

Carisma® 2"

Recessed Linear



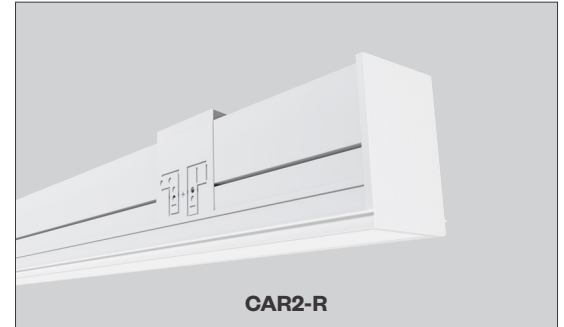
PROJECT:

TYPE:

Features

Carisma® Recessed is part of a family of architectural linear luminaires that offer excellent performance, quality, visuals and value. A sleek edge-to-edge lens design results in an elegant aesthetic with clean lines. Carisma®'s patent pending design includes an integrated optical system that minimizes optical losses, allowing for industry-leading efficacy that meets the stringent requirements for DLC Listing (*DLC Listing pending*). Wide range of ceiling trim options accommodate most ceiling types.

The Carisma® Recessed offers luminaires with 2" and 3" wide apertures, delivering seamless lighting as discrete individual fixtures, continuous rows or patterns. Carisma® can be specified to the nearest 1/8" and is available in pendant, surface, wall and recessed mounted options, providing designers with the versatility to light up a space with their Carisma®.



Product Overview

Type:	Direct distribution with Recessed Mounting
Wattage:	5W/ft, 10W/ft (or specify wattage between 3W/ft and 10W/ft)
Color Temp:	2700K*, 3000K, 3500K, 4000K (*90+ CRI only)
CRI:	80+ typ. or 90+ typ.
Dimming (wired):	0-10V, 1% dim (standard) Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black DALI, 1% dim
Dimming (wireless):	Lutron Athena (integral wireless RF node) BubblyNet Bluetooth

Certifications



5 year limited warranty
AMERLUX LED

† DLC pending

Fixture Summary

Performance Data

Wattage per Foot	Lens	Delivered Lumens	LPW
5	PL	2519	126.8
10	PL	4755	122.8
5	ASY	2693	135.6
10	ASY	5408	128.6

Data is based on 4' fixture, 3500K-80 120V IES files available on website.

Electrical Data

Wattage per Foot	Voltage	4'		8'	
		System Watts	Amps	System Watts	Amps
5	120V	19.8	0.17	40.2	0.34
	277V	20.5	0.07	40.1	0.15
10	120V	38.7	0.32	80.3	0.67
	277V	40	0.15	79	0.29

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

Standard Patterns

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

Runs

Individual Runs: 2' - 8' (specify in 1' increments).

Continuous Runs: > 8' (specify to the nearest foot).

Custom: Made to measure lengths available (specify to nearest 1/8" of field dimensions). Requires approval drawings. Added cost & lead time.

PROJECT:

TYPE:

Ordering Information

HW 120/277												
1	2	3	4	5	6	7	8	9	10			
1	Model			2	Optics		3	Wattage (per foot)		4	Color Temp	
	CAR2-R-GB gypsum board trimless mud-in				PL performance lens			Standard	Optional		80+ CRI	90+ CRI
	CAR2-R-FLG gypsum board exposed flange				ASY asymmetric lens			5 5W/ft	3* 3W/ft		30 3000K-80+	279 2700K-90+
	CAR2-R-GRID grid ceiling mount							10 10W/ft	4* 4W/ft		35 3500K-80+	309 3000K-90+
								6 6W/ft	7 7W/ft		40 4000K-80+	359 3500K-90+
					8 8W/ft	9 9W/ft	409 4000K-90+					
					* 3' min. length required							
5	Finish	6	Voltage	7	Length							
HW high reflectance matte white		120/277		----- X ----- X -----								
				Length A		Length B		Length C				
				- all patterns		- all patterns		- PU				
				- IND		- PR (2 lengths of 2)		- PZ				
				- CON								
- CUS												
8	Configuration			9	Drivers/Controls							
IND ¹ individual fixture, 2' to 8' in 1' increments CON continuous run > than 8', specify to nearest foot CUS custom made to measure lengths (specify to nearest 1/8" of field dimensions) Standard Patterns (see pg 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 shape, (4) straight lengths + (4) 90° corners PZ Z shape, (3) straight lengths + (2) 90° corners				Wired								
				O-10V 1% electronic dimming , multi-volt 120-277VAC constant current driver (standard).								
				HILUME-H-ECO Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black								
				DALI DALI dimming 120-277VAC, 1% dim								
				Wireless								
				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-R-OCC-WH-SR Lutron Athena wireless node, Occupancy & Daylight sensor, white, D4i/DALI-2								
				AWN-R-OCC-BL-SR Lutron Athena wireless node, Occu pancy & Daylight sensor, black, D4i/DALI-2								
				AWN-R-OCC-WH-010 Lutron Athena wireless node, Occupancy & Daylight sensor, white, 0-10V								
				AWN-R-OCC-BL-010 Lutron Athena wireless node, Occupancy & Daylight sensor, black, 0-10V								
BN-BT-OCC-WH-SR BubblyNet Bluetooth node, Occupancy & Daylight sensor, white, DALI-2 DT8												
BN-BT-OCC-WH-010 BubblyNet Bluetooth node, Occupancy & Daylight sensor, white, 0-10V												
10	Options/Accessories											
CP Chicago Plenum (CCEA)												
WHIP 6' whip, 18/5 conductor												
EMC-PF ² emergency circuit requires power feed located in last fixture section (for other locations consult factory)												
PF ² Extra power feed for additional circuiting												
EMB emergency battery pack (not available for lengths under 4')												

