VUV LIGHT SOURCE

H2D2® LIGHT SOURCE UNIT

L11798, L11799

OVERVIEW

The H2D2 light source unit contains a high-brightness, high-end deuterium lamp (H2D2 lamp) that emits light at a brightness 6 times higher than our current deuterium lamps (L2D2 lamps). Despite its high brightness, the H2D2 is highly stable, has a long service life, and allows air-cooled operation by a specially designed housing. This feature makes it much more convenient and easy to use than ordinary water-cooled lamps.
The H2D2 can be used in various applications and enhances equipment sensitivity and throughput.

Left: Light source, Right: Power supply TLSZF0047

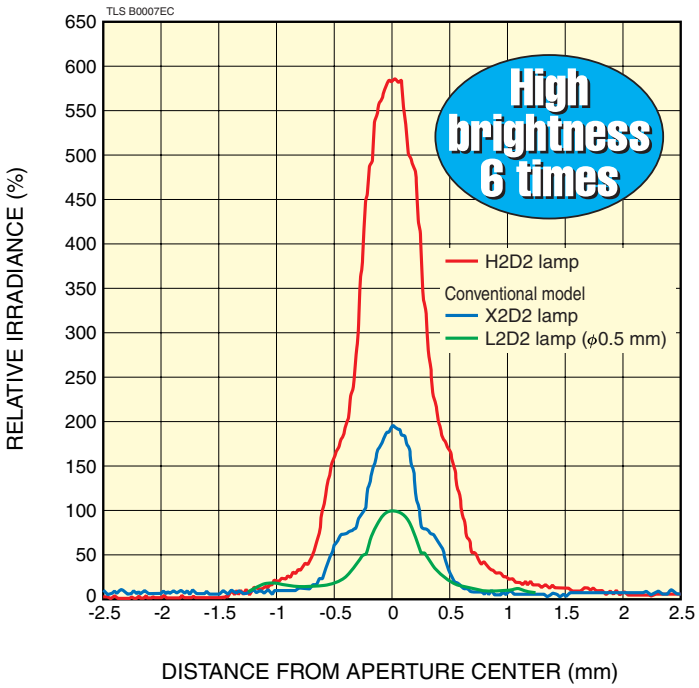
FEATURES

- High brightness: 6 times (compared to conventional model)
- High stability: Fluctuation 0.05 %p-p (Max.) Drift ±0.3 %h (Max.)
- Long Life: Warranty of 1000 hours
- Air cooling (needs no cooling water)
- External control
- Replaceable lamp

APPLICATIONS

- Semiconductor inspection
- Film thickness measurement
- Electrostatic removal
- Photoionization
- Spectrophotometry
- Environmental measurement
- Optical component inspection

BRIGHTNESS DISTRIBUTION



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PACKAGE CONTENTS

Type No.	Built-in lamp	Power supply	Light source to power supply cable	AC cable
L11798	○(L12098)	○	○	○
L11799	○(L12099)	○	○	○

SPECIFICATIONS

●GENERAL RATINGS

Parameter	L11798	L11799	Unit
Spectral distribution	115 to 400	160 to 400	nm
Window material	MgF_2	Synthetic silica	—
Aperture size (arc point)	ϕ0.6		mm
Cooling method ①	Fan cooling		—
Operating temperature range	+10 to +40		°C
Storage temperature range	0 to +60		°C
Operating humidity range	Below 80 % (no condensation)		—
Storage humidity range	Below 85 % (no condensation)		—
Operation under vacuum condition	Possible	—	—

●RECOMMENDED OPERATING CONDITIONS AND CHARACTERISTICS (at 25 °C)

Parameter		L11798	L11799	Unit
Warm-up time		Approx. 30		s
Output stability at 230 nm	Fluctuation (p-p) (Max.)	0.05		%
	Drift (Max.)	±0.3		%/h
Light source guaranteed life ②		1000		h
Input voltage (AC)		100 V to 240 V (100 V / 200 V auto switching), single phase 50 Hz to 60 Hz		—
Power consumption (Max.)		200		VA

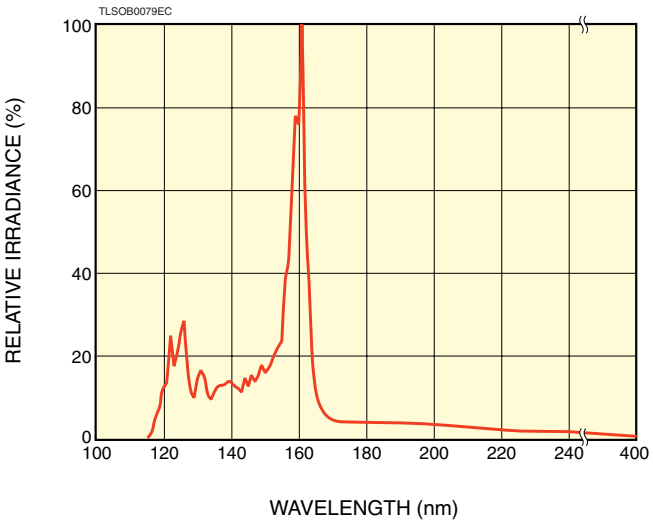
②End of life is defined as the time when light output at 230 nm falls below 50 % of its initial value.

