

# Concealed Modular Trough



**PROJECT:**

**TYPE:**

## Features

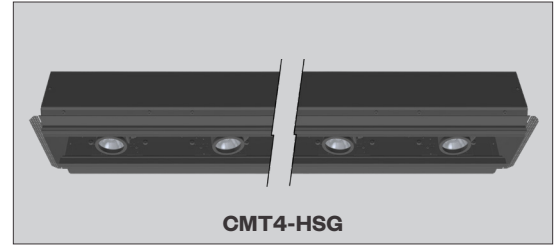
The Concealed Modular Trough (CMT4) is a linear recessed housing with an aperture of 4.75" that offers a world of flexibility. Allowing you to install various lighting modules within a slim, continuous, single recessed housing. Ceilings never looked so clean. Offered in a the latest LED light sources with varying wattages to suit a broad range of applications.

The CMT4 housing only works in a gypsum board ceiling and must be installed before the sheet rock.

The 12" on center opening in the back of the housing must have either a light module or a blanking plate.

## Product Overview

- Type:** Recessed Modular Trough, Accent & Display  
**Wattage:** Depends on light module being used. See data below.  
**Color Temp:** 2200K, 2700K, 3000K, 3500K, 4000K  
*(check ordering pages 6, 8, & 11 for availability)*  
**CRI:** 83 typ. or 90+ typ.  
 CrispWhite & 3K Class A LEDs available  
**Dimming:** TRIAC & ELV, 5% Dim, 120/277VAC  
 0-10V, 1% Dim, 120/277VAC  
 Lutron LDE1 Hi-lume® 1% Dim Soft-On/Fade-to-Black, 120/277VAC  
 DALI, 1% Dim, 120/277VAC



**NOTE: Housing and Light Modules are ordered separately.**  
 See page 2 for Housing ordering.  
 See pages 6, 8 or 11 for Light Module ordering.

## Certifications

Housing



Light Modules



## Fixture Summary

### Performance Data

CMT4-HHP-LM				
Watts	Delivered Lumens	LPW	CBCP	Color Temp-CRI
11	1030	93.7	8,243	3000K-83
16	1451	90.7	11,610	3000K-83
18	1640	91.1	13,119	3000K-83

Data is based on 3000K-83, 120V IES files available on website.

Data is "per head" and based on Spot optic.

See page 7 for other beam spread data..

CMT4-C3M-LM				
Watts	Delivered Lumens	LPW	CBCP	Color Temp, CRI
15	1508	100.5	9,415	3000K-83
18*	1096	60.2	24,308	3000K-83
21	2125	105	13,206	3000K-83

Data is based on 3000K-83 120V IES files available on website.

15W & 21W data is based on Very Narrow Flood optics.

See pg 9-10 for other beam spread data.

\*18W data is Very Narrow Spot only.

CMT4-C3-LM				
Watts	Delivered Lumens	LPW	CBCP	Color Temp-CRI
16	1,700	106.3	6,921	3000K-83
19	2,018	119.3	8,332	3000K-83
23	2,440	106.1	9,934	3000K-83
27	2,880	106.7	11,726	3000K-83
31	3306	100.4	13,460	3000K-83

Data is based on 3000K-83 120V IES files available on website.

Data is "per head" and based on Flood Optic.

See pg 12 for other beam spread data.

# Concealed Modular Trough



<b>PROJECT:</b>	<b>TYPE:</b>
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## Ordering Information - Housing



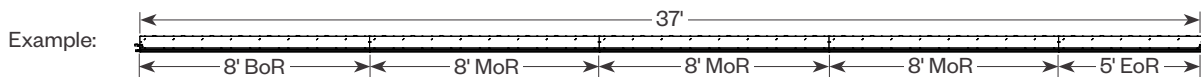
<b>1 Model</b> CMT4-HSG (use with HHP, C3M or C3 light modules, ordered separately, see pages 6, 8 or 11)	<b>2 Spacing</b> (for Light Module or Blanking Plate) 12 12" spacing	<b>3 Internal Finish*</b> BT black texture * White finish is not available
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<b>4 Length/Configuration</b>		
<u>Individual</u> (2'-8' in 1' increments, 9' includes 2 sections) <b>2-IND</b> 2' individual fixture <b>3-IND</b> 3' individual fixture <b>4-IND</b> 4' individual fixture <b>5-IND</b> 5' individual fixture <b>6-IND</b> 6' individual fixture <b>7-IND</b> 7' individual fixture <b>8-IND</b> 8' individual fixture (See page 3 for individual drawings)	<u>Continuous Run</u> (> 8', in 1' increments. See table below for breakout of runs. Please order required sections to make up run.) <b>8-BOR</b> 8' beginning of run <b>4-MOR</b> 4' middle of run <b>8-MOR</b> 8' middle of run <b>2-EOR</b> 2' end of run <b>3-EOR</b> 3' end of run <b>4-EOR</b> 4' end of run <b>5-EOR</b> 5' end of run <b>6-EOR</b> 6' end of run <b>7-EOR</b> 7' end of run <b>8-EOR</b> 8' end of run	<u>Patterns</u> 12" x 12" 90° Corner available (provide drawing/sketch and consult factory)

<b>5 Options</b> <b>1C</b> 1 circuit harness 12/3, standard (for use with LE/TE driver only) <b>2C</b> 2 circuit harness 12/3 (for use with LE/TE driver only) <b>1C6WIRE</b> 1 circuit 12/6 dims (for use with 0-10V, HILUME-H, DALI drivers only) <b>2C6WIRE</b> 2 circuit 12/6 dims (for use with 0-10V, HILUME-H, DALI drivers only)	<b>6 Accessory</b> <b>CP</b> Chicago Plenum
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**NOTE:** Order Light Modules separately. See pages 6, 8 or 11 for ordering information.

## Concealed Modular Trough Continuous Runs



Run Length (ft)	BoR	MoR	EoR	Run Length (ft)	BoR	MoR	EoR	Run Length (ft)	BoR	MoR	EoR
9	(1) 5'	0	(1) 4'	20	(1) 8'	(1) 4'	(1) 8'	31	(1) 8'	(3) 8'	(1) 7'
10	(1) 8'	0	(1) 2'	21	(1) 8'	(1) 8'	(1) 5'	32	(1) 8'	(3) 8'	(1) 8'
11	(1) 8'	0	(1) 3'	22	(1) 8'	(1) 8'	(1) 6'	33	(1) 8'	(1) 4' + (2) 8'	(1) 5'
12	(1) 8'	0	(1) 4'	23	(1) 8'	(1) 8'	(1) 7'	34	(1) 8'	(1) 4' + (2) 8'	(1) 6'
13	(1) 8'	0	(1) 5'	24	(1) 8'	(1) 8'	(1) 8'	35	(1) 8'	(1) 4' + (2) 8'	(1) 7'
14	(1) 8'	0	(1) 6'	25	(1) 8'	(1) 4' + (1) 8'	(1) 5'	36	(1) 8'	(1) 4' + (2) 8'	(1) 8'
15	(1) 8'	0	(1) 7'	26	(1) 8'	(1) 4' + (1) 8'	(1) 6'	37	(1) 8'	(3) 8'	(1) 5'
16	(1) 8'	0	(1) 8'	27	(1) 8'	(1) 4' + (1) 8'	(1) 7'	38	(1) 8'	(3) 8'	(1) 6'
17	(1) 8'	(1) 4'	(1) 5'	28	(1) 8'	(1) 4' + (1) 8'	(1) 8'	39	(1) 8'	(3) 8'	(1) 7'
18	(1) 8'	(1) 4'	(1) 6'	29	(1) 8'	(3) 8'	(1) 5'				
19	(1) 8'	(1) 4'	(1) 7'	30	(1) 8'	(3) 8'	(1) 6'				

# Concealed Modular Trough



PROJECT:

TYPE:

## Specifications

### Application

Retail, commercial and hospitality accent and display lighting.

