

Linea® 1.5" ActiveCLEAN™

Linear Direct/Indirect with Vyv Antimicrobial Light

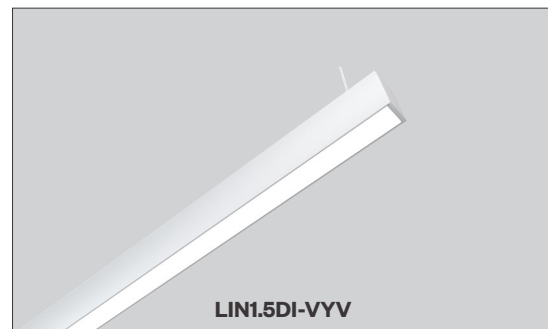


PROJECT:

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 *Gruv*) family of luminaries 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: Cable Suspended or Wall Mounted Linear, Direct /Indirect
Wattage: 3W-11W/ft (*Direct*); 3W-10W/ft (*Indirect*)
Color Temp: 3000K, 4000K
CRI: 85 typ. (*Direct*); 83 typ. (*Indirect*)
Dimming: 0-10V, 1% dimming (*standard*)
Lutron LDE1 Hi-lume® 1% Dim Soft-On/Fade-to-Black
DALI dimming, 1% dim
Fixture Weight: 9 lbs (*4ft fixture*)

Certifications



Fixture Summary

Performance Data

Direct				Indirect			
Wattage per Foot	Delivered Lumens	LPW	Color Temp-CRI	Wattage per Foot	Delivered Lumens	LPW	Color Temp-CRI
11	1809	42.3	4000K-85	10	4691	139.7	4000K-83

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

Electrical Data

Wattage per Foot	Voltage	4'		8'	
		System Watts	Amps	System Watts	Amps
11 (<i>Direct</i>)	120V	42.3	0.35	85.6	0.71
	277V	42.1	0.16	83.9	0.30
10 (<i>Direct</i>)	120V	34.6	0.29	72.1	0.61
	277V	34.6	0.13	70.6	0.27
7 (<i>Direct</i>)	120V	26.7	0.22	53.5	0.44
	277V	26.8	0.10	53	0.20
5 (<i>Indirect</i>)	120V	17.6	0.15	34.6	0.29
	277V	17.9	0.07	34.7	0.13

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

Runs

Individual Runs: 2' - 8' (*whole foot standard*).

Continuous Runs: Available (*whole foot standard*).

Custom: Made to measure lengths available (*nearest 1/8" of field dimensions*).

Requires approval drawings. Added cost & lead time.

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PROJECT:

TYPE:

Ordering Information

LIN1.5DI-VYV . PL / . / . AW . 120/277 .											
1	2	3	4	5	6	7	8	9	10	11	12
1 Model	2 Optics (select 1 from each list)	3 Mounting						4 Circuiting			
LIN1.5DI-VYV	<u>Direct</u> PL performance lens <u>Indirect</u> BAT batwing uplight (standard) UC upper clear lens cover	<u>Pendant Mount</u> (aircraft cable suspension) ASW04 through ceiling tile or gyp board, white, 4'* ASW10 through ceiling tile or gyp board, white, 10' ASW20 through ceiling tile or gyp board, white, 20' ASB04 through ceiling tile or gyp board, black, 4'* ASB10 through ceiling tile or gyp board, black, 10' ASB20 through ceiling tile or gyp board, black, 20' ASW04T over ceiling tee, white, 4'* ASW10T over ceiling tee, white, 10' ASW20T over ceiling tee, white, 20' ASB04T over ceiling tee, black, 4'* ASB10T over ceiling tee, black, 10' ASB20T over ceiling tee, black, 20' *4' (xxx04) is standard length, other lengths are additional charge						<u>Wall Mount</u> WM wall mount		1 single circuit 2 up/down switch separately	
5 Wattage (Direct/Indirect, per foot)		6 Color Temp (Direct/Indirect)				7 Finish		8 Voltage			
_____ / _____ (ex. 11/10 - 11W/ft down & 10W/ft up, Direct available in 3W-11W/ft/ Indirect available in 3W-10W/ft; 3W/ft & 4W/ft require 4' min. length)		<u>Direct-Single Mode</u> AL30 3000K-85CRI, white antimicrobial + light AL40 4000K-85CRI, white antimicrobial + light <u>Indirect</u> 30 3000K-83CRI 40 4000K-83CRI				AW ActiveCLEAN™ white		120/277			
9 Length	10 Configuration		11 Drivers								
_____	IND ¹ 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		OFF-0-10V 1% electronic dim to off, multi-volt, 120-277VAC, 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 Note: Review wiring diagrams on pages 7-8 for controls requirements								
12 Options/Accessories											
EMC-PF ² emergency circuit requires power feed located in last fixture section (for other locations consult factory) PF ² extra power feed for additional circuiting EMB emergency battery pack (not available for lengths under 6')											

