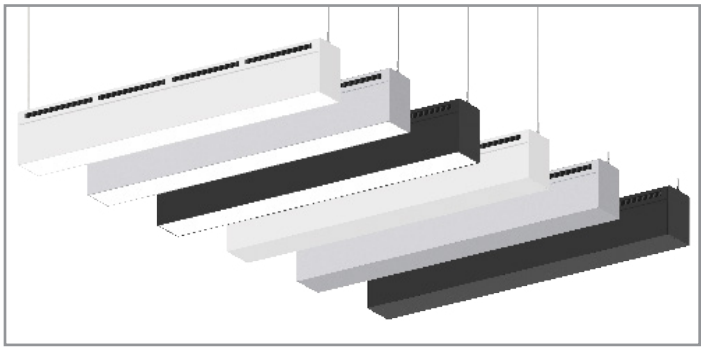
Project		Catalog #		Type	
Prepared by		Notes		Date	



Neo-Ray

Define UV-C Series

Direct LED + Indirect UV-C enabled
Suspended or wall mount in 4′, 8′ lengths

Indirect only UV-C enabled
Suspended or wall mount in 2′, 4′, 8′ lengths

Typical Applications

Education • Healthcare • Office • Hospitality • Retail

Interactive Menu

Product Certification

Product Features

Top Product Features

- Suspended and wall mount family in 5" housing sizes
- Satin, Asymmetric, Regressed, and Drop Direct Lensing available
- Upper air UV-C enabled - safe operation while space is occupied
- UV-C and ambient LED light are controlled separately.
- 0 to 10 Volt standard with 1% dimming; DALI dimming available
- 2700K, 3000K, 3500K, 4000K, and 5000K correlated color temperatures available

Shielding Options


Satin


Asymmetric


Regressed


Drop

Direct LED + Indirect UV-C Order Information

SAMPLE ORDER NUMBER: **GUV125DIP-C375D835-C4JBB4F0-2-UDD-F-R-W-WAA**

Domestic Preference	Series	Regress	Distribution	Mounting	Light Engine	Lumen Package Down (Lm/ft)	CRI	LED CCT
(blank)=not BAA **BAA**=BAA	**GUV125**=Direct LED + Indirect UV-C enabled **G125**=Direct LED w/ top housing	**[Blank]**=Standard **R**=Regress	**DI**=Direct LED w/ Indirect UV-C available **D**=Direct LED w/ Top Housing	**P**=Pendant/Suspended **W**=Wall	**C**=Core **H**=High Performance	**375D**=375 Lm/ft (2.9W/ft) **610D**=610 Lm/ft (4.8W/ft) **850D**=850 Lm/ft (6.7W/ft) **1090D**=1090 Lm/ft (8.8W/ft) **1270D**=1270 Lm/ft (10.6W) **___D**=Custom Lm/ft ø	**8**=80 **9**=90	**27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K
Notes Mounting hardware not included in BAA assessment.	**Notes** **GUV125** is a direct LED + Indirect UV-C enabled w/ 254nm **G125** is a direct LED only and includes top housing for runs with UV-C and non UV-C luminaires. UV-C Lamps are shipped with luminaire in separate packaging.		**Notes** **GUV125** must select **DI**=Direct LED w/ Indirect UV-C available **G125** must select **D**=Direct LED w/ Top Housing		**Notes** See performance table for additional details.	**Notes** Values shown for DIP/80CRI/3500K/F Lens. Please refer to scaling data for other variables. For custom lumen output, please refer to additional information on page 3.	**Notes** 2700K only available in 90CRI	