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

2 Not available with IND (individual) configuration.

PROJECT:

TYPE:

Specifications

Construction

Extruded aluminum housing and reflector. Numerous configurations accommodate most architectural ceiling conditions.

Weights: 3 lbs/ft (may vary based on configurations and accessories)

Optical

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

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

ASY - Asymmetric throw lens.

LED

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: 80+, 90+

R9: 16 @ CRI 83; **R9:** >50 @ CRI 92

Life: 50,000+ hr., > 70% of initial lumens (L70)

** Available in 90+ CRI only*

Electrical

Wiring: Supply wires are easily accessible through access plate on top of fixture.

WHIP: Optional factory installed 6' Greenfield whip (18/5 conductor) simplifies installation.

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 3'). For other wattages consult factory.

Emergency circuit via remote inverter or auxiliary emergency power supply (by others).

This product complies with IEEE C62.41 for surge endurance up to 2.5KV. Amerlux® recommends using additional surge protection with this unit (supplied by others), surge and overvoltage damage is not covered under warranty.

EMC-PF - Emergency circuit requires power feed wire harness to be located in last fixture section for continuous runs. For other locations consult factory. Not available for individual (IND) configuration.

PF - Extra power feed wire harness for additional circuiting. Not available for individual (IND) configuration.

Finish

HW - High reflectance, matte white powder coat paint. Baked on finish for maximum durability and color stability.

Configurations/Lengths

Straights:

IND - Individual fixtures are made of single standard lengths of 2 ft to 8 ft (in 1' increments). These are stand alone fixtures with matching End Caps, supplied with the mounting hardware. Lengths less than 4' may have restrictions based upon wattage, lengths, drivers or other options.

CON - Continuous runs, > 8' specified to nearest whole foot length in 1' increments. Runs made from standard lengths have End Caps at the beginning and end of run. Runs > 60' may require second power feed. Each housing has factory installed alignment pins. Mating fixtures are easily aligned and joined. Wiring is made fast and positive with molded quick connectors.

CUS - Custom made to measure runs are made to nearest 1/8" of customer supplied field measurements or drawings. Custom lengths use the same hardware for hairline joining.

Patterns:

PXX - Standard Patterns consist of 90° corners with standard lengths (4' or 8' in 1' increments), continuous runs or made to measure lengths. Depending upon complexity of the pattern drawings may be required from the customer. If ordering please give overall lengths.

A'-B'-PLL - L Left - (1) 90° Corner (2) segments. Specify overall segments: A' & B'

A'-B'-PLR - L Right - (1) 90° Corner (2) segments. Specify overall segments: A' & B'

A'-B'-PR - Rectangle - (4) 90° Corners joining (4) segments. Specify overall segments: A' & B'

A'-B'-C'-PU - U shape - (2) 90° Corners joining (3) segments. Specify overall segments: A', B', & C'

A'-B'-C'-PZ - Z shape - (2) 90° Corners joining (3) segments. Specify overall segments: A', B', & C'

See page 7 for layouts.

Please note: Corners have lit mitered Lens.

Mounting

Intended for use in gypsum board, 9/16" and 15/16" grid ceilings.

Please note - fixtures to be installed before gypsum board ceiling.

CAR2-R-GB - gypsum board trimless mud-in, fixture plastered in gypsum board ceiling

CAR2-R-FLG - gypsum board exposed flange, fixture into gypsum board ceiling

CAR2-R-GRID - grid mount in 9/16" & 15/16" Flat Tee, 9/16" Screw Slot or 9/16" Interlude ceilings

Options

EMB - Emergency battery pack - 10W output power, 90 min of illumination time, up to 1300 lm of initial light output. Illuminated test-switch/charging indicator light is provided. Wattage consumption by EM: 2.5W/ft (4ft fixture), 1.25W/ft (8ft fixture). Request can be made to light up 4ft section on 8ft unit.

