

# UVCL

*UV Cathode emitting  
Light source*

265 nm

305 nm

## UV light source that can be used instantly



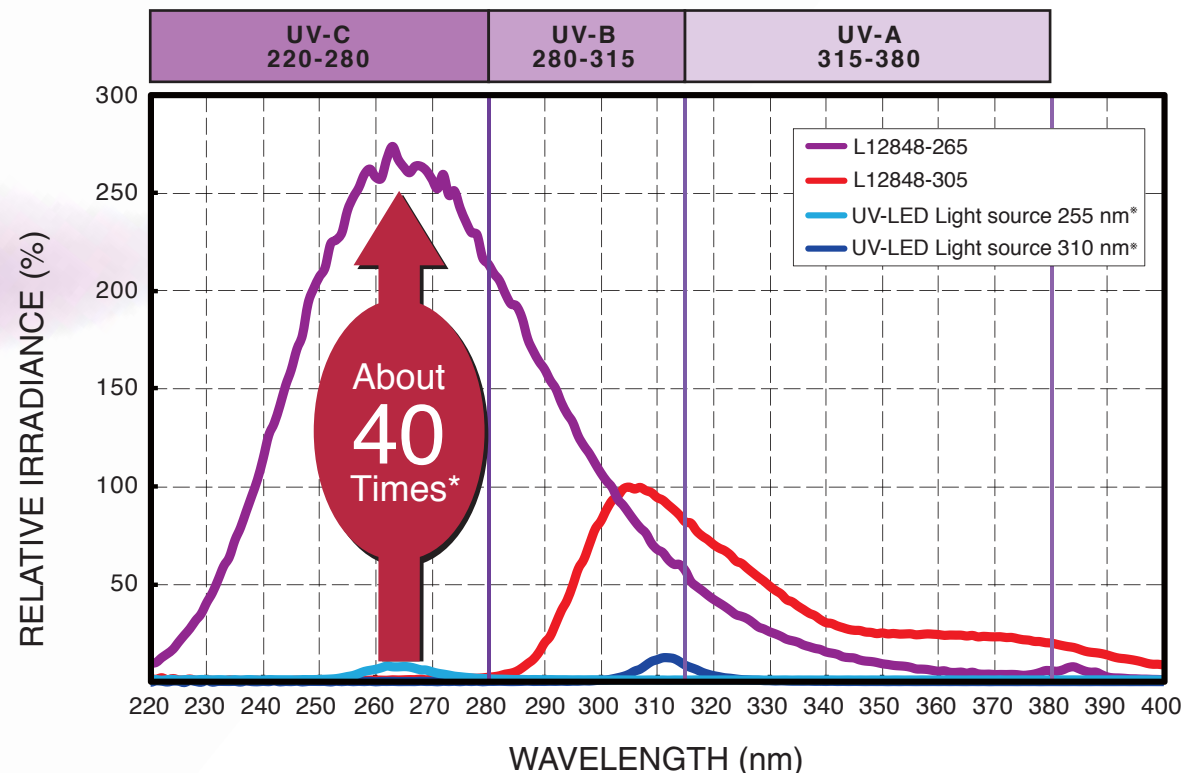
# UV light source that can be used instantly

## High power and long life. Compact and easy to use.

The UVCL, developed by our many years of accumulated techniques and experiences, offers both high light output and long lifetime. The product also features easy operation through an AC connection, and compact size.

### High output

#### ▼ SPECTRAL DISTRIBUTION



\*This irradiance graph is compared with UV-LED operated in 30 mA dc.

• This irradiance graph shows relative values when the maximum irradiance of L12848-305 is given as 100 %.

### Mercury free

Environmentally friendly  
No worries about future mercury regulation

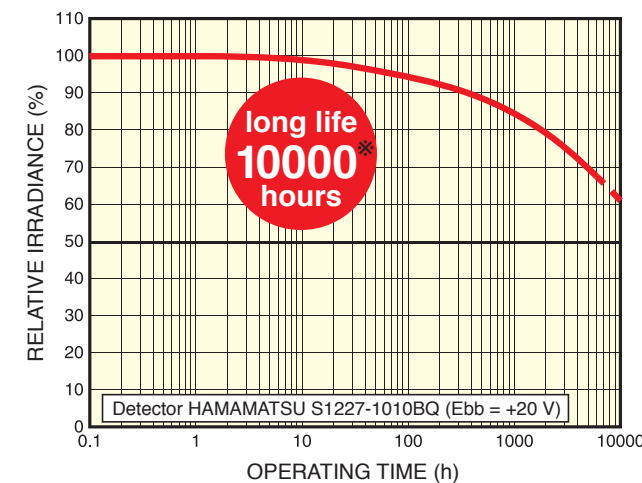
### Compact

Easy installation due to its compact design  
Suitable light source for compact devices

