

INUI-Cleaner-Smarter-Brighter

THE CUTTING-EDGE IN COVID-19 PREVENTION

GLOBAL LEADERS
UVC DISINFECTION

Change Your Current Lights & Keep COVID-19 at Bay



Traditional LED lighting



INUI-Cleaner-Smarter-Brighter[™] Lighting

INUI-Cleaner-Smarter-BrighterTM Lighting is leading the way with integrating UV-C disinfection into everyday LED lighting. This series of unprecedented health-protecting lighting products provide the three-fold usage of surface disinfection, air-cleaning, and illumination all in one product. Boasting a disinfection rate up to 99.9%*
—with no excess radiation, no ozone produced, and no residual chemicals—and with a built in military-grade radar sensor to detect anyone around, INUI-Cleaaner-Brighter-SmarterTM is designed to keep people safe and healthy.

What is Cleaner-Smarter-Brighter™

Intelligent, Automatic
Disinfection, Air-Cleaning, and
Lighting. 3-in-1.



3-in-1

Intelligent, Automatic Disinfection, Air-Cleaning, and Lighting.

Simple Replacement

Just Change Your old Light.

Intelligent Operation

Normal Illumination while you're there, disinfection when you leave.

Safe and Reliable

Military-grade radar and radar self-diagnosis. No chemical residue.

Keep Spaces Free of COVID-19

No extra manpower. Highly cost-effective.

Minimize Infection Spread

Disinfection occurs immediately after people leave the room.

Many public places around the world already use UV-C to battle COVID-19



Hospital robots are disinfecting with UV-C



Buses are being disinfected with UV-C

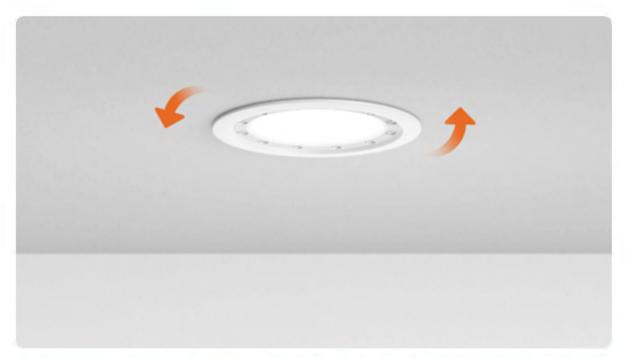


Boeing aircraft are being disinfected with UV-C



New York City subways are being disinfected with UV-C

Upgrade any Lighting System to UV-C with INUI-Cleaner-Smarter-Brighter[™] Lighting











Bars

Toilets







Meeting rooms

Elevators

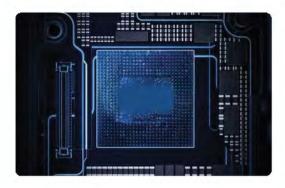
Gyms

Applications: restaurants, bars, barber shops, restrooms, meeting rooms, banks, gyms, elevators, hotels, clinics, nursing homes, convenience stores, supermarkets, retail stores, entertainment venues, etc.

Safety

1. Advanced 5.8G military-grade Microwave

Each $\mathsf{INUI}^\mathsf{TM}$ Lighting product is equipped with a military-grade 5.8G Microwave with a detection distance of 7-10 meters that automatically stops disinfection when people are nearby.



2. Self-check safety system

Before each disinfection cycle, a self-diagnosis is performed to ensure safe product performance. If the radar fails, disinfection stops automatically.



3. No dangerous ozone produced

Operates with a UV-C disinfection wavelength of 260~285nm, well above the 240nm or less that decomposes oxygen into ozone that can damage the respiratory tract.

Easy operation

Lighting Mode

Turn the switch ON and OFF to control.



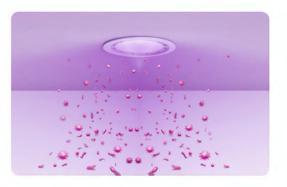
2-hour Disinfection Mode

Flip the switch ON-OFF-ON within 3 seconds to turn on. Disinfection stops automatically after 2 hours.



