

**TECHSPEC® 12mm, f/4 UCi Series Fixed Focal Length Lens**



12mm UCi Series Fixed Focal Length Lens



Stock #33-878 **20+ In Stock**

⊖ 1 ⊕ C\$378<sup>00</sup>

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Qty 1+	C\$378.00 each
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**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:
38.00	Length (mm):
22	Maximum Diameter (mm):
22	Outer Diameter (mm):
18	Weight (g):
0	Maximum Rear Protrusion (mm):

## Optical Properties

69.2mm - 34.0°	Horizontal Field of View @ Max Sensor Format:
Horizontal: 69.2mm - 34° Vertical: 51.4mm - 25.6° Diagonal: 87.6mm - 42.2°	Field of View at Max Sensor Format:
69.2mm - 34.0°	Horizontal Field of View, 1/1.8" Sensor:
61.2mm - 30.3°	Horizontal Field of View, 1/2" Sensor:
55.3mm - 27.5°	Horizontal Field of View, 1/2.5" Sensor:
45.5mm - 22.8°	Horizontal Field of View, 1/3" Sensor:
34.0mm - 17.1°	Horizontal Field of View, 1/4" Sensor:
9.00	Maximum Image Circle (mm):
0.0128	Numerical Aperture NA, Object Side:
7 (6)	Number of Elements (Groups):
12.00	Focal Length FL (mm):
100 - ∞	Working Distance (mm):
f/4.0	Aperture (f/#):
λ/4 MgF <sub>2</sub>	Coating:
λ/4 MgF <sub>2</sub>	Coating Specification:
15.92	Entrance Pupil Position (mm):
23.03	Object Space Principal Plane (mm):
-1.82	Image Space Principal Plane (mm):
-3.03	Maximum Distortion (%):
-19.24	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

M22 x 0.75 (Male)	Filter Thread:
S-Mount (M12 x 0.5)	Mount:

## Environmental & Durability Factors

	Storage Temperature (°C):
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## Regulatory Compliance

**Compliant** **RoHS 2015:**

**Compliant** **Reach 224:**

**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:

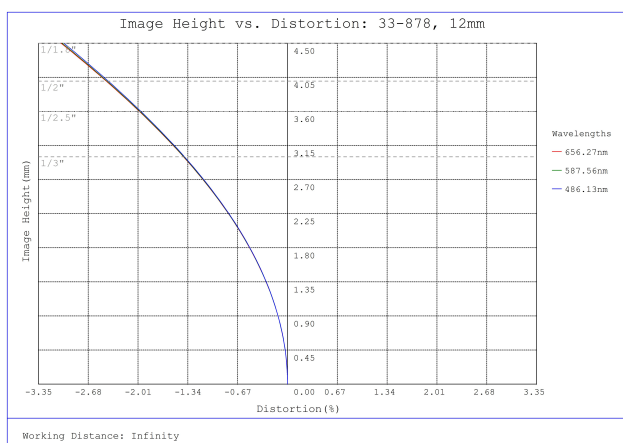
**UC Series:** Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

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

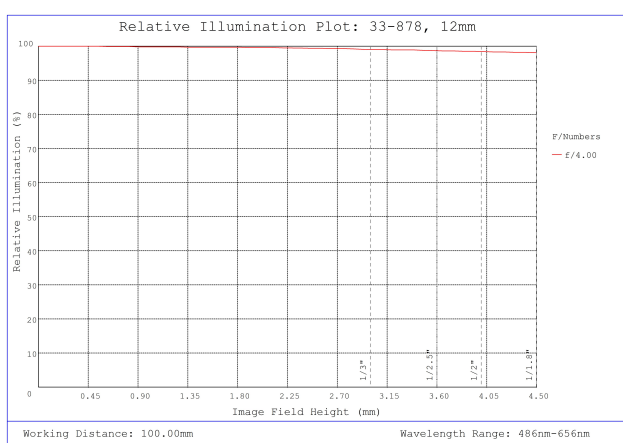
**UCr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

