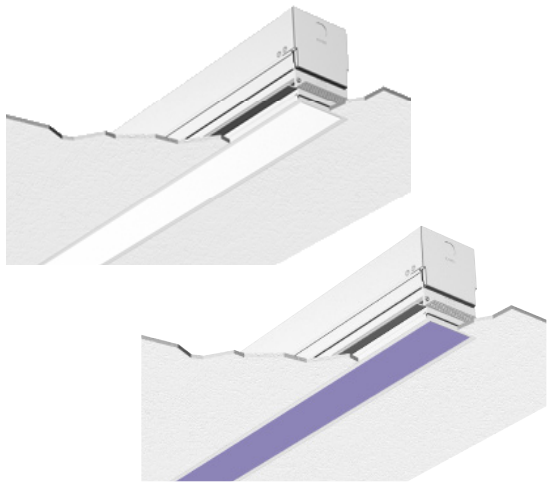


Grüv® 4"

ActiveCLEAN™

Recessed Linear LED
with Vyv antimicrobial light



Features

ActiveCLEAN's™ 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:	3,237 lm; 51.5 lm/W (16W, 4ft fixture, 4000K)
Color Temp:	3000K, 4000K
CRI:	85 typ.
Dimming:	0-10V, 1% dim to off (standard) Lutron Hi-lume® 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
Yes	No	Yes	CF*	Yes	Yes
Perimeter J-Mold		*Consult factory (tees are 4 ³ / ₄ " on center)			
Yes					

Performance Chart

Wattage Per Foot	Delivered Lumens	LPW	Color Temp
16	3,237	51.5	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® 4" ActiveCLEAN™

Recessed Linear LED with Vyy antimicrobial light



PROJECT:

TYPE:

Ordering Information



- 1** Model
GRUV4-HE-FLG-VYV - exposed flanged
GRUV4-HE-FLG-GRID-VYV - flanged, grid mount
GRUV4-HE-GB-VYV - gyp board trimless, mud-in
GRUV4-HE-GRID-VYV - grid mount
GRUV4-HE-IS-VYV - independently suspended
GRUV4-HE-J/GB-VYV - j-mold/gyp board trimless
GRUV4-HE-J/GRID-VYV - j-mold/grid
GRUV4-HE-J/IS-VYV - j-mold/independently suspended

- 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-85CRI, dual mode (2 circuit) white antimicrobial+light & violet enhanced antimicrobial

- 5** Finish
AW - ActiveCLEAN™ white

- 6** Voltage
120/277

- 7** Length

- 8** Configuration
IND¹ - individual fixture, 2' to 8' in 1' increments
IND-S+ - individual with standard plus (see pg8, for GRID or J/GRID only)
CON - continuous run > than 8', specify to nearest foot
CON-S+ - continuous run with standard plus (see pg8, for GRID or J/GRID only)
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-H-ECO - Lutron "H" Series, 1% dim, fade to off, EcoSystem
DALI - DALI Dimming 120-277VAC, 1% dim
Note: Review wiring diagrams on pages 9-12 for controls requirements

- 10** Options/Accessories
CP - Chicago Plenum (CCEA)
ENLS - Enlighted Sensor (0-10V only and not available on 2' & 3' lengths; also not available for GRUV1.5-FR)
WHIP - 6' whip, 18/5 conductor
EMC-PF² - emergency circuit requires power feed located in last fixture section (for other locations consult factory)
PF² - 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.

* The "A" refers to the sequential revision in a year and "XX" refers to the year of update. Updates coincide with improved performance while not changing the overall fixture aesthetic and are reflected in the published performance data. Please contact your Amerlux representative for explanations of changes.

Grüv® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



PROJECT:

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

One piece extruded aluminum housing and trim. 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 provides 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 (46.5FC) 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

TYPE:

located in last fixture section for continuous runs. For other locations consult factory. Not available for individual (IND) configuration.

PF - Extra power feed wire harness 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-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 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.

S+ - Standard Plus is a field cuttable filler bracket that can be used when an Individual fixture or a Continuous run isn't to the nearest foot (+3/4" to 6" max per end). See page 7 for details.

CUS - Custom made yo 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 gypsum board, 9/16" Tee grid and Screw Slot, and millwork ceilings. Wall mounting J-Molding details available. For individual or continuous row.

Please note - fixtures to be installed before gypsum board ceiling.

GRUV4-HE-FLG-Vyv - exposed flange, fixture into gypsum board ceiling

GRUV4-FLG-GRID-Vyv - exposed flange grid mount, fixture in 9/16" Flat Tee ceilings. Consult factory for 15/16" ceilings.

