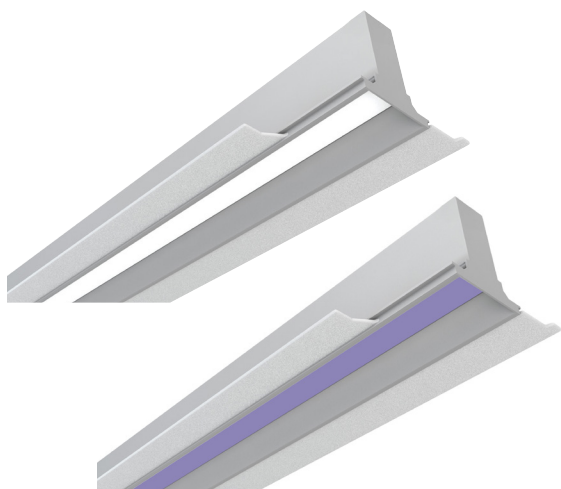


# Grüv<sup>®</sup> FR

## ActiveCLEAN<sup>™</sup>

Flare Regressed Linear LED  
with Vyv antimicrobial light



### Features

**ActiveCLEAN's<sup>™</sup>** high-intensity, antimicrobial wavelengths of 405 nanometers protect your business with the most beautiful, comfortable, non-glare illumination. Utilizing Vyv's signature UV-free antimicrobial technology, our spec-grade (Linea or Gruv) family of luminaires provides continuous surface cleaning by creating spaces that are inhospitable for **bacteria, fungi, yeast, mold, mildew** and **viruses** to live, on any surface—and in any application—the light touches.

### Product Overview

Type:	Recessed Lens Direct
Wattage:	3W-16W/ft
Lumen Output:	3,153 max; 50.1 lm/W
Color Temp:	3000K, 4000K
CRI:	85 typ.
Dimming:	0-10V, 1% dim to off (standard) Lutron Hi-lume <sup>®</sup> 2 wire (120V only) Lutron Hi-lume <sup>®</sup> EcoSystem, 1% dim, fade to off DALI dimming, 1% dim

### PROJECT:

### TYPE:

### Fixture Summary *(see following pages for more information)*

#### Ceiling Types

4" Tech Zone	6" Tech Zone	9/16"	15/16"	Gyp Board	Millwork
No	Yes	Yes	Yes	Yes	Yes

#### Performance Chart

Wattage Per Foot	Delivered Lumens	LPW	Color Temp
16	3,153	50.1	4000k

*Data is based on 4', 4000K 85CRI IES files available on website*

#### Electrical Data

Wattage Per Foot		4'		8'	
		System Watts	Amps	System Watts	Amps
16	120V	62	0.52	124	1.0
	277V	61.1	0.22	122.2	0.44
9	120V	34.1	0.29	68.3	0.57
	277V	34.2	0.13	67.4	0.25

*Electronic multi-volt (120-277VAC), constant current LED driver*



# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyv antimicrobial light



## PROJECT:

## TYPE:

### Ordering Information



- 1** Model  
**GRUV-FR-FLG-VYV**  
**GRUV-FR-GRID-VYV**
- 2** Optics  
**PL** - performance lens
- 3** Wattage (per foot)  
\_\_\_\_\_ - (ex. 16 - 16W/ft, available in 3W/ft-16W/ft. 3 & 4W/ft require 4' min. length)
- 4** Color Temp  
**Dual Mode**  
**DM30** - 3000K-85CRI, dual mode (2 circuit) white antimicrobial+light & violet enhanced antimicrobial  
**DM40** - 4000K-80CRI, dual mode (2 circuit) white antimicrobial+light & violet enhanced antimicrobial
- 5** Finish  
**AW** - **ActiveCLEAN™** white
- 6** Voltage  
**120/277**
- 7** Length  
\_\_\_\_\_
- 8** Configuration  
**IND**<sup>1</sup> - individual fixture, 2' to 8' in 1' increments  
**CON** - continuous run > than 8', specify to nearest foot  
**CUS** - custom made to measure, +/- 1/8" of customer supplied field dimensions
- 9** Drivers  
**OFF-0-10V** - 1% electronic dim to off, multi-volt (120-277VAC) constant current driver (standard)  
**HILUME-A-LTE** - Lutron "A" Series, 1% dim, 2-wire, 120V only  
**HILUME-H-ECO** - Lutron "H" Series, 1% dim, fade to off, EcoSystem  
**DALI** - DALI Dimming 120-277VAC, 1% dim  
**Note: Review wiring diagrams on pages 6-9 for controls requirements**
- 10** Options/Accessories  
**CP** - Chicago Plenum (CCEA)  
**WHIP** - 6' whip, 18/5 conductor  
**EMC-PF<sup>2</sup>** - emergency circuit requires power feed located in last fixture section (for other locations consult factory)  
**PF<sup>2</sup>** - Extra power feed for additional circuiting  
**EMB** - emergency battery pack (not available for lengths under 4')

