

Grüv® 1.5" ActiveCLEAN™

Recessed Linear LED with Vyv Antimicrobial Light

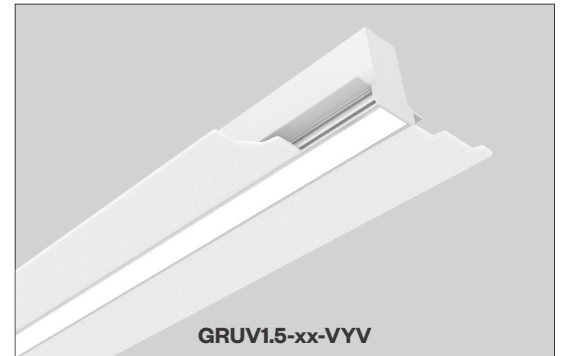


PROJECT:

TYPE:

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 *Grüv*) 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.



GRUV1.5-xx-VYV

Product Overview

Type: Recessed Linear, Direct with Antimicrobial Light
 Wattage: 3W-12W/ft
 Color Temp: 3000K, 4000K
 CRI: 85 typ.
 Dimming (wired): 0-10V, 1% dimming (*standard*)
 Lutron LDE1 Hi-lume® 1% Dim Soft-On/Fade-to-Black
 DALI dimming, 1% dim

Certifications



Fixture Summary

Ceiling Types

4" Tech Zone	6" Tech Zone	9/16"	15/16"*	Gyp Board	Millwork	Perimeter J-Mold
No	No	Yes	Yes	Yes	Yes	Yes

* Flange Grid (GRUV1.5-FLG-GRID) model only.

Performance Data

Wattage/Foot	Delivered Lumens	LPW	Color Temp, CRI
12	1935	40.9	4000K-85

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

Electrical Data

Wattage/Foot	Voltage	4'		8'	
		System Watts	Amps	System Watts	Amps
12	120V	46.3	0.39	93.9	0.78
	277V	45.9	0.17	91.9	0.33
7	120V	26.7	0.22	53.5	0.44
	277V	26.8	0.10	53	0.20

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

Grüv® 1.5" ActiveCLEAN™

Recessed Linear LED with Vyy Antimicrobial Light



PROJECT:	TYPE:
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Ordering Information



1 Model	2 Optics	3 Wattage (per foot)
GRUV1.5-FLG-VYV exposed flange GRUV1.5-FLG-GRID-VYV exposed flange grid mount GRUV1.5-GB-VYV gyp board trimless mud-in GRUV1.5-GRID-VYV grid mount GRUV1.5-IS-VYV independently suspended, millwork GRUV1.5-J/GB-VYV j-mold/gyp board trimless GRUV1.5-J/GRID-VYV j-mold/grid GRUV1.5-J/IS-VYV j-mold/independently suspended	PL performance lens	_____ (ex. 12 - 12W/ft, available in 3W/ft - 12W/ft max, 3W & 4W require 4' min. length)

4 Color Temp	5 Finish	6 Voltage	7 Length
Single Mode AL30 3000K-85CRI, white antimicrobial + light AL40 4000K-85CRI, white antimicrobial + light	AW ActiveCLEAN™ white	120/277	_____

8 Configuration	9 Drivers/Controls	10 Options/Accessories
IND¹ individual fixture, 2' to 8' in 1' increments IND-S+ individual with standard plus (see pg 7 for GRID or J/GRID only) CON continuous run > than 8', specify to nearest foot CON-S+ continuous run with standard plus (see pg 7 for GRID or J/GRID only) CUS custom made to measure, ± 1/8" of customer supplied field dimensions	OFF-0-10V 1% electronic dim to off, multi-volt (120-277V) constant current driver (standard) HILUME-H-ECO Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black DALI DALI dimming 120-277VAC, 1% dim <i>Note: Review wiring diagrams on pages 9-10 for controls requirements.</i>	CP Chicago Plenum (CCEA) ENLS Enlighted Sensor (0-10V only and not available on 2' & 3' lengths) 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.

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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

Antimicrobial+Light Mode (AL_) provides continuous antimicrobial protection, combined with white light

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

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

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: up to 12W/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 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-H-ECO - Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black

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 or Screw Slot, 15/16" Tee grid and millwork ceilings. Wall mounting J-Molding details available. For individual, continuous row, or pattern applications.

