

Linea[®] 2.5"

Linear Direct/Indirect LED



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

Type:	Direct/Indirect Lens Down/Batwing, Clear lens up
Wattage:	5W/ft, 10W/ft (other wattages available see p2)
Lumen Output:	8,299 max; 104 Lm/W (10W/10W, 4ft fixture)
Color Temp:	2700K, 3000K, 3500K, 4000K
CRI:	83 typ. (2700K, 3000K, 3500K, 4000K)
Dimming:	0-10V, 1% dim (standard) Lutron Hi-lume [®] 3 wire, 1% dim Lutron Hi-lume [®] EcoSystem, 1% dim Lutron Hi-lume [®] 2 wire (120V only) Lutron Hi-lume [®] EcoSystem, 1% dim, fade to off Lutron Hi-lume [®] 5 Series DALI dimming, 0.1% dim



PROJECT:

TYPE:

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

Performance Chart

Wattage Per Foot	Delivered Lumens	LPW	Color Temp
10	4,476	116.4	3000K
20	8,299	104	3000K

Data is based on 3500K-83 IES files available on website

Data is based on 4' fixture with Performance Lens direct & Upper Clear lens indirect

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

Wattage Per Foot		4'		8'	
		System Watts	Amps	System Watts	Amps
10	120V	44.6	0.36	83.8	0.70
	277V	45.8	0.18	83.2	0.32
20	120V	84.2	0.70	168.4	1.40
	277V	83.0	0.30	166.0	0.60

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

Standard Patterns

"L"	"J"	"U"	"O"	"Z"	Wall to Ceiling	Custom*
Yes	Yes	Yes	Yes	Yes	No	Yes

* Submit drawing, consult factory



Linea[®] 2.5" Direct/Indirect

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PROJECT:

TYPE:

Ordering Information



1 Model
LIN2.5DI-A16[†]

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

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 (per foot)
5/5
10/10
5/10
10/5
Consult factory for other wattage options
Note: 3' units must use same wattage for D/I components
Note: 5' & 6' units not available in 10/10

6 Color Temp
83 CRI:
27 - 2700K-83
30 - 3000K-83
35 - 3500K-83
40 - 4000K-83
92 CRI optional, consult factory

7 Finish
HW - high reflectance matte white
BT - black texture
ST - silver texture
For other RAL color, consult factory

8 Voltage
120/277

9 Length

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

10 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
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
Custom Patterns:
PC - please provide drawings and consult factory

11 Drivers
0-10V - 1% electronic dimming, multi-volt (120V-277V) constant current driver (standard).
HILUME-A-DH - Lutron "A" Series, 1% dim, 3-wire (Dim Hot)
HILUME-A-ECO - Lutron "A" Series, 1% dim, EcoSystem
HILUME-A-LTE - Lutron "A" Series, 1% dim, 2-wire, 120V only
HILUME-H-ECO - Lutron "H" Series, 1% dim, fade to off, EcoSystem
HILUME-5-ECO - Lutron "5" Series, EcoSystem
DALI - DALI Dimming 120V-277V, 0.1% dim

12 Options/Accessories
ENLS - Enlighted Sensor (0-10V driver only not available on 2' & 3' lengths, can only be used on one circuit)
EMC-PF² - emergency circuit requires power feed located in last fixture section (for other locations consult factory)
PF² - Extra power feed for additional circuiting

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 Amerlux representative for explanations of changes.

Linea[®] 2.5" Direct/Indirect

Linear Direct/Indirect LED



PROJECT:

TYPE:

Specifications

Application

Open office plan, conference rooms, corridors or any indoor retail space where an exciting combination of direct and 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

Direct:

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

PL - Performance Lens provides high efficiency with controlled lens surface brightness (standard).

DL - Designer Lens provides flat even glow on lens. Best when lens is in direct or constant view.

Indirect:

Extruded acrylic lens with a maximum length of 8".

UC - Upper Clear lens cover (standard)

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

LED

Amerlux's boards and patented connector design with brand name LEDs enables Amerlux fixtures to have excellent thermal management and offer a 10 year warranty. Our LED binning is within 3 MacAdam ellipse. Boards are configured for maximum flexibility resulting in even illumination no matter what the fixture layout. LED boards are easily replaced in the field with just a Phillips screw driver.