Certifications

Approved to UL standards for damp locations as tested by CSA

Intended for indoor use only

DLC Listing pending

IC rated

Chicago Plenum (CCEA) optional

Warranty

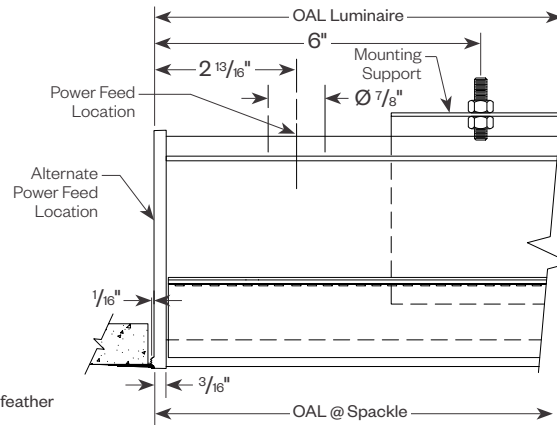
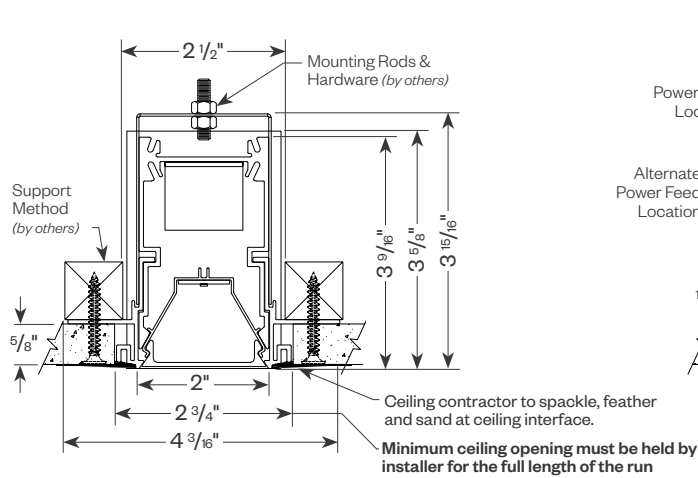
Amerlux's 5 year limited warranty. Please consult Amerlux website for details.

PROJECT:

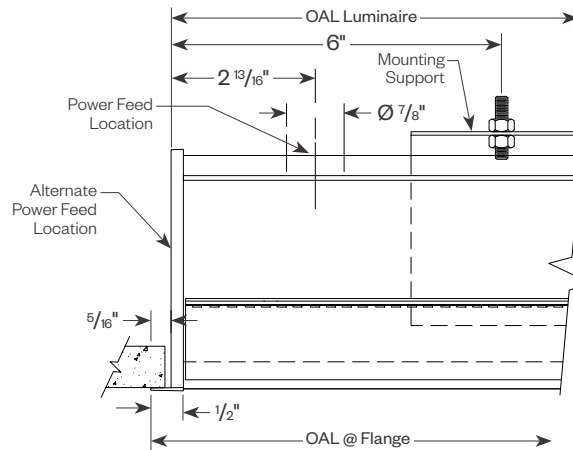
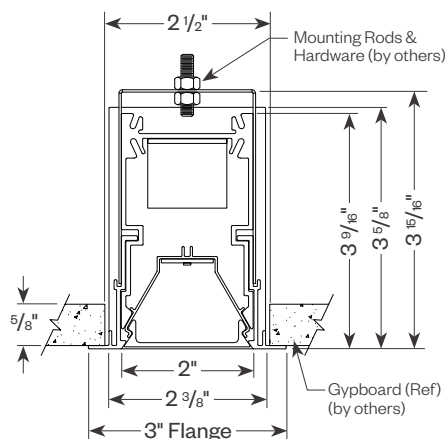
TYPE:

Product Details

CAR2-R-GB (Gypsum board trimless, mud-in)

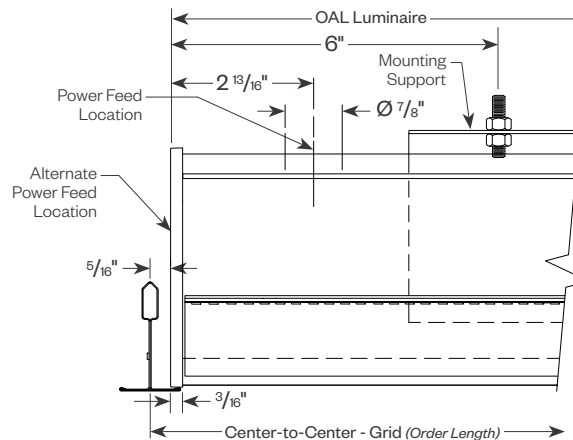
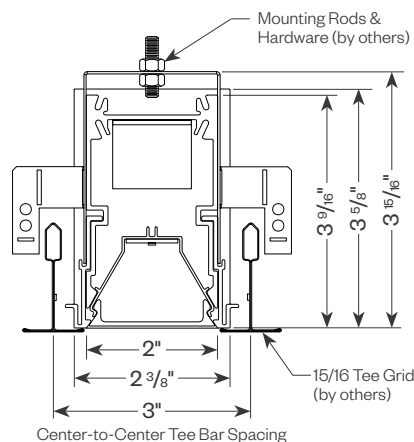