Suspension Type	Ceiling Type	Mounting HW Color	Luminaire Length (Ft)	Circuiting	Emergency Options	Voltage
[Blank]=None **C4**=4ft Aircraft Cable **C10**=10ft Aircraft Cable **C20**=20ft Aircraft Cable	**[Blank]**=None **JB**=Gypsum Board, Junction Box, Structure **T1**=15/16" T-Grid (ETG) **T9**=9/16" T-Grid (FTG) **TS**=9/16" Slot (STG), Tegular (FTT), Interlude (ITG)	**[Blank]**=White **B**=Black	**4F0**=4 ft **8F0**=8 ft **__F0**= Continuous Run (4ft incremental)	**2**= GUV and LED Separate **S**=LED Secondary Circuit. **1**=Single Circuit	**[Blank]**=None **E**=Emergency Circuit **B1**=7W 120-277V EM battery pack **B2**=14W 120-277V EM battery pack **T**=UL924 EPC Emergency Bypass Relay	**U**=Universal (120V-277V)
Notes Only specify for Pendant/Suspended applications			**Notes** Minimum fixture length is 4ft. Specify in 4ft incremental lengths. 8ft max section length.	**Notes** UV-C and LED are always on separate circuits. Secondary circuit similar to A/B switching. **1**=Single Circuit only to be used with **G125** option	**Notes** Emergency device is located in first 4ft section of luminaire by default and can be relocated using the linear product configurator. When configured with battery, battery test switch will be located in a plate on the direct side of the fixture. When selecting from additional section wiring for a 4ft fixture you may only choose to combine 2 options from this list: Battery pack, Integrated sensor, Integrated UV-C.	

Driver Type	Optics Down	Fuse Options	Finish	Integrated Sensor Options
DD=Standard 0-10V Dimming (1%-100%) **5L**=Fifth Light DALI (1%-100%) **LH**=Lutron HiLume (LDE1 series) 1%-100% EcoSys	**F**=White Satin Diffuser **D**=Drop White Satin Diffuser **A**=Asymmetric Diffuser	**[Blank]**=None **R**=GLR Fuse (Fast) **F**=GMF Fuse (Slow)	**W**=White **S**=Silver **B**=Black **C**=Custom Match **R**=RAL Custom	**[Blank]**=None **WAA**=WaveLinx Pro Wireless **WAB**=WaveLinx Lite Wireless ø **LWIPD1**=Enlighted Wireless **SVPD1**=Standalone
	Notes All lensing options are snap-in lenses. D=Drop White Satin Diffuser is not available with R = Regressed version.		**Notes** UV-C Louvers will always be black Contact factory for C and R options.	**Notes** DD driver must be selected. Please refer to page 5 for additional detail required to specify integrated sensors. Integral option not available with regressed or drop lensing. When selecting from additional section wiring for a 4ft fixture you may only choose to combine 2 options from this list: Battery pack, Integrated sensor, Integrated UV-C.

Indirect UV-C Only Order Information

SAMPLE ORDER NUMBER: **GUV125IP-C4JBB4F0-R-W**

Domestic Preference	Series	Distribution	Mounting	Suspension Type	Ceiling Type	Mounting HW Color	Length	Fuse Options	Finish
(blank)=not BAA **BAA**=BAA	**GUV125**=UV-C Enabled w/ 254nm UV-C	**I**=Indirect UV-C	**P**=Pendant/Suspended **W**=Wall	**[Blank]**=None **C4**=4ft Aircraft Cable **C10**=10ft Aircraft Cable **C20**=20ft Aircraft Cable	**[Blank]**=None **JB**=Gypsum Board, Junction Box, Structure **T1**=15/16" T-Grid (ETG) **T9**=9/16" T-Grid (FTG) **TS**=9/16" Slot (STG), Tegular (FTT), Interlude (ITG)	**(blank)**=White **B**=Black	**2F0**=2ft **4F0**=4 ft **8F0**=8 ft	**[Blank]**=None **R**=GLR Fuse (Fast) **F**=GMF Fuse (Slow)	**W**=White **S**=Silver **B**=Black **C**=Custom Match **R**=RAL Custom
Notes Mounting hardware not included in BAA assessment.	UV-C Lamps are shipped with luminaire in separate packaging.			**Notes** Only specify for Pendant/Suspended applications					**Notes** UV-C Louvers will always be black Contact factory for C and R options.