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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PROJECT:

TYPE:

Specifications

Application

Commercial, Education and Healthcare 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. Die-cast End Plates match fixture body finish. Die-formed, cold-rolled steel internal components are protected against rust and corrosion.

Optical

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

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

Indirect: Extruded acrylic lens with a maximum length of 8'.

BAT - Batwing uplight lens spreads light directly above fixture. 18" minimum distance between ceiling plane and top of fixture suggested.

UC - Upper Clear lens cover.

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. Amerlux's boards (*indirect light only*) and patented connector design with brand name LEDs enables Amerlux fixtures to have excellent thermal management and offer a 5 year warranty. Our LED binning is within 3 MacAdam ellipse. Boards are configured for maximum flexibility resulting in even illumination no matter the fixture layout. LED boards are easily replaced in the field with just a Phillips screw driver. Due to differences in the indirect and direct LED manufacturers, some color differences may be noticeable when fixture is within 6" from the wall.

Color Temperature Options: 3000K & 4000K

Antimicrobial+Light mode (**AL**) provides continuous antimicrobial protection, combined with white light

	Direct	Indirect
CRI:	85 typical	83 typical
R9:	10 typical	16 typical
Binning:	4-step	3-step
Life:	36,000 hr.	50,000 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: Individual and "Beginning of Run" (**BOR**) fixtures are prewired with power cord. All configurations have quick connect power harnesses for row connections.

1 - single circuit

2- up/down switch separately

Wattage: 3W-11W/ft (*Direct*); 3W-10W/ft (*Indirect*); (Note: 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 damage is not covered under warranty.

ENLS - Enlighted Sensor (0-10V driver only, not available in 2' & 3' lengths, and can only be used on one circuit)

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.

Finish

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

Configurations/Lengths

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

CON - Continuous runs are longer than 8', specified to the nearest whole foot. Continuous runs less than 16' are made of 2 lengths. Continuous runs longer than 16' start with a 8' Beginning of Row (**BoR**) wired with a power feed and fitted with an End Cap. The majority of the runs are made up of 8' Middle of Run (**MoR**) lengths. End of Run (**EoR**) units are made up of 2' to 8' units to the nearest whole foot or a combination of a last 4' MoR and a 5', 6' or 7' EoR. Runs longer than 60' may require a second power feed. Factory installed pins and splines simplify fixture alignment. Lengths are quickly joined with "catch and latch" mechanisms or screws and sturdy brackets. Quick connectors simplify field wiring.

CUS - Custom made to measure runs are made to nearest 1/8" of customer supplied field measurements. They can be a single custom length or runs configured as described above only EoR's are 2' to 8' out to the nearest 1/8" exact length or a combination of a last 4' MoR with an EoR cut to exact length to the nearest 1/8".

Mounting

The Linea 1.5 Direct/Indirect is intended to be pendant or wall mounted in continuous rows. For indirect lighting Amerlux suggests 18" min from top of fixture to ceiling.

LIN1.5DI-VYV....ASW10 - Direct/Indirect installed in center of ceiling tile or gypsum board ceiling, (*standard*) i.e. ASW10. Or if canopy is installed on a grid Tee runner add, **T** i.e. ASW10T.