CAR2-R-FLG (Gypsum board exposed flange)



CAR2-R-GRID

15/16 Tee



Carisma® 2"

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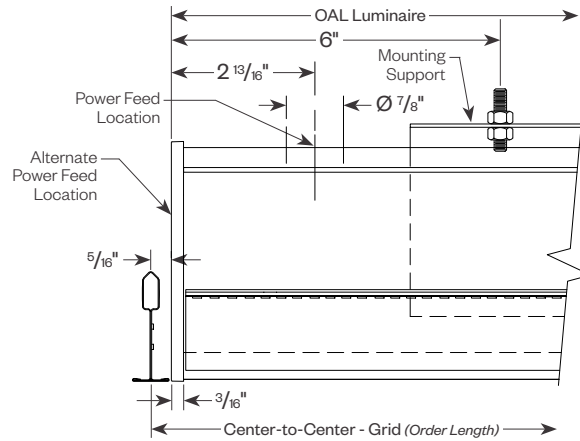
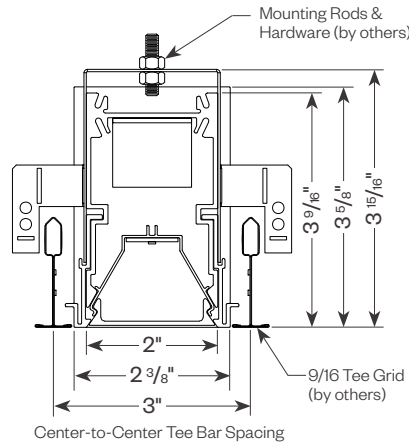
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TYPE:

Product Details (continued)

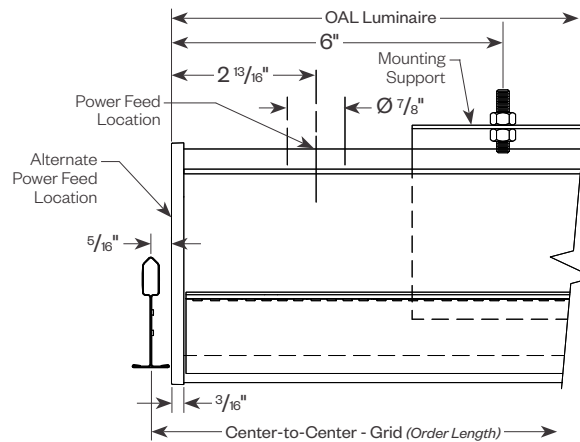
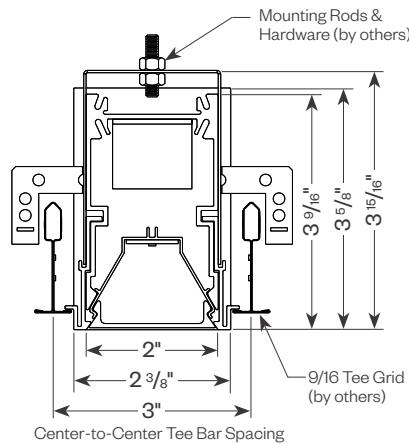
CAR2-R-GRID

9/16 Tee



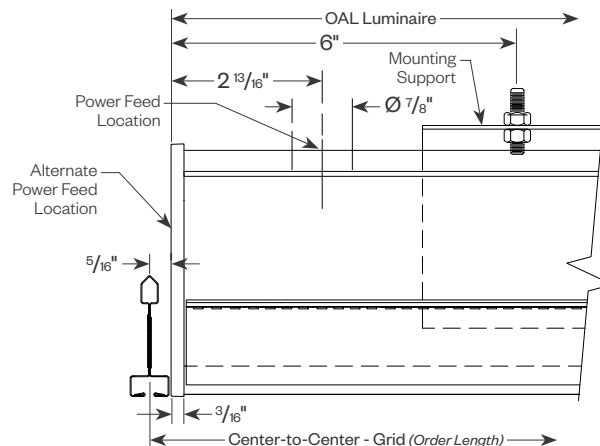
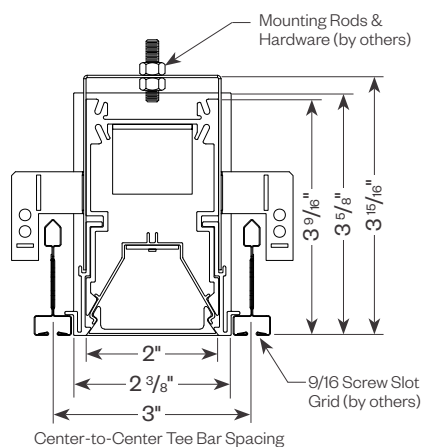
CAR2-R-GRID