●REPLACEMENT LAMP (sold separately)

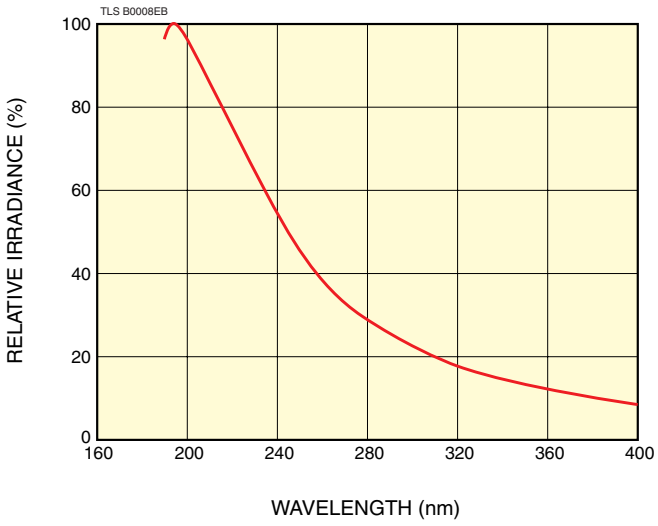
Parameter	L12098	L12099	Unit
Spectral distribution	115 to 400	160 to 400	nm
Window material	MgF_2	Synthetic silica	—
Light source	L11798	L11799	—

SPECTRAL DISTRIBUTION

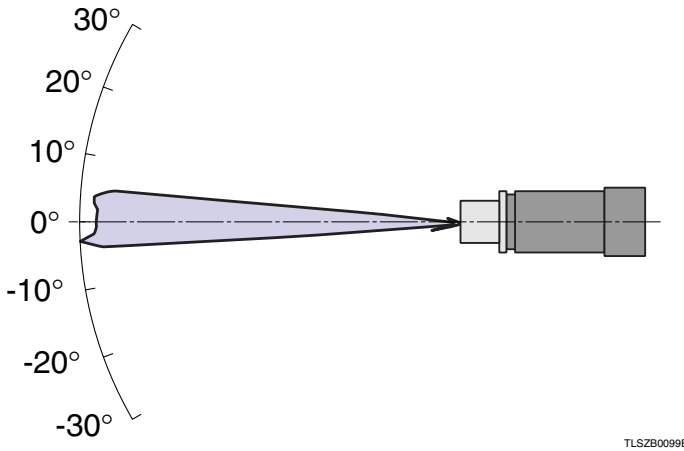
●L11798 (MgF_2 window)



●L11799 (Synthetic silica window)



DIRECTIVITY (LIGHT DISTRIBUTION)



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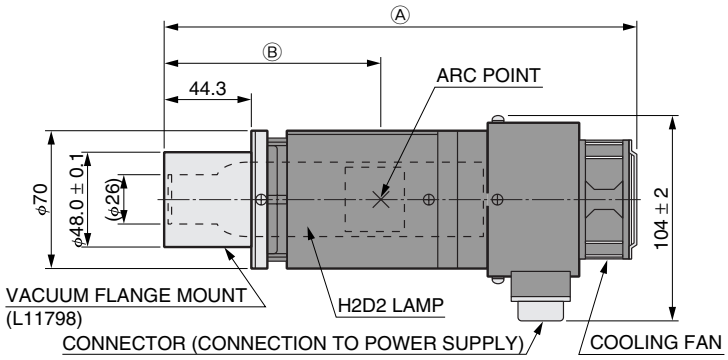
DIMENSIONAL OUTLINES (Unit: mm)

●LIGHT SOURCE (WEIGHT: Approx. 1.3 kg)