Product Specifications

Mounting
- Suspended
- Wall mount
- Minimum mounting height 8ft to the bottom of the fixture
- Minimum Ceiling Height of 9ft
- Professional layouts can be completed by Cooper Lighting Solutions upon request

Lengths
- Direct LED + Indirect UV-C available in 4ft or 8ft lengths
- Indirect only UV-C available in 2ft, 4ft, or 8ft length

Construction
- Precision cut housing extruded from 6063 aluminum
- Precision cut & welded end-caps ensure a robust and clean construction
- Laser cut Aluminum louvers
- UV-C lamps ship separately
- UV-C retention using roto-lock durable sockets with materials optimized for UVC integrity throughout the life of the product
- UV power ratings:
    - 2ft = Qty 1: 17W Lamp
    - 4ft = Qty 1: 36W Lamp
    - 8ft = Qty 2: 36W Lamps

Finish
- Polyester powdercoat finish on housing and endcaps
- Louvers in top housing have electrostatically applied polyester black powder coat paint

UV-C
- Germicidal UV source technology using quartz enclosure and long-life igniter to maximize the run time and ensure optimal germicidal efficiency
- Utilizes UV-C sources operating at 254nm wavelength
- UV-C is a proven disinfection technology effective on pathogens including mold, fungi, bacteria, and viruses
- UV-C power is delivered up to 9000 hours while maintaining at least 80% of the initial UV-C energy
- Rapid Start electronics extend the life to up to 25,000 start-up cycles

LED Module
- Modular LED tray assembly comprising reflector and light engine with quick disconnect wire-harness for ease of installation and maintenance over the life of the luminaire

Light Engine
- Offered with two next generation Neo-Ray light engines delivering industry leading efficacy and long-life
- LED's are available in 2700K, 3000K, 3500K, 4000K or 5000K
- CRI options of either ≥80CRI or ≥90CRI (Lumen output will be affected - please refer to the lumen adjustment factor table)

LED Drivers
- LED system coupled with electrical driver
- Traditional electronic drivers are available for 120-277V

Direct Snap-In lensing Options
- Satin Flush - Flush, high diffusion glare-free lens
- Satin Drop - 1" Drop, high diffusion glare-free lens
- Asymmetric - Flush, low-glare Asymmetric lens
- Flush options ship with our patent-pending underlens solution, the proud lens ships with an injection molded end cap to eliminate light leak

Reflectors
- Precision formed cold-rolled steel reflectors with high reflectivity
- Ultra high reflectivity used with High Performance light engine

Lumen Maintenance
- 90% (L90) of initial light output at 61,000+ hrs
- 70% (L70) of initial light output at 237,000+ hrs
- Derived from TM-21 standard @25°C for worst case operating conditions

Controls and Integrated Sensors
- Equipped standard with a 0-10V continuous dimming driver. Compatible with most standard dimming devices
- Additional control types are available (DALI & Lutron) at an additional cost
- WaveLinx and LumaWatt Pro wireless sensors as well as stand-alone sensors available

Optics
- Louvers limit reflectivity of germicidal energy outside of the horizontal plane to comply with IEC 62471 Photobiological Risk Group 0 classification
- Distribution focuses disinfection energy where it is needed, maximizing efficiency

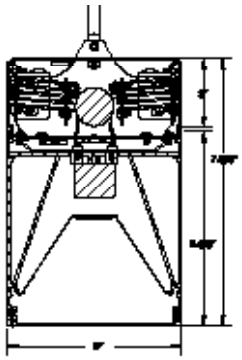
Electrical
- Dimming provided as standard on LED downlighting
- Optional battery backup options provided
- Battery is located in first 4ft section of luminaire by default and can be relocated using the linear product configurator.
- Default emergency section is 4ft in length and located at the beginning of the fixture unless designated elsewhere
- Estimated lumen output = battery wattage * min efficacy (see performance table)
- The EPC option will bypass local controls and dimming upon loss of normal power. This option is required when the fixture has both integrated sensors and emergency circuiting
- UV-C and LED are always on separate circuits.

