BUENO OPTO

About Bueno Group

Distribution map of international offices → Taiwan, Shanghai, Vietnam, and Indonesia offices → Over 1000 employees worldwide

Company History

1969 Bueno Technology Co., Ltd. was founded

High corrosive fluid solution provider

1994 Accucast Enterprise Co., Ltd was founded

Designated construction cooperation of domestic electronic grade chemical plants

2001 CFV (Shanghai) Technology Co. Ltd. was founded

The largest Taiwan-funded Teflon factory in terms of production capacity

2007 Bueno Technology Co., Ltd. (Vietnam Factory)was founded

PED-certified (EU Pressure Equipment Directive) foundry with a production capacity of 80 tons/month

Ho Team Construction Co., Ltd. entered Vietnam as the largest Taiwan-funded construction company

2009 Bueno Optoelectronics Co., Ltd. was founded.

Committed to the integration and constant innovation of optical, mechanical, electrical, and material technologies for LED lighting

2017 Bueno Optics Co., Ltd. was founded.

The solution provider for automatic optical measurement and inspection with plants in Tainan and Hsinchu
Use professional optical intelligent dimension measurement and defect inspection technologies to achieve the highest quality requirements of customers
R&D/production of advanced optical products, such as WHUD, ARHUD for vehicles

2018 Bueno Technology Co., Ltd. (Indonesia Subsidiary) was founded.

The qualified Indonesian supplier for a well-known Japanese group

Bueno Group has over 1,000 employees worldwide and has received IATF 16949 and ISO 9001 certification.

Why Bueno?

Bueno has direct contact with leading manufacturers at all levels and is the co-founder of a listed Taiwanese LED chip company. Bueno provides high-quality products to reduce costs and uses LED chips with higher ratings to achieve the same lumen output while using less energy. From motion sensors, DALI, Bluetooth smart mesh network to remote web control, we can provide the best solution for any lighting scenario and obtain safety certifications for various products.

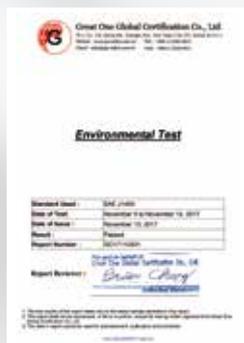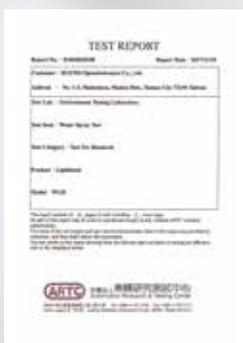|			
ISO 9001 Certificate	IATF16949 Certificate	High Bay SGS conform with FCC Standard	High Bay CNS14335 Safety Report
High Bay BSMI Certificate	High Bay passed CNS 14115 Lighting Test	High Bay PSE Certification	Yellow light tube SGS meets IES standard
Ultra Thin Warning Light Head SGS meets ECE Standard	Ultra-Thin Warning Light Head meets US standard SAE J1455	Yellow Tube CE Regulations Compliant with EMI and IEC Standard	Handheld UVC Light Sanitizer SGS Photobiological Safety Report
Vehicle Testing Center IP-X6 Waterproof Test			

Hardware

As the first Taiwanese manufacturer that developed the yellow light semiconductors process for LED tubes, Bueno owns a variety of advanced manufacturing processes and testing equipment. Bueno is supported by numerous world-class customers, including industry leaders such as TSMC, UMC, Global Foundries, and Texas Instruments.

In recent years, Bueno has branched out to agriculture to actively promote the domestic and foreign market development for LED Grow Lights. Currently, these lights are widely used for common crops like lettuce and tomatoes, and also special crops including flowers from Japan, medicinal cannabis from Israel, and dragon fruits and strawberries from Taiwan.
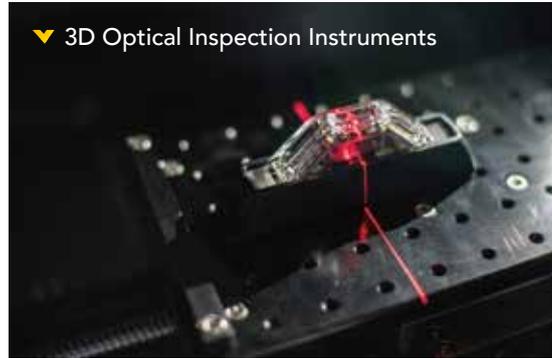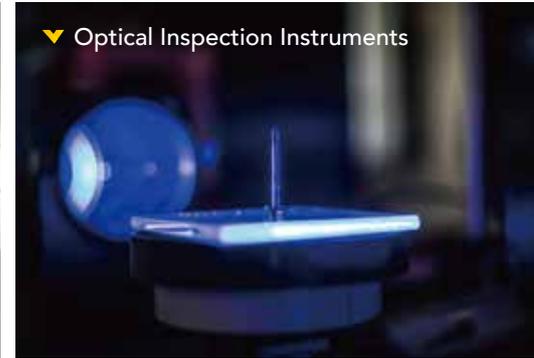
▼ Salt Spray Tester   ▼ Environmental Test Chamber
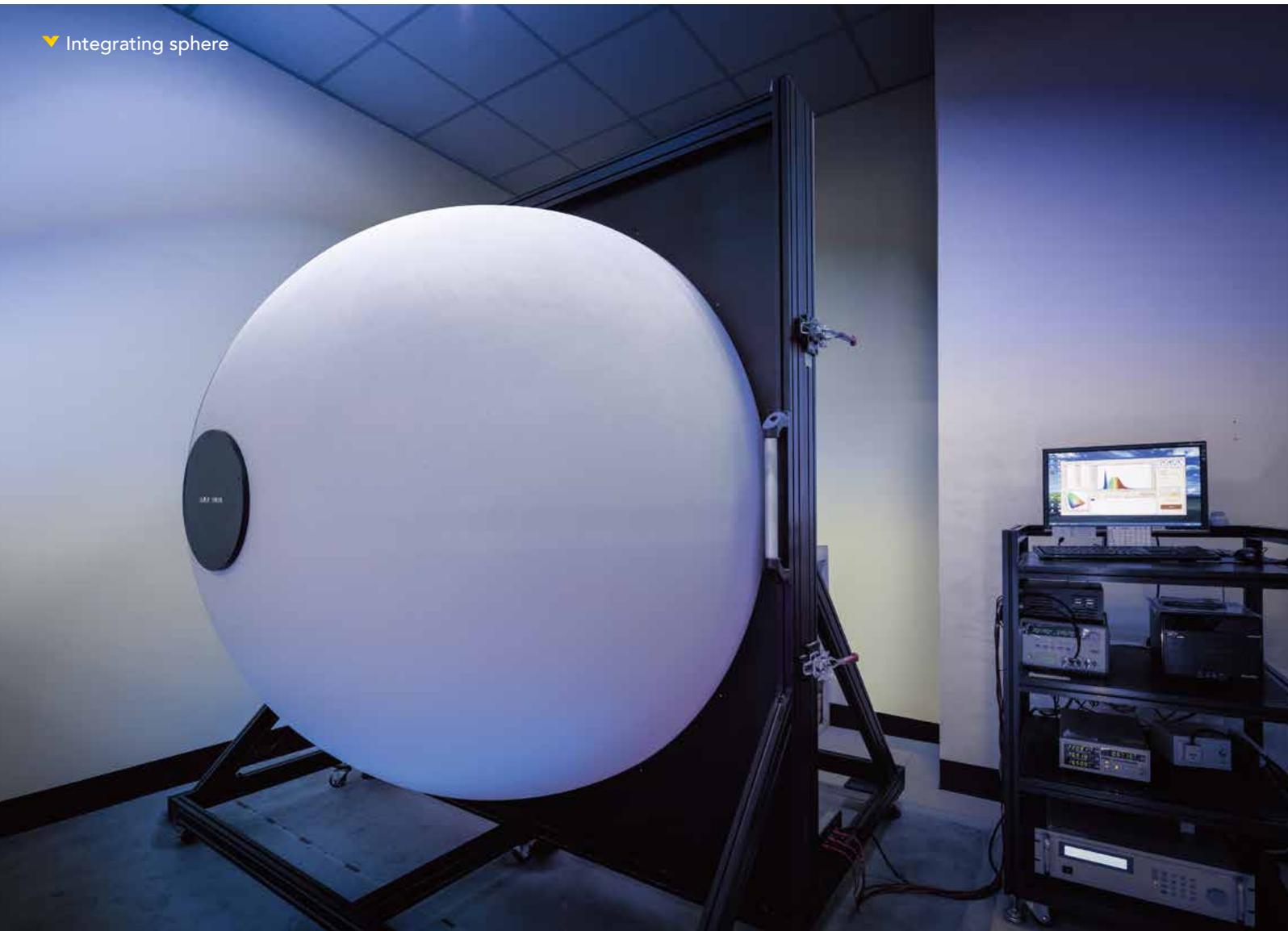

