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## TECHSPEC® 6mm, f/8 UCi Series Fixed Focal Length Lens



6mm UCi Series Fixed Focal Length Lens



Stock #33-866 **20+ In Stock**

− 1 + €235<sup>00</sup>

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### Product Downloads

#### General

UCi Series **Product Family:**

Fixed Focal Length Lens **Type:**

No **IR Cut Filter:**

## Physical & Mechanical Properties

Fixed Iris Option:

47.30 Length (mm):

30.5 Maximum Diameter (mm):

30.5 Outer Diameter (mm):

52 Weight (g):

0 Maximum Rear Protrusion (mm):

## Optical Properties

Horizontal Field of View @ Max Sensor Format:  
72.8mm - 60.0°

Field of View at Max Sensor Format:  
Horizontal: 72.8mm - 60°  
Vertical: 52.7mm - 45.4°  
Diagonal: 95.5mm - 73.8°

Horizontal Field of View, 1/2" Sensor:  
72.8mm - 60.0°

Horizontal Field of View, 1/2.5" Sensor:  
65.0mm - 54.6°

Horizontal Field of View, 1/3" Sensor:  
52.7mm - 45.4°

Horizontal Field of View, 1/4" Sensor:  
38.7mm - 34.2°

8.00 Maximum Image Circle (mm):

0.0059 Numerical Aperture NA, Object Side:

9 (8) Number of Elements (Groups):

6.00 Focal Length FL (mm):

50 - ∞ Working Distance (mm):

f/8.0 Aperture (f#):

M4 MgF<sub>2</sub> Coating:

M4 MgF<sub>2</sub> Coating Specification:

12.61 Entrance Pupil Position (mm):

17.55 Object Space Principal Plane (mm):

4.85 Image Space Principal Plane (mm):

-11.2 Maximum Distortion (%):

-23.26 Exit Pupil Position (mm):

VIS Lens Wavelength Range:

## Sensor

1/2.5" Optimized Sensor Format:

1/2" Maximum Sensor Format:

1.85 Pixel Size (μm):

## Threading & Mounting

M30.5 x 0.50 (Male) Filter Thread:

S-Mount (M12 x 0.5) Mount:

## Environmental & Durability Factors

Storage Temperature (°C):

Type of Ruggedization:  
Industrial (Fixed Aperture with Simplified Mechanics)

## 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:

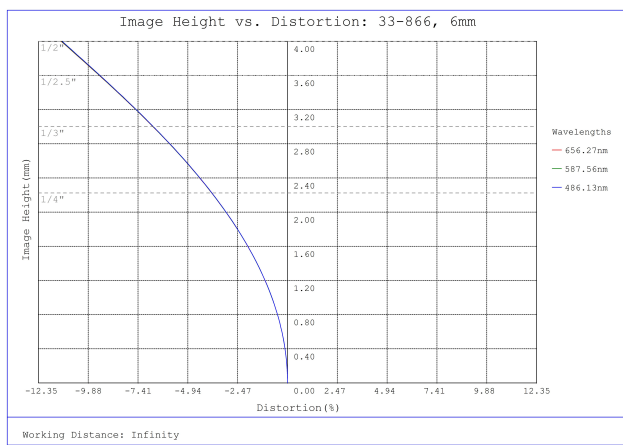
**UC Series:** Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

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

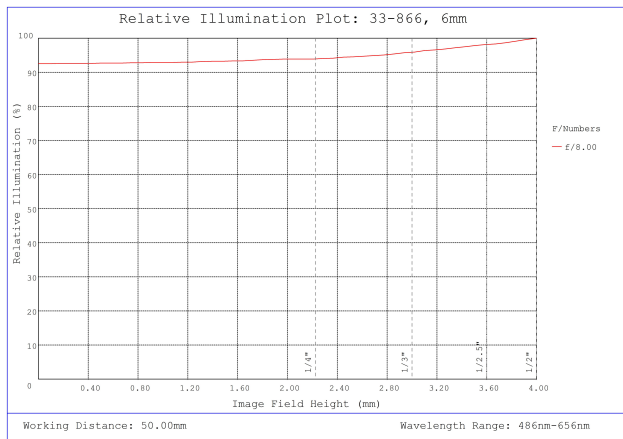
**UCr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

