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## TECHSPEC® 4mm f/4, UCi Series Fixed Focal Length Lens



4mm UCi Series Fixed Focal Length Lens



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

⊖ 1 ⊕ C\$378<sup>00</sup>

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### Product Downloads

#### General

UCi Series	<b>Product Family:</b>
Fixed Focal Length Lens	<b>Type:</b>
No	<b>IR Cut Filter:</b>

#### 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:  
23.0mm - 84.8°

Field of View at Max Sensor Format:  
Horizontal: 22.9mm - 84.8°  
Vertical: 15.6mm - 65.4°  
Diagonal: 33.6mm - 101.7°

Horizontal Field of View, 1/2" Sensor:  
23.0mm - 84.8°

Horizontal Field of View, 1/2.5" Sensor:  
20.0mm - 77.8°

Horizontal Field of View, 1/3" Sensor:  
15.6mm - 65.4°

Horizontal Field of View, 1/4" Sensor:  
11.2mm - 49.7°

Maximum Image Circle (mm):  
8.00

Numerical Aperture NA, Object Side:  
0.0404

Number of Elements (Groups):  
8 (7)

Focal Length FL (mm):  
4.00

Working Distance (mm):  
0 - ∞

Aperture (f/#):  
f/4.0

Coating:  
λ/4 MgF<sub>2</sub>

Coating Specification:  
λ/4 MgF<sub>2</sub>

Entrance Pupil Position (mm):  
12.69

Object Space Principal Plane (mm):  
16.04

Image Space Principal Plane (mm):  
5.84

Maximum Distortion (%):  
-20.44

Exit Pupil Position (mm):  
-12.68

Lens Wavelength Range:  
VIS

## Sensor

Optimized Sensor Format:  
1/2.5"

Maximum Sensor Format:  
1/2"

Pixel Size (μm):  
1.85

## Threading & Mounting

Filter Thread:  
M62 x 0.75 (Male)

Filter Thread Adapter:  
[#33-308 \(Required\)](#)

Mount:  
S-Mount (M12 x 0.5)

## Environmental & Durability Factors

Storage Temperature (°C):

## Regulatory Compliance

[View](#) Certificate of Conformance:

## 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:

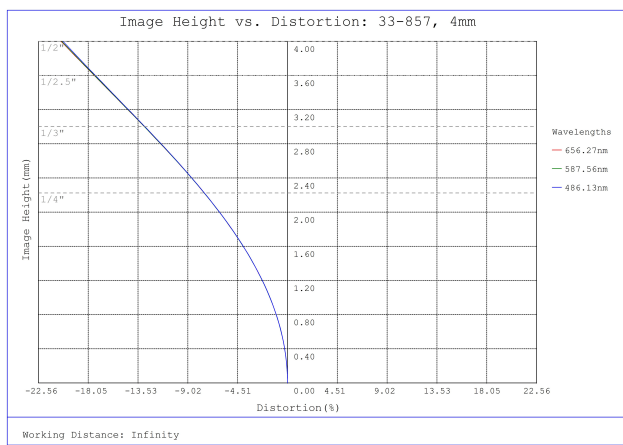
**UC Series:** Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

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

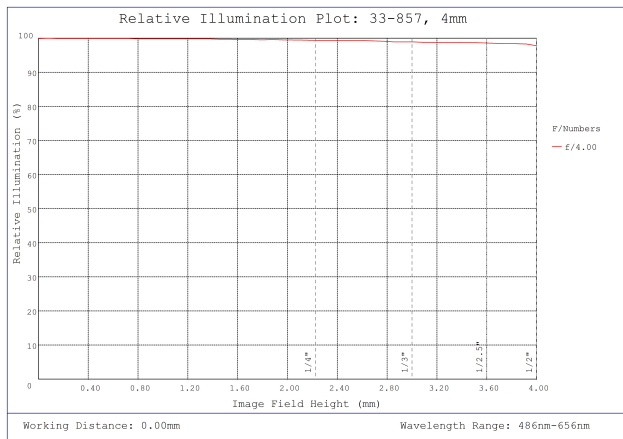
**UCr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