▼ Illumination distribution room

▼ 3D Optical Inspection Instruments

▼ Optical Inspection Instruments

▼ Integrating sphere

OEM professional factory production line

Bueno can provide LED solutions according to your needs, allowing you to select the most suitable beam angle, color temperature, brightness, and body. Bueno is committed to designing and producing products for various LED and non-visible light applications, such as biological culture and sterilization.

Example: LED warning lights on ambulances in Israel. ▼

▲ Example: Red LED tubes help poultry breeding associations to facilitate animal growth.

Example: Far-infrared patio lights helped a Singapore customer to breed aquatic organisms. ▶

Index

PAR80
Long Bracket Hook High Bay Light

- The main body is formed by aluminum extrusion, which is simple in appearance and beneficial for the overall heat dissipation of the lamp. After aluminum extrusion, the product is treated with anodizing to enhance its anti-oxidation capability.
- The cooling fins are formed by aluminum punching and anodized to increase the heat dissipation area and cooling ability.
- The lamp's power supply adopts the cable and plug-in quick wiring device, which is convenient for construction and installation.
- The lampshade is made of transparent PC material.
- Comes with an anti-dropping device.

Unit: mm

Power consumption	60W	120W
Input Voltage	100-277VAC	
Frequency	50/60Hz	
Standard brightness (Beam angle=110°, 5000K)	9000 lm	17000 lm
LED color	Warm white, white	
Color rendering	CRI>80	
Body Color	Color of the main body	
Waterproof Rating	IP65	
Warranty	2-year	
Certifications	CE	

500

Ø250

Ø250

PAR80

Short Bracket/
Ceiling High Bay Light

- The main body is formed by aluminum extrusion, which is simple in appearance and beneficial for the overall heat dissipation of the lamp. After aluminum extrusion, the product is treated with anodizing to enhance its anti-oxidation capability.
- The cooling fins are formed by aluminum punching and anodized to increase the heat dissipation area and cooling ability.
- The lamp's power supply adopts the cable and plug-in quick wiring device, which is convenient for construction and installation.
- The lampshade is made of transparent PC material.
- Comes with an anti-dropping device.

Unit: mm

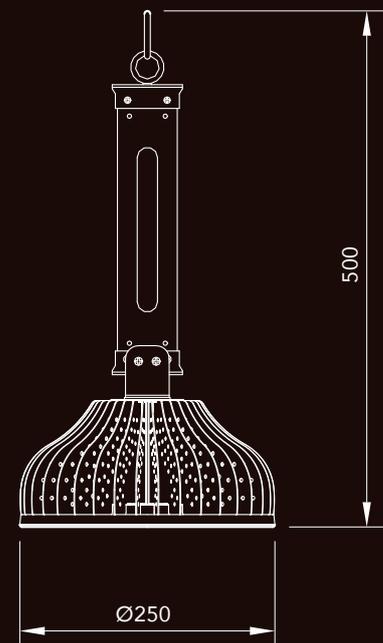| Power consumption	60W	120W
Input Voltage	100-277VAC (External power supply)	
Frequency	50/60Hz	
Standard brightness (Beam angle=110°, 5000K)	9000 lm	17000 lm
LED color	Warm white, white	
Color rendering	CRI>80	
Body Color	Color of the main body	
Waterproof Rating	IP65	
Warranty	2-year	
Certifications		

220±2

120

Ø250

Unit: mm

PAR95

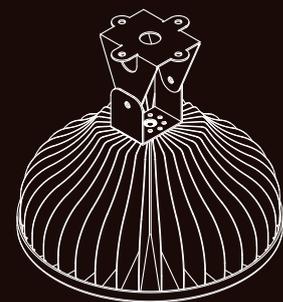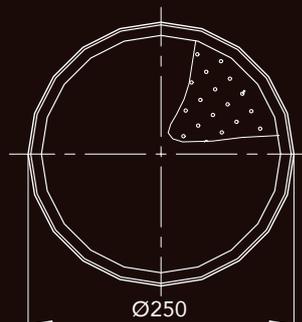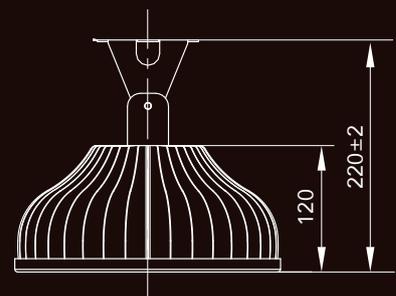## Long Bracket Hook High Bay Light

- The main body is formed by aluminum extrusion, which is simple in appearance and beneficial for the overall heat dissipation of the lamp. After aluminum extrusion, the product is treated with anodizing to enhance its anti-oxidation capability.
- The cooling fins are formed by aluminum punching and anodized to increase the heat dissipation area and cooling ability.
- The lamp's power supply adopts the cable and plug-in quick wiring device, which is convenient for construction and installation.
- The lampshade is made of transparent PC material.
- Comes with an anti-dropping device.

