



IMMOKALEE CASINO

LIGHTING SCHEDULE



Symbol	Type	Description	Manufacturer / Catalog #	Lamps	Dimming Type	Volts	Watts	Notes
	L1	2.5 INCH Recessed LED downlight with round trim, white finish and 60° Optics	LUMENPULSE Lumenalpha Downlight Soft Small #A-277-L13-30K-CR80-W-RD-WH-DA1-NC-CL	LED 3000K 1300 lm CRI 80+	0-10V	277V	14W	
	L2	4" INCH Recessed RGBW wallwash	ACUITY BRANDS-GOTHAM 4" EVO Architainment Color #EVO-WW-ARTC-RGBW-12-4WR2-LSS-277-DMX	LED 3000K 1275 lm CRI 90	0-10V	277V	31W	
	L3	Recessed multi-downlight. With 2 adjustable heads and white finish.	CONTECH LIGHTING RDA4L SERIES MINI 02 MULT. LED ADJUSTABLE #RDA4L-2-30K-27D21-F-X2-WHT-P	LED 3000K 1478 lm CRI 90	0-10V	277V	28W	
	L4	1/2 INCH wide flexible, dimmable and weatherproof LED light strip. Self adhering mounting channel. Power supply varies on length of LED tape.	ORGANIC LIGHTING LINI LED POWER - Flexible linear LED #011598 Lini LED - RGB #011790 CONNECTION TOP #011369 MOUNTING CHANNEL Dimmable Power Supply options: 30W-240W	LED 3000K 122 lm/FT	0-10V	24 V	1.28W/FT	Contractor shall determine exact lengths of strand.
	L5	Recessed 2'X4' LED luminaire with, acrylic diffuser, matte white finish, and high Efficiency 3000 Lumen light engine. With grid frame kit.	FOCAL POINT LIGHTING - AERION 2X4 #FARL-14-AC-3000L-30K-1C-UNV-LD1-DF-WH	LED 3000K 3000 lm	0-10V	UNV	28W	
	L6	3" INCH Recessed wallwash with 30° fixed tilt, white finish and 40° Optics	LUMENPULSE #A-277-L07-30K-CR80-M-RD-WH-DA1-NC	LED 3000K 700 lm	0-10V	277V	9W	

Client _____ Project name _____

Order# _____ Type _____ Qty _____

FEATURES AND BENEFITS

Physical

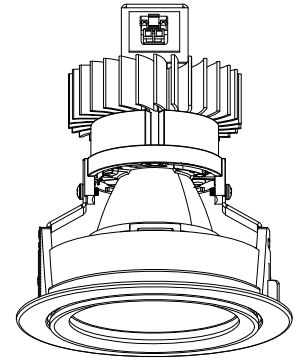
- Housing material: aluminum housing
- Reflector material: metallized polycarbonate
- Trim finish: white, black, satin or TRL trimless version
- Damp location rating (interior applications only)
- Option: WET (IP54 rating suitable for wet locations, under covered ceiling)

Performance

- Nominal lumen outputs: 700, 1000, 1300 and 2000 lumens
- Optics: 40° or 60°
- CRI values: 80+, 95+, Radiant 80+ or Radiant 95+
- Lumen maintenance: L70 @ 90,000 hrs [25°C]
- Operating temperatures: -20° C to 40° C (-4F to 104F)

Electrical

- Input voltage: 120 or 277V, consult factory for 347V
- Control options: non-dimming, 0-10 volt dimming, DALI dimming, Lumentalk dimming or Lutron® EcoSystem® Enabled dimming

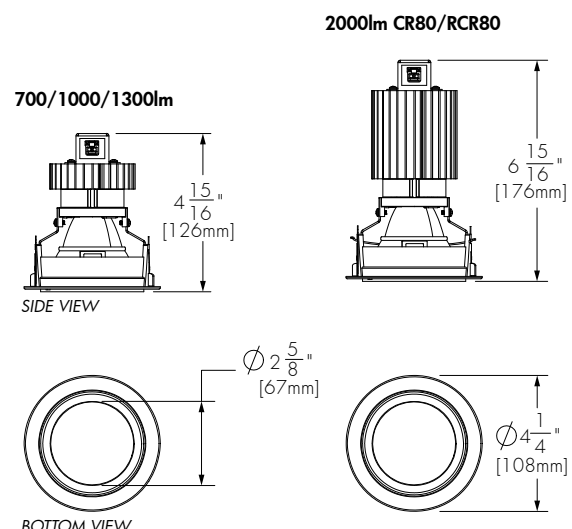
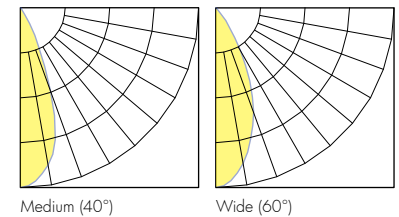


Performance summary

Based on Medium (40°), 4000K, CRI 80+
insulated ceiling non-insulated ceiling

Nominal output [lm]	Delivered output [lm]	insulated ceiling		non-insulated ceiling	
		Power [W]	Efficacy [lm/W]	Power** [W]	Efficacy [lm/W]
700*	711	7	101	9	79
1000	1016	10	101	12	84
1300	1320	14	94	16	82
2000	2031	N/A	N/A	25	81

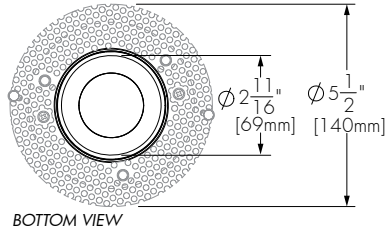
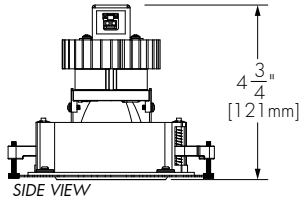
*Photometric performance is measured in compliance with IESNA LM-79-08.
**Add 3 watts per fixture when specifying Lumentalk™.



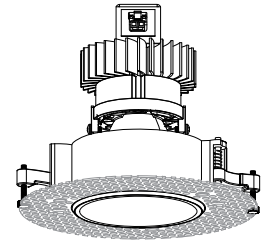
Cutout: $\phi 3 \frac{3}{4}"$ [95mm]
Maximum ceiling thickness: 1" [25mm]

TRIMLESS VERSION - ROUND SHAPE

700/1000/1300lm

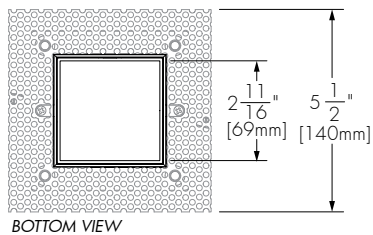
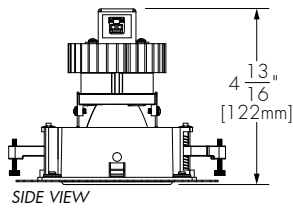


Cutout: \varnothing 4 1/2" [115mm]
Maximum ceiling thickness: 1" [25mm]

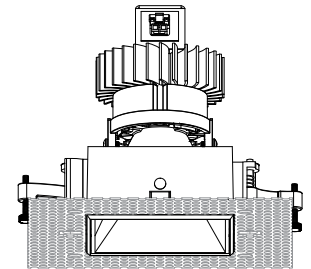


TRIMLESS VERSION - SQUARE SHAPE

700/1000/1300lm

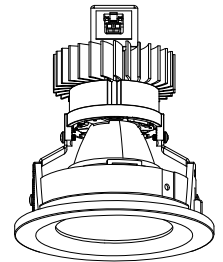
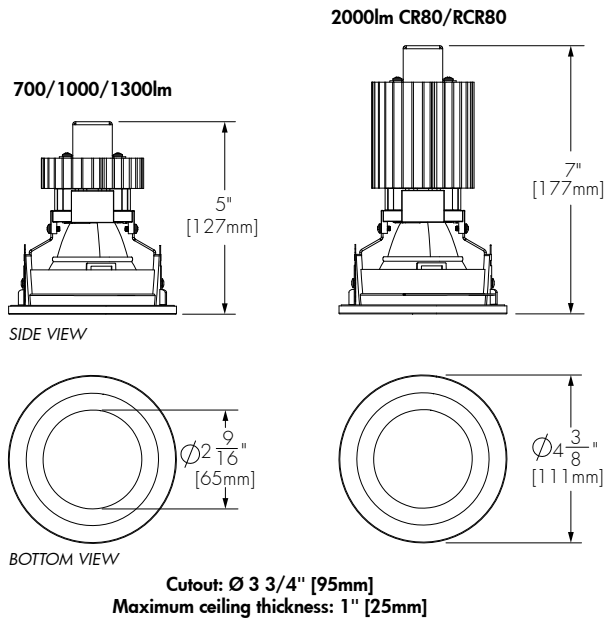


Cutout: 4 7/16" x 4 7/16" [112mm x 112mm]
Maximum ceiling thickness: 1" [25mm]



WET OPTION

IP54 rating suitable for wet location.
Suitable for covered ceiling-mounted recessed applications only.



PHOTOMETRIC INFORMATION

Medium (40°), all color temperatures

Non-insulated ceiling installation types (RM and NC)^{1,2}

	Power [W] [†]		Delivered output [lm] [†]	Candlepower distribution	Illuminance cone
	CR80	CR95			
700*	9	11	711		
1000	12	15	1016		
1300	16	20	1320		
2000	25	N/A	2031		

Wide (60°), all color temperatures

Non-insulated ceiling installation types (RM and NC)^{1,2}

	Power [W] [†]		Delivered output [lm] [†]	Candlepower distribution	Illuminance cone
	CR80	CR95			
700*	9	11	688		
1000	12	15	983		
1300	16	20	1278		
2000	25	N/A	1966		

¹Remove 2 watts per fixture when specifying new construction insulated ceiling installation types (IC and CP).

²Add 3 watts per fixture when specifying Lumentalk™.

*Photometric performance is measured in compliance with IESNA LM-79-08.

[†]Delivered wattage and delivered output: +/- 10% tolerance.

PHOTOMETRIC INFORMATION - continued

Color Rendering options comparison, 3000K

Color sample	Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
CRI 80+	81	80	85	89	81	78	80	86	66	16	64	79	58	81	93	75
CRI 95+	98	98	99	98	98	98	97	98	98	96	99	98	88	98	98	98
Radiant CRI 80+	81	81	86	89	81	80	80	85	68	16	66	80	62	82	93	77
Radiant CRI 95+	95	99	98	97	96	98	96	95	94	90	97	95	97	98	98	98

CONTROL OPTIONS

Dimming down to 1%

0-10V dimming

DA1 - 0-10V dimming, 1% linear

DA2 - 0-10V dimming, 1% logarithmic

Dimming down to 0.1%

DALI dimming

DALI1 - DALI dimming, 0.1% linear

DALI2 - DALI dimming, 0.1% logarithmic

Professional dimming down to 0.1%

0-10V dimming

PDA1 - Professional 0-10V dimming, 0.1% linear

PDA2 - Professional 0-10V dimming, 0.1% logarithmic

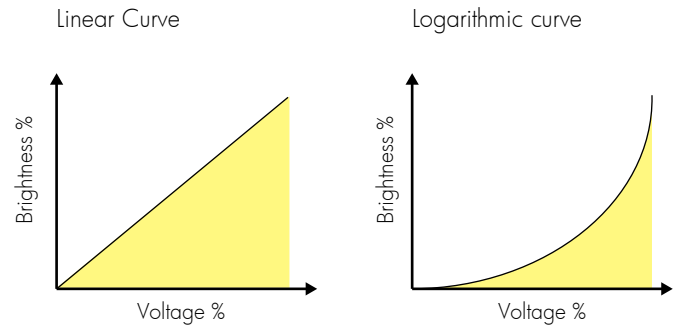
Lumentalk dimming

LT - Lumentalk dimming, 1% minimum dimming value

Lutron® EcoSystem® Enabled dimming

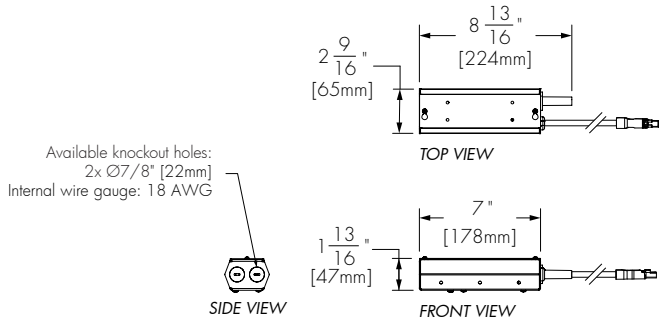
H-Series LED driver

ES - Lutron® EcoSystem® Enabled dimming, 1% minimum dimming value

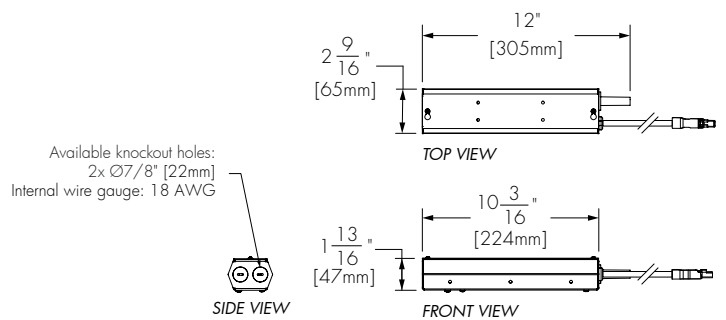


INSTALLATION TYPES

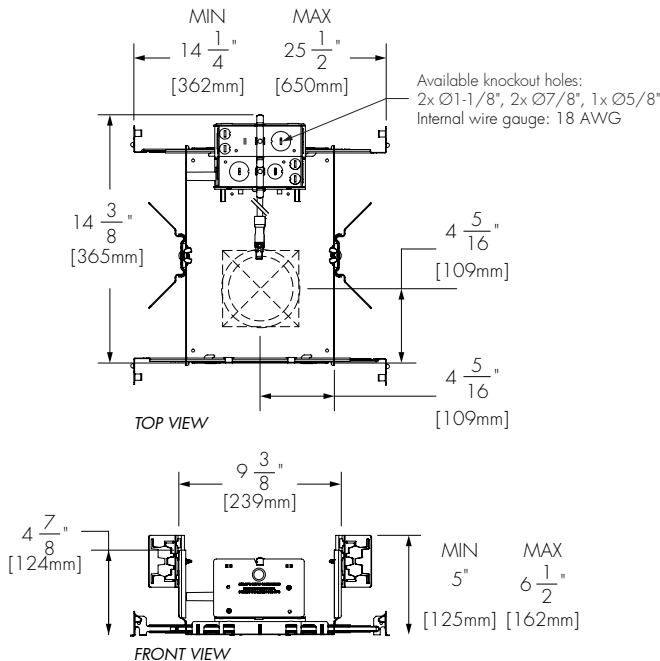
Minimum Ceiling Height Requirements				
	Up to 1000lm (CRI 80)	1300lm (CRI 80) 1000lm (CRI 95)	2000lm	3000lm
Remodel (RM)	On/Off = 6" Dimming = 8"	On/Off = 6" Dimming = 8"	8"	N/A
New Construction (NC)	6"	6"	8"	N/A
Insulation Contact (IC/CP)	7"	9"	NA	N/A



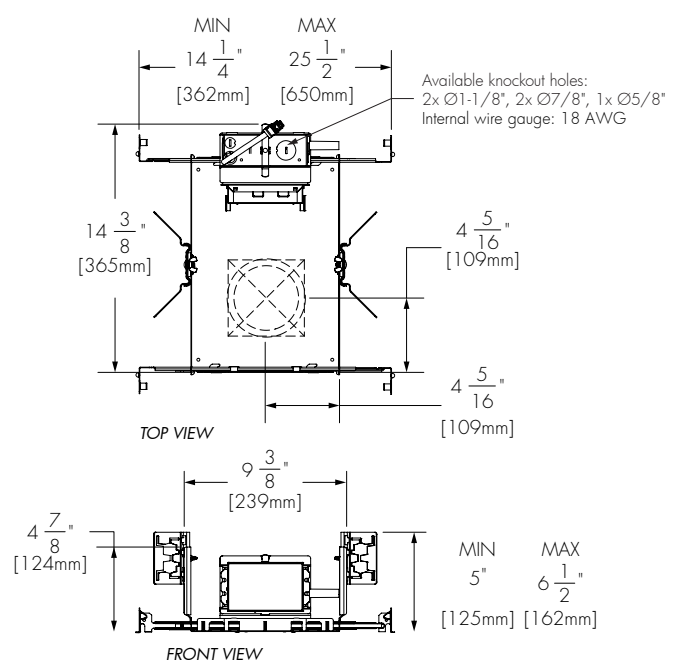
LASS-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-NO-RM
Remodel non-insulated ceiling - on/off control



