365DisInFx™

365DisInFx™

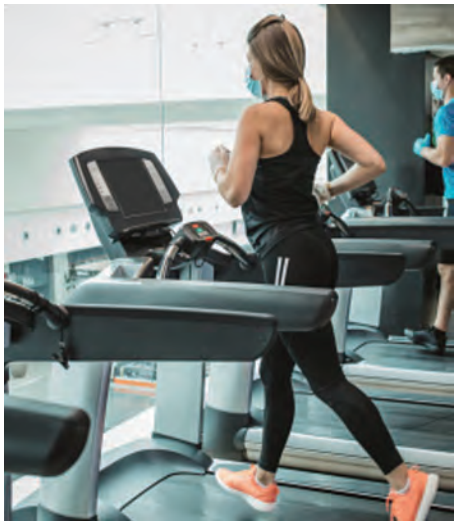
Different Solutions for Different Need

Meeting today's challenging demands for cleaner facilities requires complementary disinfection measures based on facility use and design. Current Lighting Solutions, stands ready with disinfection UV solutions that provide an additive solution for both viruses in the air and bacteria on surfaces without time and occupancy constraints.

Compliant IEC 62471–Photobiological Safety for Lamps and Lamp Systems standard and American Conference of Governmental Industrial Hygienists (ACGIH)® TLVs® guidelines for human exposure to UV.

Continuous Flexible LED solutions for 24-hour occupancy with UV dosage designed to operate below human health exposure limits.*

Test-Driven Third-party testing substantiates our claims and validates our predictive models;we continue to expand our testing to verify effectiveness against additional pathogens.**



A Breakthrough in LED

Now

Traditional UV germicidal disinfection lighting

Xenon discharge or mercury-based lamps deliver uncontrolled high doses of UV to inactivate pathogens.

For use inunoccupied spacesonlyor with safe-guards required to eliminate possibility of direct exposure.

Lamp sizes that can create limitations related to form factor.

Next

LED disinfection lighting solutions

Controllable LED functionality can be designed to emit high-efficiency UVA/UVC for continuous use in occupied spaces.

Flexible design and application integration due to LED system size.

*Of IEC 62471 Photobiological Safety for Lamps and Lamp Systems standard and American Conference of Governmental Industrial Hygienists (ACGIH®).
**GE Current, a Daintree company,is certified through UL's Data Acceptance Program (DAP) to perform testing to the IEC 62471 safety standard.

Current

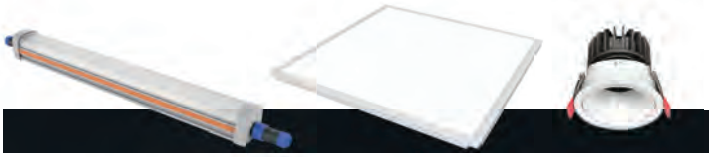
365DisInFx™

Facility owners and managers must deal with the ever-changing backdrop of concerns related to spaces where people gather and interact. **Current teams have been applying resources and design expertise in meeting this growing industry challenge.**

UVA

UVC

Unique offerings to help in disinfection strategy.



UKK & UKF

- Delivers low-dose UVA to inactivate bacteria on surfaces
- Integrated into various light fixtures
- Special designed lens transmits UVA

UKT

- Delivers low-dose UVC to inactivate aerosolized viruses
- An easy-to-apply device

Disinfection Lighting for Occupied Spaces: 365DisInFx™

- LED-delivered solutions that help inactivate pathogens both in the air and on surfaces
- LED solutions designed to deliver 24-hour deactivation in occupied spaces
- Meets IEC 62471 standards and ACGIH® guidelines for 24-hour-a-day occupancy

365DisInFx™ UV technology addresses airborne pathogens and should be used in conjunction with proper PPE and cleaning protocols as part of a complete indoor disinfection strategy. If combining two or more UV solutions, please consult a trained product application representative to ensure the total irradiance (UV dose) does not exceed recommended human exposure limits. This may negatively impact inactivation rates.

