

# Cylindrix® III

## Recessed Multiples



PROJECT:

TYPE:

### Features

Cylindrix® III Recessed LED, the best combination of optical and thermal performance, aesthetics and visual comfort in an recessed accent. Features a deeply recessed single LED light source for enhanced visual comfort and control, integrated heat sink and high performance interchangeable reflector optics (for 15°/25°/40° beam spreads only). A 10° beam spread is also available but not interchangeable with the other beam options. Available in 1, 2 or 3 light configurations.



C3R

### Product Overview

Type: Recessed Multiple, Accent & Display  
 Wattage: 16W, 19W, 23W, 27W, 31W  
 Color Temp: 2700K, 3000K, 3500K, 4000K  
 CRI: 83 typ. or 90+ typ.  
 CrispWhite & Class A LEDs available  
 Dimming: TRIAC & ELV, 5% Dim, 120/277VAC  
 Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black, 120/277VAC  
 0-10V, 1% Dim, 120/277VAC  
 DALI, 1% Dim, 120/277VAC

### Certifications



### Fixture Summary

#### Fixture Type

# of Heads	New Construction	Remodeler	Trim	Trimless
1	Yes	No	Yes	Yes
2	Yes	No	Yes	Yes
3	Yes	No	Yes	Yes

See separate spec sheet for Semi-Recessed version.

#### Performance Data

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 7 for other beam spreads.

PROJECT:

TYPE:

### Ordering Information - Frame

C3R/SR-NC-FRAME

1

2

3

4

5

6

1 Model	2 Style	3 # of Heads	4 Voltage
C3R/SR-NC-FRAME (new construction)	T trimmed	1	120
	TL trimless	2	277
		3	

5 Driver (for non-dimming select LE/TE option)	6 Options/Accessories
<b>LE/TE</b> TRIAC/ELV dimming, 5% dim <b>HILUME-H-ECO</b> Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black <b>0-10V</b> 0-10V dimming, 1% dim <b>DALI</b> EldoLED, 1% dim	<b>HB49</b> hanger bars from min 29" to max 49" <i>Note: 14-½" - 25" adjustable hanger bars included.</i> Choose <b>HB49</b> for large mounting spaces. <b>EM*</b> emergency battery pack, available on 2, 3 or 4 light - powers only 1 head of the total fixture *If this option is selected, you must also select EM option in the Trim Ordering section.

### Ordering Information - Trim

C3R-NC-TRIM

120-277

1

2

3

4

5

6

7

8

9

10

1 Model	2 Style	3 # of Heads	4 Wattage	5 Finish (for housing, head & trim)
C3R-NC-TRIM (new construction)	T trimmed	1	16	WT white texture
	TL trimless	2	19	BT black texture
		3	23	ST silver texture
			27	Other finishes, consult factory
			31	

