

TECHSPEC® 35mm f/1.85, UCi Series Fixed Focal Length Lens



35mm UCi Series Fixed Focal Length Lens



Stock #33-897 **13 In Stock**

⊖ 1 ⊕ A\$363⁰⁰

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General

UCi Series **Product Family:**

Fixed Focal Length Lens **Type:**

No **IR Cut Filter:**

High Performance Lens with Compact Form Factor **Imaging Lens Type:**

and Fixed Aperture

Physical & Mechanical Properties

Fixed Iris Option:

Fixed

Length (mm):

52.19

Maximum Diameter (mm):

26.5

Outer Diameter (mm):

26.5

Maximum Rear Protrusion (mm):

2.21

Maximum Length (mm):

52.19

Optical Properties

Horizontal Field of View @ Max Sensor Format:
45.6mm - 11.9°

Field of View at Max Sensor Format:
Horizontal: 45.6mm - 11.9°
Vertical: 34.1mm - 8.9°
Diagonal: 57.2mm - 14.9°

Horizontal Field of View, 1/1.8" Sensor:
45.6mm - 11.9°

Horizontal Field of View, 1/2" Sensor:
40.5mm - 10.6°

Horizontal Field of View, 1/2.5" Sensor:
36.7mm - 9.6°

Horizontal Field of View, 1/3" Sensor:
30.3mm - 7.9°

Horizontal Field of View, 1/4" Sensor:
22.7mm - 6.0°

Maximum Image Circle (mm):
9.00

Numerical Aperture NA, Object Side:
0.0394

Number of Elements (Groups):
7 (5)

Focal Length FL (mm):
35.00

Working Distance (mm):
200 - ∞

Aperture (f/#):
f/1.85

Coating:
M4 MgF₂

Coating Specification:
M4 MgF₂

Entrance Pupil Position (mm):
34.01

Object Space Principal Plane (mm):
49.25

Image Space Principal Plane (mm):
-19.45

Maximum Distortion (%):
-0.22

Exit Pupil Position (mm):
-46.71

Lens Wavelength Range:
VIS

Sensor

Optimized Sensor Format:
1/2.5"

Maximum Sensor Format:
1/1.8"

Pixel Size (μm):
1.85

Threading & Mounting

Filter Thread:
N/A

Mount:
C-Mount

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 $\leq 2.2\mu\text{m}$ 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:

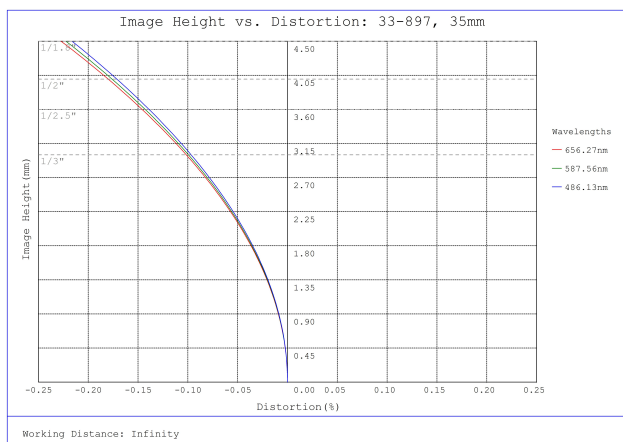
UC Series: Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

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

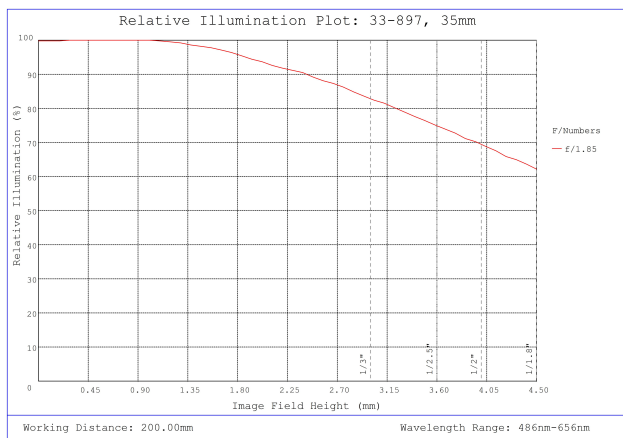
UCr Series: All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

