Linea® 1.5"
*Active*CLEAN™

Linear Direct/Indirect LED with Vyv antimicrobial light

amerlux
A Delta Group Company

Features

***Active*CLEAN'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:	Direct/Indirect Lens Down/Batwing, Clear lens up
Wattage:	3W-11W/ft (Direct); 3W-10W/ft (Indirect)
Lumen Output:	See Performance Chart below
Color Temp:	3000K,4000K
CRI:	85 typ. (Direct); 83 typ. (Indirect)
Dimming:	0-10V, 1% dim to off (standard) Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black DALI dimming, 1% dim
Fixture Weight:	9 lbs (4ft fixture)

PROJECT:

TYPE:

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

Performance Chart

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

Data is based on 4' IES files available on website

Runs
Individual Runs: 2' - 8' *(whole foot standard)*
Continuous Runs: Available *(whole foot standard)*
Custom: Made to measure available (nearest 1/8" of field dimensions).
    Requires approval drawings. Added cost & lead time.

Electrical Data

		4'		8'	
Wattage Per Foot		**System Watts**	**Amps**	**System Watts**	**Amps**
11 (Direct)	120V	42.3	0.35	85.6	0.71
	277V	42.1	0.16	83.9	0.3
10 (Indirect)	120V	34.6	0.29	72.1	0.61
	277V	34.6	0.13	70.6	0.27
7 (Direct)	120V	26.7	0.22	53.5	0.44
	277V	26.8	0.1	53	0.2
5 (Indirect)	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.
For Total Fixture load, add direct & indirect.

CSA c us

3 year limited warranty
A M E R L U X   L E D

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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**
LIN1.5DI-VYV

2   **Optics** (select 1 from each list)
Direct:
PL - performance lens
Indirect:
BAT - batwing uplight (standard)
UC - upper clear lens cover

3   **Mounting**
ASW10 - through ceiling tile or gyp board, white, 10'
ASW20 - through ceiling tile or gyp board, white, 20'
ASB10 - through ceiling tile or gyp board, black, 10'
ASB20 - through ceiling tile or gyp board, black, 20'
ASW10T - over ceiling tee, white, 10'
ASW20T - over ceiling tee, white, 20'
ASB10T - over ceiling tee, black, 10'
ASB20T - over ceiling tee, black, 20'
WM - wall mount

4   **Circuiting**
1 - single circuit
2- up/down switch separately

5   **Wattage** (Direct/Indirect, per foot)
____ / ____ - (ex. 11/10 - 11W/ft down & 10W/ft up)
Direct available in 3W/ft-11W/ft. / **Indirect** available 3-10W/ft)
3 & 4W/ft require 4' min. length

6   **Color Temp** (Direct/Indirect)
Direct - Single Mode
AL30 - 3000K-85CRI, white antimicrobial+light
AL40 - 4000K-85CRI, white antimicrobial+light
Indirect
30 - 3000K-83CRI
40 - 4000K-80CRI

7   **Finish**
AW - *Active*CLEAN™ white

8   **Voltage**
120/277

9   **Length**
_____

10   **Configuration**
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

11   **Drivers**
OFF-0-10V - 1% electronic dimming , multi-volt (120-277VAC) constant current driver (standard).
HILUME-H-ECO - Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black
DALI - DALI Dimming 120-277VAC, 1% dim
Note: Review wiring diagrams on pages 8-11 for controls requirements

12   **Options/Accessories**
ENLS - Enlighted Sensor (0-10V driver only and not available on 2' & 3' lengths, can only be used on one circuit)
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.