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

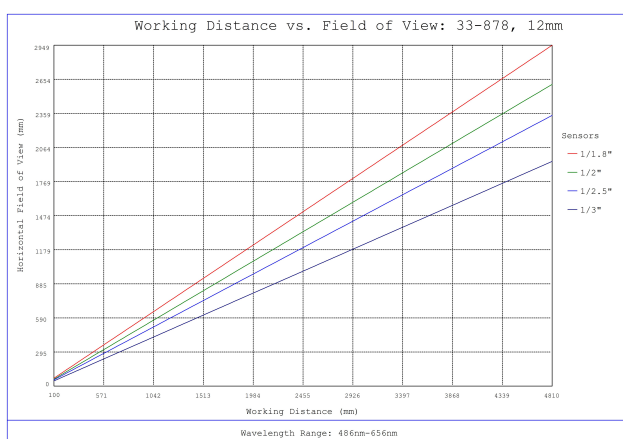
## Technical Information



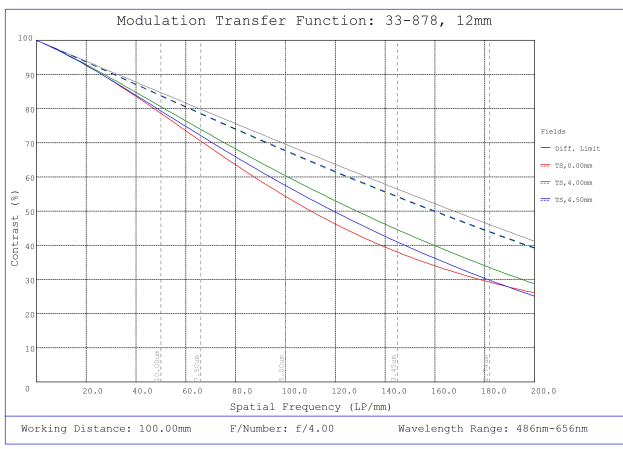
#33-878, 12mm, f/4 UCi Series Fixed Focal Length Lens, Distortion Plot



#33-878, 12mm, f/4 UCi Series Fixed Focal Length Lens, Relative Illumination Plot



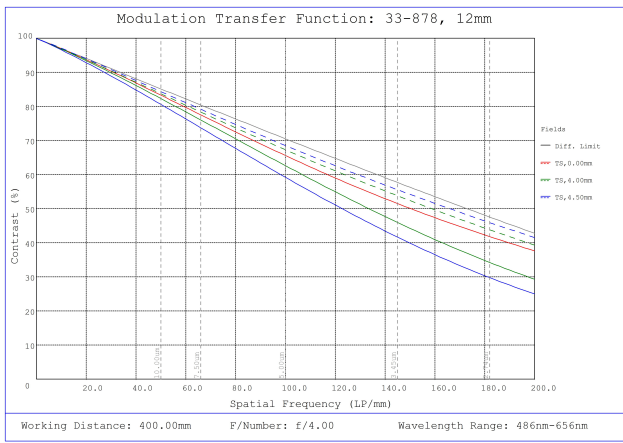
#33-878, 12mm, f/4 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



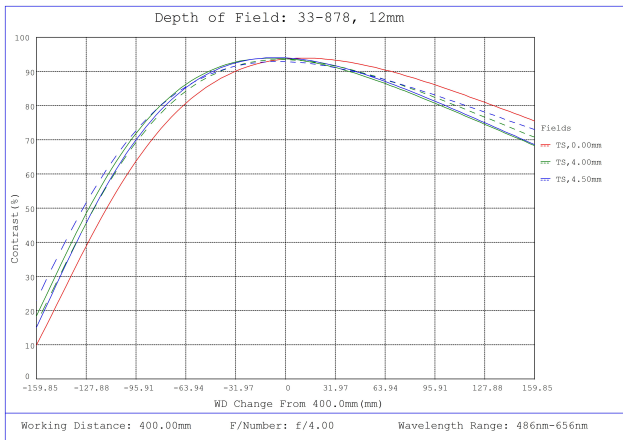
#33-878, 12mm, f/4 UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 100mm Working Distance, f4



#33-878, 12mm, f/4 UCI Series Fixed Focal Length Lens, Depth of Field Plot, 100mm Working Distance, f4



#33-878, 12mm, f/4 UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f4



#33-878, 12mm, f/4 UCI Series Fixed Focal Length Lens, Depth of Field Plot, 400mm Working Distance, f4

## Compatible Cameras