GRUV4-HE-GB-Vyv - gyp trimless mud, fixture plastered in gypsum board ceiling

GRUV4-HE-GRID-Vyv - grid mount, in 9/16" Screw Slot or Flat Tee ceilings (compatible with 4" TechZone™ & other 4" wide architectural ceiling systems)

GRUV4-HE-IS-Vyv - independently suspended, fixture in wood ceiling

GRUV4-HE-J/GB-Vyv - J mold/gyp trimless, plastered in ceiling - J Channel wall side

GRUV4-HE-J/GRID-Vyv - J mold/grid, in 9/16" Screw Slot or Flat Tee ceilings - J Channel wall side

GRUV4-HE-J-IS-Vyv - J mold/independently suspended in ceiling - J Channel wall side.

Options

EMB - Emergency battery pack - 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 (CCEA) optional

Warranty

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

Grüv® 4" ActiveCLEAN™

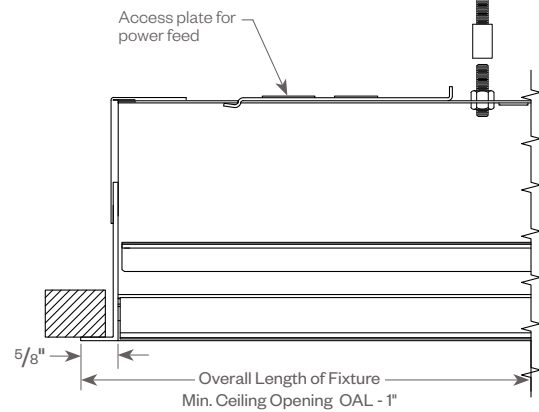
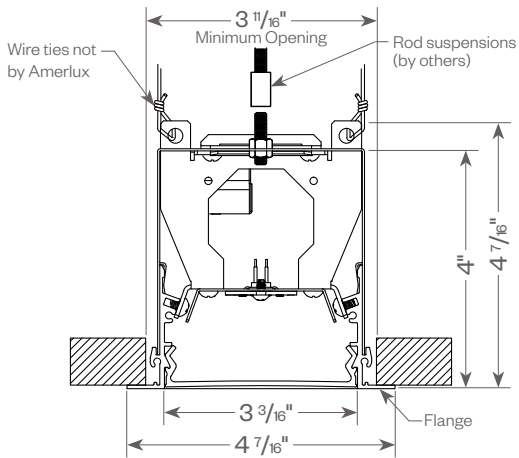
Recessed Linear LED with Vyv antimicrobial light



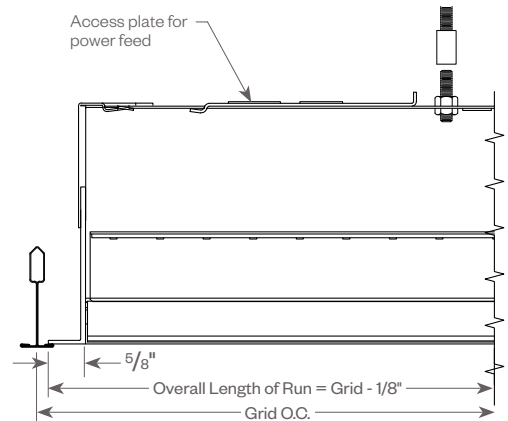
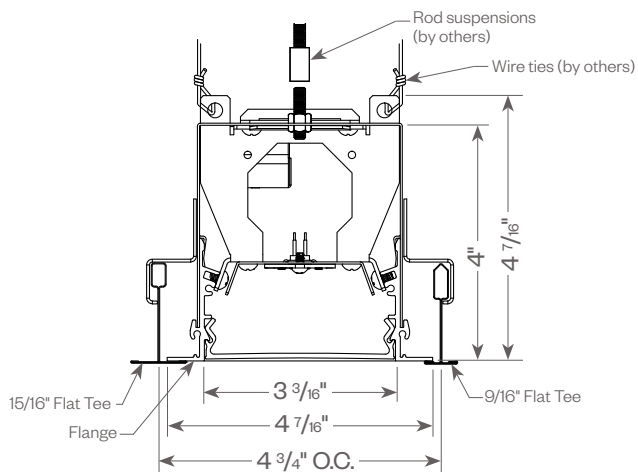
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TYPE:

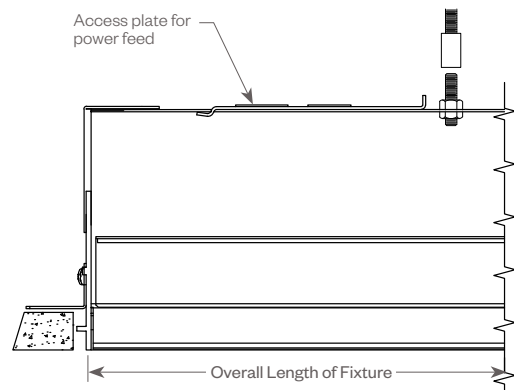
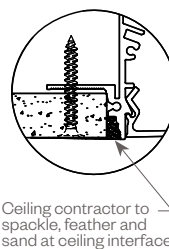
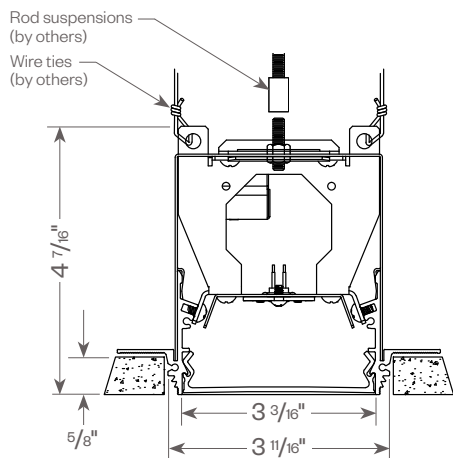
GRUV4-HE-FLG (exposed flange)