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

GRUV1.5-FLG-VYV - exposed flange, fixture into gyp board ceiling

GRUV1.5-FLG-GRID-VYV - exposed flange grid mount, fixture into 9/16" or 15/16" Tee ceilings

GRUV1.5-GB-VYV - gyp trimless mud, fixture plastered into gypsum board ceiling

GRUV1.5-GRID-VYV - grid mount, in 9/16" Screw Slot or Flat Tee ceilings

GRUV1.5-IS-VYV - independently suspended, fixture in wood ceiling

GRUV1.5-J/GB-VYV - J mold/gyp trimless, plastered in ceiling - J Channel wall side

GRUV1.5-J/GRID-VYV - J mold/grid, in 9/16" Screw Slot or Flat Tee ceilings - J Channel wall side

GRUV1.5-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.

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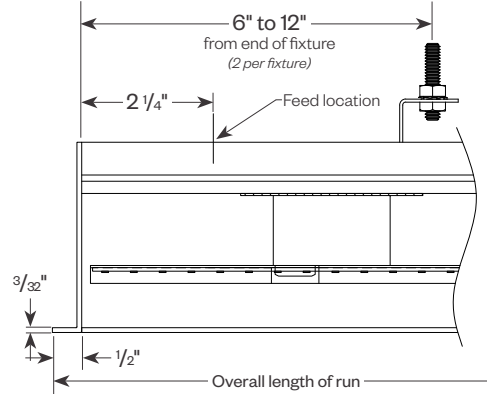
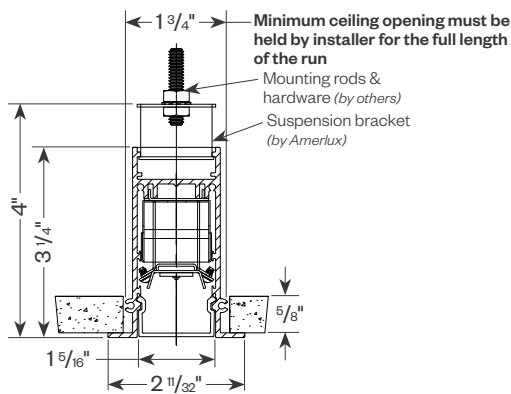


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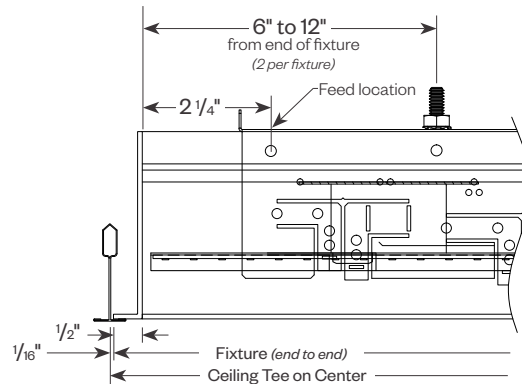
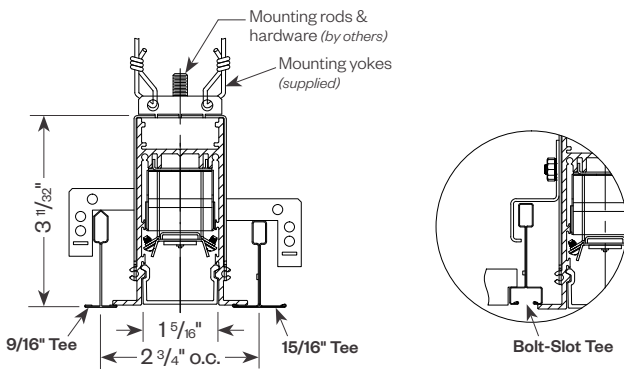
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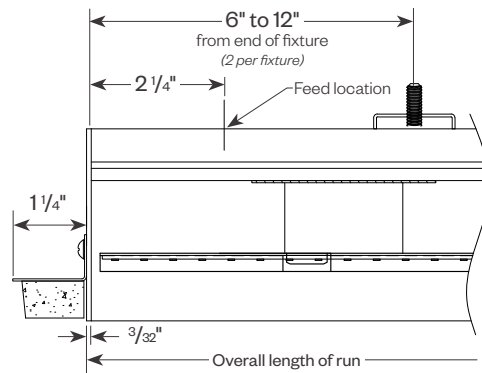
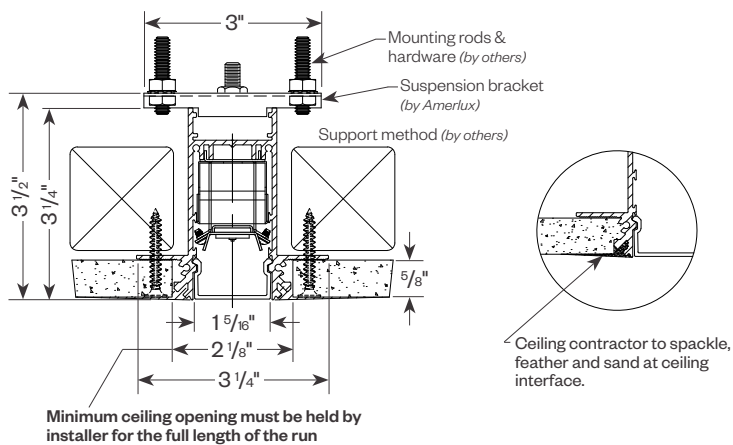
GRUV1.5-FLG (exposed flange)