6 Voltage	7 Beam Spread	8 Color Temp																																							
120-277	<table border="0"> <tr> <td>1LT</td> <td>2LT</td> <td>3LT</td> <td></td> </tr> <tr> <td>NSP*</td> <td>NSP*</td> <td>NSP*</td> <td>(narrow spot, 10°)</td> </tr> <tr> <td>SP</td> <td>SP</td> <td>SP</td> <td>(spot, 15°)</td> </tr> <tr> <td>FL</td> <td>FL</td> <td>FL</td> <td>(flood 25°)</td> </tr> <tr> <td>WF</td> <td>WF</td> <td>WF</td> <td>(wide flood 40-4°)</td> </tr> <tr> <td>LS</td> <td>LS</td> <td>LS</td> <td>(linear spread 60°x10°)</td> </tr> </table> *Based on availability, lead times may vary, consult factory.	1LT	2LT	3LT		NSP*	NSP*	NSP*	(narrow spot, 10°)	SP	SP	SP	(spot, 15°)	FL	FL	FL	(flood 25°)	WF	WF	WF	(wide flood 40-4°)	LS	LS	LS	(linear spread 60°x10°)	<table border="0"> <tr> <td>83 CRI</td> <td>90+ CRI</td> <td></td> </tr> <tr> <td>27 2700K-83</td> <td>279 2700K-90+</td> <td>CRISP+ CrispWhite</td> </tr> <tr> <td>30 3000K-83</td> <td>309 3000K-90+</td> <td>3CLA+ 3000K Class A</td> </tr> <tr> <td>35 3500K-83</td> <td>359 3500K-90+</td> <td></td> </tr> <tr> <td>40 4000K-83</td> <td>409 4000K-90+</td> <td></td> </tr> </table> * Not available for use with NSP beam spread	83 CRI	90+ CRI		27 2700K-83	279 2700K-90+	CRISP+ CrispWhite	30 3000K-83	309 3000K-90+	3CLA+ 3000K Class A	35 3500K-83	359 3500K-90+		40 4000K-83	409 4000K-90+	
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9 Driver (for non-dimming select LE/TE option)	10 Options/Accessories
<b>LE/TE</b> TRIAC/ELV dimming, 5% dim <b>HILUME-H-ECO</b> Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black <b>0-10V</b> 0-10V dimming, 1% dim <b>DALI</b> EldoLED, 1% dim	(standard front door accepts up to 1 accessory) <b>SN34</b> snoot 3/4" length, exterior finish matches fixture finish, accepts up to 2 accessories <b>SN15</b> snoot 1-1/2" length, exterior finish matches fixture finish, accepts up to 2 accessories <b>HEX</b> hexcell louver <b>CB</b> cross blade, matte black finish (requires snoot) <b>CL</b> clear glass lens <b>SOL</b> solite beam softening lens <b>EM*</b> emergency battery pack, available on 2, 3 or 4 light - powers only 1 head of the total fixture *If this option is selected, you must also select EM option in the Frame Ordering section.

PROJECT:

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### Specifications

#### Application

Retail and commercial accent and display lighting

#### Construction

Formed steel mounting frame with integral mounting bars  
Thermally protected (*adds 2W to total fixture wattage*)  
Steel driver housing  
Steel upper housing and laser cut trim ring  
Steel plaster frame (*trimless only*)  
Complete die-cast optical head construction  
Passive cooled

#### Optical

Tilt: 0-45°x45° (*Trimmed*), 0-25°x45° (*Trimless*)  
Rotation: 360°+  
Beam Spreads: Narrow Spot, 10°; Spot, 15°; Flood, 25°;  
Wide Flood, 40°; Linear Spread Lens, 60° x 10°

#### LED

Color Temp Options: 2700K, 3000K, 3500K, 4000K, CRISP, Class A  
CRI: 83 typ. or 90+ typ.  
CrispWhite\* and Class A\*\* LEDs available  
R9 Values: 11 (83 CRI), 55 (90+ CRI)  
Binning: 3 MacAdam (SDCM)  
Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs  
*\*CrispWhite: CrispWhite Technology delivers the warmth of colors expected from a high 90 CRI solution but also creates the natural crisp white color that is pleasing to the eye. It creates the most impactful lighting ever available, by revealing the richest whites and vibrant colors that pop.*  
*\*\*Class A LED: Class A LED's have a CRI > 80 and a GAI > 80. CRI defines color "Naturalness" and GAI defines color "Saturation." Both being high delivers rich colors and pure whites.*

#### Electrical

Wattage: 16, 19, 23, 27, 31  
Electronic constant current LED driver, 120/277VAC input  
***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.***

#### Drivers

LE/TE - Leading Edge (*Triac, Forward Phase*) or Trailing Edge (*ELV, Reverse Phase*) autosensing driver dims down to 5% on most dimming systems.  
0-10V, Lutron & DALI systems also available  
*See pages 8-10 for more dimming information*

#### Finish

Powder coat paint  
*Consult Factory for custom finishes*

#### Mounting

**Hanger Bars:**  
Adjustable hanger bars included (*14 1/2" - 25" std.*)  
Optional **HB49** - hanger bars from min 29" to max 49" available  
**Trimmed:**  
For use in T-Grid or GB ceilings; max ceiling thickness 1"  
**Trimless:**  
For use in GB ceilings; max ceiling thickness 5/8"  
*Consult Factory for thicker ceilings*

#### Certifications

CSA listed to UL standards.  
Suitable for damp locations  
Indoor use only

#### Warranty

5 year limited warranty

#### Emergency Battery Pack (EM)

Powers single head of 2, 3 or 4 light multiple at 5.1 watts (*approx. 400 Lm*) for 90 minutes. Not available on 1 light multiple

