Linea® 1.5" Mini Indirect

Linear, Remote Driver

amerlux
Passion. Power. Performance.
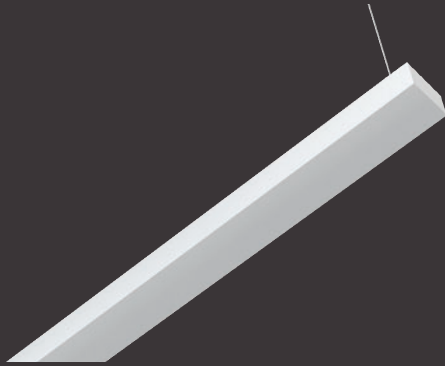
Features

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, Remote Driver
Wattage:	5W/ft, 10W/ft (other wattages available see p2)
Lumen Output:	3,544 Lm; 101.6 Lm/W (10W, 4ft fixture)
Color Temp:	2700K, 3000K, 3500K, 4000K
CRI:	83 typ. (2700K, 3000K, 3500K, 4000K)
Dimming:	0-10V, 1% dimming (standard)
	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 (nominal) per Foot	Delivered Lumens	LPW	Color Temp
5	1,905	112	3500K-83
10	3,544	101	3500K-83

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

Runs

Individual Runs: 2' - 6' *(whole foot standard)*
    Note: 6' is maximum length between suspension points.
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 (nominal) per foot		4'		8'	
		System Watts	Amps	System Watts	Amps
5	120V	17	0.14	34	0.28
	277V	19	0.07	38	0.14
10	120V	35	0.29	70	0.58
	277V	37	0.13	74	0.27

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

Standard Patterns

"└"	"┘"	"└"	"□"	"┐"	Wall to Ceiling	Custom*
Yes	Yes	Yes	Yes	Yes	No	Yes

* Submit drawing, consult factory

CSA C US

5 year limited warranty
AMERLUX LED

Linea® 1.5" Mini Indirect

Linear Mini Indirect, Remote Driver

Passion. Power. Performance.

PROJECT: **TYPE:**

Ordering Information

LIN1.5MI-A17 . _____ . _____ . ____ . _____ . ____ . 120/277 . _____ . _____ . _____

1   **2**   **3**   **4**   **5**   **6**   **7**   **8**   **9**   **10**

---

1 Model
LIN1.5MI-A17† (Mini Indirect, remote driver)

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

3 Mounting (Mini Cable Suspension)
MASW10 - through ceiling tile or gyp board, white, 10'
MASW10SF - through ceiling tile or gyp board, silver foil cord, white canopy, 10'
MASB10 - through ceiling tile or gyp board, black, 10'
MASB10SF - through ceiling tile or gyp board, silver foil cord, black canopy, 10'
MASW10T - over ceiling tee, white, 10'
MASW10SFT - over ceiling tee, silver foil cord, white canopy, 10'
MASB10T - over ceiling tee, black, 10'
MASB10SFT - over ceiling tee, silver foil cord, black canopy, 10'

4 Wattage (per foot)
Standard:
5 - 5W/ft
10 - 10W/ft
Optional:
3 - 3W/ft (4' minimum length required)
4 - 4W/ft (4' minimum length required)
6 - 6W/ft
7 - 7W/ft
8 - 8W/ft
9 - 9W/ft

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

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

_____ x _____ x _____
(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		

9 Configuration
IND¹ - individual fixture, 2' to 6' in 1' increments
CON - continuous run > than 6', 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

10 Drivers
0-10V - 1% electronic dimming , multi-volt (120V-277V) constant current driver (standard).
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

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

† 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® 1.5" Mini Indirect
Linear Mini Indirect, Remote Driver

PROJECT: **TYPE:**

Specifications

Application
Offices, corridors or any indoor space where comfortable ambient lighting is required. Remote driver little more than 3/4" high housing.