GRUV1.5-FLG-GRID (flange, grid mount)



GRUV1.5-GB (gyp board trimless mud-in)



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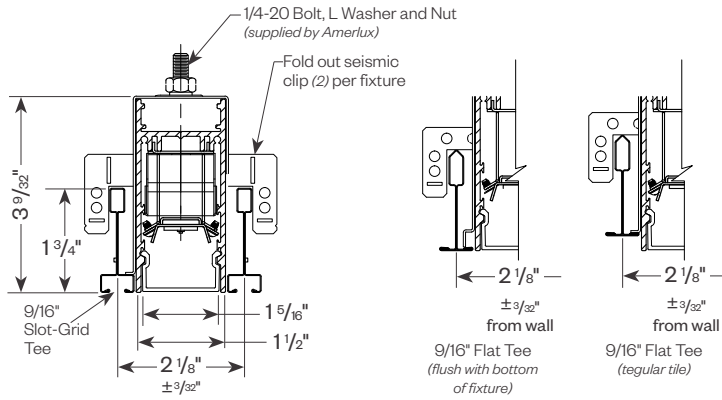
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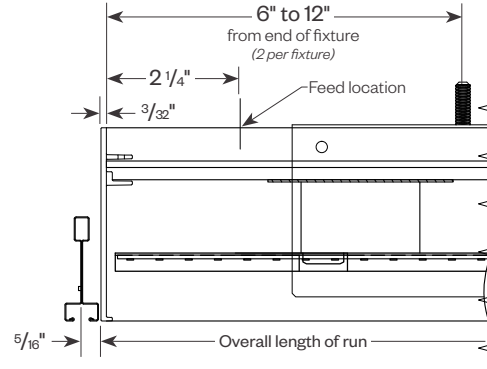
GRUV1.5-GRID (grid mount)

Compatible (see pg 8)

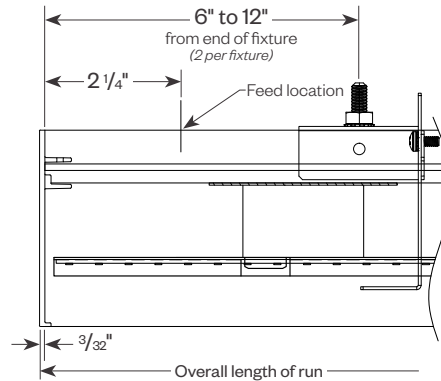
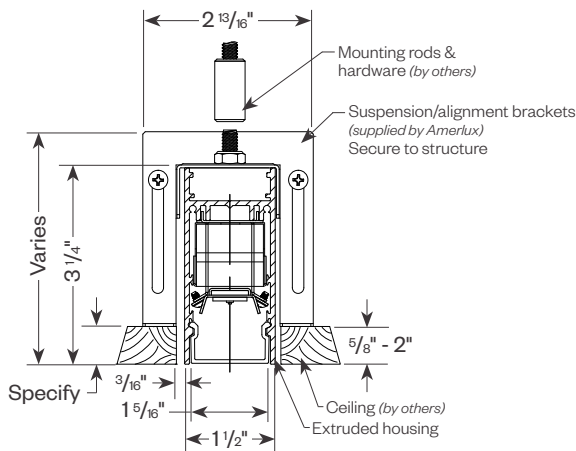
STANDARD PLUS