Color Temperature Options:

2700K, 3000K, 3500K, 4000K

CRI: 83 typical, 92 optional - consult factory

R9: 16 @ CRI 83

R9: >50 @ CRI 92

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.

1 - 1 Circuit, direct & indirect same circuit

2 - 2 Circuits, direct & indirect switched separately (power feed at both ends).

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.

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.

Drivers

0-10V - 1% electronic dimming, multi-volt (120V-277V) constant current driver (standard). Cap leads for non-dim applications.

Optional Drivers:

HILUME-A-DH - Lutron "A" Series, 1% dim, 3-wire (Dim Hot)

HILUME-A-ECO - Lutron "A" Series, 1% dim, EcoSystem

HILUME-A-LTE - Lutron "A" Series, 1% dim, 2-wire, 120V only

HILUME-H-ECO - Lutron "H" Series, 1% dim, fade to off, EcoSystem

HILUME-5-ECO - Lutron "5" Series, EcoSystem

DALI - DALI Dimming 120V-277V, 0.1% dim

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. 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. If 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', & C'

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 and consult factory.

Mounting

The Linea 2.5 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. Standard or custom patterns available.

LIN2.5DI-A16...ASW10 - Direct / 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

LIN2.5DI-A16...WM - Direct 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.

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.

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.

Linea[®] 2.5" Direct/Indirect

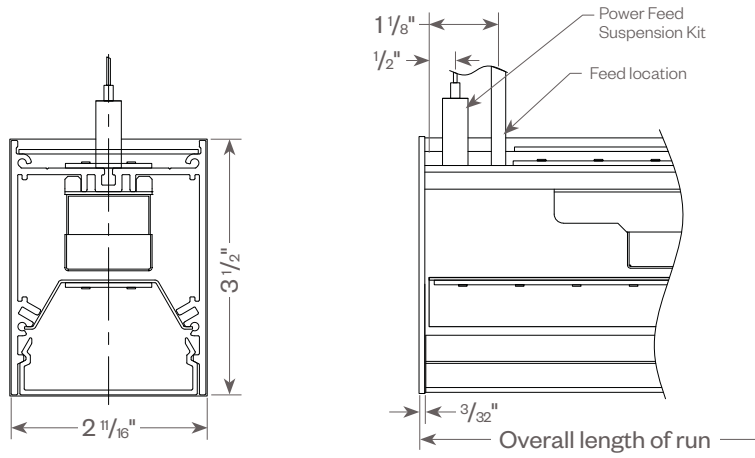
Linear Direct/Indirect LED



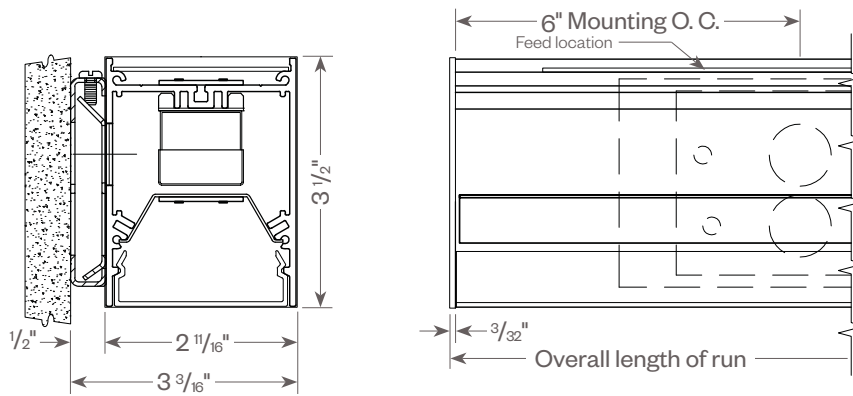
PROJECT:

TYPE:

LINEA 2.5" DIRECT/INDIRECT



LINEA 2.5" DIRECT/INDIRECT WALL MOUNT



Linea[®] 2.5" Direct/Indirect

Linear Direct/Indirect LED

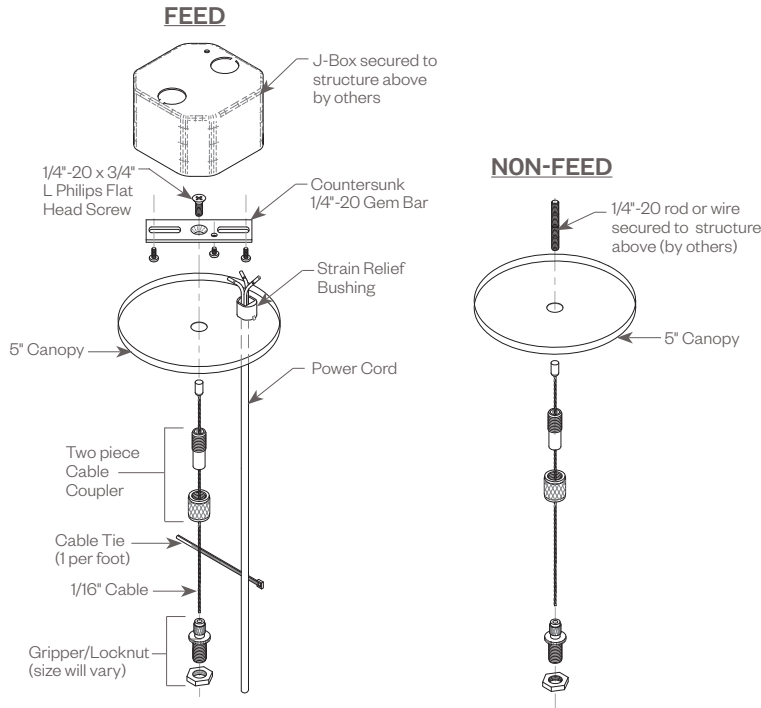


PROJECT:

TYPE:

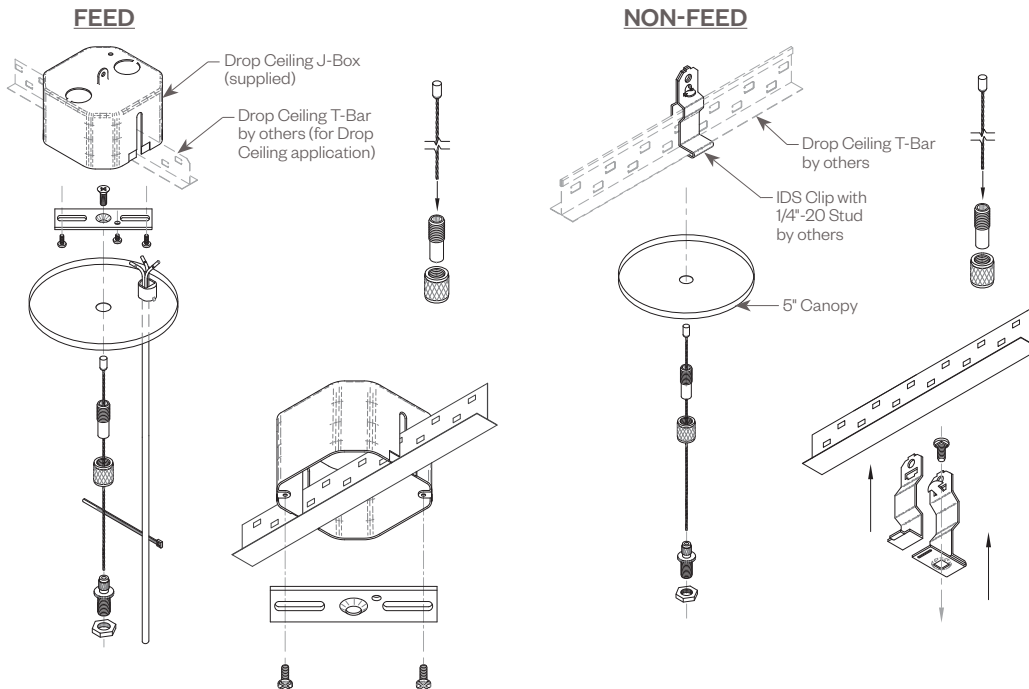
CABLE KIT SUSPENSION OPTIONS:

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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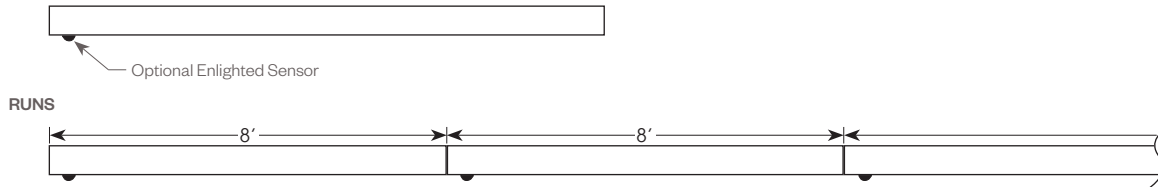
PROJECT:

TYPE:

OPTIONAL ENLIGHTENED 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



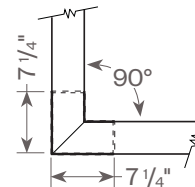
LINEA 2.5" PATTERNS:

Standard Patterns

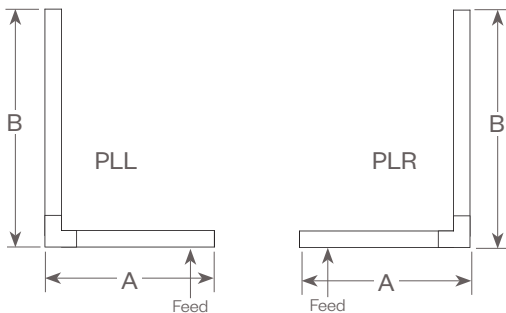
All corners are standard 90°, standard length legs.
 Use standard lengths: 4' min to 8' in 1 foot increments.
 Continuous runs must be the same length in pairs for closed configuration.

Custom Patterns

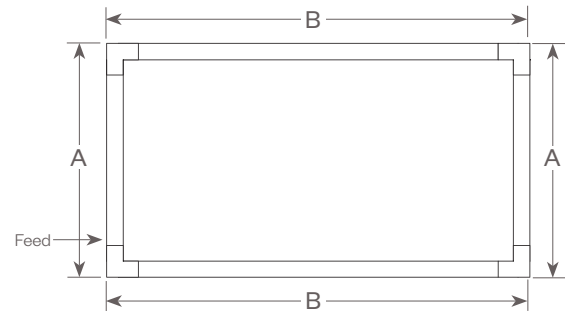
Please provide drawings of your configuration.
 Made to Measure: +/- 1/8", consult factory.
 PC - custom pattern, please provide drawings and consult factory



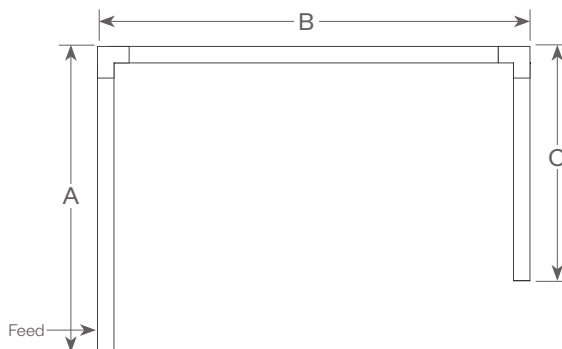
Linea 2.5 Lens
Mitered Lens



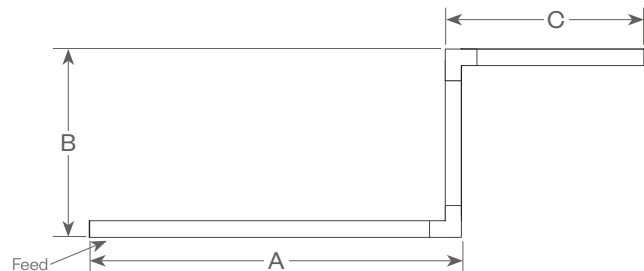
PLL - L Left, (2) straights + (1) 90° corner, leg right
PLR - L Right, (2) straights + (1) 90° corner, leg left
 Provide overall lengths: A' & B'
 Nomenclature: A-B-PLL A-B-PLR



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

Linea[®] 2.5" Direct/Indirect

Linear Direct/Indirect LED



PROJECT:

TYPE:

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

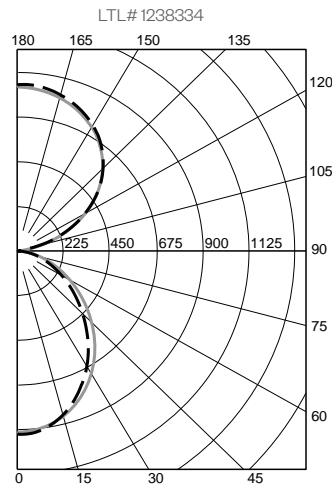
MULTIPLYING FACTORS: (Multiplying Factor is based on 3000K-83 120V IES file on website)

Wattage:	3W	4W	5W	6W	7W	8W	9W
Factor:	0.63	0.82	1.0	1.17	1.34	1.50	1.64

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.93	1.0	1.08	1.15

LINEA 2.5" DI PERFORMANCE LENS DIRECT/CLEAR COVER INDIRECT 5W UP/5W DWN 3000K 4FT

Total Watts: 38
Total Lumens: 4,476
Source: 256 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1065	23.8
0-60	1730	38.7
0-90	2093	46.7
90-180	2384	53.3

Efficacy = 116.4 Lumens /Watt

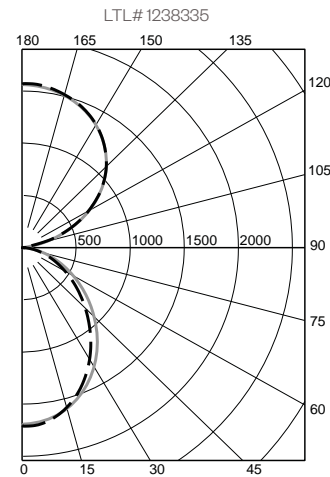
COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR (expressed as lumens delivered to the task surface)				
0	4761	4761	4761	4761
1	4354	4165	3995	3842
2	3973	3649	3381	3156
3	3631	3217	2897	2642
4	3327	2854	2508	2244
5	3058	2548	2192	1929
6	2820	2289	1934	1678
7	2610	2070	1720	1475
8	2423	1881	1541	1307
9	2257	1719	1389	1167
10	2109	1578	1260	1048

LINEA 2.5" DI PERFORMANCE LENS DIRECT/CLEAR COVER INDIRECT 10W UP/10W DWN 3000K 4FT

Total Watts: 80
Total Lumens: 8,299
Source: 256 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1970	23.7
0-60	3194	38.5
0-90	3855	46.5
90-180	4444	53.5

Efficacy = 104 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR (expressed as lumens delivered to the task surface)				
0	8821	8821	8821	8821
1	8068	7718	7404	7121
2	7363	6764	6268	5851
3	6730	5964	5371	4898
4	6167	5292	4651	4161
5	5668	4724	4065	3578
6	5226	4245	3586	3113
7	4837	3837	3190	2736
8	4491	3488	2857	2424
9	4184	3187	2577	2164
10	3910	2925	2336	1944

Linea[®] 2.5" Direct/Indirect

Linear Direct/Indirect LED



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 ---

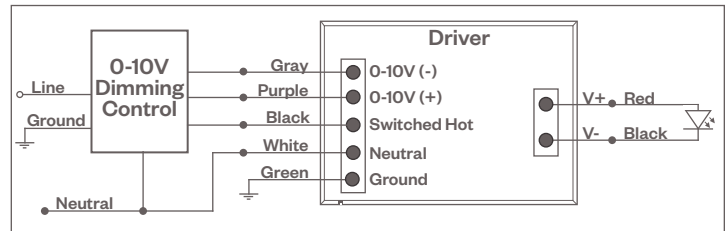
0-10V - DIMMING (Standard)

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!