LASS-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-DIMMING-RM
Remodel non-insulated ceiling - dimming

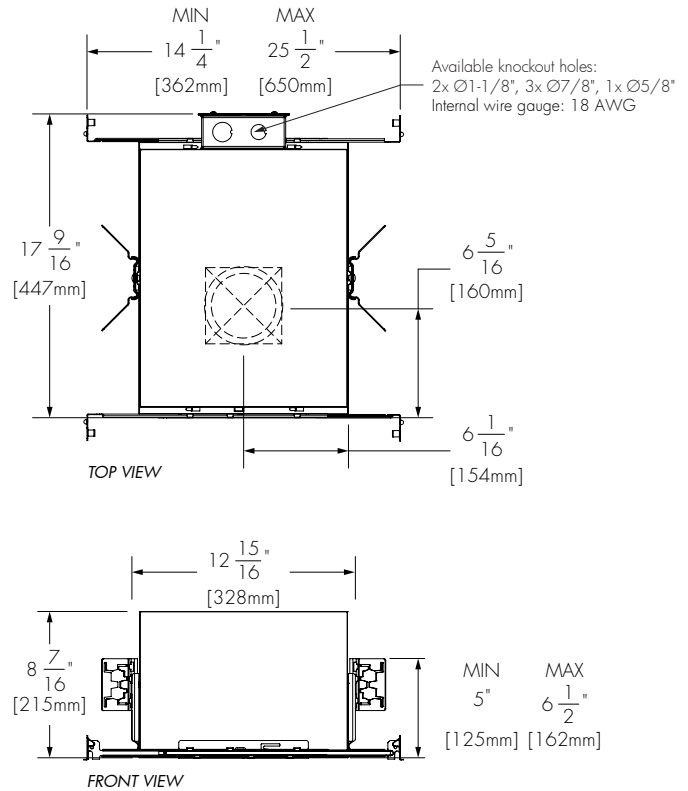
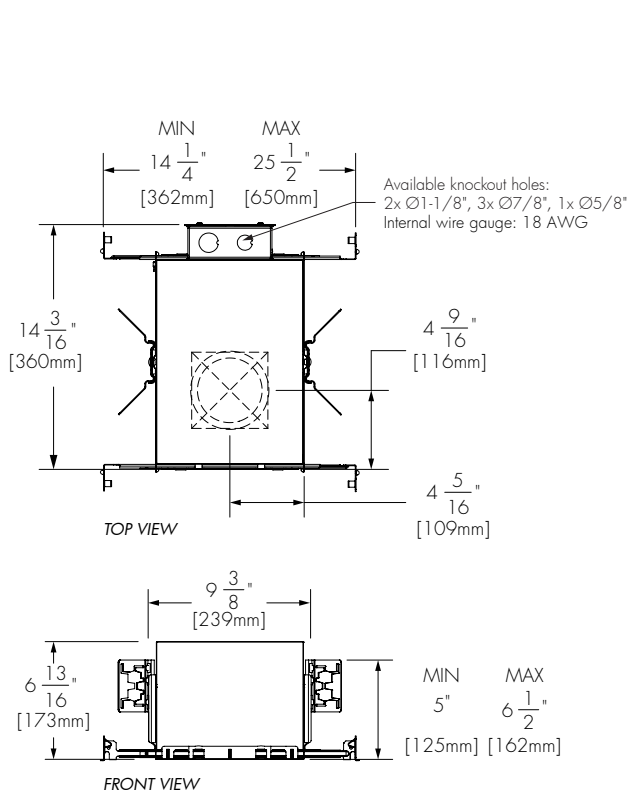


LASS-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-NO-NC
New construction non-insulated ceiling - on/off control



LASS-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-DIMMING-NC
New construction non-insulated ceiling - dimming

INSTALLATION TYPES - continued



LASS-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-CONTROL-IC/CP*

New construction insulated ceiling
New construction insulated ceiling, Chicago plenum rated option, airtight
Not available for TRL trimless version

*Available for the following output and color rendering combinations:

Nominal output [lm]	Color rendering			
	CR80	CR95	RCR80	RCR95
L07	YES	YES	YES	YES
L10	YES	N/A	YES	N/A

LASS-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-CONTROL-IC/CP*

New construction insulated ceiling
New construction insulated ceiling, Chicago plenum rated option, airtight
Not available for TRL trimless version

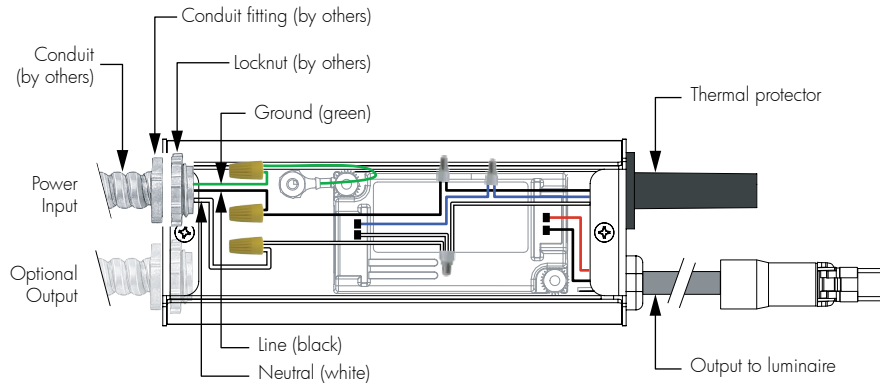
*Available for the following output and color rendering combinations:

Nominal output [lm]	Color rendering			
	CR80	CR95	RCR80	RCR95
L10	N/A	YES	N/A	YES
L13	YES	N/A	YES	N/A

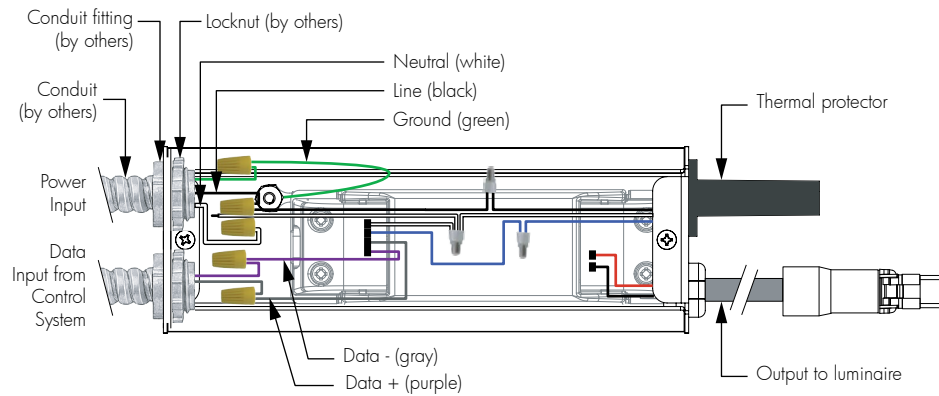
WIRING DETAILS

RM: remodel non-insulated ceiling

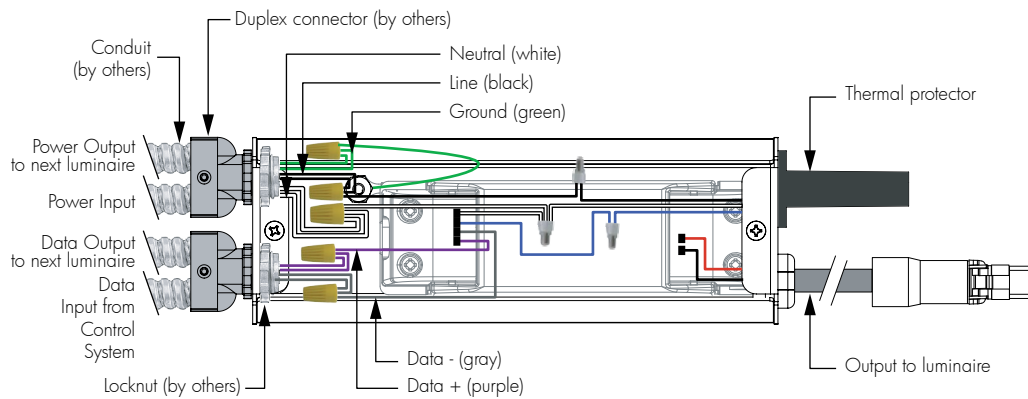
No Control



**Control
(DA1, DA2, PDA1, PDA2, DALI1, DALI2)**



**Control (Daisy Chain Layout)
(DA1, DA2, PDA1, PDA2, DALI1, DALI2)**

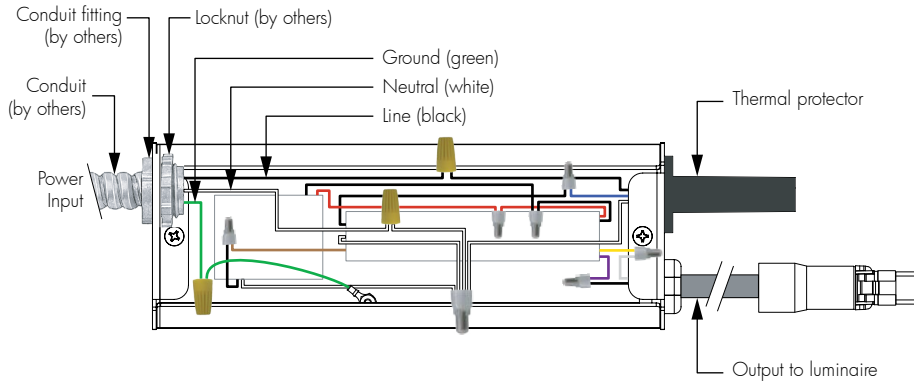


WIRING DETAILS - continued

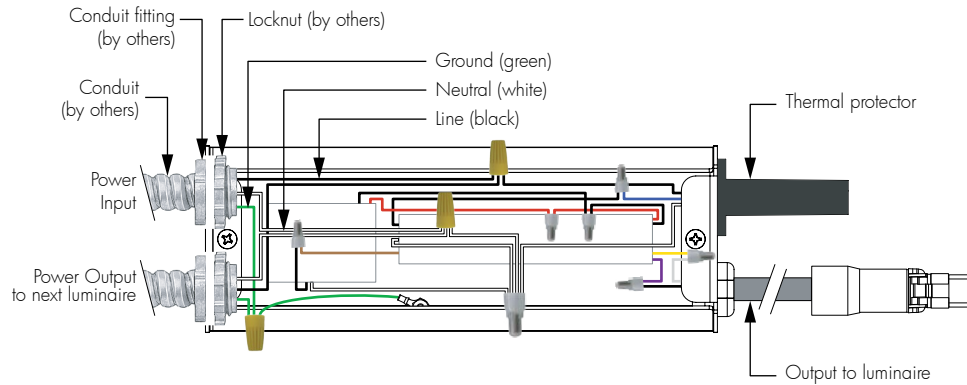
RM: remodel non-insulated ceiling

Lumentalk dimming available up to 1000 Lumens (CR80, RCR80, CR95 or RCR95), 1300 Lumens (CR80 or RCR80)

Control (LT)



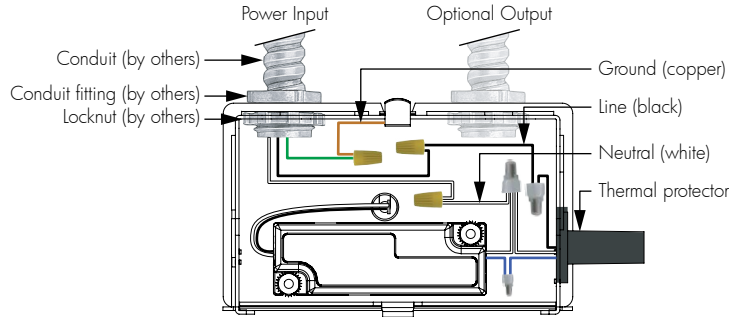
Control (Daisy Chain Layout) (LT)



WIRING DETAILS - continued

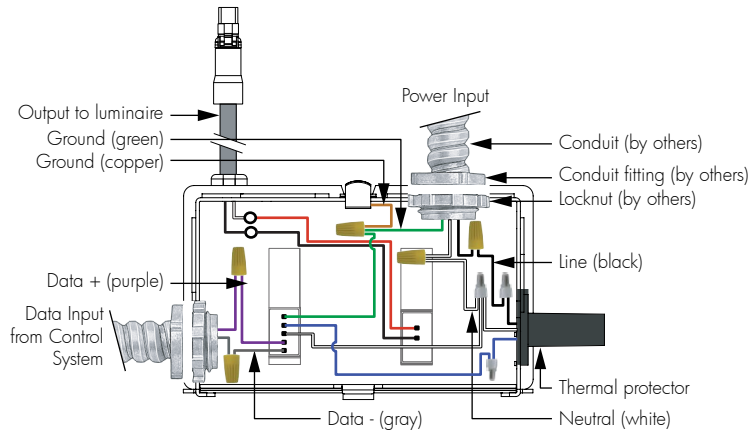
NC: new construction non-insulated ceiling

No Control



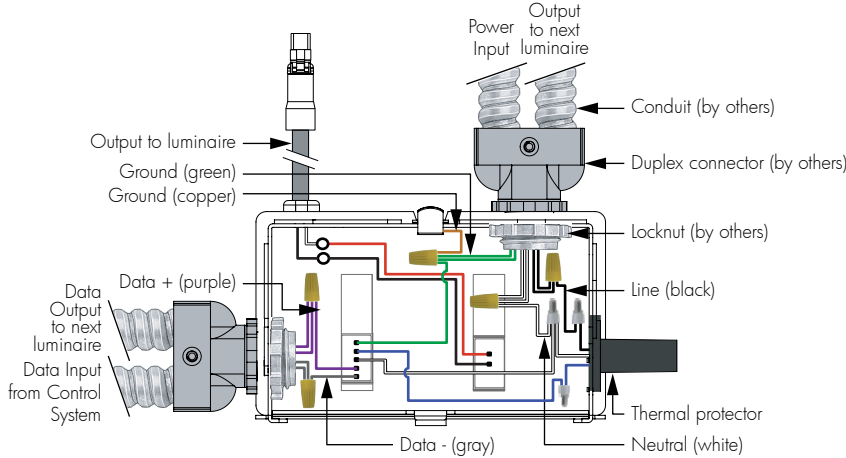
Control

(DA1, DA2, PDA1, PDA2, DALI1, DALI2, EcoSystem®)*



Control (Daisy Chain Layout)

(DA1, DA2, PDA1, PDA2, DALI1, DALI2, EcoSystem®)*



*Each Lutron® EcoSystem® enabled fixture has its own address; for each of the examples shown above, there is one EcoSystem® address. Lutron® EcoSystem® Enabled dimming is not available for 700 lumens (CR95 or RCR95).

