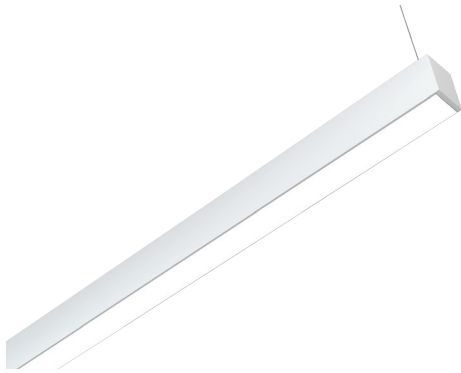


Linea® 1.5" Mini Direct/Indirect

Linear, Remote Driver



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: Direct/Indirect, Remote Driver
Lens, Louver Down/Batwing, Clear lens up
- Wattage: 5W/ft, 10W/ft (other wattages available see p2)
- Color Temp: 2700K, 3000K, 3500K, 4000K
- CRI: 83 typ. or 90+ typ
- Dimming: 0-10V, 1% dimming (standard)
Lutron Hi-lume® EcoSystem, 1% dim, fade to off
DALI dimming, 1% dim
- Dimming (wireless): Enlighted Sensor
Lutron Athena (integral wireless RF node)

*International version available, see website for spec sheet.

PROJECT:

TYPE:

Fixture Summary (see following pages for more information)

Performance Chart

Nominal Wattage/Foot	Delivered Lumens			LPW	Color Temp-CRI
	Direct	Indirect	Total		
5/5	1920	2095	4015	114.4	3500K-83
10/10	3691	3948	7639	108.7	3500K-83

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

Data is based on 4' fixture with performance lens direct & batwing 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	35.1	0.29	70.2	0.59
	277V	35.1	0.13	70.2	0.25
20	120V	70.3	0.59	140.6	1.17
	277V	70.3	0.25	140.6	0.51

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



Linea® 1.5" Mini Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



PROJECT:

TYPE:

Ordering Information

LIN1.5MDI-A17 120/277



1 **Model**
LIN1.5MDI-A17* (Mini Direct/Indirect, remote driver)

2 **Optics** (select 1 from each list)
Direct:
PL - performance lens (standard)
SLDW - straight blade louver, white aluminum, solid blades w/overlay
SLDB - straight blade louver, black, solid blades w/overlay
SLDS - straight blade louver, silver, solid blades w/overlay
ASY - asymmetric lens (backed by high diffusion film)
DRP1 - 1" drop lens
Indirect:
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 **Circuiting**
1 - single circuit
2 - up/down switch separately

5 **Wattage** (per foot, down/up)
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

6 **Color Temp**
83 CRI:90+ CRI:
27 - 2700K-83 279 - 2700K-90+
30 - 3000K-83 309 - 3000K-90+
35 - 3500K-83 359 - 3500K-90+
40 - 4000K-83 409 - 4000K-90+

7 **Finish** (for other RAL colors, consult factory)
HW - high reflectance matte white
BT - black texture
ST - silver texture

8 **Voltage**
120/277

9 **Length**

	x	x
	(Length A)	(Length B)
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
For custom patterns, submit EDR on amerlux.com

11 **Drivers**
Wired:
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
Wireless:
ENLS-SR - Enlighted sensor, energy metering
ENLS-010 - Enlighted sensor with controller unit
AWN-R-WH-SR - Lutron Athena wireless node, RF only, white, D4i/DALI-2
AWN-R-BL-SR - Lutron Athena wireless node, RF only, black, D4i/DALI-2
AWN-R-WH-010 - Lutron Athena wireless node, RF only, white, 0-10V
AWN-R-BL-010 - Lutron Athena wireless node, RF only, black, 0-10V
AWN-S-OCC-WH-SR - Lutron Athena wireless node, Occupancy & Daylight sensor, white, D4i/DALI-2
AWN-S-OCC-BL-SR - Lutron Athena wireless node, Occupancy & Daylight sensor, black, D4i/DALI-2

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 Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



PROJECT:

TYPE:

Specifications

Application

Private offices, 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 is (1 1/2" wide X 2.125" 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. Amerlux's proprietary acrylic lens provides excellent transmission while effectively concealing source image. All louvers are retained with spring clips attached to louver side rails, for good fit and retention.