Construction
One piece extruded aluminum housing is (1 1/2" wide X 0.8" high). Die-cast End Caps match fixture body finish. Painted 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.
Indirect:
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 (Lambertian distribution).

LED
Amerlux's boards and patented connectors with industry recognized LEDs chips enables excellent thermal management and allows Amerlux to offer a 5 year warranty. Our LED binning is within 3 MacAdam ellipse. LED boards are easily replaced in the field with just a Philips 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
Remote Driver Wiring:
Driver is supplied installed in remote driver box, (one driver per box), with 5' of low voltage plenum rated cable. Fixture supplied with 16/3 SJT power cord ready to be connected to J-Box (by others) over cable canopy. Amerlux recommends a maximum of 15' between the fixture and the remote driver box. Consult factory with job specific electrical spec if more than 15' is required. Feeds are added as required by specified wattage and driver maximums.
See page 4 for wiring illustration
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.
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.
Emergency circuit via remote inverter or auxiliary emergency power supply (by others).

Drivers
0-10V - 1% electronic dimming, multi-volt (120V-277V) constant current driver (standard).
Optional drivers available. For details see pages 8-10

Finish
All painted surfaces are premium powder coated baked on for maximum durability and color stability.
For special paint colors, supply RAL and/or actual paint chip for factory consultation.

Configurations/Lengths
IND - Individuals are stand alone fixtures made of single lengths of 2' to 6' (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 6', specified to the nearest whole foot. Continuous runs less than 12' are made of 2 lengths. Continuous runs longer than 12' start with a 6' Beginning of Row (BoR) fitted with an End Cap. The majority of the runs are made up of 6' Middle of Run (MoR) lengths. End of Run (EoR) units are made up of 2' to 6' units to the nearest whole foot or a combination of a last 3' MoR and a 4' or 5' EoR. 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 6' 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".
PXX - Standard patterns consist of 90º corners with standard lengths (3' to 6' in 1' increments) or custom lengths. Depending upon complexity of the pattern, drawings may be required. When ordering please give overall lengths.
See page 6 for layouts.
PC - Custom patterns use standard or custom lengths, 90º or other corner angles with some limitations. Please provide drawings and consult factory.

Mounting
LIN1.5M-I-A16....MASW10 - Mini Direct pendant mount is only 1.5" wide X 0.8" high. The remote driver box is 15" long and can be located up to 15' from fixture. 15' of low voltage plenum rated cable supplied (10' off fixture/5' off box). (see p. 4)
Mini Cable Suspension:
Thinner cable, smaller gripper and cable coupler are all scaled down to match the reduced size of the LIN1.5 Mini series. 5" diameter by 0.25" canopy is used for both feed and non-feed Mini Cable Kits. Low Voltalge power feeds are   power feeds are 22 gauge 2 conductor SJT cords supplied in same color as canopy or with optional silver foil clear jacked cords. 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.

