

LIGHT SOURCE

CALIBRATED LAMP LIGHT SOURCE SERIES

L7810-02 (Xenon Lamp)

L7820-02 (Deuterium Lamp)

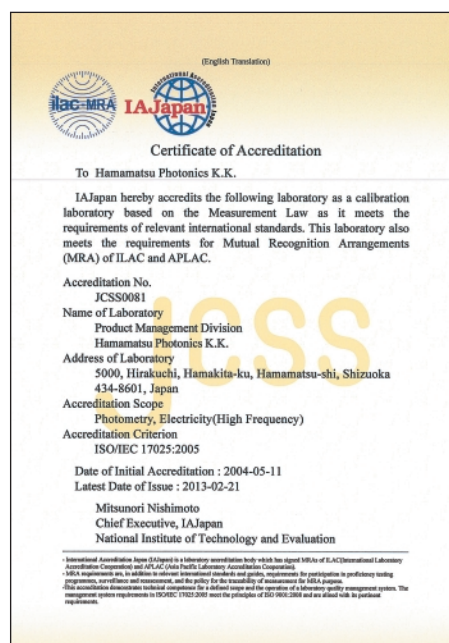
Easy to reproduce highly stable light!!



Left: Lamp Housing
Right: Power Supply



Left: Lamp Housing
Right: Power Supply



These light sources deliver the extremely high levels of "stability" and "repeatability" essential to calibrated light sources. These are available as an optimal set including a lamp, lamp housing and power supply, so that anyone can easily reproduce a highly stable light output.

The L7810-02 xenon lamp light source is calibrated over a wide spectral range from 200 nm to 800 nm, and the L7820-02 deuterium lamp light source is calibrated in the UV range from 200 nm to 400 nm as Japan Calibration Service System (JCSS). Certification of accreditation with JCSS logo mark is attached.

Along the expansion of range of Measurement Act, certification of accreditation is integrated to JCSS.

Manufactured upon receiving your order.

APPLICATIONS

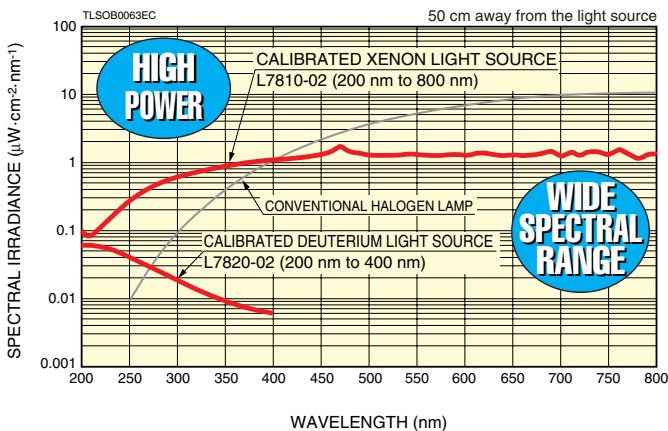
- Light level control of light source
- Sensitivity control of optical sensor
- Light intensity measurement and studies of photoreactions (Light resistance, light curing, etc.)
- Quality control of photometric equipment (Medical analysis equipment, semiconductor inspection systems, imaging devices, etc)