9/16 Tegalur



CAR2-R-GRID

9/16 Screw Slot



Delta Intelligent Building Technologies

Carisma® 2"

Recessed Linear



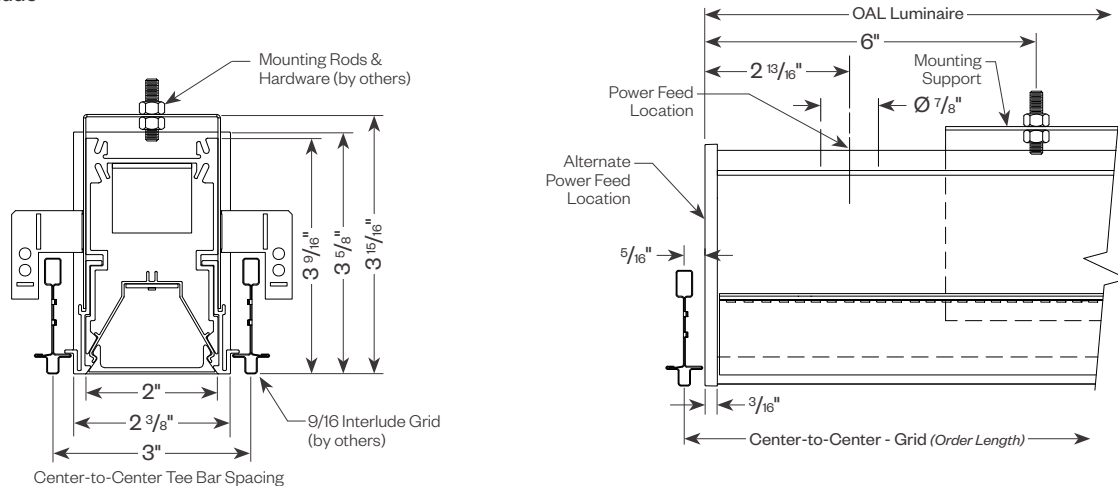
PROJECT:

TYPE:

Product Details *(continued)*

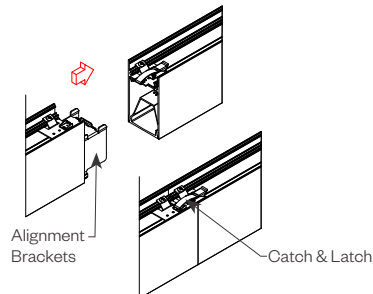
CAR2-R-GRID

9/16 Interlude



Tool-less Joining

Line up the two housings using the alignment brackets.
Secure them together by using the Catch & Latch System on the top of the extrusion.

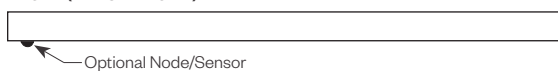


Optional Sensor/RF Node

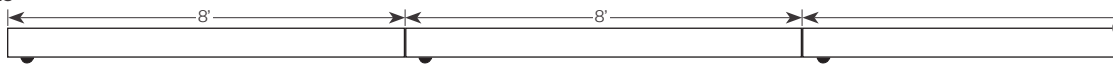
Amerlux® has partnered with control companies to create building environments that are safer and smarter, than ever before. At the heart of our partnership is intelligent RF nodes and Smart Sensor, the most advanced digital wireless communication and sensors available today. Integrated into Amerlux products.

Minimum run length is 3' for wireless sensor and RF node.

INDIVIDUAL (MIN 3' LENGTH)



RUNS



PROJECT:

TYPE:

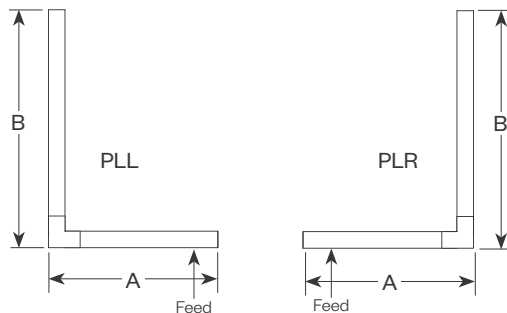
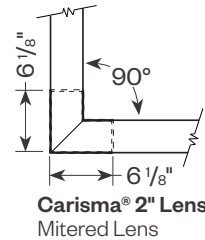
Carisma® 2" Patterns

Standard Patterns

All corners are standard 90°, standard length legs.