GRUV4-HE-FLG-GRID (flanged, grid mount)



GRUV4-HE-GB (gyp board trimless mud-in)



Grüv[®] 4" ActiveCLEAN[™]

Recessed Linear LED with Vyv antimicrobial light

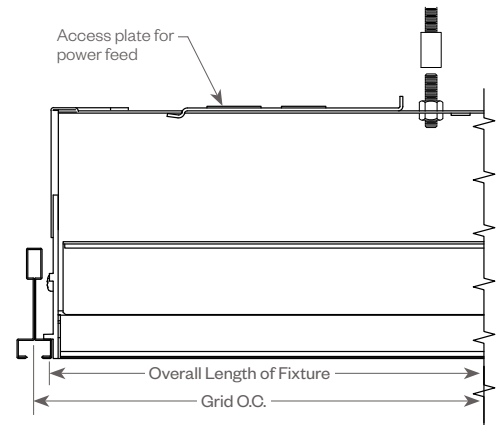
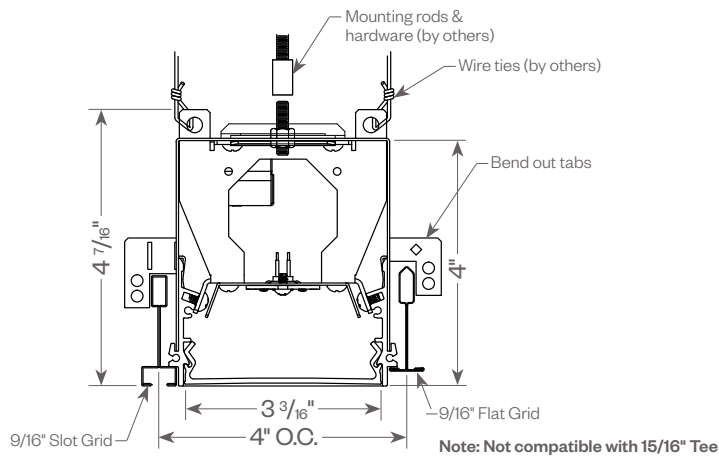


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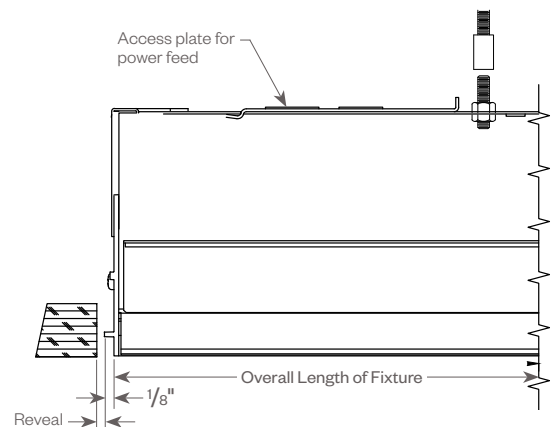
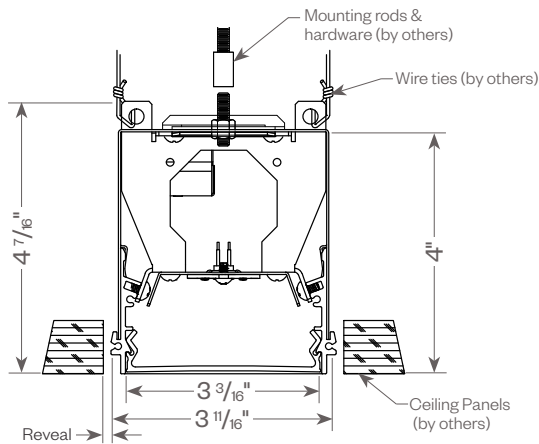
TYPE:

GRÜV4-HE-GRID (grid mount) Compatible (see pg 7)