Compliance
- cULus - listed for damp locations
- Meets CCEC requirements
- Tested to IESNA LM-79 and LM-80
- Can be used for State of California Title 24 high efficacy luminaire
- This UV-C product is designed to comply with Risk Group 0
- Tested to comply with IEC 62471 Photobiological Risk Group 0 classification.
- UL 1598 listed UV-C fixture
- UL1598 annex L states it is the responsibility of the installer to ensure that persons will not be exposed to excessive UV or optical radiation during equipment operation. This will require the installer to conduct an assessment of irradiance levels in the surrounding occupied spaces prior to occupancy.
- Product complies with FCC part 18 limits
- This device has not been evaluated by the FDA, and is not approved for use in medical applications
- EPA Facility # 96488- CO - 1

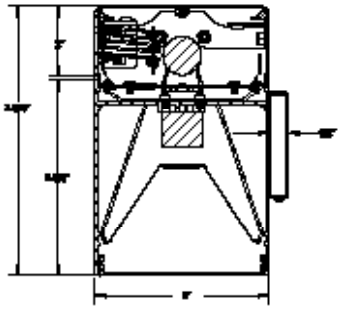
Warnings and Safety
- UV-C Sources emit high-power UV radiation that can cause severe injury to skin and eyes. Avoid eye and skin exposure to unshielded products.
- UV-C may cause degradation and fading of paints, fabrics and other materials
- Plants and/or materials that are exposed to UV-C and/or ozone for a long time may become damaged and/or discolored
- Commissioning is required after installation. This process is detailed in the commissioning guide

Warranty
- Five year warranty standard.
- UV-C Lamps not covered under standard five year warranty.

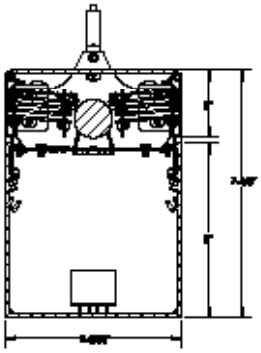
Dimensional and Mounting Details



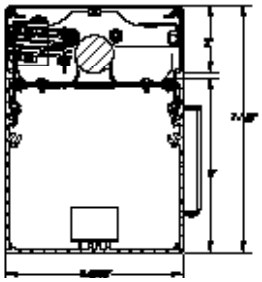
Suspended Mount
Direct LED + Indirect UV-C



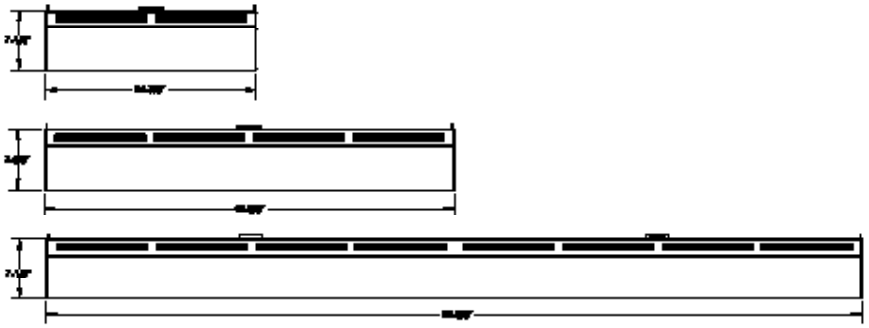
Wall Mount
Direct LED + Indirect UV-C



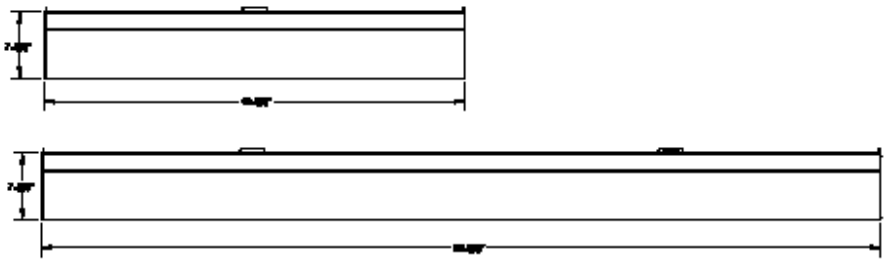
Suspended Mount
Indirect UV-C Only



Wall Mount
Indirect UV-C Only



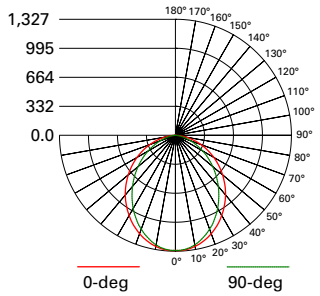
Side View
Direct LED + Indirect UV-C
& Indirect UV-C Only