<b>PROJECT:</b>	<b>TYPE:</b>
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### Electrical Data

*NOTE: System Watts includes an additional 2W for thermal protector power consumption.*

#### 1 Light

	1 x 16W		1 x 19W		1 x 23W		1 x 27W		1 x 31W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	18	0.15	21	0.18	25	0.21	29	0.24	33	0.28
277V	18	0.06	21	0.08	25	0.09	29	0.10	33	0.12

*Electronic constant current LED driver*

#### 2 Light

	2 x 16W		2 x 19W		2 x 23W		2 x 27W		2 x 31W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	36	0.30	42	0.35	50	0.42	58	0.48	66	0.55
277V	36	0.13	42	0.15	50	0.18	58	0.21	66	0.24

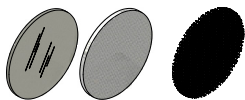
*Electronic constant current LED driver*

#### 3 Light

	3 x 16W		3 x 19W		3 x 23W		3 x 27W		3 x 31W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	54	0.45	63	0.53	75	0.63	87	0.73	99	0.83
277V	54	0.19	63	0.23	75	0.27	87	0.31	99	0.36

*Electronic constant current LED driver*

### Accessories



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)

# Cylindrix® III

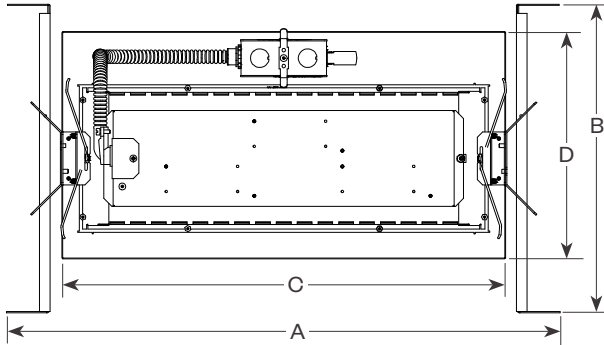
## Recessed Multiples



PROJECT:

TYPE:

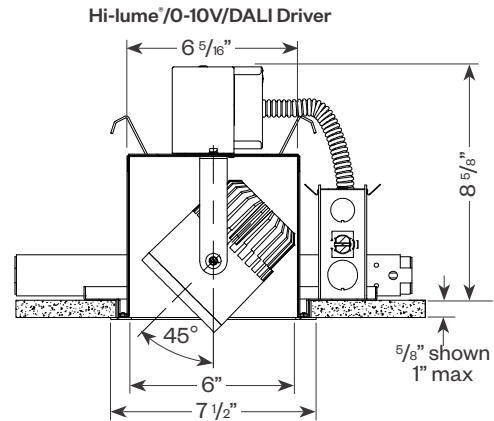
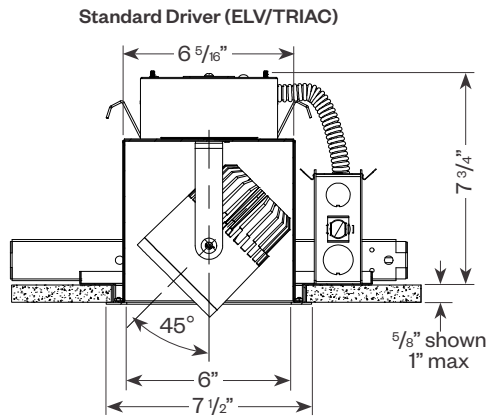
### Product Details - Recessed Trimmed



