

Owl-IR (Athermal)

MWIR Objectives



- **F-number: F/2.0**
- **Wavelength: 3-5 μ m**
- **Athermalized**
- **Narrow to Wide Field-Of-View**
- **Optimized for 1280x1024 - 12/15 μ m FPA**
- **Image Diagonal: 24.5 mm**
- **Manual fine focus adjustment**
- **Exterior AR Hard Coating (Optional)**

LightWorks Optical Systems (LWOS) offers a series of F/2.0 mid-wave infra-red (MWIR) fixed focus radiometric objectives in the 3-5 μ m spectral region. These MWIR objectives are designed to provide diffraction limited performance with low distortion, low stray light and high MTF performance. A wide range of standard field-of-views are provided for various applications. LWOS also provides customized MWIR 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	50 mm	75 mm	100 mm	150 mm
Wavelength	3-5 μ m	3-5 μ m	3-5 μ m	3-5 μ m
F Number	2.0	2.0	2.0	2.0
Image Diagonal (Max.)	24.5 mm	24.5 mm	24.5 mm	24.5 mm
Full Field-of-View (FFOV)*	27.6°	18.6°	14.0°	9.4°
MTF @ 42 lp/mm (On-Axis, Nominal)	> 0.5	> 0.5	> 0.5	> 0.5
Dewar Window (Nominal)	1.0 mm Ge	1.0 mm Ge	1.0 mm Ge	1.0 mm Ge
Cold Stop Aperture	12.7 mm	12.7 mm	12.7 mm	12.7 mm
Cold Stop to FPA	25.4 mm	25.4 mm	25.4 mm	25.4 mm
Flange to FPA	39.4 mm	39.4 mm	39.4 mm	39.4 mm
Athermal (Passive)	-40 to +60 C	-40 to +60 C	-40 to +60 C	-40 to +60 C
External Coating **	HDL/HCC	HDL/HCC	HDL/HCC	HDL/HCC
Transmission (Ave.)***	>90%	>90%	>90%	>90%



ISO 9001
AS 9100
ISO 13485

* FOV based on 24.5mm image diagonal FPA size.

* 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 3-5 μ m spectral region.