

Owl-IR

LWIR Objectives



- **F-number: F/1.0**
- **Wavelength: 8-14 μm**
- **Narrow to Wide Field-Of-View**
- **Optimized for 640x480, 13.6 mm FPA**
- **Manual fine focus adjustment**
- **Exterior High Durable/HDL AR Coating**
- **Standard* & customized camera mounts**

LightWorks Optical Systems (LWOS) offers a series of F/1.0 long wave infra-red (LWIR) fixed focus objectives in the 8-14 μm spectral region. These LWIR objectives are manufactured to provide high optical MTF performance along with manual fine focus adjustment. A wide range of standard field-of-views are provided for various applications. LWOS also provides customized LWIR objectives engineered and built to customer requirements. Optional camera integrations are available upon request. For pricing or additional information, please contact us at (951) 926-7666 or email us at sales@lwos.com.

OBJECTIVE SPECIFICATION

Focal Length	18 mm	25 mm	50 mm	75 mm	100 mm
Wavelength	8-14 μm	8-14 μm	8-14 μm	8-14 μm	8-14 μm
F Number	1.0	1.0	1.0	1.0	1.0
Full Field-of-View (FFOV)	41.4°	30.4°	15.5°	10.4°	7.8°
Image Diagonal	13.6 mm	13.6 mm	13.6 mm	13.6 mm	13.6 mm
MTF @ 30 lp/mm (On-Axis, Nominal)	>0.5	>0.5	>0.5	>0.5	>0.5
Back Focal Length (BFL)	30.0 mm	36.0 mm	30.0 mm	48.2 mm	40.3 mm
Back Working Distance (BWD)	9.7 mm	9.7 mm	9.7 mm	9.7 mm	9.7 mm
Flange to FP	16.2 mm	16.2 mm	16.2 mm	16.2 mm	16.2 mm
Mount Type**	T	T	T	T	T
External Coating***	HDC/HCC	HDC/HCC	HDC/HCC	HDC/HCC	HDC/HCC
Transmission (Ave.)****	88%	88%	88%	88%	88%



ISO 9001
AS 9100
ISO 13485

*Standard mounts are available for common LWIR camera cores.

** T = Threaded Lens Mount

*** HDC = High Durable Coating; HCC = Hard Carbon Coating ; Coatings shall meet the quality requirements of MIL-C-675, MIL-STD-810, MIL-M-13508, MIL-F-48616, and MIL-C-48497 where applicable.

**** HDC average transmission over the 8-14 μm spectral region. Average transmission over 8-12 μm is 92%.