Use standard lengths: 4' to 8' in 1 foot increments.

Continuous runs must be the same length in pairs for closed configuration.

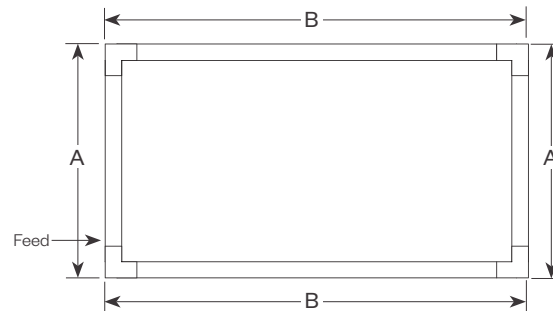


PLL - L Left, (2) straights + (1) 90° corner, leg right

PLR - L Right, (2) straights + (1) 90° corner, leg left

Provide overall lengths: A' & B'

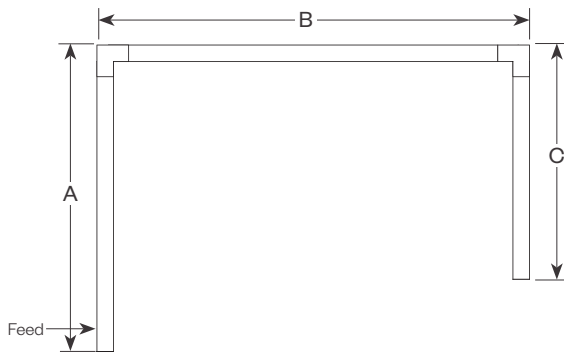
Nomenclature: A-B-PLL A-B-PLR



PR - Closed Rectangle, (4) straight lengths + (4) 90° corners

Provide overall lengths: A' & B'

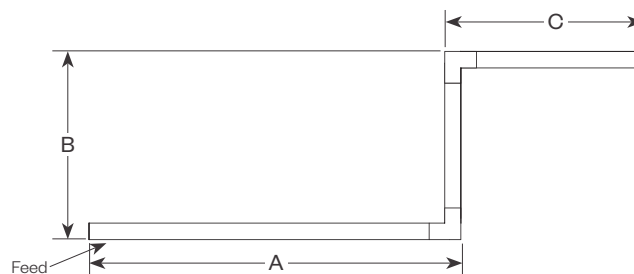
Nomenclature: A-B-PR



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

PROJECT:

TYPE:

Performance Data

Multiplying Factors: (Multiplying Factor is based on 3500K-80 120V IES file on website)

Wattage:	3W	4W	5W	6W	7W	8W	9W	10W
Factor:	0.59	0.78	1.0	1.20	1.40	1.60	1.79	1.98

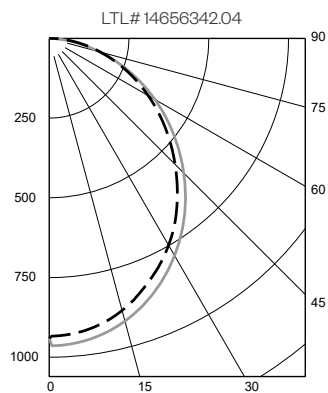
CCT:	3000K-80	3500K-80	4000K-80	2700K-90	3000K-90	3500K-90	4000K-90
Factor:	0.97	1.0	1.02	0.90	0.92	0.92	0.94

CARISMA® 2" DIRECT PERFORMANCE LENS 5W 3500K 4FT

Total Watts: 20

Total Lumens: 2,519

Source: 192 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1154	45.8
0-60	1990	79.0
0-90	2519	100.0
90-180	0	0.0

Efficacy (lumens/watt) = 126.8 lm/W

COEFFICIENTS OF UTILIZATION

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	109	104	100	96
2	99	91	84	78
3	90	80	71	65
4	83	71	62	55
5	76	63	54	48
6	70	57	48	42
7	65	52	43	37
8	61	47	39	33
9	57	43	35	30
10	53	40	32	27

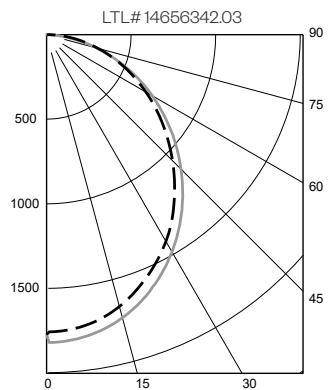
Note: Values expressed as % of total lumen output delivered to the task surface.