20-min Auto-Disinfection Mode

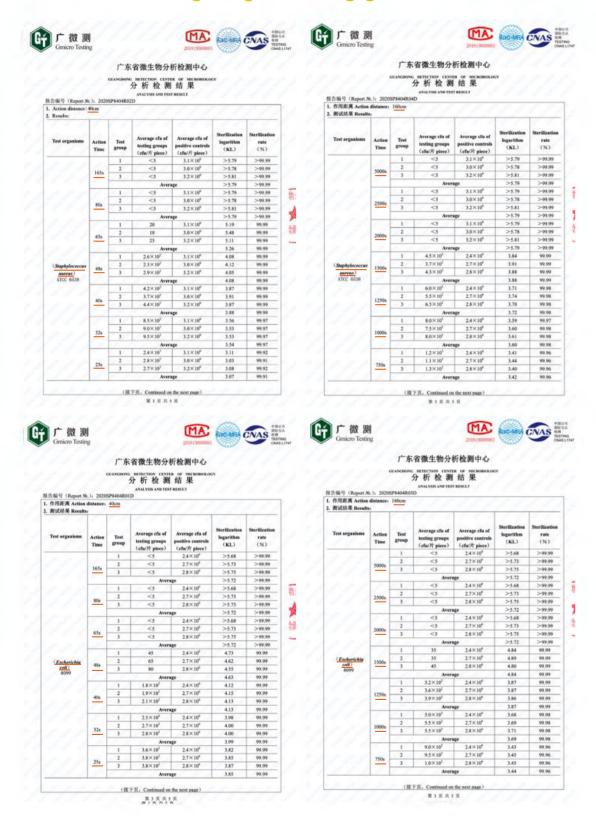
Flip the switch ON-OFF-ON-OFF-ON within 3 seconds to turn on. Disinfection automatically stops when people or pets approach. Illuminates while you are there, disinfects when you leave.



^{*}Ozone will corrode the mucosa of the respiratory tract and cause serious damage to the respiratory tract.

^{*}UV below 240nm will decompose oxygen in the air to form ozone.

The measurement standard of INUI-Cleaner-Smarter-Brighter[™] Lighting for killing germs



^{*}Representative colonies: S. aureus. E.coli, they are the standard representative colonies in the UV-C disinfection tests of the WHO. representing 99.9% of bacterial characteristics.

Under normal circumstances, the WHO stipulates that it is necessary to pass the test of these two kinds of bacteria, so that the disinfection ability of the UV equipment can be determined to be qualified.

Measurement formula for killing germs

UV Dose μj/cm²= μw/cm² x seconds	Disinfection Rate	
1000 µj/cm²	99%*	
1500 μj/cm²	99.90%*	
2000 μj/cm²	99.95%*	
4000 μj/cm²	99.99%*	

^{*}Staphylococcus Aureus. The preceding data is derived from reports obtained from third-party laboratory testing.

Measurement Formula

1.UV Dose (μj) = UV Concentration (μW/cm²) x Time(Seconds)

2.UV Concentration (
$$\mu$$
W/cm²) =
$$\frac{\text{UV Power (}\mu\text{W)}}{\text{Area (cm}^2)}$$

Example

INUI[™] Downlight UV Power is 180mW, Disinfection Area is 9m²

1.UV Concentration:
$$\frac{180 \text{mW}}{9 \text{m}^2} = 20 \text{mW/m}^2 = 2 \mu \text{W/cm}^2$$

2.Time required for 99.9%:
$$\frac{1500\mu j}{2\mu w/cm^2} = 750sec$$
 (12.5mins)

UV Radiation Limits and Calculations

According to IEC62471 of the International Electrolysis Institute and the CDC's National Institute for Occupational Safety and Health, people should not be exposed to more than 30j/m² of UV radiation.

Table DVC.2.1.2 - Permissible ultraviolet exposures		
Effective irradiance, E. (μW/cm²)	Duration Of expose per day	
0.8 μW/cm²	1 h	
1.7 μW/cm²	30 min	
3.3 μW/cm ²	15 min	
5 μW/cm²	10 min	
10 μW/cm²	5 min	
50 μW/cm ²	1 min	
100 μW/cm²	30 s	

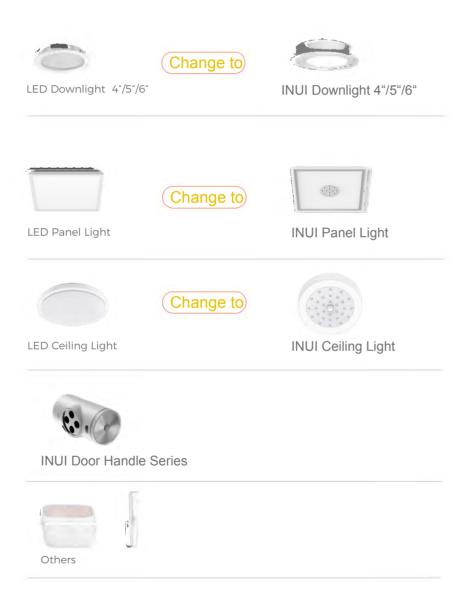
Example

INUITM downlights have a UV concentration of $2\mu W/cm^2$, thus applying the formula to a INUITM Downlight.