0-10V Wiring Diagram



Compatible Dimmers

Wall Box

Lutron "Diva" - DDTV with PP-120H Interface

Leviton Renoir II 0-10v

Central System

Lutron Grafik Eye with GRX-TV1 Interface

LUTRON HI-LUME DIMMING

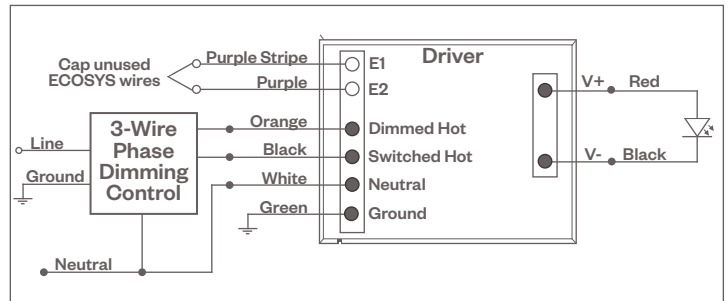
Integrates into Lutron EcoSystem building management

Notes:

- 120V or 277V*
- Dims down to less than 5% light output
- May use 3-Wire or EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

HILUME-A-DH

3-Wire Wiring Diagram



Compatible Dimmers

Wall Box (3-Wire Fluorescent)

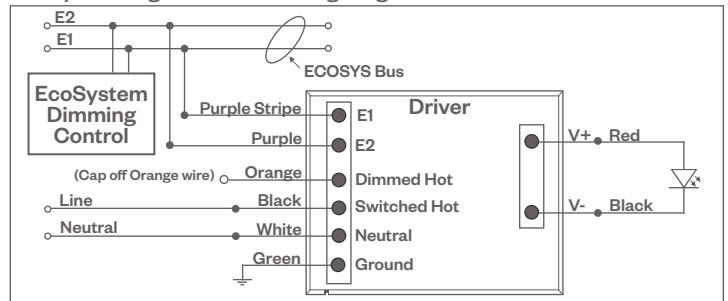
DIVA
Maestro
Nova T
Vareo

Central System

Lutron EcoSystem compatible controls

HILUME-A-ECO, HILUME-H-ECO, HILUME-5-ECO

EcoSystem Digital Control Wiring Diagram



Notes:

- * Driver is 277V dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120V wiring colors and method. Please refer to 277V dimmer installation instructions for 277V wiring diagrams.

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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 ---

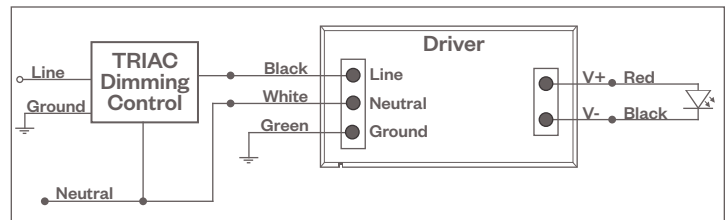
LUTRON HILUME-A-LTE DIMMING

Utilizes "Standard" incandescent dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

Notes:

- 120V only
- Dims down to less than 1% light output (most cases)
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

Lutron HILUME-A-LTE Wiring Diagram



Compatible Dimmers

Wall Box (Incandescent Style, Wattage as required)

Lutron "Diva"	Lutron "Vareo"
Lutron "Nova-T"	Lutron "Skylark"
Lutron "Maestro"	

Central System

ETC "SR" Rack w/D20 Module	Lutron Grafik Eye QS
Lutron "GP" Panel	
ETC "DRD" Rack w/D20 Module	

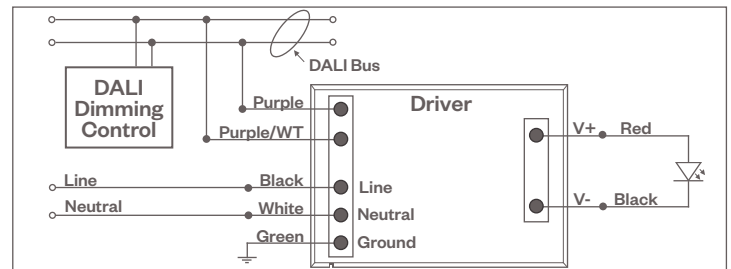
DALI - DALI DIMMING 120V-277V

Digital control protocol allows individual fixture control

Notes:

- 120V - 277V*
- Dims down to 0.1% light output in most cases

DALI Wiring Diagram



Compatible Dimmers

Wall Box (3-Wire Fluorescent)

Leviton CD250 Controller

Central System

Dynalite
Fifth Light

Notes:

* Driver is 277V dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120V wiring colors and method. Please refer to 277V dimmer installation instructions for 277V wiring diagrams.