Linear Direct LED with Vyv antimicrobial light





### **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: Cable Suspended, Wall or Surface Direct

Wattage: 3W-11W/ft

Lumen Output: 1809 lm, 42.3 lm/W (11W, 4' fixture, 4000K)

Color Temp: 3000K, 4000K

**CRI:** 85 typ.

Dimming: 0-10V, 1% dim to off (standard)

Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black

DALI dimming, 1% dim

# **PROJECT:**

# TYPE:

# Fixture Summary (see following pages for more information)

#### **Performance Chart**

Wattage Per Foot	Delivered Lumens	LPW	Color Temp
11	1809	42.3	4000K

Data is based on 4', 4000K 85CRI 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	120V	42.3	0.35	85.6	0.71	
(Direct)	277V	42.1	0.16	83.9	0.3	
7	120V	26.7	0.22	53.5	0.44	
(Direct)	277V	26.8	O.1	53	0.2	

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









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PROJECT: TYPE:

### **Ordering Information**

- 1 Model LIN1.5D-VYV
- 2 Optics PL - performance lens
- 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

SM - surface mount

- Wattage (per foot)
  \_\_\_\_\_ (ex. 11 11W/ft, available in 3W/ft-11W/ft. 3 & 4W/ft require 4' min. length)
- 5 Color Temp Single Mode

AL30 - 3000K-80CRI, white antimicrobial+light AL40 - 4000K-80CRI, white antimicrobial+light

- 6 Finish
  AW Active CLEAN™ white
- 7 <u>Voltage</u> 120/277
- 8 <u>Length</u>

Configuration

IND1 - 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

10 Drivers

**OFF-0-10V** - 1% electronic dim to off, 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

Options/Accessories

**ENLS** - Enlighted Sensor (0-10V driver only and not available on 2' & 3' lengths)

**EMC-PF<sup>2</sup>** - emergency circuit requires power feed located in last fixture section (for other locations consult factory)

PF<sup>2</sup> - Extra power feed for additional circuiting

EMB - emergency battery pack (not available for lengths under 4')

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

<sup>2 -</sup> 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.

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

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.

#### 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

# $\textbf{Color Temperature Options:}\,3000\text{K}\,\&\,4000\text{K}$

**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 (46.5FC) 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.

 ${\bf Standard\ Wattage: 3W/ft-11W/ft.\ (3W\&4W\ have\ a\ minimum\ length\ of\ 4').\ For\ other\ wattages\ consult\ factory.}$ 

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 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.

#### Finish

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

#### Configurations/Lengths

 $\mbox{\bf IND}$  - 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.

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

**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 is intended to be pendant, surface or wall mounted, in continuous rows.

 $\label{limited} \textbf{LIN1.5D-VYV...ASW10} - \text{Direct pendant installed in center of ceiling tile or gypsum board ceiling, (standard) i.e. ASW10. Or if canopy is installed on a grid Tee runner add, <math>\textbf{T}$  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.

**LIN1.5D-VYV....WM** - Direct 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.

**LIN1.5D-VYV....SM** - Direct Surface Mounted - Housing needs to be attached to solid structure above. Mounting holes are pre-drilled at factory. Some fi xture disassembly and reassembly required. Mounting hardware by others.

### Options

EMB - Emergency battery pack - 10W output power, 90 min of illumination time, up to 1300 Im 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

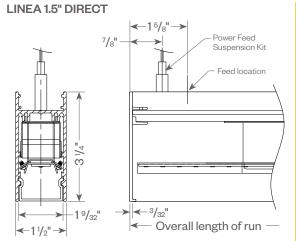
#### Warranty

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

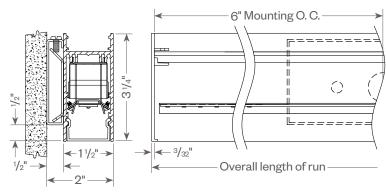
Linear Direct LED with Vyv antimicrobial light



