A Delta Group Company

Linea[®] 1.5" Linear Indirect LED



Features

Linea drives your design scenario, seamlessly. Streamlined and flexible, these architectural LED pendants provide the freedom to create truly dynamic spaces. A synthesis of aesthetics, performance and energy efficiency, the Linea family delivers on its promises. Our tiny new Linea 1.5" pendant proves when it comes to lighting, less really is more. Linea. The power of disciplined design.

Product Overview

Type: Cable Suspended or Wall Mounted Indirect
Wattage: 5W/ft, 10W/ft (other wattages availavle see p2)

Color Temp: 2700K, 3000K, 3500K, 4000K; Tunable White (2700K-5700K)

CRI: 83 or 90+ typ. (2700K, 3000K, 3500K, 4000K)

90+ (Tunable White)

Dimming (wired): Static White Tunable White

0-10V, 1% dimming (standard) 0-10V TW, 1% dimming Lutron LDE1 Hi-lume® 1% DALI DT8, 1% digital dimming

Soft-On/Fade-to-Black DALI dimming, 1% dim

Dimming (wireless): Enlighted Sensor Enlighted Sensor TW

Lutron Athena (integral Lutron Athena TW (integral wireless RF node) wireless RF node)

*International version available, see website for spec sheet.

PROJECT:

TYPE:

Fixture Summary (see following pages for more information)

Performance Chart (4' Fixture)

Nominal	Delivered		Color		
Wattage/Foot	Lumens	LPW	Temp-CRI		
5	2095	123.8	3500K-83		
10	3948	116.9	3500K-83		

Data is based on 3500K-83 IES files available on website Data is based on 4' fixture with Batwing uplight lens

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
5	120V	16.9	0.14	33.8	0.28
	277V	16.9	0.06	33.8	0.12
10	120V	33.8	0.28	67.6	0.56
	277V	33.8	0.12	67.6	0.24

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

Standard Patterns

""	""	"Ш"	"	""	Wall to Ceiling	Custom*
Yes	Yes	Yes	Yes	Yes	No	Yes

^{*} Submit drawing, consult factory











Linear Indirect LED



PROJECT: TYPE:

Ordering Information

1 2 3 4 5 6 7 8 9 10 11

1 Model LIN1.5I-A16[†]

2 Optics

BAT - batwing uplight (standard) **UC** - upper clear lens cover

3 Mounting

Pendant Mount (aircraft cable suspension)

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'

Wall Mount
WM - wall mount

Wattage (per foot)

Standard: Optional:

5 - 5W/ft3 - 3W/ft (4' minimum length required)10 - 10W/ft4 - 4W/ft (4' minimum length required)

6 - 6W/ft 7 - 7W/ft 8 - 8W/ft 9 - 9W/ft

5 Color Temp-CRI

 Static White:
 Tunable White:

 27 - 2700K-83
 279 - 2700K-90+
 TW9-2757 - tunable

 30 - 3000K-83
 309 - 3000K-90+
 white, 90 CRI

 35 - 3500K-83
 359 - 3500K-90+
 (2700K-5700K)

 40 - 4000K-83
 409 - 4000K-90+

6 Finish

HW - high reflectance matte white

BT - black texture **ST** - silver texture

For other RAL color, consult factory

7 Voltage 120/277

8 Length

×	()	K
(Length A)	(Length B)	Length C)
Length A (used for)	Length B (used for)	Length C (used for)
- all patterns	- all patterns	- PU
- IND/IND-S+	- PR - 2 lengths	- PZ
- CON/CON-S+	of 2	
- CUS		

Configuration

IND1 - individual fixture, 2' to 8' in 1' increments

 ${f CON}$ - continuous run > than 8', specify to nearest foot

CUS - custom made to measure, +/- 1/8" of customer supplied field dimensions

Standard Patterns (see page 6 for details):

PLL - L left, (2) straights + (1) 90° corner, leg right PLR - L right, (2) straights + (1) 90° corner, leg left

PU - U shape, (3) straight lengths + (2) 90° corners

PR - Rectangle, (4) straight lengths + (4) 90° corners **PZ** - Z shape, (3) straight lengths + (2) 90° corners

For custom patterns, submit EDR on amerlux.com

10 Drivers/Controls

Wired - Static White:

0-10V - 1% analogue dimming, 120-277VAC, Dim to off when selected with wireless dimming control

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

DALI - DALI Dimming 120-277VAC, 1% dim

Wired - Tunable White:

Wireless - Static White:

O-10V TW - 1% dimming , multi-volt (120V-277V) constant current DALI DT8 - 1% digital dimming, CCT control per DALI DT8, (120V-277V)

constant current

ENLS-SR - Enlighted sensor, energy metering ENLS-010 - Enlighted sensor with controller unit

AWNR-WH-SR - Lutron Athena wireless node, RF only, white, D4i/DALI-2 AWNR-BL-SR - Lutron Athena wireless node, RF only, black, D4i/DALI-2 AWNR-WH-010 - Lutron Athena wireless node, RF only, white, O-10V

AWNR-BL-010 - Lutron Athena wireless node, RF only, black, 0-10V

AWNS-OCC-WH-SR - Lutron Athena wireless node, Occupancy & Daylight sensor, white, D4i/DALI-2

AWNS-OCC-BL-SR - Lutron Athena wireless node, Occupancy & Daylight sensor, black, D4i/DALI-2

Wireless - Tunable White:

ENLS-SR-TW - Enlighted sensor, energy metering

AWNR-WH-SR-TW - Lutron Athena wireless node, RF only, white, D4i/DALI-2
AWNR-BL-SR-TW - Lutron Athena wireless node, RF only, black, D4i/DALI-2

AWNS-OCC-WH-SR-TW - Lutron Athena wireless node, Occupancy &

Daylight sensor, white, D4i/DALI-2

AWNS-OCC-BL-SR-TW - Lutron Athena wireless node, Occupancy & Daylight sensor, black, D4i/DALI-2

Options/Accessories

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 Ameriux representative for explanations of changes.

Linear Indirect LED



PROJECT: TYPE:

Specifications

Application

Open office plan, conference rooms, corridors or any indoor space where even, indirect ambient lighting is desired.

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

Extruded acrylic lens with a maximum length of 8'. Amerlux's proprietary acrylic batwing lens was developed for this housing to provide excellent transmission while spreading light for even ceiling brightness and maximum row spacing.

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

UC - Upper Clear lens cover

LED

Amerlux's boards 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.

	Static White	Tunable White
CCT:	2700K, 3000K, 3500K, 4000K	2700K-5700K
CRI:	83 or 90+ typical	90+ (92 typ)
R9:	16 @ CRI 83; >50 @ CRI 90+	>50

Life: 50,000+ hr., > 70% of initial lumens (L70)

Electrical

Wiring: Individual and "Beginning of Run" (BOR) fixtures are prewired with power cord. All configurations have quick connect power harnesses for row connections.

Standard Wattage: 5W/ft, 10W/ft.

Optional Wattages: 3W/ft, 4W/ft, 6W/ft, 7W/ft, 8W/ft, 9W/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.

Finish

All painted surfaces are premium powder coated baked on for maximum durability and color stability.

HW - High reflective matte White

BT - Black Texture

ST - Silver Texture

For special paint colors supply RAL and/or actual paint chip for factory consultation.

Configurations/Lengths

 \mbox{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 using alignment pins and brackets. Wiring is made fast and positive with molded quick connectors.

CUS - Custom made to measure runs are made to nearest 1/8" of customer supplied field measurements or drawings. Custom lengths use the same hardware for hairline joining.

PXX- Standard Patterns consist of 90° corners with standard lengths (4' to 8' in 1' increments), continuous runs or made to measure lengths. Depending upon complexity of the pattern drawings may be required from the customer. When ordering please give overall lengths.

 $\mbox{\sc A'-B'-PLL}$ - L Left - (1) 90° Corner 2 segments. Specify overall segments: A' $\&\mbox{\sc B'}$

 $\mbox{A'-B'-PLR}$ - L Right - (1) 90° Corner 2 segments. Specify overall segments: A' & B'

 $\mbox{A'-B'-PR}$ - Rectangle - (4) 90° Corners joining 4 segments. Specify overall segments: A' & B'

 $\textbf{A^-B^-C^-PU}$ - U shape - (2) 90° Corners joining 3 segments. Specify overall segments: A', B', & C'

A'-B'-C'-PZ - Z shape - (2) 90° Corners joining 3 segments. Specify overall segments: A', B', & C'

See page 6 for layouts.

PC - Custom Patterns may use standard lengths, Made To Measure, 90° or other corners (some limitations). Please provide drawing & consult factory.

Mounting

The Linea 1.5 Indirect is intended to be pendant or wall mounted in continuous rows. For indirect lighting Ameriux suggests 18" min from top of fixture to ceiling. Standard or custom patterns available.