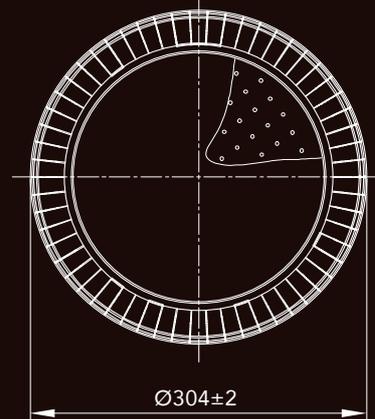| Power consumption	180W	240W
Input Voltage	100-277VAC (internal or external power supply)	
Frequency	50/60Hz	
Standard brightness (Beam angle=110°, 5000K)	26000 lm	32000 lm
LED color	Warm white, white	
Color rendering	CRI>80 (CRI>90 is also available)	
Body Color	Color of the main body	
Waterproof Rating	IP65	
Warranty	2-year	
Certifications		

341

179

Ø304±2

PAR95

Short Bracket High Bay Light

- The main body is formed by aluminum extrusion, which is simple in appearance and beneficial for the overall heat dissipation of the lamp. After aluminum extrusion, the product is treated with anodizing to enhance its anti-oxidation capability.
- The cooling fins are formed by aluminum punching and anodized to increase the heat dissipation area and cooling ability.
- The lamp's power supply adopts the cable and plug-in quick wiring device, which is convenient for construction and installation.
- The lampshade is made of transparent PC material.
- Comes with an anti-dropping device.

Unit: mm

85
Ø6
128
193
40
11

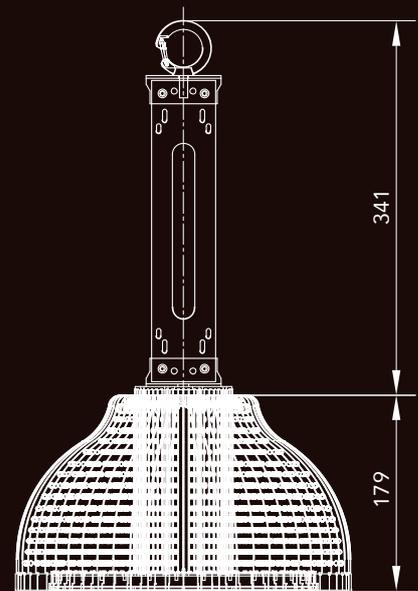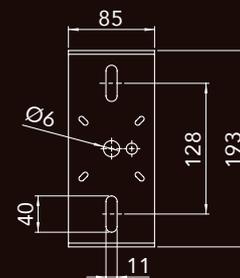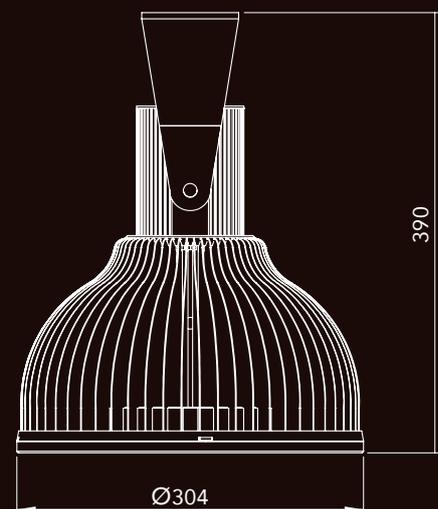| Power consumption	180W	240W
Input Voltage	100-277VAC (internal or external power supply)	
Frequency	50/60Hz	
Standard brightness (Beam angle=110°, 5000K)	26000 lm	32000 lm
LED color	Warm white, white	
Color rendering	CRI>80	
Body Color	Color of the main body	
Waterproof Rating	IP65	
Warranty	2-year	
Certifications		

390

Ø304

PAR128

Bracket High Bay Light

Unit: mm

- The main body is formed by aluminum extrusion, which is simple in appearance and beneficial for the overall heat dissipation of the lamp. After aluminum extrusion, the product is treated with anodizing to enhance its anti-oxidation capability.
- The cooling fins are formed by aluminum punching and anodized to increase the heat dissipation area and cooling ability.
- The lamp's power supply adopts the cable and plug-in quick wiring device, which is convenient for construction and installation.
- The lampshade is made of transparent PC material.
- Comes with an anti-dropping device.

Power consumption	240W High-Brightness LED	450W	480W
Input Voltage	100-277VAC (internal or external power supply)		
Frequency	50/60Hz		
Standard brightness (Beam angle=110°, 5000K)	40000 lm	55000 lm	58000 lm
LED color	Warm white, white		
Color rendering	CRI>80		
Body Color	Color of the main body		
Waterproof Rating	IP65		
Warranty	2-year		
Certifications			

243

472

402

Ø383±3

T840
Unit: mm

T8 LED

Yellow tubes for clean rooms

Suitable for facilities where photosensitive materials are stored, such as semiconductor factories, LCD panel plants, digital/video camera factories, FPC/PCB factories, and working areas where blue, violet, and red light cannot be generated.

Characteristics:

The unique filter material can effectively filter wavelengths below 530 nm to eliminate harmful light rays (such as UV). This product can replace traditional yellow tubes dedicated to clean rooms.
It will not cause severe pollution in manufacturing areas if broken. It can save more than 50% of energy consumption. 100% recyclable and eco-friendly since it doesn't contain mercury. It can be quickly powered on and respond without flickering.
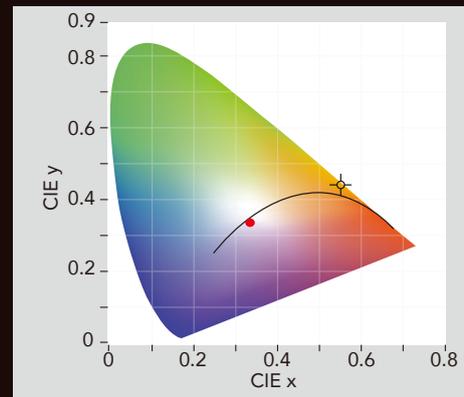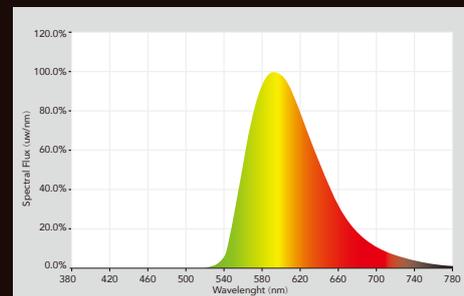
	4 feet (1198mm) 14W	5 feet (1498mm) 20W	Meets specifications
Tube Model	LT01-T840-TF-RY-14T-M	LT01-T850-TF-18-20T-M	
Color Temperature (K)	2200±200		
Luminous flux (lumen)	1480 lm±10%	2200 lm±10%	
Illuminance (Lux) (1M below)	420	>460	
Color rendering (Ra)	45±3		
Power (W)	14W±7%	20W±7%	
Input Voltage (V)	100~277V		
Power input	Single-ended or Double-ended		
Luminous Efficacy (lumen/Watt)	102	112	
Power Factor (PF)	>0.95 (110V)		
Harmonic Distortion Rate (%)	<20%		
Warranty	2-year		
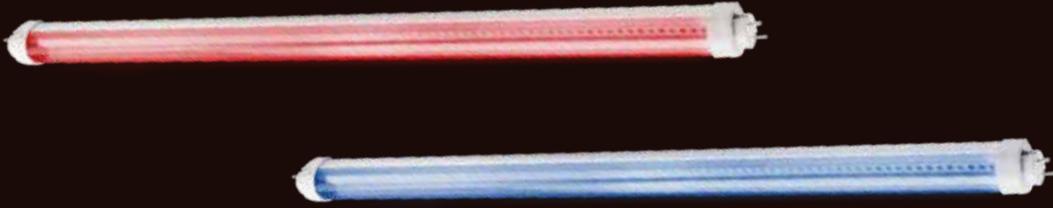
T8 LED
LED Grow Lights

Product characteristics:

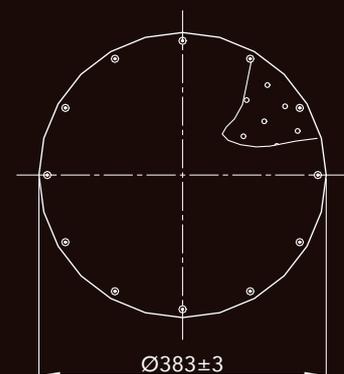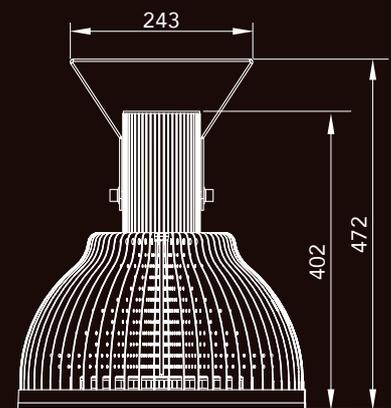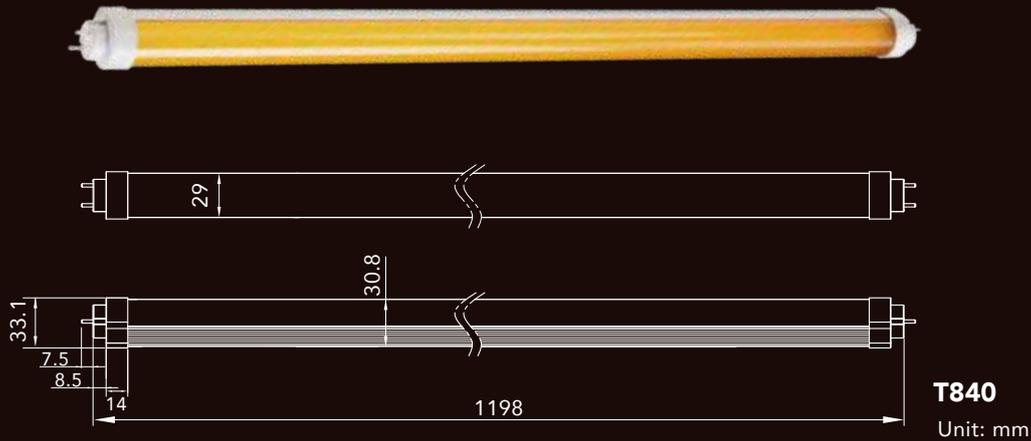- Suitable for plant factories.
- The main body is formed by aluminum extrusion, which is simple in appearance and beneficial for the overall heat dissipation of the lamp. After aluminum extrusion, the product is treated with anodizing to enhance its anti-oxidation capability.

- The operating voltage for the design is 100-277 VAC (PF>0.9)
- PC lampshade
- Fast lighting without flickering.
- The Taiwan-made optical module and power supply have high quality and reliability.

400nm~490nm (blue~blue-green light)

Functionality: Facilitate weight gain for plants (stimulates protein and carbohydrate accumulation)
This wavelength can facilitate better leaf growth, respiration, and pigmentation. This wavelength is mainly absorbed by chlorophyll and carotenoids and has the most significant impact on photosynthesis.

620nm~700nm (red light-near infrared)

Promote carbohydrate synthesis, plant growth, germination, the spread of leaves, and the development of roots, stems, and flowers. Plant absorption will drop rapidly when the wavelength is over 660nm.

490nm~570nm (green~yellow-green light)

This wavelength can penetrate deep inside the leaf and trigger efficient chlorophyll photosynthesis. The effect will be more evident under intense light.

700nm~780nm (Far Infrared)

This wavelength triggers plant responses at night and controls plant morphology and height by adjusting the R/FR ratio.

	2 feet (598mm) 10W	4 feet (1198mm) 20W	5 feet (1498mm) 25W
Input Voltage	100-277VAC PF> 0.9		
Input Current	0.10~0.19 A		
Frequency	50/60Hz		
PPF Efficiency (umol/J)	>2 umol/J		
LED wavelength	All wavelengths from 400 to 780nm		
Color rendering	CRI >90		
Beam angle	154°		
Warranty	2-year		
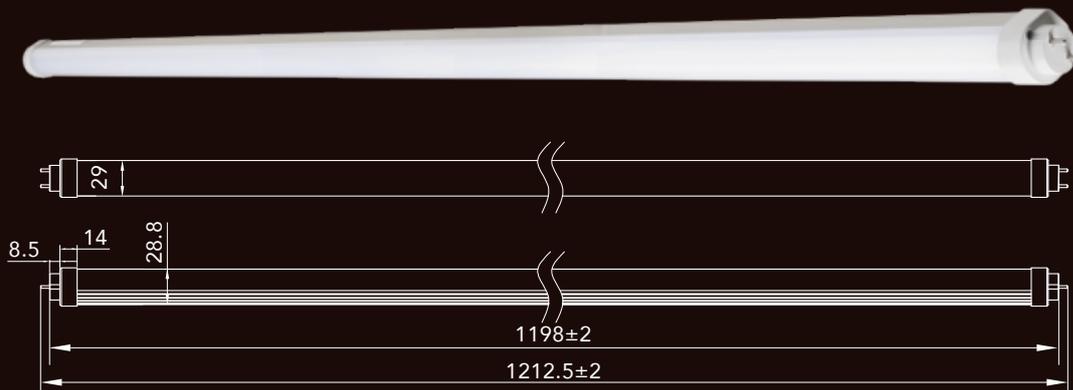
T840 Unit: mm

T8 LED
Tube Series

Light with potentials

- T8 is one of the most common lighting equipment, with the advantages of universality, high acceptance, high accessibility, and easy installation.
- T8 can use traditional lamp sockets to save opportunity costs such as re-installation costs and downtime.

Fully customizable

Lampshade: Transparent or matte
(or otherwise according to demand)

Chips: We provide chips from different manufacturers, color temperatures, and colors. We also provide highly customized products, such as hybrid spectrum and non-visible light

Length: Normal specifications include 1, 2, 3, 4, 5, and 8 ft. Other lengths can be customized separately.

Self-developed and manufactured power supply

- We develop power supplies with optimized electrical properties, durability, stability, and protection devices for different applications and scenarios.
- The adaptability and reliability of the power supply directly affect the efficiency and safety of LED lights.
- Inferior power supplies often lead to flickering, low efficiency, shortened lamp life, and workplace accidents such as fires in severe cases.

Standard power range: 8~40W
Input range: 100-277VAC and 50/60Hz for standard products. Other input voltages or DC power supply are optional.