Linea® 1.5" *Active*CLEAN™

Linear Direct/Indirect LED with Vyv antimicrobial light

PROJECT: **TYPE:**

Specifications

Application
Commercial, Education and Healthcare ambient lighting that can be customized with made to measure lengths.
*Active*CLEAN™ 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 acylic 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 mildrew 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 might 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 (46.5FC) 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 - *Active*CLEAN™ 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' cut 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 (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.
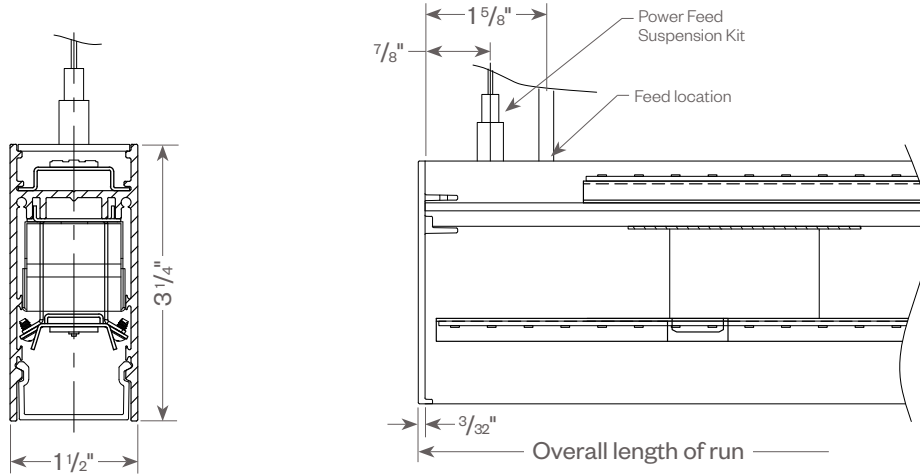
Linea® 1.5" *Active*CLEAN™

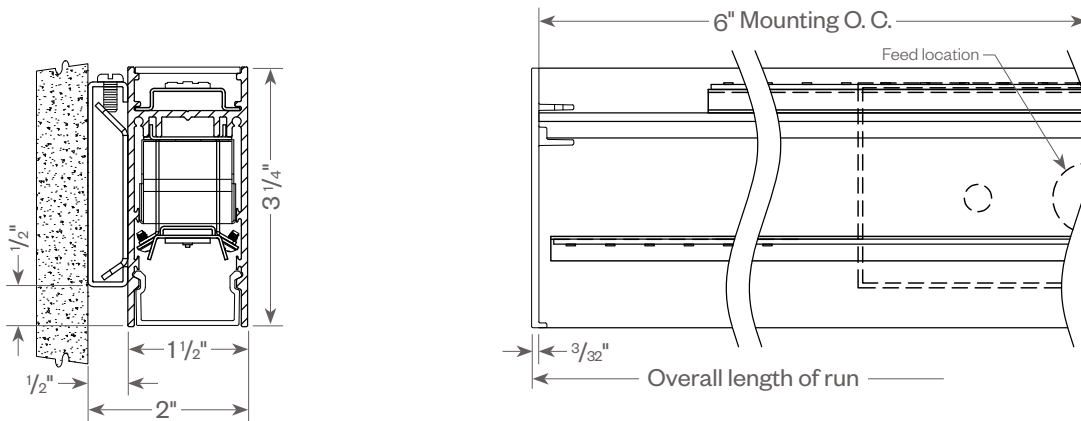Linear Direct/Indirect LED with Vyv antimicrobial light

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A Delta Group Company

PROJECT: **TYPE:**

LINEA 1.5" DIRECT/INDIRECT

1 5/8"
7/8"
Power Feed Suspension Kit
Feed location
3 1/4"
1 1/2"
3/32"
Overall length of run

LINEA 1.5" DIRECT/INDIRECT WALL MOUNT

3 1/4"
1/2"
1 1/2"
1/2"
2"