CARISMA® 2" DIRECT PERFORMANCE LENS 10W 3500K 4FT

Total Watts: 39

Total Lumens: 4,755

Source: 192 White LED's



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	2177	45.8
0-60	3754	78.9
0-90	4755	100.0
90-180	0	0.0

Efficacy (lumens/watt) = 122.8 lm/W

COEFFICIENTS OF UTILIZATION

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	109	104	100	96
2	99	91	84	78
3	90	80	71	65
4	83	71	62	55
5	76	63	54	48
6	70	57	48	42
7	65	52	43	37
8	61	47	39	33
9	57	43	35	30
10	53	40	32	27

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

Carisma® 2"

Recessed Linear



PROJECT:

TYPE:

Performance Data (continued)

Multiplying Factors: (Multiplying Factor is based on 3500K-80 120V IES file on website)

Wattage:	3W	4W	5W	6W	7W	8W	9W	10W
Factor:	0.59	0.78	1.0	1.20	1.40	1.60	1.79	1.98

CCT:	3000K-80	3500K-80	4000K-80	2700K-90	3000K-90	3500K-90	4000K-90
Factor:	0.97	1.0	1.02	0.90	0.92	0.92	0.94

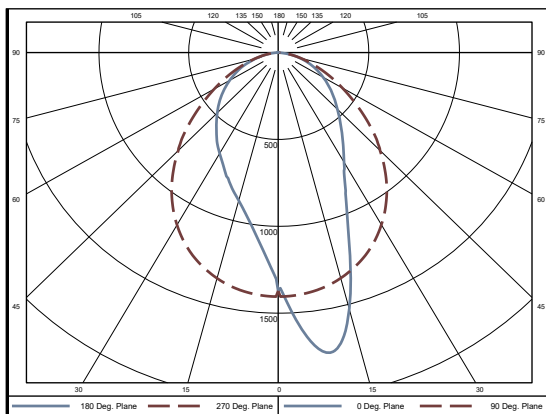
CARISMA® 2" DIRECT ASYMMETRIC LENS 5W 3500K 4FT

Total Watts: 20

Total Lumens: 2693

Source: 192 White LED's

LTL# 15335267.01



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1446	53.7
0-60	2259	83.9
0-90	2692	100.0
90-180	0	0.0

Efficacy (lumens/watt) = 135.6 lm/W

COEFFICIENTS OF UTILIZATION

RC	70	50	30	10
RW				
ROR				
0	119	119	119	119
1	110	105	102	98
2	101	93	87	82
3	93	83	75	69
4	86	74	66	60
5	79	67	58	53
6	74	61	53	47
7	69	56	48	42
8	64	51	43	38
9	60	48	40	34
10	57	44	37	32

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

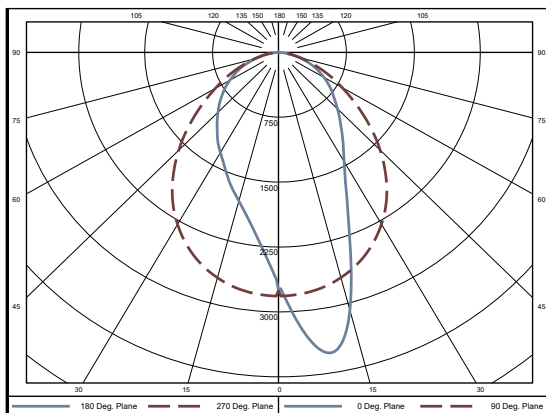
CARISMA® 2" DIRECT ASYMMETRIC LENS 10W 3500K 4FT

Total Watts: 42

Total Lumens: 5408

Source: 192 White LED's

LTL# 15335267.02



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	2906	53.7
0-60	4535	83.9
0-90	5408	100.0
90-180	0	0.0

Efficacy (lumens/watt) = 128.6 lm/W

COEFFICIENTS OF UTILIZATION

RC	70	50	30	10
RW				
ROR				
0	119	119	119	119
1	110	105	102	98
2	101	93	87	82
3	93	83	75	69
4	86	74	66	60
5	79	67	58	53
6	74	61	53	47
7	69	56	48	42
8	64	51	43	38
9	60	48	40	34
10	57	44	37	32

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

Carisma® 2"

Recessed Linear



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Dimming Compatibility

Amerlux® Carisma® 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 ---

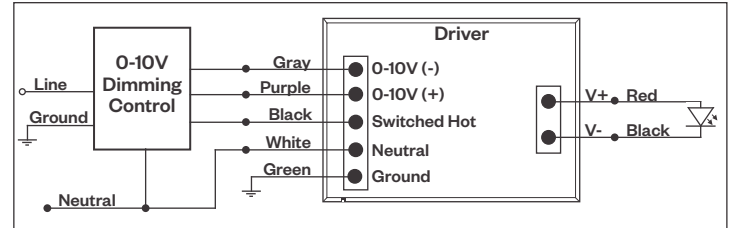
0-10V - DIMMING (Standard)