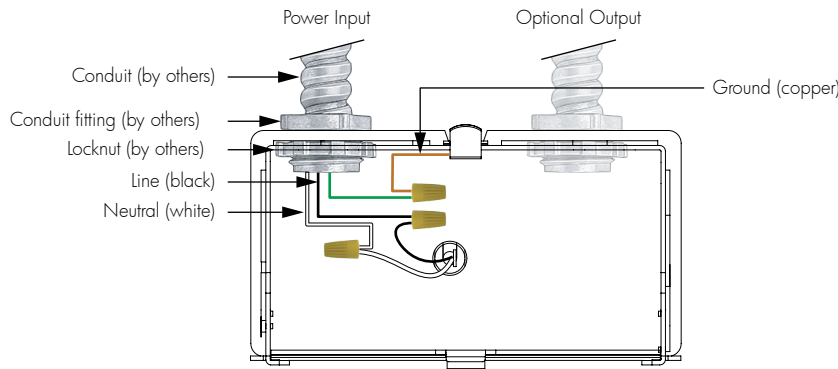
WIRING DETAILS - continued

IC/CP: new construction insulated ceiling

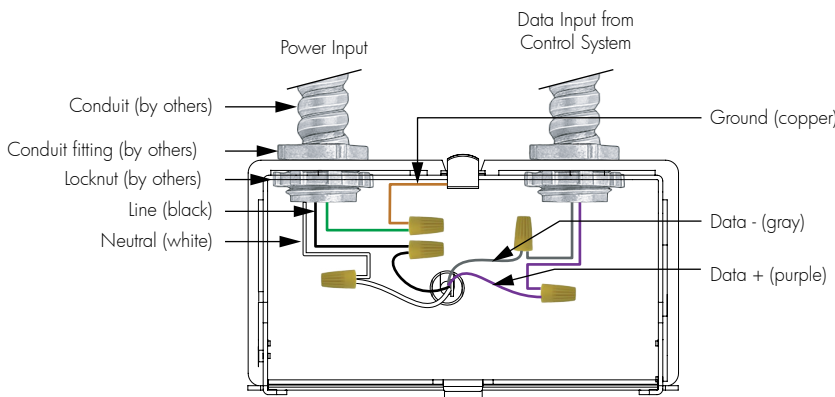
Insulated ceiling up to 1000 Lumens (CR80, RCR80, CR95 or RCR95), 1300 Lumens (CR80 or RCR80)

Not available for TRL trimless version

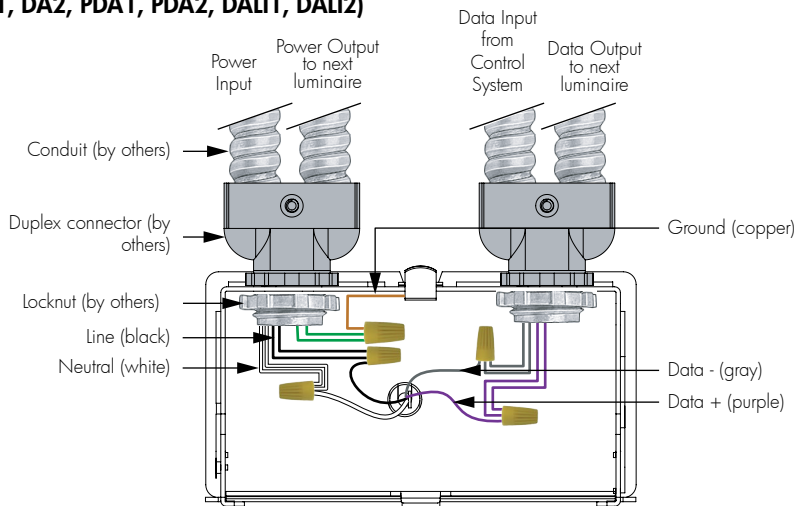
No Control



Control (DA1, DA2, PDA1, PDA2, DALI1, DALI2)



Control (Daisy Chain Layout) (DA1, DA2, PDA1, PDA2, DALI1, DALI2)



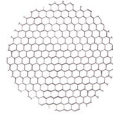
OPTICAL ACCESSORIES

Not available with WET option

CL - Clear glass lens



HL - Honeycomb louver*



SL - Softening glass lens*



RS - Linear spread glass lens*



CG - Cylindrical glass (frosted)**



HA - Halo glass**



DG - Dropped halo glass**

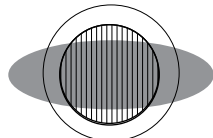


* Available with TRL trimless version only, maximum of two combined accessories.

** Available with RD round trim shape only. Not available with TRL trimless version. Cannot be combined with any other accessories.

RS - LINEAR SPREAD GLASS LENS ORIENTATION

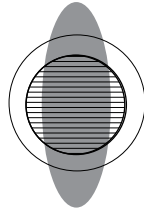
Factory installed, round trim shape shown



BOTTOM VIEW

RS

Horizontal Beam Distribution
Not adjustable onsite



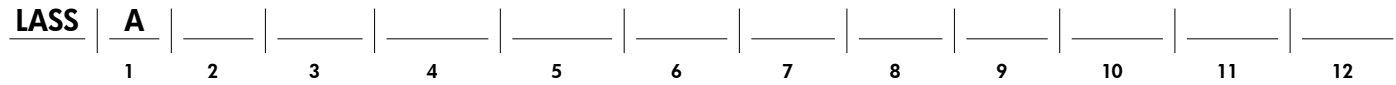
BOTTOM VIEW

RS

Vertical Beam Distribution
Not adjustable onsite

Install fixture onsite according to desired beam pattern direction.

HOW TO ORDER



1 | Region:

A - Americas

2 | Voltage:

120 - 120 volts

277 - 277 volts

Consult factory for 347 volts.

3 | Output (nominal lumens):

L07 - 700 lumens

L10 - 1000 lumens

L13 - 1300 lumens

L20 - 2000 lumens

4 | Color Temperature:

27K - 2700K

30K - 3000K

35K - 3500K

40K - 4000K

5 | Color Rendering:

CR80 - CRI 80+

CR95 - CRI 95+, up to 1300 lumen output

RCR80 - Radiant CRI 80+*

RCR95 - Radiant CRI 95+, up to 1300 lumen output*

*Radiant CRI options available for 3000K only.

6 | Optics:

M - Medium distribution 40°

W - Wide distribution 60°

7 | Trim Shape:

RD - Round shape

SQ - Square shape (available in trimless version only)

8 | Trim Finish:

WH - White trim

BK - Black trim

NST - Nickel satin trim

TRL - Trimless*

*Not available with WET option.

Not available for IC and CP installation types.

Up to 1300 lumen output.

9 | Control:

NO - On/Off control

DA1 - 0-10V dimming, 1% linear

DA2 - 0-10V dimming, 1% logarithmic

PDA1 - Pro 0-10V dimming, 0.1% linear

PDA2 - Pro 0-10V dimming, 0.1% logarithmic

DALI1 - DALI dimming, 0.1% linear

DALI2 - DALI dimming, 0.1% logarithmic

LT - Lumentalk dimming*

ES - Lutron® EcoSystem® Enabled dimming**

*1% minimum dimming value. Lumentalk dimming available for RM installation type only. Lumentalk dimming available up to 1000 lumens (CR80, RCR80, CR95 or RCR95), 1300 lumens (CR80 or RCR80).

** One EcoSystem® address per fixture. 1% minimum dimming value.

Lutron® EcoSystem® Enabled dimming available for NC installation type only.

Lutron® EcoSystem® Enabled dimming is not available for 700 Lumens (CR95 or RCR95). Lutron® EcoSystem® Enabled Dimming is not available for TRL trimless version.

10 | Installation Type:

RM - Remodel non-insulated ceiling

NC - New construction non-insulated ceiling

IC - New construction insulated ceiling*

CP - New construction insulated ceiling, Chicago plenum rated option, airtight*

*Insulated ceiling up to 1000 lumens (CR80, RCR80, CR95 or RCR95), 1300 lumens (CR80 or RCR80).

Not available for TRL trimless version.

11 | Option:

WET - IP54 rating suitable for wet location

Suitable for covered ceiling-mounted recessed applications only.

12 | Accessories (factory installed, not available with WET option):

NA - No accessory

CL - Clear glass lens

HL - Honeycomb louver*

SL - Softening glass lens*

RS - Linear spread glass lens**

CG - Cylindrical glass (frosted)***

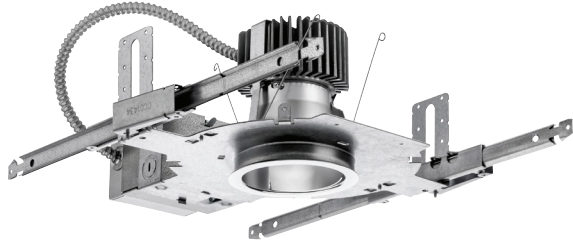
HA - Halo glass***

DG - Dropped halo glass***

*Available with TRL trimless version only, maximum of two combined accessories.

**Refer to page 13 for orientation guidelines. Available with TRL trimless version only, maximum of two combined accessories.

*** Available with RD round trim shape only. Not available with TRL trimless version. Cannot be combined with any other accessories.



Gotham Architectural Downlighting
LED Downlights

**4" Evo® Architainment Color
Wallwash**



Solid-State Dynamic Lighting

FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse or specular finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Anodized kicker reflector
- Polycarbonate lens integral to light engine

MECHANICAL SYSTEM

- 16-gauge galvanized steel construction; maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 32" and minimum of 15", preinstalled, 4" vertical adjustment
- Toolless adjustments post installation
- Junction box capacity: 8 (4 in, 4 out) 12AWG rated for 90°C
- Light engine and driver accessible through aperture

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 36,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; Typical CRI of 90 at 3000K

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling

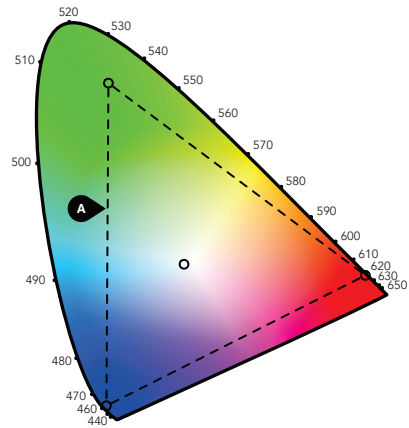
WARRANTY

- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25° C.

ARCHITAINMENT COLOR GPHD

- **Gamut** Triangular
- **Path** Full RGB gamut
- **Handle** Four Handles: Red, Green, Blue, White
- **Data** DMX512/RDM



A RGBW Range within triangle formed by RGB

ORDERING INFORMATION

EXAMPLE: EVO WW ARTC RGBW/12 4AR LSS 120 DMX

Series	Sub Series	Dynamic Feature	Dynamic Range	Lumens ¹	Aperture/Trim Color	Aperture Type
EVO Dynamic downlight	WW Open wallwash	ARTC Architainment Color	RGBW Red, green, blue, white	/12 1250 Lumens	4AR Clear 4PR Pewter 4WTR Wheat 4GR Gold	4WR² White painted 4BR² Black painted 4WRAMF² White painted antimicrobial finish
						(blank) Self-flanged FL Flangeless

Aperture Finish	Voltage	Control Interface Type	Options
LSS Semi-specular LD Matte-diffuse LS Specular	120 120V 277 277V	DMX DMX control with Phoenix connectors	SF Single fuse TRW³ White painted flange TRBL⁴ Black painted flange

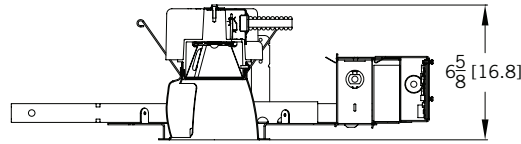
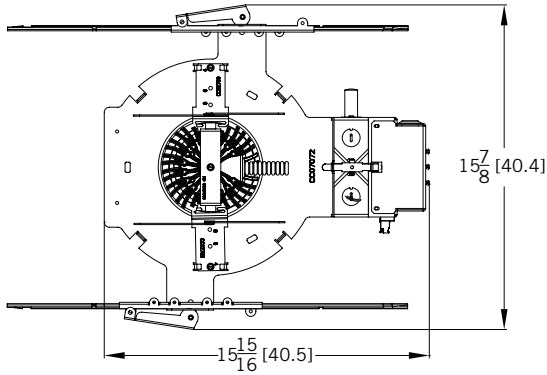
ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

CTA4-8 YK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). Adds 1" to fixture height.
FCS 7TSN XE DBL	Fresco Lighting Control with DMX and ethernet. Refer to FRESCO spec sheet for additional options.
DXT 1M09 2M12 NE1L	DMX512 RDM configuration gateway. Refer to DXT spec sheet for additional options.

DIMENSIONAL DATA

All dimensions are inches (centimeters) unless otherwise noted.



Aperture: 4-5/16" (11)
 Ceiling Opening: 5-1/8" (13)
 Overlap trim: 5-7/16" (13.8)

Architainment Spacing Requirements

1250 Lumen

Center to Center Spacing	36"
Above Spacing	12"
Center to Wall Spacing	18"

DYNAMIC SPECIFICATIONS

INDIVIDUAL COLOR CHANNEL PERFORMANCE*

		All on	Red Only	Green Only	Blue Only	White Only
/12	Delivered Lumens	1275	226	401	96	656
	Watts	31	9	11	10	12
	LPW	41	25	37	9	57

*Values shown for EVO ARTC RGBW/12 4AR MWD LSS 120 DMX

NOTES

ORDERING NOTES

- Nominal lumen values when tested at all channels full-on, RGBW.
- Not available with finishes.
- Not available with white reflector.
- Not available with black reflector.

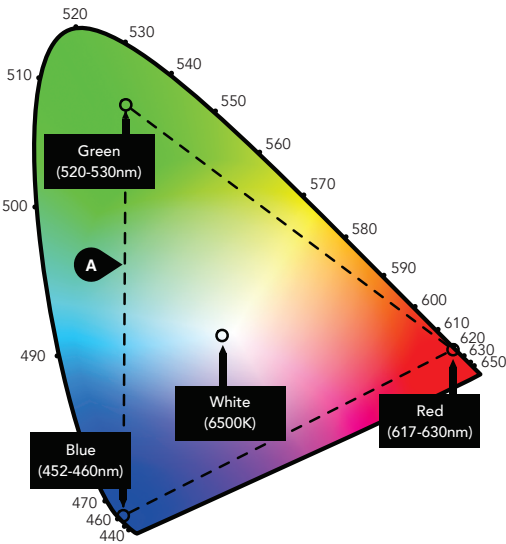
CONSULT GOTHAMLIGHTING.COM FOR PHOTOMETRY

FINISH	Clear (AR)	Pewter (PR)	Wheat (WTR)	Gold (GR)	White (WR/WRAMF)	Black (BR)
Specular (LS)	1.00	0.88	0.83	0.95	N/A	N/A
Semi-Specular (LSS)	0.95	0.84	0.79	0.90	N/A	N/A
Matte Diffuse (LD)	0.85	0.73	0.69	0.80	N/A	N/A
Paint	N/A	N/A	N/A	N/A	0.87	0.73

PHOTOMETRY NOTES

- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.

RGBW GAMUT AND RANGE

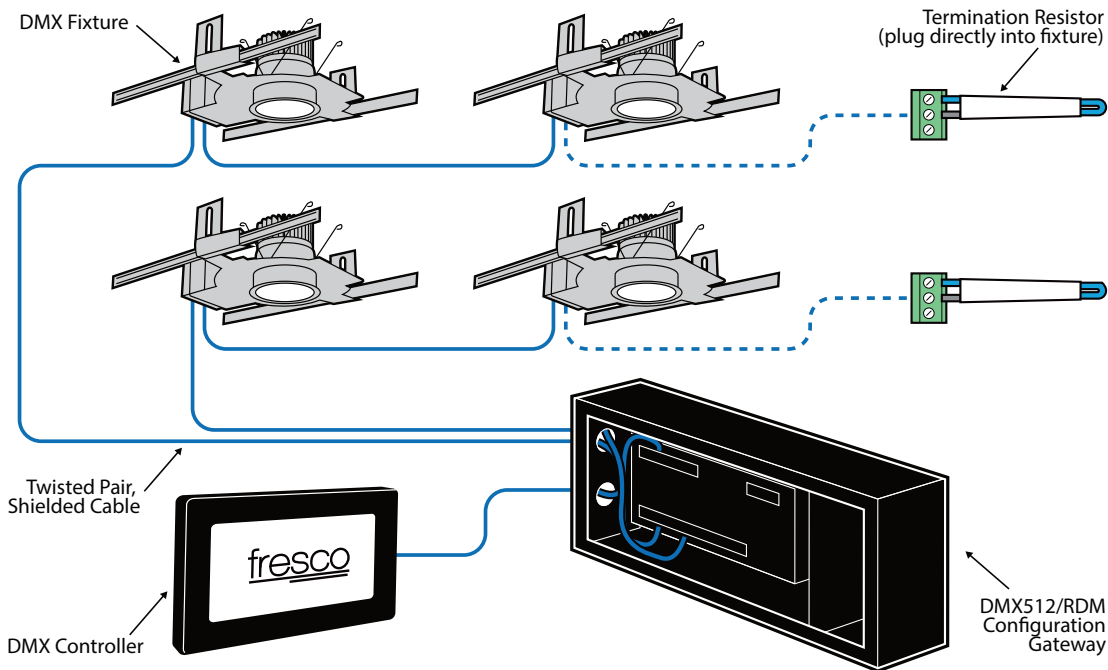


- The Gamut of a luminaire determines the potential color range, specifically the dominant wavelength of each primary color.
- The Path determines the range of colors the user can select for the luminaire.

The RGBW Range reaches the full range of saturated colors and subtle pastels to create bold transformational effects.

A RGBW Range within triangle formed by RGB

TYPICAL DMX NETWORK LAYOUT WITH CONFIGURATION GATEWAY



For additional information refer to Gotham [DMX512 / RDM Field Installation Manual](#).