The safety threshold would be calculated as: $3000\mu j/cm^2 (30j/m^2) = 1500sec (25mins)$

^{*} $1 \text{ mW} = 10^3 \mu \text{W}, 1 \text{ m}^2 = 10^4 \text{ cm}^2$

Upgrade any Lighting to UV-C with INUI-Cleaner-Smarter-Brighter[™] Lighting



INUI-Cleaner-Smarter-Brighter[™] Downlight

Intelligent, Automatic Disinfection, Air-Cleaning, and Lighting. 3-in-1.







LED Downlight 4" LED Downlight 5"

LED Downlight 6"





Change to



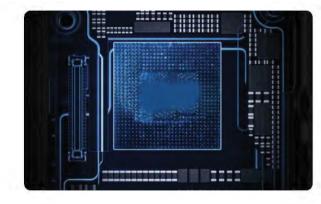
4" Size: φ149mm





5" Size: φ174mm

6" Size: \$184mm





Microwave

Power box





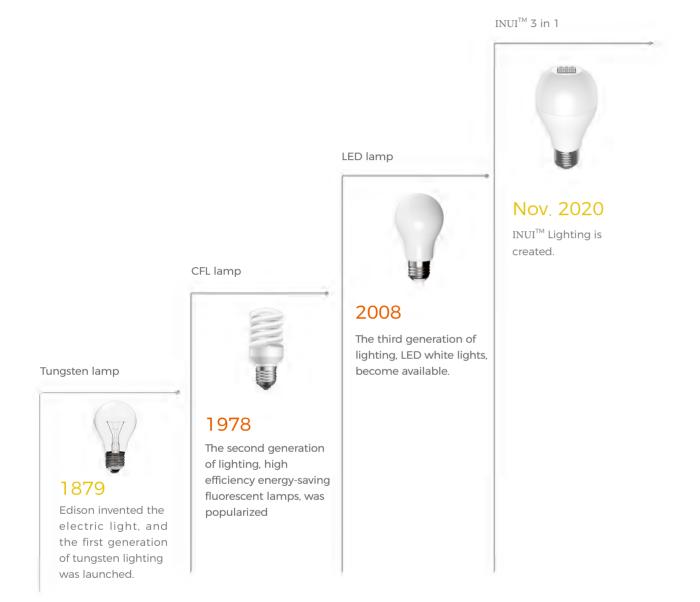
Kills up to 99.9% of all Germs



Military-grade Microwave sensor ensures safe use

4" Size: \$149mm 5" Size: Φ174mm 6" Size: Φ184mm **Lighting Specifications** Power 14W 18W 18W > 1190 lm > 1530 lm > 1530 lm Brightness Color Temperature 3000K/4000K/6000K 3000K/4000K/6000K 3000K/4000K/6000K Color Chromaticity SDCM<5 SDCM<5 SDCM<5 >80 >80 >80 Lamp Lifespan >20,000 hrs >20,000 hrs >20,000 hrs **UV Specifications** Diode Type UV-C LED UV-C LED UV-C LED 18W Power 18W 20W UV Energy 180mW 180mW 200mW Disinfection Area $3 \times 3m(9m^2)$ $3 \times 3m(9m^2)$ $3 \times 3m(9m^2)$ Disinfection Modes 20 min Automatic mode, 20 min Automatic mode, 20 min Automatic mode, 2 hrs Intensive mode 2 hrs Intensive modee 2 hrs Intensive mode **Detection Sensor** 5.8G 5.8G 5.8G 100° Beam Radius 100° 100° Wavelength 260-285nm 260-285nm 260-285nm Lamp Lifespan >10,000 hrs >10,000 hrs >10,000 hrs **Power Specifications** Voltage 100-240V AC 100-240V AC 100-240V AC Power 50 / 60Hz 50 / 60Hz 50 / 60Hz Adjustable Color No No Temperature Operation Modes Manual switch mode / radar Manual switch mode / radar Manual switch mode / radar sensor automatic mode sensor automatic mode sensor automatic mode **Physical Specifications** Lamp Body Materials Aluminum alloy and plastic Aluminum alloy and plastic Aluminum alloy and plastic Lamp Body Color Dark gray and white Dark gray and white Dark gray and white Lamp Size Ф149 x 35mm Ф174x35mm Ф184x35mm Required Hole Size ф130-140mm φ155-165mm Φ165-175mm Lamp Weight Main body: 325g (11.5oz) + LED Main body: 405g (11.5oz) + LED Main body: 480g + LED driver: driver: 85g (3oz) driver: 85g (3oz) 85g (3oz) -10°C~50°C (14°F-122°F) -10°C~50°C (14°F-122°F) -10°C~50°C (14°F-122°F) Operating Temperature Certifications and Warranty Certifications FCC, CE FCC, CE FCC. CE 2 Years 2 Years Warranty 2 Years

