

# EQ-9-HP LDLS®

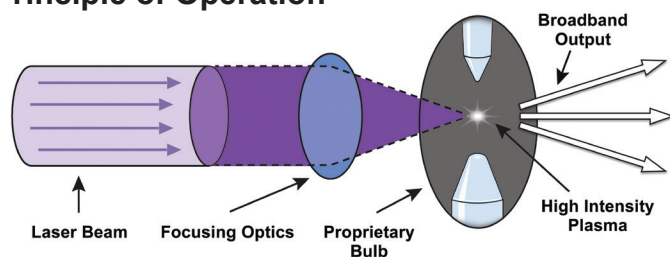
## Laser-Driven Light Source



### Overview

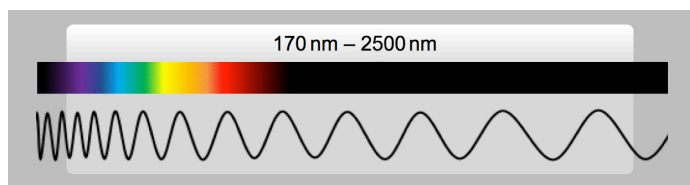
The EQ-9-HP Laser-Driven Light Source (LDLS®) is a high-brightness source with a broad wavelength range from UV to Visible and into the NIR region. The unique principle behind the operation of a Laser-Driven Light Source provides extremely bright, spatially and spectrally stable broadband radiation from 170 nm – 2500 nm with a lifetime greater than 10,000 hours.

### Principle of Operation



*LDLS technology utilizes a laser to create an extremely small, high brightness plasma with a broad spectral range.*

### Wavelength Range



### Properties

Wavelength Range	170 nm – 2500 nm
Plasma Size (FWHM) <sup>1</sup>	100 µm X 280 µm
Numerical Aperture	0.56 NA
Bulb Lifetime	10,000 hours
Laser Class	Class 1 (IEC 60825-1: 2014)

<sup>1</sup> Average plasma size

### Typical Performance

Spectral Radiance at 500 nm	28 mW/mm <sup>2</sup> .sr.nm
Broadband Optical Power <sup>2</sup>	0.7 W

<sup>2</sup> Measured with thermopile

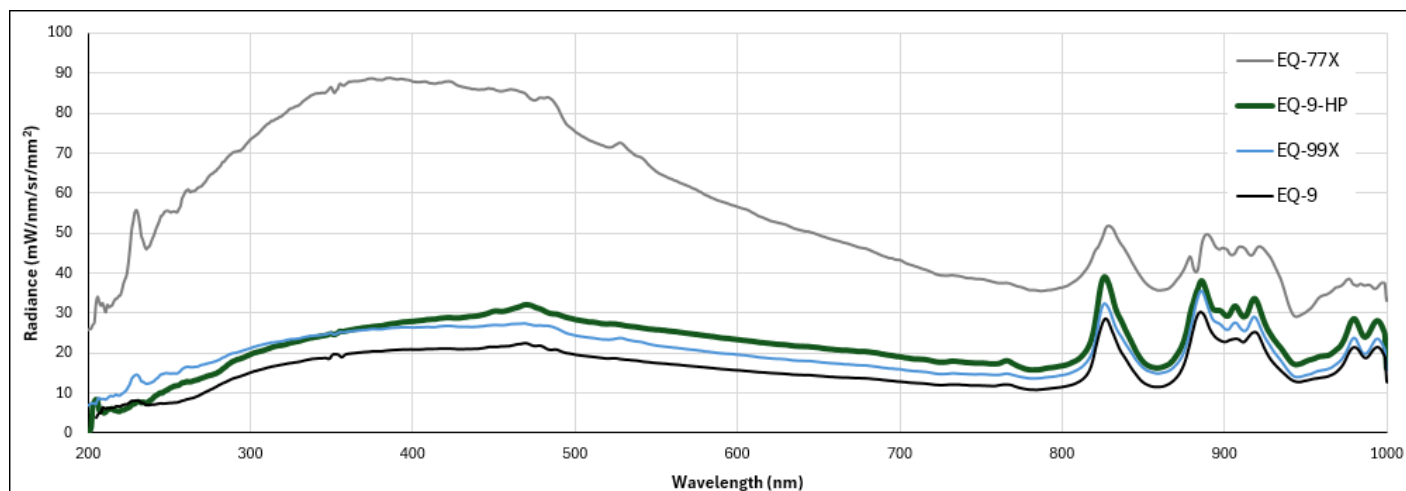
### Models

LDLS are sold as systems. Each EQ-9-HP system includes a lamp head, controller, remote control, and necessary cables.