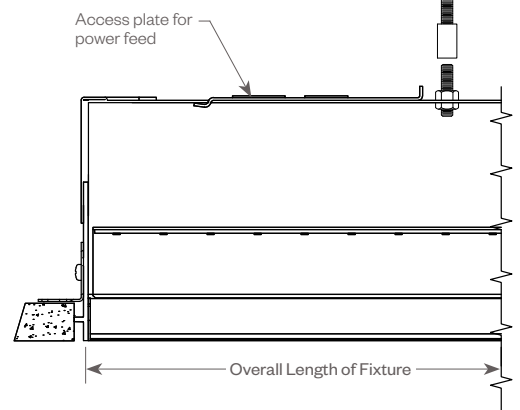
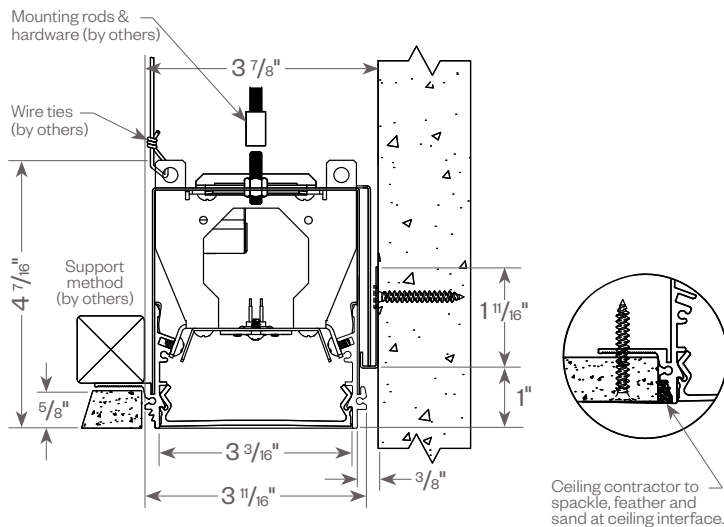
4" TechZone compatible



GRÜV4-HE-IS (independently suspended)



GRÜV4-HE-J/GB (j-mold/gyp board trimless)



Grüv[®] 4" ActiveCLEAN[™]

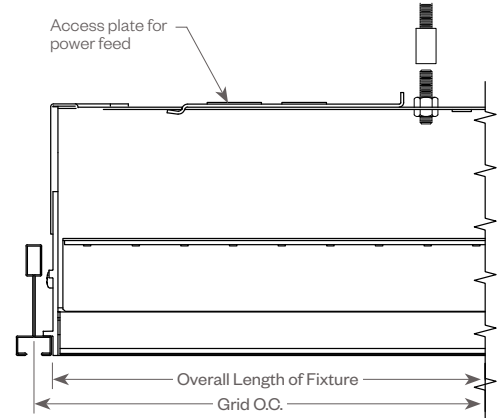
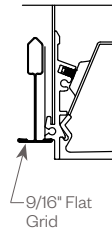
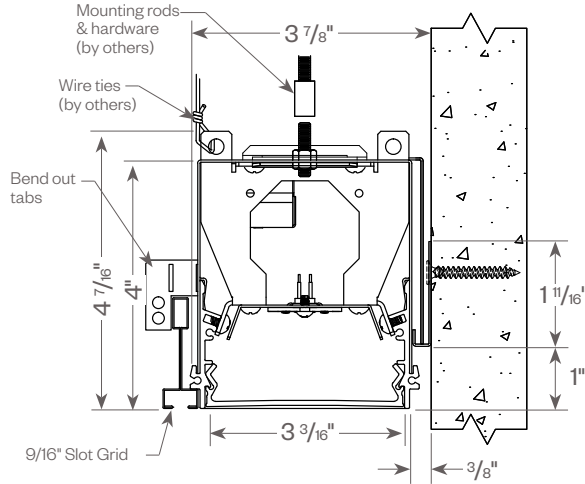
Recessed Linear LED with Vyv antimicrobial light



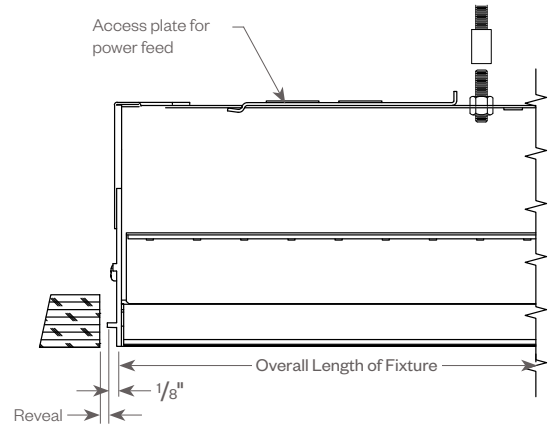
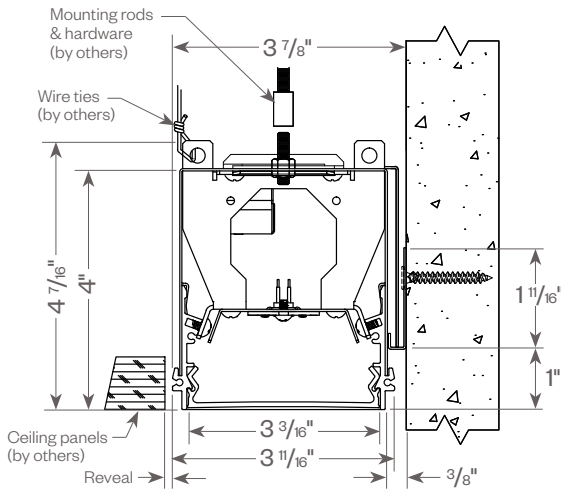
PROJECT:

TYPE:

GRÜV4-HE-J/GRID (j-mold/grid mount) Compatible (see pg 7)



GRÜV4-HE-J/IS (j-mold/independently suspended)



Grüv® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



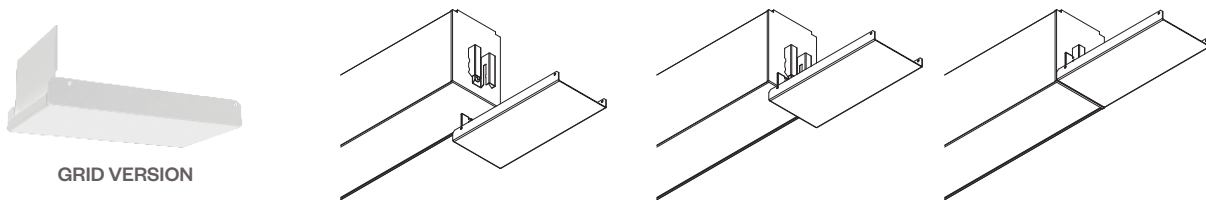
PROJECT:

TYPE:



STANDARD PLUS (FILLER):

Whenever a continuous run is less than a foot to the next full foot length consider ordering Standard Plus field cuttable bracket for a perfect look. Fits 9/16" Slot Grid and 9/16" T grid. It snaps in place easily from below and gets you close to the wall with a standard fixture. Saves time and money compared to made-to-measure.



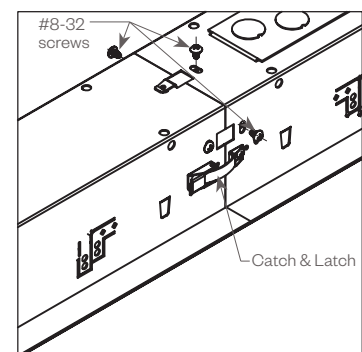
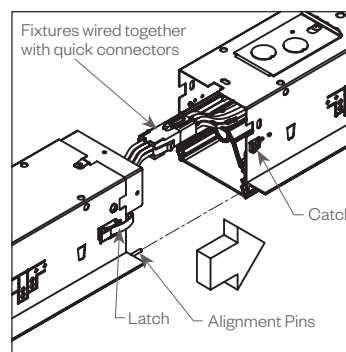
NOTE: Use with GRUV4HE-GRID and GRUV4HE-J/GRID

FILLER TRIM AND INSTALLATION (GRUV 4 HE GRID SHOWN HERE)

<p>1</p> <p>Install fixture in grid & "J" channel in its final position in row without securing to grid, rod or adjacent fixture.</p>	<p>2</p> <p>Measure distance "A" from fixture end cap to backside of molding surface where filler will rest.</p>	<p>3</p> <p>Trim filler as shown to length A minus -1/16"</p>	<p>4</p> <p>Lift end of fixture above height of tee and snap end filler into retaining spring so that it seats level with bottom of fixture.</p>	<p>5</p> <p>Carefully reinstall fixture in grid and final secure per installation instructions.</p>
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TOOLLESS JOINING

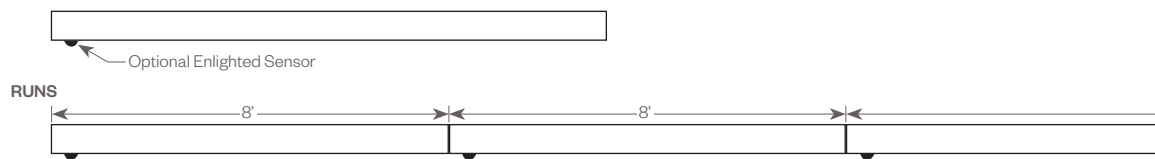
Line up the two housings by using the alignment pins. Secure them together by using the Catch & Latch System on the side of the extrusion.



OPTIONAL ENLIGHTENED SENSOR:

Amerlux® and Enlighted have partnered to create building environments that are safer, and smarter, than ever before. At the heart of our partnership is Enlighted's Smart Sensor, the most advanced digital sensor available today. Integrated into Amerlux products, the sensor seamlessly collects and communicates dense data on building security, occupancy, performance, environmental conditions, ambient light levels, temperature, and energy consumption. This intelligence provides building managers with unprecedented guidance on cost savings and site-planning efficiencies. Enlighted Sensor (ENLS) is available with 0-10V driver only. Minimum run length is 4'. Enlighted power pack is provided with ENLS option.