### Construction

Extruded aluminum ceiling trim with grooved spackle surface.  
Die-formed, cold-rolled steel housing, end plates and internal components.  
Wiring harness with quick connect plugs for easy module attachment.  
Housing lengths are offered in 1 ft. increments.

### Electrical

- 1C** - 1 circuit, 12 ga. 3 conductor wire harness (Dims: LE/TE)
- 2C** - 2 circuit, 12 ga. 3 conductor wire harness (Dims: LE/TE)
- 1C6WIRE** - 1 circuit, 12 ga. 6 conductors harness (Dims: 0-10V, Lutron, E1, E2)
- 2C6WIRE** - 2 circuits, 12 ga. 6 conductors harness (Dims: 0-10V, Lutron, E1, E2)

### Finish

Black texture internal finish. (White finish is not available)

### Mounting

Housing mounted in gypsum board ceiling.  
Installation and ceiling trim spackled by installing contractor.

### Certifications

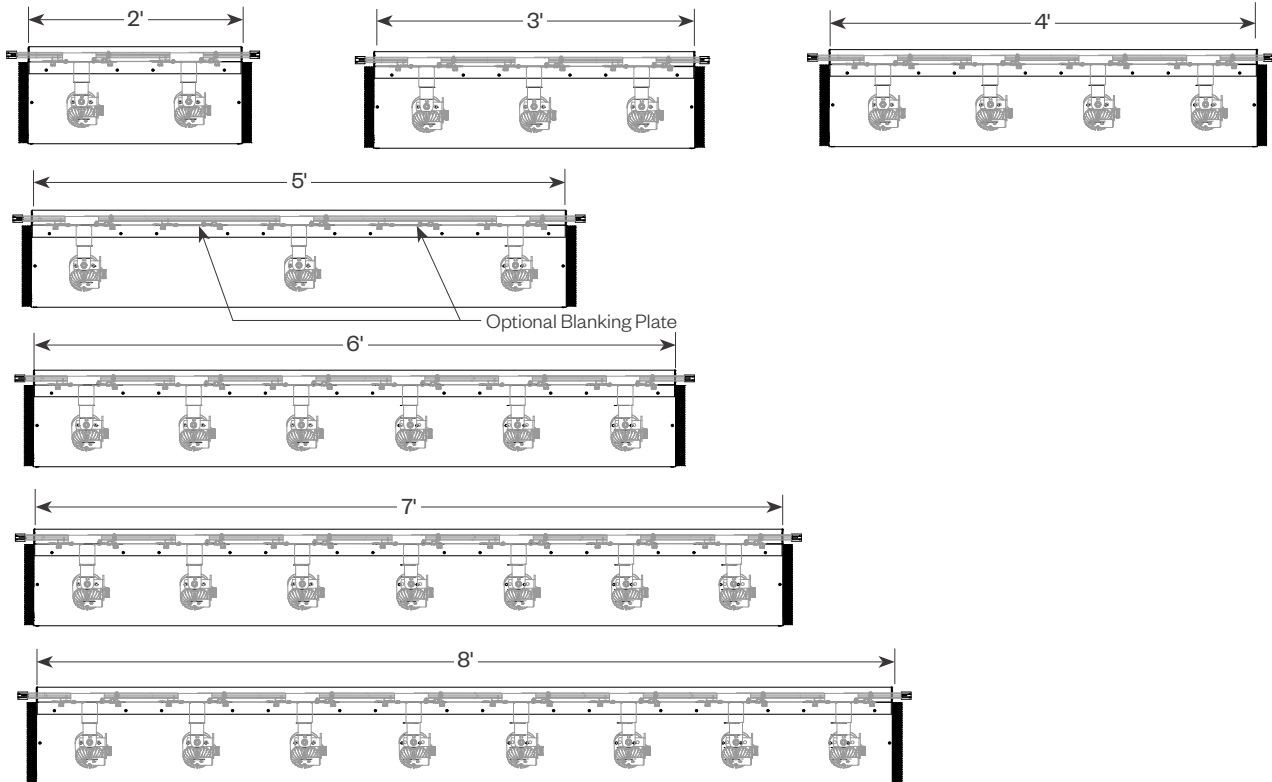
- cUL listed
- Suitable for damp locations
- Indoor use only
- Chicago Plenum (COEA) optional

### Light Modules

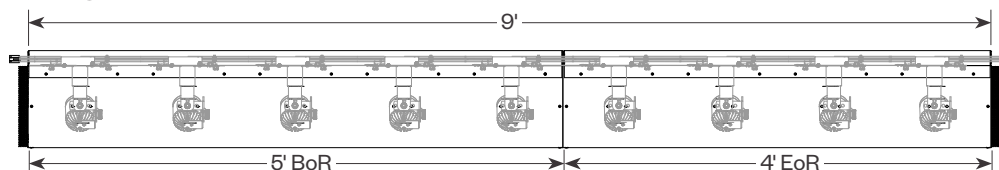
Accepts a variety of CMT4-xx-LM lighting modules.  
See pages 6, 8, and 11 for light module options.

## Concealed Modular Trough Individual and Continuous Lengths

### Individual Lengths



### Continuous Lengths



# Concealed Modular Trough

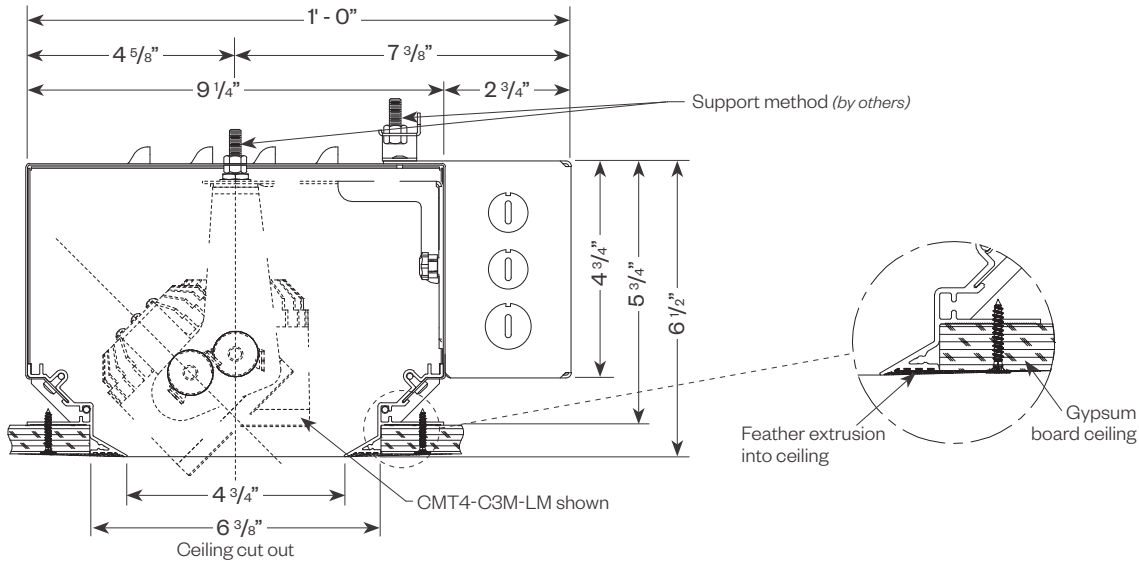


PROJECT:

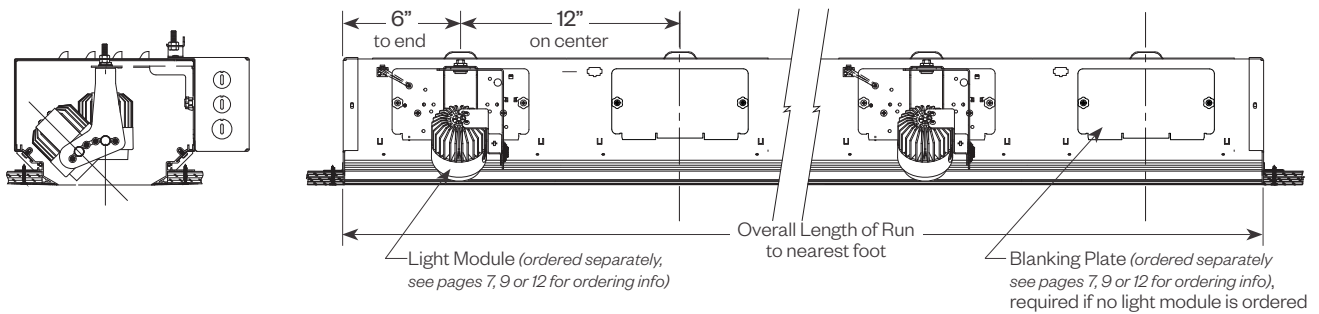
TYPE:

## Product Detail - Housing

CMT4-HSG (use with Hornet-HP, C3M (shown) or C3 light modules)

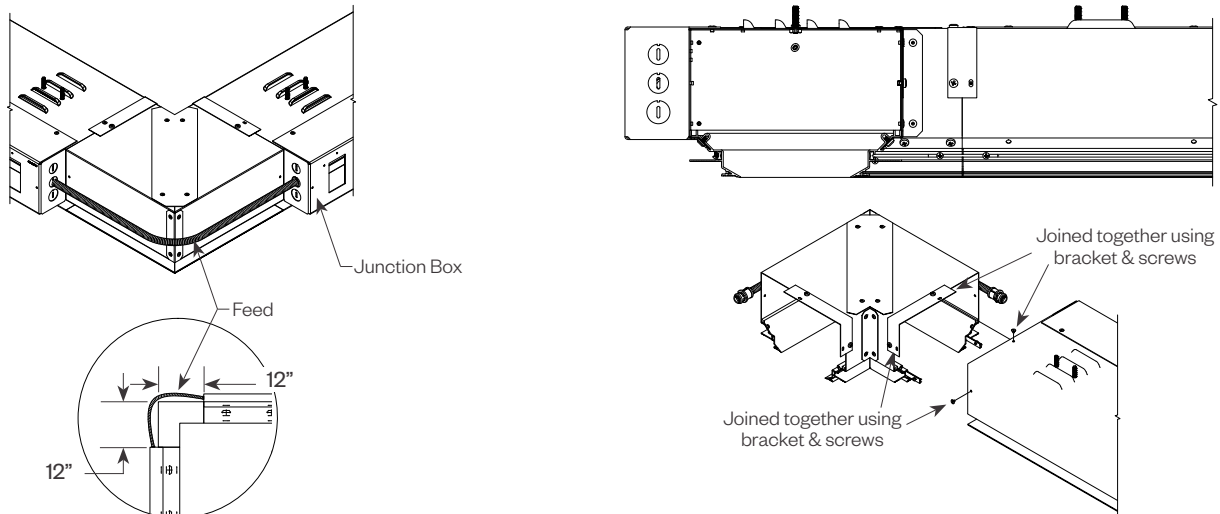


## Lighting Module/Blanking Plate Spacing



## Corner Detail

Note: Light module cannot be placed inside the corner



# Concealed Modular Trough



<b>PROJECT:</b>	<b>TYPE:</b>
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**Light Module Electrical Data**

**Hornet HP (HHP) Light Module**

CMT4-HHP-LM						
	11W		16W		18W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	11	0.09	16	0.13	18	0.15
277V	11	0.04	16	0.06	18	0.07

*Electronic constant current LED driver.  
Data per head.*

**C3M Light Module**

CMT4-C3M-LM						
	15W		18W		21W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	15	0.13	18	0.15	21	0.18
277V	15	0.05	18	0.06	21	0.08

*Electronic constant current LED driver.  
Data per head.*

**C3 Light Module**

CMT4-C3-LM										
	16W		19W		23W		27W		31W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	16	0.13	19	0.16	23	0.19	27	0.23	31	0.26
277V	16	0.06	19	0.07	23	0.08	27	0.10	31	0.11

*Electronic constant current LED driver.  
Data per head.*

# Concealed Modular Trough



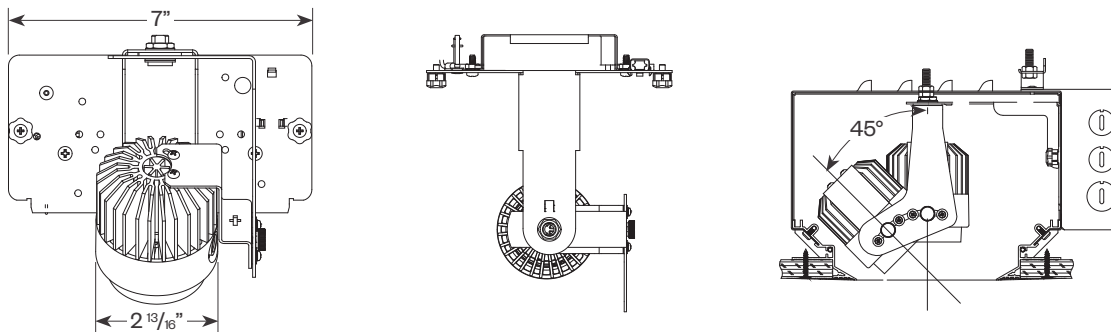
<b>PROJECT:</b>	<b>TYPE:</b>
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## Ordering Information - Hornet HP (HHP) Light Module (use with CMT4-HSG)