The Dawn of a New Era of Lighting INUI-Cleaner-Smarter-Brighter[™] has Arrived



UV-C LED used to be an expensive technology, costing more than their weight in gold

UV-C LEDs were originally developed by Sensor Electronic Technology, Inc. in the USA to disinfect water for astronauts. The cost of each diode was about US \$1,400/PCS at that time. As recently as 2017 the price of each diode was still US \$20/PCS.



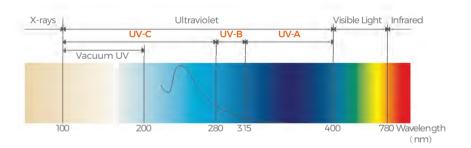
Nowadays, driven by INUI's innovative technology, UV-C LEDs are becoming consumer products and coming into our lives.



Scan & See in Action

UV-C Disinfection Principle

UV-C: 100-280nm, (UVC LED produces UV lights at wavelength between)
260-280nm can destroy DNA/RNA of germs and bacteria effectively)
UV-B: 280-315nm, Protein analysis, Light therapy in medicine mostly
UV-A: 315-400nm, Curing of polymers and printer inks



INUITM Panel Light

Intelligent, Automatic Disinfection, Air-Cleaning, and Lighting. 3-in-1.

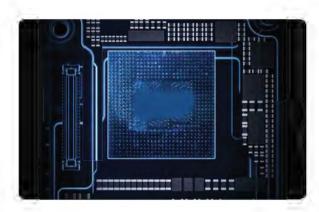






Size: Φ600x600mm

Size: Φ600x600mm



Microwave



Kills up to 99.9% of all Germs



Military-grade Microwave sensor ensures safe use Size: Φ600x600mm

Lighting Specifications		
Power	48W	
Brightness	>4080 lm	
Lighting Color	Daylight white	
Color Temperature	6000K	
Color Chromaticity	SDCM<5	
CRI	>80	
Lamp Lifespan	>20,000 hrs	

UV Specifications	
Diode Type	UV-C LED
Power	24W
Total UV Energy	240mW
Sterilization Area	3 x 3m(9m²)
Disinfection Modes	20 min Automatic mode, 2 hrs Intensive mode
Detection Sensor	5.8G
Beam Radius	100°
Wavelength	260-285nm
Lamp Lifespan	>10,000 hrs

Power Specifications	
Voltage	100-240V AC
Power	50 / 60Hz
Adjustable Color Temperature	No
Operation Modes	Manual switch mode / radar sensor automatic mode

Physical Specifications	
Lamp Body Materials	Alluminum alloy ad stainless iron
Lamp Body Color	White
Lamp Size	ф595x595x30.8mm
Lamp Weight	1820g
Operating Temperature	-10°C~50°C (14°F-122°F)
Certifications and Warranty	
Certifications	FCC, CE
Warranty	2 Years

INUITM Panel Light

Intelligent, Automatic Disinfection, Air-Cleaning, and Lighting. 3-in-1.

