

Carisma® Combo Recessed

Recessed Linear with Track

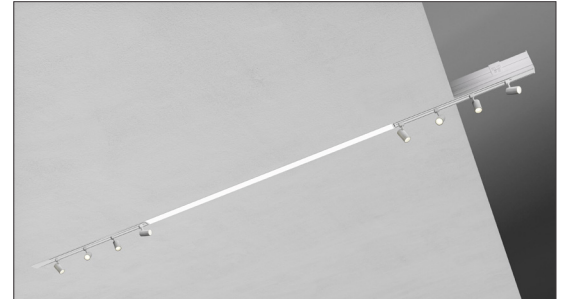


PROJECT:

TYPE:

Features

The Carisma® Combo Recessed combines our recessed linear 2" Carisma® with track sections. Carisma® is 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.



CAR2-R-COMBO

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: 0-10V, 1% dimming

Certifications



Fixture Summary

Ceiling Type

9/16"	15/16"	Gyp Board	Millwork	4" Tech Zone	6" Tech Zone
Yes	Yes	Yes	No	No	No

Performance Data

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

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

Runs

Individual Runs: 2' - 8' (specify in 1' increments).
Continuous Runs: > 8' (specify to the nearest foot).

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Ordering Information

1	2	3	4	5	6	7	8	9	10
		/			HW	120/277	120		

Example: 28' run with 2' track at beginning and end of run

CAR2-R-COMBO-GB-GES . 28 . 8TP/8P/8PT . 5 . 35 . HW . 120/277 . 120 . CON . 0-10V

1	Model	2	Total Run Length
	CAR2-R-COMBO-GB-GES gypsum board trimless mud-in		_____ (min. 4ft, increments of 2ft)
	CAR2-R-COMBO-FLG-GES gypsum board, exposed flange		(Please note that the lengths of the modules are not exact. i.e. an 8' module is not exactly 8' in length. Please refer to the table on page 3 for exact length of the ceiling cutout for Flanged and Trimless fixtures going into Gypsum Board ceilings. For fixtures going into Grid ceilings, we will adjust the overall length to fit into the grid).
	CAR2-R-COMBO-GRID-GES grid ceiling mount		

3

Run Builder

(section lengths must equal total run length)

Combo Module with Linear Only:

Module Length	Lens
4 47.5"	P performance lens
6 71.25"	A asymmetric lens
8 95.0"	

Combo Module with Linear & Track:

Module Length	Track Position & Lens
4 47.5"	PT performance lens with 2' track at end
6 71.25"	TP performance lens with 2' track at beginning
8 95.0"	AT asymmetric lens with 2' tract at end
	TA asymmetric lens with 2' track at beginning
	TPT performance lens with 2' track at beginning and end (6' & 8' lengths only)
	TAT asymmetric lens with 2' track at beginning and end (6' & 8' lengths only)

Combo Module with Track Only:

Module Length	Track
4 47.5"	T track
6 71.25"	
8 95.0"	

Note: Add -EMB for emergency battery pack or -EMC for emergency circuit. Applies to lensed Linear only; Examples: 6P-EMB is a 6' performance lens only module with emergency battery pack. 8TP-EMB is an 8' module with track and performance lens with emergency battery pack for the performance lens section.

Note: P and A lens cannot be directly adjacent.

4	Wattage (per foot)	5	Color Temp	6	Finish	7	Linear Voltage
	5 5W/ft 10 10W/ft		80+ CRI 30 3000K-80+ 35 3500K-80+ 40 4000K-80+ 90+ CRI 279 2700K-90+ 309 3000K-90+ 359 3500K-90+ 409 4000K-90+		HW high reflectance matte white		120/277
8	Track Voltage	9	Configuration	10	Drivers/Controls		
	120		IND use IND if row consists of only one single Module (e.g. 4PT) CON use CON if row consists of more than one single Module (e.g. 6P/4TA/6TP)		0-10V* 1% electronic dimming, multi-volt 120-277VAC constant current driver (standard) * For linear ambient sections only.		

NOTE: Each run must include a combination of track sections and lit linear sections.

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Cutout Lengths

Ordered Total Length	Actual Cutout Length on Ceiling	Ordered Total Length	Actual Cutout Length on Ceiling
4'	47.92"	18'	214.17"
6'	71.67"	20'	237.92"
8'	95.42"	22'	261.67"
10'	119.17"	24'	285.42"
12'	142.92"	26'	309.17"
14'	166.67"	28'	332.92"
16'	190.42"	30'	356.67"

Above lengths are for CAR2-R-COMBO-GB-GES & CAR2-R-COMBO-FLG-GES.