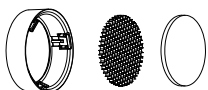
<b>1 Model</b>				<b>2 Wattage</b>			<b>3 Internal Finish</b>	<b>4 Voltage</b>
<b>CMT4-HHP-LM</b> (use with CMT4 housing) <b>CMT4-BP</b> blanking plate, black (items 2-8 do not apply with this selection) <i>Note: Whole length must have 1 light module or blanking plate per foot</i>				<b>11</b> <b>16</b> <b>18</b>			<b>BT</b> black texture	<b>120</b> <b>277</b>
<b>5 Beam Spread</b>				<b>6 Options</b>				
<b>SP</b> spot, 15° <b>NF</b> narrow flood, 22° <b>MFL</b> medium flood, 25° <b>FL</b> flood, 28° <b>WF</b> wide flood, 40° <b>VWF</b> very wide flood, 60° <b>LS</b> linear spread lens, 60° x 10°				<b>83</b> CRI <b>90+</b> CRI <b>27</b> 2700K-83 <b>229*</b> 2200K-90+ <b>CRISP*</b> CrispWhite <b>30</b> 3000K-83 <b>279</b> 2700K-90+ <b>3CLA*</b> 3000K Class A <b>35</b> 3500K-83 <b>309</b> 3000K-90+ <b>40</b> 4000K-83 <b>359</b> 3500K-90+ <b>409</b> 4000K-90+ <i>* Not available for 18W</i>				
<b>7 Driver</b>				<b>8 Options</b>				
<b>LE/TE</b> TRIAC/ELV dimming, 5% dim (for use with 1C or 2C harness) <b>0-10V</b> 0-10V dimming; 1% dim (for use with 1C6WIRE, 2C6WIRE or 0-10V harness) <b>HILUME-H-ECO</b> Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black (for use with 1C6WIRE or 2C6WIRE harness) <b>DALI</b> EldoLED; 1% dim (for use with 1C6WIRE or 2C6WIRE harness)				<b>SNAH</b> snoot accessory holder, 1" length, matte black interior, exterior finish matches fixture finish, accepts cross blade plus 2 additional forms of media <b>AH</b> accessory holder, specify finish (WT, BT, ST), accepts (2) 1/8" forms of media and optical film <b>HEX</b> hexcell louver, 1/8"x1/8" (requires SNAH or AH) <b>CB</b> cross blade, matte black finish (requires SNAH) <b>SOL</b> solite beam softening lens (requires SNAH or AH)				

**NOTE:** Order CMT4 housing separately. See pages 2 for ordering information.

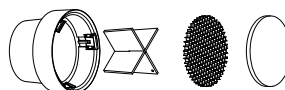
## Product Detail - Hornet HP (HHP) Light Module (use with CMT4-HSG)



## Accessories (diagrams show installation order)



Accessory holder, hexcell louver, solite lens



Snoot accessory holder, cross blade, hexcell louver, solite lens

# Concealed Modular Trough



PROJECT:

TYPE:

## Performance Data - CMT4-HHP-LM (per head)

Multiplying Factors: (Multiplying Factor is based on 3000K-83 120V IES file on website)

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

Wattage:	11W	16W	18W
Factor:	0.71	1.0	1.13

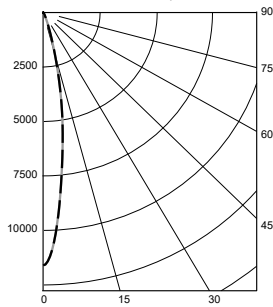
	83 CRI	90+ CRI
R9 Value:	11	55

CCT:	2200K-90+*	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP*	3CLA*
Factor:	0.71	0.80	0.83	0.87	0.90	0.65	0.70

\* Not available for use with 18W

### 16W LED, 3000K-83

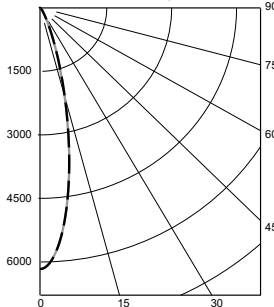
Spot (SP) Distribution, 15°  
LTL #14346087.01  
Lumens: 1,451



**Candelas at Nadir**

Deg	Candela
0	11610
5	8378
15	1825
25	257
35	86
45	31

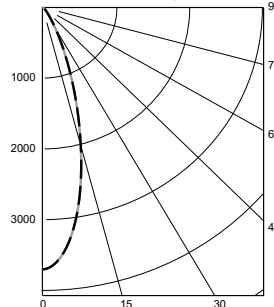
Narrow Flood (NF) Distribution, 22°  
LTL #14346087.02  
Lumens: 1,390



**Candelas at Nadir**

Deg	Candela
0	6167
5	5391
15	2012
25	426
35	119
45	52

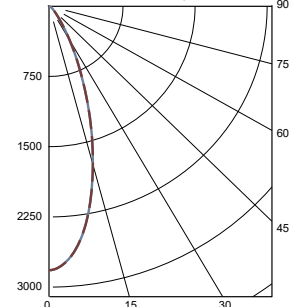
Flood (FL) Distribution, 28°  
LTL #14346087.04  
Lumens: 1,370



**Candelas at Nadir**

Deg	Candela
0	3703
5	3440
15	1925
25	651
35	179
45	67

Wide Flood (WF) Distribution, 40°  
LTL #14346087.05  
Lumens: 1,374



**Candelas at Nadir**

Deg	Candela
0	2820
5	2674
15	1750
25	763
35	248
45	86

## Application Data - CMT4-HHP-LM (per head)

### Notes and Definitions:

Beam spread is to 50% center beam candlepower (CBCP).

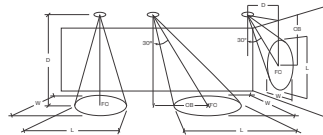
D=Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L=Effective Visual Beam length in feet (50% of maximum footcandle level).

W=Effective Visual Beam width in feet (50% of maximum footcandle level).

CB=Distance across or down to center beam location.



	0° Aiming Angle Horizontal Footcandles				30° Aiming Angle Horizontal Footcandles					30° Aiming Angle Vertical Footcandles					60° Aiming Angle Vertical Footcandles				
	D	FC	L	W	D	FC	L	W	CB	D	FC	L	W	CB	D	FC	L	W	CB
Spot	5.0'	463	1.4	1.4	5.0'	213	2.3	2.2	3.0	3.0'	135	3.4	2.2	5.0	3.0'	403	1.8	1.6	2.0
	7.5'	206	2.1	2.1	7.5'	110	3.3	2.9	4.0	4.0'	87	4.2	2.6	6.0	4.0'	295	2.1	1.8	2.0
	10.0'	116	2.9	2.9	10.0'	64	4.3	3.7	5.0	5.0'	58	5.2	3.2	8.0	5.0'	205	2.5	2.2	3.0
	12.5'	74	3.6	3.6	12.5'	44	5.1	4.5	7.0	6.0'	42	6.2	3.6	9.0	6.0'	152	2.8	2.5	3.0
Narrow Flood	5.0'	247	1.9	1.9	5.0'	133	2.9	2.7	3.0	3.0'	97	3.7	2.4	4.0	3.0'	280	2.1	1.8	2.0
	7.5'	110	3.0	3.0	7.5'	67	4.0	3.6	4.0	4.0'	57	4.8	3.1	5.0	4.0'	201	2.4	2.2	2.0
	10.0'	62	3.9	3.9	10.0'	40	5.2	4.6	5.0	5.0'	39	5.7	3.6	7.0	5.0'	131	3.0	2.7	3.0
	12.5'	40	5.0	5.0	12.5'	26	6.4	5.7	6.0	6.0'	28	6.9	4.3	8.0	6.0'	99	3.4	3.0	3.0
Flood	5.0'	168	2.5	2.5	5.0'	86	3.6	3.2	2.0	3.0'	70	3.9	2.9	4.0	3.0'	194	2.4	2.2	2.0
	7.5'	72	3.7	3.7	7.5'	42	5.0	4.6	4.0	4.0'	43	5.1	3.5	5.0	4.0'	138	2.8	2.7	2.0
	10.0'	40	5.0	5.0	10.0'	25	6.5	5.9	5.0	5.0'	28	6.2	4.4	6.0	5.0'	87	3.6	3.2	2.0
	12.5'	25	6.3	6.3	12.5'	16	8.2	7.4	6.0	6.0'	20	7.5	5.2	7.0	6.0'	65	4.0	3.7	3.0
Wide Flood	5.0'	113	3.0	3.0	5.0'	71	3.9	3.5	2.0	3.0'	60	4.1	3.1	3.0	3.0'	156	2.7	2.5	2.0
	7.5'	50	4.5	4.5	7.5'	34	5.5	5.1	3.0	4.0'	36	5.3	3.9	4.0	4.0'	110	3.1	3.0	2.0
	10.0'	28	6.0	6.0	10.0'	19	7.4	6.8	5.0	5.0'	24	6.4	4.8	5.0	5.0'	72	3.9	3.5	2.0
	12.5'	18	7.5	7.5	12.5'	13	9.1	8.4	6.0	6.0'	17	7.7	5.7	7.0	6.0'	52	4.5	4.2	3.0