Part Number	Description	Wavelength Range
EQ-9-HP	EQ-9-HP with Quartz Window	170 nm – 2500 nm

### Spectral Radiance

Average radiance, measured with quartz output windows. For reference only.



## Consumable Components

Part Number	Lifetime	Description	Wavelength Range
EQ-9-RB	10,000 hours	Replacement Bulb (Not Field Replaceable)	170 nm – 2500 nm
EQ-9-RW-QTZ	10,000 hours	EQ-9 Replacement Window, Quartz (Field Replaceable)	170 nm – 2500 nm
EQ-9-RW-MGF	10,000 hours	EQ-9 Replacement Window, MGF (Field Replaceable)	170 nm – 2500 nm
EQ-9-RW-YAG	10,000 hours	EQ-9 Replacement Window, YAG (Field Replaceable)	190 nm – 2500 nm
EQ-9-RW-BK7	10,000 hours	EQ-9 Replacement Window, BK7 (Field Replaceable)	350 nm – 2500 nm

## Facility Requirements

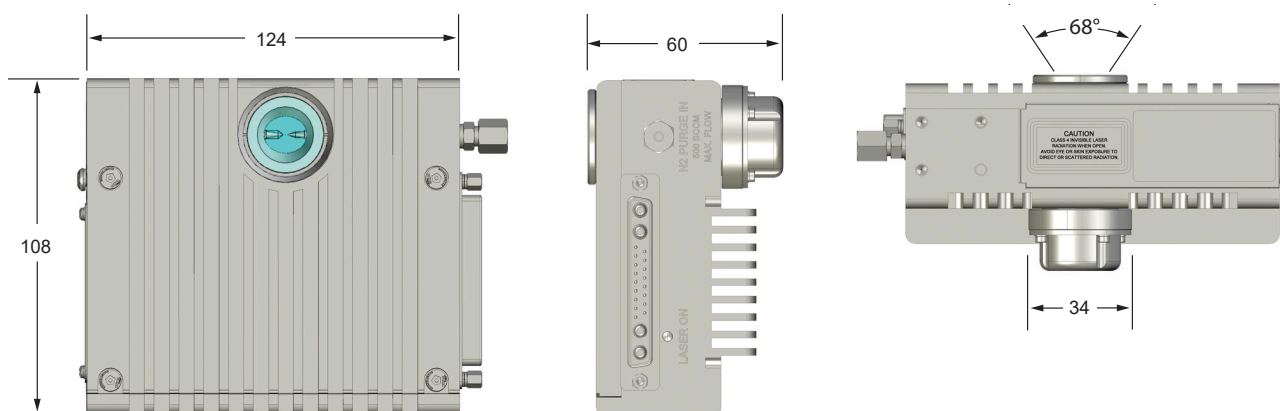
Electrical	12 VDC, 140 W
Cooling (Lamp Head)	Fan (30 CFM forced air cooling)
Cooling (Controller)	No auxiliary cooling required
Nitrogen Purge	Recommended. Grade 4.8 or higher, filtered to 5 $\mu$ m. 20 psig $\pm$ 2
Ambient Temperature	15-30 °C

## Physical Specifications

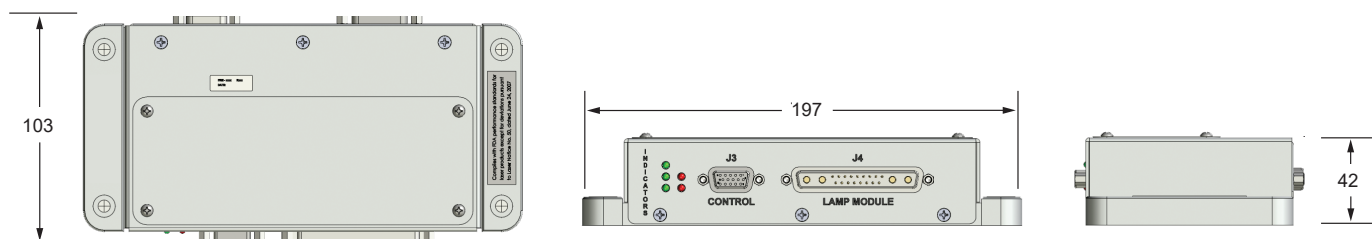
Lamp Head Dimensions (H x W x D)	108 x 124 x 60 mm
Lamp Head Weight	0.91 kg
Controller Dimensions (H x W x D)	42 x 197 x 103 mm
Controller Weight	0.68 kg

### Lamp Head Dimensions (Unit: mm)

Drawings are for reference only and are not to scale. STEP file available.



### Controller Dimensions (Unit: mm)



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