

OL 2150 High-intensity Projection Source



The OL 2150 High-Intensity Projection Source is particularly useful for spectroradiometric, radiometric, or photometric measurement applications requiring a stable intense source of radiant flux. The source can be focussed to a small target or it can be operated in a semicollimated mode. The unit consists of an optics head and a separate precision constant current DC power supply.

The optics head consists of:

- A tungsten-halogen reflectorized lamp
- An intermediate transmitting diffuser plate
- A quartz collimating lens assembly
- A set of target apertures
- A removable focusing lens module
- A removable 1-inch diameter filter holder

The optics and mechanical components are mounted in a rugged, machined, aluminum enclosure. A set of target apertures ranging from 1.5 to 10 mm in diameter are provided and can be inserted at the focal point between the transmitting diffuser and the quartz collimating lens. A semicollimated beam is generated when the focussing lens is removed. With the focussing lens in place, a 1:1 image of the target aperture is achieved. Provisions have also been made for inserting a 1inch diameter filter between the target aperture and the collimating lens.

The power supply utilizes a highly regulated constant current design, which optimizes source stability and accuracy. The lamp current is displayed on a 4½ digit ammeter and can be adjusted via a 10 turn control pot from 0 to 6.500 amps. A current ramp up/down circuit is employed to prevent thermal shock to the lamp and enhance lamp lifetime.

PERFORMANCE SPECIFICATIONS	
OPTICS HEAD	
Color Temperature (nominal)	3000K @ 6.0 amps
Illuminance (nominal)	
Collimating mode without diffuser	100 to 3000 FC
Collimating mode with diffuser	3 to 90 FC
Luminous Flux (nominal)	
Focussed mode without diffuser	0.5 to 30 lumens
Focussed mode with diffuser	0.02 to 0.6 lumens
Source	Quartz halogen lamp
Apertures (mm)	1.5, 3.0, 5.0, 10
Magnification	1:1
POWER SUPPLY (OL 53)	
Lamp power cycle	60 sec. Ramp function
Current accuracy (amps DC)	±0.05% (4½ digit)
Current regulation (amps DC)	±0.02%
Current adjustment range	0 to 6.7 amps DC
Current temperature regulation	±0.025%/10° C
Operating temperature range	15° C to 35° C
Elapsed time meter	0 –999.9 hrs

TECHNICAL SPECIFICATIONS OPTICS HEAD

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OPTICS HEAD	
Dimensions	10" X 5" X 4"
Weight	7 lbs
POWER SUPPLY (OL 53)	
Dimensions	11¼" X 15" X 6"
Weight	21 lbs (115 VAC) 23 lbs (220 VAC)
Power	115 VAC or 220 VAC ±10% 50/60 Hz

REQUIREMENTS/OPTIONS OPTICS HEAD

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OPTICS HEAD	
Requirements	OL 53 Power Supply
Options	
Fiber Optic Probe (400-1300 nm)	OL 2150-7G
POWER SUPPLY (OL 53)	
Requirements	None
Options	None