PL - Performance Lens provides high efficiency with greater lens surface brightness.

SLD - Straight blade Louver Direct has 1/2" high blades 1/2" on center with overlay. Available in white aluminum (light gray, appears white when lit), black or silver

ASY - Asymmetric 20° throw lens is backed high diffusion film that eliminates striations.

DRP1 - 1" Drop lens with illuminated end caps

Indirect:

Extruded acrylic lens with a maximum length of 8'.

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

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.

Color Temperature Options: 2700K, 3000K, 3500K, 4000K

CRI: 83 typical, 90+ typical

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 18/2 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 25' is required. Feeds are added as required by specified wattage and driver maximums. **See page 4 for wiring illustration**

1 or 2 Circuiting

1- 1 Circuit, direct & indirect same circuit

2- 2 Circuits, direct & indirect switch separately. Low voltage power feeds 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.

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).

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 8' (in 1' increments). They are supplied with matching painted End Caps and the required mounting hardware.

CON - Continuous runs 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 Run (BoR) fitted with an End Cap. The body of the runs is made up of as many 8' Middle of Run (MoR) lengths as required. End of Run (EoR) units are either made up of a 2' to 8' units to the nearest whole foot or a combination of a last 4' MoR and a 5', 6' or 7' EoR. Factory installed pins and splines make fixture alignment easy. 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 ± 1/8".

PXX - Standard patterns consist of 90° corners with standard lengths (3' to 8' 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, 90° or other corners angles with some limitations. Please provide drawings and consult factory.

Mounting

LINI.5M-DI-A16...MASW10 - Mini Indirect Direct pendant is only 1.5" wide X 2.125" high. The remote driver box is 15" long and can be located up to 15' from fixture with a 0-10V driver or Lutron drivers. 15' of low voltage plenum rated cable supplied (10' off fixture/5' off box). (see page 4)

Mini Cable Suspension:

Thinner cable, smaller gripper and cable coupler are all scaled down to match the reduced size of the LINI.5 Mini series. 5" diameter by 0.25" canopy is used for both feed and non-feed Mini Cable Kits. Low Voltage power feeds are 22 gauge 2 conductor SJT cords supplied in same color as canopy or with optional silver foil clear jacketed 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 Direct Indirect