T810/T82E Technical Data				
Length	330mm	Power Supply	Internal	Frequency	50/60Hz
Diamete	28mm	Power Input	Single-ended or Double-ended	Color Temperature	3000K~6000K
Power	5W	Input Voltage	100-277VAC	Lumen output	587 lm

T820/T82E Technical Data				
Length	580 /590mm	Power Supply	Internal	Frequency	50/60Hz
Diamete	28mm	Power Input	Single-ended or Double-ended	Color Temperature	3000K~6000K
Power	10W	Input Voltage	100-277VAC	Lumen output	1250 lm

T840-EZ (Extra High Efficiency)				
Length	1200mm	Power Supply	Internal	Frequency	50/60Hz
Diamete	28mm	Power Input	Single-ended or Double-ended	Color Temperature	3000K~6000K
Power	20W	Input Voltage	100-277VAC	Lumen output	2600 lm

符合
認證

4ft-1198mm/2ft-580mm

31.6

30.6

Unit: mm

T8 LED

Waterproof T8 LED for refrigeration

Product characteristics:

- low temperature start
- Applications： freezer, refrigerator, cake refrigerator, supermarket refrigerator, seafood refrigerator, low temperature storage
- No flicker
- The average useful life is over 30,000 hours.
- Made in Taiwan

Product models	Dimensions	Power consumption	Operating temperatures	Beam angle	Voltage	Lumens	Color temp	Color rendering	Weight	Warranty
2 呎	31.6mmx580mm	10W	-20°~+60°C	120°	AC100V-240V	900 lm	5700K white	> 80	110g	1 year
4 呎	31.6mmx1198mm	20W	-20°~+60°C	120°	AC100V-240V	1800 lm	5700K white	> 80	160g	1 year
符合認證	PSE CE FC 🗑 RoHS									

580±0.5

595.6±0.5

33.1

31.3

13

Unit: mm

T8 LED

UV-C LED Tube

Our deep UV LED tube emits 280nm UVC wavelengths to kill or inactivate microorganisms by damaging their genetic material, thereby disabling their ability to replicate and infect host cells.

- Kills 99.99% of pathogens such as viruses, germs, and mold
- Full voltage design for 100-277VAC
- Does not contain mercury or emit ozone gas
- Fast start-up time, withstands frequent on-off switching
- Made in Taiwan with locally sourced UVLEDs, in-house optical modules and power supplies to ensure quality and reliability

	L	UVC SMD LED (L x W x H) of 3.5 x 3.5 x 1.64 mm
Electrical characteristics (Ta=25°C)	Charging Voltage	100-277VAC
	Maximum current consumption	0.1~0.2A
	Frequency	50 / 60Hz
	Power consumption	24W
Radiation lumen (Beam angle 120°)		~450mW
Wavelength		280nm
Operating temperature		–20~40°C
Storage temperature		–40~60°C
Tube length		2FT，598mm

T8 LED
Glass tubes

Product characteristics:

- Compared with traditional lights, it saves more than 50% energy and doesn't generate IR/UV radiation.
- Complaint with BSMI safety standard, EU CE standard specification, and PSE/FCC/Rohs certification.
- Compliant with CNS15592 standard with no blue light hazard.
- Operating voltage is 90-305 VAC to satisfy different voltage demands.
- The average service lifespan is over 40,000 hours.
  No flickering problem

Common specifications:
nput Voltage: AC90-305V
CRI>80Ra
Tube material: Thickened milky white glass Luminous Efficacy> 110 lm/w

Applications:
Indoor Lighting / Building Lighting / Office Lighting / Alternative to Traditional T8 Light Source

Product Models	Dimensions	Power consumption	Color Temp	Lumen	Illuminance (1m)
G82	2 feet (580mm)	9W	6000K	1000 lm	160
G84	4 feet (1198mm)	18W	6000K	2000 lm	300
Certifications					

LED
Ceiling Light

Product characteristics:

- One-piece
- Even light distribution
- Up to 4 lights can be connected in series
- Can replace traditional mountain lamps

- **10W:** L304mmXW83.5mmXH62mm
- **20W:** L604mmXW83.5mmXH62mm
- **40W:** L1204mmXW83.5mmXH62mm

Power consumption	40W	20W	10W
Voltage	100-240V		
Driver	Including		
LED color and color temperature	White 6500K		
Standard brightness	4800 lm	2400 lm	1200 lm
Color rendering	CRI>80		
Average lifespan	15000 hours		
Beam angle	300°		
Body Materials	Aluminum bottom pan, straight-grained PC lampshade, 304 stainless steel wall plate		

LED
Round recessed light

- Fixed recessed light embedded in the ceiling with a sealed and opaque back.
- Even light distribution with no dark areas.
- The lamp has a transformer that can be used after connecting to the power supply.
- No UV and IR radiation

Back view

Dimensions	6 in.	8 in.
Opening	15cm	20cm
Power consumption	18W	30W
Input Voltage	100-240V	100-240V
LED color/color temperature	White 6000K	White 5700K

600x600mm

600x1200mm

LED
Ceiling Panel Light

Product characteristics:

- Complaint to CNS14335 lamp safety specification, CNS14115 electromagnetic interference specification, CNS15592 standard (eye protection- no blue light hazard), BSMI certification, and CE /PSE /FCC /Rohs certifications.
- Anti-glare technology provides even and comfortable light with no IR/UV radiation.
- The design supports voltages from 90 to 305 VAC for special occasions.
- Optional: Non-flickering and dimmable segments, dimmable driver, and ceiling-mounted frame (as shown in the figure above).
- High-quality LED light source that provides stable performance and high luminous efficacy with a lifespan of more than 40,000 hours.

Common specifications:

Input Voltage AC90-305V CRI≧80

Cover material:
Anti-yellowing matte cover

Luminous Efficacy>105 lm/w

Applications:

Office Lighting / Hospital Lighting / Classroom Lighting / Alternative to T8 Grille Lights

Product Models	Dimensions	Power consumption	Color Temp	Lumen	Illuminance (1m)
DPL66	600 X 600mm	40W	6000K	4200 lm	850
5MLED	600 X 600mm	45W	6500K	4700 lm	-
DPL6C	600 X 1200mm	64W	6000K	6080 lm	-
Certifications					

LED
Drop Light

Concise contour enhances the elegance

The modern and sketchy design is suitable for spaces of various styles and uses. You can use it to accentuate architectural details, define spaces instead of physical compartments, or provide even and bright lighting in elevated spaces.

Suited for:

Office, parking lot, restaurant, warehouse, school.

DL01-38 Technical Data					
Length	1156mm	Input Voltage	100-277VAC	Lumen output	4950 lm
Power	40W	Frequency	50/60Hz	Color rendering	>80
Power Supply	Internal	Color Temperature	3000K~6000K, customizable		

DL01-50 Technical Data					
Length	1156mm	Input Voltage	100-277VAC	Lumen output	6500 lm
Power	50W	Frequency	50/60Hz	Color rendering	>80
Power Supply	Internal	Color Temperature	3000K~6000K, customizable		

DL01-100 Technical Data					
Length	1526mm	Input Voltage	100-277VAC	Lumen output	12000 lm
Power	100W	Frequency	50/60Hz	Color rendering	>80
Power Supply	Internal	Color Temperature	3000K~6000K, customizable		

*For customization needs, please contact us by phone.

PL02

Unit: mm

460   7.5

29.2

8

54±1

PL04

40.3

7.5

25   6.4

25

26.8

53.9

7.8

6.9
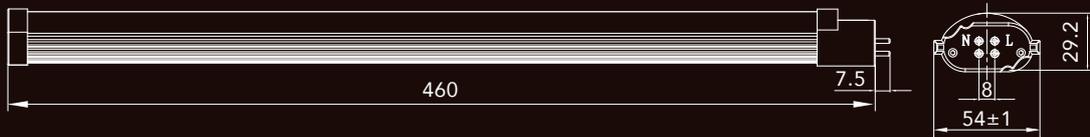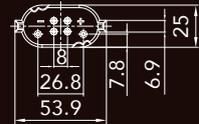
LED
PL Tube

Product characteristics:

- Uses standard commercial fluorescent light holders.
- Power consumption is half that of traditional compact fluorescent lights.
- Compared with traditional fluorescent lights, it has a longer lifespan and doesn't require frequent replacement.
- Recyclable, flicker-free and UV-free.