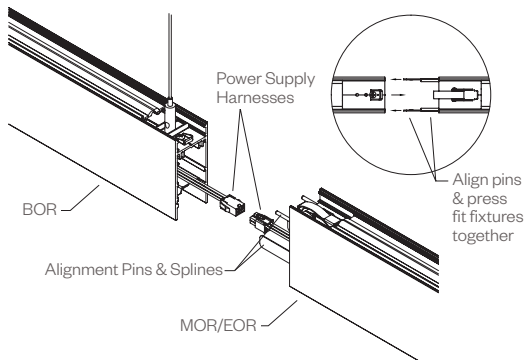6" Mounting O. C.
Feed location
3/32"
Overall length of run
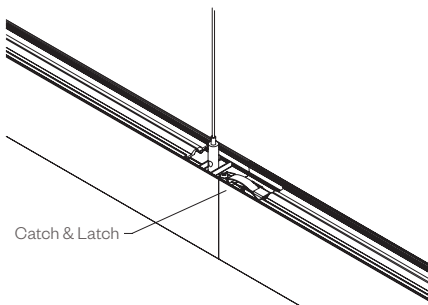
TOOLLESS JOINING

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

Connect Power

Connect power to previous tray via power supply harness.

Secure Fixtures/Joint

Power Supply Harnesses
BOR
Alignment Pins & Splines
MOR/EOR
Align pins & press fit fixtures together
Catch & Latch

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PROJECT: **TYPE:**

CABLE KIT SUSPENSION OPTIONS:

CEILING OR GYPSUM BOARD (ASW10, ASW20, ASB10, ASB20)
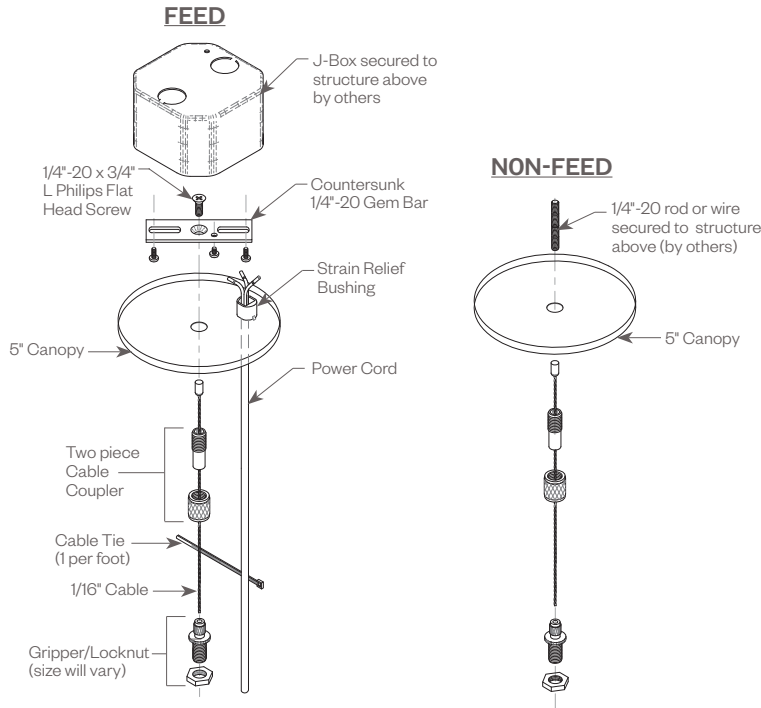
Cat#	Length	Cord/Canopy	Application
ASW10	10'	white/white	ceiling tile/gypsum
ASW20	20'	white/white	ceiling tile/gypsum
ASB10	10'	black/black	ceiling tile/gypsum
ASB20	20'	black/black	ceiling tile/gypsum
ASW10T	10'	white/white	ceiling tee
ASW20T	20'	white/white	ceiling tee
ASB10T	10'	black/black	ceiling tee
ASB20T	20'	black/black	ceiling tee

FEED

J-Box secured to structure above by others

1/4"-20 x 3/4" L Philips Flat Head Screw

Countersunk 1/4"-20 Gem Bar

Strain Relief Bushing

5" Canopy

Power Cord

Two piece Cable Coupler

Cable Tie (1 per foot)

1/16" Cable

Gripper/Locknut (size will vary)

NON-FEED

1/4"-20 rod or wire secured to structure above (by others)