1 - Lengths less than 4' may have restrictions based upon wattage, lengths, drivers or other options.

2 - Not available with IND (individual) configuration.

# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyv antimicrobial light



## PROJECT:

## TYPE:

### Specifications

#### Application

Commercial, Education and Healthcare recessed ambient lighting that can be customized with made to measure lengths.

**ActiveCLEAN™** fixtures may be sold in all areas of the United States. Certain states/countries require additional state approvals which are currently in process. For the following, please contact Amerlux for all projects to confirm exact timing for approval: Colorado, Indiana, Hawaii, New Mexico, Oklahoma, Wyoming, Washington DC and Canada. These restrictions are subject to change at any time and will be updated periodically as additional approvals are completed.

#### Construction

Heavy gauge steel upper housing is secured to aluminum extruded trim rails. Die-formed, cold-rolled steel internal components and external mounting brackets. Numerous configurations accommodate most architectural ceiling conditions.

#### Optical

All lenses are snap-in, extruded acrylic, with a maximum length of 8'. Amerlux's proprietary acrylic lens provide excellent transmission while effectively concealing source image.

**PL** - Performance Lens provides high efficiency with controlled lens surface brightness.

#### LED

Internal LED boards powered by Vyv's patented single-diode technology meets international standards for continuous and unrestricted use around people. Vyv stops the growth of and kills\* viruses, bacteria, fungi, yeast, mold and mildew with visible light.

\*Testing on a non-enveloped virus (MS2 bacteriophage) showed a 99.985% reduction in controlled laboratory testing in 6 hours on hard surfaces. MRSA and E. coli showed 90%+ reduction in controlled laboratory testing in 24 hours on hard surfaces. Results may vary depending on the amount of light that is reaching the surfaces in the space where the product is installed and the length of time of exposure. Use of Vyv antimicrobial light is not intended to replace manual cleaning

**Color Temperature Options:** 3000K & 4000K

**Dual Mode (DM\_\_)** is a 2-circuit option that allows for switching between white Antimicrobial+Light mode and Enhanced Antimicrobial mode which provides maximum enhanced antimicrobial impact through 405nm (violet) light. Switching can be controlled via switch, sensor or control system (see wiring diagrams)

**CRI:** 85 typical; **R9:** 10 typical  
4-step bin

**Life:** 36,000 hr, >70% of initial lumens (L70)

**Note:** On certain fixture lengths, there may be noticeable gaps of board missing when switching to the Enhanced Antimicrobial (405nm only, "violet" light) circuit on the dual mode boards. This is the normal and intended application.

**How to use:** To achieve the recommended amount of antimicrobial protection, it is recommended that a photometric layout is conducted on your space. The light level coming from the ActiveClean fixtures should be a minimum of 500 Lux (46.5 FC). Any indirect light from an ActiveClean fixture or ambient light from nearby fixtures should not be used in the 500 Lux (46.5 FC) calculation. All ActiveClean fixtures should be used in conjunction with standard cleaning practices.

#### Electrical

**Wiring:** Supply wires are easily accessible through Access Plate on top of fixture.

**WHIP:** Optional factory installed 6' Greenfield whip (18/5 conductor) simplifies installation.

**Wattage:** 3W-16W/ft. (3W & 4W have a minimum length of 4'). For other wattages consult factory.

Emergency circuit via remote inverter or auxiliary emergency power supply (by others).