- The Taiwanese high-brightness chip provides 90 lm per watt.
- Utilizes a Japan-made diffuser with high light transmittance and anti-glare function.
- RoHS compliant

| Model	PL02-FHP-32-5D-4HT	PL04-FHP-32-5D-AKT
Length	410mm	410mm
Power consumption	15W	15W
LED color and color temperature	5000K	5000K
Input Voltage	24V	100-240V
Standard brightness	1350 m ± 7%	1350 m ± 7%
Color rendering	CRI>70	CRI>80
Frequency	50~60Hz	50~60Hz
Power supply	External power supply	Internal or external

WLH-IB

WLH-XX

Ultra-Thin Warning Light Head

WLH-CA

WLH-6S

- Available colors include red, blue, amber, white, and green. You can choose 1, 2 or 3 colors from these colors.
- 29/ 69 flashing modes (WLH-IB: Options for 1/ 2/ 3 modes)
- Mode memory function
- TBT (Turn/Brake/taillight) design Compact and suitable for various applications
- Compact and suitable for various applications
- Weather resistant for outdoor installation
- A maximum of 8 lights can flash in sync
- 2-Year warranty

Arrays:

33
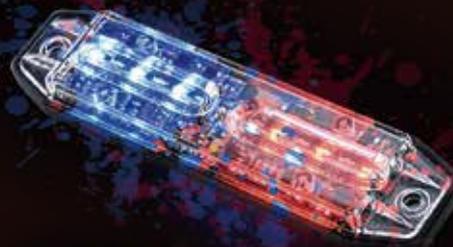
LED Specifications	WLH-6S	3W High-Brightness LEDX6 LEDs (3535)
	WLH-CA	3W High-Brightness LEDX12 LEDs (3535)
	WLH-IB	4W High-Brightness LEDX18 LEDs (1616)
Operating voltage		10-30VDC
Maximum current consumption		1.2A max@DC12V
		0.6A max@DC24V
Flashing mode		29 / 69 flashing modes
Operating temperature		-40°C ~ +70°C
Waterproof/ dustproof rating		IP67
Color arrangement		Single-color/ bi-color/tri-color
Specification compliance	ECE R65 SAE	SAE J595 Meets class 1 / ECE Meets R65 XA1 / XB1 / XR1 / R10

122
105
14
3

WML-XX
Mini Warning Light Head

- Available colors include red, blue, amber, white, and green. One or two of five can be selected from the five colors.
- 29/ 69 flashing modes
- Mode memory function
- TBT (Turn/Brake/taillight) design Compact and suitable for various applications
- Compact and suitable for various applications
- Weather resistant for outdoor installation
- A maximum of 8 lights can flash in sync
- 2-Year warranty

27.9

115
124

3
25.1

Unit: mm

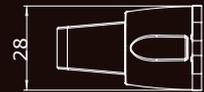| LED Specifications	WML-6S	3W High-Brightness LEDX6 LEDs (3535)
	WML-CA	4W High-Brightness LEDX12 LEDs (1616)
Operating voltage		10-30VDC
Maximum current consumption		1.2A max@DC12V
		0.6A max@DC24V
Flashing mode		29 / 69 flashing modes
Operating temperature		-40°C ~ +70°C
Waterproof/ dustproof rating		IP67
Color arrangement		Single-color/Bi-color
Specification compliance	ECE R65 SAE	SAE J595 Meets class 1 / ECE Meets R65 XA1 / XB1 / XR1 / R10

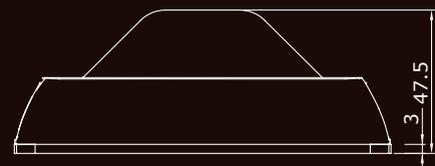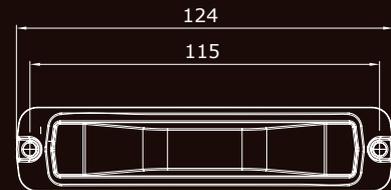Arrays:

WAL-XX
Wide-Angle Warning Light

- Available colors include red, blue, amber, white, and green. One or two of five can be selected from the five colors.
- 29/69 Flashing modes
- Mode memory function
- TBT (Turn/Brake/taillight) design
- Compact and suitable for various applications
- Weather resistant for outdoor installation
- 150°wide-angle warning light function
-
- A maximum of 8 lights can flash in sync
- 2-Year warranty

Arrays: ■ ■ ■ □ ■

150°
90°

Unit: mm

28

124
115

3 47.5

LED Specifications	WAL-8S (Single-color)	3W High-Brightness LEDX8 LEDs (3535)
	WAL-GY (Bi-color)	4W High-Brightness LEDX16 LEDs (1616)
Operating voltage		10-30VDC
Maximum current consumption		1.5A max@DC12V
		0.75A max@DC24V
Flashing mode		29 / 69 flashing modes
Operating temperature		-40°C ~ +70°C
Waterproof/ dustproof rating		IP67
Color arrangement		Single-color/ Bi-color
Specification compliance	ECE R65 SAE	SAE J595 Meets class 1 / ECE Meets R65 XA1 / XB1 / XR1 / R10

WAF
Flasher

- Mode memory function
- TBT (Turn/Brake/taillight) design
- Compact and suitable for various applications
- Weather resistant for outdoor installation
- A maximum of 8 lights can flash in sync
- 2-Year warranty

Operating voltage	12VDC
Maximum current consumption	4.0Amps max
Flashing mode	29 flashing modes
Operating temperature	-40°C ~ +70°C
Waterproof/dustproof rating	IP67
Specification compliance	ECE Meets R10

WHA-XX

WHA-XX

Concealed Warning Light

LED Specifications	WHA-81A-L001	4/6/8/12 3W LEDs
	WHA-C2Y-L001	4/6/8/12 3W LEDsX2 set
Flashing mode	29 / 69 flashing modes	
Operating temperature	Single-color/Bi-color	

4.56" (115.89mm)   1.22" (30.89mm)

0.72" (18.30mm)

BUENO

Made in Taiwan

WAO-XX

All-in-one Warning Light

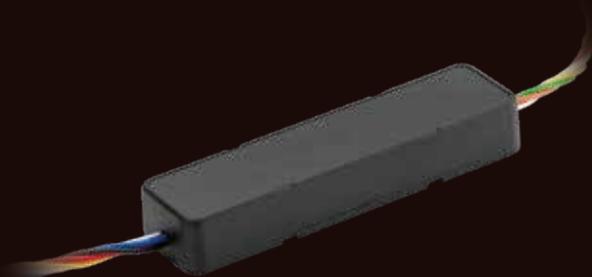- Available colors include red, blue, amber, white, and green.One of the five colors can be selected：Single-color
- Mode memory function
- TBT (Turn/Brake/taillight) design
- Compact and suitable for various applications
- Weather resistant for outdoor installation
- A maximum of 8 lights can flash in sync
- 2-Year warranty