Catalog No. _____

Type _____

Project _____

Specifications/Features

Housing/Mounting

High performance fixture delivering over 1400 lumens per head.
New construction housing design can also be used in remodel applications.
From single to four head units available. The four head unit is available in two configurations: rectilinear and two-by-two square.
Housing may be used for trimmed or trim-less applications.
Heavy duty 18-gauge steel housing; powder coat painted in matte black, white or silver.
Housing weights: 1-head = 5lbs, 2-head = 8lbs, 3-head = 11lbs, 4-head = 13lbs, 4-head 2X2 = 13lbs

Complete fixture [heads, drivers and junction box] can be accessed from below the ceiling.

Wing type mounting brackets allow for 3" vertical adjustment. Brackets will accept optional HB-24 flat hanger bars or HBC-24 "C" channel hangers.

Electrical

UL8750 and Class 2 Compliant; RoHS Compliant, US only.
Output over voltage, over-current and short circuit protection.
Approved for through circuit wiring. Maximum of (8) No. 12 AWG branch circuit conductors (4 in, 4 out).
Junction box has (9) 1/2" pry-outs.
Wire rating: 90°C. Thermally protected.

Lamp

Light engine consists of a single, high lumen output multi-chip LED array available in two wattage/lumen packages: 10W/1100Lm and 14W/1400Lm.
Excellent fixture-to-fixture color consistency within a 2-step MacAdam ellipse tolerance.
Precision TIR optics produce Spot (12°), Medium (29°) and Flood (37°) beam distributions. Each TIR optic has been optically engineered to provide a smooth uniform beam, maximizing output and minimizing glare.
System designed and rated for 50,000 hours at 70% lumen maintenance.
Lamp heads feature a constant tension design for tilt and rotation adjustability. Tilt mechanism can also be locked into place with a provided allen wrench.
Lamp heads provide 370° rotation and 45° tilt adjustability inside housing. For increased adjustability, the lamp head features a firm-feel detent pull-down mechanism (2" extension) which allows the head to tilt up to 90°. The pull-down mechanism can also be locked into place with a provided allen wrench.
Optional FA-44 Snoot/Accessory Holder accepts up to (2) LF16 60MM lenses or FA-16 60MM black honeycomb louver.

Trim Options

- Trimmed
 - Steel powder coat matte black, white and silver trims are available.
 - Steel torsion springs provide secure retention in housing.
- Trimless
 - Allows ceiling to be finished and painted right to the aperture opening for a clean appearance. Trimless frame is steel with a matte white powder coat finish.

Dimming

All RDA4L Series fixtures are available for non-dimming and dimming applications.

Warranty

This fixture is covered by ConTech's five (5) year full replacement guarantee after date of purchase.

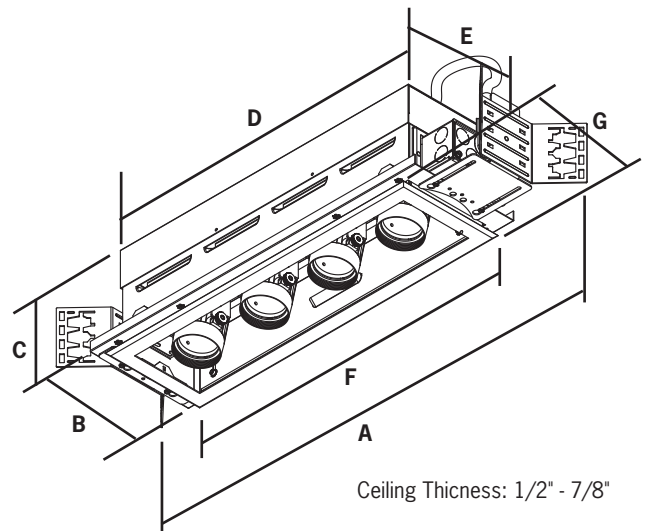
Listing

cCSAus Certified to UL standards. Suitable for dry or damp locations.
cCSAus Certified to UL924 Standard for Emergency Lighting.
Assembled in the USA.



	Series-1	Series-2
Input Voltage		
Non-Dimming	120V AC, 50/60Hz	120V AC, 50/60Hz
Non-Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
0-10V Dimming	120V AC, 50/60Hz	120V AC, 50/60Hz
0-10V Dimming	277V AC, 50/60Hz	277V AC, 50/60Hz
Triac Dimming: (F. Phase)	120V AC, 50/60Hz	120V AC, 50/60Hz
Triac Dimming: (F. Phase)	277V Not Available	277V AC, 50/60Hz
ELV Dimming (R. Phase)	120V AC, 50/60Hz	120V AC, 50/60Hz
ELV Dimming (R. Phase)	277V AC, 50/60Hz	277V AC, 50/60Hz
Input Wattage*	10	14
Input Current (A)* 120/277	.08/.04	.12/.05
Color Temp		
	2700K/3000K/ 3500K/4000K	2700K/3000K/ 3500K/4000K
CRI Standard/High		
	83 (80min) / 90+	83 (80min) / 90+
Driver		
Power Factor	> 0.90	> 0.90
THD	< 20%	< 20%
Dimming		
0-10V Dimming	15-100%	15-100%
Triac Dimming (F. Phase)	10-100% (120V Only)	10-100%
ELV Dimming (R. Phase)	10-100% (120V Only)	10-100%

*Based upon a single head



MODEL	OVERALL			HOUSING		TRIM EDGE = 1"		CEILING CUT-OUT	
	LENGTH A	WIDTH* B	HEIGHT C	LENGTH D	WIDTH E	LENGTH F	WIDTH G	LENGTH	WIDTH
X1	15-1/2"	6-7/8"	6-3/4"	5-7/8"	5-1/4"	6-9/16"	6-9/16"	6-1/8"	5-1/2"
X2	20-1/4"	6-7/8"	6-3/4"	10-9/16"	5-1/4"	11-5/16"	6-9/16"	10-7/8"	5-1/2"
X3	24-7/8"	6-7/8"	6-3/4"	15-5/16"	5-1/4"	16"	6-9/16"	15-5/8"	5-1/2"
X4	29-5/8"	6-7/8"	6-3/4"	20"	5-1/4"	20-3/4"	6-9/16"	20-5/16"	5-1/2"
X22	20-1/4"	11-5/8"	6-3/4"	10-9/16"	9-15/16"	11-5/16"	11-5/16"	10-7/8"	10-1/4"

*WING BRACKET (RL-KIT #3) WIDTH = 7-3/8"

Ordering Information

Example Order: -

Housing	LED Series	Color Temp	Electrical/Dimming	Beam	Lamps	Housing/ Head Finish	Trim Finish	Options
RDA4L								
RDA4L	1 - 1100 Lumens 2 - 1400 Lumens	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 27KC - 2700K, 90+ CRI 30KC - 3000K, 90+ CRI 35KC - 3500K, 90+ CRI 40KC - 4000K, 90+ CRI	12 - 120V Non-Dimming 27 - 277V Non-Dimming 12D1 - 120V TRIAC (F. Phase) Dimming 27D1¹ - 277V TRIAC (F. Phase) Dimming 12D2¹ - 120V 0-10V Dimming 27D2¹ - 277V 0-10V Dimming 12D5¹ - 120V ELV (R. Phase) Dimming 27D5¹ - 277V ELV (R. Phase) Dimming	S - Spot M - Medium F - Flood	X1 - One Square X2 - Two Linear X3 - Three Linear X4 - Four Linear X22 - Four Square 2x2	BLK - Matte Black WHT - Matte White SL - Satin Silver	B - Matte Black P - Matte White S - Satin Silver N - Trimless	CP² - Chicago Plenum ER³ - Factory Installed 7W/200mA Emergency Battery Backup, Remote Test Switch EB³ - Factory Installed 7W/200mA Emergency Battery Backup, Internal Test Switch Installed in Side Wall of Housing

Consult factory when different beams, color temperatures, lumen packages, or multiple circuits (2-maximum) are required in a single multiple-head fixture.

- Series 1 is not available for use with 27D1, 12D2, 27D2, 12D5 or 27D5 dimming options.
- Chicago Plenum is not available for use with Series 2. Cannot be used with the Emergency Battery Backup option.
- Emergency Battery Backup: For use in new construction applications only - requires above ceiling access. Will only energize one (1) head on a multi-head unit - 400 lumen nominal average for either Series 1 or Series 2.

Accessories

- 2INOPTIC-S** - 2" TIR Optic, Spot Beam
- 2INOPTIC-M** - 2" TIR Optic, Medium Beam
- 2INOPTIC-F** - 2" TIR Optic, Flood Beam
- HB-24** - 27" Flat Hanger Bars
- HBC-24** - 25" C-Channel Hanger Bars
- FA-16 60MM** - 2-3/8" Dia. Black Honeycomb Louver
- FA-44-(B, P, S)** - 1" Snoot/Accessory Holder
- LF16-* 60MM** - 2-3/8" Dia. Tempered Glass Lenses; Requires FA-44 Snoot/Accessory Holder

Note: When a Snoot, Louver, or Lens is desired, ensure the same quantity is ordered as the number of heads on the unit, e.g. a two-head unit would require two media be ordered.

***Color/Pattern Legend**

- A (Amber), -B (Blue), -CL (Clear), -G (Green), -LB (Light Blue), -R (Red), -RO (Rose), -Y (Yellow),
- 73 (Spread Lens), -LS (Linear Spread Lens), -SL (Soft Light), -SOL (Solite), -UV (Optivex UV Filter)

Photometrics

Multiplication Factors

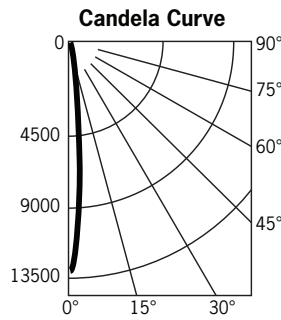
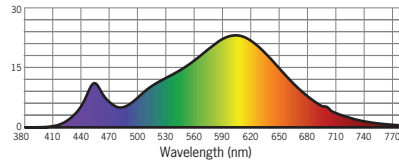
CCT	STANDARD CRI	HIGH CRI	SERIES 1, 11W
2700K	0.94	0.70	0.75
3000K	N/A	0.75	0.75
3500K	1.0	0.81	0.75
4000K	1.0	0.87	0.75

Photometric and wattage information are based upon test performance for a single head unit

14W Spot Beam, 3000K: RDA4L230K12D1SX1

Designed for 50,000 Hour Lamp Life¹; LM-63 Test No. 87351

Light Output (Fixture Delivered Lumens): 1184
Total Watts@120V: 13.8; Lumens Per Watt: 85.8
Center Beam Candle Power: 13269
Color Rendering Index (CRI)²: 83
Color Temperature (CCT)³: 3073K
Spectral Power Distribution Chart⁴
LM-79 Test No. 78891



FROM 0	CANDELA	LUMENS
0	13269	
5	8506	617
15	1364	394
25	190	99
35	33	23
45	20	15
55	15	13
65	12	12
75	6	7
85	3	3
95	0	

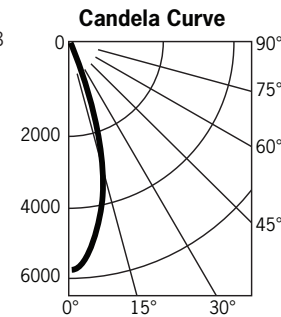
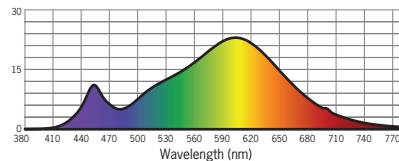
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	829.3	0.9
6'	368.6	1.3
8'	207.3	1.7
10'	132.7	2.2
12'	92.1	2.6
14'	67.7	3.0

Beam Distribution: 12°
Spacing Criterion: 0.22

14W Medium Beam, 3000K: RDA4L230K12D1MX1

Designed for 50,000 Hour Lamp Life¹; LM-63 Test No. 87352

Light Output (Fixture Delivered Lumens): 1432
Total Watts@120V: 13.8; Lumens Per Watt: 103.8
Center Beam Candle Power: 5909
Color Rendering Index (CRI)²: 83
Color Temperature (CCT)³: 3086K
Spectral Power Distribution Chart⁴
LM-79 Test No. 788890



FROM 0	CANDELA	LUMENS
0	5909	
5	5481	486
15	2711	718
25	278	179
35	52	35
45	10	9
55	3	2
65	1	1
75	1	1
85	0	0
95	0	

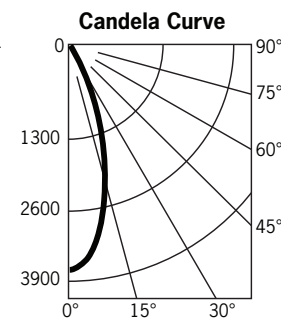
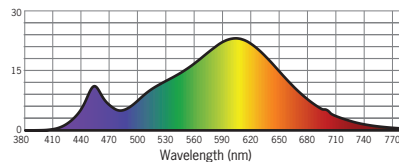
DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	369.3	1.9
6'	164.1	2.9
8'	92.3	3.8
10'	59.1	4.8
12'	41.0	5.7
14'	30.1	6.7

Beam Distribution: 29°
Spacing Criterion: 0.46

14W Flood Beam, 3000K: RDA4L230K12D1FX1

Designed for 50,000 Hour Lamp Life¹; LM-63 Test No. 87353

Light Output (Fixture Delivered Lumens): 1478
Total Watts@120V: 13.8; Lumens Per Watt: 107.1
Center Beam Candle Power: 3752
Color Rendering Index (CRI)²: 83
Color Temperature (CCT)³: 3061K
Spectral Power Distribution Chart⁴
LM-79 Test No. 79250



FROM 0	CANDELA	LUMENS
0	3752	
5	3450	310
15	2254	625
25	960	429
35	115	82
45	25	22
55	5	5
65	3	3
75	2	2
85	1	1
95	0	

DISTANCE (FT.)	FOOTCANDLES (FC)	BEAM DIAMETER (FT.)
4'	234.5	2.3
6'	104.2	3.5
8'	58.6	4.6
10'	37.5	5.8
12'	26.1	7.0
14'	19.1	8.1

Beam Distribution: 37°
Spacing Criterion: 0.58

1. Accuracy of rendering colors
2. Color appearance of light source
3. Colors present within the light source

⁴Dependent on surrounding temperatures

liniLED® Deco

White & Monocolor

FLEXIBLE LINEAR LED MODULE

MONO COLOR SPECIFICATION



Specification grade waterproof flexible linear LED light strip allowing an endless range of applications for direct or indirect view, as functional or decorative lighting for coves, backlighting, stairs, niches, signs, marine applications. Very low energy (1W ft.) with very high output, with no UV or IR. liniLED® can be applied both indoors and outdoors. Co-extruded with built in reflectors the highly flexible UV stabilized, optically clear PVC seals LEDs for permanent protection against adverse environments and handling. Rapid mounting in 66' long runs with "Solder free" push-fit connections. LiniLED SIDE enables horizontal bends to be made for curves or columns.

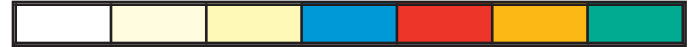
Specially designed circuitry guarantees optimal controlled output by modifying and stabilizing input every section of seven LEDs, ensuring color stability and exceptionally cool operation for longest LED life. Pulse Width Modulation dimmable for smooth dimming and extended LED life. Plug and Play system design simplifies installation and specification.

Manufactured in the EU/USA, RoHS, UL, ETLcs, CE

liniLED DECO MONO COLOR - SPECIFICATIONS

LED	SMD OSRAM TopLED
Number of LEDs	11 per ft/35 per meter, 166ft long (50m) reels
LED Color	Amber / Red / Green / Blue / White, 3000k / 4000k 6500k; CRI 85
Beam / Flux	120°; White - 38.83 lumen/ft Warm White - 33.25 lumen/ft
Dimensions	TOP: H 0.25" x W 0.50" (H6xW12mm) SIDE: H 0.50" x W 0.50" (H12xW12mm)
Length (m)	Up to 66ft (20m) continuous runs, field cuttable every 8" (20cm). 164ft reel
Bend Radius	1.2" (30mm)
Indoor or Outdoor (IP68)	Wet location (specify protected connectors)
Watts and Voltage	24VDC; 1 W/ft. (3.5W/m); ETL / CE
Material	UV/IR protected PVC. encapsulation
Dimmable	Pulse Width Modulation, or 0-10V; or 120V Electronic with special Power supply.
Life	50,000 hours white; Up to 100,000 hours for colors (mfc.data at 40°C) LM-79, 5 years limited warranty
24VDC	Select appropriate wattage power supplies, according to run length and number of runs
Accessories	Dimming controllers; Clear PET adhesive backed mounting channel; mounting saddles; power cord sets; extension cords; aluminum extrusions and diffusers

Cold White 6500K	Natural White 4000K	Warm White 3000K	Blue	Red	Amber	Green
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liniLED TOP

Extruded reflector with optically clear encapsulation of LEDs.