**This product complies with IEEE C62.41 for surge endurance up to 2.5KV. Amerlux® recommends using additional surge protection with this unit (supplied by others), surge and over voltage damage is not covered under warranty.**

**EMC-PF** - Emergency circuit requires power feed wire harness to be located in last fixture section for continuous runs. For other locations consult factory. Not available for individual (IND) configuration.

**PF** - Extra power feed for additional circuiting. Not available for individual (IND) configuration.

#### Drivers

**OFF-0-10V** - 1% electronic dim to off, multi-volt (120-277VAC) constant current driver (standard)

#### Optional Drivers:

**HILUME-A-LTE** - Lutron "A" Series, 1% dim, 2-wire, 120V only

**HILUME-H-ECO** - Lutron "H" Series, 1% dim, fade to off, EcoSystem

**DALI** - DALI Dimming 120-277VAC, 1% dim

#### Finish

**AW** - **ActiveCLEAN™** white powder coat paint with anti-microbial coating. Baked on finish for maximum durability and color stability.

#### Configurations/Lengths

**IND** - Individual fixtures are made of single standard lengths of 2 ft to 8 ft (in 1' increments). These are stand alone fixtures with matching End Caps, supplied with the mounting hardware. Lengths less than 4' may have restrictions based upon wattage, lengths, drivers or other options.

**CON** - Continuous runs, > 8', specified to nearest whole foot length in 1' increments. Runs made from standard lengths have Flat End Caps at the beginning and end of run. Runs > 60' may require second power feed. Each Housing has factory installed alignment pins. Mating fixtures are easily aligned and joined with "catch and latch" mechanisms out of sight, on top of the Housing. Wiring is made fast and positive with molded quick connectors.

**CUS** - Made To Measure runs are made to nearest 1/8" of customer supplied field measurements or drawings. Custom lengths use the same hardware for hairline joining.

#### Mounting

Intended for use in 5/8" gypsum board, 9/16" & 15/16" Tee grid, and Screw Slot ceilings. For individual and continuous row applications.

**Please note, fixtures to be installed before gypsum board ceiling have flat end detail.**

**GRUV-FR-FLG-A16** - flare regressed exposed flange, in 6" wide gypsum board ceiling aperture

**GRUV-FR-GRID-A16** - flare regressed grid mount, in 9/16" & 15/16" Tee ceiling aperture (compatible with 6" TechZone™ & other 6" wide architectural ceiling systems)

#### Options

**EMB** - Emergency battery pack - Bodine BSL10LST self-testing driver, 10W output power, 90 min of illumination time, up to 1300 lm of initial light output. Illuminated test-switch/charging indicator light is provided. Wattage consumption by EM: 2.5W/ft (4ft fixture), 1.66W/ft (6ft fixture), 1.25W/ft (8ft fixture). Request can be made to light up 4ft section on 8ft unit.

#### Certifications

Approved to UL standards for damp locations as tested by CSA  
Intended for indoor use only  
Chicago Plenum (COEA) optional

#### Warranty

Amerlux's 3 year limited warranty. Please consult Amerlux website for details.

# Grüv® FR ActiveCLEAN™

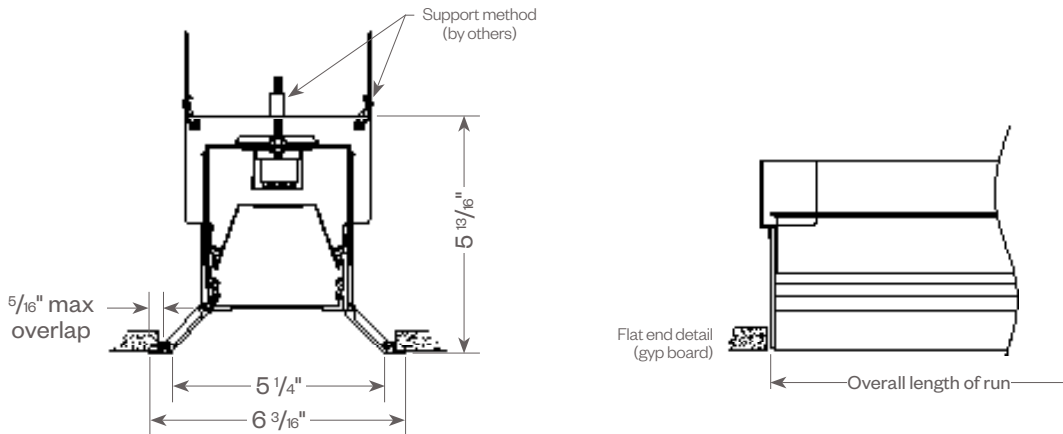
Flare Regressed Linear LED with Vyv antimicrobial light