# Concealed Modular Trough



PROJECT:

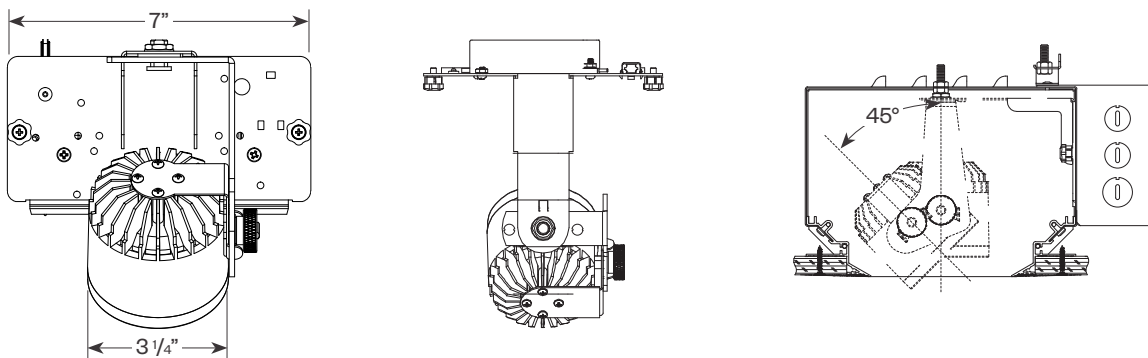
TYPE:

## Ordering Information - C3M Light Module (use with CMT4-HSG)

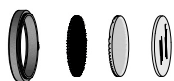
1	2	3	4	5	6	7	8
<b>1 Model</b> <b>CMT4-C3M-LM</b> (use with CMT4 housing) <b>CMT4-BP</b> blanking plate, black (items 2-8 do not apply with this selection) <i>Note: Whole length must have 1 light module or blanking plate per foot</i>	<b>2 Wattage</b> <b>15</b> <b>18</b> (VNSP only) <b>21</b>	<b>3 Internal Finish</b> <b>BT</b> black texture	<b>4 Voltage</b> <b>120</b> <b>277</b>	<b>5 Beam Spread</b> <b>VNSP</b> very narrow spot, 8° (18W only) <b>SP</b> spot, 14° <b>VNF</b> very narrow flood, 18° <b>NF</b> narrow flood, 23° <b>FL</b> flood, 34° <b>WF</b> wide flood, 44° <b>LS</b> linear spread lens, 60° x 10°	<b>6 Options</b> 83 CRI      90+ CRI <b>27</b> 2700K-83 <b>229*</b> 2200K-90+ <b>CRISP*</b> CrispWhite <b>30</b> 3000K-83 <b>279</b> 2700K-90+ <b>3CLA</b> 3000K Class A <b>35</b> 3500K-83 <b>309</b> 3000K-90+ <b>40</b> 4000K-83 <b>359</b> 3500K-90+ <b>409</b> 4000K-90+ <i>* Not available for 18W</i>	<b>7 Driver</b> <b>LE/TE</b> TRIAC/ELV dimming, 5% dim (for use with 1C or 2C harness) <b>0-10V</b> 0-10V dimming; 1% dim (for use with 1O6WIRE, 2O6WIRE or 0-10V harness) <b>HILUME-H-ECO</b> Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black (for use with 1O6WIRE or 2O6WIRE harness) <b>DALI</b> EldoLED; 1% dim (for use with 1O6WIRE or 2O6WIRE harness)	<b>8 Options</b> <b>SN</b> - snoot, 1" length, matte black interior, exterior finish matches fixture finish, accepts up to 2 accessories + cross blade <b>HEX</b> - hexcell louver <b>SOL</b> - solite beam softening lens <b>CB</b> - cross blade, matte black (requires snoot)

**NOTE:** Order CMT4 housing separately. See pages 2 for ordering information.

## Product Detail - C3M Light Module (use with CMT4-HSG)



## Accessories (diagrams show installation order)



Front door/Accessory holder, hexcell, linear spread lens, solite lens



Snoot accessory holder, cross blade, hexcell, linear spread lens, solite lens



# Concealed Modular Trough



PROJECT:

TYPE:

## Performance Data - C3M Light Module (data per head)

Multiplying Factors: (Multiplying Factor is based on 3000K-83 120V IES file on website)

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

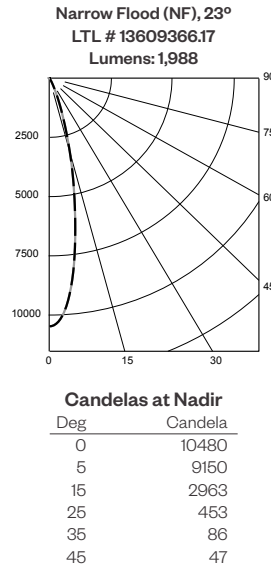
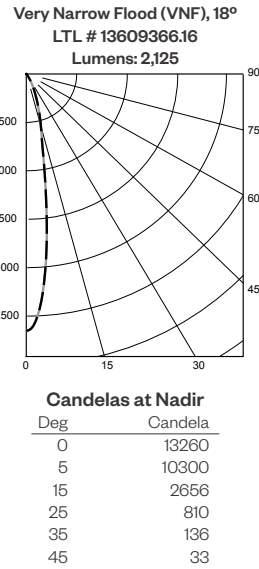
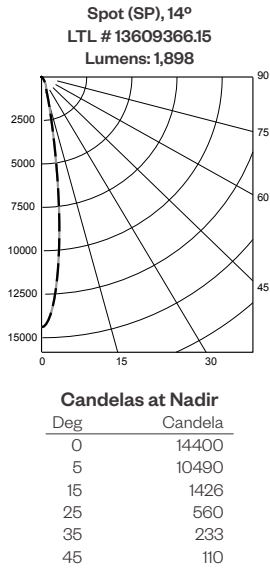
Wattage:	15W	21W
Factor:	0.71	1.0

Note: For 18W (VNSP only) data see pg 10

CCT:	2200K-90+	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP	3CLA
Factor:	0.66	0.83	0.86	0.90	0.93	0.65	0.70

	83 CRI	90+ CRI
R9 Value:	11	55

### 21W LED, 3000K-83



Note: For FL & WF data see pg 11

## Application Data - C3M Light Module (data per head)

### Notes and Definitions:

Beam spread is to 50% center beam candlepower (CBCP).

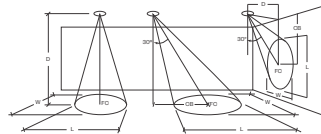
D=Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L=Effective Visual Beam length in feet (50% of maximum footcandle level).

W=Effective Visual Beam width in feet (50% of maximum footcandle level).

CB=Distance across or down to center beam location.