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.
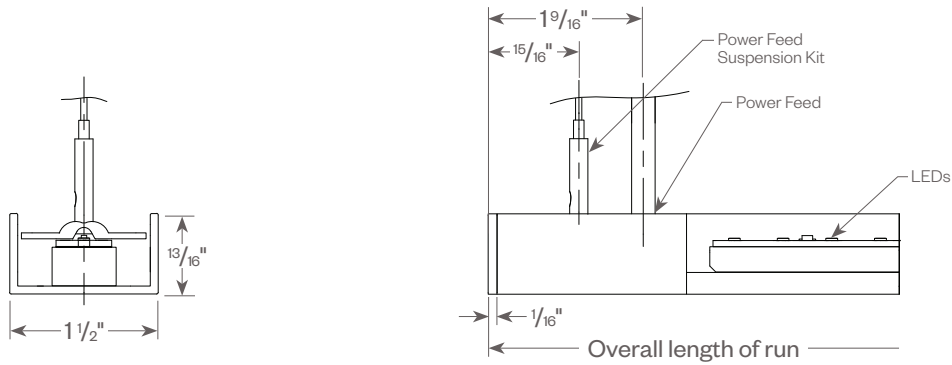
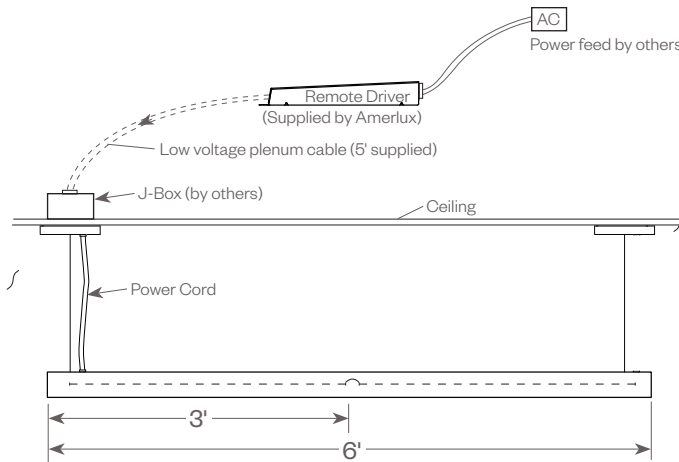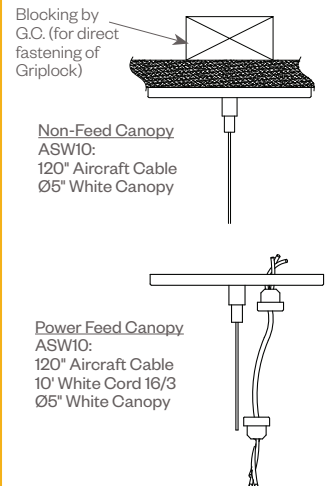# Linea® 1.5" Mini Indirect

Linear Mini Indirect, Remote Driver

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PROJECT: **TYPE:**

LINEA 1.5" MINI INDIRECT

1 9/16"
15/16"
Power Feed Suspension Kit
Power Feed
LEDs
13/16"
1 1/2"
1/16"
Overall length of run

5W/FT REMOTE

AC
Power feed by others
Remote Driver (Supplied by Amerlux)
Low voltage plenum cable (5' supplied)
J-Box (by others)
Ceiling
Power Cord
3'
6'

SUSPENSION DETAIL

Blocking by G.C. (for direct fastening of Griplock)

Non-Feed Canopy
ASW10:
120" Aircraft Cable
Ø5" White Canopy

Power Feed Canopy
ASW10:
120" Aircraft Cable
10' White Cord 16/3
Ø5" White Canopy

10W/FT REMOTE

Note: Driver required for every 4'. Remote drivers can be installed up to 15' max from fixture.
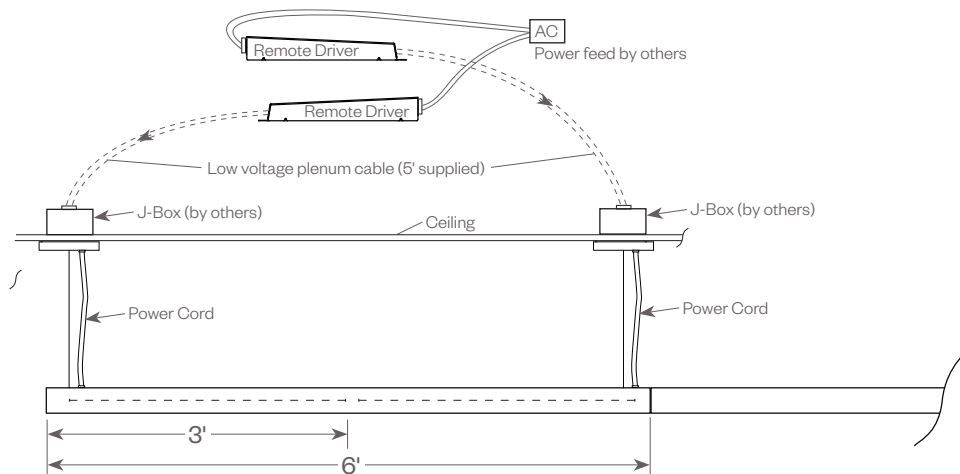
AC
Power feed by others
Remote Driver
Remote Driver
Low voltage plenum cable (5' supplied)
J-Box (by others)
Ceiling
J-Box (by others)
Power Cord
Power Cord
3'
6'