CAR2-R-COMBO-GRID-GES is built to fit grid size.

Modules

4' NOM with 18/4-22/2 & 12/3 dual feed

- 4P = 4' with Performance Lens
- 4A = 4' with Asymmetric Lens
- 4TP = 4' with 2' Track at Beginning & 2' Performance Lens at End
- 4PT = 4' with 2' Performance Lens at Beginning & 2' Track at End
- 4TA = 4' with 2' Track at Beginning & 2' Asymmetric Lens at End
- 4AT = 4' with 2' Asymmetric Lens at Beginning & 2' Track at End

6' NOM with 18/4-22/2 & 12/3 dual feed

- 6P = 6' with Performance Lens
- 6A = 6' with Asymmetric Lens
- 6TP = 6' with 2' Track at Beginning & 4' Performance Lens at End
- 6PT = 6' with 4' Performance Lens at Beginning & 2' Track at End
- 6TPT = 6' with 2' Track at Beginning & 2' Track at End & 2' Performance Lens
- 6TA = 6' with 2' Track at Beginning & 4' Asymmetric Lens at End
- 6AT = 6' with 4' Asymmetric Lens at Beginning & 2' Track at End
- 6TAT = 6' with 2' Track at Beginning & 2' Track at End & 2' Asymmetric Lens

8' NOM with 18/4-22/2 & 12/3 dual feed

- 8P = 8' with Performance Lens
- 8A = 8' with Asymmetric Lens
- 8TP = 8' with 2' Track at Beginning & 6' Performance Lens at End
- 8PT = 8' with 6' Performance Lens at Beginning & 2' Track at End
- 8TPT = 8' with 2' Track at Beginning & 2' Track at End & 4' Perf Lens
- 8TA = 8' with 2' Track at Beginning & 6' Asymmetric Lens at End
- 8AT = 8' with 6' Asymmetric Lens at Beginning & 2' Track at End
- 8TAT = 8' with 2' Track at Beginning & 2' Track at End & 4' Asy Lens

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Specifications

Construction

Extruded aluminum housing and reflector.
Dual wire way wiring chassis, 1 circuit GES track (*Track Heads sold separately*)

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.

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

A - Asymmetric 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

LED = Line 1, Track = Line 2

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

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 over voltage damage is not covered under warranty.

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 2ft 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 2ft 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.

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*), 1.66W/ft (*6ft fixture*), 1.25W/ft (*8ft fixture*).

EMC - 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.

Certifications

Approved to UL standards for damp locations as tested by OSA
Intended for indoor use only

Warranty

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



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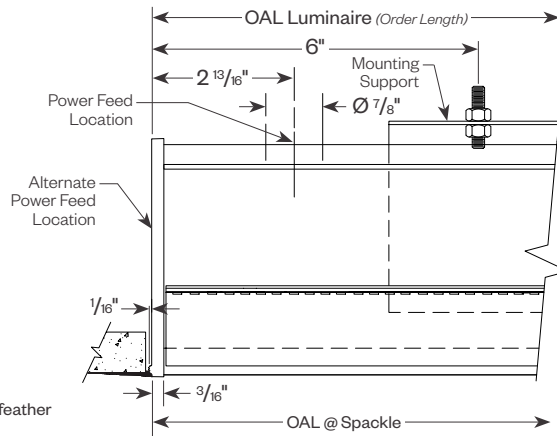
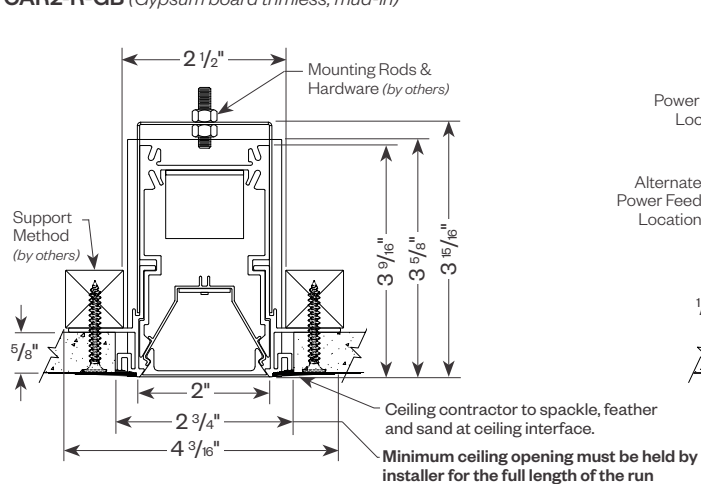