Side View
Direct LED Only with Top Housing

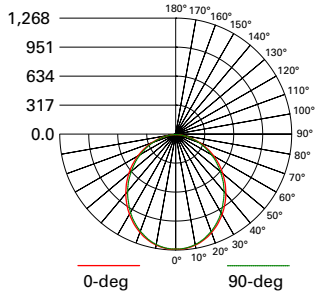
Direct LED Photometric Data

View IES files



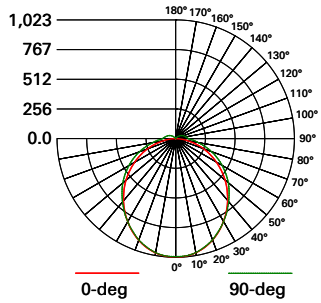
FILE NAME:
S125RDP-S850D835-4F0-1E-UDD-F
LUMENS: 3128.1 Lms
LPW: 118.9 LPW
CCT: 3500K
WATTS: 26.3 W
TEST NUMBER: P334412

SATIN FLUSH LENS



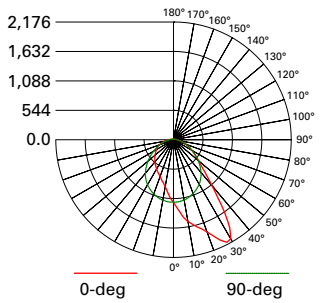
FILE NAME:
S125DP-S850D835-4F0-1E-UDD-F
LUMENS: 3289.9 Lms
LPW: 125.1 LPW
CCT: 3500K
WATTS: 26.3 W
TEST NUMBER: P334342

SATIN REGRESSED DIFFUSER



FILE NAME:
S125DP-S850D835-4F0-1E-UDD-D
LUMENS: 3159.8 Lms
LPW: 120.1 LPW
CCT: 3500K
WATTS: 26.3 W
TEST NUMBER: P334307

SATIN DROP LENS



FILE NAME:
S125DP-S850D835-4F0-1E-UDD-A
LUMENS: 3324.2 Lms
LPW: 126.4 LPW
CCT: 3500K
WATTS: 26.3 W
TEST NUMBER: P334272

ASYMMETRIC FLUSH LENS

Direct LED Photometric Overview and Performance Data

Direct Performance Per Linear Foot at 3500K/80CRI

Nominal Output	Standard		High Performance		VividTune	
lm/ft	W/ft	lm/W	W/ft	lm/W	W/ft	lm/W
375	2.9	133	2.9	136	3.0	130
610	4.8	134	4.4	140	4.9	130
850	6.7	131	6.1	141	6.7	129
1090	8.8	129	8.1	138	8.9	125
1270	10.6	124	9.7	132	10.7	121

LUMEN ADJUSTMENT CALCULATIONS

Example 1 - Adjusted Lumen Output
Nominal Lumen Output selected = 1025 lm/ft (based on standard of 3500K/80CRI)
Lumen Adjustment Factor = 0.801 (2700K/90CRI desired)

Adjusted Lumen Output = Nominal Lumen Output x Lumen Adjustment Factor
Adjusted Lumen Output = 1025 lm/ft x 0.801 = 821 lm/ft

Example 2 - Custom Lumen Output based on Required Lumens Per Foot
Total light output (4ft) requirement of 2800 lm, desired CCT and CRI of 4000K/80CRI

Total required lumens per foot @ 4000K= 2800 lm / 4 ft = 700 lm/ft
Lumen Adjustment Factor = 1.018 (Requirement based on 4000K / 80CRI)

Total required lumens per foot @ 3500K / 80CRI = 700 lm/ft ÷ 1.018 = 688 lm/ft

Estimated efficacy = 121 LPW (find nearest value using table above)
Estimated power consumption = 688 lm/ft ÷ 121 lm/W = 5.69 W/ft