SPECIFICATIONS

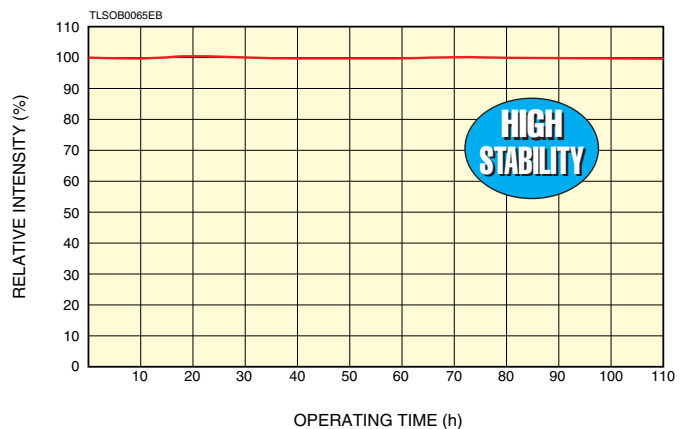
Type No.	L7810-02	L7820-02
Lamp	Xenon lamp	Deuterium lamp
Lamp Wattage	150 W	30 W
Spectral Distribution	185 nm to 2000 nm	185 nm to 400 nm
Calibrated Range ^①	200 nm to 800 nm (10 nm intervals)	200 nm to 400 nm (10 nm intervals)
Type of Calibration	Spectral irradiance	
Calibration Unit	$\mu\text{W}\cdot\text{cm}^{-2}\cdot\text{nm}^{-1}$	
Output Window Material (Lamp Housing)	Synthetic quartz	
Output Window Diameter	$\phi 28$ mm	$\phi 25$ mm
Optical Axis Height	140 mm (150 mm including plastic feet)	
Warm-up Time	10 minutes or more	
Timer	Hour display (power supply)	Hour display (lamp housing)
Input Voltage (AC)	100 V to 240 V, 50 Hz / 60 Hz	
Power Consumption	350 VA	90 VA
Cooling (Lamp Housing, Power Supply)	Forced air cooling	
Ambient Operating Temperature	0 °C to +40 °C	
Operating Range	Temperature +23 °C to +27 °C	
During Calibration	Humidity 20 % to 70 % (no condensation)	
Dimensions (excluding projecting parts) (W × H × D)	Lamp Housing	100 mm × 280 mm × 100 mm
	Power Supply	144 mm × 90 mm × 282 mm
	Carrying Case ^②	480 mm × 380 mm × 205 mm
Weight	Lamp Housing	Approx. 2.9 kg
	Power Supply	Approx. 3.2 kg
	Total Weight ^③	Approx. 11 kg
Recalibration Interval ^④	100 hours in operation	
Guaranteed Lamp Service Life ^⑤	500 hours	

- NOTE:** ① Spectral irradiance is measured at a point 50 cm away from the reference plane of the lamp housing.
 ② Carrying case specially designed to contain one set of calibrated lamp light source and accessories.
 ③ Total weight including a set of calibration lamp light source and carrying case.
 ④ This is a general guide for recalibration to maintain calibration reliability. Please contact our sales office for recalibration fee.
 ⑤ This is the total amount of time that the lamp can be recalibrated to serve as a calibrated light source.

COMPARISON OF SPECTRAL IRRADIANCE (Reference Data)



LIGHT INTENSITY DRIFT (Typ.)



This is the logo mark for the traceability system approved by the Japan Calibration Service System (JCSS) based on the Measurement Law.

The Product Management Dept. of Hamamatsu Photonics K. K. was accredited as a calibration company in the "Light" field on May 21, 1999, and then became a registered company on August 4, 2009 according to the legal revisions. And is entitled to issue calibration certificates bearing the JCSS logo mark (JCSS accreditation symbol). Those calibration certificates assure the traceability to National Measurement Standards and can be used, for example, as a traceability certificate for ISO9000 series.