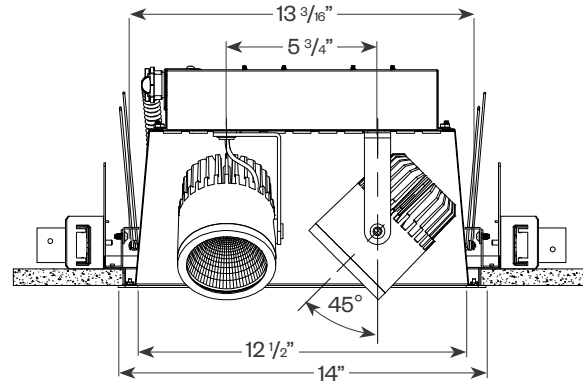
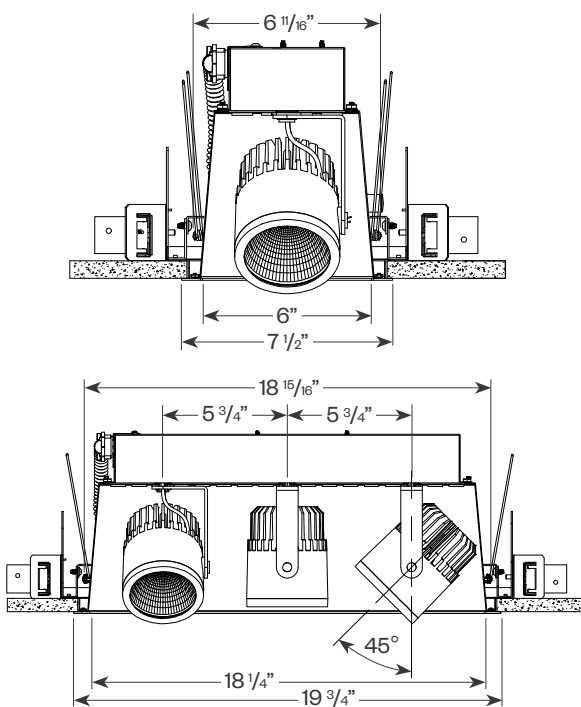
	1 Light	2 Light	3 Light
A	13 3/4"	20 1/4"	25 15/16"
B	14 1/2"	14 1/2"	14 1/2"
	max 25"	max 25"	max 25"
C	8 9/16"	15 1/16"	20 13/16"
D	10 11/16"	10 11/16"	10 11/16"

**Ceiling cut out:** 1 Light - 7 1/8" x 7 1/8"  
 2 Light - 7 1/8" x 13 5/8"  
 3 Light - 7 1/8" x 19 5/16"

### End View



### Side View



# Cylindrix® III

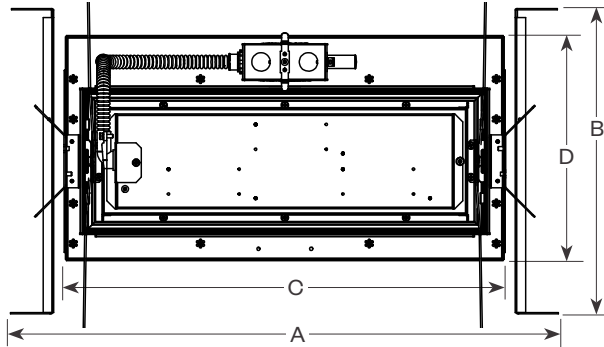
## Recessed Multiples



PROJECT:

TYPE:

### Product Details - Recessed Trimless

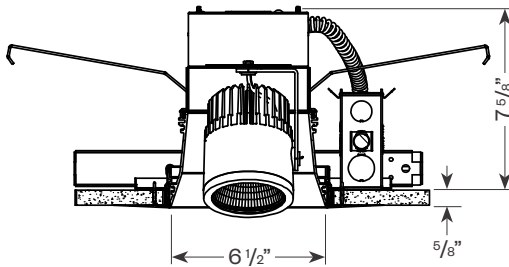


	1 Light	2 Light	3 Light
A	13 3/4"	20 1/4"	25 15/16"
B	14 1/2" max 25"	14 1/2" max 25"	14 1/2" max 25"
C	8 9/16"	15 1/16"	20 13/16"
D	10 11/16"	10 11/16"	10 11/16"

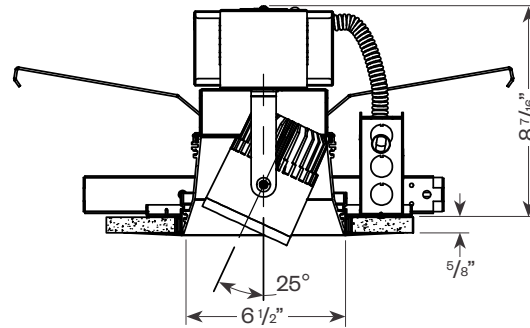
Ceiling cut out: 1 Light - 7 1/8" x 7 1/8"  
 2 Light - 7 1/8" x 13 5/8"  
 3 Light - 7 1/8" x 19 5/16"