WAO-XX

Arrays: 🔴 🔵 🟠 ⬜ 🟢

LED Specifications	WML-6S	3W High-Brightness LEDX6 LEDs (3535)
	WML-CA	4W High-Brightness LEDX12 LEDs (1616)
Operating voltage	10-30VDC	
Maximum current consumption	2.0Amps max	
Flashing mode	29 flashing modes	
Operating temperature	-40°C ~ +70°C	
Waterproof/ dustproof rating	IP67	
Color arrangement	Single-color	
Specification compliance	ECE R65 SAE	SAE J595 Meets class 1 / ECE Meets R65 XA1 / XB1 / XR1 / R10

2.29" (58.27mm)
1.87" (47.60mm)
2.17" (55.16mm)

0.95" (24.13mm)   0.32" (8.13mm)

0.02" (0.50mm)
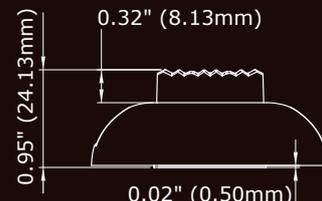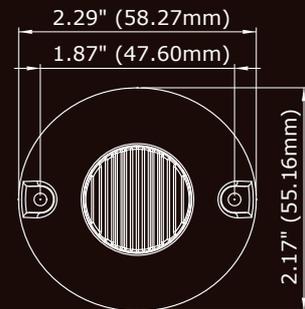
MEDC AIR⁺

UVC Plasma Air Purifier

One simple button press away from clean air.

- Tested and proven by national P2 bio lab to achieve 99.9% disinfection rate.

- Magnetic mounts with optional adhesive backing allows MEDC

  AIR⁺ to be placed near electric fans, air conditioners, car air vents, and even existing air purifiers to further improve air quality.

- Patent-pending design allows for safe daily use, as our optics concentrates all UV energy within the purification ring.

- Zero consumables, low energy consumption, hybrid UVC-cold plasma.

- Instant 2-second bacteria and virus inactivation through UVC. Removes odors,VOCs, and fine particulates through cold plasma generation.

| Operating Voltage	DC 5V/1A,Type-C USB
Output power	18mW (10,000μJ/cm2@2sec)
Wavelength	265nm-300nm
Operating Temp	-10°C ~ +45°C
Size	133.5mmX64.5mmX23.8mm
Positive ion concentration	2500w (rion/cm3)@5cm
Negative ion concentration	2000w (rion/cm3)@5cm
Ozone concentration	<0.005ppm

Hybrid UV
Plasma Air Purification Device

Product characteristics:

- Plasma air purification generates charged molecules through needlepoint bipolar ionization.

- The process generates a sufficient concentration of ions but minimal ozone and other byproducts.

- This is the safest and only form of air ionization approved to operate on passenger aircrafts.

- Instant 2-second pathogen inactivation

- Fully prevents further replication of bacteria and viruses

- Long useful life, minimal energy consumption

Charging Voltage	DC 11V-14.5V
Output power	18mW (10,000uj/cm2@2sec)
Wavelength	265nm-300nm
Driver Power of the Lamp	150mA
Weight	62g
Size	150mm X 34mm X 25mm
Positive ion concentration	2500w (rion/ cm3) @5cm
Negative ion concentration	2000w (rion/cm3) @5cm
Ozone concentration	<0.005ppm
Color	White
Material of Leds	ABS

23.0
Ø4.9
12.5
36.9
3.2
39.5
262.1
Unit: mm
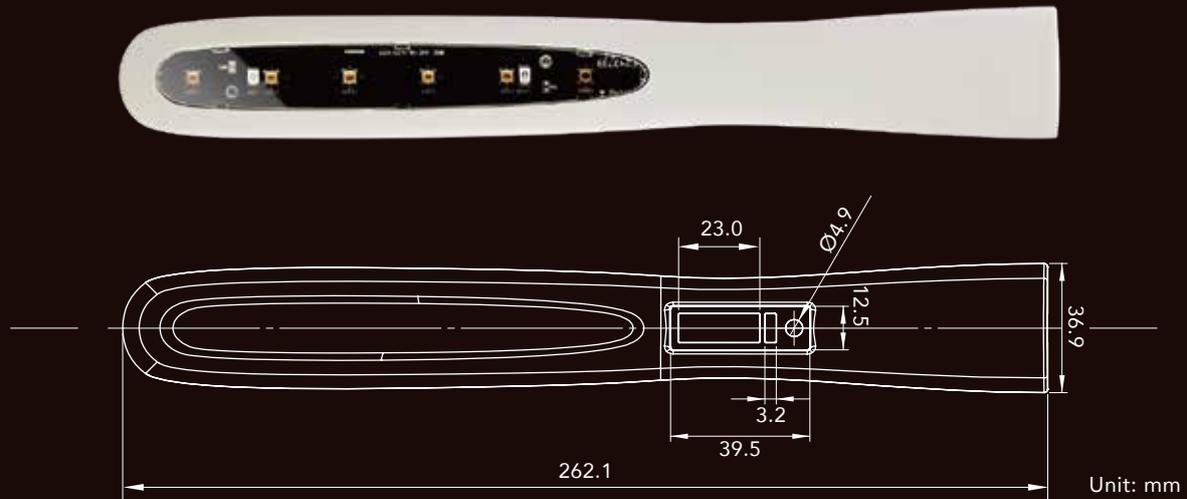
UV-C
Handheld UVC Light Sanitizer

- Six ultra-high-efficiency UVC-LED lamps provide 99.9% sterilization.
- Kill SARS (SARAr-CoV) viruses instantly.
- Lightweight and easy to store; easy to carry when going out.
- One-key disinfection - simple operation.
- Safety precautions - automatic shutdown when the light is facing up
- Rechargeable design - high-capacity lithium battery provides 30 minutes of run time.
- Power-saving design - 15s to auto shut down.
- A using distance of 1~5cm is recommended

How to use

Blue light - Countdown
5 lights -15s;
4 -12 s;
3 - 9s;
2 - 6s;
1 - 3s;
0 - 0s

- Green - Using
- Red - Charging
- Yellow - battery fully charged
- On/Off switch

| Dimensions	L262 x W37 x H19 mm
Product Color	White
LED	UV-Cx6PCS / Blue LEDx2PCS
Material	ABS
Charging Voltage	DC 5V 1A(micro USB)
UV-C	Wavelength 265-285nm
Radiation Intensity	>10000uw/cm2 (per second)
Battery Capacity	1200mAh lithium battery
Run time on a full charge	30 minutes straight
Weight	130g
Certifications	IEC/EN62471 Optical Radiation Safety Certification

▲ Can be attached to
magnetic objects

Handheld emergency light

- High-brightness LEDs reduce the possibility of rear-end collisions

- Give advance notice to vehicles behind to brake and prevent collision.

- It can be quickly installed on the car in an emergency.

- Corresponds to safety standard UN-R21.

- Provide a visual range of 200 meters in good weather.

- Use strong magnets to attach to magnetic objects.