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			Central System
Lutron:	Wattstopper:	Leviton:	Lutron Grafikx Eye with GRX-TV1 Interface
Diva - DVSTV	ADF-120277	Renoir II	
Maestro - MS-Z101			
Nova-T - NTSTV-DV			

LUTRON LDE1 DIMMING

Integrates into Lutron EcoSystem building management

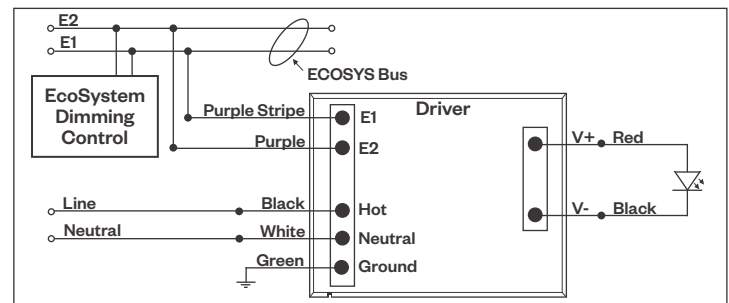
Notes:

- 120VAC or 277VAC*
- Dims down to 1% Soft-On/Fade-to-Black
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**

Compatible Dimmers*:

Lutron ECO System	Central System
Pow Pak Dimming Modules	Lutron EcoSystem compatible controls
Energi Savr Node	
Grafik Eye QS/Homeworks	
QS Control Unit	
Quantum Hub	
Homeworks QS/My Room	

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



Notes:

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

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

Carisma® 2"

Recessed Linear



PROJECT:

TYPE:

Dimming Compatibility (continued)

Amerlux® Carisma® fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (*Dimmer, Fixture Quantity, Voltage, etc*) may affect dimming performance.

--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---

DALI - DALI DIMMING 120V-277V

Digital control protocol allows individual fixture control

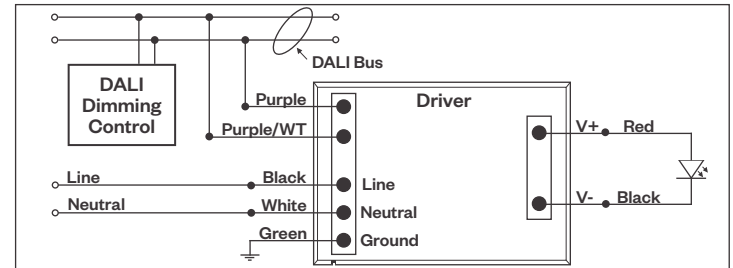
Notes:

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

Compatible Dimmers*:

Wall Box	Central System
Leviton CD250 Controller	Dynalite
	Fifth Light

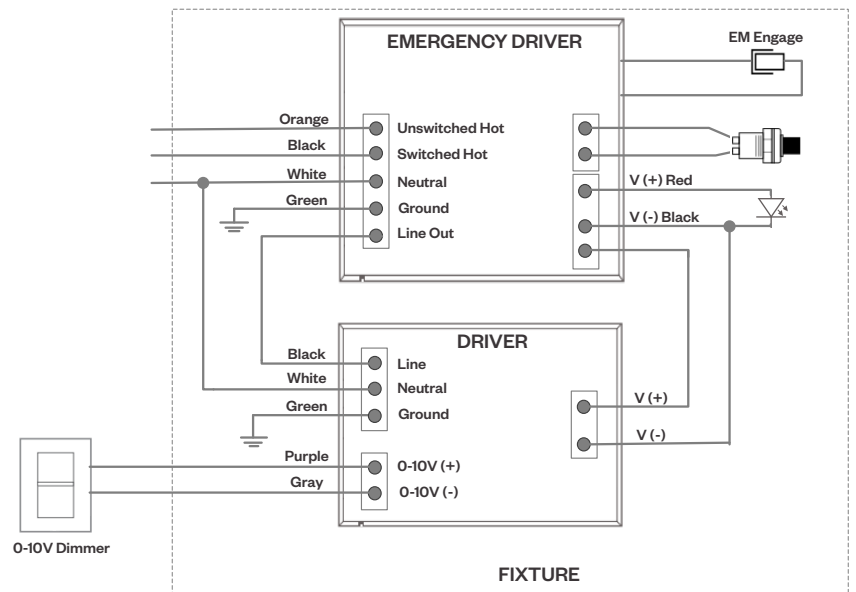
DALI Wiring Diagram



Emergency Fixture with Built-In Battery Pack

Emergency fixture with built-in battery pack (**EMB**) wiring:

Note: EMB not available on lengths under 4'.



Notes:

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