 $\label{limited} \textbf{LIN1.5I-A16...ASW10} - \text{Indirect pendant installed in center of ceiling tile or gypsum board ceiling (standard) i.e. ASW10. Or if canopy is installed on a grid Tee runner add, <math>\textbf{T}$ i.e. ASW10T.

Cable Suspension: Cable is stranded stainless steel wire. All fittings are protected against rust and corrosion. Canopies are 5" x 1/4" die formed painted steel. Adjustment mechanism allows for infinite height adjustment. Amerlux recommends the required feed and non-feed suspensions based upon length and electrical options. Options include: color of canopy and power cord (black or white), length 10' or 20', and mounting condition, in center of ceiling tile and in gypsum board ceiling (standard) i.e. ASW10. Or if canopy is installed on a grid Tee runner add, T i.e. ASW10T

LIN1.5I-A16....WM - Indirect 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 4ft section on 8ft unit.

Certifications

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

Warranty

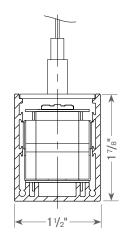
Amerlux's 5 year limited warranty. Please consult Amerlux website for details.

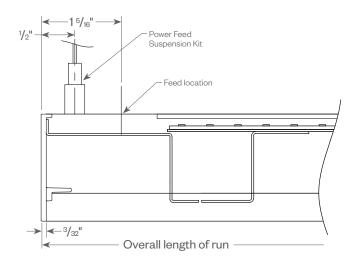


PROJECT: TYPE:

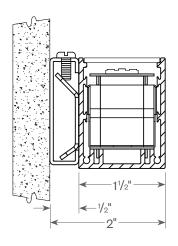
LINEA 1.5" INDIRECT

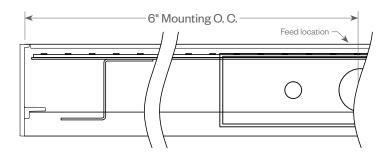
Linear Indirect LED





LINEA 1.5" INDIRECT WALL MOUNT





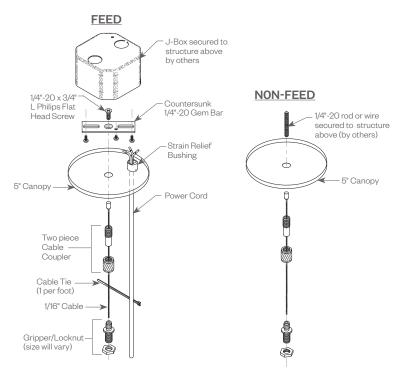
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PROJECT: TYPE:

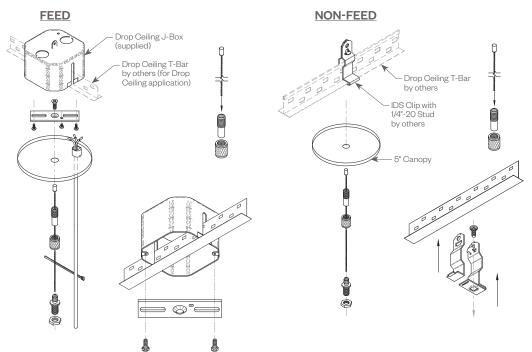
CABLE KIT SUSPENSION OPTIONS:

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

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



Linear Indirect LED



PROJECT:

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)



LINEA 1.5" PATTERNS:

Standard Patterns

All corners are standard 90°, standard length legs.

Use standard lengths: 4' min to 8' in 1 foot increments.

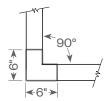
Continuous runs must be the same length in pairs for closed configuration.

Custom Patterns

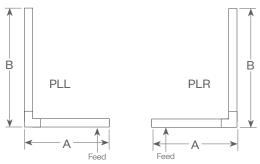
Please provide drawings of your configuration.

Made to Measure: +/- 1/8", consult factory.