Cable Suspension: Cable is stranded stainless steel wire supplied with cable gripper and 5"x.250" steel die formed canopy. All components are protected against rust and corrosion. Power feeds are 16 gauge 3 or 5 conductor SJT cord supplies in same color as canopy. Amerlux supplies the required feed and non-feed suspension kits based upon length, electrical options and customer requirements. Suspension kit options include: color, length and mounting condition.

Please note: 1 Circuit is standard, the direct & indirect are on the same circuit.

2 Circuits, direct & indirect switched separately with power feeds at both ends.

LIN1.5DI-VYV....WM - Wall Mounted using steel cleat bracket attached to fixture housing and wall bracket with set screws. Two bracket assemblies are used for each length under 8'. A third center bracket may be recommended. J box required at feed locations.

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 6ft section on 8ft unit.

Certifications

Approved to UL standards for damp locations as tested by CSA
Intended for indoor use only

Warranty

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

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Linear Direct/Indirect with Vuv Antimicrobial Light

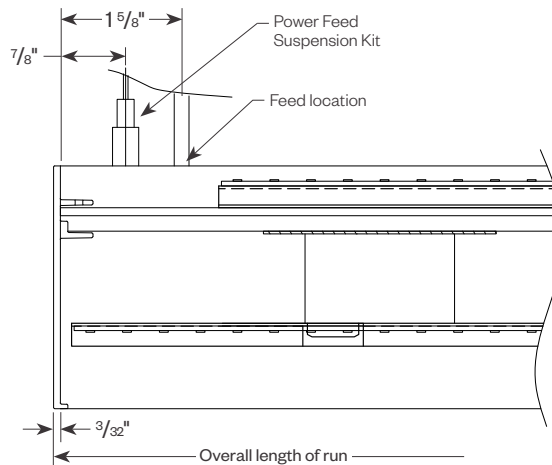
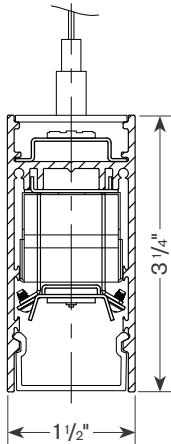


PROJECT:

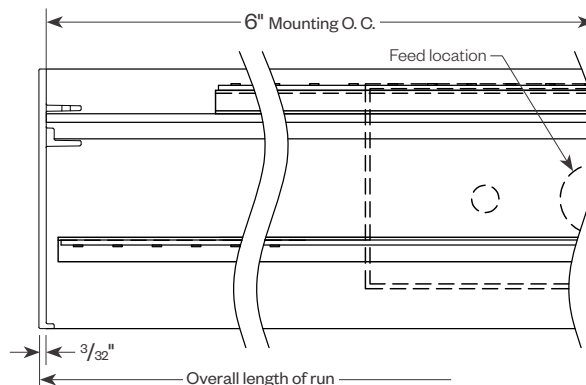
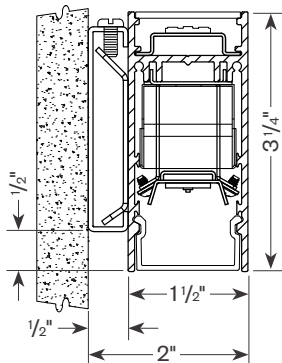
TYPE:

Product Details

Pendant



Wall Mount

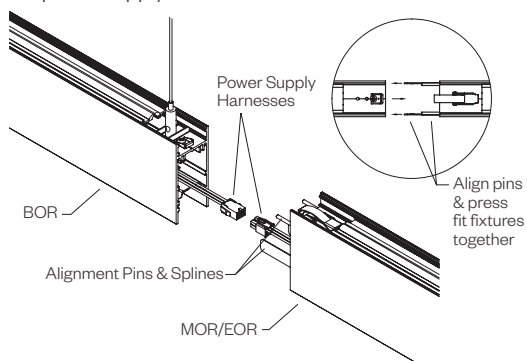


Tool-less Joining

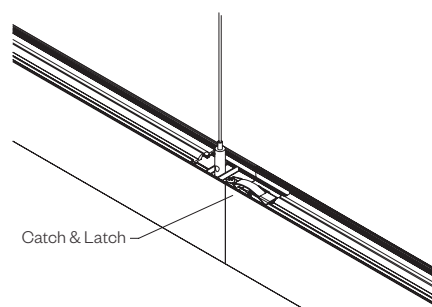
Line up the two housings by using the alignment pins & splines. Secure them together by using the Catch & Latch System on the top of or inside the extrusion.