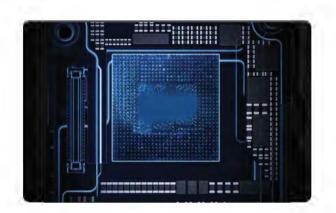


Change to



Size: Φ300x300mm

Size: Φ300x300mm



Microwave

99.9% Kills up to 99.9% of all Germs



Military-grade Microwave sensor ensures safe use

Size: Φ300x300mm

Lighting Specifications		
Power	24W	
Brightness	>2040 lm	
Lighting Color	Daylight white	
Color Temperature	6000K	
Color Chromaticity	SDCM<5	
CRI	>80	
Lamp Lifespan	>20,000 hrs	

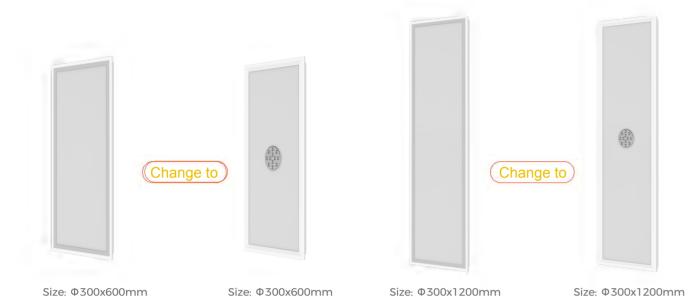
UV Specifications	
Diode Type	UV-C LED
Power	18W
Total UV Energy	180mW
Sterilization Area	3 x 3m(9m²)
Disinfection Modes	20 min Automatic mode, 2 hrs Intensive mode
Detection Sensor	5.8G
Beam Radius	100°
Wavelength	260-285nm
Lamp Lifespan	>10,000 hrs

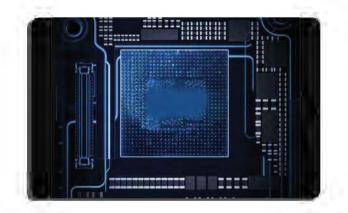
Power Specifications	
Voltage	100-240V AC
Power	50 / 60Hz
Adjustable Color Temperature	No
Operation Modes	Manual switch mode / radar
	sensor automatic mode

Physical Specifications	
Lamp Body Materials	Alluminum alloy ad stainless iron
Lamp Body Color	White
Lamp Size	ф295x295x30.8mm
Lamp Weight	670g
Operating Temperature	-10°C~50°C (14°F-122°F)
Certifications and Warranty	
Certifications	FCC, CE
Warranty	2 Years

INUI[™] Panel Light

Intelligent, Automatic Disinfection, Air-Cleaning, and Lighting. 3-in-1.





Microwave





Military-grade Microwave sensor ensures safe use

Size: Φ300x600mm Size: Φ300x1200mm **Lighting Specifications** Power 30W 48W >2550 lm >4080 lm Brightness Lighting Color Daylight white Daylight white Color Temperature 6000K 6000K Color Chromaticity SDCM<5 SDCM<5 CRI >80 >80 >20,000 hrs >20,000 hrs Lamp Lifespan **UV Specifications** Diode Type UV-C LED UV-C LED Power 18W 24W Total UV Energy 240mW 180mW Sterilization Area $3 \times 3m(9m^2)$ $3 \times 3m(9m^2)$ Disinfection Modes 20 min Automatic mode, 20 min Automatic mode, 2 hrs Intensive mode 2 hrs Intensive mode **Detection Sensor** 5.8G 5.8G Beam Radius 100° 100° Wavelength 260-285nm 260-285nm Lamp Lifespan >10,000 hrs >10,000 hrs **Power Specifications** Voltage 100-240V AC 100-240V AC 50 / 60Hz 50 / 60Hz Adjustable Color No Temperature Operation Modes Manual switch mode / radar Manual switch mode / radar sensor automatic mode sensor automatic mode **Physical Specifications** Lamp Body Materials Alluminum alloy and stainless iron Alluminum alloy and stainless iron Lamp Body Color White White Lamp Size ф300x600mm ф300x1200mm Lamp Weight 1145g (40.4oz) 2150g Operating Temperature -10°C~50°C (14°F-122°F) -10°C~50°C (14°F-122°F) Certifications and Warranty Certifications FCC, CE FCC, CE Warranty 2 Years 2 Years

INUI[™] Ceiling Light

Intelligent, Automatic Disinfection, Air-Cleaning, and Lighting. 3-in-1.