Linear Mini Direct/Indirect, Remote Driver

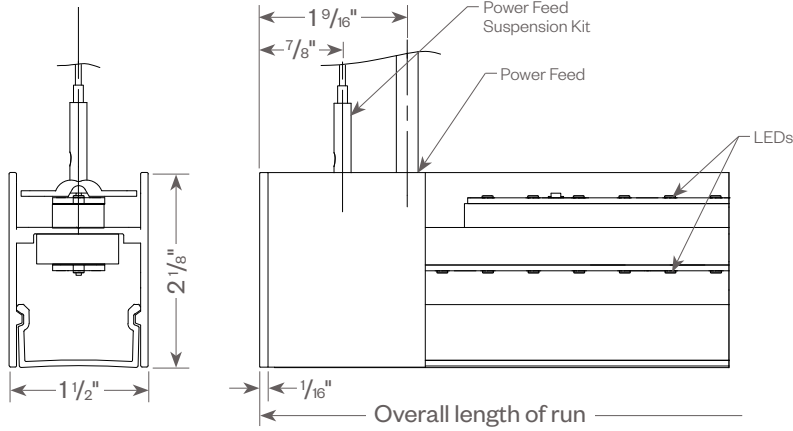


Linea 1.5" Mini Direct/Indirect

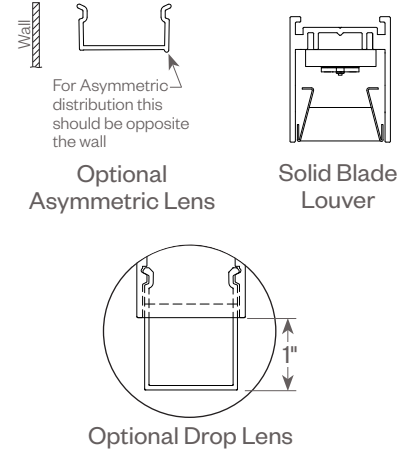
PROJECT:

TYPE:

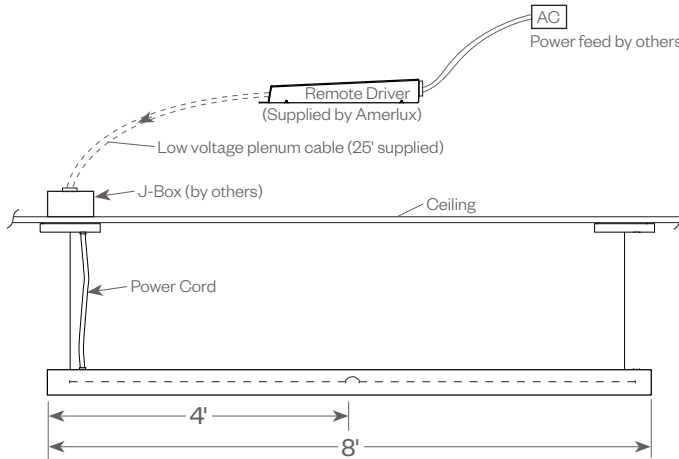
LINEA 1.5" MINI DIRECT/INDIRECT



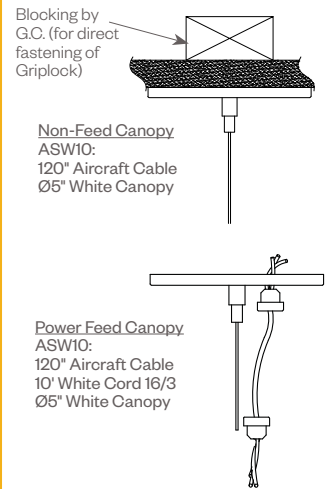
OPTIONAL LENS/LOUVER



5W/FT REMOTE

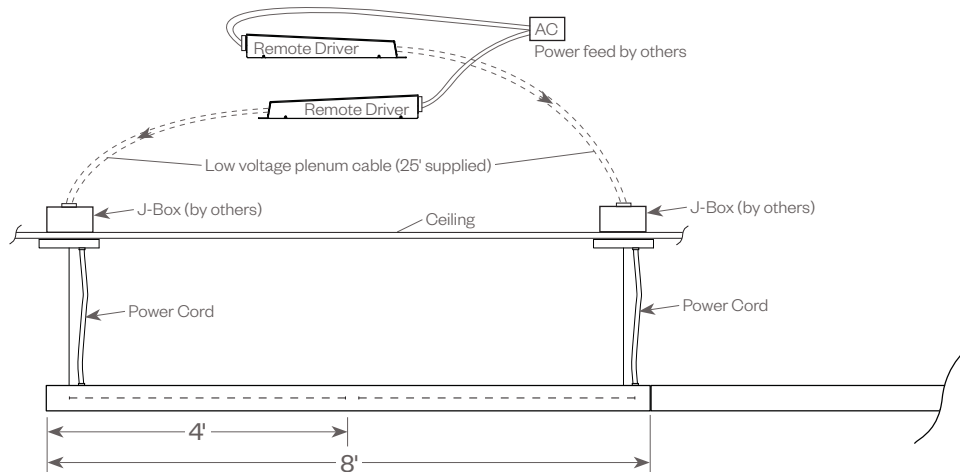


SUSPENSION DETAIL

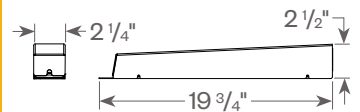


10W/FT REMOTE

Note: Driver required for every 4'. Remote drivers can be installed up to 25' max from fixture.