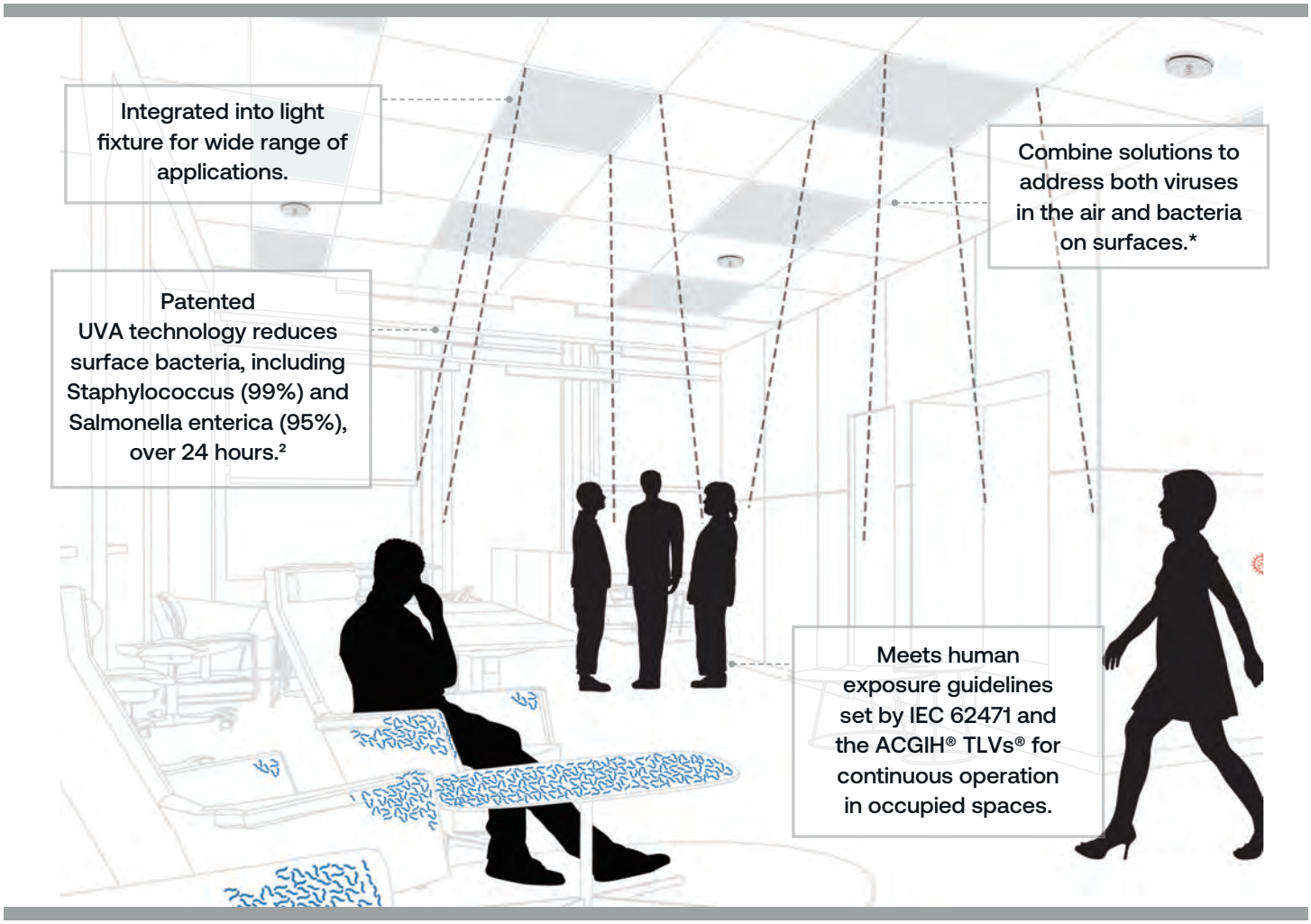
Why Current?

We bring a long-standing and broad range of experience in light source and fixture technology. That, coupled with scientific know-how and investment, has led to highly effective solutions—targeting specific UV wavelengths—for surface and airborne pathogen deactivation.

