

365DisInFx™

UVA technology

365DisInFx™ LED Luminaires

AVU Series- 365 DisInFx™ UVA / White LED Linear Industrial

Product Description

Current's 365DisInFx™ AVU Series Linear Industrial LED Luminaires offer effective general lighting performance similar to the ALV2 Series with significantly more capability. In addition to delivering high efficiency for light industrial and general application use, the AVU series also provides Current's 365DisInFx™ UVA technology to help in the inactivation of surface bacteria where people are present and general purpose lighting is needed.

Technical Summary

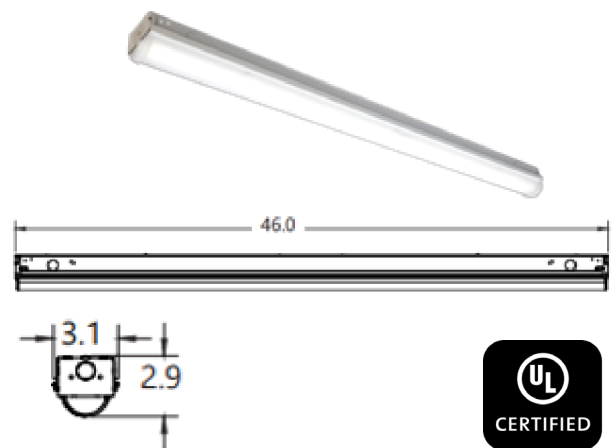
Testing Results: 365DisInFx™ UVA disinfection technology was tested using in-vitro methods (as described in Livingston, Kvam^{1,2}) which resulted in 99.7% reduction in MRSA on surfaces exposed to 3W/m² of 365nm UVA over a single 8-hour period. Results of this testing also showed significant reduction 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.

Safety: 24-hour dosage is designed to operate below human health exposure limits per UL 8802 Outline of Investigation for UV Germicidal Equipment and Systems, IEC 62471 Photobiological Safety for Lamps and Lamp Systems standard, and American Conference of American Hygienists (ACGIH®) TLVs® guidelines.

Disinfection Light Source: 365nm UVA light emitted is invisible to the human eye and does not impact CCT or CRI.

Light Control: Fixture LED white light source may be controlled by wired or wireless controls and is dimmable to 5%. The UVA disinfection lightsource has a fixed output and operates continuously.

Product Dimensions



Product Availability

Product Ordering: Product is commercially available and can be ordered for general use.

Notes:

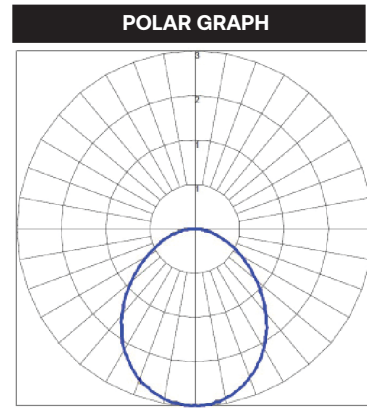
- Livingston SH, Cadnum JL, Benner KJ, Donskey CJ (2020) Efficacy of an ultraviolet-A lighting system for continuous decontamination of health care-associated pathogens on surfaces. *Am. J. Infect. Control* 48: 337-339. <https://doi.org/10.1016/j.ajic.2019.08.003>
 - Inoculated steel disk carriers, modification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

Ordering Number Logic

AVU1 **0_S** **4T** **--** **1D** **AD** **---** **VQ** **--** **ST** **---**

Family	Voltage	Fixture Type	Fixture Length	Nominal Lumens	Distribution	UV	CRI/CCT	Controls	Mounting
AVU1	0 = 120-277 V	S = Stand Alone	4T = 4ft. nominal (46")	02 = 2000 lm 03 = 3000 lm 04 = 4000 lm	1D = Diffuse Lens	AD = All Day Continuous	835 = 80CRI, 3500K 840 = 80CRI, 4000K	VQ = 0-10V dimming	ST = Standard

PRODUCT CODE	CATLOGIC	CCT	LUMENS CODE	WHITE LED WATTS	UV LED WATTS
93139721	AVU10S4T021DAD835VQST	3500K	2000	18	12
93139722	AVU10S4T031DAD835VQST	3500K	3000	23	12
93139723	AVU10S4T041DAD835VQST	3500K	4000	30	12
93139724	AVU10S4T021DAD840VQST	4000K	2000	18	12
93139725	AVU10S4T031DAD840VQST	4000K	3000	23	12
93139746	AVU10S4T041DAD840VQST	4000K	4000	30	12



Maximum Candela = 1.159 Located At Horizontal Angle = 85, Verticle Angle = 2 #1 - Vertical Plane Through Horizontal Angles (85 - 265) (Through Max. Cd.)

Mounting and Accessories

MOUNTING OPTIONS	IMAGE	ORDER LOGIC CODE
<p>Standard Chain/Cable Mount</p> <p>Available on all fixture configurations (chain not included). Cable w/ hook can be ordered as an accessory.</p>		<p>ST = Standard</p>
<p>Surface Mount (Optional)</p> <p>Available on all fixture configurations. Standard mounting option is surface mount ready.</p>		<p>ST = Standard</p>
<p>Cable with toggle (Optional)</p> <p>Order separately. 5ft., 10ft., 15ft., 20ft. lengths available.</p>		

* See "Installation Instructions" for mounting details.

White light

Product Specifications:

LED & Optical Assembly

CRI: >80+
R9: > 0
Color Consistency: Central limit 4-step MacAdam Ellipse with LED recipe approach for tight unit to unit color control.
Rated Luminaire Lumen Depreciation: L85@50,000 hours
Lumen Tolerance: +/- 10%
UV Output: 365nm +/- 5nm

Electrical

Input Voltage: 120-277 VAC
Input Frequency: 50/60 Hz
System Power Factor (PF): >0.9*
Total Harmonic Distortion (THD): < 20%
LED Driver Type: Class 2

*PF and THD may vary with options

Ratings & Evaluations

Operating Temperature: - 20 C to +25 C
Storage Temperature: -40 C to +70 C
Surge Protection: ANSI C82.77 Compliant
Location: Damp
Safety: UL/cUL Certified
Environmental: Compliant with material restrictions of RoHS
 EPA Est. 90375-MEX-1
Country of Sale: USA and Mexico

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 to be used as a medical device.
- If combining two or more UV solutions, whether from Current 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.

LED & Optical Assembly

Warranty: 5 years on visible light portion of fixture
Driver Design Lifetime: > 10 year life of continuous operation. > 100,000 hour design parameters.
Reliability Testing: Components and systems evaluation

Controls

Standard Dimming: 0-10VDC ANSI C137 x compliant
Minimum Dimming: 5% of rated lumens
Optional Dimming: Contact manufacturer

Mounting

Typical Mounting: Standard Chain/Cable or Surface mount ready.

Construction & Finish

Housing: Steel body
Lens: UV Transmission
Paint: White, antimicrobial paint
Weight: 13 lbs. max

CAUTION

UVA emitted from this product.
 Install in compliance with manufacturer instructions to prevent risk of personal injury from UV radiation.