Ø29.5
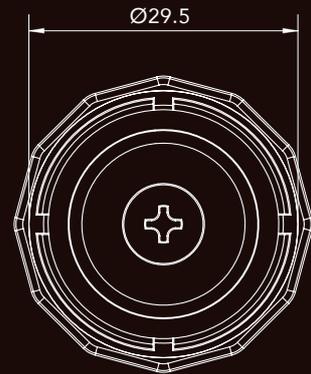
Unit: mm

Dimensions	L112 X Ø32 mm
LED mode	White: Steady mode, fast flashing, fast flashing staggered, slow flashing, slow flashing staggered
LED quantity	Eight 0.5W High Brightness LEDs (RED) / One 1W High Brightness LED (WHITE)
Color	Red X8PCS, White X1PCS
Body Material	ABS(Main body)+PC (lampshade)
Battery	AAA alkaline batteries x 3 (Sold separately)
Run Time	~40 hours for flashing mode / ~28 hours for steady mode (using alkaline batteries)
Waterproof rating	IPX3
Attachment	Use strong magnets to attach to magnetic objects
Weight	55g (without battery)

112

LED
Bulb

- Provides even light distribution without flickering and generates no UV and IR.

- Free of mercury and other harmful substances, recyclable.

- High-color rendering makes objects visually more detailed.

- Easy to install. A direct replacement of incandescent lamps with low cost.

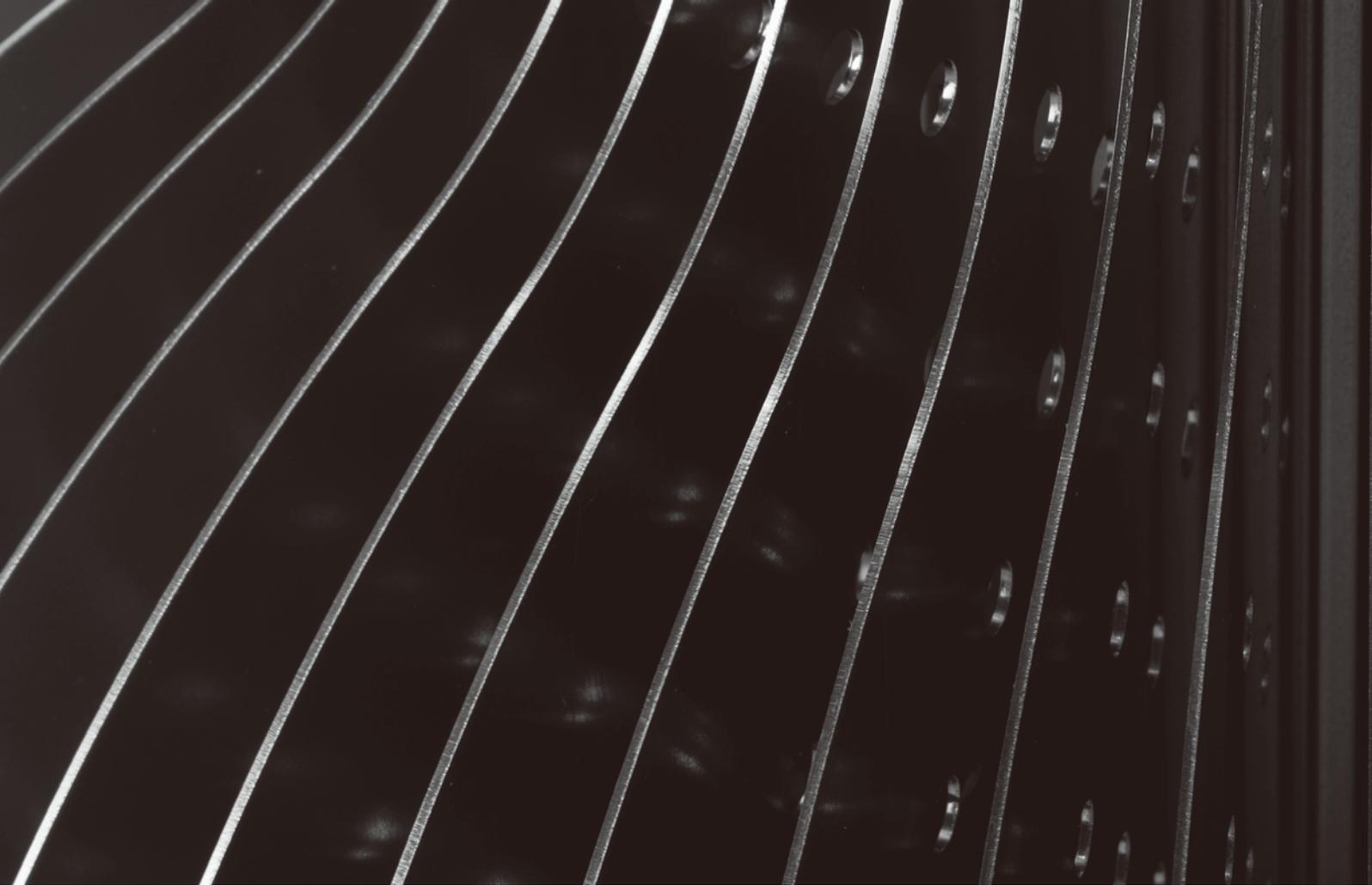| Power consumption	12W	15W
Dimensions	L119mm±3 X W60mm	L135mm±3 X W70mm
Color Temperature	6000K	6000K
Lumen	1320lm	1650lm
Voltage	90-305V	90-305V
Current	0.12-0.05A	0.15-0.06A
Lifespan	15000 hours	15000 hours
Color rendering	RA>80	RA>80
Lumen per watt	110 lm/w	110 lm/w
Non-directional(semi-spatial)	Non-directional (semi-spatial)	Non-directional (semi-spatial)
Phase Shift Factor	0.5	0.5
Net Weight	50g	65g

Lithium iron battery

Product characteristics:

- **Safety**
  Lithium iron carbonate has a high thermal decomposition temperature and excellent thermal stability and safety.

- **Excellent longevity**
  This battery has a long cycle life and service lifespan, and its DOD (depth of discharge: 100%) is 2000+ times its cycle life.

- **High output discharge**
  Compared with lead secondary batteries, it provides a significantly higher output and is more suitable for systems requiring high power output, uch as automobiles, forklifts, heavy machinery, and industrial machinery.

- **Quick charge and discharge**
  Compared with lead-acid batteries, it takes only 10% of the time to charge and discharge.

- **Low self-discharge rate**
  The self-discharge rate of lithium iron carbonate batteries is 1% per month, ensuring sufficient power even after being left unused for a long time.
  (The self-discharge rate of lead secondary batteries is about 20% per month)

- **Characteristics in low-temperature environments**
  Lithium iron carbonate battery can operate in a low-temperature environment of -20°C (-20°C~50°C) due to its characteristics.

- **Made without rare metals**
  Since its manufacturing doesn't require rare metals, material costs can be reduced. It also has benefits in terms of technological innovations and mass production.

Battery compartment dimensions

- 225X170X220 mm
- 225X170X220 mm
- 270X175X190 mm
- 310X175X190 mm
- 320X320X200 mm

Type	Lithium Iron Carbonate (LiFePO4)	Ternary lithium (NCM/NCA)	Lead (Pb)	Lithium cobaltate
Mean Voltage	3.2	3.7	1.2	3.7
Volumetric Energy Density (Wh/l)	180-300	230-390	80-150	360-500
DOD cycle (times)	>2000	>1000	300	400
Maximum discharge coefficient (C)	20C	5C	10C	3C
Self-discharge rate% (monthly)	1%	1%	30%	3
Charge current coefficient	3C	3C	3C	IC
Memory	No	No	No	No