365DisInFx™

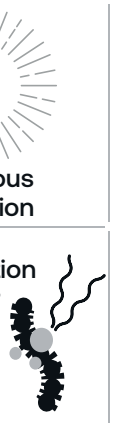
UVA Technology:
Surface Disinfection

Many bacterial and fungal pathogens are transmitted primarily through high-touch surfaces.
365DisInFx™ UVA technology integrated into the light fixture helps provide surface disinfection while lighting the space.

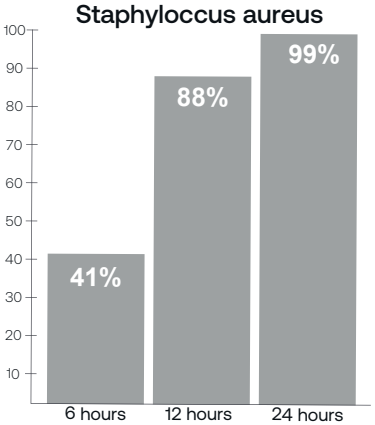


24/7
Continuous Inactivation

Photoactivation helps render pathogen inactive

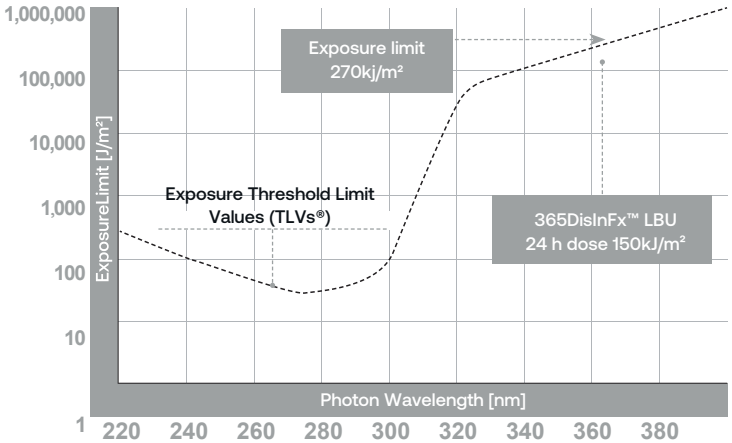


Inactivation over 24 hours*
Staphyloccus aureus



*0.5/m2 and 24-hour exposure, predicted inactivation Based on photobiological science and mathematical modeling