### End View

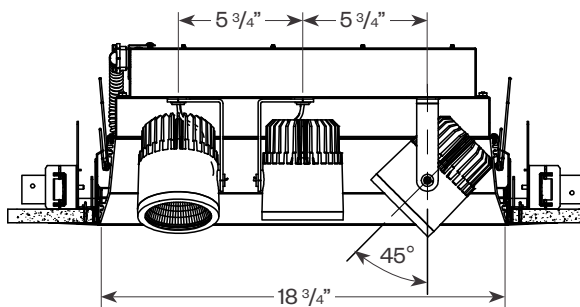
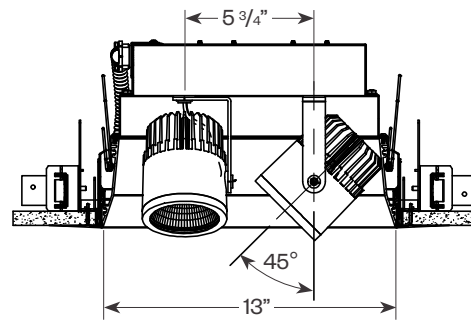
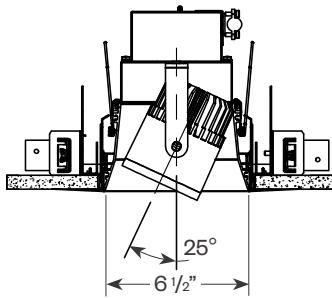
Standard Driver (ELV/TRIAC)



Hi-lume®/0-10V/DALI Driver

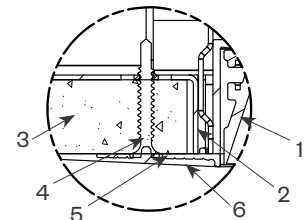


### Side View



### Plaster Frame Installation Detail (for trimless fixture only)

1. Recessed extruded housing
2. Aperture plate
3. Ceiling 5/8"
4. Drywall screw (by others)
5. Plaster frame
6. Plaster skim coat (by others)



PROJECT:

TYPE:

### Performance Data (per head)

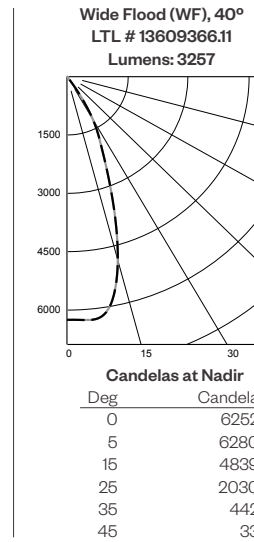
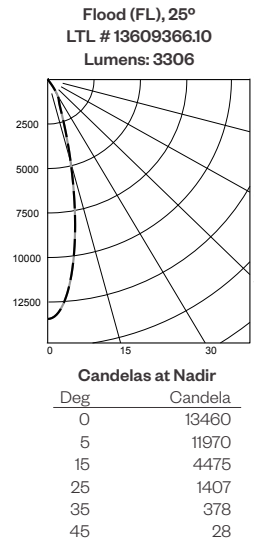
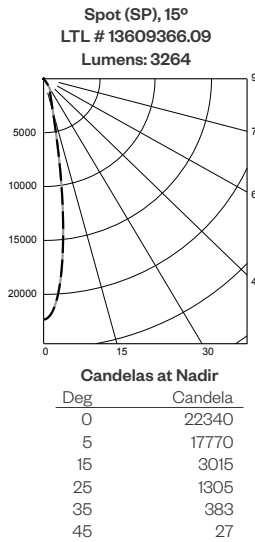
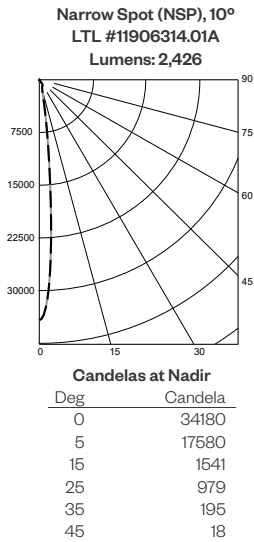
Multiplying Factors: (Multiplying Factor is based on 3000K-83 120V IES file on website)

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

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

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

### 31W LED, 3000K-83



### Application Data (per head)

#### Notes and Definitions:

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

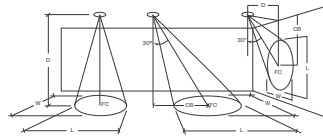
D=Distance to floor or wall.

