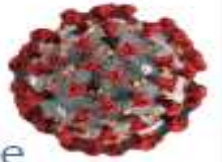


# UVC Product Introduction

[www.everlight.com](http://www.everlight.com)

**EVERLIGHT**

# How to achieve sterilization level by UVC LED



- The only and direct sterilization Ultraviolet C wave is between 270 to 290nm.
- Bacteria and viruses have their lethal dose to UVC irradiation. Also, the dose can be accumulated, so the lethal dose  $K = \text{UVC LED intensity } \mu\text{W} / \text{cm}^2 * \text{time second}$ . This means that high-strength products can achieve rapid sterilization.
- When the intensity of ultraviolet irradiation is lower than  $40\text{-}\mu\text{W} / \text{cm}^2$ , it can not achieve satisfactory results even if the irradiation time is extended. There are some problems between damage repair issues with microorganism, therefore, the irradiation intensity of the surface of the illuminated object must be more than  $70\mu\text{Ws} / \text{cm}^2$ .

Microbial name	Category	Disease	UV Lethal Dose (Wsec/cm2)
Microsporium canis	Bacterial	-	22,000
Bacteriophage	Virus	-	6,600
Coxsackie virus infection	Virus	Intestinal infection	6,300
Shigella	Bacterial	Bacterial disease	4,200
Escherichia	Bacterial	Food poisoning	6,600
Escherichia coli	Bacterial	Intestinal infection	6,600
Hepatitis A virus	Virus	Hepatitis	8,000
Cold virus	Virus	Cold	6,600
Legionella pneumophila	Bacterial	Legionellosis infection	12,300
Typhoid Fever	Bacterial	Typhoid fever	7,000
Staphylococcus aureus	Bacterial	Food poisoning, toxic syndrome	6,600
Bacillus	Bacterial	Throat infection	3,800

# Everlight innovated sterilization of UV product.

Everlight's UVC products have passed testing and certification, 99% sterilization.

UVC						
Application	WD/P(nm)	Part number	Current(mA)	Typ.mW	VAG	PKG size
Purification	278	ELUC3 ELUC3535NUB-P7085Q05075020-S21Q	20	2mW	120°	3.5*3.5*1.4
Purification	278	ELUC3535NUB-P7085Q15070100-S22Q	100	10mW	120°	3.5*3.5*1.4

**2mW 10cm 10min.**  
**ELUC3535NUB-P7085Q05075020-S21Q**

報告編號: ME1-18110930

**SUPER LAB**  
because results matter

台美檢驗科技 (檢驗中心) 測試報告

**委託單位**  
億光電子工業股份有限公司  
新北市樹林區中華路5-8號

第 1 頁 / 共 2 頁

檢驗名稱: ELUC3535 2mW (20mA)  
製造公司: -  
製造日期: -  
批 號: -  
檢驗狀態: 加附件照片  
送檢方式: 郵寄送檢  
----- 以上檢驗資訊係由委託單位提供且確認 -----  
收檢日期: 2018/01/29      檢驗日期: 2018/02/06      報告日期: 2018/02/22

檢驗項目	檢驗結果	單位	檢驗方法	定章 / 偵測範圍
抗菌試驗: 大腸桿菌 <i>Escherichia coli</i>	99.91	%	參考 Japanese Industrial Standard (JIS - Z 2801 (2010)	

**10mW 10cm 10min.**  
**ELUC3535NUB-P7085Q15070100-S22Q**

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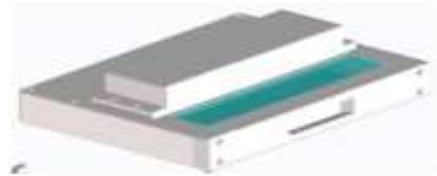
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抗菌試驗: 大腸桿菌 <i>Escherichia coli</i>	99.81	%	參考 Japanese Industrial Standard (JIS - Z 2801 (2010)	

# UVC LED introduction and application

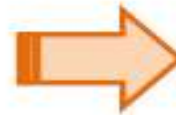
Everlight UVC series includes 2mW/10mW/30mW.  
All products can be applied according to customer design needs.



Sterilization box



Inorganic packaging  
Quartz glass ceramic substrate UVC



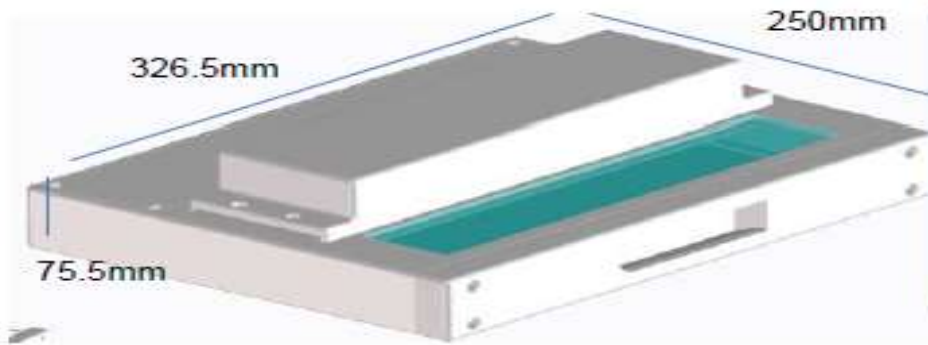
Portable sterilization




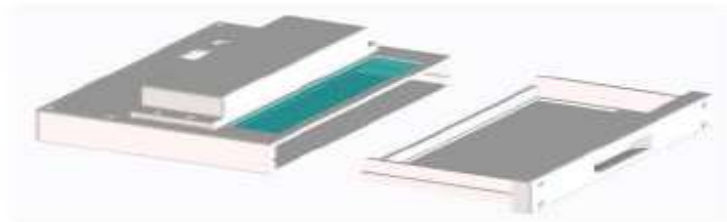
Disinfect flashlight

UVC						
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Purification	278	ELUC3535NUB-P7085Q15070100-S22Q	100	10mW	120°	3.5*3.5*1.4

# Sterilization box design concept



- UVC 10mW LED None mercury. (ELUC3535NUB-P7085Q15070100-S22Q) 
- Sterilization takes 15 seconds at 3cm height for Escherichia coli.
- Support 110V/220V AC input.
- Intensity:  $500\mu\text{W} \cdot \text{s}/\text{cm}^2$ . ( distance: 3cm)



- Drawer design
- Harmless to eyes
- Safe and convenient to use



Dirty masks, glasses and gloves



Tableware



Cellphone, Headphone

# Portable sterilization products



- UVC 10mW LED None mercury.  
ELUC3535NUB-P7085Q15070100-S22Q
- Sterilization takes 15 seconds.
- Easy to carry on with portable charger.
- Intensity:  $120\mu\text{W}\cdot\text{s}/\text{cm}^2$  (distance: 5cm)



131mm

67mm



Easy to carry on  
Unlimited object size.



Computer peripherals



Tableware



Daily needs

## Flashlight with UVC sterilization



- UVC 2mW LED None mercury. ELUC3535NUB-P7085Q05075 020-S21Q
- Easily sterilize.
- 3.7V 400mAH charge with 2 batteries.
- Intensity:  $140\mu\text{W}^*\text{S}/\text{cm}^2$ .



3 to 4 hours battery life and easy to carry on.



Elevator button



Pacifier



Dirty masks, glasses and gloves