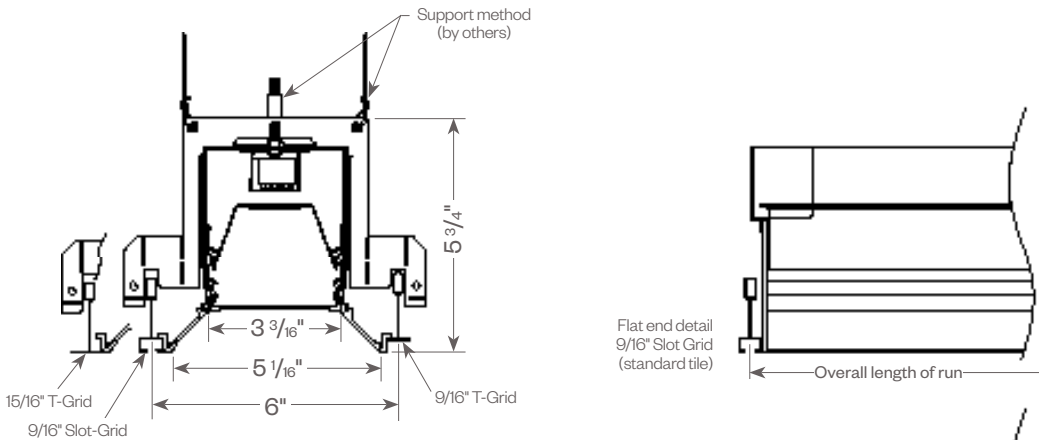
**PROJECT:**

**TYPE:**

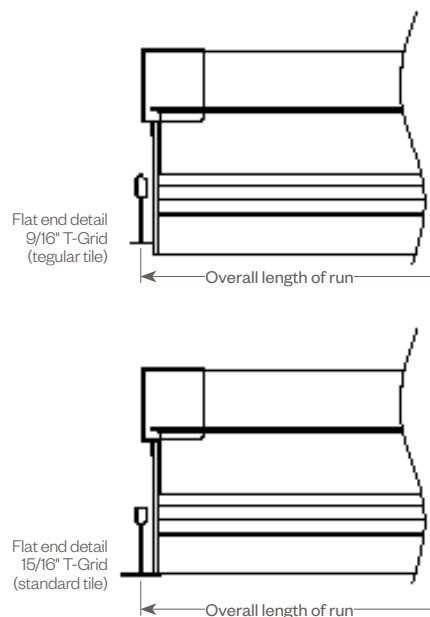
## GRUV FLARE REGRESSED, FLANGED (GRUV-FR-FLG)



## GRUV FLARE REGRESSED (GRUV-FR-GRID)



Compatible with 6" TechZone™ and other architectural ceiling systems.



# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyv antimicrobial light



**PROJECT:**

**TYPE:**

**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

**MULTIPLYING FACTORS:** (Multiplying Factor is based on 4000K-80 120V IES file on website)

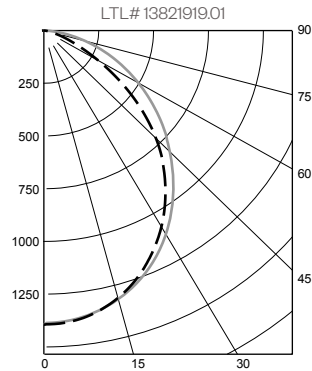
Wattage:	3W	4W	5W	6W	7W	8W	9W	10W	11W	12W	13W	14W	15W	16W	CCT:	3000K	4000K
Factor:	0.19	0.25	0.31	0.38	0.44	0.50	0.56	0.63	0.69	0.75	0.81	0.88	0.94	1.0	Factor:	1.0	1.0

**GRÜV1.5-FR PL 16W DM40 4000K 4FT**

Total Watts: 63

Total Lumens: 3,153

Source: 182 White LED's



**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixt
0-40	1665	52.8
0-60	2729	86.6
0-90	3154	100.0
90-180	0	0.0

**Total Luminaire Efficiency = 50.1 Lumens /Watt**

**COEFFICIENTS OF UTILIZATION**

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	110	106	102	99
2	101	94	88	83
3	93	83	76	70
4	86	75	66	60
5	79	67	59	53
6	73	61	52	46
7	68	55	47	41
8	64	51	43	37
9	60	47	39	34
10	56	43	36	31

Note: Values are expressed as percent of total lumen output delivered to the task surface.

# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyy antimicrobial light



## PROJECT:

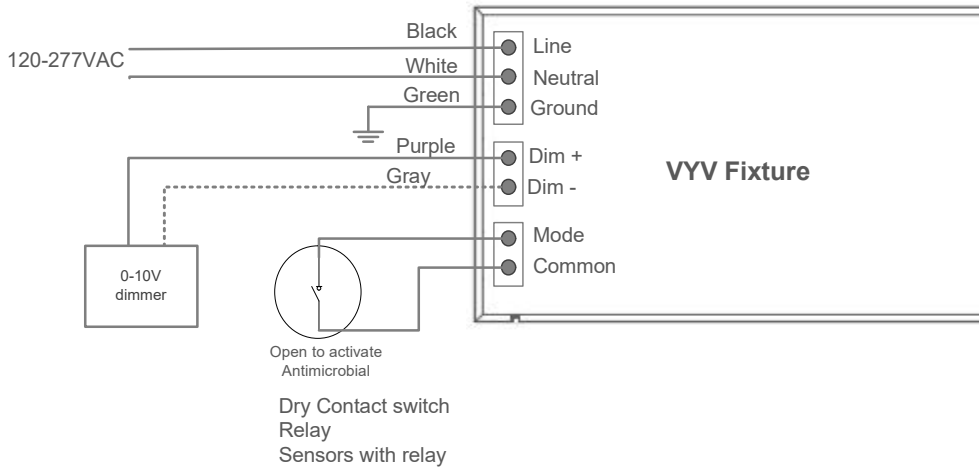
## TYPE:

### DIMMING COMPATIBILITY:

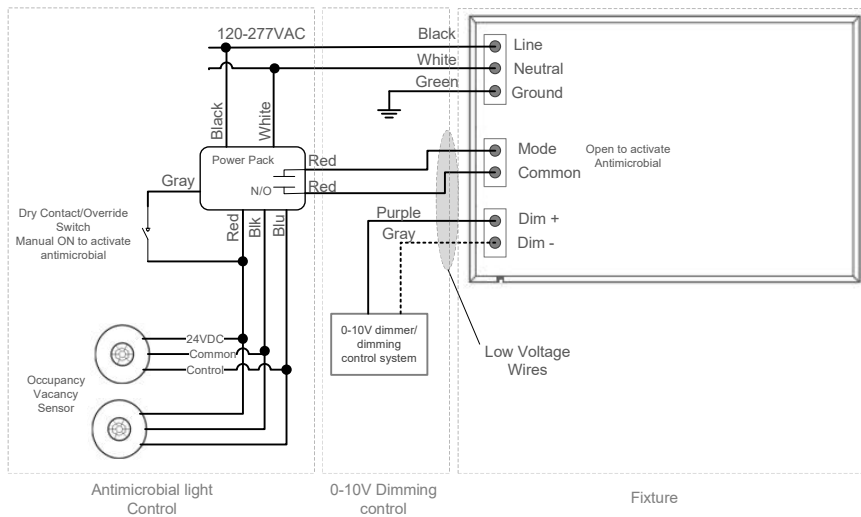
Amerlux® Gruv fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

**--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---**

### 0-10V with Dry Contact Control



### Low Voltage Independent Occupancy/Vacancy Sensor with Power Pack and 0-10V Dimming Control



**McWong**  
Powerpack: PSC-AC-PP-100  
Occupancy sensor: PSC-ID-CM-301

**Leviton**  
Powerpack: OSP20-RD0  
Occupancy sensor: OSC05-RMW

**Legrand/Wattstopper**  
Powerpack: BZ-200  
Occupancy sensor: DT-300/DT-305

**IR-Tec**  
Powerpack: PPU-300/301  
Occupancy sensor: OS-361DT

### Notes:

- \* Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer installation instructions for 277VAC wiring diagrams.
- † The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

