# Linear Indirect

### **PROJECT:**



TYPE:

#### **Features**

Linea 2.5" 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. Linea 2.5" complements our Gruv 2.5" products.



#### **Product Overview**

Туре:	Cable Suspended or Wall Mounted Linear, Indirect				
Wattage:	5W/ft, 10W/ft (other wattages avail	lable see p2)			
Color Temp:	2700K, 3000K, 3500K, 4000K	; Tunable White (2700K-5700K)			
CRI:	83 or 90+ typ. <i>(2700K, 3000K, 3</i> 5	500K, 4000K)			
	90+ (Tunable White)				
	Static White	Tunable White			
Dimming (wired):	0-10V, 1% dimming (standard)	0-10V TW, 1% dimming			
	Lutron LDE1 Hi-lume® 1% Dim Soft-On/Fade-to-Black	DALI DT8, 1% digital dimming			
	DALI dimming, 1% dim				
Dimming (wireless):	Lutron Athena <i>(integral wireless RF node)</i> BubblyNet Bluetooth	Lutron Athena TW (integral wireless RF node)			
Fixture Weight:	7.5 lbs. (4ft fixture)				

#### Certifications



#### **Fixture Summary**

#### **Performance Data**

Wattage per Foot	Delivered Lumens	LPW	Color Temp	CRI
5	2354	117.7	3500K	83
10	4441	132.8	3500K	83

Data is based on 3500K-83120V IES files available on website. Data is based on 4' fixture with Batwing lens.

#### **Electrical Data**

		4'		8'		
Wattage per Foot	Voltage	System Watts	Amps	System Watts	Amps	
5	120V	17	0.14	34.1	0.28	
0	277V	17	0.06	34.1	0.12	
10	120V	33.4	0.28	66.9	0.56	
	277V	33.4	0.12	66.9	0.24	

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

#### **Standard Patterns**

					Wall to Ceiling	Custom*
Yes	Yes	Yes	Yes	Yes	No	Yes

\* Submit drawing, consult factory.



**Delta Intelligent Building Technologies** 

#### 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.

Linear Indirect

### **PROJECT:**



TYPE:

#### **Ordering Information**

<u>12.51-A16</u> .	`	·	_``	. <u>120/277</u>		
1	2	3 4	5	6 7	8 9	10
Model LIN2.5I-A16 <sup>+</sup>		ng uplight <i>(standard)</i> Jear lens cover	ASW04 throug ASW10 throug ASW20 throug ASB04 throug ASB04 throug ASB20 throug ASW04T over ASW10T over ASW20T over ASB04T over ASB10T over ASB10T over	t (aircraft cable suspension) gh ceiling tile or gyp board, gh ceiling tile or gyp board, gh ceiling tile or gyp board, h ceiling tile or gyp board, h ceiling tile or gyp board, r ceiling tile or gyp board, r ceiling tee, white, 10' r ceiling tee, white, 20' ceiling tee, black, 4* ceiling tee, black, 4* ceiling tee, black, 20' andard length, other lengths	, white, 10' d, white, 20' , black, 4'* black, 10' , black, 20'	4 Wattage (per foot) Standard Optional 5 5W/ft 3* 3W/ft 10 10W/ft 4* 4W/ft 6 6W/ft 7 7W/ft 8 8W/ft 9 9W/ft * 4' min. length required
Color Temp Static White 27 2700K-83 30 3000K-83 35 3500K-83 40 4000K-83 Tunable White TW9-2757 tuna (2700K-5700K)	<b>279</b> 2700K-90+ <b>309</b> 3000K-90+ <b>359</b> 3500K-90+ <b>409</b> 4000K-90+ able white, 90CRI	BT black ST silver		7 Voltage 120/277	8  Length    Length A  Length    - all patterns  - all patterns    - IND  - PR (2 length)    - CON  - CUS	- PU
CON continuou CUS custom m supplied field dir Standard Pattee PLL L left, (2) st PLR L right, (2) st PU U shape, (3) PR Rectangle si PZ Z shape, (3)	fixture, 2' to 8' in 1' inor us run > than 8', specif nade to measure, +/- 1 mensions <u>rms</u> (see pg 6 for details) traights + (1) 90° corr straights + (1) 90° corr straight lengths + (2) shape, (4) straight leng straight lengths + (2) <b>rms, submit an EDR on a</b>	y to nearest foot /8" of customer er, leg right ner, leg left 90° corners ths + (4) 90° corners 90° corners	HILUME-H-E DALI DALI d Wired - Tuna O-10V-TW 1 <sup>6</sup> DALI-DT8 1 <sup>6</sup> Wireless - St AWNR-WH- AWNR-BL-S AWNR-WH- AWNR-BCO AWNR-OCO AWNR-OCO BN-BT-OCO	e White alogue dimming, 120-277 ECO Lutron LDE1 Hi-lume limming 120-2777VAC, 1% of ble White % dimming, multi-volt (120 % digital dimming, CCT oc atic White SR Lutron Athena wireless 010 Lutron Athena wireless 0+WH-SR Lutron Athena wireless 0+WH-SR Lutron Athena 0+SL-010 Lutron Athena wireless 0+WH-010 BubblyNet Blue		ant ourrent sensor, white, D4i/DALI-2 ensor, black, D4i/DALI-2 t sensor, white, O-10V sensor, white, DALI-2 DT8

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

 $\ensuremath{\text{PF}^2}$  Extra power feed for additional circuiting

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

\* 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 Amerlux representative for explanations of changes.