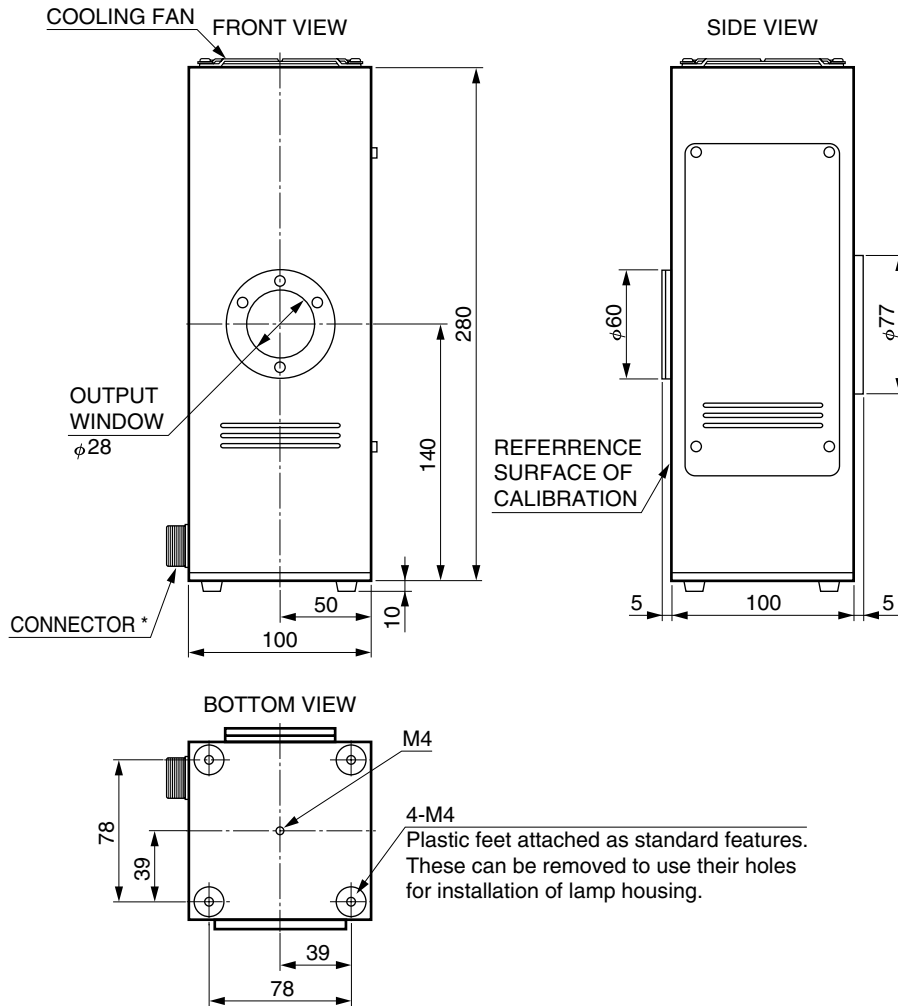
COMPONENTS

- Lamp housing (include lamp)
- Power supply
- Connection cable
- AC cable
- Carrying case
- Instruction manual
- Certification of Accreditation
- CD-ROM (CSV data of spectral irradiation distribution)

DIMENSIONAL OUTLINES (Unit: mm)

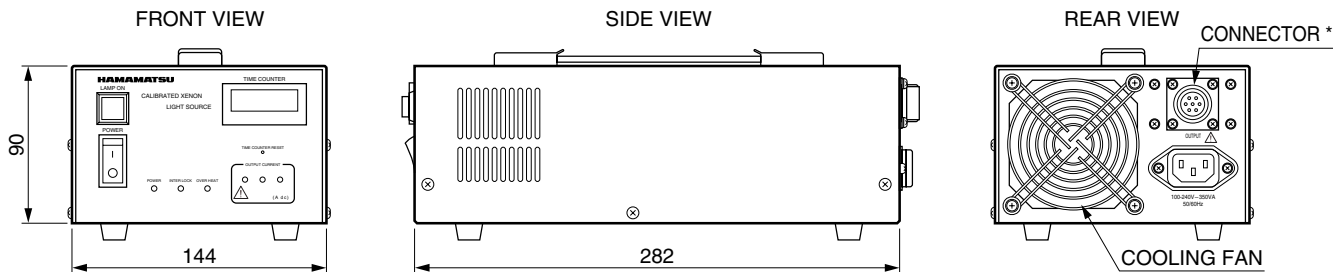
L7810-02 (Xenon Lamp)