4 FT OR 8 FT DIRECT



Grüv® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



PROJECT:

TYPE:

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

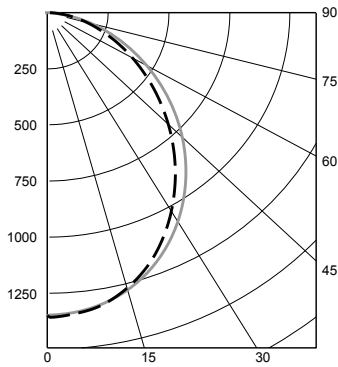
MULTIPLYING FACTORS: (Multiplying Factor is based on 4000K-80 120V IES file on website)

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

GRÜV 4" HE ACTIVECLEAN PL 16W/FT DM40 4000K 4FT

Total Watts: 62.86
 Total Lumens: 3,237
 Source: 182 White LED's

LTL# 13783324.03B



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1600	49.4
0-60	2652	81.9
0-90	3237	100.0
90-180	0	0.0

Luminaire Efficacy = 51.5 lm/w

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	109	105	101	97
2	100	92	85	80
3	91	81	73	67
4	84	72	64	57
5	77	65	56	50
6	72	59	50	44
7	67	54	45	39
8	62	49	41	35
9	58	45	37	32
10	55	42	34	29

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

Grüv® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



PROJECT:

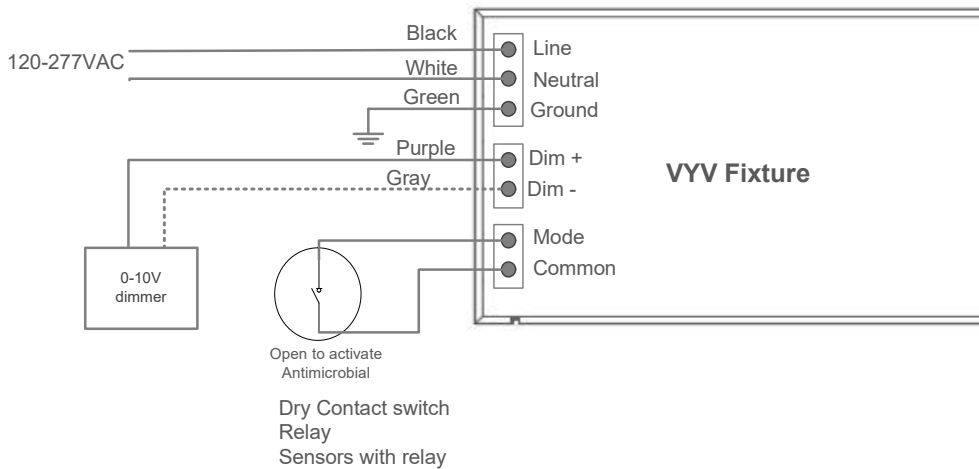
TYPE:

DIMMING COMPATIBILITY:

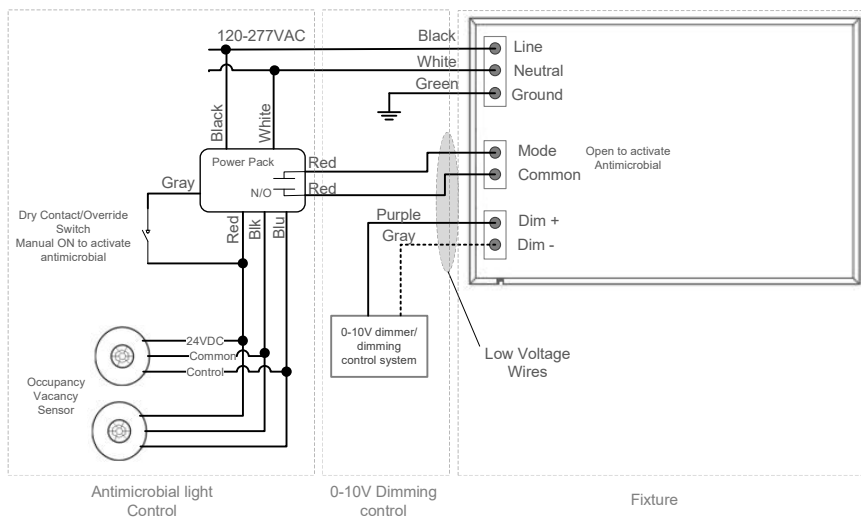
Amerlux® Gruv fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc)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

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

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.

Grüv® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



PROJECT:

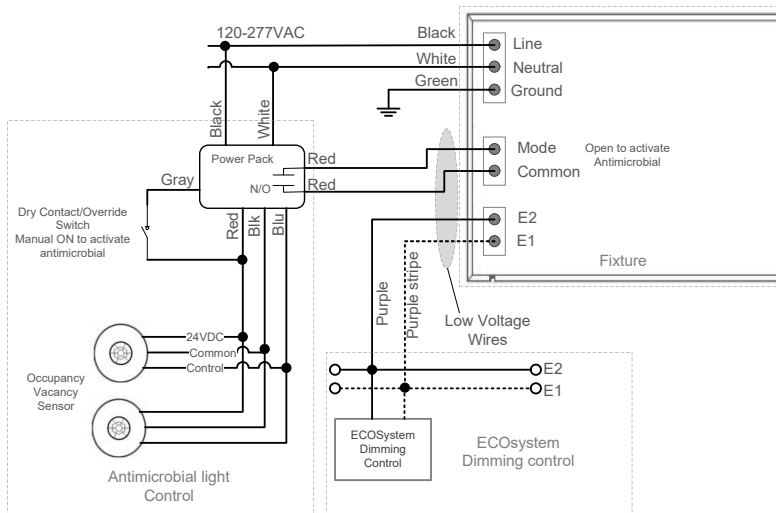
TYPE:

DIMMING COMPATIBILITY:

Amerlux® Grüv 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 Lutron ECOSystem Dimming Control



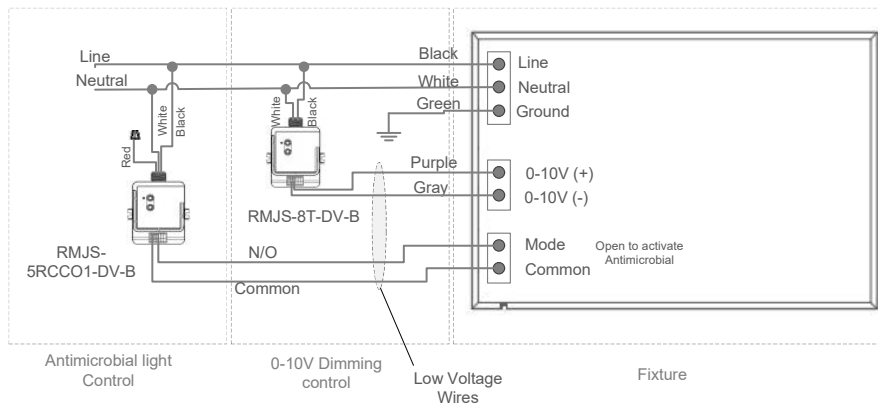
McWong
Powerpack: PSC-AC-PP-100
Occupancy sensor: PSC-ID-CM-301

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® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



PROJECT:

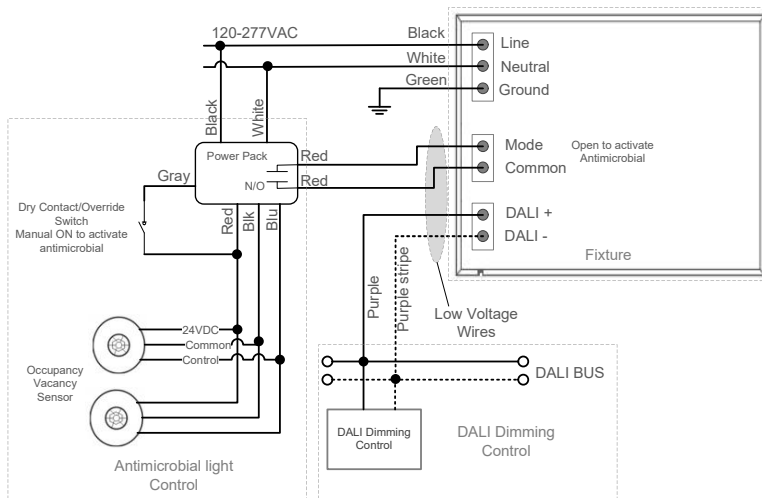
TYPE:

DIMMING COMPATIBILITY:

Amerlux® Grüv 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

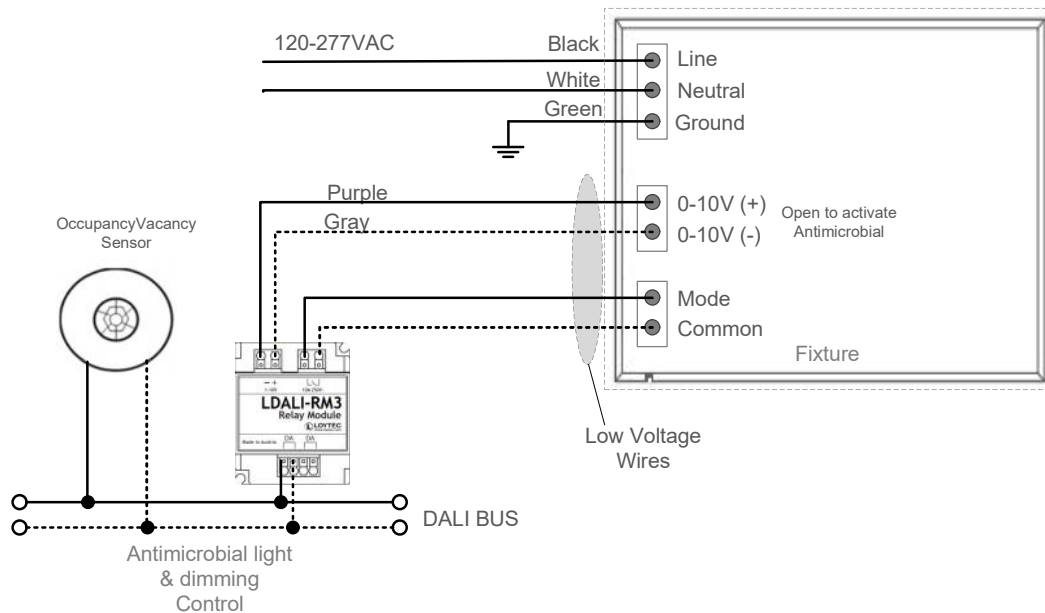
McWong
Powerpack: PSC-AC-PP-100
Occupancy sensor: PSC-ID-CM-301