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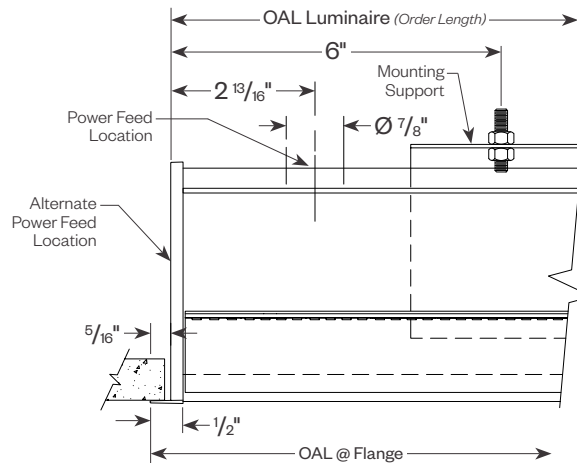
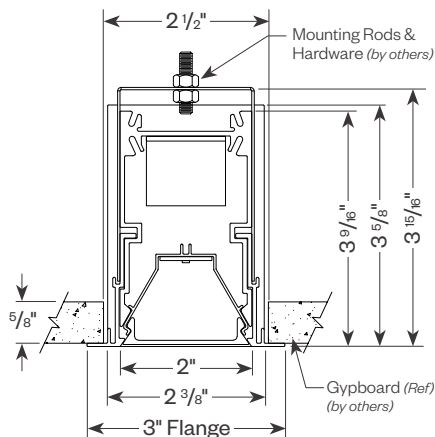
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Product Details

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

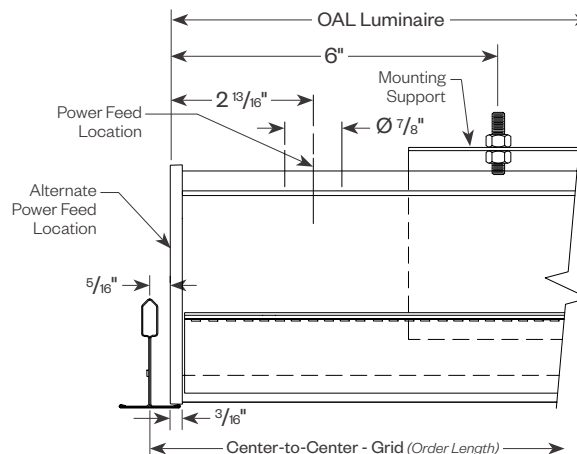
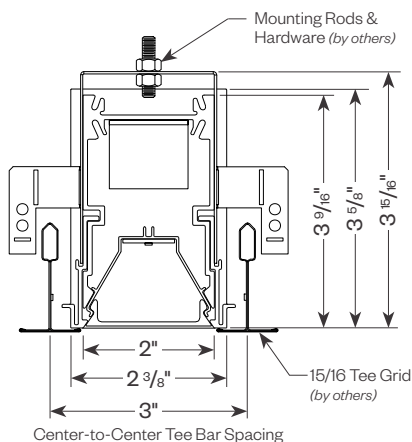


CAR2-R-FLG (Gypsum board exposed flange)