5" Canopy

TEE GRID OR SCREW SLOT (ASW10T, ASW20T, ASB10T, ASB20T)
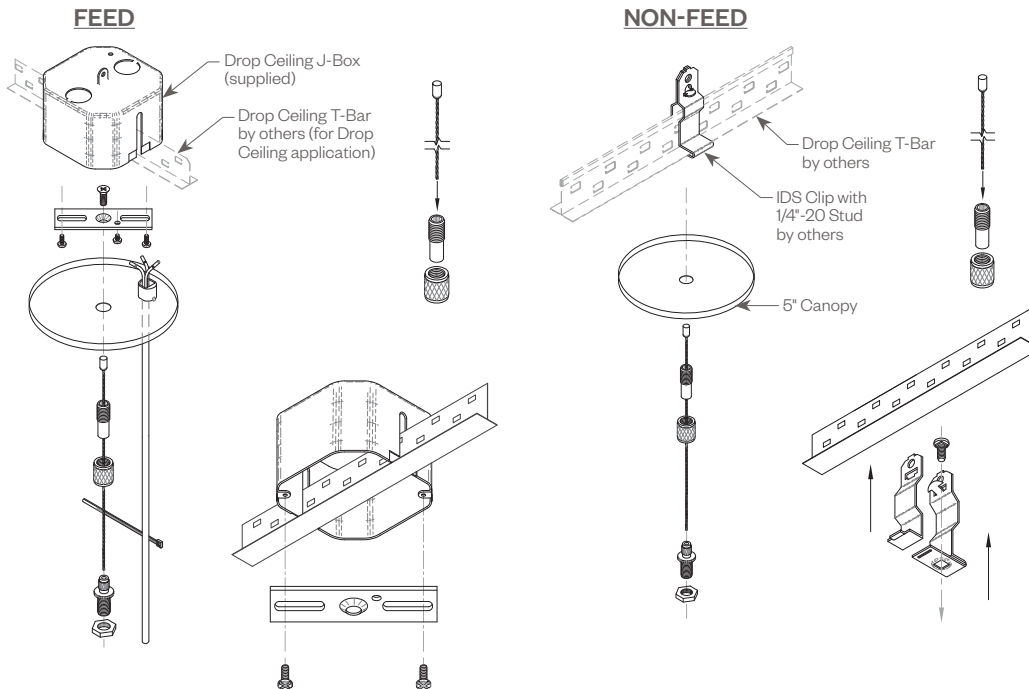
FEED

Drop Ceiling J-Box (supplied)

Drop Ceiling T-Bar by others (for Drop Ceiling application)

NON-FEED

Drop Ceiling T-Bar by others

IDS Clip with 1/4"-20 Stud by others

5" Canopy

Amerlux reserves the right to change details that do not affect overall function and performance.
Amerlux®, LLC • 178 Bauer Drive, Oakland, NJ 07436 • P: 973-882-5010 F: 973-882-2605 • amerlux.com

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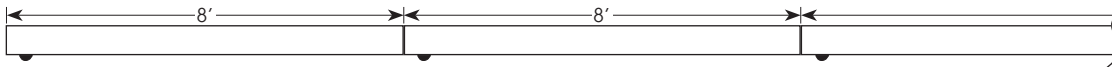**PROJECT:**   **TYPE:**

OPTIONAL ENLIGHTED 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

Optional Enlighted Sensor

RUNS

8′   8′

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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)

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

DIRECT

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

INDIRECT

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
LTL# 13734228.01B
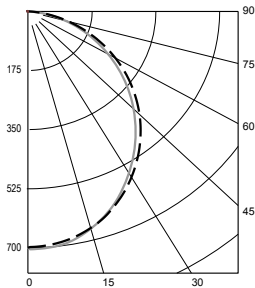
ZONAL LUMEN SUMMARY