### Long lifetime

UVCL can sustain high light output. This unit achieves 5000 hours of long life. Less maintenance time contributes to cost reduction.

#### ▼ LIFETIME CHARACTERISTICS



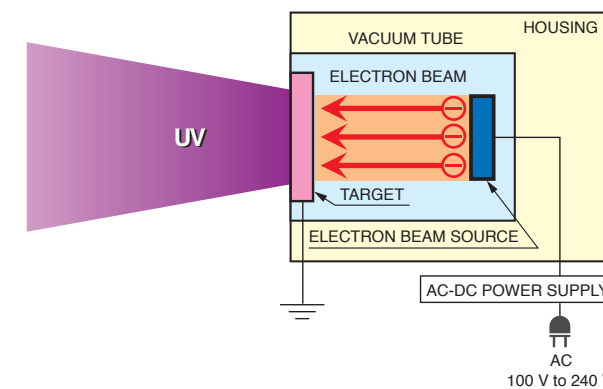
Life characteristics for L12848-305

\*10000 hours is estimated life. Guaranteed service life is 5000 hours.

### All in one

No need to design housing  
Easy operation: just connect to an AC power supply

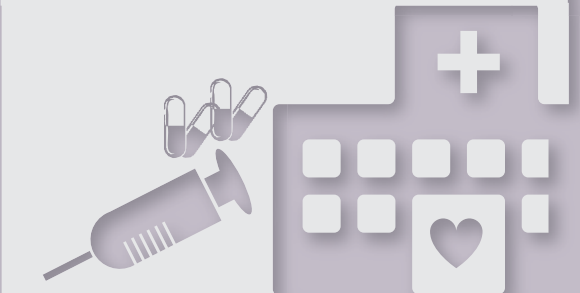
#### ▼ INTERNAL STRUCTURE



## Application

### Medical

Sterilization of medical container / package  
Various analysis (protein, blood, etc.)  
Specimen inspection device  
Basic research for phototherapy



### Industrial

UV curing  
UV bonding  
Container / packing sterilization  
Material tolerance evaluation



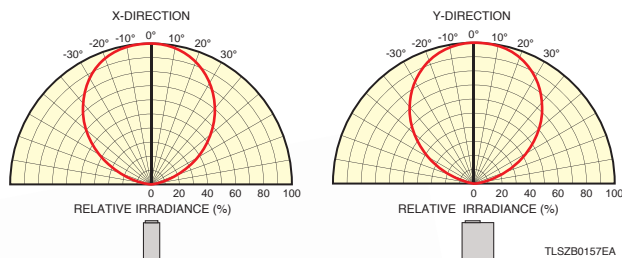
### Environment

Various analysis  
(water quality, exhaust gas, soil, etc.)  
Chemical substance decomposition  
Light source for inspection / measurement