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® 4" ActiveCLEAN™

Recessed Linear LED with Vyv antimicrobial light



PROJECT:

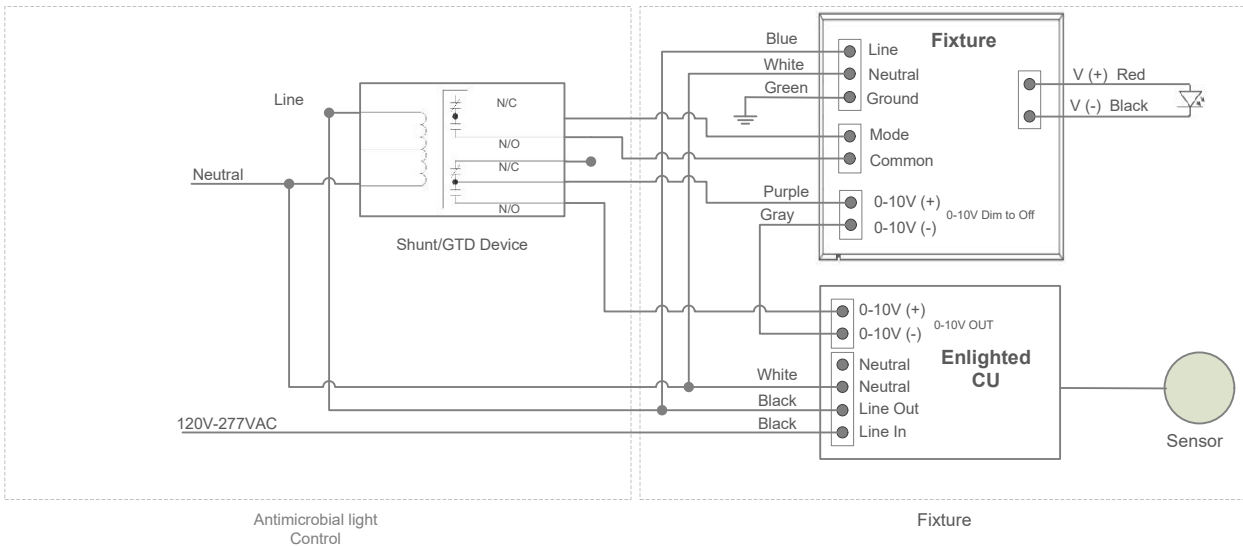
TYPE:

DIMMING COMPATIBILITY:

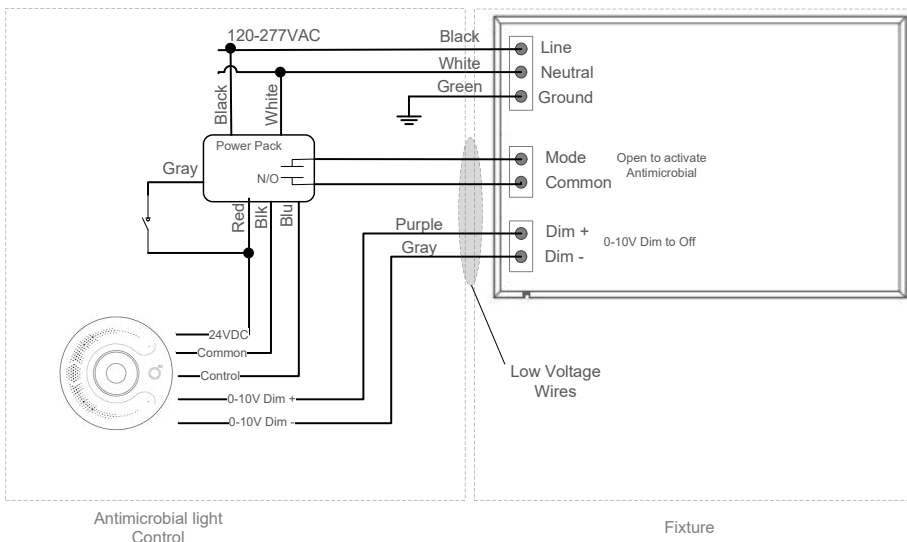
Amerlux® Grüv fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc)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

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

0-10V with 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® 4" ActiveCLEAN™

Recessed 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'.