**PROJECT:**

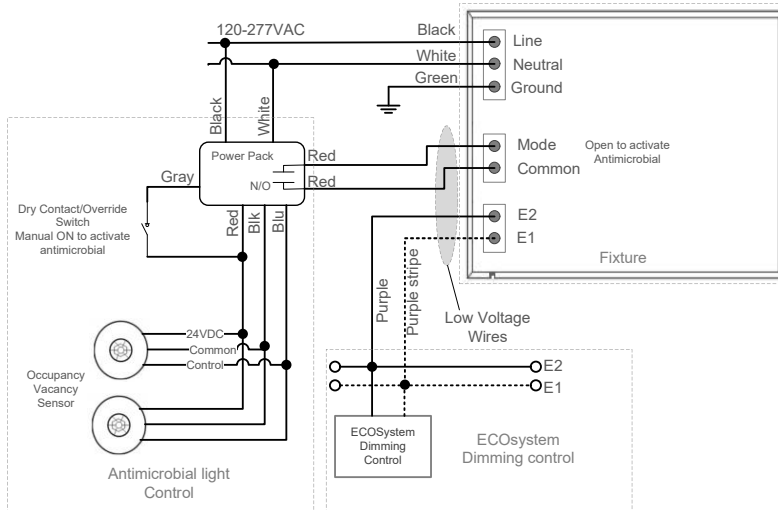
**TYPE:**

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**--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---**

**Low Voltage Independent Occupancy/Vacancy Sensor with Power Pack and Lutron ECOSystem Dimming Control**



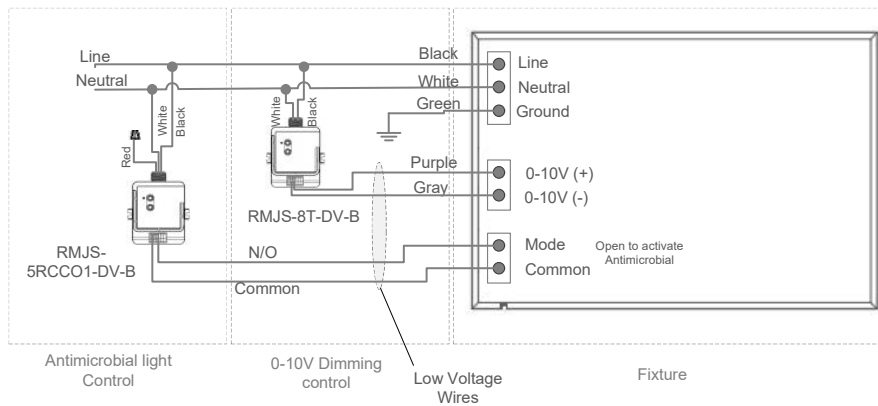
McWong  
Powerpack: PSC-AC-PP-100  
Occupancy sensor: PSC-ID-CM-301


Leviton  
Powerpack: OSP20-RD0  
Occupancy sensor: OSC05-RMW


Legrand/Wattstopper  
Powerpack: BZ-200  
Occupancy sensor: DT-300/DT-305

IR-Tec  
Powerpack: PPU-300/301  
Occupancy sensor: OS-361DT

**Lutron Vive with 0-10V and Relay Control**



 Pico Remote Control  
(up to 10)

 Radio Power Saver  
Occupancy  
Sensor (ip to 10)

**Notes:**

\* Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer installation instructions for 277VAC wiring diagrams.