REMOTE DRIVER BOX



Linea® 1.5" Mini Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



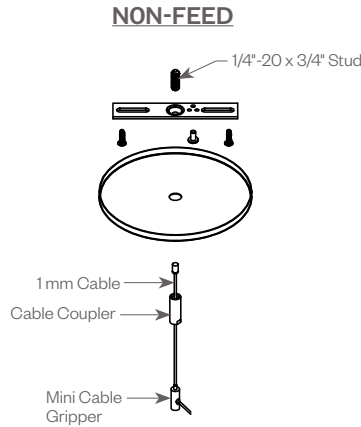
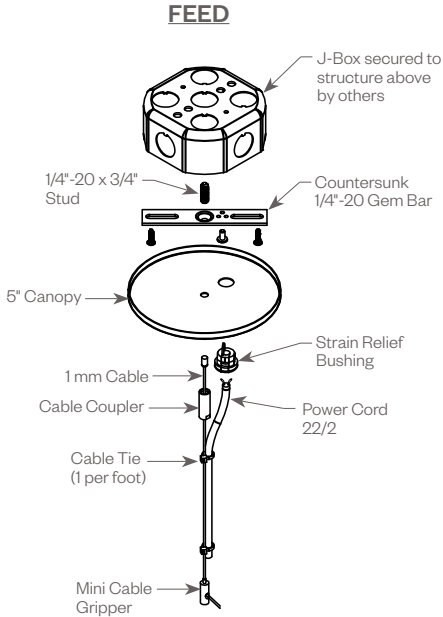
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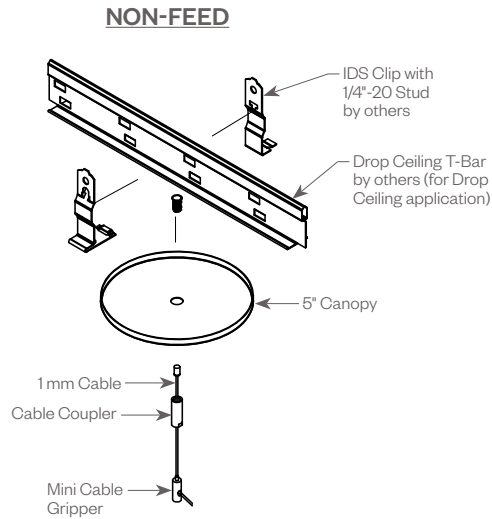
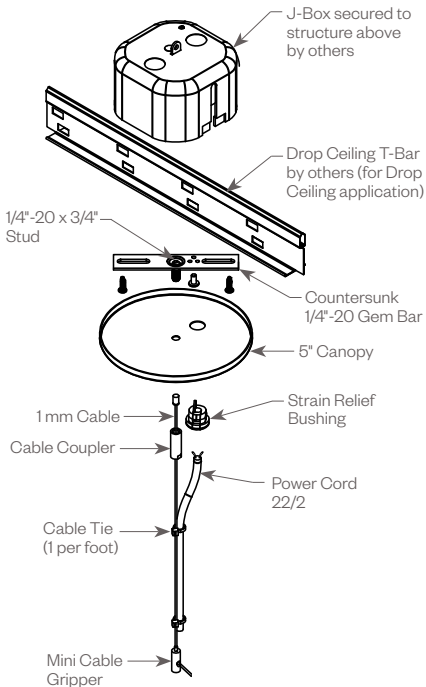
MINI CABLE KIT SUSPENSION OPTIONS:

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



TEE GRID OR SCREW SLOT (MASW10T, MASB10T)



Linea® 1.5" Mini Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



PROJECT:

TYPE:

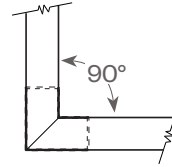
LINEA 1.5" PATTERNS:

Standard Patterns

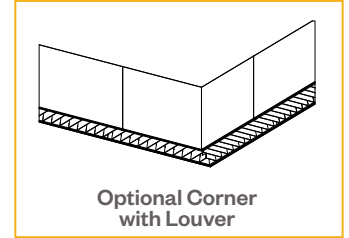
All corners are standard 90°, standard length legs.
 Use standard lengths: 4' min to 8' in 1 foot increments.
 Continuous runs must be the same length in pairs for closed configuration.

Custom Patterns

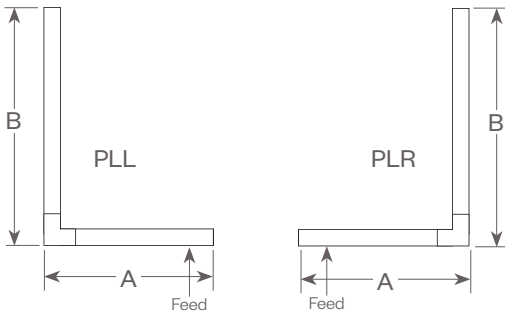
Please provide drawings of your configuration.
 Made to Measure: +/- 1/8", consult factory.
 PC - custom pattern, please provide drawings and consult factory



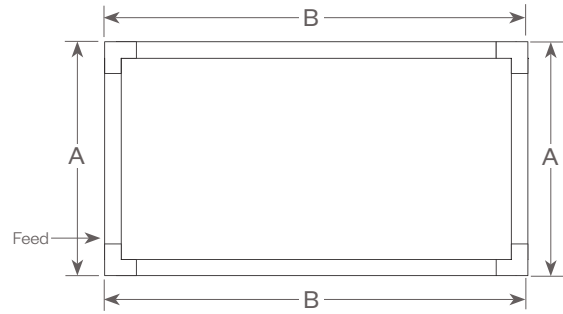
Gruv 1.5 Lens
Mitered Lens



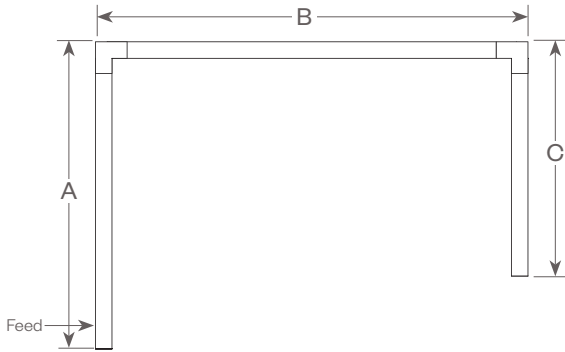
Optional Corner with Louver



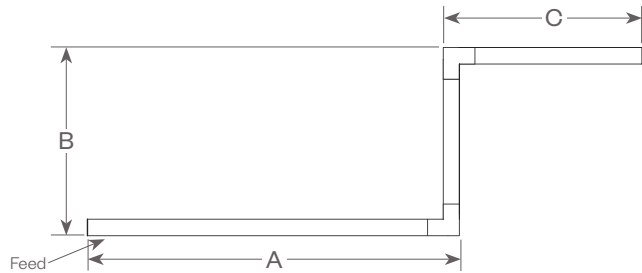
PLL - L Left, (2) straights + (1) 90° corner, leg right
PLR - L Right, (2) straights + (1) 90° corner, leg left
 Provide overall lengths: A' & B'
 Nomenclature: A-B-PLL A-B-PLR



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® 1.5" Mini Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



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)

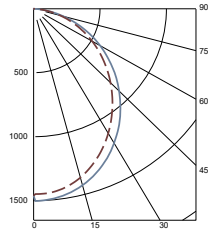
Wattage:	3W	4W	5W	6W	7W	8W	9W	10W
Factor:	0.31	0.42	0.53	0.63	0.72	0.81	0.90	1.0