<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.



Linear Indirect

## **PROJECT:**

# amerlux

### 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'. A minimum of 18" distance between ceiling plane and top of fixture suggested.

BAT - Batwing uplight lens (standard) spreads light directly above fixture.

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

**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.

A'-B'-PLL - L Left - (1) 90° Corner (2) segments. Specify overall segments: A' & B' A'-B'-PLR - L Right - (1) 90° Corner (2) segments. Specify overall segments: A' & B' A'-B'-PR - Rectangle - (4) 90° Corners joining (4) segments. Specify overall segments: A' & B'

 $A^{\prime}\text{-}B^{\prime}\text{-}C^{\prime}\text{-}PU$  - 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.

For custom patterns, submit EDR on amerlux.com

#### Mounting

The Linea 2.5 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. Standard or custom patterns available.

**LIN2.5I-A16...ASW10** - 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, **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

**LIN2.5I-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.



# Linear Indirect



### **PROJECT:**

TYPE:

#### **Product Details**

#### Pendant



#### Wall Mount





# amerlux

# PROJECT:

### TYPE:

#### Cable Kit Suspension - Ceiling or Gypsum Board (ASW04, ASW10, ASW20, ASB04, ASB10, ASB20)



Cat#	Length	Cord/Canopy	Application
ASW04	4'	white/white	ceiling tile/gypsum
ASW10	10'	white/white	ceiling tile/gypsum
ASW20	20'	white/white	ceiling tile/gypsum
ASB04	4'	black/black	ceiling tile/gypsum
ASB10	10'	black/black	ceiling tile/gypsum
ASB20	20'	black/black	ceiling tile/gypsum
ASW04T	4'	white/white	ceiling tee
ASW10T	10'	white/white	ceiling tee
ASW20T	20'	white/white	ceiling tee
ASB04T	4'	black/black	ceiling tee
ASB10T	10'	black/black	ceiling tee
ASB20T	20'	black/black	ceiling tee

#### **Tee Grid or Screw Slot** (ASW04T, ASW10T, ASW20T, ASB04T, ASB10T, ASB20T)



Linear Indirect

## PROJECT:

# amerlu

### TYPE:

#### **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 2.5" 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.



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



# Linear Indirect

### **PROJECT:**

TYPE:

#### **Performance Data**

Multiplying Factors: (Multiplying Factor is based on 3500K-83 120V IES file on website)

Wattage:	ЗW	4W	5W	6W	7W	8W	9W	10W	CCT Factors:				TW9	
Factor:	0.31	0.42	0.53	0.63	0.72	0.81	0.90	1.0	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 2.5" INDIRECT BATWING LENS 10W 3500K 4FT

Total Watts: 33; Total Lumens: 4347

Source: 120 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	4347	100.0			

Efficacy (lumens/watt) = 130 lm/w

#### COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20

Effective	e Floor Cavit	y 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: Val	ues expressed	as percent of to	tal lumen output	delivered
to the tas	k surface.			

LINEA 2.5" INDIRECT UPPER CLEAR LENS 10W 3500K 4FT

Total Watts: 33; Total Lumens: 4441

Source: 120 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	4442	100.0					

Efficacy (lumens/watt) = 132.8 lm/W

#### COEFFICIENTS OF UTILIZATION

Effectiv	e Floor Cavit	y Reflectance 2	20%	
RC		80	C	
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

# amerlux

# PROJECT:

### TYPE:

#### **Static White - Dimming Compatibility**

Amerlux<sup>®</sup> Linea<sup>®</sup> 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>:

		Central System
Wattstopper:	Leviton:	Lutron Grafixk Eye with GRX-TV1 Interface
ADF-120277	Renoir II	

#### 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	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		

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.



Linear Indirect

## PROJECT:

### TYPE:

#### Static White - Dimming Compatibility (continued)

Amerlux<sup>®</sup> Linea<sup>®</sup> 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<sup>†</sup>: Wall Box Cer

Wall Box	Central System
Leviton CD250 Controller	Dynalite
	Fifth Light

#### DALI Wiring Diagram



amerlu

#### 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.



Linear Indirect

### **PROJECT:**



TYPE:

**Tunable White** 



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

#### **Tunable White - Dimming Compatibility**

Amerlux<sup>®</sup> Linea<sup>®</sup> 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.