REMOTE DRIVER BOX

2 1/4"
2 1/2"
16 3/4"

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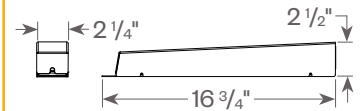
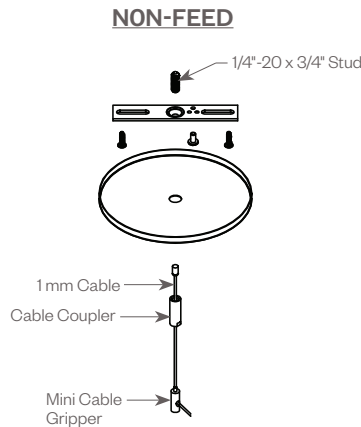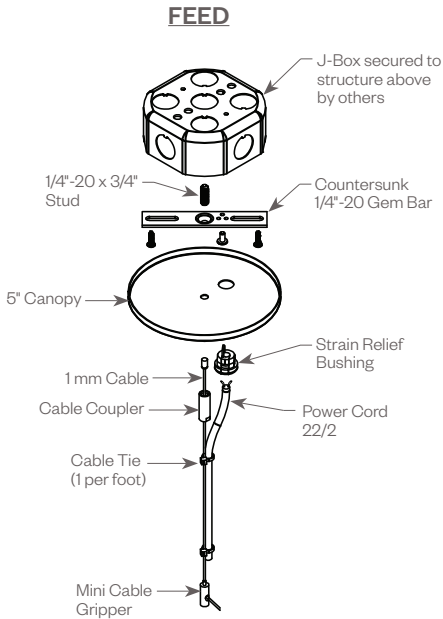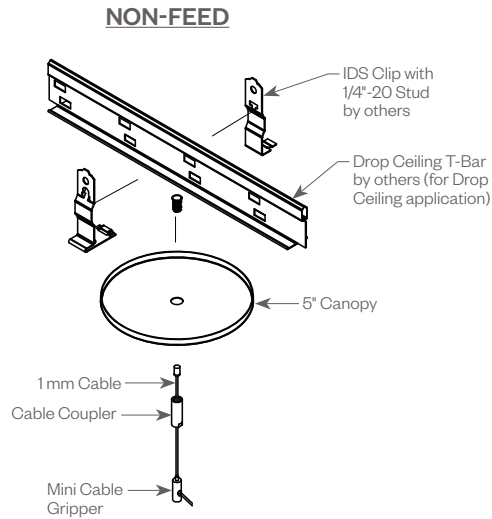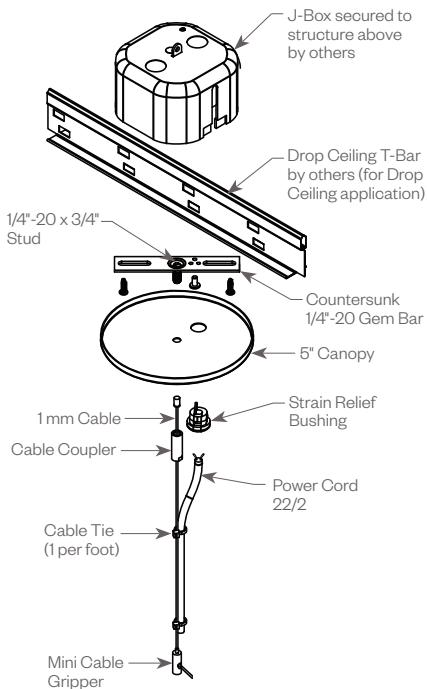**PROJECT:**   **TYPE:**

