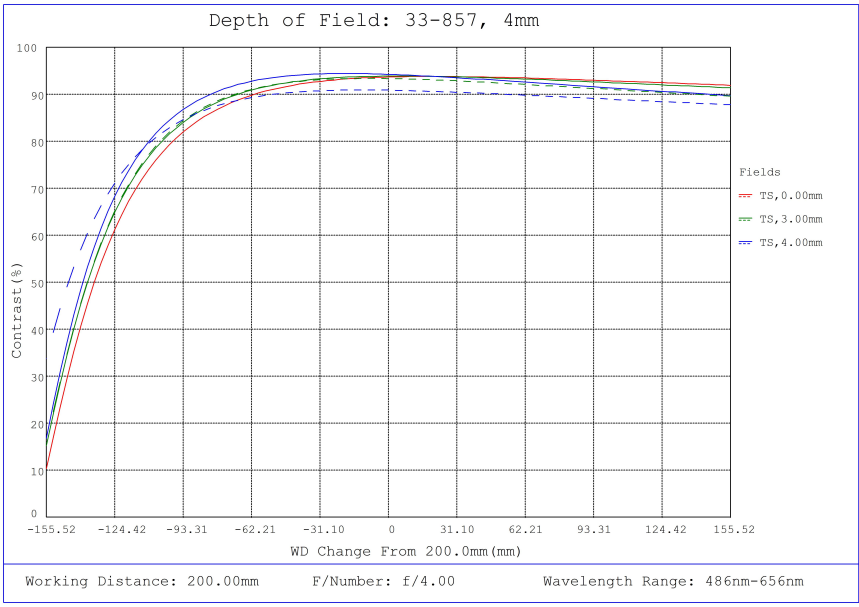
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f4



#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f4



#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 200mm Working Distance, f4



#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Depth of Field Plot, 200mm Working Distance, f4

## COMPATIBLE CAMERAS