Direct LED Custom Lumen Output

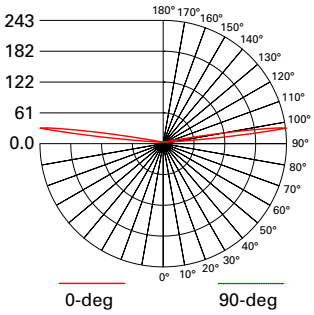
Total Light Output Range (lm/ft)

CCT	Lumen Adj Factors		Direct Output Range	
	80CRI	90CRI	80CRI	90CRI
2700K	N/A	0.792	N/A	297-1006
3000K	0.943	0.815	354-1198	306-1035
3500K	1.000	0.861	375-1270	323-1093
4000K	1.010	0.892	379-1283	335-1133
5000K	1.010	0.892	379-1283	335-1133

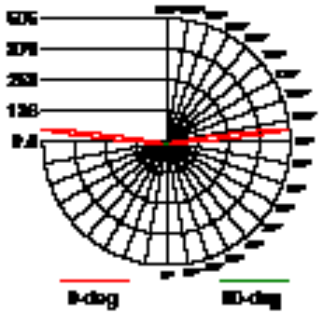
If your requirement is expressed in power consumption (W/ft) rather than light output, you can use the power to lumen output curves to convert power consumption to light output for specification. Efficacy for custom lumen outputs can be estimated using lumen output curves or with the use of our online custom lumen output tool.

Indirect UV-C Photometric Data

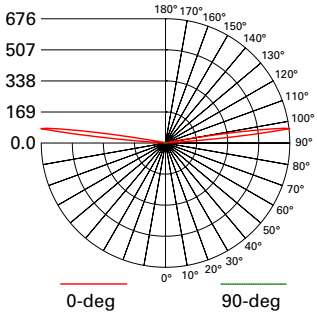
View IES files



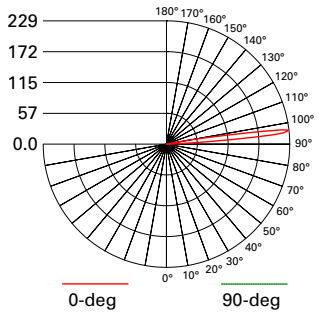
FILE NAME:
GUV-P-2
UV Output: 53.8 mW
UV Efficacy: 3.4 UV mW/watt
WATTS: 15.87 W
TEST NUMBER:
CRT2202031552-002



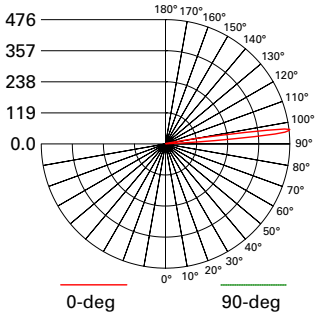
FILE NAME:
GUV-P-4
UV Output: 112.0 mW
UV Efficacy: 3.1 UV mW/watt
WATTS: 36 W
TEST NUMBER:
CRT2202031552-002



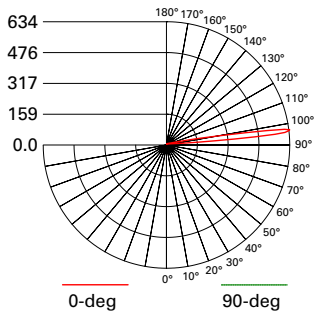
FILE NAME:
GUV-P-8
UV Out8ut: 149.7 mW
UV Efficacy: 3.1 UV mW/watt
WATTS: 48 W
TEST NUMBER:
CRT2202031552-002



FILE NAME:
GUV-W-2
UV Ouput: 30.1 mW
UV Efficacy: 1.9 UV mW/watt
WATTS: 16 W
TEST NUMBER:
CRT2202031552-001



FILE NAME:
GUV-W-4
UV Output: 62.4 mW
UV Efficacy: 1.7 UV mW/watt
WATTS: 36 W
TEST NUMBER:
CRT2202031552-001