MINI CABLE KIT SUSPENSION OPTIONS:

CEILING OR GYPSUM BOARD (MASW10, MASB10)

Cat#	Length	Cord/Canopy	Application
MASW10	10'	white/white	ceiling tile/gypsum
MASB10	10'	black/black	ceiling tile/gypsum
MASW10T	10'	white/white	ceiling tee
MASB10T	10'	black/black	ceiling tee

FEED

J-Box secured to structure above by others
1/4"-20 x 3/4" Stud
Countersunk 1/4"-20 Gem Bar
5" Canopy
Strain Relief Bushing
1 mm Cable
Cable Coupler
Power Cord 22/2
Cable Tie (1 per foot)
Mini Cable Gripper

N0N-FEED

1/4"-20 x 3/4" Stud
1 mm Cable
Cable Coupler
Mini Cable Gripper

TEE GRID OR SCREW SLOT (MASW10T, MASB10T)

J-Box secured to structure above by others
Drop Ceiling T-Bar by others (for Drop Ceiling application)
1/4"-20 x 3/4" Stud
Countersunk 1/4"-20 Gem Bar
5" Canopy
Strain Relief Bushing
1 mm Cable
Cable Coupler
Power Cord 22/2
Cable Tie (1 per foot)
Mini Cable Gripper

NON-FEED

IDS Clip with 1/4"-20 Stud by others
Drop Ceiling T-Bar by others (for Drop Ceiling application)
5" Canopy
1 mm Cable
Cable Coupler
Mini Cable Gripper

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PROJECT: **TYPE:**

LINEA 1.5" PATTERNS:

Standard Patterns
All corners are standard 90°, standard length legs of 3".
Use standard lengths: 4' min to 6' 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
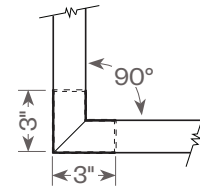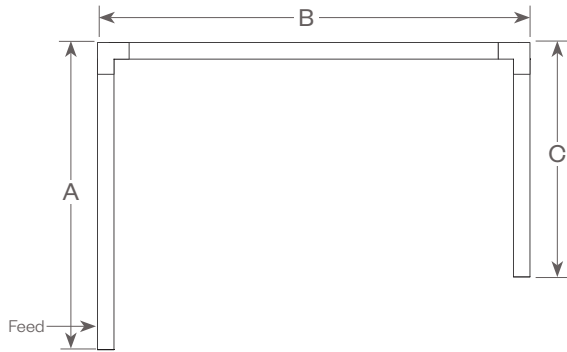
Linea 1.5 Mini Indirect
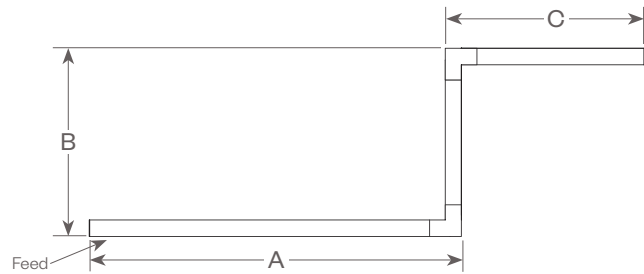(Mitered corner not lit)
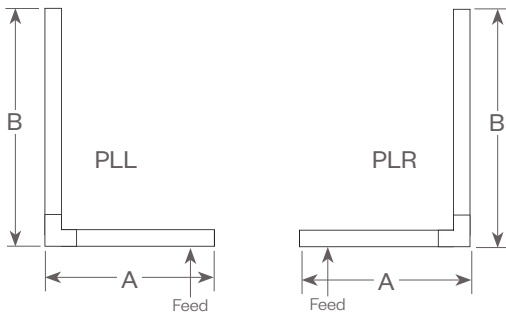
PLL - L Left, (2) straights + (1) 90° corner, leg right
PLR - L Right, (2) straights + (1) 90° corner, leg left
  Provide overall lengths: A' & B'
  Nomenclature: A-B-PLL   A-B-PLR
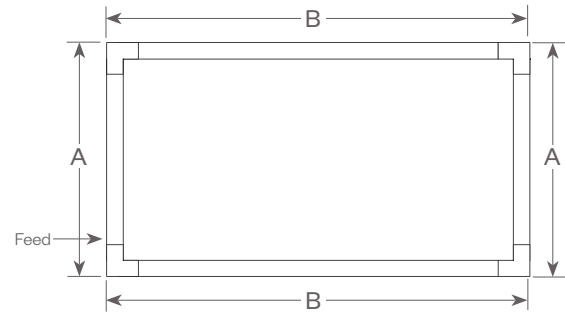
PR - Closed Rectangle, (4) straight lengths + (4) 90° corners
  Provide overall lengths: A' & B'
  Nomenclature: A-B-PR