CAR2-R-GRID

15/16 Tee



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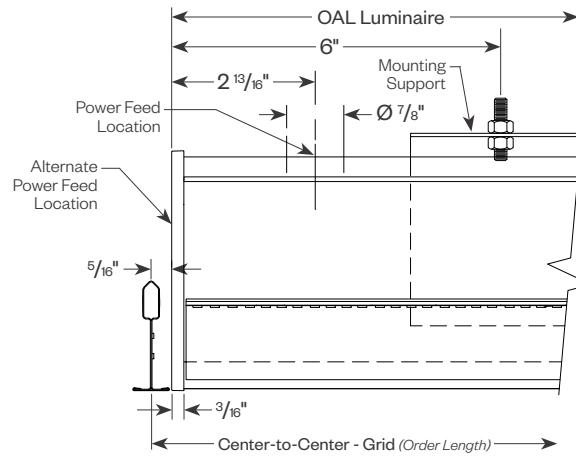
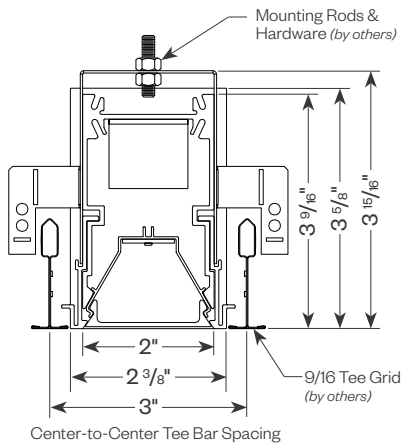


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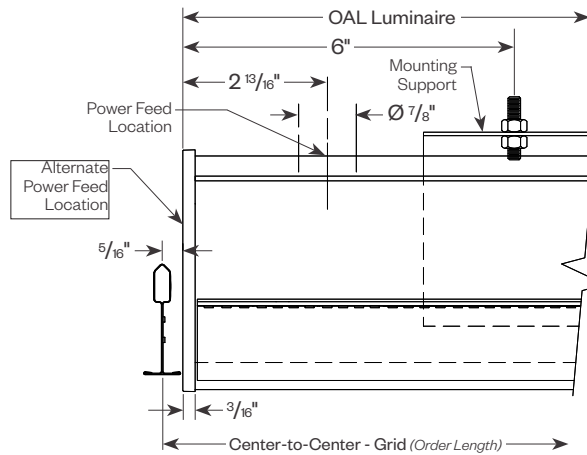
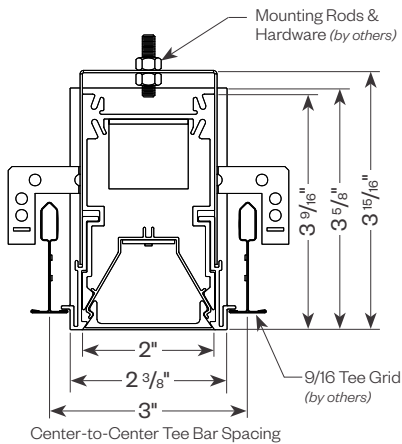
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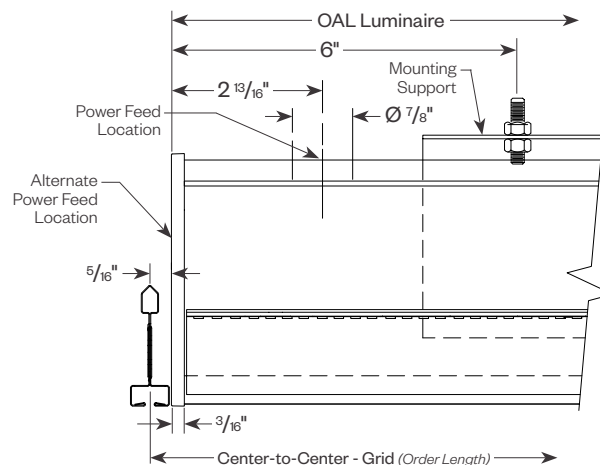
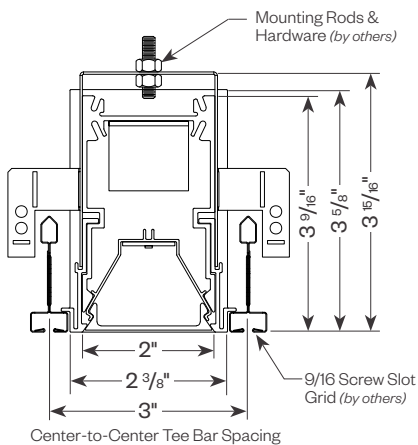
9/16 Tee