Note: 9/16" Grid Only



GRUV1.5-IS (independently suspended)



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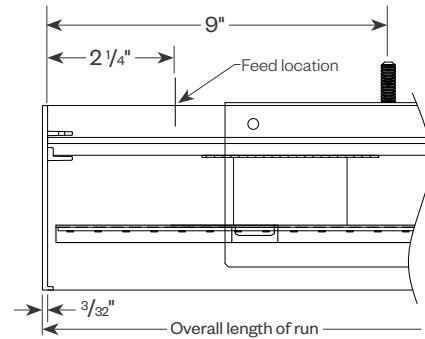
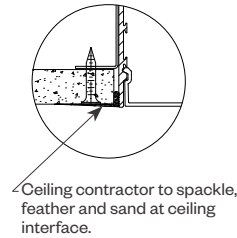
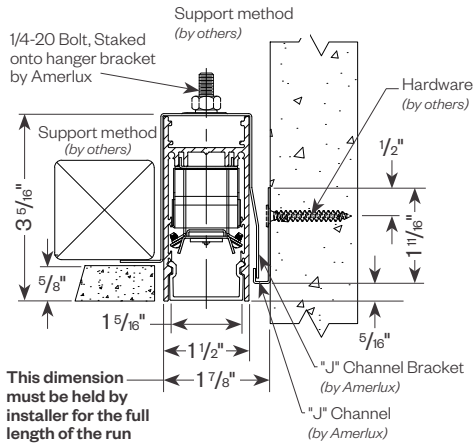


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TYPE:

Product Details (continued)

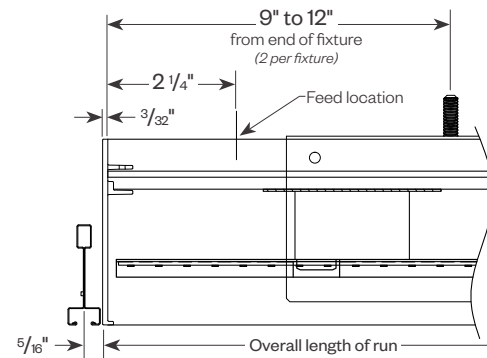
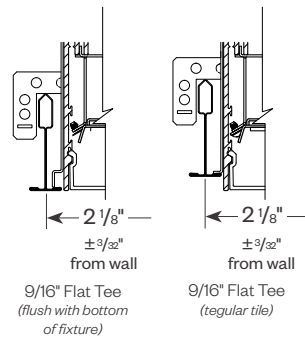
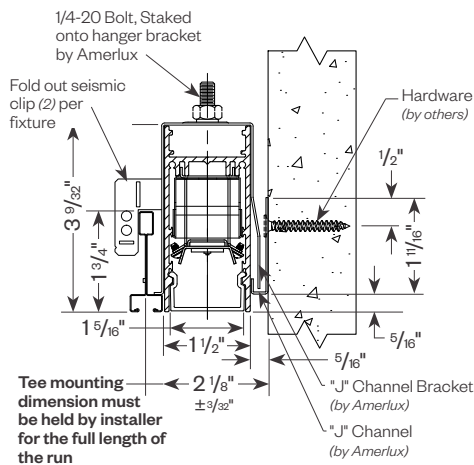
GRUV1.5-J/GB (j-mold/gyp board trimless)