LAMP HOUSING



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POWER SUPPLY



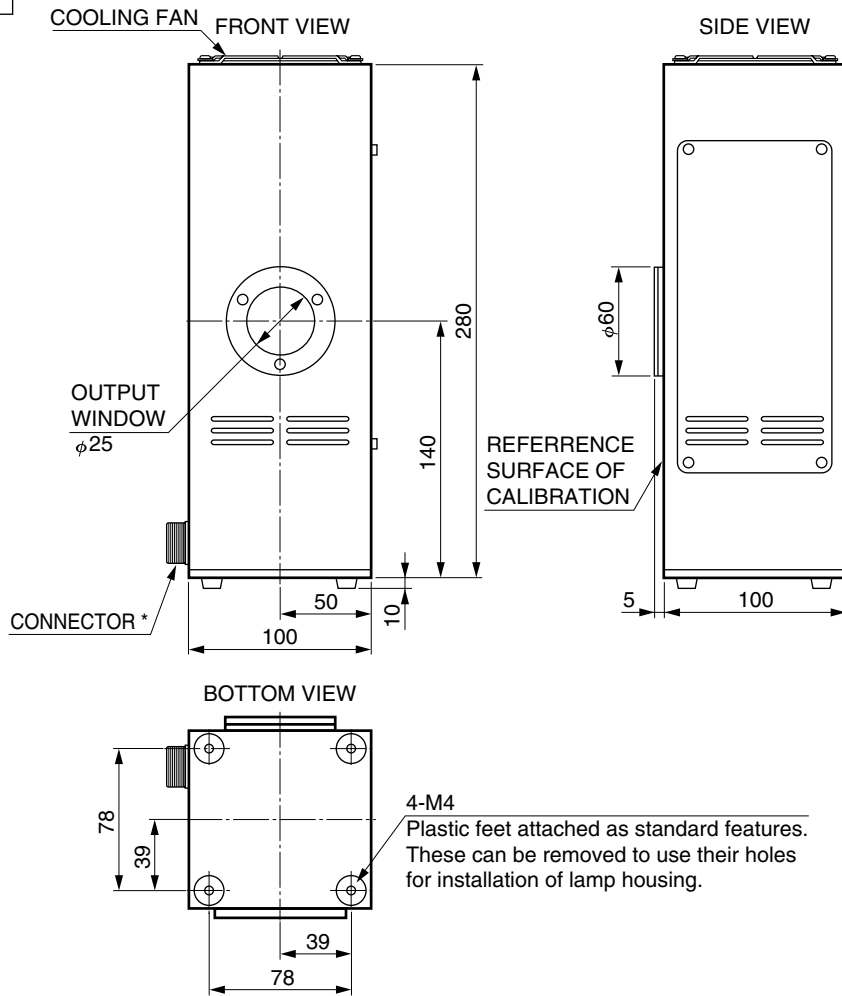
* For cable to connect lamp housing with power supply (supplied), length: 2 m

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DIMENSIONAL OUTLINES (Unit: mm)

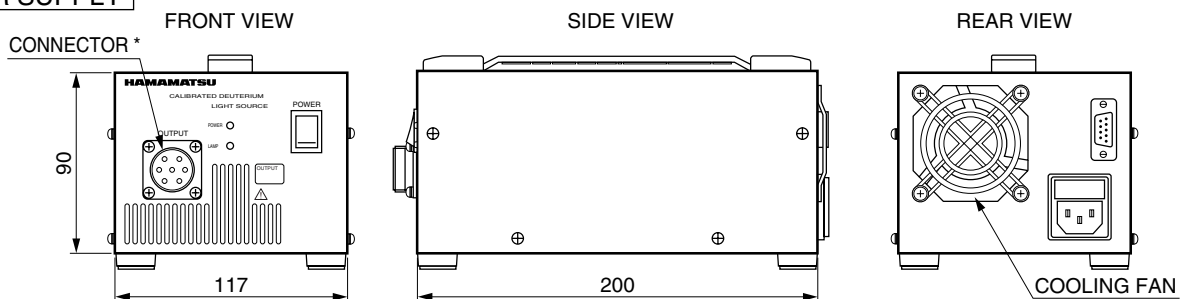
L7820-02 (Deuterium Lamp)

LAMP HOUSING



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POWER SUPPLY



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WARRANTY

This device is guaranteed for one year after delivery date from us. The warranty extends only to replacement of the products. The warranty does not cover damage due to misuse of natural calamity.

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office. Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2013 Hamamatsu Photonics K.K.

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