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%

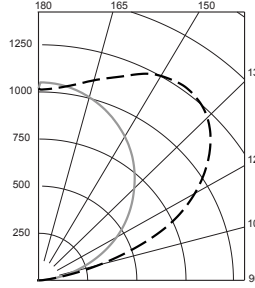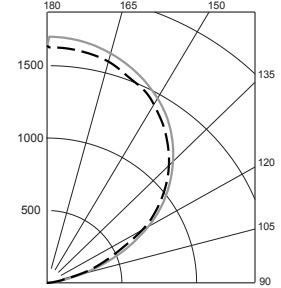| RC		80		
RW	70	50	30	10
RCR				
0	119	119	119	119
1	109	104	100	96
2	99	91	85	79
3	91	80	72	66
4	83	71	63	56
5	77	64	55	49
6	71	58	49	43
7	66	52	44	38
8	61	48	39	34
9	57	44	36	30
10	54	41	33	28

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
LTL# 13789094.01

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
LTL# 13789094.02

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.

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PROJECT: **TYPE:**

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 ---
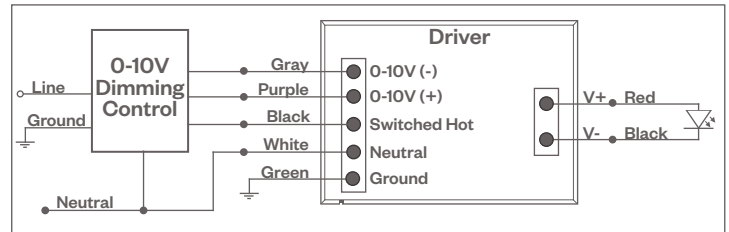
0-10V - DIMMING (Standard)

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!

Compatible Dimmers†:

Wall Box

Lutron: Diva - DVSTV Maestro - MS-Z101 Nova-T - NTSTV-DV	Wattstopper: ADF-120277	Leviton: Renoir II

0-10V Wiring Diagram

Center System

Lutron Grafixk Eye with GRX-TV1 Interface

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!
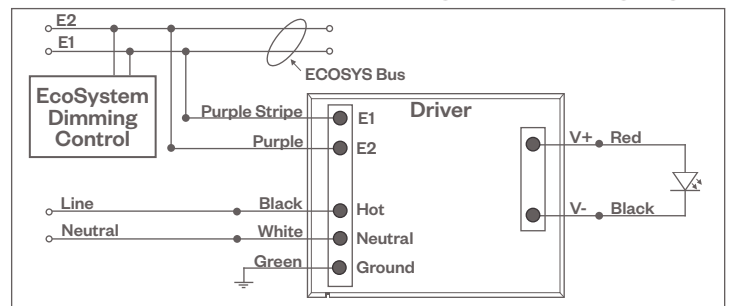
Compatible Dimmers†:

Lutron ECO System

Pow Pak Dimming Modules
Energi Savr Node
Grafik Eye QS/Homeworks
QS Control Unit
Quantum Hub
Homeworks QS/My Room

Central System

Lutron EcoSystem compatible controls

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

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†:

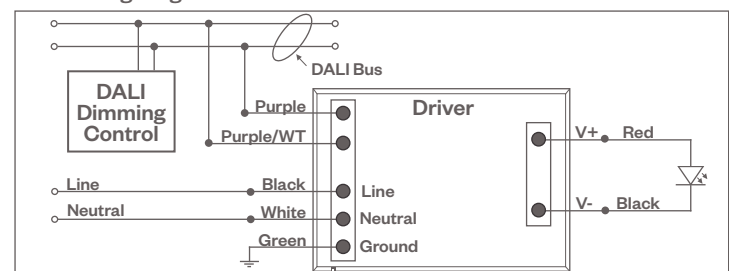**Wall Box**

Leviton CD250 Controller

Center System

Dynalite
Fifth Light

DALI Wiring Diagram

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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PROJECT: **TYPE:**

Emergency Fixture with Built-in Battery Pack (EMB) Wiring:
Note: EMB not available on lengths under 4'.