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

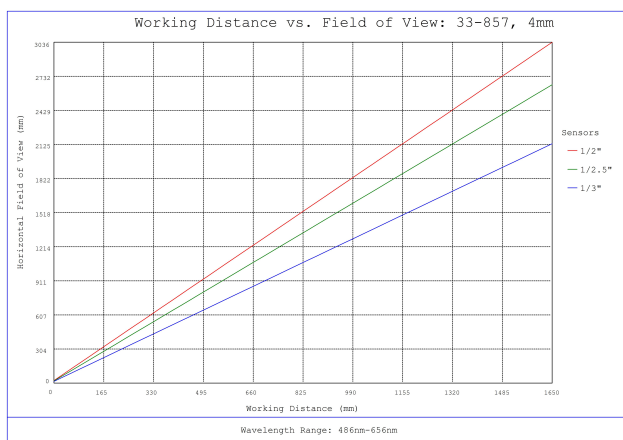
## Technical Information



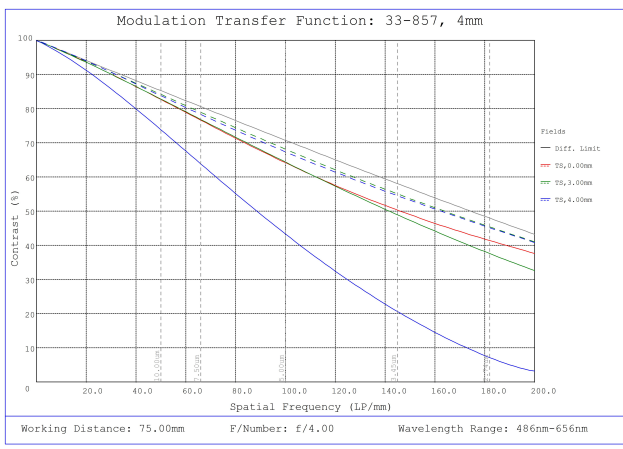
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Distortion Plot



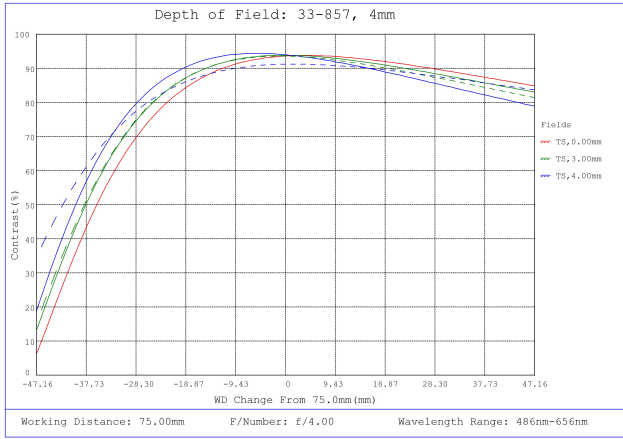
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Relative Illumination Plot



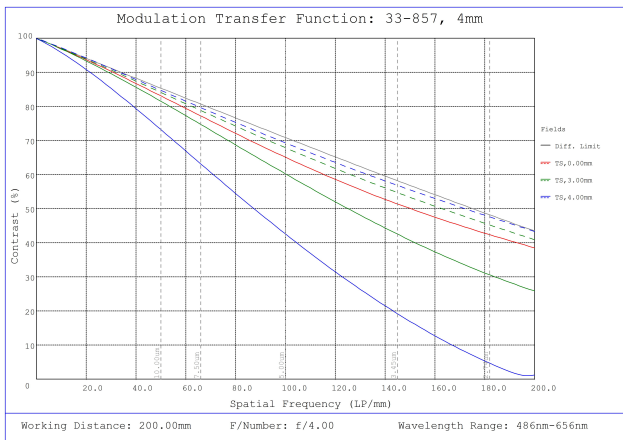
#33-857, 4mm f/4, UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



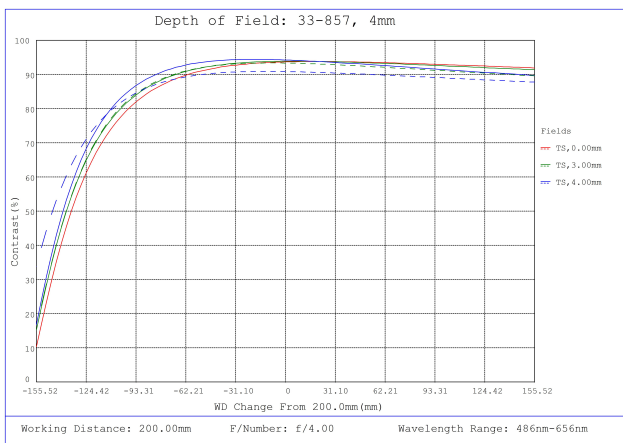
#33-857, 4mm f/4, UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f4



#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