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

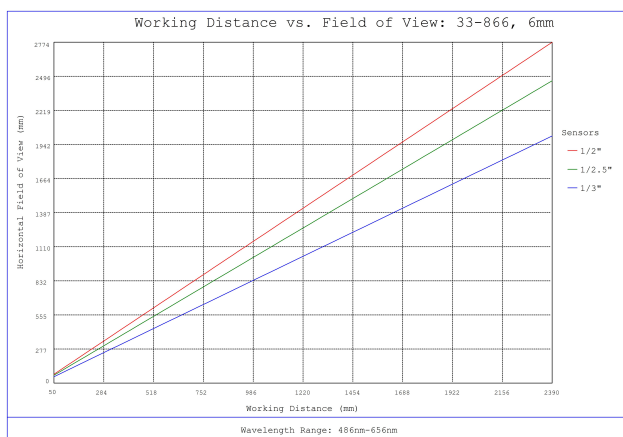
## Technical Information



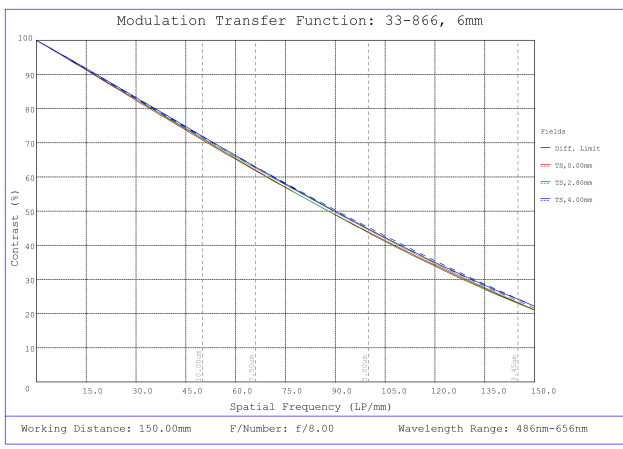
#33-866, 6mm, f/8 UCi Series Fixed Focal Length Lens, Distortion Plot



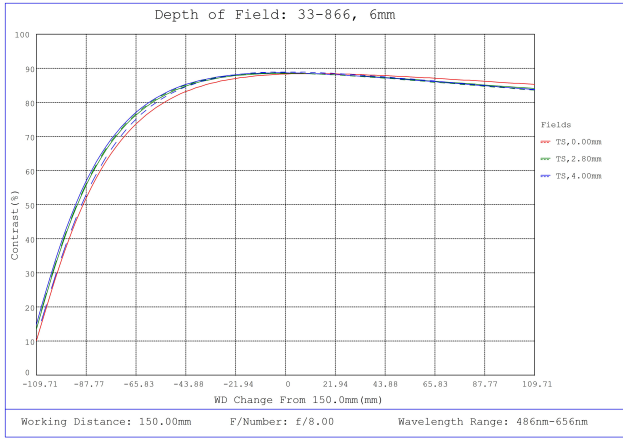
#33-866, 6mm, f/8 UCi Series Fixed Focal Length Lens, Relative Illumination Plot



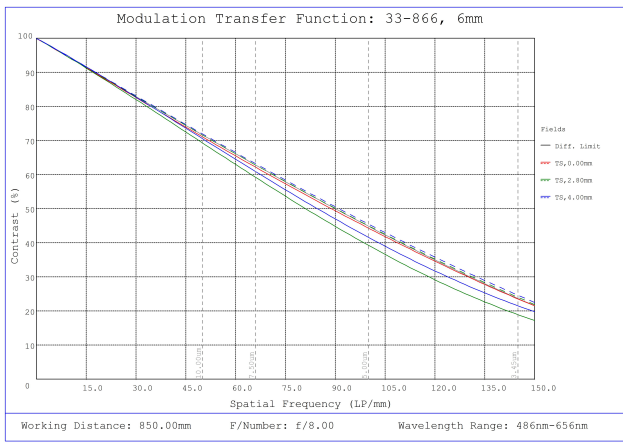
#33-866, 6mm, f/8 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



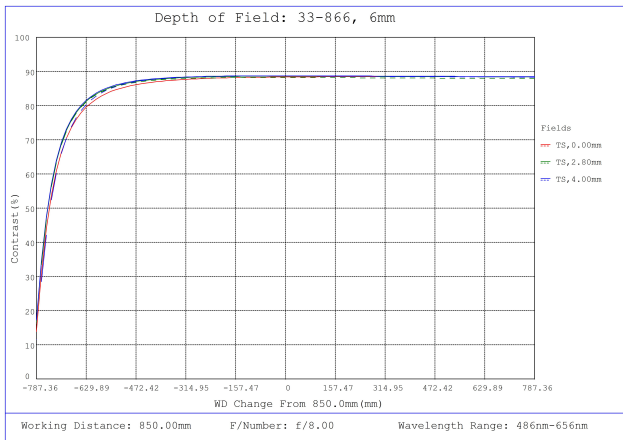
#33-866, 6mm, f/8 UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f8



#33-866, 6mm, f/8 UCI Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f8



#33-866, 6mm, f/8 UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 850mm Working Distance, f8



#33-866, 6mm, f/8 UCI Series Fixed Focal Length Lens, Depth of Field Plot, 850mm Working Distance, f8

## Compatible Cameras