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:

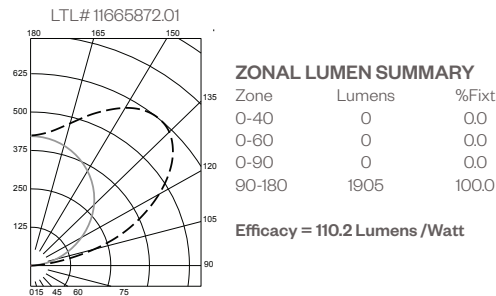**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

MULTIPLYING FACTORS: (Multiplying Factor is based on 3500K-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:	0.87	0.93	1.0	1.08

LINEA 1.5" MINI INIDIRECT 5W BATWING 3500K 4FT
Total Watts: 17
Total Lumens: 1,905
Source: 88 White LED's

LTL# 11665872.01

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	0	0.0
0-60	0	0.0
0-90	0	0.0
90-180	1905	100.0

Efficacy = 110.2 Lumens /Watt

COEFFICIENTS OF UTILIZATION
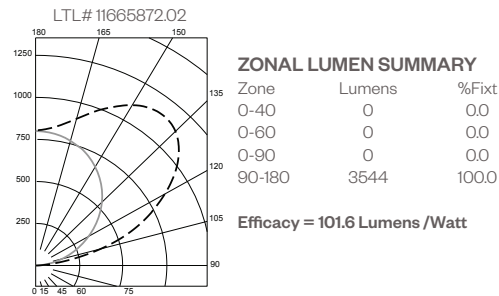Effective Floor Cavity Reflectance 20%

RC		80		
RW	70	50	30	10
RCR				
0	1550	1550	1550	1550
1	1406	1346	1292	1242
2	1277	1175	1089	1016
3	1162	1031	928	846
4	1059	909	797	711
5	968	805	689	603
6	887	717	601	516
7	817	643	528	446
8	754	578	466	388
9	698	523	414	339
10	649	475	370	298

Note: Values are expressed as Lumens delivered to the task surface.

LINEA 1.5" MINI INIDIRECT 10W BATWING 3500K 4FT
Total Watts: 35
Total Lumens: 3,544
Source: 88 White LED's

LTL# 11665872.02

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	0	0.0
0-60	0	0.0
0-90	0	0.0
90-180	3544	100.0

Efficacy = 101.6 Lumens /Watt

COEFFICIENTS OF UTILIZATION
Effective Floor Cavity Reflectance 20%

RC		80		
RW	70	50	30	10
RCR				
0	2885	2885	2885	2885
1	2617	2505	2404	2312
2	2376	2186	2027	1891
3	2162	1919	1728	1574
4	1971	1692	1484	1323
5	1801	1498	1282	1121
6	1651	1334	1118	960
7	1520	1196	982	830
8	1403	1076	867	721
9	1300	974	771	632
10	1208	885	688	555