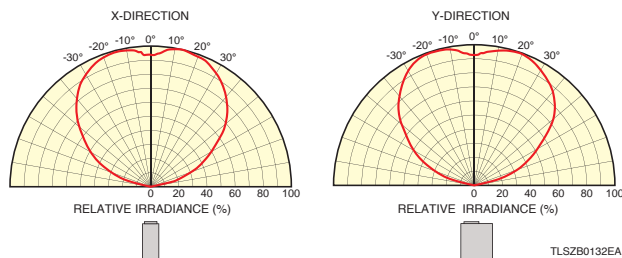


# DIRECTIVITY (LIGHT DISTRIBUTION)

L12848-265



L12848-305



## SPECIFICATIONS

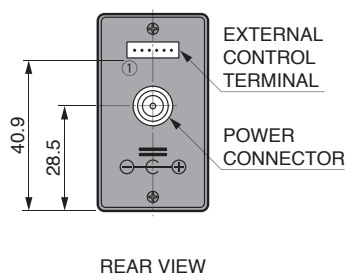
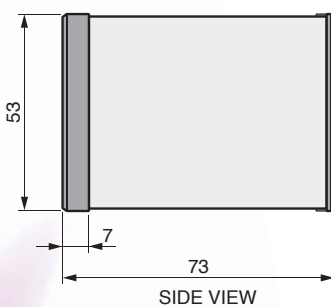
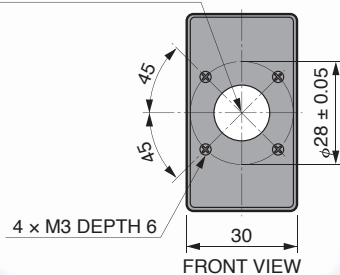
| Parameter                            |                   | L12848-265                      | L12848-305 | UNIT |
|--------------------------------------|-------------------|---------------------------------|------------|------|
| Emission wavelength range            |                   | 220 to 350                      | 290 to 400 | nm   |
| Peak wavelength                      |                   | 265                             | 305        | nm   |
| Light output stability               | Fluctuation (p-p) | 0.3                             |            | %    |
|                                      | Drift             | 3                               |            | %/h  |
| Guaranteed service life <sup>①</sup> |                   | 5000                            |            | h    |
| Estimated life                       |                   | 10,000                          |            | h    |
| Light-emitting point size            |                   | Approx. $\phi 5$                |            | mm   |
| Input voltage (AC) <sup>②</sup>      |                   | 100 to 240 (50 Hz / 60 Hz)      |            | V    |
| Power consumption                    |                   | 6                               |            | W    |
| External control                     |                   | Lamp ON/OFF, Lamp status signal |            | -    |
| Operating temperature range          |                   | 0 to +40                        |            | °C   |
| Operating humidity range             |                   | Below 80 (no condensation)      |            | %    |
| Storage temperature range            |                   | -10 to +60                      |            | °C   |
| Storage humidity range               |                   | Below 85 (no condensation)      |            | %    |
| Weight                               |                   | Approx. 230                     |            | g    |

**NOTE:** <sup>①</sup>Guaranteed service life is defined as the time when light intensity at peak wavelength falls below 50 % of the initial value or light output stability exceeds the guaranteed value.

<sup>②</sup>Input voltage to the light source power connector is 12 V DC (11.4 V DC to 12.6 V DC). When used with the supplied AC / DC adapter.

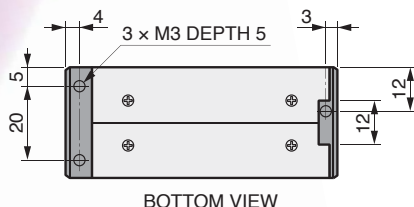
## DIMENSIONAL OUTLINES (Unit: mm)

LIGHT EMITTING POINT



External control terminal pin arrangement

| Pin No. | Signal name        |
|---------|--------------------|
| ①       | Lamp ON/OFF        |
| ②       |                    |
| ③       | Lamp status signal |
| ④       |                    |
| ⑤       | N.C.               |
| ⑥       | N.C.               |



Accessories (supplied)

- AC / DC adapter
- AC / DC cable (2 m)
- External control terminal (shorted between pins ① and ②)
- External control cable (1 m)

TLSZA0040EA

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. ©2016 Hamamatsu Photonics K.K.

## HAMAMATSU PHOTONICS K.K. [www.hamamatsu.com](http://www.hamamatsu.com)

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: [usa@hamamatsu.com](mailto:usa@hamamatsu.com)

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658 E-mail: [info@hamamatsu.de](mailto:info@hamamatsu.de)

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: [infos@hamamatsu.fr](mailto:infos@hamamatsu.fr)

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: [info@hamamatsu.co.uk](mailto:info@hamamatsu.co.uk)

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 SE-164 40 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: [info@hamamatsu.se](mailto:info@hamamatsu.se)

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93581733, Fax: (39)02-93581741 E-mail: [info@hamamatsu.it](mailto:info@hamamatsu.it)

China: Hamamatsu Photonics (China) Co., Ltd.: B1201 Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: [hpc@hamamatsu.com.cn](mailto:hpc@hamamatsu.com.cn)

TLSZ1024E02  
JAN. 2016 IP