ACGIH® Exposure Threshold Limit Value (TLVs®) vs. Wavelength

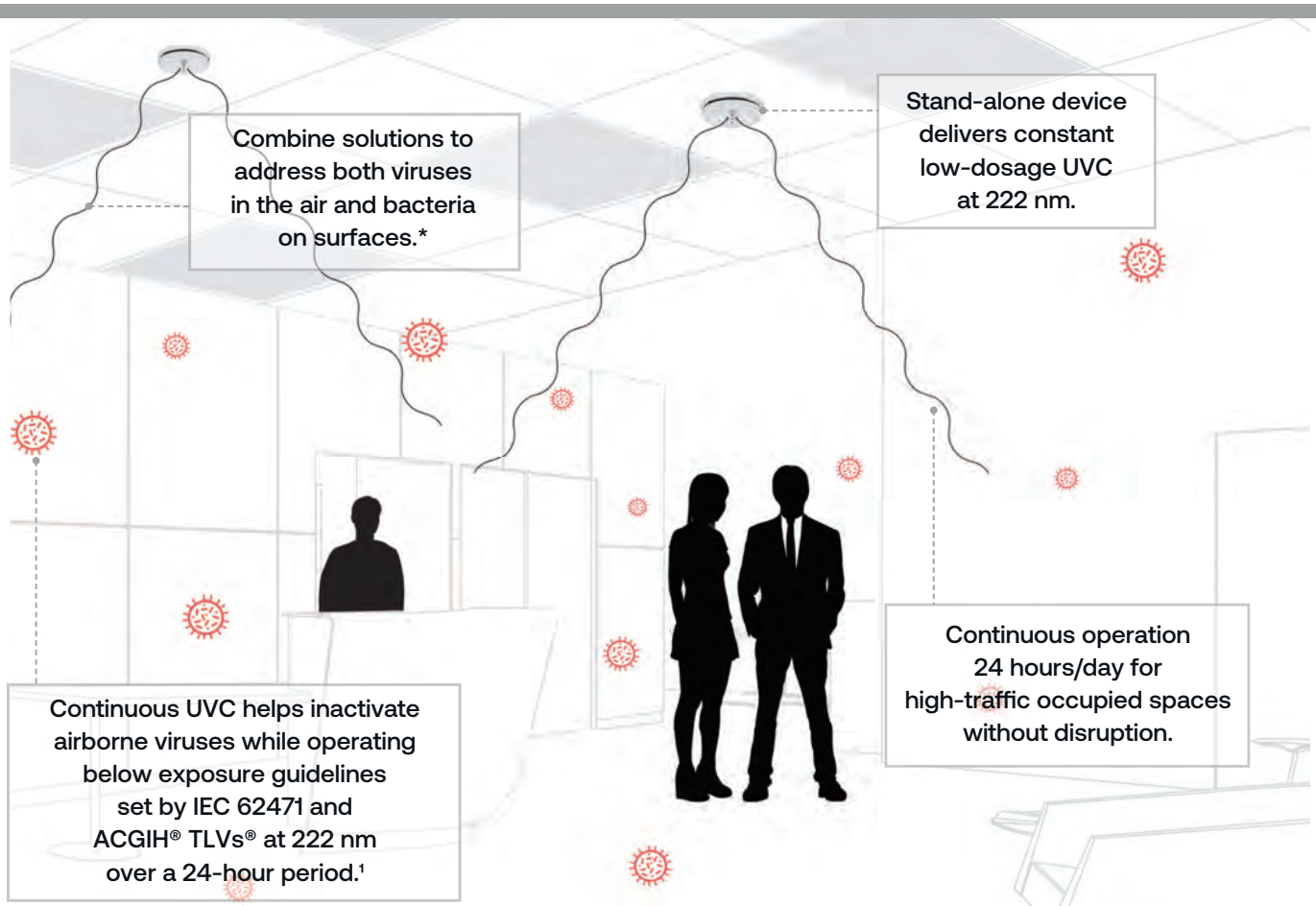


Continuous low dosage at 365 nm inactivates surface bacteria and fungi below ACGIH® TLVs®

Current

UVC Technology: Air Disinfection

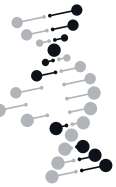
While droplets fall quickly out of suspension,aerosolizedvirusescan remain airborne for hours.
365DisInFx™UVC technology solutions can help reduce virusesin air.[1]



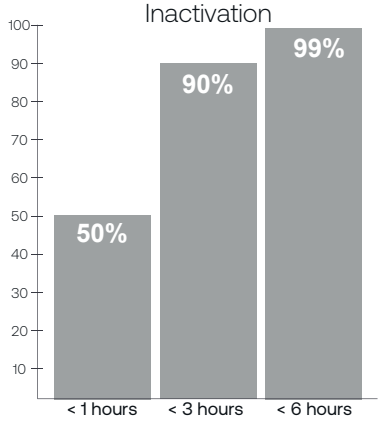
* If combining two or more UV solutions, please consult a trained product application representative to ensure the total irradiance (UV dose) does not exceed recommended human exposure limits. This may negatively impact inactivation rates.

24/7
Continuous Inactivation

Disrupts RNA of viruses to help inactivate them

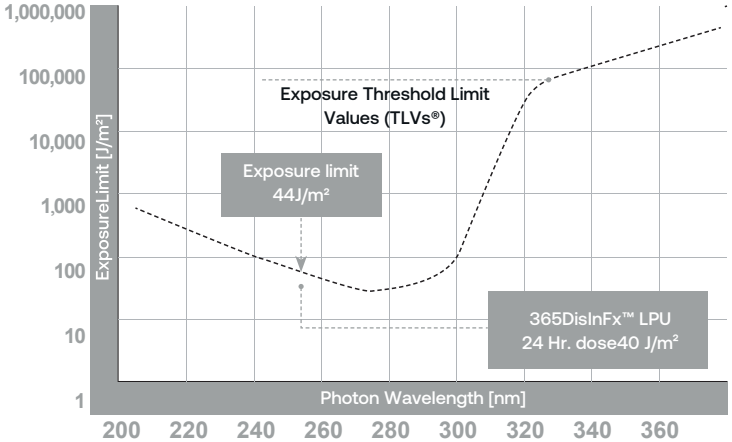


Projected*Coronavirus Inactivation



*32J/m2 delivered over 24-hour exposure
Based on photobiological science and mathematical modeling