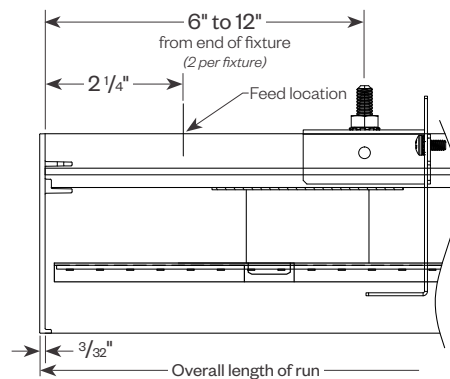
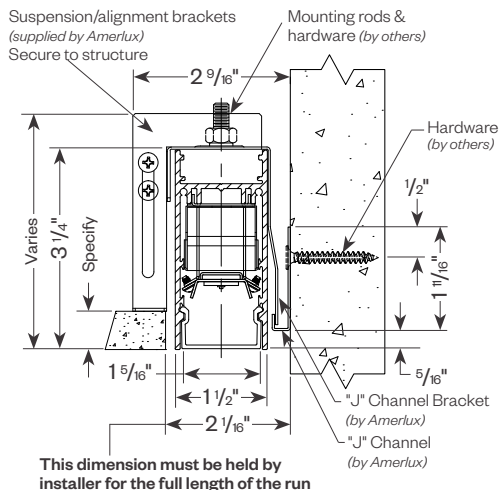
GRUV1.5-J/GRID (j-mold/grid mount)

Compatible (see pg 8)

STANDARD PLUS



GRUV1.5-J/IS (j-mold/independently suspended)



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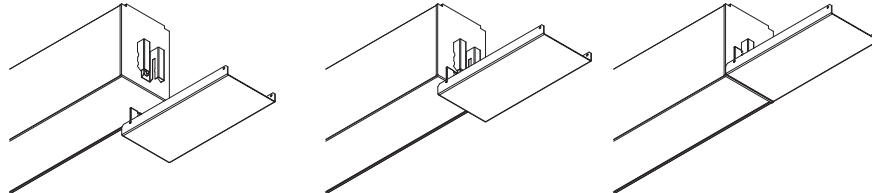
STANDARD PLUS

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. (max length: 6")

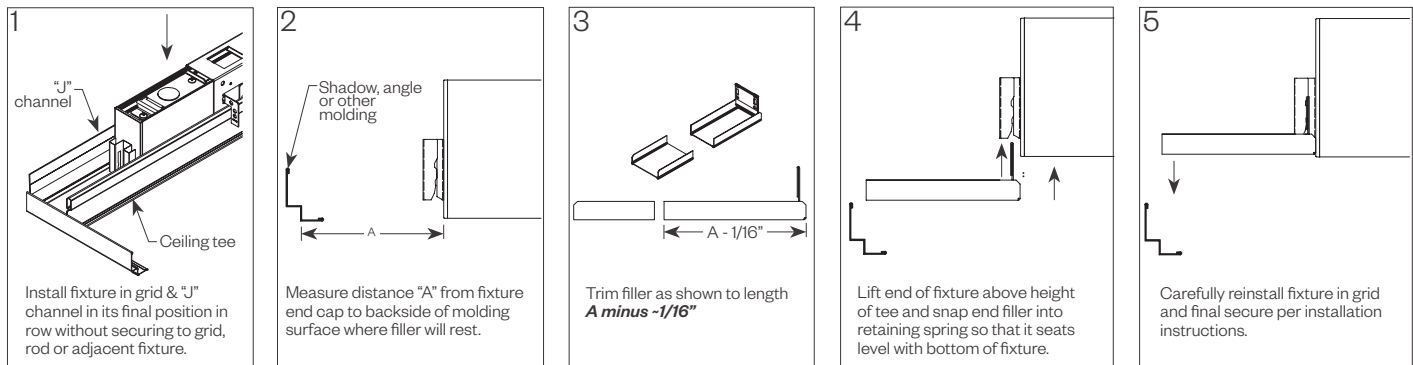


GRID VERSION



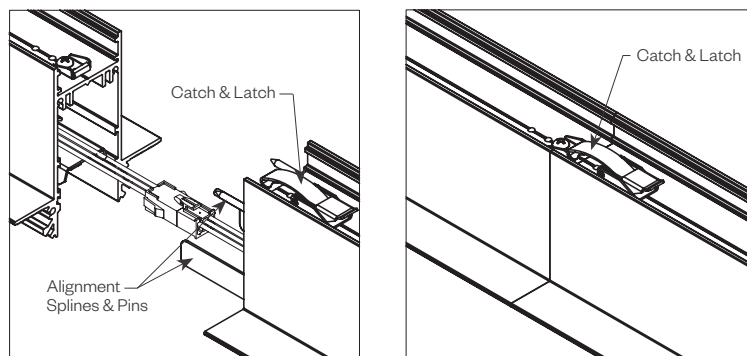
NOTE: Use with Gruv1.5-Grid and Gruv1.5-J/Grid