Dimensions: 1/4" h x 1/2" w

Curving Direction:

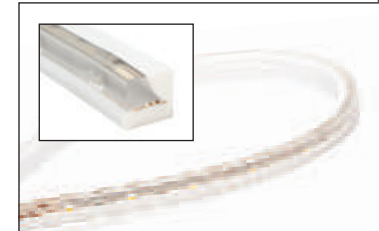


liniLED SIDE

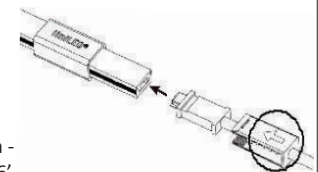
Extruded reflector with optically clear encapsulation of LEDs.

Dimensions: 1/2" h x 1/2" w

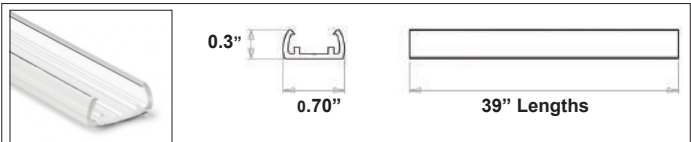
Curving Direction:



Power Connector Set, Push fit connection - no stripping or soldering required. 3' or 16'.



MOUNTING & DIMENSIONS



Mounting Channel, Clear PET self-adhesive backed, grips liniLED tightly for perfectly straight runs in minimum space. Apply to coves, surfaces or inside liniLED aluminum extrusions. Cut with scissors or craft knife.



Mounting Saddle - screw mounting with tie wrap to secure strip.

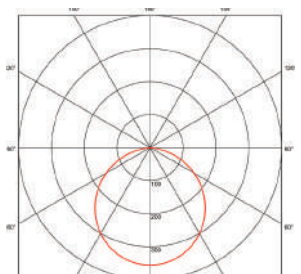
IES DISTRIBUTION CURVE

IES:- LF07T-W3F-865

Luminaire: LiniLED White; 6500k / CRI 85
Luminaire Luminous Flux: 25.47 lm
Luminaire Wattage: 0.66 W
100 CIE flux code: 48 80 97 100 100

IES:- LF07T-W3F-830

Luminaire: Warm White; 3000k / CRI 80
Luminaire Luminous Flux: 21.81 lm
Luminaire Wattage: 0.66 W
100 CIE flux code: 48 80 97 100 100



RoHS, UL, ETLcs, CE

TECHNICAL DATA

Description	Max runLength	No. of LEDs (per ft)	V/DC	Current (A)	Color	CRI	Lumens	CD/ft	W/ft	Bin
RGB	33 ft	11	24	350mA	RGB		37	13.2	1.8	
Amber	66 ft	11	24	350mA	587 nm		4.45	1.6	0.5	
Red	66 ft	11	24	350mA	617 nm		11.11	4	1	
Green	66 ft	11	24	350mA	525 nm		33.9	12.1	0.8	
Blue	66 ft	11	24	350mA	469 nm		3.99	1.4	0.6	
Cool White	66 ft	11	24	350mA	6500 K	90	38.83	13.9	0.7	Fine
Warm White	66 ft	11	24	350mA	3000 K	90	33.25	11.9	1	Fine
Natural white	66 ft	11	24	350mA	4000 K	90	33.25	11.9	1	Fine

ORDERING liniLED

1. PART#		TOP	SIDE
LIN		Amber 011603	Amber 011761
		Red 011604	Red 011762
		Green 011605	Green 011763
		Blue 011606	Blue 011764
		CW 011607	CW 011765
		WW 011601	WW 011766
		NW 011608	NW 011740

liniLED[®] THE DIFFERENCE

Specification Grade.

Made entirely in the EU / USA.

The LEDs are the latest Osram Topled they have the highest light output for the lowest energy, offering energy savings of upto 80% for cove lighting applications.. Protected with IP68 PVC encapsulation, with a hollow chamber protecting phosphors against color shift. By partnering with Osram we know the source of the LEDs and the packaging (assembly) process. - The only way to ensure repeatability over time with LEDs is to know the source of every component, from the copper foil to the last resistor.

Osram's binning for mid-range LEDs is arguably the best in the world, which means that the color matching both initially and for the life of the LEDs is consistent. LiniLED binning is better than 3 MacAdam ellipses.. The liniLED circuit is a patented custom design, with top level electronic components and an IC every 8" to further control the input to the LEDs, protecting them against color shift and reduced LED life. LiniLED is a superior product to Osrams normal standards.

A simple but convincing test is to run liniLED and hold the strip in your hand. There will be no perceptible heat in comparison with other products. With LEDs heat is the killer!

One of the most common misunderstandings is that you can place LEDs in inaccessible places because they are solid state, are shockproof and have a long life. LEDs are all of that, but they are operated by computerized electronic circuits on PC boards with many more components, which is why we seal and protect liniLED against all the elements, but ensure that maintenance and future replacement are feasible.

liniLED is the best and most energy efficient product of it's kind! Our design and automated production makes it affordable and the least expensive product to install.

For a full list of components and accessories see Accessories page.

liniLED[®] Deco

White & Monocolor

FLEXIBLE LINEAR LED MODULE



JUST 5 EASY STEPS TO SPECIFY

1. SELECT PRODUCT AND COLOR



liniLED Top Deco

- Choose run length
- Dimensions 1/4" h x 1/2" w
- Spool length 164'
- Max. 66' continuous run
- Cuttable length 8"
- Minimum order 3'

Specify Color

RGB	011602
Amber	011603
Red	011604
Green	011605
Blue	011606
Cool White 6500K	011607
Natural White 4000K	011608
Warm White 3000K	011601



liniLED Side Deco

- Choose run length
- Dimensions 1/2" h x 1/2" w
- Spool length 164'
- Max. 66' continuous run
- Cuttable length 8"
- Minimum order 3'

Specify Color

RGB	011760
Amber	011761
Red	011762
Green	011763
Blue	011764
Cool White 6500K	011765
Natural White 4000K	011740
Warm White 3000K	011766

2. CONNECTING



Push-fit Power Connector sets

Supplied with termination end cap

3' Mono Color TOP	011200
16' Mono Color TOP	011201
3' Mono Color Side	011202
16' Mono Color Side	011203
3' RGB Color Top	011204
16' RGB Color Top	011205
3' RGB Color Side	011206
16' RGB Color Side	011207



Inline Connector to Connect Strips

Mono Color TOP	011790
RGB TOP	011747



Extension Connector Cord

Extension cord to connect strips with 10" cable in between.

Mono Color Top	011208
Mono Color Side	011209
RGB Color Top	011210
RGB Color Side	011211



Protective End Cap

End Cap Top	011503
End Cap Side	011504



IP68 Submersible Cover Kit Top 011506
includes both covers for both ends.



IP68 Submersible Cover Side 011533
includes cover for one end.

3. MOUNTING



Mounting Channel

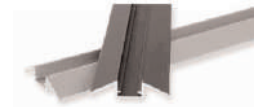
011369

Clear PET Self-adhesive backed, grips tightly for straight runs in minimum space. Apply to covers, surfaces or inside liniLED aluminum extrusions with diffusing lenses.



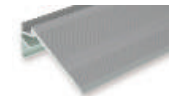
Mounting Saddle

011375



Wall/Floor Extrusion

Silver	011593
Black	011595



Stair Extrusion, Direct View

Silver	011565
Black	011567



Stair Extrusion, Indirect View

Silver	011836
Black	011837



Cove Extrusion

Silver	012807
Black	011208
White	011209
Polycarbonate Lens	011591
Left End Cap	011571
Right End Cap	011573



Line Extrusion

1" White painted aluminum	010982
2" White painted aluminum	010985
1" Frosted lens 3/16" Acrylic	010959
1" Clear lens 3/16" Acrylic	010965
2" Frosted lens 3/16" Acrylic	010961
2" Clear lens 3/16" Acrylic	010967

4. POWERING AND RUN LENGTH



Power Supply Indoor/Outdoor

Non Dimmable Power Supply

20w	011310
30W	011307
100W	011321
150W	011327
240W	011331

Dimmable Power Supply

30W	011308
100W	011321
150W	011328
240W	011332



Plug in Power Supply Indoor

120W	011323
------	--------



Power Supply Indoor

320W	011335
500W	011339



Magnetic Power Supply

IP67 Outdoor Rated ; Only for Mono Colors

20W	M20L24DC-AR
60W	M60L24DC-AR
100W	M100L24DC-AR
150W	M150L24DC-AR
200W	M200L24DC
300W	M300L24DC

5. CONTROLLING



Dimmer with On/Off Push Switch;
Dims standard power supplies;
Max. 280W @ 24VDC.

011455



RGB Stand-alone Controller

For demo or wall box mounting;
Max 120W @ 24VDC
4.3/4" x 1.7/16" x 7/8"H

011100



RGB / DIM Wall Control set

Wall mounting with IR Remote;
Max 2 Amp

011101



LIN100A1 100W DMX RGB/Dim Controller / Power supply unit

Max.100W @24VDC;
Onboard and remote addressing & programming
DMX/Dali/0-10V

011341



LLIN100D2 100W DMX RGB/Dim Controller.

Max.100W @24VDC;
Onboard and remote addressing & programming. DMX/Dali/0-10V

011343

LIN180D2 180W DMX RGB/Dim Controller.

Max.180W @24VDC;
Onboard and remote addressing & programming. DMX/Dali/0-10V

011344

LIN720D2 720W DMX RGB/Dim Controller.

Max.720W @24VDC;
Onboard and remote addressing & programming. DMX/Dali/0-10V

011345



DIMWHEEL/COLOR Wall

Programmable On/Off RGB color wheel for
LIN100/180/720, 10A. 24VDC

011342

liniLED[®] Deco

White & Monocolor

FLEXIBLE LINEAR LED MODULE

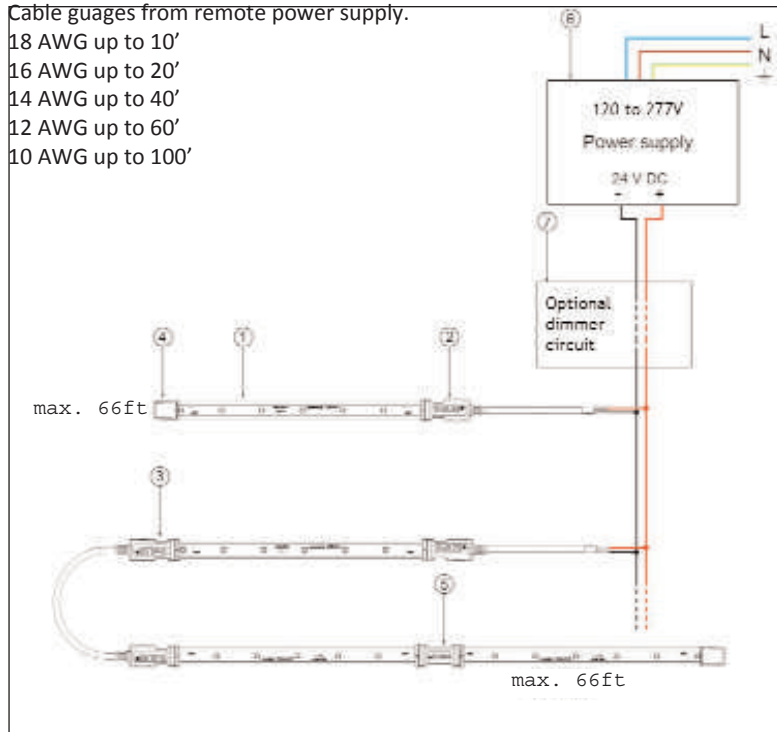


MONO COLOR INSTALLING & DIMMING

CONNECTION DIAGRAM MONO COLOR

Cable gauges from remote power supply.

- 18 AWG up to 10'
- 16 AWG up to 20'
- 14 AWG up to 40'
- 12 AWG up to 60'
- 10 AWG up to 100'



INSTALLATION

Installing:

liniLED Mono is easy to specify and simple to install. It can be cut every 8" and continuous lengths up to 66ft can be run from the power supply. (1)

Power Supplies / Controls – 24V.DC Constant Voltage: (6)

Check the Power Supplies Guide and select dimmable or non dimming-Power Supplies corresponding to the total wattage to be connected.. Select the Organic Lighting Dimming controls.if required.

Power Cords with Connector:(2)

Select the power Connector cord sets, either 3'3" or 16'3" long to match the number of runs (endcaps supplied(4)) Bends can be made with 10" extension leads(3) Interconnection can be made with Inline connectors(5) Waterproof connections require the connectors to be protected with a liniLED Connector Cover supplied with a resin glue which protects connections to IP68.

Mounting:

Clear PET adhesive backed mounting channel which can be cut to length, enable quick mounting on smooth surfaces, or select screw on mounting saddles.

Extruded aluminum housings are available for surface or recessed mounting, creating coves, step extrusions for direct view or indirect illumination and under cabinet/wall mounting extrusions can be specified.

liniLED[®] PSP DIMMING CONTROL ELECTRONIC 0-10V; PWM; OR OUR MAGNETIC AC DIMMABLE POWER SUPPLIES

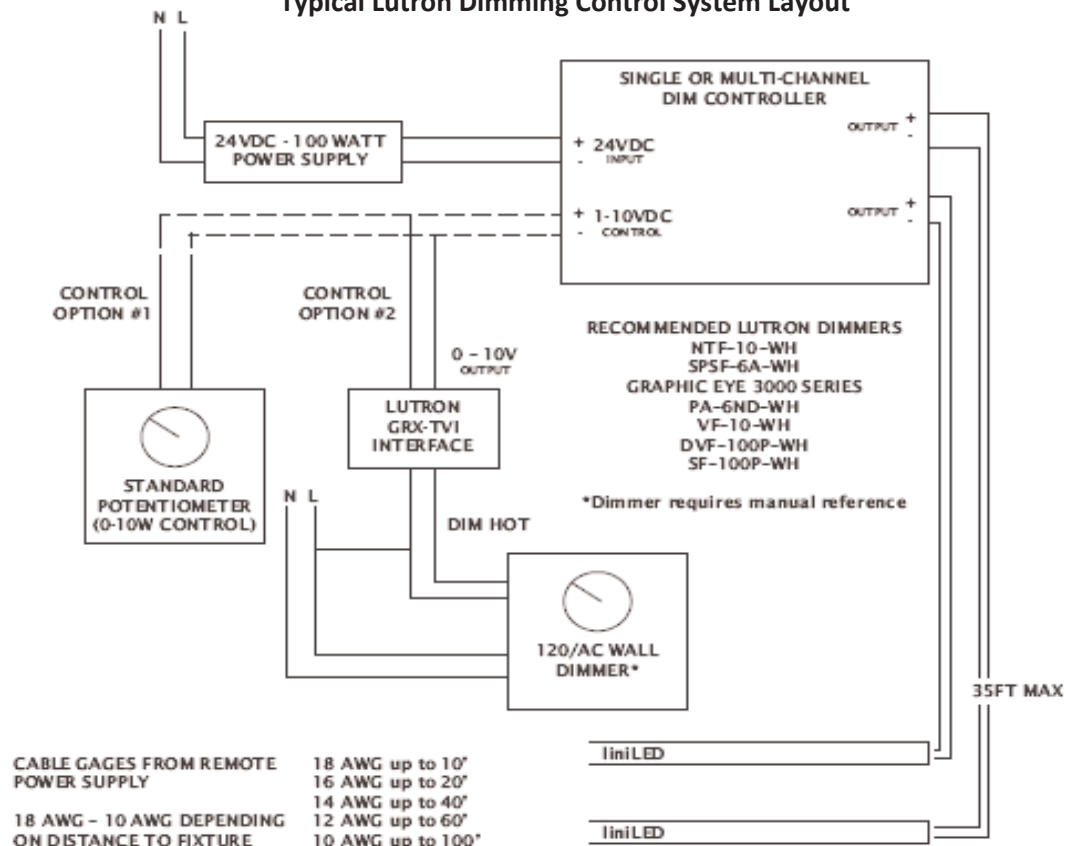
liniLED is dimmable using 1-10v or Pulse Width Modulation (PWM) controls.