9/16 Tegal



9/16 Screw Slot



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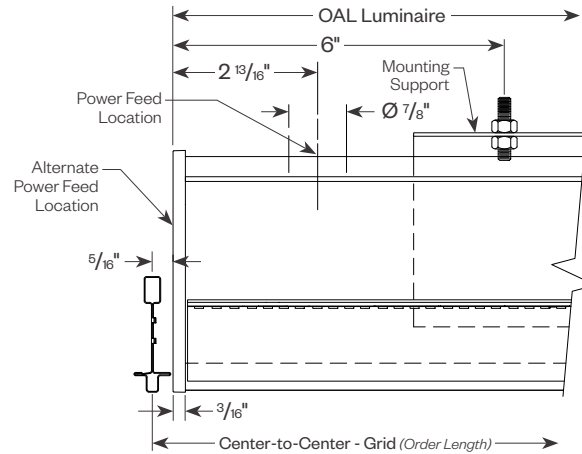
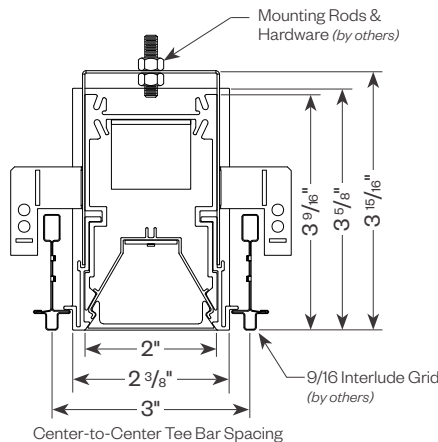


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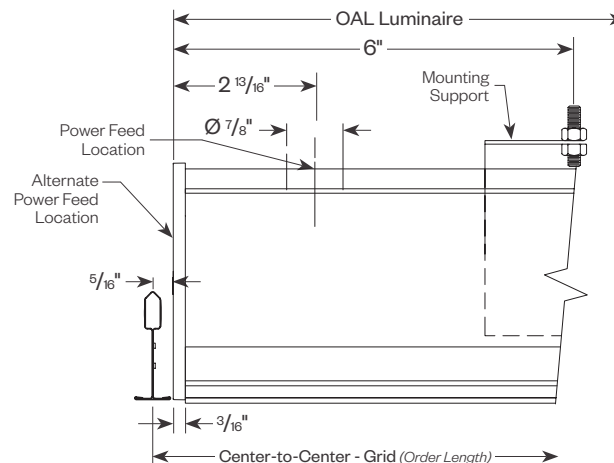
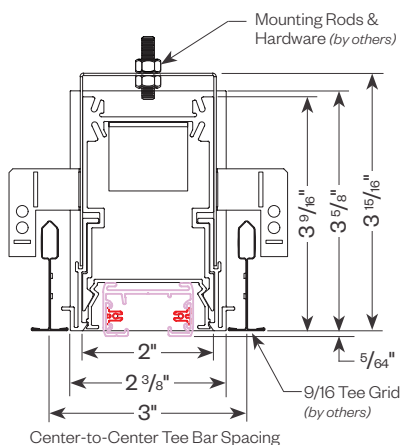
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Product Details *(continued)*

9/16 Interlude

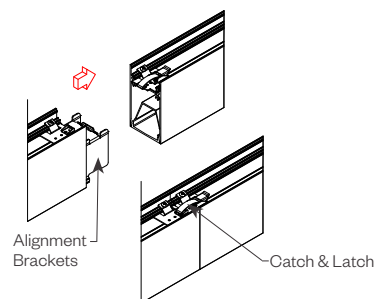


Track Profile



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.



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PROJECT:

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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

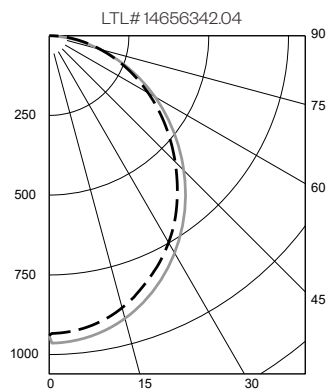
CCT:	3000K-80	3500K-80	4000K-80	2700K-90	3000K-90	3500K-90	4000K-90
Factor:	0.97	1.0	1.02	0.90	0.92	0.92	0.94

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
ROR				
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

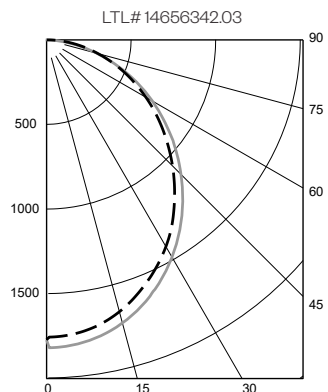
Note: Values expressed as % of total lumen output delivered to the task surface.