FILLER TRIM AND INSTALLATION (GRUV 1.5 GRID SHOWN HERE)



Toolless Joining

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



Optional Sensor/RF Node

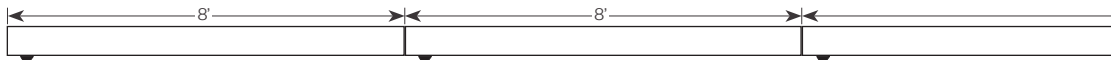
Amerlux® has partnered with control companies to create building environments that are safer, and smarter, than ever before. At the heart of our partnership is intelligent RF nodes and Smart Sensor, the most advanced digital wireless communication and sensors available today. Integrated into Amerlux products.

Minimum run length is 3' for wireless sensor and RF node.

INDIVIDUAL (MIN 3' LENGTH)



RUNS



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PROJECT:	TYPE:
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Performance Data

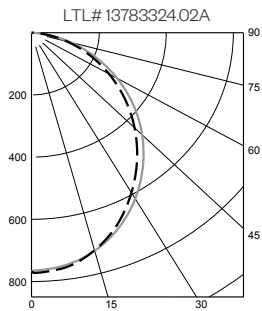
Multiplying Factors: (Multiplying Factor is based on 4000K-85 120V IES file on website)

Wattage:	3W	4W	5W	6W	7W	8W	9W	10W	11W	12W
Factor:	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.83	0.92	1.0

CCT:	3000K	4000K
Factor:	1.0	1.0

GRUV 1.5" ACTIVECLEAN PL 12W/FT AL40 4000K 4FT

Total Watts: 47.3
Total Lumens: 1,935
Source: 182 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	922	47.6
0-60	1564	80.8
0-90	1935	100.00
90-180	0	0.00

Total Luminaire Efficacy = 40.9 lm/W

COEFFICIENTS OF UTILIZATION

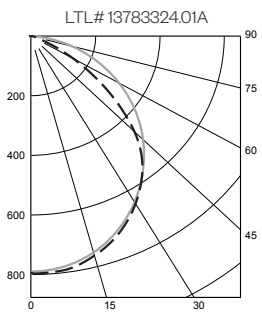
Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	109	105	100	97
2	100	91	85	79
3	91	81	73	66
4	83	72	63	56
5	77	64	55	49
6	71	58	49	43
7	66	53	44	38
8	62	48	40	34
9	58	44	36	31
10	54	41	33	28

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

GRÜV1.5-FR ACTIVECLEAN PL 12W/FT AL40 4000K 4FT

Total Watts: 48
Total Lumens: 1,882
Source: 182 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	981	52.1
0-60	1645	87.4
0-90	1882	100.0
90-180	0	0.0

Total Luminaire Efficiency = 39.1 lm/W

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	110	106	103	99
2	101	94	88	83
3	93	83	76	70
4	86	75	66	60
5	79	67	59	52
6	73	61	52	46
7	68	55	47	41
8	63	50	42	37
9	59	46	38	33
10	56	43	35	30

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

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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 ---

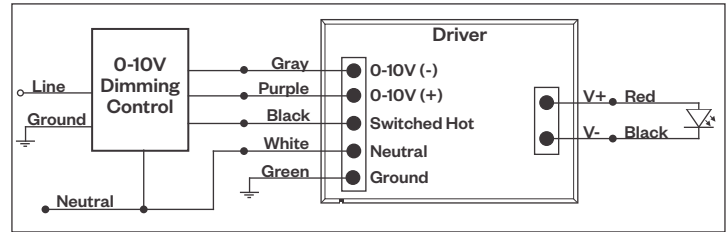
0-10V - DIMMING (Standard)

Integrates into a variety of building management and daylighting controls

Notes:

- 120V or 277V*
- Dims down to 1% light output
- Requires interface to turn off power to driver
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**

0-10V Wiring Diagram



Compatible Dimmers*:

Wall Box			Central System
Lutron:	Wattstopper:	Leviton:	Lutron Grafik Eye with GRX-TV1 Interface
Diva - DVSTV	ADF-120277	Renoir II	
Maestro - MS-Z101			
Nova-T - NTSTV-DV			

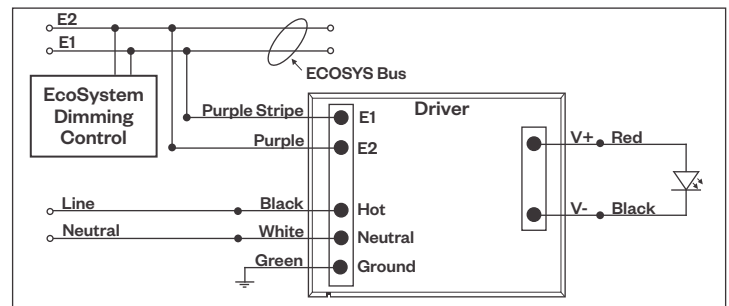
LUTRON LDE1 DIMMING

Integrates into Lutron EcoSystem building management

Notes:

- 120VAC or 277VAC*
- Dims down to 1% Soft-On/Fade-to-Black
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**

LDE1 (HILUME-H-ECO) EcoSystem Digital Control Wiring Diagram



Compatible Dimmers*:

Lutron ECO System	Central System
Pow Pak Dimming Modules	Lutron EcoSystem compatible controls
Energi Savr Node	
Grafik Eye QS/Homeworks	
QS Control Unit	
Quantum Hub	
Homeworks QS/My Room	

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.

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Dimming Compatibility *(continued)*

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.

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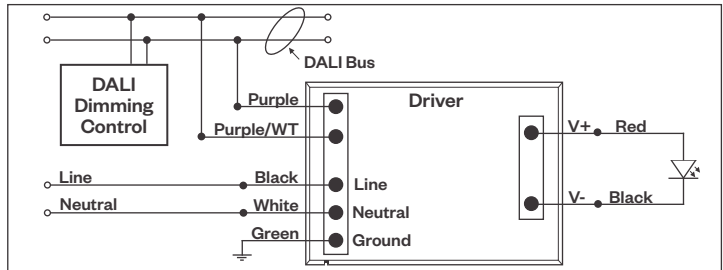
DALI - DALI DIMMING 120V-277V

Digital control protocol allows individual fixture control

Notes:

- 120VAC - 277VAC*
- Dims down to 1% light output in most cases

DALI Wiring Diagram



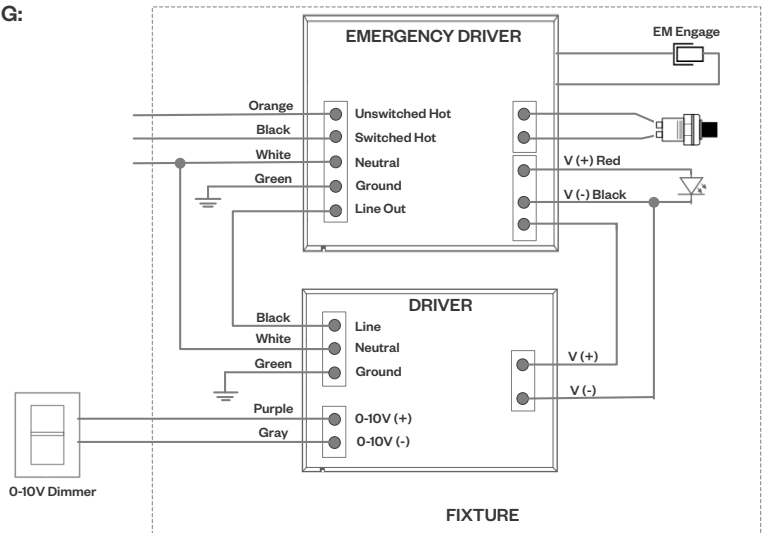
Compatible Dimmers*:

Wall Box	Central System
Leviton CD250 Controller	Dynalite
	Fifth Light

Emergency Fixture with Built-In Battery Pack

EMERGENCY FIXTURE WITH BUILT-IN BATTERY PACK (EMB) WIRING:

Note: EMB not available on lengths under 4'.



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.