† The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyv antimicrobial light



**PROJECT:**

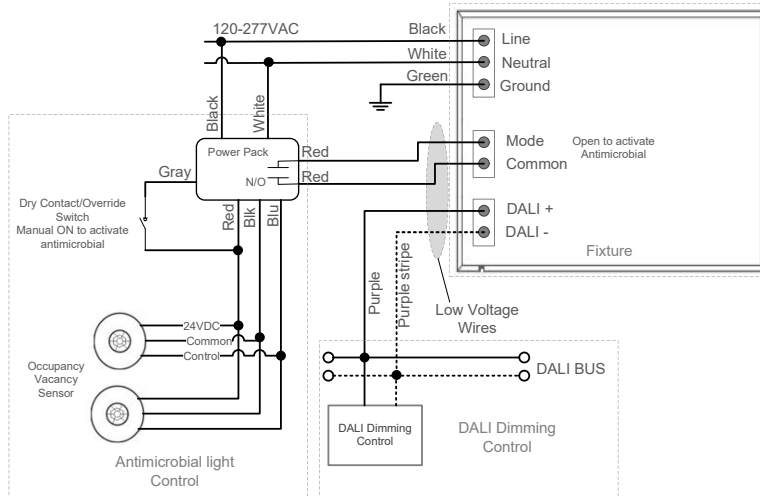
**TYPE:**

## DIMMING COMPATIBILITY:

Amerlux® Gruv fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

**--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---**

### Low Voltage Independent Occupancy/Vacancy Sensor with Power Pack and DALI Dimming Control



**McWong**  
Powerpack: PSC-AC-100  
Occupancy sensor: PSC-ID-CM-301

**Leviton**  
Powerpack: OSP20-RD0  
Occupancy sensor: OSC05-RMW

**Legrand**  
Powerpack: BZ-200  
Occupancy sensor: DT-300/DT-305

**IR-Tec**  
Powerpack: PPU-300/301  
Occupancy sensor: OS-361DT

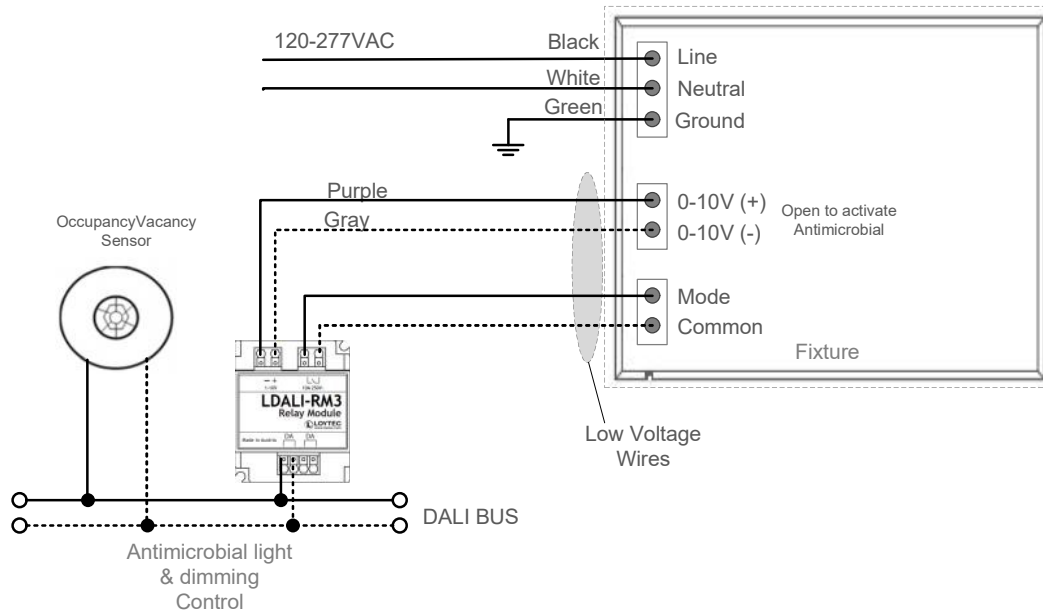
**McWong**  
Powerpack: PSC-AC-PP-100  
Occupancy sensor: PSC-ID-CM-301

**Leviton**  
Powerpack: OSP20-RD0  
Occupancy sensor: OSC05-RMW

**Legrand/Wattstopper**  
Powerpack: BZ-200  
Occupancy sensor: DT-300/DT-305

**IR-Tec**  
Powerpack: PPU-300/301  
Occupancy sensor: OS-361DT

### DALI Occupancy/Vacancy Sensor with DALI to 0-10V/Relay Module



## Notes:

\* Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method.

Please refer to 277VAC dimmer installation instructions for 277VAC wiring diagrams.

† The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.



# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyv antimicrobial light



**PROJECT:**

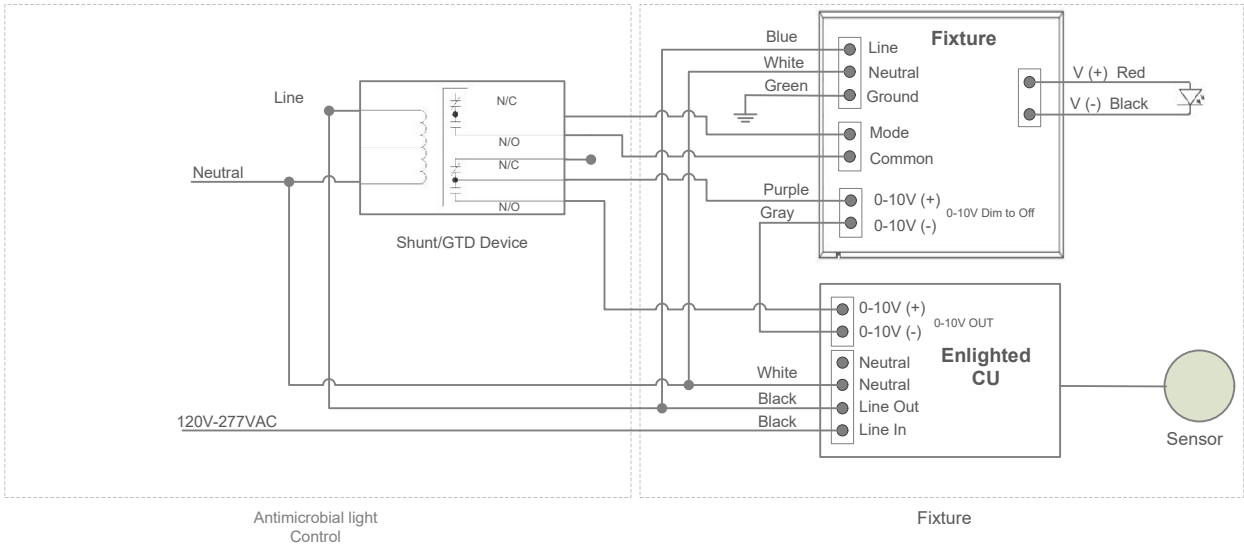
**TYPE:**

**DIMMING COMPATIBILITY:**

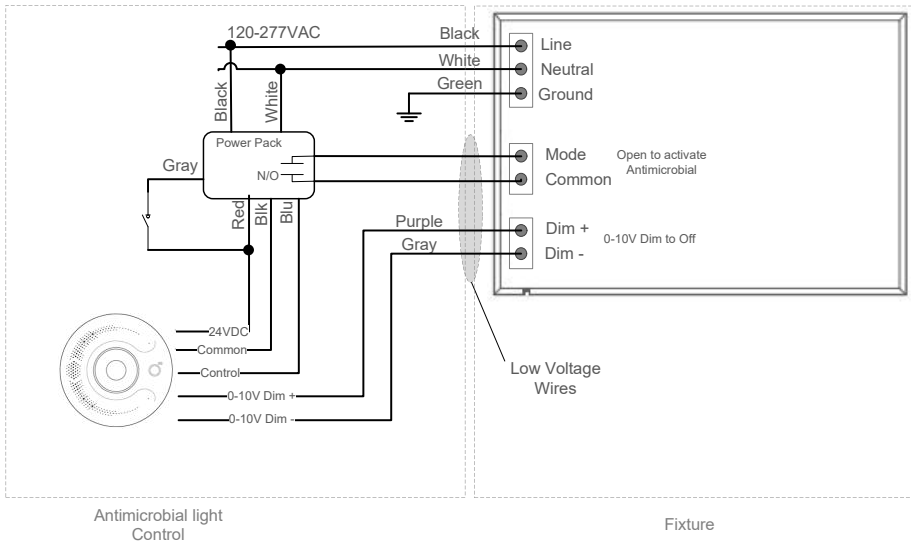
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**--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---**

**0-10V with Enlighted Sensor Control**



**Delta Controls O3 Sensor Hub**



**Notes:**

- \* Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer installation instructions for 277VAC wiring diagrams.
- † The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

# Grüv® FR ActiveCLEAN™

Flare Regressed Linear LED with Vyv antimicrobial light



**PROJECT:**

**TYPE:**

Emergency Fixture with Built-in Battery Pack (EMB) Wiring:

Note: EMB not available on lengths under 4'.