PC - custom pattern, please provide drawings and consult factory



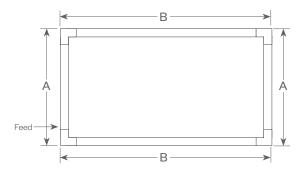
Linea 1.5 Indirect Solid, not lit



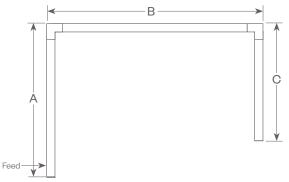
PLL - L Left, (2) straights + (1) 90° corner, leg right PLR - L Right, (2) straights + (1) 90° corner, leg left

Provide overall lengths: A' & B'

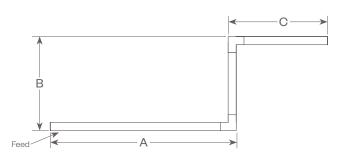
Nomenclature: A-B-PLL A-B-PLR



PR - Closed Rectangle, (4) straight lengths + (4) 90° corners Provide overall lengths: A' & B' Nomenclature: A-B-PR



PU - Open U, (3) straight lengths + (2) 90° corners Provide overall lengths: A', B' & C' Nomenclature: A-B-C-PU



PZ - Open Z, (3) straight lengths + (2) 90° corners Provide overall lengths: A', B' & C' Nomenclature: A-B-C-PZ

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PROJECT: TYPE:

FIXTURE DATA:

MULTIPLYING FACTORS: (Multiplying Factor is based on 3500K-83120V IES file on website)

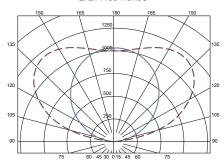
Wattage:	зw	4W	5W	6W	7W	8W	9W	10W
Factor:	0.31	0.42	0.53	0.63	0.72	0.81	0.90	1.0

CCTF	TW9				
CRI	2700K	3000K	3500K	4000K	(@3500K)
83	0.92	0.97	1.0	1.02	-
90	0.81	0.84	0.86	0.89	0.86

LINEA 1.5" INDIRECT BATWING LENS 10W 3500K 4FT

Total Watts: 34 Total Lumens: 3948 Source: 88 White LED's

LTL#14664757.06



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	0	0.0
0-60	0	0.0
0-90	0	0.0
90-180	3948	100.0

Efficacy = 116.9 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC		8	0	
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.

Linear Indirect LED



PROJECT:

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. Ameriux 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

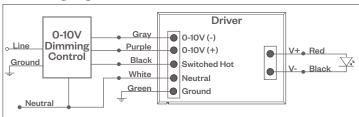
Notes:

- 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:	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[†]:

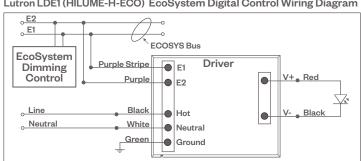
Lutron ECO System

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



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.

Amerlux®, LLC • 178 Bauer Drive, Oakland, NJ 07436 • P; 973-882-5010 F; 973-882-2605 • amerlux, com

Linear Indirect LED



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 ---

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

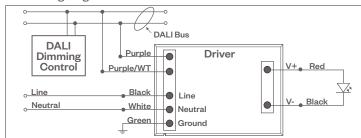
Leviton CD250 Controller

Center System

Dynalite

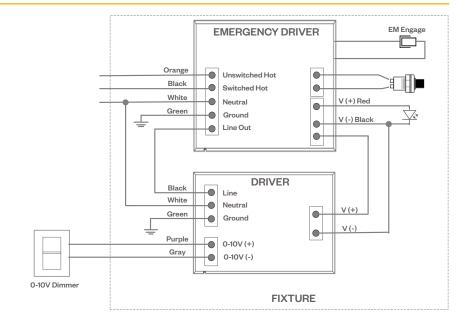
Fifth Light

DALI Wiring Diagram



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

Note: EMB not available on lengths under 4'.



Notes:

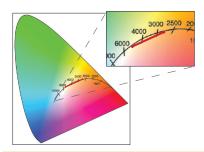
- * Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer installation instructions for 277VAC wiring diagrams.
- † The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

Linear Indirect LED



PROJECT: TYPE:

TUNABLE WHITE



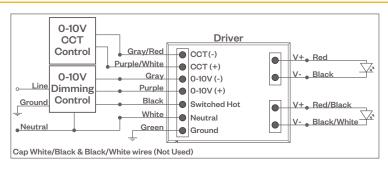
Tunable White range from 2700K-5700K, 90 CRI. See wiring diagrams below.

TUNABLE WHITE - DIMMING COMPATIBILITY:

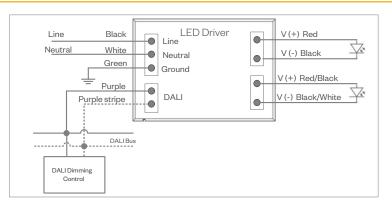
Amerlux® Linea fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc)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

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

0-10V Wiring Diagram



DALI DT8 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.