Type No.	Dimension Ⓐ	Dimension Ⓑ
L11798	240 ± 4	110 ± 4
L11799	215 ± 4	88 ± 4

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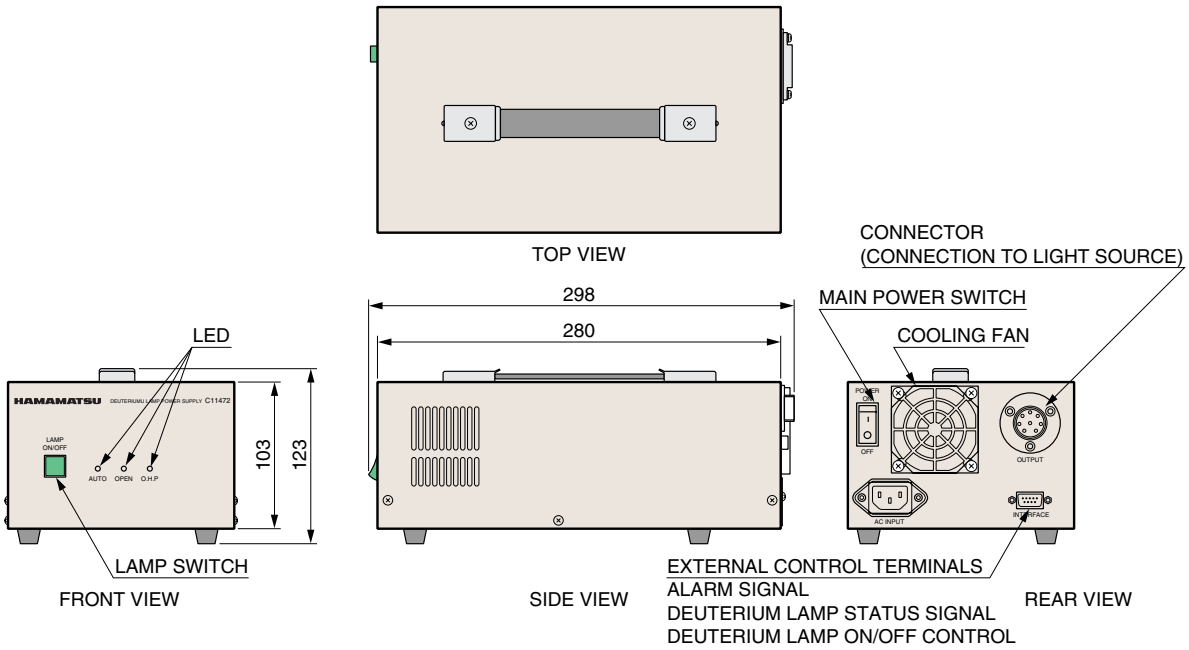
●POWER SUPPLY (WEIGHT: Approx. 2.8 kg)



LIGHT SOURCE TO POWER SUPPLY CONNECTION CABLE LENGTH: 2000 ± 50

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RELATED PRODUCTS

■VACUUM FLANGE

●OVERVIEW

Various vacuum flanges are available for the H2D2 light source unit. The E3444-02 mounting flange meets ICF114 flange specifications and so easily attaches to ports of most vacuum equipment. We also provide other vacuum flanges including flanges made to JIS (Japanese Industrial Standards) specifications, so users can select the best flange that matches their vacuum vessel.

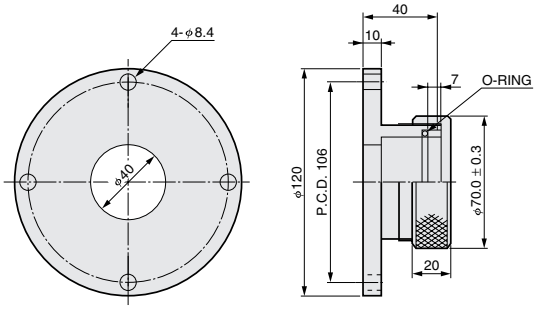
●SPECIFICATIONS

Parameter	E3444	E3444-01	E3444-02
Sealing method	O-ring		
Flange	Regular	JIS VF50	ICF114
Mounting flange	—	JIS VG50	ICF114
Sealing force retention	1.33×10^{-4} Pa L/s or less (1×10^{-6} Torr L/s)		

* L11798 can be operated under vacuum condition. L11799 is not suitable for operation under vacuum condition.

●DIMENSIONAL OUTLINES (Unit: mm)

E3444



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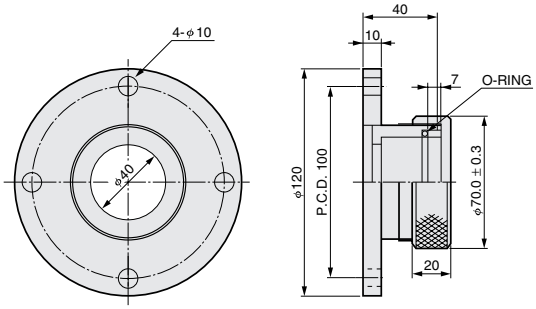
E3444-01



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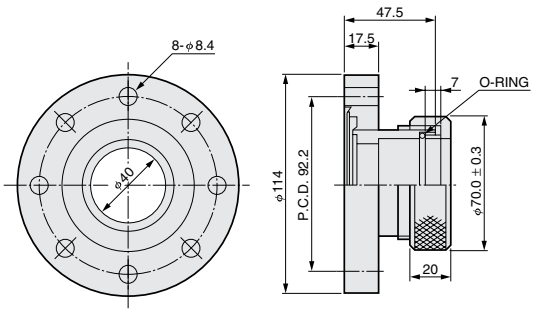
E3444-02



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* H2D2, L2D2 and X2D2 are the registed trademark of Hamamatsu Photonics K.K..

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