- Dim with simple 1-10V dimmers or DMX/RDM dimmer controls.
- Dim only on the DC side.

2 Wire AC dimming -Electro-magnetic Power supplies can be supplied. (Require Lutron or other approved Electronic low voltage dimmer controls)

- Dimming on the AC side require special Magnetic power supplies , which must be specified when ordering.

Typical Lutron Dimming Control System Layout



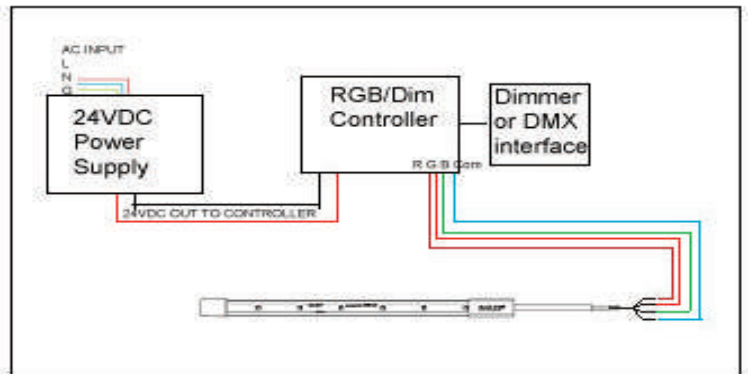
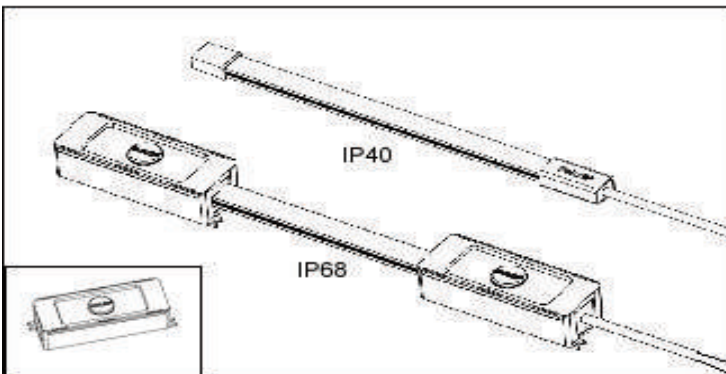
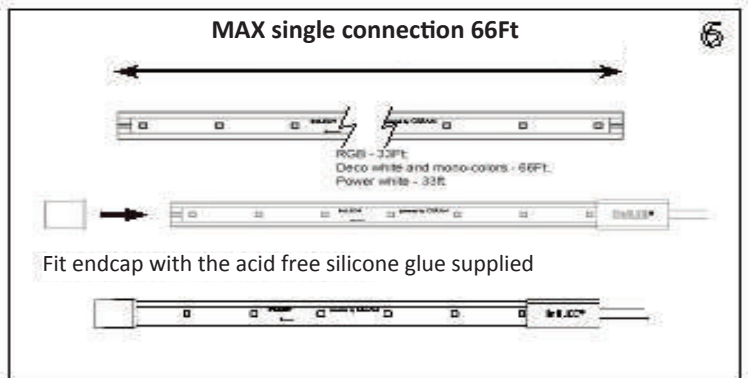
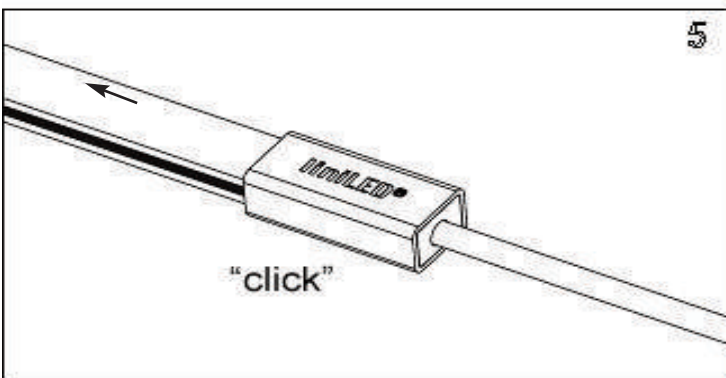
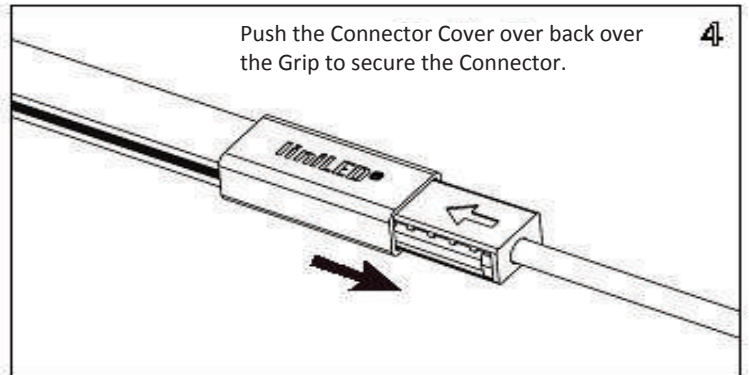
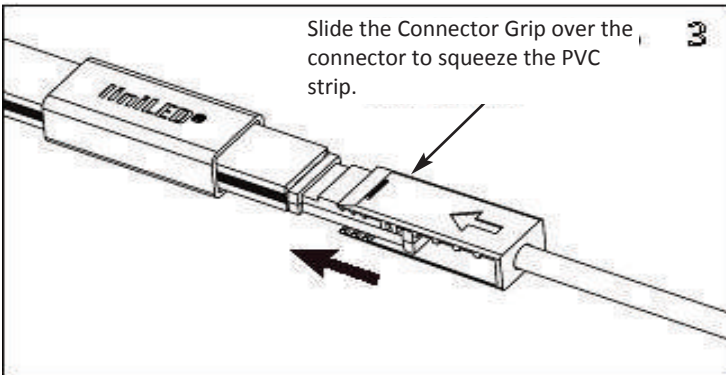
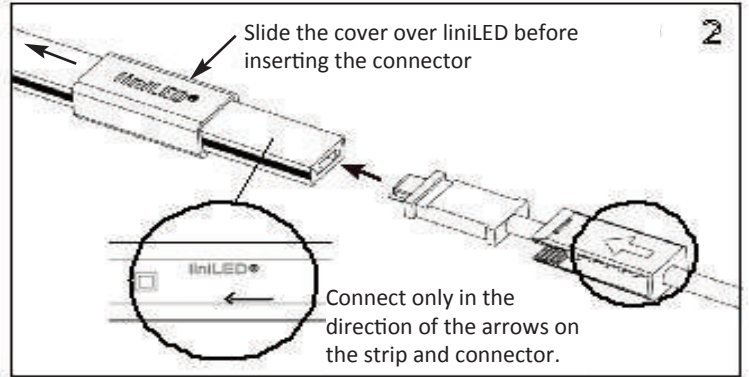
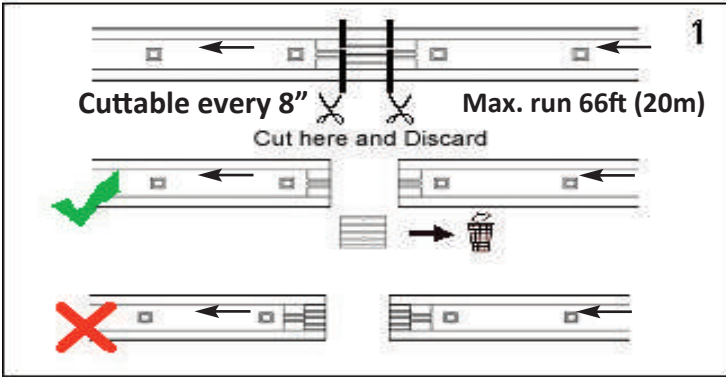
liniLED[®] Deco

White & Monocolor

FLEXIBLE LINEAR LED MODULE

MONO COLOR TRIMMING & CONNECTING

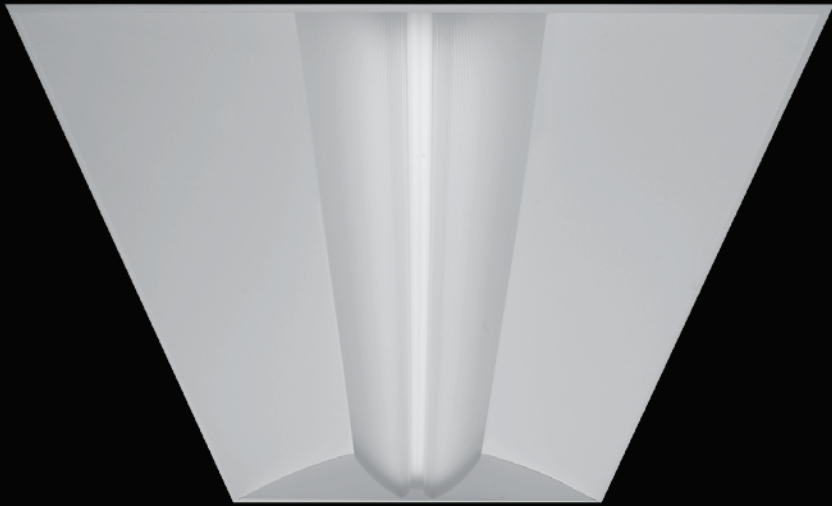
liniLED is directional. Always connect in the direction of the arrows shown on the pcb , between the LEDs



Aerion[®] 2x4

FLUORESCENT

L5



Standard Diffuser



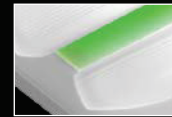
Round Accent Strip



Square Accent Strip



Red Insert

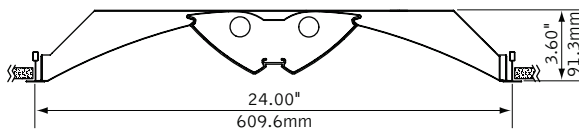


Green Insert



Blue Insert

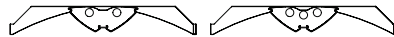
DIMENSIONAL DATA



lamping options



T5/T5HO LAMPS



T8 LAMPS

FEATURES

High efficiency architectural recessed fluorescent luminaire.

Aerion's sweeping curves and contemporary lines compliment architecture.

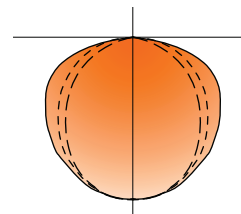
Aerion's center lamp chamber provides minimal contrast between the diffuser and side reflectors creating even illumination and comfort.

Aerion features a shallow 3.6" housing depth which flies under the radar of most plenum obstructions.

Stylized sloped endcaps highlight Aerion's distinctive look.

The lamp diffuser has been designed with an upper and lower track that accepts individual or combinations of accent strips.

PERFORMANCE



2-Lamp T5
83% Efficient
1578 cd @ 10°

PRODUCT OVERVIEW

Lumen Output: 3855-8314lm
 Wattage: 62-120W
 Lamping: T5, T5HO, T8

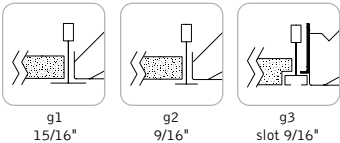
Visit focalpointlights.com for complete photometric data.

fixture:

project:

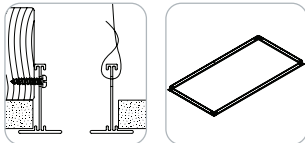
MOUNTING INFORMATION

grid
for lay-in grid, specify G1, G2 or G3.



g1 15/16" g2 9/16" g3 slot 9/16"

drywall frame kit
specify "DF" Drywall Frame Kit for drywall ceiling conditions.



Use tie-wire or screws to secure frame kit.

cut out dimensions:
2': Min: 24.25"
Max: 24.563"
4': Min: 48.25"
Max: 48.563"

SPECIFICATIONS

Construction

One piece 20 Ga. steel reflector and housing. 20 Ga. steel ends form finishing housing. Side access 20 Ga. steel ballast compartment. Earthquake brackets supplied as standard. Unit weight: 25 lbs.

Optic

20 Ga. steel reflectors finished in matte satin white powder coat. .095" thick frosted white acrylic lamp diffusers with linear micro-prism pattern. Optional .020" thick acrylic accent strip available in round or square pattern.

Electrical

Electronic ballasts are thermally protected and have a Class "P" rating. Consult factory for dimming specifications and availability.

Labels

UL and cUL listed.

Finish

Polyester powder coat applied over a 5-stage pre-treatment. Optional Matte Satin White with anti-microbial coating provides 99.99% protection against a broad spectrum of micro-organisms.

ORDERING

Luminaire Series	FAR	FAR
Aerion	FAR	
Nominal Size		24
2' x 4'	24	
Shielding		
Acrylic Diffuser	AC	
Acrylic Diffuser with Round Accent Strip	RA	
Acrylic Diffuser with Square Accent Strip	SA	
Optional Color Inserts		
<small>(Leave blank for no color)</small>		
Red	R	
Green	G	
Blue	B	
Lamp Quantity		
One Lamp <small>(T5HO only)</small>	1	
Two Lamps	2	
Three Lamps <small>(T5 & T8 only)</small>	3	
Lamp Type		
T5	T5	
T5HO	T5HO	
T8	T8	
Circuit		
Single Circuit	1C	
Dual Circuit	2C	
Voltage		
120 Volt	120	
277 Volt	277	
347 Volt	347	
<small>(Consult factory for dimming options)</small>		
UNV Volt	UNV	
<small>(Cannot be specified with 1-lamp T5HO or EM option)</small>		
Ballast		
Electronic Program Start <10% THD	S	
0-10V	D7	
Lutron 1% 3-wire	DH	
Lutron 1% H-Series	DK	
Mounting		
15/16" Grid	G1	
9/16" Grid	G2	
9/16" Slot Tee	G3	
Drywall Frame Kit	DF	
<small>(Cut out dimensions: Min: 24.25"/Max: 24.563" Min: 48.25"/Max: 48.563")</small>		
Factory Options		
Air Return <small>(Overall height for luminaire with Air Return is 4.26")</small>	AR	
Chicago Plenum	CP	
Emergency Battery Pack*	EM	
HLR/GLR Fuse	FU	
6' New York City Flex Whip	FNy	
6' Flex Whip	FW	
Include 3000K Lamp*	L830	
Include 3500K Lamp*	L835	
Include 4100K Lamp*	L841	
Separate Circuit Tandem*	SCT	
Finish		
Matte Satin White	WH	
Matte Satin White with Anti-Microbial Coating	WHA	

Aerion™ 2x4

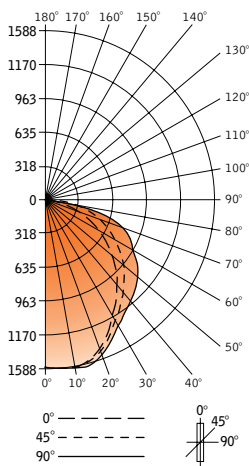
FLUORESCENT

FAR-24-AC-2-T5-1C-UNV-S-G-WH

Filename: FAR24AC2T5.IES
Test #: 13991.0

Lumens: 4807lm
Efficiency: 83%

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	
0°	1569	1569	1569	1569	1569
5°	1565	1565	1565	1565	149
15°	1537	1539	1548	1559	1584
25°	1371	1380	1405	1431	1444
35°	1141	1156	1207	1260	1284
45°	921	951	1039	1128	1175
55°	689	71	846	983	1043
65°	453	503	646	805	879
75°	35	90	428	545	591
85°	61	95	135	161	174
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30°	1240	21.4	25.8
0-40°	2000	34.5	41.6
0-60°	3575	61.6	7.4
0-90°	4807	82.9	100
Total Luminaire 0-180°	4807	82.9	100

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	1853	2090	2364
55°	1710	2100	2587
65°	1525	2176	2958
75°	1289	2352	3254
85°	1002	2202	2843

CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70			20		30		10		00
	70	50	30	10	70	50	10	50	10	50	10	50	10	00
RCR 0	99	99	99	99	96	96	96	92	92	88	88	85	85	83
1	90	86	82	79	88	84	78	81	75	77	73	74	71	69
2	82	75	69	64	80	73	64	71	62	68	61	65	59	58
3	75	66	59	54	73	65	53	62	52	60	52	58	51	49
4	68	58	51	46	67	57	45	55	45	53	44	52	43	42
5	62	51	44	38	61	51	38	49	38	47	37	46	37	35
6	57	46	38	33	56	45	33	44	33	42	32	41	32	30
7	53	41	34	29	51	41	29	39	28	38	28	37	28	26
8	49	37	30	25	47	36	25	35	25	34	24	33	24	23
9	45	33	26	21	44	32	21	32	21	31	21	30	21	19
10	42	30	23	19	40	30	19	29	19	28	19	27	19	17