	0° Aiming Angle Horizontal Footcandles				30° Aiming Angle Horizontal Footcandles				30° Aiming Angle Vertical Footcandles				60° Aiming Angle Vertical Footcandles						
	D	FC	L	W	D	FC	L	W	CB	D	FC	L	W	CB	D	FC	L	W	CB
SPOT	5.0'	575	1.2	1.2	5.0'	371	1.6	1.4	3.0	3.0'	216	2.8	1.4	5.0	3.0'	779	1.3	1.1	2.0
	7.5'	256	1.9	1.9	7.5'	166	2.5	2.2	4.0	4.0'	130	3.5	1.8	6.0	4.0'	555	1.5	1.2	2.0
	10.0'	144	2.7	2.7	10.0'	92	3.4	3.0	6.0	5.0'	82	4.3	2.5	8.0	5.0'	361	1.8	1.4	3.0
	12.5'	93	3.2	3.2	12.5'	61	4.1	3.6	7.0	6.0'	58	5.2	2.9	9.0	6.0'	247	2.2	1.6	3.0
VERY NARROW FLOOD	5.0'	531	1.4	1.4	5.0'	342	1.9	1.5	3.0	3.0'	200	3.4	1.6	5.0	3.0'	745	1.5	1.2	2.0
	7.5'	236	2.2	2.2	7.5'	155	2.9	2.6	4.0	4.0'	124	4.1	2.1	6.0	4.0'	529	1.7	1.3	2.0
	10.0'	133	3.0	3.0	10.0'	85	3.9	3.4	6.0	5.0'	77	5.2	2.9	7.0	5.0'	333	2.1	1.6	3.0
	12.5'	85	3.6	3.6	12.5'	57	4.7	4.1	7.0	6.0'	56	6.2	3.2	9.0	6.0'	235	2.4	1.9	3.0
NARROW FLOOD	5.0'	420	1.8	1.8	5.0'	271	2.5	2.2	3.0	3.0'	193	3.2	1.8	4.0	3.0'	628	1.9	1.3	2.0
	7.5'	187	2.9	2.9	7.5'	126	3.5	3.2	4.0	4.0'	105	4.5	2.8	6.0	4.0'	443	1.9	1.6	2.0
	10.0'	105	3.7	3.7	10.0'	71	4.8	4.2	5.0	5.0'	70	5.4	3.3	7.0	5.0'	265	2.6	2.2	3.0
	12.5'	67	4.7	4.7	12.5'	45	6.0	5.4	7.0	6.0'	49	6.6	3.9	8.0	6.0'	197	2.9	2.6	3.0

# Concealed Modular Trough



PROJECT:

TYPE:

## Performance Data - C3M Light Module (data per head, continued)

Multiplying Factors: (Multiplying Factor is based on 3000K-83 120V IES file on website)

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

Wattage:	15W	21W
Factor:	0.71	1.0

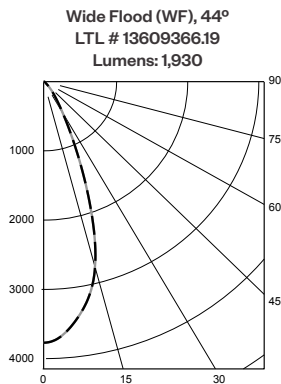
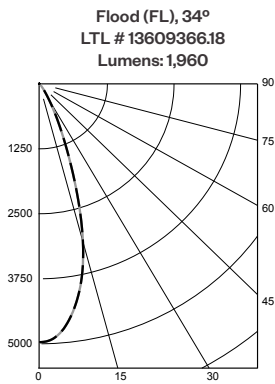
	83 CRI	90+ CRI
R9 Value:	11	55

CCT:	2200K-90+*	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP*	3CLA
Factor:	0.66	0.83	0.86	0.90	0.93	0.65	0.70

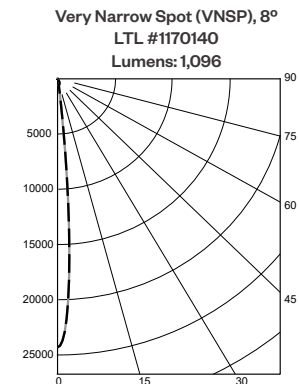
\* Not available for use with 18W

### 21W LED, 3000K-83

### 18W LED, 3000K (VNSP only)



Note: For SP, VNF, NF data see pg 10



**Candelas at Nadir**

Deg	Candela
0	4970
5	4780
15	3130
25	913
35	193
45	55

**Candelas at Nadir**

Deg	Candela
0	3771
5	3624
15	2758
25	1034
35	308
45	101

**Candelas at Nadir**

Deg	Candela
0	24308
5	8980
15	527
25	394
35	131
45	57

## Application Data - C3M Light Module (data per head, continued)

### Notes and Definitions:

Beam spread is to 50% center beam candlepower (CBCP).

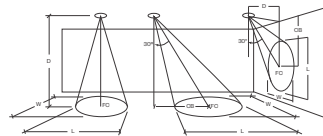
D=Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L=Effective Visual Beam length in feet (50% of maximum footcandle level).

W=Effective Visual Beam width in feet (50% of maximum footcandle level).

CB=Distance across or down to center beam location.



	0° Aiming Angle Horizontal Footcandles				30° Aiming Angle Horizontal Footcandles					30° Aiming Angle Vertical Footcandles					60° Aiming Angle Vertical Footcandles				
	D	FC	L	W	D	FC	L	W	CB	D	FC	L	W	CB	D	FC	L	W	CB
FLOOD	5.0'	199	3.0	3.0	5.0'	141	3.5	3.1	2.0	3.0'	124	3.3	2.7	3.0	3.0'	372	2.2	1.8	1.0
	7.5'	89	4.4	4.4	7.5'	63	5.2	4.8	3.0	4.0'	70	4.5	3.4	4.0	4.0'	221	2.9	2.7	2.0
	10.0'	50	5.8	5.8	10.0'	36	6.9	6.4	4.0	5.0'	45	5.6	4.4	5.0	5.0'	143	3.5	3.1	2.0
	12.5'	32	7.3	7.3	12.5'	23	8.6	8.0	6.0	6.0'	32	6.8	5.2	7.0	6.0'	98	4.2	3.9	3.0
WIDE FLOOD	5.0'	151	3.2	3.2	5.0'	110	3.8	3.5	2.0	3.0'	109	3.2	2.7	3.0	3.0'	303	2.3	2.0	1.0
	7.5'	67	5.0	5.0	7.5'	49	5.6	5.4	3.0	4.0'	62	4.2	3.6	4.0	4.0'	167	3.1	3.0	2.0
	10.0'	38	6.6	6.6	10.0'	28	7.5	7.3	4.0	5.0'	40	5.3	4.6	5.0	5.0'	111	3.8	3.5	2.0
	12.5'	25	8.3	8.3	12.5'	18	9.5	9.1	5.0	6.0'	28	6.5	5.5	6.0	6.0'	76	4.6	4.5	2.0
18W only VERY NARROW SPOT	5.0'	967	1.0	1.0	5.0'	624	1.0	1.0	3.0	3.0'	360	1.5	1.0	5.0	3.0'	983	1.0	1.0	2.0
	7.5'	431	1.1	1.1	7.5'	251	1.8	1.1	4.0	4.0'	185	2.4	1.1	7.0	4.0'	729	1.1	1.0	2.0
	10.0'	243	1.3	1.3	10.0'	153	2.1	1.6	6.0	5.0'	129	2.7	1.2	8.0	5.0'	600	1.1	1.0	3.0
	12.5'	156	1.8	1.8	12.5'	102	2.4	2.2	7.0	6.0'	90	3.3	1.6	10.0	6.0'	325	1.9	1.0	3.0

