VUV LIGHT SOURCE

H2D2 LIGHT SOURCE UNIT

L11798/-01, L11799/-01

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

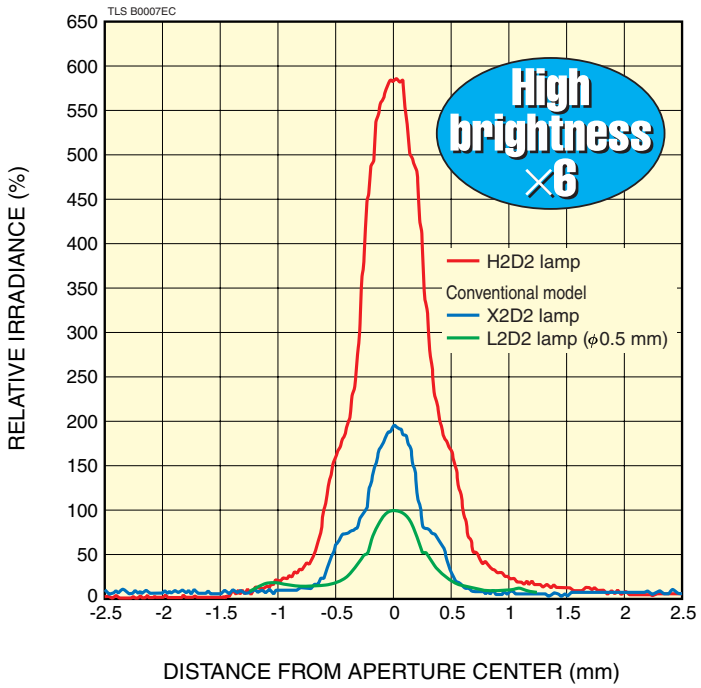
FEATURES

- **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 remover**
- **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)	○	○	○
L11798-01	○(L12098)	○	○	○
L11799	○(L12099)	○	○	○
L11799-01	○(L12099)	○	○	○

SPECIFICATIONS

●GENERAL RATINGS

Parameter	L11798	L11798-01	L11799	L11799-01	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	Compressed air cooling	Fan cooling	Compressed air 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)				—

①A cooling fan is supplied as standard. High pressure air should be prepared by the users.

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

Parameter		L11798	L11798-01	L11799	L11799-01	Unit
Warm-up time		Approx. 30				s
Output stability at 230 nm	Fluctuation (p-p) (Max.)	0.05				%
	Drift (Max.)	±0.3				%/h
Guaranteed light source service 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

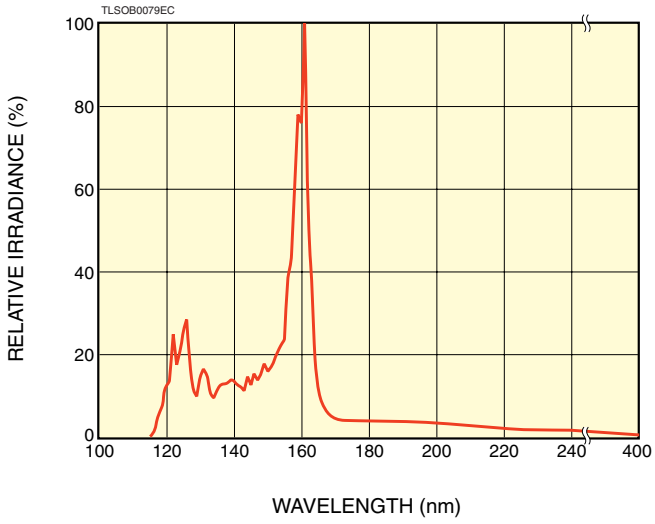
②End of service life is defined as the time when light intensity at 230 nm falls below 50 % of its initial value.