FILE NAME:
GUV-W-8
UV Output: 83.2 mW
UV Efficacy: 1.7 UV mW/watt
WATTS: 47.61 W
TEST NUMBER:
CRT2202031552-002

Integrated Sensor Details and Placement

Sensor Type	Wireless	Sensor Integration	Sensor Mounting	Ordering Code
WaveLinx Pro	Yes	Integral to Fixture	Mounted in solid cover	WAA
WaveLinx Lite	Yes	Integral to Fixture	Mounted in solid cover	WAB
Enlighted	Yes	Integral to Fixture	Mounted in illuminated lens	LWIPD1
Stand-Alone	No	Integral to Fixture	Mounted in solid cover	SVPD1

Optional standalone and wireless connected integrated sensors require use of the DD (0-10V) driver. WaveLinx and Enlighted sensors require additional system hardware (not provided) for full functionality.

Standard sensor layout is shown below. Please refer to sensor coverage pattern diagrams to ensure proper coverage for the application. Standard configurations are available in both individual fixtures and in continuous runs. Default spacing is based on the maximum fixture length of 12ft and can be changed to 8ft sensor spacing for additional coverage by selecting the 8ft max fixture length option when ordering.

For additional information integrated sensors and connected lighting, please visit Cooper Lighting Solutions's Connected Lighting Website.

INTEGRAL SENSOR FOR INDIVIDUAL FIXTURES

○ Standard Sensor with Luminaire Control
⊗ Auxiliary Sensor used for Sensor Coverage (wireless systems only)

≤8ft Individual	○	
>8ft Individual	○	⊗

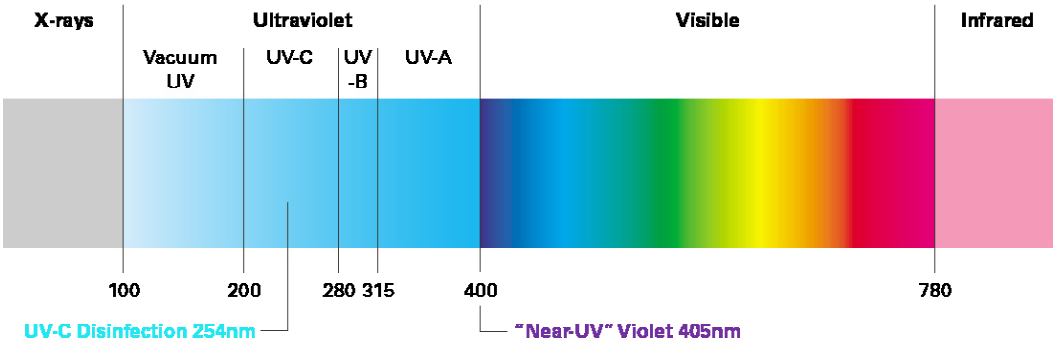
Note: When 8ft max section length is used on individual fixtures > 8ft, sensor placement follows logic for continuous run.

INTEGRAL SENSOR FOR CONTINUOUS RUNS

Beginning of Run (BOR)	○	End of Run (EOR) > 4ft	○ ⊗
Intermediate Section (INT)	○	End of Run (EOR) ≤ 4ft	○

UV-C Education

- UV-C (germicidal ultraviolet) is a proven and effective disinfection technology including inactivation of SARS-COV-2.
- UV-C refers to short-wavelength ultraviolet "light" outside of the visible spectrum that is proven to kill bacteria and inactivate viruses...FAST! These short wavelengths in the photobiological UV spectral band known as "UV-C" are centered at 254nm, which is the optimal source wavelength for eliminating pathogens.
- UV-C is an excellent air disinfectant due to its quick germicidal efficacy.
- Germicidal effectiveness is determined by the "fluence" or germicidal irradiance dose in the air.
- UV-C can pose a safety and health hazard to the eyes and skin if the product is improperly used or installed.
- The installation instructions & commissioning guide detail how to properly install and commission this product.



For more information on Fail-Safe UV-C Disinfecting Solutions, please visit www.cooperlighting.com/GUV

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