ACGIH® Exposure Threshold Limit Value (TLVs®) vs. Wavelength



Continuous low dosage at 254 nm inactivates aerosolized pathogens without exceeding ACGIH® TLVs®

365DisInFx™

GE Current, a Daintree company, has completed in-situation testing of its 365DisInFx™ UVC disinfection technology LPU series devices utilizing the aerosolized virus, bacteriophage MS2.

This benchmark testing with the bacteriophage MS2 resulted in 88% inactivation of the aerosolized virus in a 10-by-10-by-8-foot room within 4 hours. Applying the test results to 24-hour continuous operation of the 365DisInFx™ LPU would result in 44% inactivation of bacteriophage MS2 in 2 hours.

Bacteriophage MS2 is a nonenveloped virus that is commonly used as a surrogate for viruses that are pathogenic to humans. It is particularly useful as a surrogate because published scientific testing and literature support that bacteriophage MS2 is more resistant to UVC than certain enveloped viruses, such as coronaviruses and influenza.

Based on photobiological science and mathematical modeling, Current anticipates equivalent or better results for seasonal coronaviruses and SARS-CoV-2. When properly installed and configured for the space, continuous operation of the 365DisInFx™ LPU should provide 50% inactivation in the first hour of exposure, 90% inactivation (1 log) in 3 hours or less of exposure, and 99% inactivation (2 log) in 6 hours or less of exposure. Current continues to conduct additional confirmatory testing.

365DisInFx™ UVA disinfection technology was tested using in vitro methods (as described in Livingston1 and Kvam[2]), which resulted in 99.7% reduction in MRSA on surfaces exposed to 3W/m2 UVA over a single 8-hour period. Results of this testing also showed significant reduction over a similar exposure period of certain common pathogens including **Staphylococcusaureus,Enterococcusfaecalis, Escherichiacoli, Acinetobacter baumannii, Pseudomonasaeruginosa, Candida albicans** and **auris,** associated with hospital-acquired infections (HAIs). Photobiological science and mathematical modeling enables us to calculate expected inactivation rates for 24-hour continuous operation of the 365DisInFx™ UVA technology.

Notes and Citations:

1. Livingston SH, Cadnum JL, Benner KJ, Donskey CJ (2020) Efficacy of an ultraviolet-A lighting system for continuous decontamination of health care-associated pathogens on surfaces. Am. J. Infect. Control 48: 337-339. https://doi.org/10.1016/j.ajic.2019.08.003
• inoculated steel disk carriers, modification of ASTM E-2197-02
• using a benchtop device that delivered the 3W/m^2 irradiance

2. Kvam E, Benner K (2017) Disinfection via LED Lighting: summary of mechanism and results for 365nm-mediated inactivation of microbes. GE Global Research Technical Information Series
2017GRC0545, GE Confidential (Class 3)
Kvam E, Benner K. Mechanistic insights into UV-A mediated bacterial disinfection via endogenous photosensitizers.
Journal of Photochemistry and Photobiology B: Biology. 2020;209:111899. doi:10.1016/j.jphotobiol.2020.111899.
• inoculated steel disk carriers, modification of ASTM E-2197-02
• using a benchtop device that delivered the 3W/m^2 irradiance

To see our most up-to-date third-party test results and complete product portfolio, go to **www.365DisInFx.com**

Make an Informed Decision

Understanding the complexities of available technologies and selecting the right solution are a decision you can make with confidence when you choose Current.