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
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

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### Dimming Compatibility

Amerlux® Cylindrix® 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 ---**

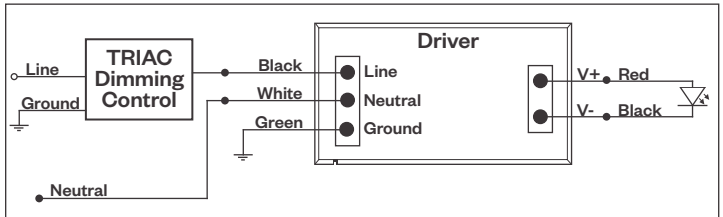
#### TRIAC (Forward Phase) Dimming

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"	

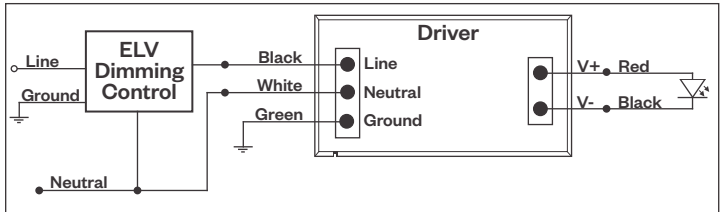
#### ELV - Electronic Low Voltage (Reverse Phase) Dimming

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.



# Cylindrix® III

## Recessed Multiples



**PROJECT:**

**TYPE:**

### Dimming Compatibility (continued)

Amerlux® Cylindrix® 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 ---**

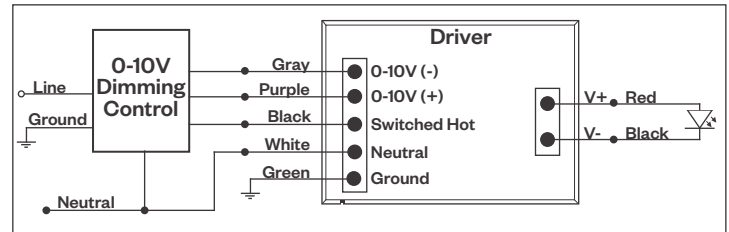
#### 0-10V Dimming

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

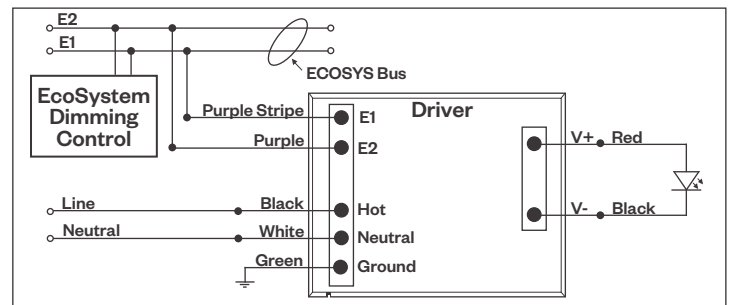
#### Lutron LDE1 Dimming

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
Energizer Savr Node	
Grafik Eye QS/Homeworks	
QS Control Unit	
Quantum Hub	
Homeworks QS/My Room	

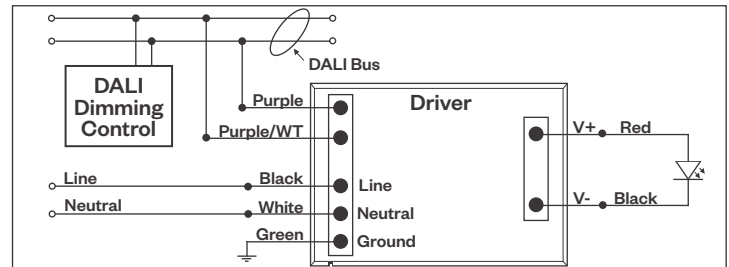
#### DALI Dimming

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.

PROJECT:

TYPE:

### Emergency Dimming

#### Wiring Diagram