Connect Power

Connect power to previous tray via power supply harness.



Secure Fixtures/Join



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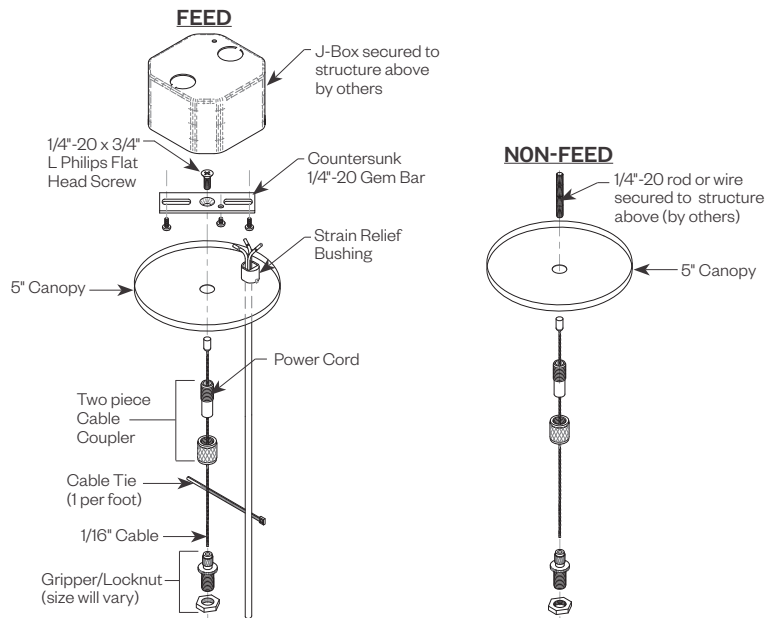
Linear Direct/Indirect with Vuv Antimicrobial Light



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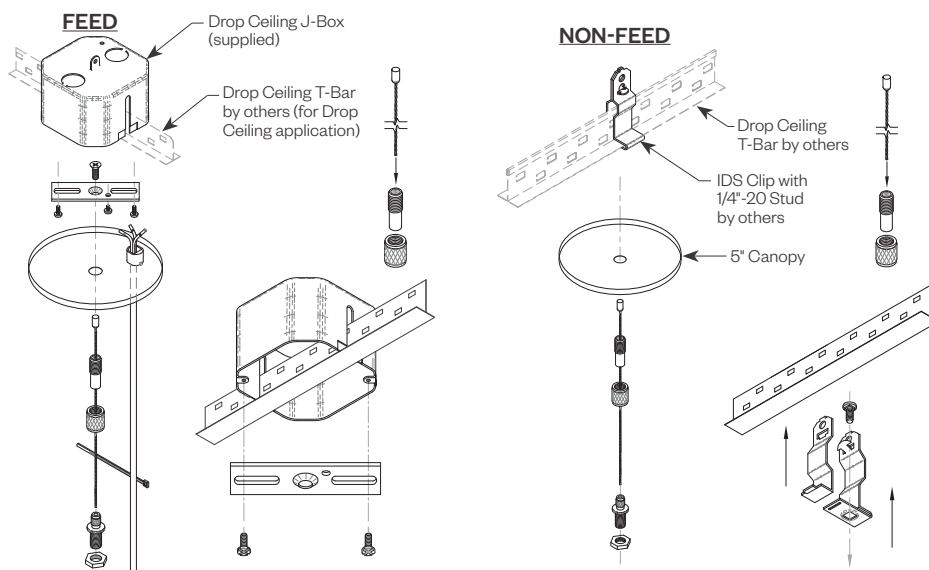
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Cable Kit Suspension - Ceiling or Gypsum Board (ASW10, ASW20, ASB10, ASB20)