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
ROR				
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.



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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

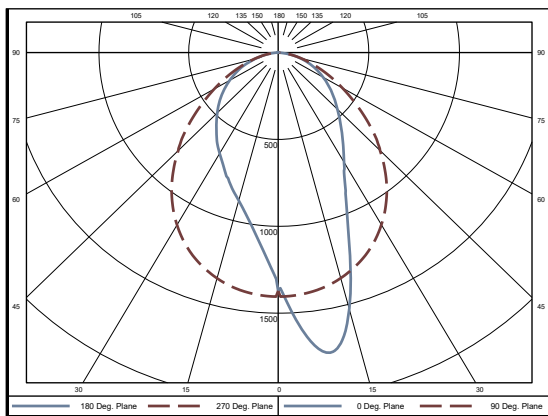
CARISMA 2" DIRECT ASYMMETRIC LENS 5W 3500K 4FT

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	80			
RW	70	50	30	10
RCR				
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.

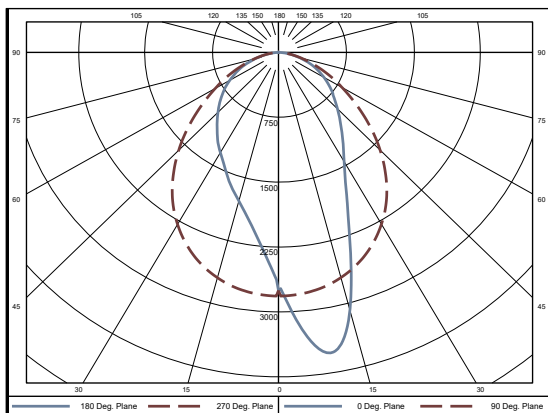
CARISMA 2" DIRECT ASYMMETRIC LENS 10W 3500K 4FT

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	80			
RW	70	50	30	10
RCR				
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.

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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 ---

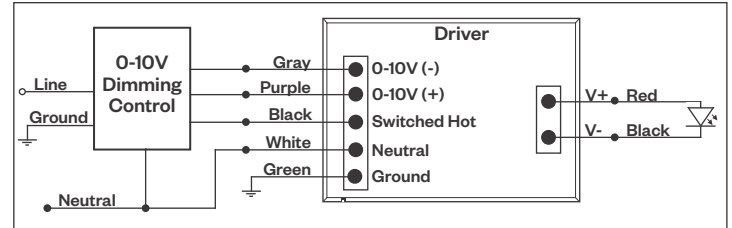
0-10V - DIMMING (Standard)

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



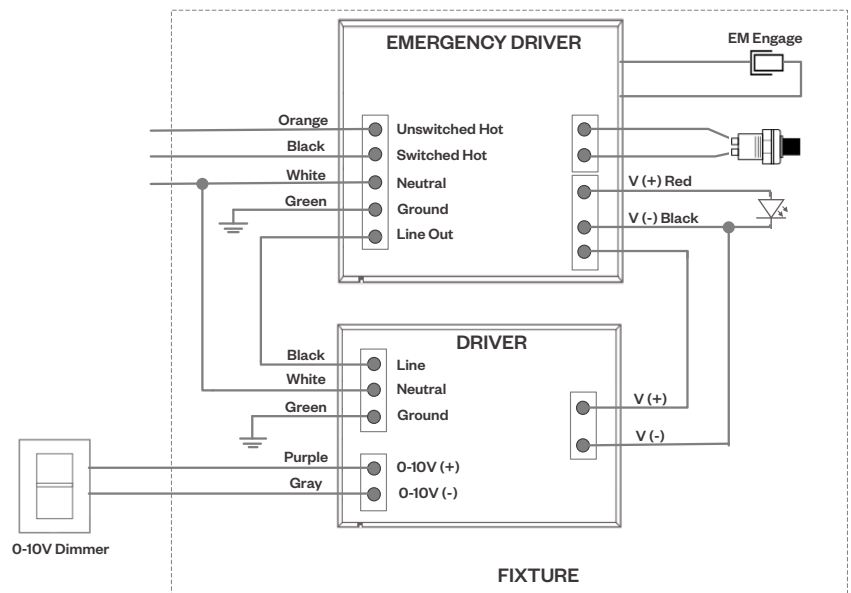
Compatible Dimmers*:

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			

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:

* 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.