# Concealed Modular Trough



PROJECT:

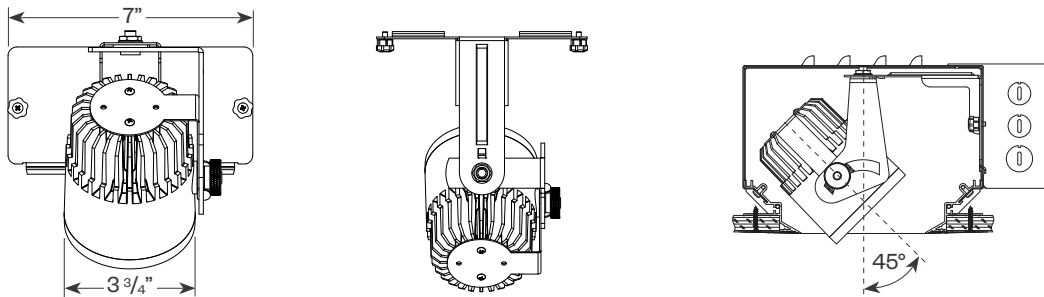
TYPE:

## Ordering Information - C3 Light Module (use with CMT4-HSG)

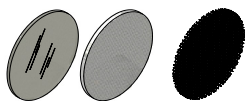
1	2	3	4	5	6	7	8
<b>1 Model</b> CMT4-C3-LM (use with CMT4 housing) CMT4-BP blanking plate, black (items 2-8 do not apply with this selection) <i>Note: Whole length must have 1 light module or blanking plate per foot</i>	<b>2 Wattage</b> 16 19 23 27 31	<b>3 Internal Finish</b> BT black texture	<b>4 Voltage</b> 120 277	<b>5 Beam Spread</b> NSP narrow spot, 10° (based on availability, lead times may vary, consult factory) SP spot, 15° FL flood, 25° WF wide flood, 40° LS linear spread lens, 60° x 10°	<b>6 Options</b> 83 CRI 27 2700K-83 30 3000K-83 35 3500K-83 40 4000K-83 90+ CRI 279 2700K-90+ 309 3000K-90+ 359 3500K-90+ 409 4000K-90+ <i>*Not available with NSP beam spread</i>	<b>7 Driver</b> LE/TE TRIAC/ELV dimming, 5% dim (for use with 1C or 2C harness) 0-10V 0-10V dimming; 1% dim (for use with 1C6WIRE, 2C6WIRE or 0-10V harness) HILUME-H-ECO Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black (for use with 1C6WIRE or 2C6WIRE harness) DALI EldoLED; 1% dim (for use with 1C6WIRE or 2C6WIRE harness)	<b>8 Options</b> (standard front door accepts 1 accessory) SN34 - snoot 3/4" length, matte black interior, exterior finish matches fixture finish; accepts up to 2 accessories SN15 - snoot 1-1/2" length, matte black interior, exterior finish matches fixture finish; accepts up to 2 accessories HEX - hexcell louver SOL - solite beam softening lens CB - cross blade, matte black finish (requires snoot)

**NOTE:** Order CMT4 housing separately. See pages 2 for ordering information.

## Product Detail - C3 Light Module (use with CMT4-HSG)



## Accessories (diagrams show installation order)



Clear lens, Solite lens, Hexcell louver (fits in front door)



Snoot, 3/4" deep



Snoot, 1 1/2" deep



Linear spread lens, Hexcell louver, Cross blade (requires snoot)

# Concealed Modular Trough



PROJECT:

TYPE:

## Performance Data - C3 Light Module (per head)

Multiplying Factors: (Multiplying Factor is based on 3000K-83 120V IES file on website)

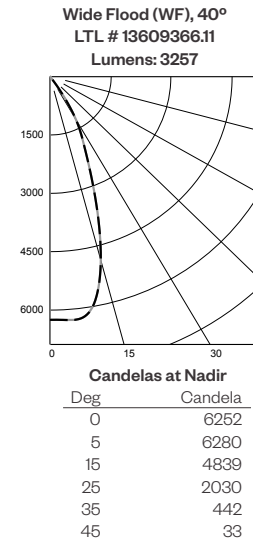
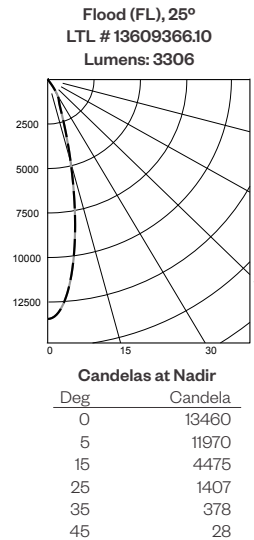
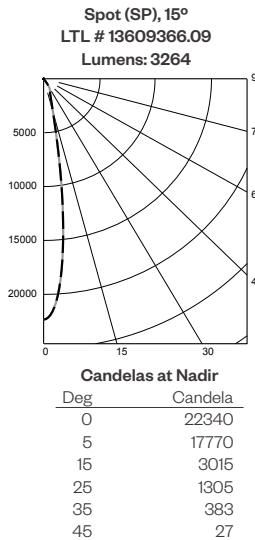
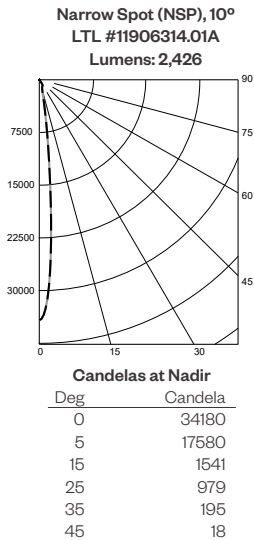
OCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

Wattage:	16W	19W	23W	27W	31W
Factor:	0.51	0.61	0.74	0.87	1.0

OCT:	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP	3CLA
Factor:	0.83	0.86	0.90	0.93	0.65	0.70

	83 CRI	90+ CRI
R9 Value:	11	55

### 31W LED, 3000K-83



## Application Data - C3 Light Module (per head)

### Notes and Definitions:

Beam spread is to 50% center beam candlepower (CBCP).

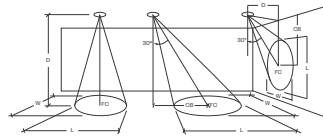
D=Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L=Effective Visual Beam length in feet (50% of maximum footcandle level).

W=Effective Visual Beam width in feet (50% of maximum footcandle level).

CB=Distance across or down to center beam location.