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

Aerion™ 2x4

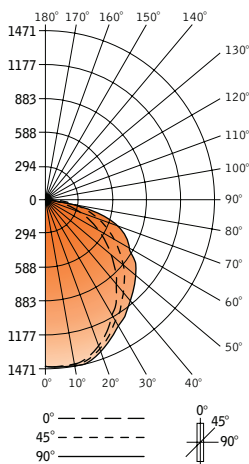
FLUORESCENT

FAR-24-AC-2-T8-S-120-G1-WH

Filename: FAR24AC2T8.IES
Test #: 14158.0

Lumens: 447lm
Efficiency: 76%

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	
0°	1460	1460	1460	1460	1460
5°	1458	1458	1460	1462	139
15°	1432	1435	1445	1457	1460
25°	1275	186	1313	1340	1351
35°	1082	1102	1150	1202	1222
45°	863	900	978	1136	1085
55°	643	687	792	906	950
65°	427	476	599	732	780
75°	229	280	400	486	513
85°	60	87	104	111	113
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30°	1157	19.6	25.8
0-40°	1880	31.9	42.0
0-60°	336	57.1	75.2
0-90°	447	75.9	100
Total Luminaire 0-180°	447	75.9	100

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	1737	1968	2183
55°	1595	1965	2357
65°	1438	2017	2626
75°	1259	2199	2820
85°	980	1698	1845

CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70			20		30		10		00
	70	50	30	10	70	50	10	50	10	50	10	50	10	00
RCR 0	90	90	90	90	88	88	88	84	84	81	81	77	77	76
1	83	79	76	73	81	77	72	74	69	71	67	68	65	64
2	75	69	64	59	73	68	59	65	57	62	56	60	55	53
3	69	61	55	50	67	60	49	57	48	55	48	53	47	45
4	63	54	47	42	61	53	42	51	41	49	41	47	40	38
5	57	47	41	35	56	47	35	45	35	43	34	42	34	32
6	53	42	35	31	51	42	30	40	30	39	30	38	30	28
7	48	38	31	27	47	37	26	36	26	35	26	34	26	24
8	45	34	27	23	43	34	23	32	23	31	23	31	22	21
9	41	31	24	20	40	30	20	29	20	28	19	27	19	18
10	38	28	22	17	37	27	17	27	17	26	17	25	17	16

Numbers indicate percentage values of reflectivity.

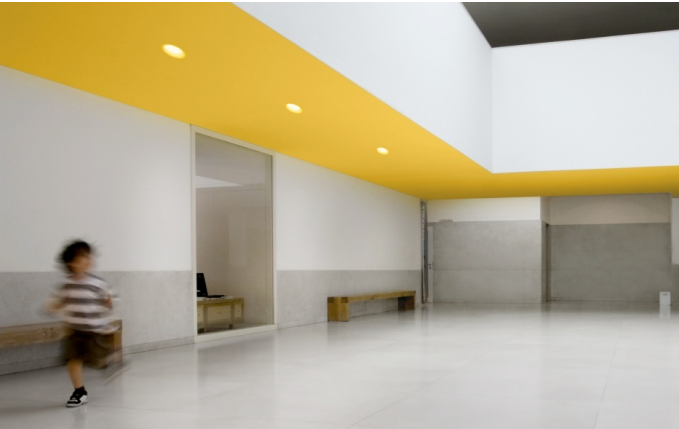
Go to www.focalpointlights.com for additional photometric data.

Lumenalpha Downlight Discreet Nano Tilt

30° fixed tilt downlight with soft reflector

Model Number

LADN-TILT __ 120 L10 30K RCR80 M RD WH DA1 NC __



Description

The Lumenalpha Downlight Discreet Nano Tilt is a high-performance LED downlight with a fixed 30° tilt. The luminaire achieves a sleek, trimless appearance without the cost and complexity of plastering in small luminaires. With an all-white finish and deep-set reflector, the luminaire blends harmoniously into ceilings, making it ideal for commercial and residential applications looking for a clean, minimalist look. The Lumenalpha Downlight Discreet Nano Tilt offers a wide choice of outputs, a wallwash version, color temperatures, color rendering options, and optical accessories.

Options

Housing Lumenalpha Downlight Discreet Nano Tilt

Region TBD

Voltage 120 volts

Output (nominal lumens) 1000 lumens

Color Temperature 3000K

Color Rendering Radiant CRI 80+

Optic Medium distribution 40°

Trim Shapes Round shape

Trim Finishes White trim finish

Control 0-10V dimming, 1% linear

Installation Type New construction non-insulated ceiling

Accessories TBD

Ratings



Client _____ Project name _____

Order# _____ Type _____ Qty _____

FEATURES AND BENEFITS

Physical

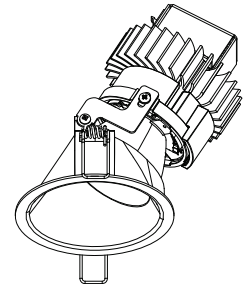
- Housing material: aluminum housing
- Reflector material: metallized polycarbonate
- Trim finish: white, black, gray or custom RAL color
- Fixed tilt, 30°
- Damp location rating (interior applications only)

Performance

- Nominal lumen outputs: 700, 1000 and 1300 lumens
- Optics: 40°
- CRI values: 80+, 95+, Radiant 80+ or Radiant 95+
- Lumen maintenance: L70 @ 90,000 hrs [25°C]
- Operating temperatures: -20° C to 40° C (-4F to 104F)

Electrical

- Input voltage: 120 or 277V, consult factory for 347V
- Control options: non-dimming, 0-10 volt dimming, DALI dimming or Lumentalk dimming

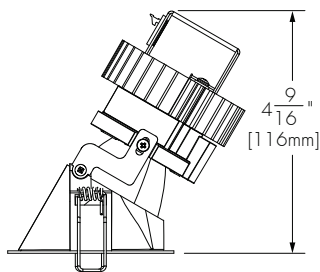


Performance summary

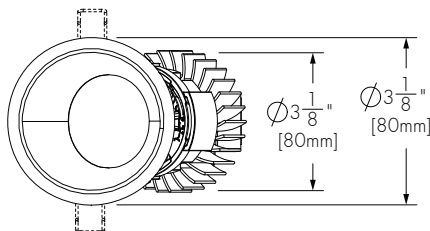
Based on Medium (40°), 3000K, CRI 80+
insulated ceiling non-insulated ceiling

Nominal output [lm]	Delivered output [lm]	Power [W]	Efficacy [lm/W]	Power** [W]	Efficacy [lm/W]
700	528	7	75	9	59
1000	755	10	75	12	63
1300*	981	14	70	16	61

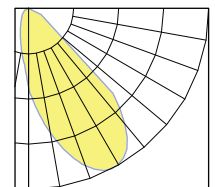
*Photometric performance is measured in compliance with IESNA LM-79-08.
**Add 3 watts per fixture when specifying Lumentalk™.



SIDE VIEW



BOTTOM VIEW



Medium (40°)

Cutout: Ø 2 15/16" [75mm]
Maximum ceiling thickness: 1" [25mm]

* Fixed tilt construction is factory set and cannot be adjusted in the field.

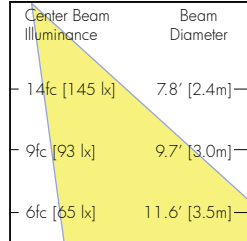
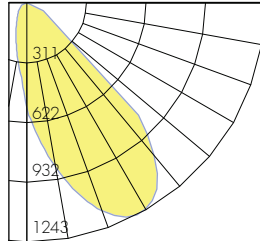
PHOTOMETRIC INFORMATION

Medium (40°), all color temperatures

Non-insulated ceiling installation types (RM and NC)^{1,2}

Nominal output [lm]	Power [W] [†]	Delivered output [lm] [†]	Candlepower distribution	Illuminance cone
	CR80	CR95		
700	9	11		
1000	12	15		
1300*	16	20		

Center Beam Illuminance	Beam Diameter	Height
14fc [145 lx]	7.8' [2.4m]	8' [2.5m]
9fc [93 lx]	9.7' [3.0m]	10' [3m]
6fc [65 lx]	11.6' [3.5m]	12' [4m]



¹Remove 2 watts per fixture when specifying new construction insulated ceiling installation types (IC and CP).

²Add 3 watts per fixture when specifying Lumentalk™.

*Photometric performance is measured in compliance with IESNA LM-79-08.

[†]Delivered wattage and delivered output: +/- 10% tolerance.

PHOTOMETRIC INFORMATION - continued

Color Rendering options comparison, 3000K

Color sample	Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
CRI 80+	81	80	85	89	81	78	80	86	66	16	64	79	58	81	93	75
CRI 95+	98	98	99	98	98	98	97	98	98	96	99	98	88	98	98	98
Radiant CRI 80+	81	81	86	89	81	80	80	85	68	16	66	80	62	82	93	77
Radiant CRI 95+	95	99	98	97	96	98	96	95	94	90	97	95	97	98	98	98

CONTROL OPTIONS

Dimming down to 1%

0-10V dimming

DA1 - 0-10V dimming, 1% linear

DA2 - 0-10V dimming, 1% logarithmic

Dimming down to 0.1%

DALI dimming

DALI1 - DALI dimming, 0.1% linear

DALI2 - DALI dimming, 0.1% logarithmic

Professional dimming down to 0.1%

0-10V dimming

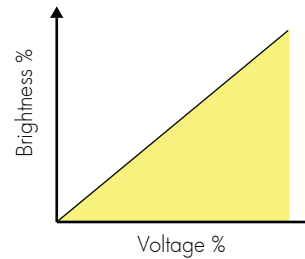
PDA1 - Professional 0-10V dimming, 0.1% linear

PDA2 - Professional 0-10V dimming, 0.1% logarithmic

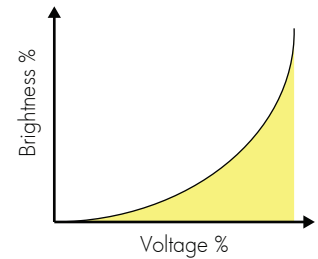
Lumentalk dimming

LT - Lumentalk dimming, 1% minimum dimming value

Linear Curve

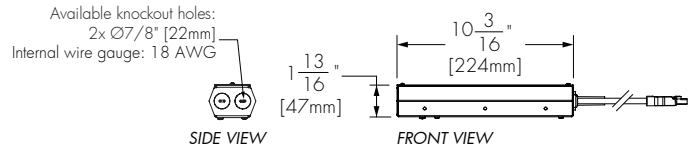
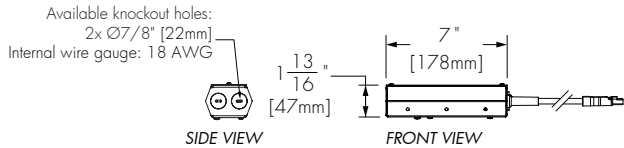
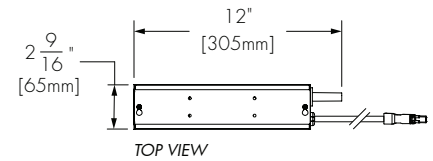
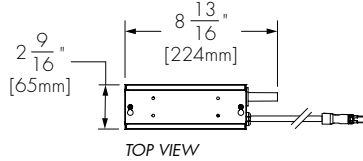


Logarithmic curve



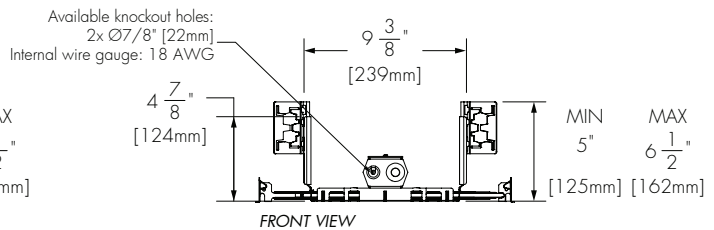
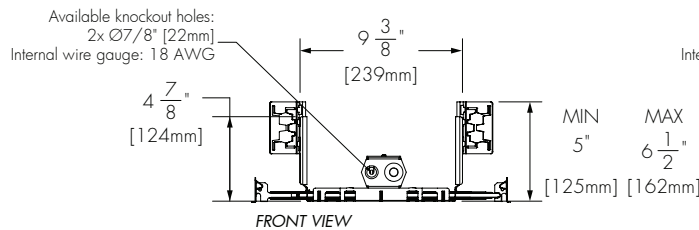
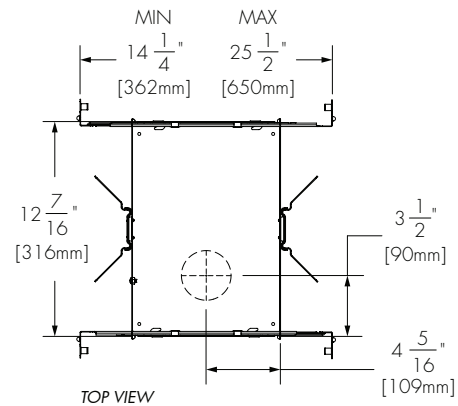
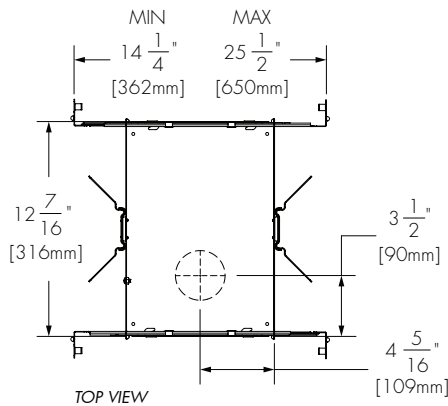
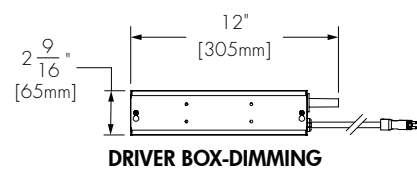
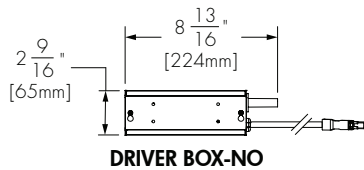
INSTALLATION TYPES

Minimum Ceiling Height Requirements				
	Up to 1000lm (CRI 80)	1300lm (CRI 80) 1000lm (CRI 95)	2000lm	3000lm
Remodel (RM)	On/Off = 8" Dimming = 10"	On/Off = 8" Dimming = 10"	N/A	N/A
New Construction (NC)	On/Off = 8" Dimming = 10"	On/Off = 8" Dimming = 10"	N/A	N/A
Insulation Contact (IC/CP)	7"	9"	N/A	N/A



LADN-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-NO-RM
Remodel non-insulated ceiling - on/off control