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

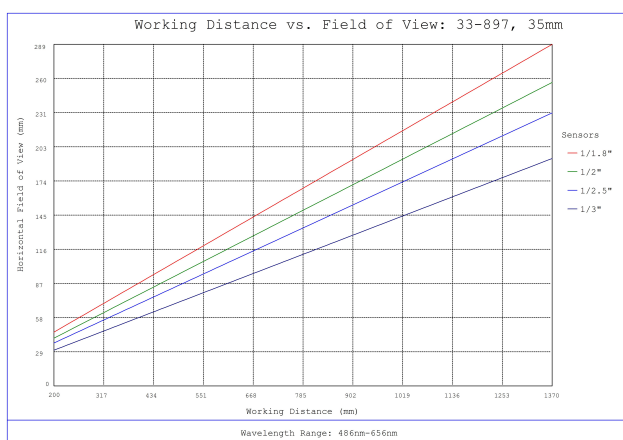
Technical Information



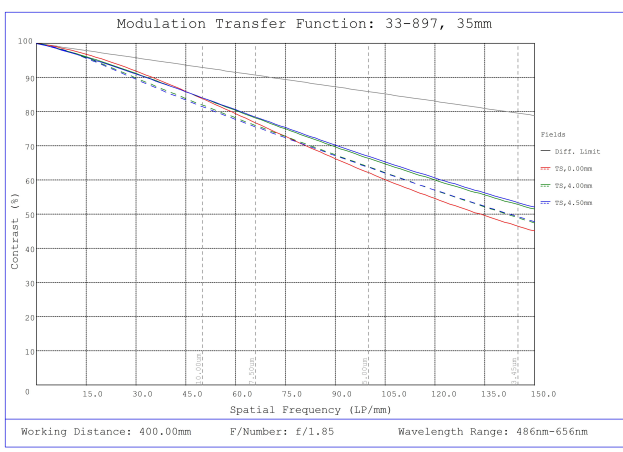
#33-897, 35mm f/1.85, UCi Series Fixed Focal Length Lens, Distortion Plot



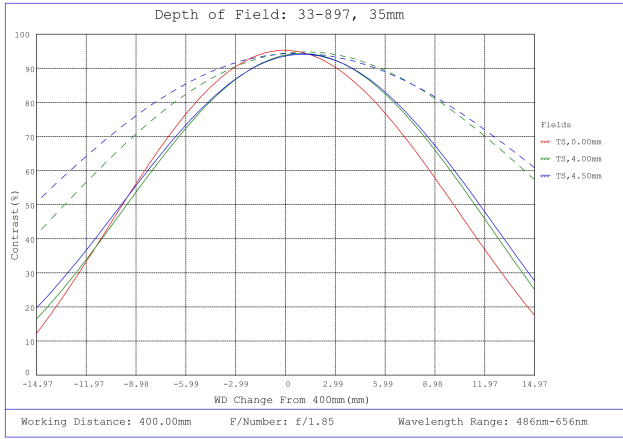
#33-897, 35mm f/1.85, UCi Series Fixed Focal Length Lens, Relative Illumination Plot



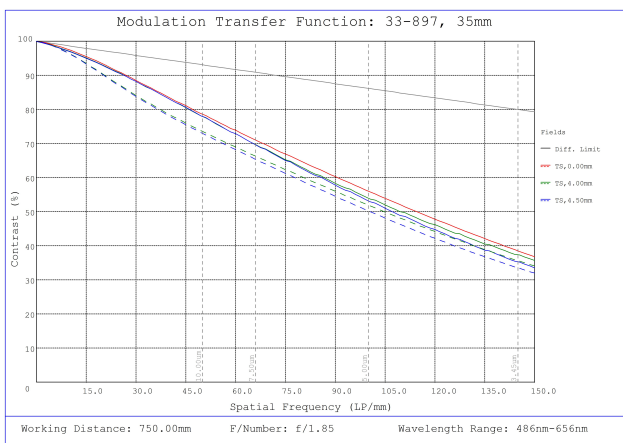
#33-897, 35mm f/1.85, UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



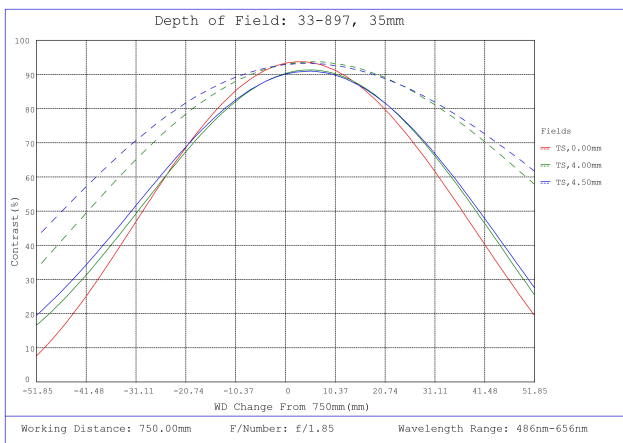
#33-897, 35mm f/1.85, UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 400mm Working Distance, f1.8



#33-897, 35mm f/1.85, UCI Series Fixed Focal Length Lens, Depth of Field Plot, 400mm Working Distance, f1.8



#33-897, 35mm f/1.85, UCI Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 750mm Working Distance, f1.8



#33-897, 35mm f/1.85, UCI Series Fixed Focal Length Lens, Depth of Field Plot, 750mm Working Distance, f1.8

Compatible Cameras