Finish:	Louver	
	SLV	BLK
Factor:	1.0	.65

CCT-CRI:	2700K-83	3000K-83	3500K-83	4000K-83	2700K-90+	3000K-90+	3500K-90+	4000K-90+
Factor:	0.92	0.97	1.0	1.02	0.81	0.84	0.86	0.89

LINEA 1.5" DIRECT PERFORMANCE LENS 10W 3500K 4FT

Total Watts: 37
Total Lumens: 3691
Source: 96 White LED's



LTL# 14664757.01

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1759	47.7
0-60	2984	80.8
0-90	3691	100.00
90-180	0	0.00

Efficacy = 101.1 Lumens/Watt

COEFFICIENTS OF UTILIZATION

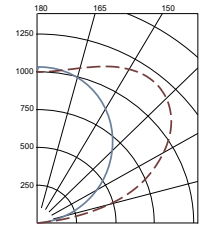
Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
ROR				
0	119	119	119	119
1	109	105	100	97
2	100	92	85	79
3	91	81	73	66
4	83	72	63	57
5	77	64	55	49
6	71	58	49	43
7	66	53	44	38
8	62	48	40	34
9	58	44	36	31
10	54	41	33	28

Note: Values are expressed as percent of total lumen output delivered to the task surface.

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	80			
RW	70	50	30	10
ROR				
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 are expressed as percent of total lumen output delivered to the task surface.

Linea® 1.5" Mini Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



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	10W
Factor:	0.31	0.42	0.53	0.63	0.72	0.81	0.90	1.0

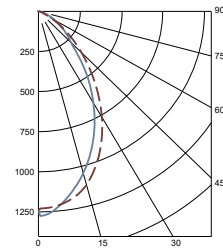
Finish:	Louver	
	SLV	BLK
Factor:	1.0	.65

CCT-CRI:	2700K-83	3000K-83	3500K-83	4000K-83	2700K-90+	3000K-90+	3500K-90+	4000K-90+
Factor:	0.92	0.97	1.0	1.02	0.81	0.84	0.86	0.89

LINEA 1.5" STRAIGHT BLADE LOUVER (SLV) 10W 3500K 4FT

Total Watts: 37 Total Lumens: 1584

Source: 96 White LED's



LTL# 14664757.05

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1129	71.3
0-60	1502	94.8
0-90	1584	100.00
90-180	0	0.00

Efficacy = 43.5 lumens/Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

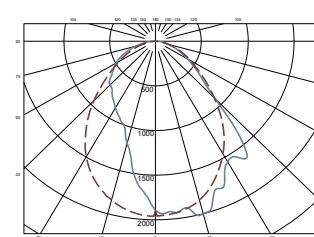
RC	80			
RW	70	50	30	10
ROR				
0	119	119	119	119
1	112	109	106	103
2	105	99	94	89
3	98	90	84	79
4	91	82	75	70
5	86	75	68	63
6	80	70	62	57
7	75	64	57	52
8	71	60	53	48
9	67	56	49	44
10	63	52	45	41

Note: Values are expressed as percent of total lumen output delivered to the task surface.

LINEA 1.5" ASYMMETRIC LENS 10W 3500K 4FT

Total Watts: 37 Total Lumens: 4046

Source: 96 White LED's



LTL# 14664757.02

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	2048	50.6
0-60	3358	83.0
0-90	4046	100.00
90-180	0	0.00

Efficacy = 110.8 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

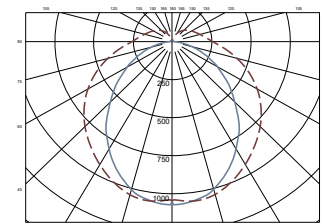
RC	80			
RW	70	50	30	10
ROR				
0	119	119	119	119
1	110	105	101	97
2	100	92	86	81
3	92	82	74	68
4	85	73	65	58
5	78	66	57	51
6	72	60	51	45
7	67	54	46	40
8	63	50	41	36
9	59	46	38	32
10	55	42	35	30

Note: Values are expressed as percent of total lumen output delivered to the task surface.