Note: Values are expressed as Lumens 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!
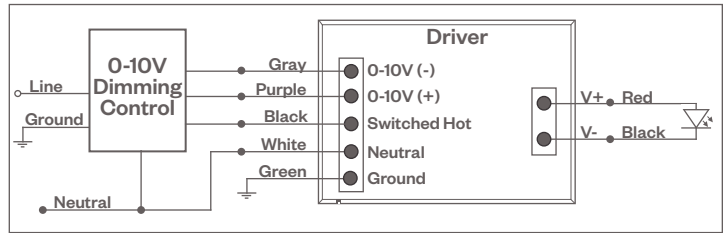
Compatible Dimmers†:

Wall Box

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

Center System

Lutron Grafixk Eye with GRX-TV1 Interface

0-10V Wiring Diagram

LUTRON HI-LUME DIMMING

Integrates into Lutron EcoSystem building management

Notes:
- 120V or 277V*
- Dims down to less than 5% light output
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
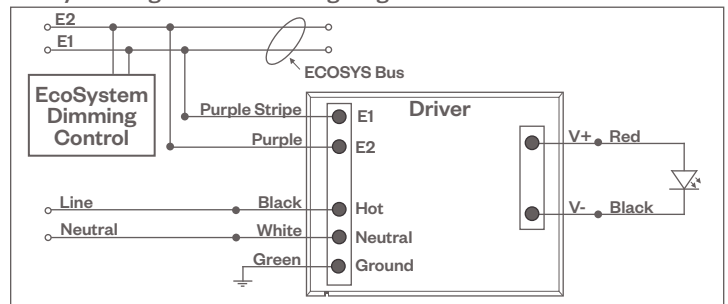
Compatible Dimmers†:

Wall Box

Lutron:
Diva
Maestro
Nova-T
Vareo

Center System

Lutron EcoSystem compatible controls

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.
† The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

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DIMMING COMPATIBILITY:

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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.

Lutron HILUME-A-LTE Wiring Diagram

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

Compatible Dimmers†:
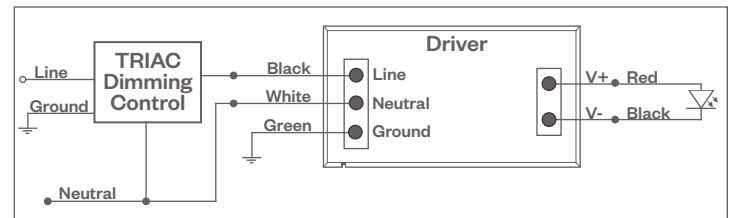
Wall Box (Incandescent Style, Wattage as required)

Lutron:

Diva

Maestro

Nova-T

Vareo

Skylark

Center System

Lutron "GP" Panel

Lutron Grafik Eye QS

DALI - DALI DIMMING 120V-277V

Digital control protocol allows individual fixture control

DALI Wiring Diagram

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

Compatible Dimmers†:

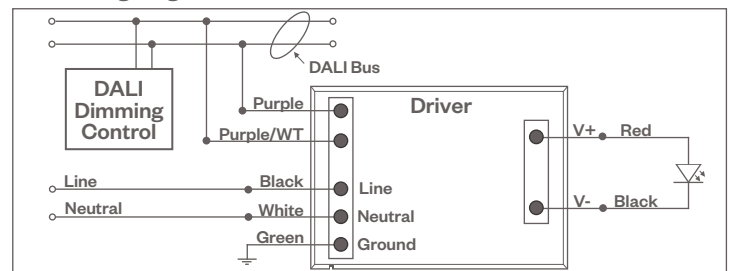**Wall Box**

Leviton CD250 Controller

Center 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.

† The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.