365DisInFx™ UVA technology

Disinfection Solutions for Occupied Spaces

Continuous UVA disinfection of surface bacteria in places where people convene

High-efficiency luminaires with integrated 365DisInFx™ UVA technology

- Helps in the inactivation of surface bacteria as an additive measure in a total disinfection plan.
- Low-dosage UVA is integrated into white light fixtures for continuous 24-hour operation in areas where people are present.
- Fixture LED white light source may be controlled by wired or wireless controls and is dimmable to 5%.
- Demonstrated inactivation rates of up to 99.7% in 8 hours when tested with several common pathogens including MRSA, *E. faecalis*, and *E. coli*[1].

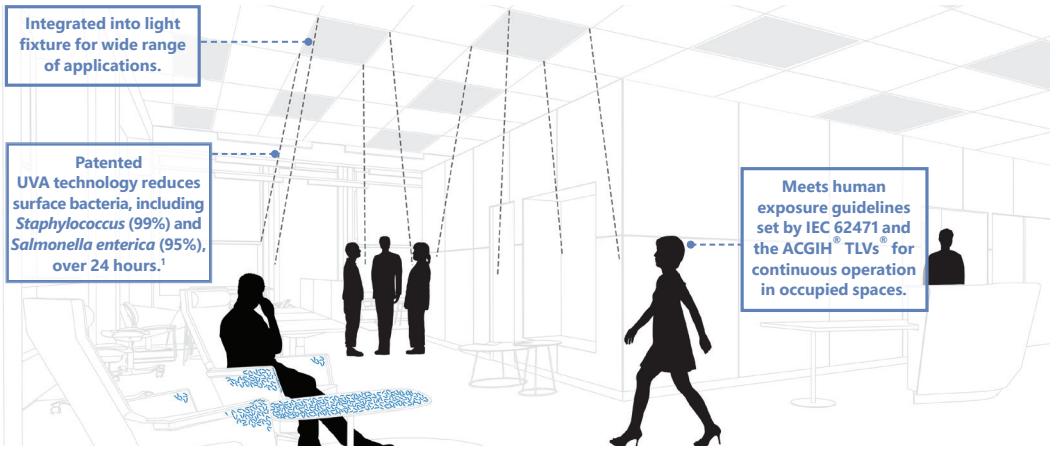
Compliant • Continuous • Test-Driven

An ever-present solution backed by UL certification, IEC standards and ACGIH® guidelines

- Complies with human exposure limits per 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 conducts third-party testing to substantiate our claims and validate our predictive models and is certified through UL's Data Acceptance Program (DAP) to perform testing to the IEC 62471 safety standard.
  - UL certified direct LED UVC luminaire.
- Flexible LED solutions for 24-hour occupancy, providing an added layer of protection along with masks, hygiene and social distancing.

If combining UVA and UVC 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.

UVA: *Inactivation in Action*

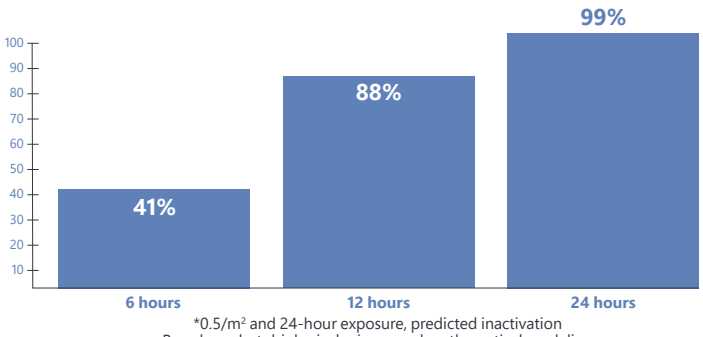


24/7

Continuous Inactivation

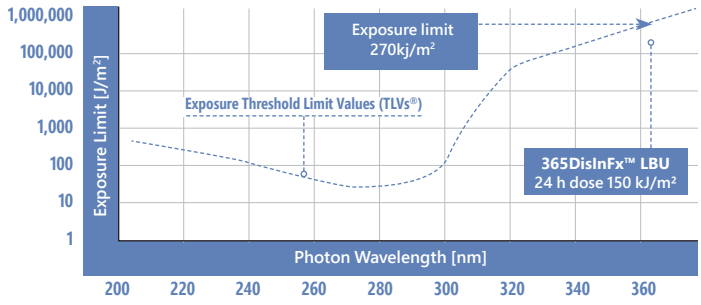
Photoactivation helps render pathogen inactive

Inactivation over 24 hours* ***Staphylococcus aureus***



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

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



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

GE current
a Daintree company

UVA Test Results & Notes:

[1] 365DisInFx™ UVA disinfection technology was tested using in vitro methods (as described in Livingston[1] and Kvam[2]), which resulted in 99.7% reduction in MRSA on surfaces exposed to 3W/m² of 365 nm 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 *Staphylococcus aureus, Enterococcus faecalis, Escherichia coli, Acinetobacter baumannii, Pseudomonas aeruginosa, 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:

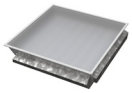
1. Livingston SH, Cadnum JL, Benner KJ, Donskey CJ (2020) "Efficacy of an ultraviolet-A lighting system for continuous decontamination of health care-associated pathogens on surfaces." *Am. J. Infect. Control* 48: 337-339. https://doi.org/10.1016/j.ajic.2019.08.003. • inoculated steel disk carriers, modification of ASTM E-2197-02 • using a benchtop device that delivered the 3W/m² irradiance

2. Kvam E, Benner K (2017) Disinfection via LED Lighting: summary of mechanism and results for 365 nm-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/m² irradiance

Ordering Information and Details to Consider

		Voltage	Size	Lumens	Color Temp	Efficiency	CRI	Control & Sensors	Additional Technology
UVA Technology Surface Disinfection Products									
	LBU Series	120V–277V	2' x 2'	2,000–4,000	3,500K, 4,000K	Up to 81 LPW	80	0–10V Dimming	365DisinFx™ Technology White Antimicrobial Paint
	LBU Series	120V–277V	2' x 4'	2,000–6,000	3,500K, 4,000K	Up to 81 LPW	80	0–10V Dimming	365DisinFx™ Technology White Antimicrobial Paint
	LBU Series	120V–277V	1' x 4'	2,000–4,000	3,500K, 4,000K	Up to 81 LPW	80	0–10V Dimming	365DisinFx™ Technology White Antimicrobial Paint
	AVU Series	120V–277V	4'	2,000–4,000	3,500K, 4,000K	Up to 100 LPW	80	0–10V Dimming	365DisinFx™ Technology White Antimicrobial Paint
	LDU Series	120V–277V	6"/8"	1,000–4,000	3,500K, 4,000K	Up to 52 LPW	80	0–10V Dimming	365DisinFx™ Technology White Antimicrobial Paint

LBU Series, LDU Series, AVU Series with catalog logic "AD"

365DisInFx™ UVA Ordering Number Logic:

Family	Fixture Type	Generation	Voltage	Nominal Lumens	Distribution	AD UV	CR/CRT	Controls	Mounting	Finish
LBU AVU LDU						AD = All Day Continuous				

We can help you make an informed decision

- 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.

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