●REPLACE LAMP SOURCE (sold separately)

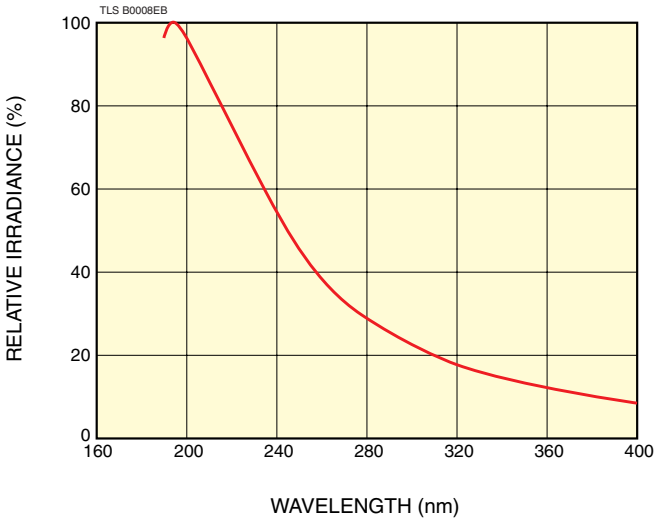
Parameter	L12098	L12099	Unit
Spectral distribution	115 to 400	160 to 400	nm
Window material	MgF_2	Synthetic silica	—
Light source	L11798/L11798-01	L11799/L11799-01	—

SPECTRAL DISTRIBUTION

●L11798/-01 (MgF_2 window)



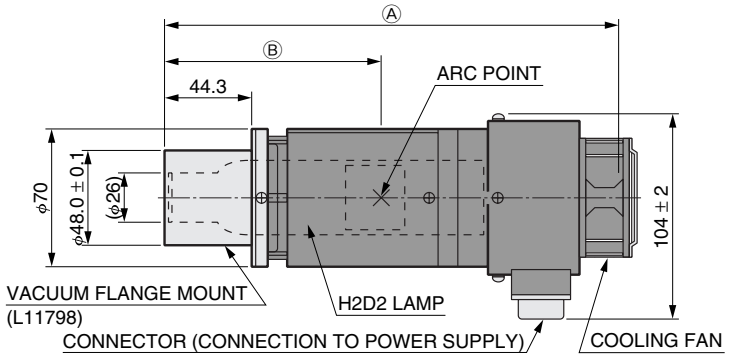
●L11799/-01 (Synthetic silica window)



DIMENSIONAL OUTLINES (Unit: mm)

●LIGHT SOURCE (Weight: Approx. 1.3kg)