• UV radiation can pose a risk of personal injury. Overexposure can result in damage to eyes and bare skin. To reduce risk of overexposure, equipment must be installed in accordance with manufacturer's site planning and application recommendations, including minimum ceiling height restrictions.
• UV solutions are intended for common high traffic spaces and not recommended for dwellings or home use.
• Installation of the devices should be performed by qualified professionals as detailed in Current's installation guide.
• To allow for occupancy during use, Current products comply with IEC 62471 – Photobiological Safety of Lamps and Lamp Systems standards and American Conference of Governmental Industrial Hygienists (ACGIH®) TLVs® guidelines when installed as directed.
• Current's UV products are meant to be used in conjunction with other protective measures like manual cleaning and the use of proper PPE. They are not a substitute for other measures.
• Current products are not intended for use as a medical device.
• If combining two or more UV solutions, whether from GE Current, a Daintree company and/or other manufacturers, please consult a trained product application representative to ensure the total irradiance (UV dose) does not exceed recommended human exposure limits. To the extent UV solutions are combined, it may impact inactivation rates.

Current

UKK

365DisInFx™ Disinfection Light

Unique protection

· Special PMMA material, integrated extrusion process, fully sealed shell design;

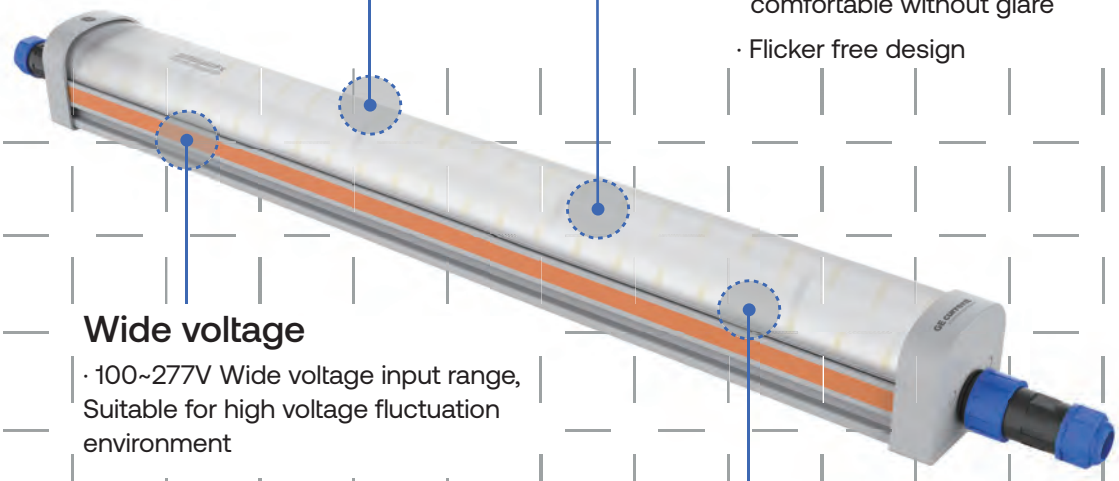
· IP69K, anti-corrosion and anti-ammonia gas, suitable for complex environment

High efficiency

· Up to 125+ LPW

· Professional optical design, uniform light, comfortable without glare

· Flicker free design



Wide voltage

· 100~277V Wide voltage input range, Suitable for high voltage fluctuation environment

Easy installation

Optional surface mount and pendant installation

1. Patented UV spectrum

Provide sufficient UV disinfection solution to reduce bacteria and fungi, such as MRSA,Staphylococcus aureus, etc. Especially Salmonella choleraesuis, Porcine epidemic diarrhea virus(PEDV) in swine;

2. Compliant & Continuous

Meet IEC 62471 Photobiological Safety standard and ACGIH for human exposure to UV. Safety designed for human and animal to operate below health exposure limits with 24hours exposure;

3. Smart Control

Built-in intelligent MCU chip, automatically adjust the brightness with time changes, adapt to the biological rhythm， create a health lighting environment for animal;

4. Independent channels

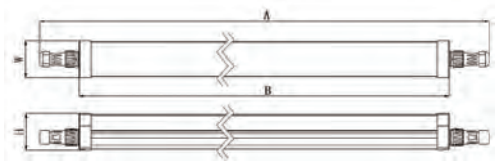
UV and white light are divided into two independent channels, which can be flexibly combined to achieve a suitable dose of UV light and white light on demand.