PROJECT: TYPE:

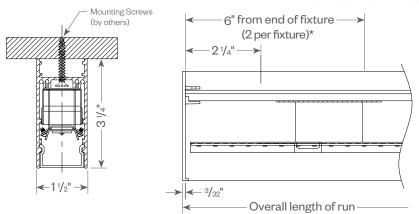


# **LINEA 1.5" DIRECT WALL MOUNT**



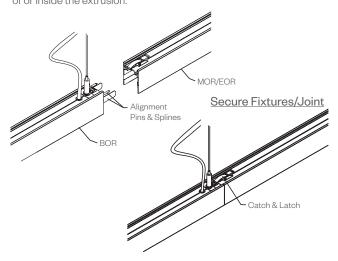
# LINEA 1.5" DIRECT SURFACE MOUNT

\* 5" from end of fixture for 2' housing



# **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 of or inside the extrusion.



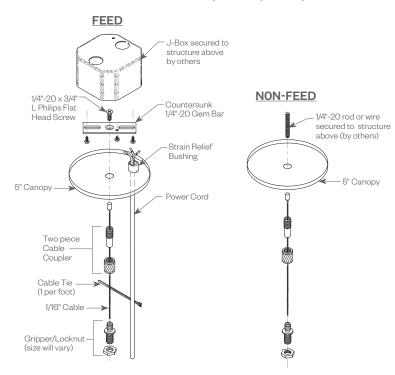
Linear Direct LED with Vyv antimicrobial light



PROJECT: TYPE:

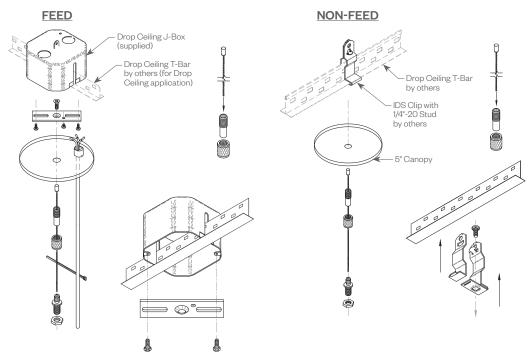
# **CABLE KIT SUSPENSION OPTIONS:**

# 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

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



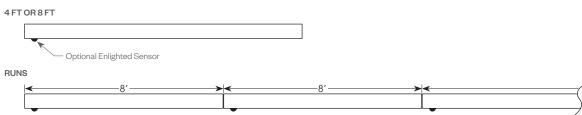
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PROJECT: TYPE:

# 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.



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PROJECT:

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

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

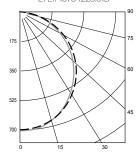
Wattage:	3W	4W	5W	6W	7W	8W	9W	10W	11W
Factor:	0.27	0.36	0.45	0.55	0.64	0.73	0.82	0.91	1.0

CCT:	3000K	4000K
Factor:	1.0	1.0

#### LINEA 1.5" 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		8	30	
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

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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

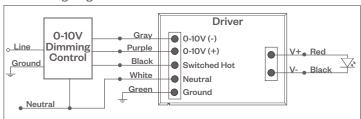
#### Notes:

- 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<sup>†</sup>:

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

#### 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<sup>†</sup>:

# Lutron ECO System

Pow Pak Dimming Modules Energi Savr Node

Grafik Eye QS/Homeworks

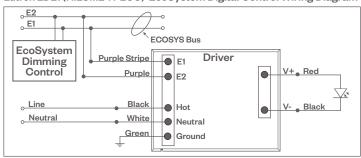
QS Control Unit

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

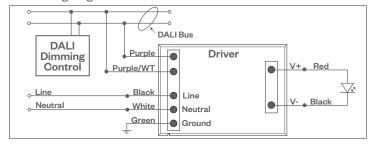
# Compatible Dimmers†:

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'.