LINEA 1.5" DROP LENS 10W 3500K 4FT

Total Watts: 37 Total Lumens: 4014

Source: 96 White LED's



LTL# 14664757.03

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1339	33.4
0-60	2397	59.7
0-90	3427	85.4
90-180	588	14.6

Efficacy = 109.9 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
ROR				
0	116	116	116	116
1	103	98	93	88
2	93	84	77	70
3	85	73	65	58
4	77	65	55	48
5	71	58	48	41
6	65	52	42	36
7	60	47	38	32
8	56	43	34	28
9	52	39	31	25
10	49	36	28	23

Note: Values are expressed as percent of total lumen output delivered to the task surface.

Linea® 1.5" Mini Direct Indirect

Linear Mini Direct/Indirect, Remote Driver



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 ---

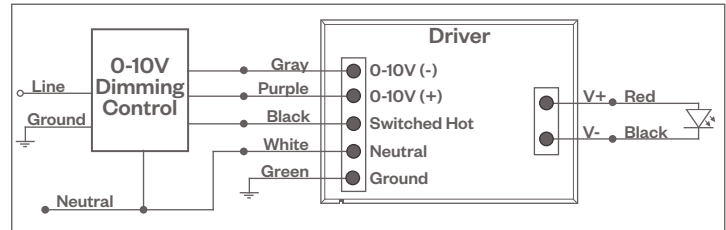
0-10V - DIMMING (Standard)

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

<u>Lutron:</u> Diva - DVSTV Maestro - MS-Z101 Nova-T - NTSTV-DV	<u>Wattstopper:</u> ADF-120277	<u>Leviton:</u> Renoir II
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Center System

Lutron Grafik Eye with GRX-TV1 Interface

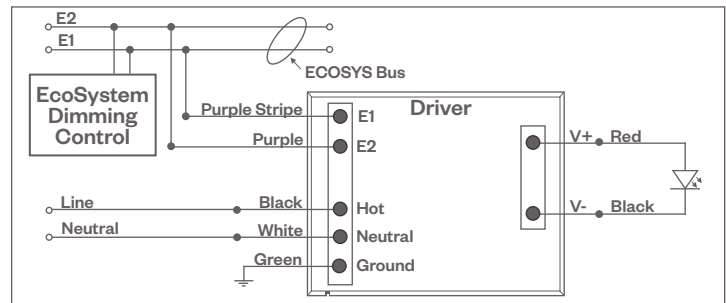
LUTRON LDE1 DIMMING

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!

Lutron LDE1 (HILUME-H-ECO) EcoSystem Digital Control Wiring Diagram



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

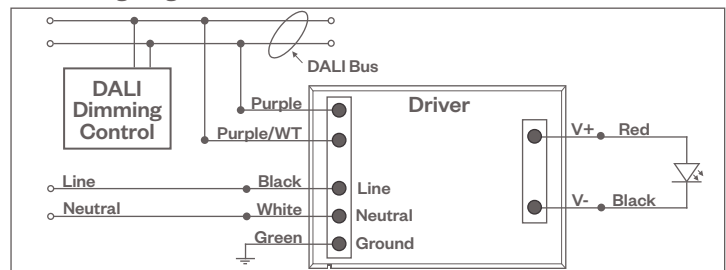
DALI - DALI DIMMING 120V-277V

Digital control protocol allows individual fixture control

Notes:

- 120VAC - 277VAC*
- Dims down to 1% light output in most cases

DALI Wiring Diagram



Compatible Dimmers*:

Wall Box

Leviton CD250 Controller

Center System

Dynalite
Fifth Light

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.