Current

Typical Specifications

Model	UKK22W4FT857UVAND	UKK22W4FT857UVAS	UKK22W4FT857	UKK22W4FT857RED	UKK8W4FT857RED
Length	1200mm				
Lumens	2800lm				1000lm
White Light Power	22W				8W
UV Light Power	20W			N/A	
IP Rating	IP69K				
Housing Material	PMMA			PC	
Input Voltage	100-277V				
Power Factor	>0.9				
System Efficacy	127 LPW				
CCT	5700K				
CRI	Ra≥80				
Working Temperature	-10~+35°C				
Safety Class	Class I				
Rate Lifetime	30,000 hrs				
Wiring	Through Wring				
Mounting	Surface mount, Pendant				
Control	N/A	Biological rhythm		N/A	

Dimension

	A	B	W	H
	1336mm	1200mm	64mm	62mm

Photometric

Order Logic

UKK	22W	4FT	8	57	UVA
PROD. ID	Power	Length	CRI	CCT	UVA
UKK 365DisInFx Disnfection	22W	4FT=1200mm	8：Ra≥80	57: 5700K	UVA: UVA version UVAS: UVA version, Biological rhythm Blank: White light version RED: Red light version

Order Description

Description	UVA light Power	White light Power	White light Lumens	Red light Power	Red light Lumens	Total Power	CRI	CCT	QTY/CTN
UKK22W4FT857UVAND	20W	22W	2800 lm	N/A	N/A	42W	Ra≥80	5700K	4 pcs
UKK22W4FT857UVAS	20W	22W	2800 lm	N/A	N/A	42W	Ra≥80	5700K	4 pcs
UKK22W4FT857	N/A	22W	2800 lm	N/A	N/A	22W	Ra≥80	5700K	4 pcs
UKK22W4FT857RED	N/A	22W	2800 lm	14W	300 lm	36W	Ra≥80	5700K	4 pcs
UKK8W4FT857RED	N/A	8W	1000 lm	14W	300 lm	22W	Ra≥80	5700K	4 pcs

The above is only including a part of product info. Please consult us if any further product info is needed.

UKF

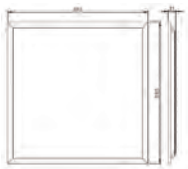
365DisInFx™ Disinfection Light

Current

Typical Specifications

Lumens	3400mm	3600mm
Power	60W	
IP Rating	IP20/IP54	
Diffusive Material	Glass/PMMA	
Input Voltage	220-240V	
Power Factor	>0.9	
CCT	4000K/6500K	
CRI	Ra≥80	
Working Temperature	-20-+40°C	
Safety Class	Class II	
Rate Lifetime	30,000 hrs	
Mounting	Recessed /Surface	

Dimension

		L	W	H
	2X2 ft	595mm	595mm	31mm
	1X4 ft	1195mm	295mm	31mm

Order Logic

	UKF	60W	2X2	PL	UVA	8	40	IP54	G
PROD. ID	Power	Length	Type	UV	CRI	CCT	IP	Glass	
UKF	60W	2X2 ft: 600*600mm 1X4 ft: 300*1200mm	PL: Panel	UVA	Ra≥80	40:4000K 65:6500K	IP54 Rating Blank: IP20	G: Glass Blank: PMMA	