	0° Aiming Angle Horizontal Footcandles				30° Aiming Angle Horizontal Footcandles					30° Aiming Angle Vertical Footcandles					60° Aiming Angle Vertical Footcandles				
	D	FC	L	W	D	FC	L	W	CB	D	FC	L	W	CB	D	FC	L	W	CB
NARROW SPOT	5.0'	1367	1.1	1.1	5.0'	839	1.3	1.1	3.0	3.0'	508	2.0	1.1	5.0	3.0'	1553	1.1	1.0	2.0
	7.5'	608	1.3	1.3	7.5'	384	1.9	1.4	4.0	4.0'	261	2.9	1.4	7.0	4.0'	1131	1.2	1.1	2.0
	10.0'	342	1.7	1.7	10.0'	211	2.5	2.1	6.0	5.0'	186	3.3	1.6	8.0	5.0'	846	1.2	1.1	3.0
	12.5'	219	2.3	2.3	12.5'	143	3.0	2.7	7.0	6.0'	128	4.0	2.1	10.0	6.0'	503	2.0	1.3	3.0
SPOT	5.0'	894	1.3	1.3	5.0'	559	2.1	1.5	3.0	3.0'	338	3.1	1.5	5.0	3.0'	1275	1.4	1.1	2.0
	7.5'	398	2.2	2.2	7.5'	265	2.8	2.5	4.0	4.0'	212	3.8	2.0	6.0	4.0'	903	1.6	1.2	2.0
	10.0'	224	2.9	2.9	10.0'	145	3.9	3.3	5.0	5.0'	132	4.8	2.7	7.0	5.0'	561	2.1	1.5	3.0
	12.5'	144	3.6	3.6	12.5'	95	4.7	4.2	7.0	6.0'	95	5.6	3.1	9.0	6.0'	402	2.3	1.8	3.0
FLOOD	5.0'	539	2.0	2.0	5.0'	338	2.8	2.5	3.0	3.0'	259	3.5	2.0	4.0	3.0'	814	2.1	1.4	2.0
	7.5'	240	3.1	3.1	7.5'	162	3.8	3.5	4.0	4.0'	143	4.6	2.9	5.0	4.0'	573	2.1	1.7	2.0
	10.0'	135	4.0	4.0	10.0'	92	5.1	4.5	5.0	5.0'	92	5.7	3.5	7.0	5.0'	340	2.8	2.5	3.0
	12.5'	87	5.1	5.1	12.5'	58	6.5	5.7	6.0	6.0'	65	7.0	4.2	8.0	6.0'	255	3.1	2.8	3.0
WIDE FLOOD	5.0'	284	3.3	3.3	5.0'	222	3.6	3.2	2.0	3.0'	191	3.2	2.7	3.0	3.0'	550	2.3	1.8	1.0
	7.5'	121	5.0	5.0	7.5'	95	5.4	5.1	3.0	4.0'	108	4.2	3.6	4.0	4.0'	283	3.3	3.1	2.0
	10.0'	67	6.6	6.6	10.0'	53	7.4	6.8	4.0	5.0'	69	5.5	4.6	5.0	5.0'	201	3.8	3.4	2.0
	12.5'	43	8.3	8.3	12.5'	34	9.2	8.6	5.0	6.0'	48	6.5	5.4	6.0	6.0'	138	4.6	4.3	2.0

# Concealed Modular Trough



PROJECT:

TYPE:

## Dimming Compatibility

Amerlux® CMT 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 ---

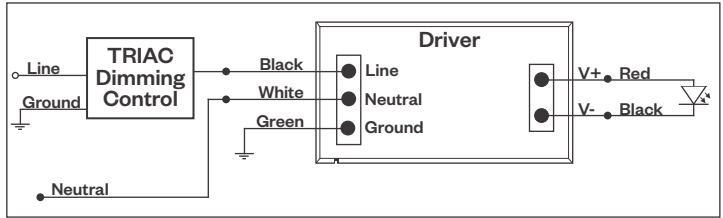
### TRIAC (Forward Phase) Dimming

Utilizes standard TRIAC dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

#### Notes:

- 120VAC or 277VAC\*
- Dims down to 5% light output (*most cases*)
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

### TRIAC Wiring Diagram



#### Compatible Dimmers†:

Wall Box (TRIAC 120VAC)	Central System
Lutron "Diva"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron Grafik Eye QS
Lutron "Maestro"	
Lutron "Skylark"	

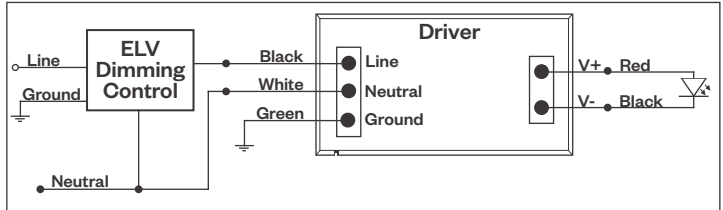
### ELV - Electronic Low Voltage (Reverse Phase) Dimming

Utilizes specialized "ELV" dimmers.

#### Notes:

- 120VAC or 277VAC\*
- Dims down to 5% light output (*most cases*)
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

### ELV Wiring Diagram



#### Compatible Dimmers†:

Wall Box (ELV 120VAC)	Wall Box (ELV 277VAC)	Central System
Lutron "Diva"	Leviton Revoir II AWSMT-E	Lutron "GP" Panel with PHPM-PA 120/277VAC
Lutron "Nova-T"		Lutron Grafik Eye QS with PHPM-PA 120/277VAC
Lutron "Maestro"		
Lutron "Skylark"		
Leviton "Surslide"		
Leviton "Vizio"		

#### 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.

# Concealed Modular Trough



**PROJECT:**

**TYPE:**

## Dimming Compatibility *(continued)*

Amerlux® CMT 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 ---**

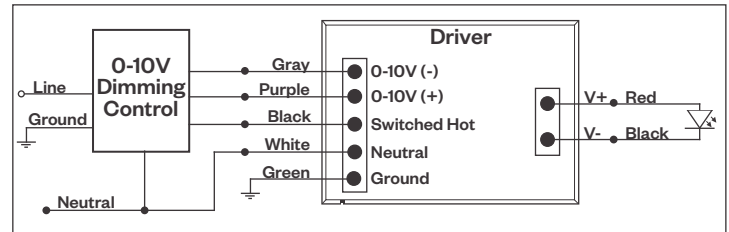
### 0-10V Dimming

Integrates into a variety of building management and daylighting controls

**Notes:**

- 120VAC or 277VAC\*
- 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 "Diva" - DVSTV	Leviton Renoir II 0-10V	Lutron Grafik Eye with GRX-TVI Interface

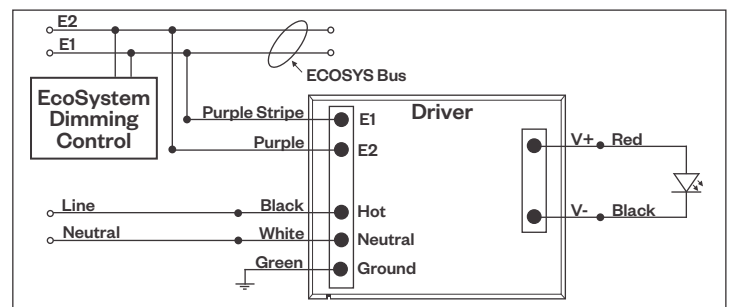
### Lutron LDE1 Dimming

Integrates into Lutron EcoSystem building management

**Notes:**

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

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



**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	

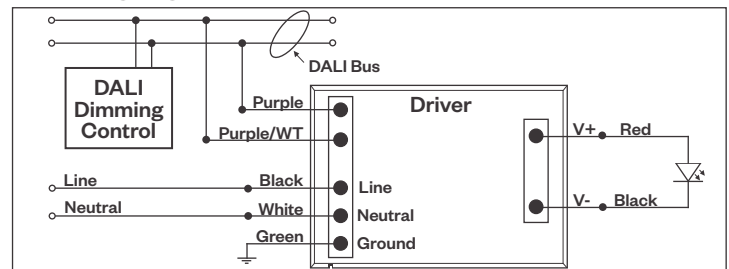
### DALI Dimming

Digital control protocol allows individual fixture control

**Notes:**

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

### DALI Wiring Diagram



**Compatible Dimmers\*:**

Wall Box (3-Wire Fluorescent)	Central System
Leviton CD250 Controller	Dynalite
	Fifth Light

**Notes:**

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

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