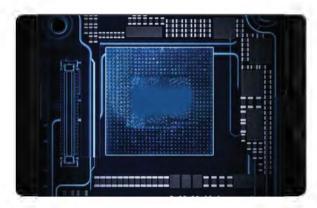






LED Ceiling light

Size: Φ180x53.3mm



Microwave



Kills up to 99.9% of all Germs



Military-grade Microwave sensor ensures safe use



20minsAuto disinfection



30W disinfection **16W** lighting

Size: Φ180x53.3mm

Lighting Specifications		
Power	30W	
Brightness	Max. 3000 lm	
Color Temperature	6500K	
Color Chromaticity	SDCM<5	
CRI	>80	
Lamp Lifespan	>20,000 hrs	

Diode Type	UV-C LED
Power	35W
Total UV Energy	300mW

Sterilization Area 3 x 3m(9m²)

Disinfection Modes 10 min Automatic mode,

2 hrs Intensive mode

Detection Sensor 5.8G

Beam Radius 100°

Wavelength 260-285nm

Power Specifications

Lamp Lifespan

UV Specifications

Voltage 100-240V AC

Power 50 / 60Hz

Adjustable Color No
Temperature No
Operation Modes Manual switch mode / radar sensor automatic mode

>10,000 hrs

Physical Specifications

Lamp Body Materials

Lamp Body Color

Lamp Size

Discrete the proof of the proof of

Certifications and Warranty

Certifications FCC, CE
Warranty 2 Years

INUI[™] Lighting Helps us be sick less and healthy more

Viruses are a huge threat to the health of each and every person.

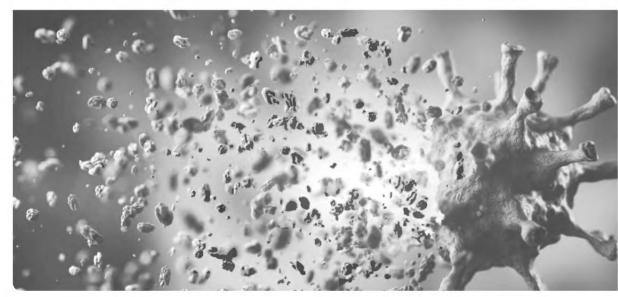
Thus, INUI created Cleaner-Smarter-Brighter $^{\text{TM}}$ Lighting.

To kill germs, clean air, and give indoor lighting the germ-killing power of the sun.

So we can all be sick less and healthy more.













INUI[™] Auto Door Handle Disinfect-or

A disinfect-or keeping your hands away from germs



Size: \$\phi47x88mm\$



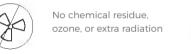
Kills up to 99.9% of all Germs



Safety Military Microwave sensor



Immediate automatic door handle disinfection

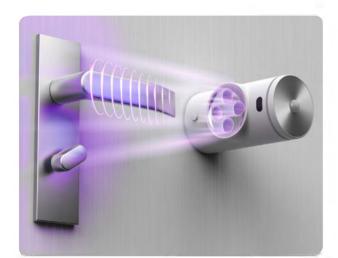




Installs in 10 seconds



Works for up to 30 days on a single charge



3 mounting bases of different thickness put the disnfecting LEDs the same distance from the door as the door handle. Base thickness: 5mm / 11mm / 15mm (0.2 / 0.43 / 0.6in)

for

Handle distance from door: 45.5mm / 49.5mm / 54.5mm (1.79 / 1.95 / 2.14in)

Size: ф47x88mm

UV Specifications	
Diode Type	UV-C LED
Power	3W
UV Energy	>200µW/cm²@20cm
Disinfection Modes	20s Automatic mode
Detection Sensor	5.8G
Beam Radius	100°
Wavelength	260-285nm
Lamp Lifespan	>10,000 hrs
Power Specifications	

Power Specifications		
Voltage	5DC 1A	
Charging Time	approx. 2.5hrs	
Internal Battery Capacity	2500mAH	
Number of Uses per Full Charge	≥250	
Max Operation Period per Full Charge	30 days	
Operation Modes	Manual switch mode / Microwave sensor automatic mode	

Physical Specifications	
Lamp Body Materials	Plastic
Lamp Body Color	White or black
Lamp Size	Ф47 x 88mm (1.85 x 3.46 in)
Lamp Weight	115g (4.05oz)
Operating Temperature	-10~50°C (14-122°F)
Certifications and Warranty	
Certifications	FCC, CE
Warranty	2 Years