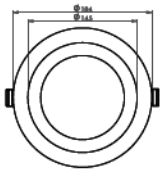
Order Description

Description	Power	Size	Lumen	CCT	CRI	IP	Lifetime	QTY/CTN
UKF60W2X2PLUVA840G	60W	2x2 ft	3400 lm	4000K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W1X4PLUVA840G	60W	1x4 ft	3400 lm	4000K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W2X2PLUVA840	60W	2x2 ft	3600 lm	4000K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W1X4PLUVA840	60W	1x4 ft	3600 lm	4000K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W2X2PLUVA865G	60W	2x2 ft	3400 lm	6500K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W1X4PLUVA865G	60W	1x4 ft	3400 lm	6500K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W2X2PLUVA865	60W	2x2 ft	3600 lm	6500K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W1X4PLUVA865	60W	1x4 ft	3600 lm	6500K	Ra≥80	IP20	30,000 hrs	4 pcs
UKF60W2X2PLUVA840IP54G	60W	2x2 ft	3400 lm	4000K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W1X4PLUVA840IP54G	60W	1x4 ft	3400 lm	4000K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W2X2PLUVA840IP54	60W	2x2 ft	3600 lm	4000K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W1X4PLUVA840IP54	60W	1x4 ft	3600 lm	4000K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W2X2PLUVA865IP54G	60W	2x2 ft	3400 lm	6500K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W1X4PLUVA865IP54G	60W	1x4 ft	3400 lm	6500K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W2X2PLUVA865IP54	60W	2x2 ft	3600 lm	6500K	Ra≥80	IP54	30,000 hrs	4 pcs
UKF60W1X4PLUVA865IP54	60W	1x4 ft	3600 lm	6500K	Ra≥80	IP54	30,000 hrs	4 pcs

Typical Specifications

Size	8inch	6inch	4inch
Lumens	1400lm	1400lm	700lm
Power	31W	31W	16W
IP Rating		IP20	
Diffusive Material	Glass	Glass	Glass
Input Voltage		220-240V	
Power Factor		>0.9	
CCT		4000K/6500K	
CRI		Ra≥80	
Working Temperature		-20- +40°C	
Safety Class		Class II	
Rate Lifetime		30,000 hrs	
Mounting		Recessed	

Dimension

 	8 inch 6 inch 4 inch	Φ 220*105mm Φ 185*95mm Φ 130*70mm

Order Logic

UKF	31W	6L	DL	UVA	8	40
PROD.ID	Power	Length	Type	UV	CRI	CCT
UKF:	31W 60W	8L: 8inch 6L: 6inch 4L: 4inch	DL: Downlight	UVA	Ra≥80	40:4000K 65:6500K

Order Description

Description	Power	Size	Lumen	CCT	CRI	Lifetime	QTY/CTN
UKF31W8LDLUVA840	31W	8 inch	1400 lm	4000K	Ra≥80	30,000 hrs	12 pcs
UKF31W8LDLUVA865	31W	8 inch	1400 lm	6500K	Ra≥80	30,000 hrs	12 pcs
UKF31W6LDLUVA840	31W	6 inch	1400 lm	4000K	Ra≥80	30,000 hrs	12 pcs
UKF31W6LDLUVA865	31W	6 inch	1400 lm	6500K	Ra≥80	30,000 hrs	12 pcs
UKF16W4LDLUVA840	16W	4 inch	700 lm	4000K	Ra≥80	30,000 hrs	12 pcs
UKF16W4LDLUVA865	16W	4 inch	700 lm	6500K	Ra≥80	30,000 hrs	12 pcs

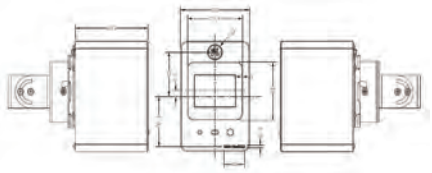
UKT

365DisInFx™ Disinfection Light

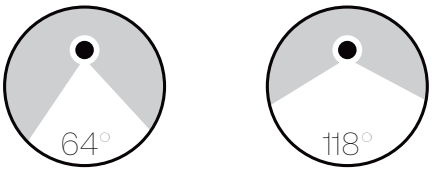
Typical Specifications

Power	15W		13W
Beam angle	64°		118°
Radiation flux		13.95W/cm² @1m	
UV		UVC 222nm	
Input Voltage		220X204V	
Working Temperature		5~+40°C	
Rate Lifetime		10,000 hrs	

Dimension

	L	W	H
	100mm	105mm	150mm

Photometric



Order Logic

UKT	N
PROD. ID	Beam angle
UKT: 222nm	N: 64° W: 118°

Order Description

Description	Beam Angle	Power	N.W.
UKT-N	64°	15W	2 Kg
UKT-W	118°	13W	2 Kg