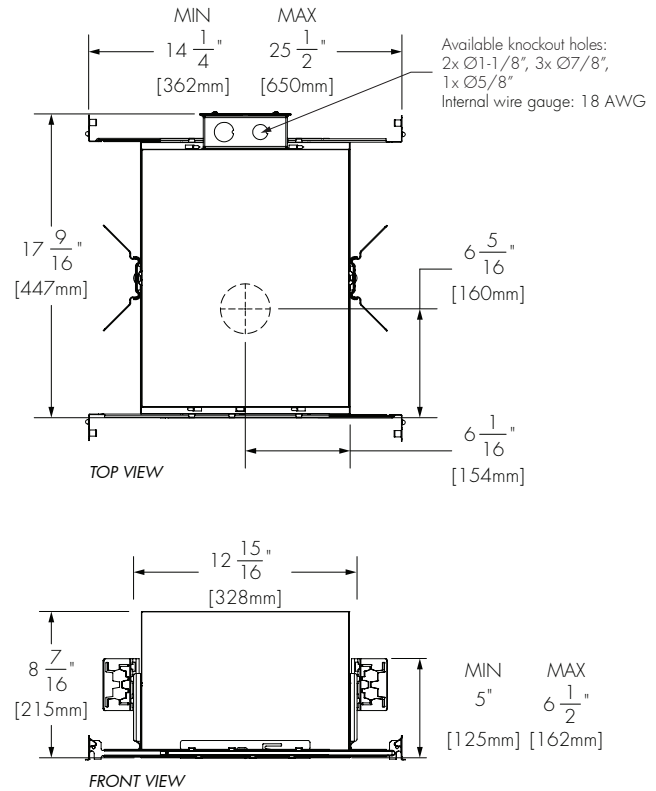
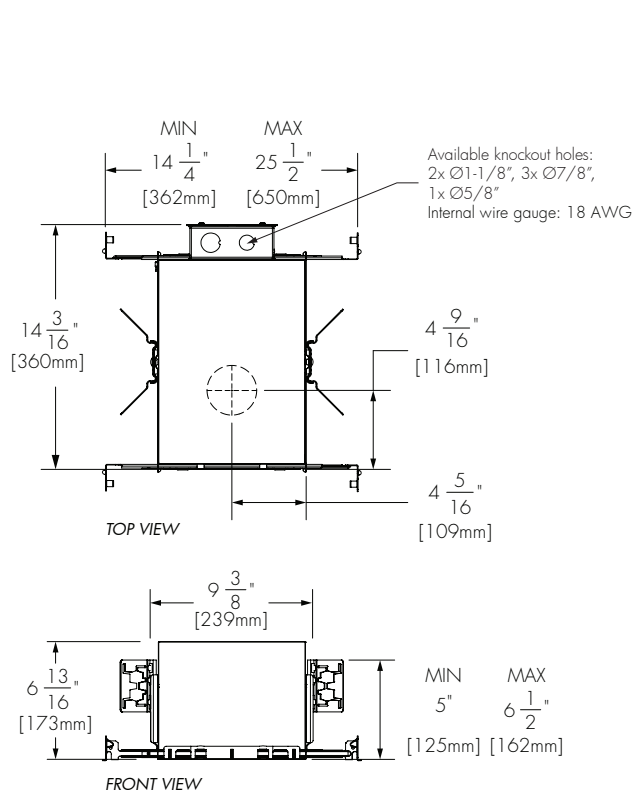
LADN-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-DIMMING-RM
Remodel non-insulated ceiling - dimming



LADN-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-NO-NC
New construction non-insulated ceiling - on/off control

LADN-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-DIMMING-NC
New construction non-insulated ceiling - dimming

INSTALLATION TYPES - continued



LADN-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-CONTROL-IC/CP*

New construction insulated ceiling
New construction insulated ceiling, Chicago plenum rated option, airtight

*Available for the following output and color rendering combinations:

Nominal output [lm]	Color rendering			
	CR80	CR95	RCR80	RCR95
L07	YES	YES	YES	YES
L10	YES	N/A	YES	N/A

LADN-MTG-A-VOLTAGE-OUTPUT-COLOR RENDERING-CONTROL-IC/CP*

New construction insulated ceiling
New construction insulated ceiling, Chicago plenum rated option, airtight

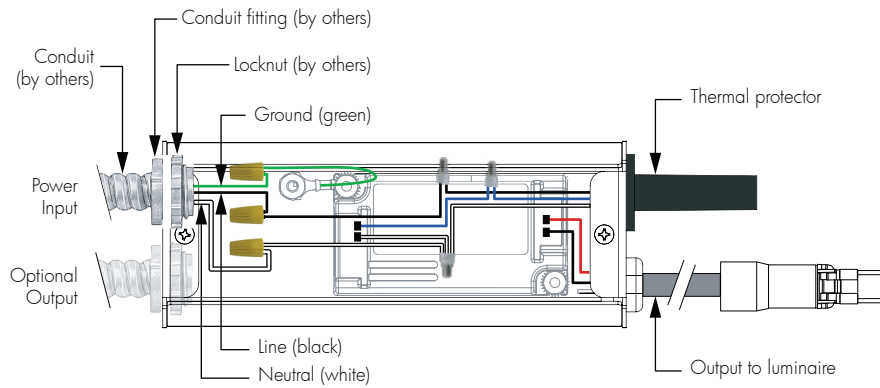
*Available for the following output and color rendering combinations:

Nominal output [lm]	Color rendering			
	CR80	CR95	RCR80	RCR95
L10	N/A	YES	N/A	YES
L13	YES	N/A	YES	N/A

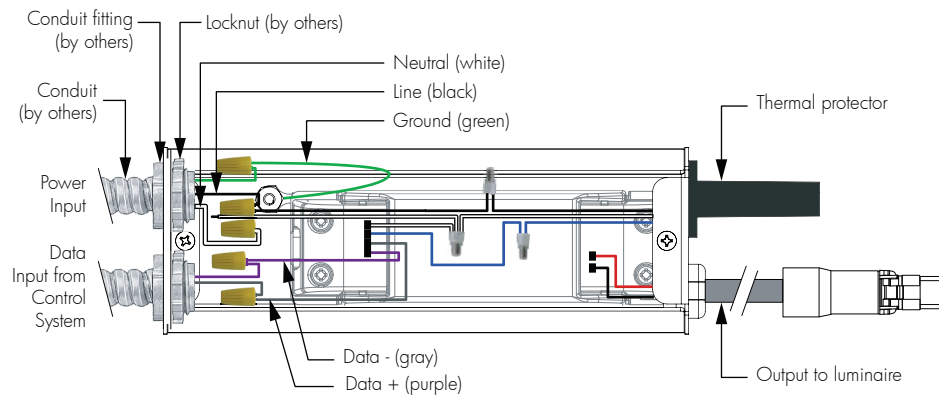
WIRING DETAILS

RM: remodel non-insulated ceiling and NC: new construction non-insulated ceiling

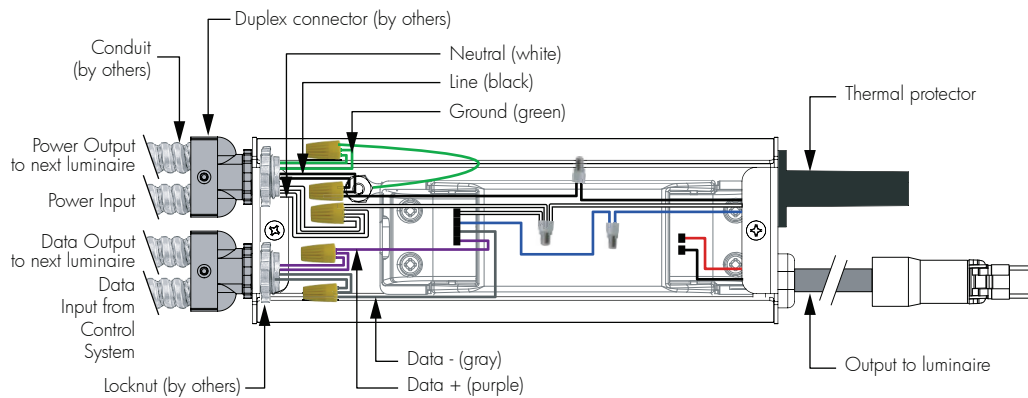
No Control



**Control
(DA1, DA2, PDA1, PDA2, DALI1, DALI2)**



**Control (Daisy Chain Layout)
(DA1, DA2, PDA1, PDA2, DALI1, DALI2)**

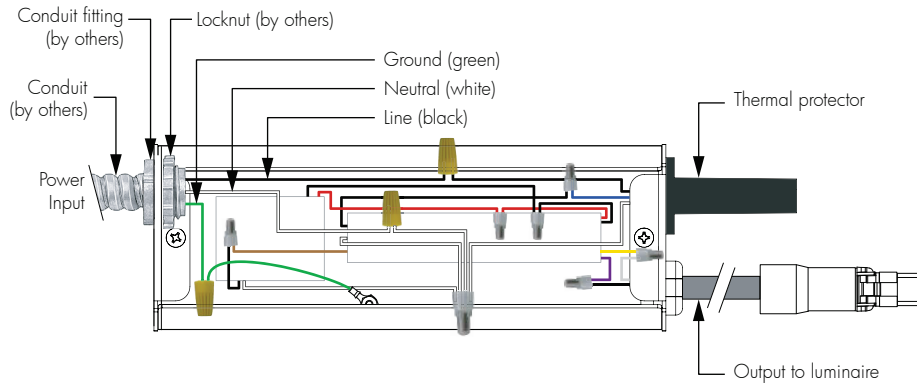


WIRING DETAILS - continued

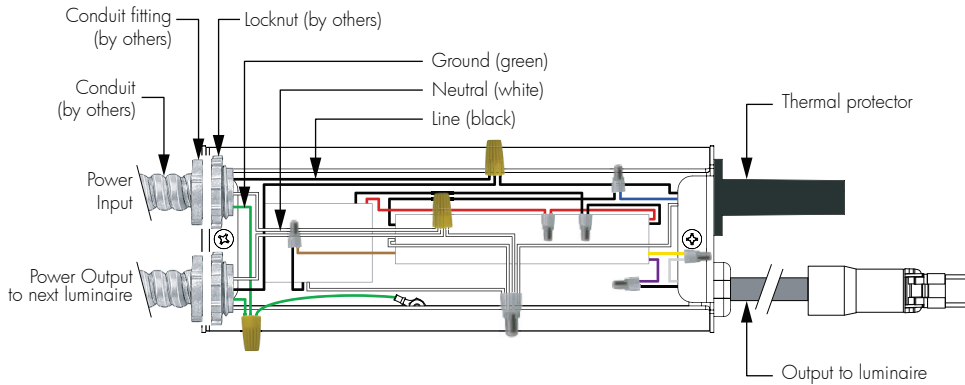
RM: remodel non-insulated ceiling

Lumentalk dimming available up to 1000 Lumens (CR80, RCR80, CR95 or RCR95), 1300 Lumens (CR80 or RCR80)

Control (LT)



Control (Daisy Chain Layout) (LT)

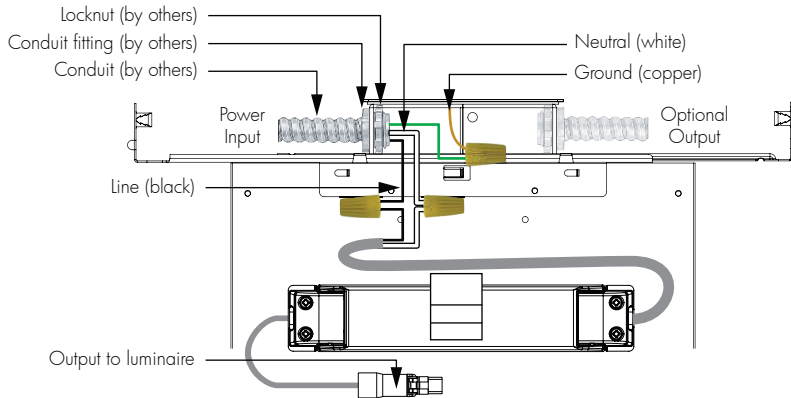


WIRING DETAILS - continued

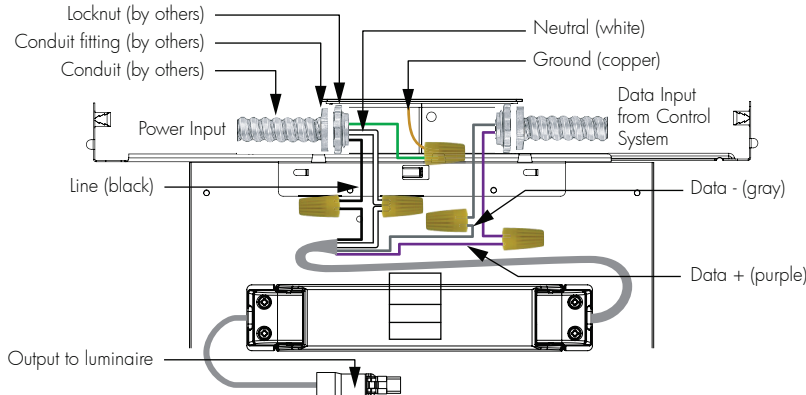
IC/CP: new construction insulated ceiling

Insulated ceiling up to 1000 Lumens (CR80, RCR80, CR95 or RCR95), 1300 Lumens (CR80 or RC80)

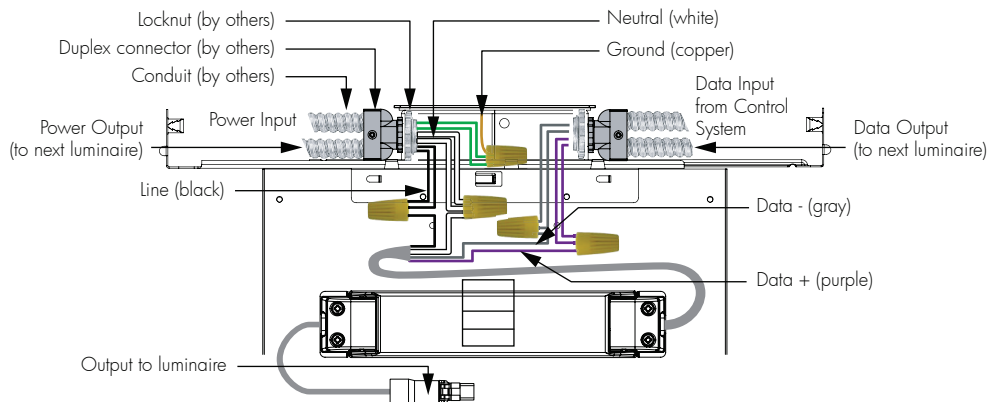
No Control



Control (DA1, DA2, PDA1, PDA2, DALI1, DALI2)



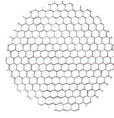
Control (Daisy Chain Layout) (DA1, DA2, PDA1, PDA2, DALI1, DALI2)



OPTICAL ACCESSORIES

Maximum one accessory per fixture.
The softening glass lens will be replaced by any other specified accessory.

HL - Honeycomb louver



RS - Linear spread glass lens

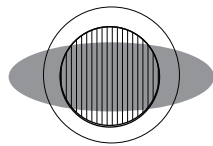


CL - Clear glass lens



RS - LINEAR SPREAD GLASS LENS ORIENTATION

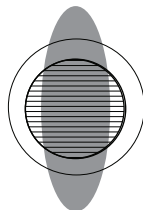
Factory installed



BOTTOM VIEW

RS

Horizontal Beam Distribution
Not adjustable onsite



BOTTOM VIEW

RS

Vertical Beam Distribution
Not adjustable onsite

Install fixture onsite according to desired beam pattern direction.

HOW TO ORDER

LADN-TILT	A	Select:	Select:	Select:	Select:	M	RD	Select:	Select:	Select:	Select:
	1	2	3	4	5	6	7	8	9	10	11

1 | **Region:**

A - Americas

2 | **Voltage:**

120 - 120 volts

277 - 277 volts

Consult factory for 347 volts.

3 | **Output (nominal lumens):**

L07 - 700 lumens

L10 - 1000 lumens

L13 - 1300 lumens

4 | **Color Temperature:**

27K - 2700K

30K - 3000K

35K - 3500K

40K - 4000K

5 | **Color Rendering:**

CR80 - CRI 80+

CR95 - CRI 95+

RCR80 - Radiant CRI 80+*

RCR95 - Radiant CRI 95+*

*Radiant CRI options available for 3000K only.

6 | **Optics:**

M - Medium distribution 40°

7 | **Trim Shape:**

RD - Round shape

8 | **Trim Finish:**

WH - White trim

BK - Black trim

GRY - Gray trim

CC - Custom (please specify RAL color)

9 | **Control:**

NO - On/Off control

DA1 - 0-10V dimming, 1% linear

DA2 - 0-10V dimming, 1% logarithmic

PDA1 - Pro 0-10V dimming, 0.1% linear

PDA2 - Pro 0-10V dimming, 0.1% logarithmic

DALI1 - DALI dimming, 0.1% linear

DALI2 - DALI dimming, 0.1% logarithmic

LT - Lumentalk dimming*

*1% minimum dimming value. Lumentalk dimming available for

RM installation type only. Lumentalk dimming available

up to 1000 lumens (CR80, RCR80, CR95 or RCR95),

1300 lumens (CR80 or RCR80).

10 | **Installation Type:**

RM - Remodel non-insulated ceiling

NC - New construction non-insulated ceiling

IC - New construction insulated ceiling*

CP - New construction insulated ceiling, Chicago plenum rated option, airtight*

*Insulated ceiling up to 1000 lumens (CR80, RCR80, CR95 or RCR95),

1300 lumens (CR80 or RCR80).

11 | **Accessories (factory installed):**

NA - No accessory (softening glass lens by default)

HL - Honeycomb louver*

RS - Linear spread glass lens**

CL - Clear glass lens*

*Maximum one accessory per fixture. The softening glass lens will be replaced by any other specified accessory.

**Refer to page 9 for orientation guidelines. Maximum one accessory per fixture. The softening glass lens will be replaced by any other specified accessory.