OPTRONIC®
LABORATORIES

OL SERIES 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 semi¬collimated 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 semi¬collimated 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 1¬inch 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.

OPTICS HEAD	
Color Temperature *(Nominal)*	3000K @ 6.0 Amps
Illuminance *(Nominal)*	
Collimating Mode Without Diffuser **Collimating Mode With Diffuser**	100 to 3000 FC 3 to 90 FC
Luminous Flux *(Nominal)*	
Focused Mode Without Diffuser **Focused Mode With Diffuser**	0.5 to 30 lumens 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 Digits)
Current Regulation *(Amps DC)*	± 0.02%
Current Adjustment Range	0 to 6.7 Amps DC
Current Temperature Regulation	± 0.025% / 10°
Operating Temperature Range	15°C to 35°C
Elapsed Time Meter	0 – 999.9 Hrs.
TECHNICAL SPECIFICATIONS	
OPTICS HEAD	
Dimensions	10" x 5" x 4" *(25.4 cm x 12.7 cm x 10.2 cm)*
Weight	7 lbs *(3.18 kg)*
POWER SUPPLY (OL 53)	
Dimensions	11¼" x 15" x 6" *(28.58 cm x 38.10 cm x 15.24 cm)*
Weight	115 VAC - 21 lbs *(9.53 kgs)* 220 VAC - 23 lbs *(10.43 kgs)*
Power	115 VAC or 220 VAC ± 10%, 50/60 Hz
REQUIREMENTS/OPTIONS	
OPTICS HEAD	
Requirements	OL 53 Power Supply
Fiber Optic Probe (400 – 1300 nm	OL 2150-7G
POWER SUPPLY (OL 53)	
Requirements	None
Options	None

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