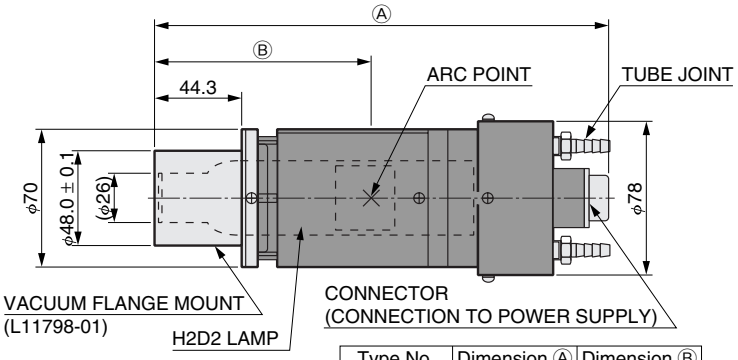
L11798, L11799



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

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L11798-01, L11799-01



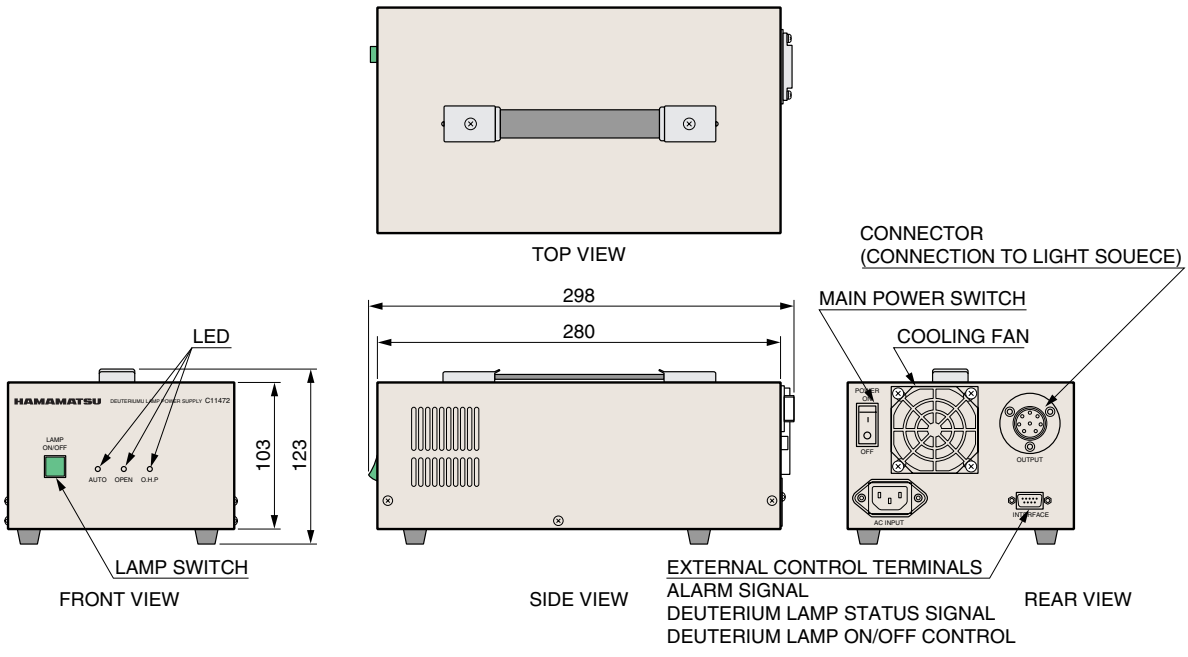
Type No.	Dimension Ⓐ	Dimension Ⓑ
L11798-01	231 ± 4	110 ± 4
L11799-01	204 ± 4	88 ± 4

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▲Cooling section

●POWER SUPPLY (Weight: Approx. 2.8kg)



LIGHT SOURCE TO POWER SUPPLY 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 mount 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.

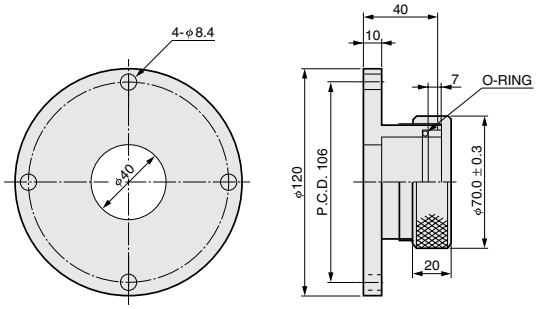
●SPECIFICATIONS

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

* L11798 and L11798-01 can be operated under vacuum condition. L11799 and L11799-01 are not suitable for operation under vacuum condition.

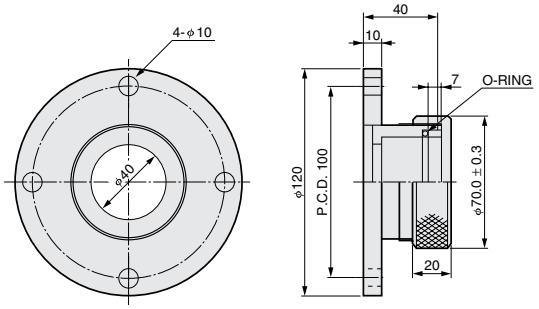
●DIMENSIONAL OUTLINES (Unit: mm)

E3444



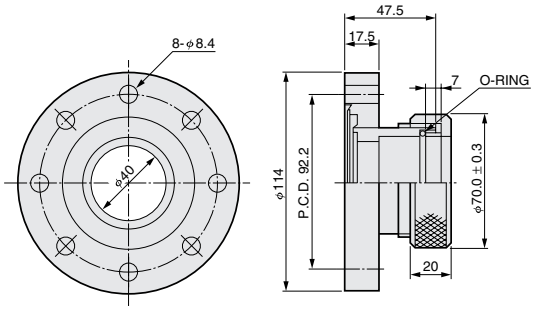
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E3444-01



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E3444-02



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