Cat#	Length	Cord/Canopy	Application
ASW10	10'	white/white	ceiling tile/gypsum
ASW20	20'	white/white	ceiling tile/gypsum
ASB10	10'	black/black	ceiling tile/gypsum
ASB20	20'	black/black	ceiling tile/gypsum
ASW10T	10'	white/white	ceiling tee
ASW20T	20'	white/white	ceiling tee
ASB10T	10'	black/black	ceiling tee
ASB20T	20'	black/black	ceiling tee

Tee Grid or Screw Slot (ASW10T, ASW20T, ASB10T, ASB20T)



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PROJECT:

TYPE:

Performance Data

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

Linea 1.5" Direct ActiveClean									
Wattage:	3W	4W	5W	6W	7W	8W	9W	10W	11W
Factor:	0.27	0.36	0.45	0.55	0.64	0.73	0.82	0.91	1.0

CCT:	3000K	4000K
Factor:	1.0	1.0

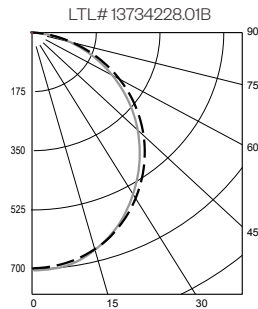
Linea 1.5" Indirect									
Wattage:	3W	4W	5W	6W	7W	8W	9W	10W	
Factor:	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.0	

CCT:	3000K	4000K
Factor:	0.86	1.0

LINEA 1.5" DIRECT ACTIVECLEAN PL 11W/FT AL40 4000K 4FT

Total Watts: 42.7; Total Lumens: 1,809

Source: 182 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	851	47.0
0-60	1455	80.4
0-90	1809	100.00
90-180	0	0.00

Efficacy = 42.3 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

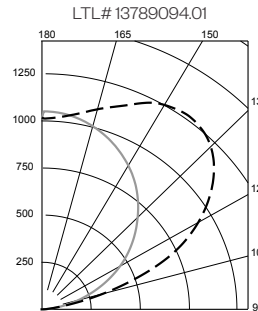
RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	109	104	100	96
2	99	91	85	79
3	91	80	72	66
4	83	71	63	56
5	77	64	55	49
6	71	58	49	43
7	66	52	44	38
8	61	48	39	34
9	57	44	36	30
10	54	41	33	28

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

LINEA 1.5" INDIRECT BAT 10W/FT 40 4000K 4FT

Total Watts: 33.6; Total Lumens: 3,999

Source: 88 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	0	0.0
0-60	0	0.0
0-90	0	0.0
90-180	3999	100.0

Efficacy = 118.9 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

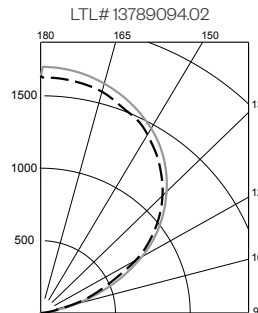
RC	80			
RW	70	50	30	10
RCR				
0	95	95	95	95
1	87	83	79	76
2	79	72	66	62
3	72	63	57	51
4	65	56	48	43
5	60	49	42	36
6	55	44	36	31
7	50	39	32	27
8	47	35	28	23
9	43	32	25	20
10	40	29	22	18

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

LINEA 1.5" INDIRECT UC 10W/FT 40 4000K 4FT

Total Watts: 33.6; Total Lumens: 4,691

Source: 88 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	0	0.0
0-60	0	0.0
0-90	0	0.0
90-180	4691	100.0

Efficacy = 139.7 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	95	95	95	95
1	87	83	79	76
2	79	72	66	62
3	72	63	57	51
4	65	56	48	43
5	60	49	42	36
6	55	44	36	31
7	50	39	32	27
8	47	35	28	23
9	43	32	25	20
10	40	29	22	18

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

Linea® 1.5" ActiveCLEAN™

Linear Direct/Indirect with Vyy Antimicrobial Light



PROJECT:

TYPE:

Static White - Dimming Compatibility

Amerlux® Linea® 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 ---

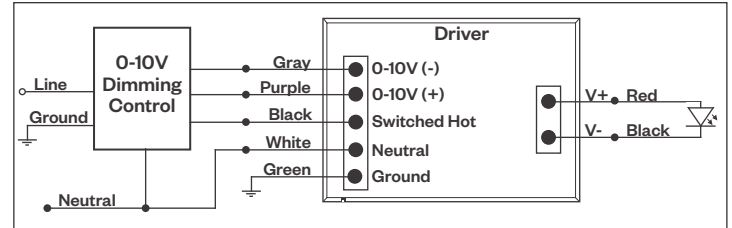
0-10V - DIMMING (Standard)

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 Grafikx Eye with GRX-TV1 Interface
Diva - DVSTV	ADF-120277	Renoir II	
Maestro - MS-Z101			
Nova-T - NTSTV-DV			

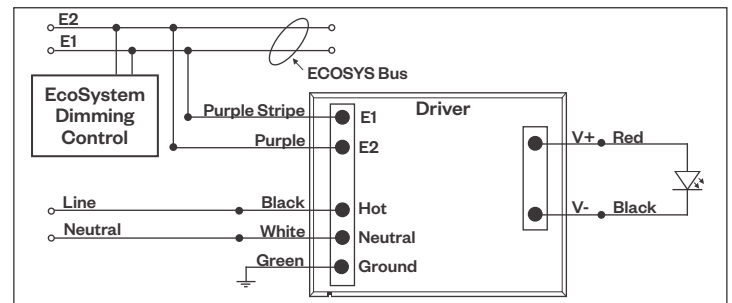
LUTRON LDE1 DIMMING

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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Linear Direct/Indirect with Vyv Antimicrobial Light



PROJECT:

TYPE:

Static White - Dimming Compatibility (continued)

Amerlux® Linea® 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

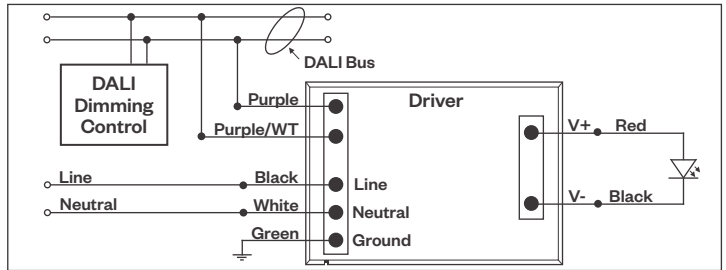
Notes:

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

Compatible Dimmers*:

Wall Box	Central System
Leviton CD250 Controller	Dynalite
	Fifth Light

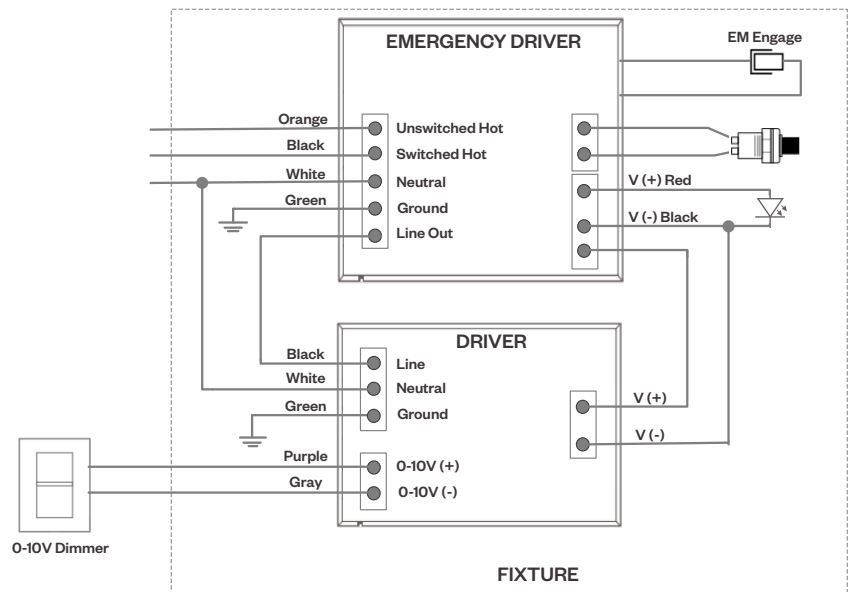
DALI Wiring Diagram



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.