

# Etch

## 2' x 2'

### Recessed LED

#### Features

Upgrade your ambient lighting designs with ETCH 2' x 2', an exciting fresh vocabulary combining ambient and accent lighting for creating dynamic lighting compositions in any space. Etch 2' x 2' is the result of Amerlux's collaboration with Gensler, serving as product design consultant, and features an ambient regressed LED edge-lit panel that delivers light evenly and efficiently. The optional opaque element with or without accent/task lights, gives you a 3D appearance that brings depth, dimension, perspective, and visual interest to your designs. Adding dimming and multifunction control for maximized energy efficiency, Etch allows you to have fun and elevate your designs with high contrast and visual drama by mixing in all three options, creating one of a kind patterns for each floor or project.

#### Product Overview

Type:	Recessed Direct
Wattage:	Panel: 23W, 31W, 39W Accent (optional): 4W per head
Color Temp:	Standard: 3000K, 3500K Optional: 4000K (consult factory)
CRI:	83 typ. (R9-12) or 83CRI
Dimming:	0-10V, 1% Dimming (standard) skip pg 2 for other options)



Open Regressed Panel

#### PROJECT:



Open Regressed Panel with Element



Open Regressed Panel with Element/Accents

PRODUCT DISCONTINUED

#### Fixture Summary *(see following pages for more information)*

##### Ceiling Types

9/16"	15/16"
Yes	Yes

##### Regressed Panel\* Performance

Power Level	Input Wattage	Delivered Lumens	LPW	Color Temp
L	23	2664	109	3500K-83
M	31	3403	106	3500K-83
H	39	3995	98	3500K-83

##### Regressed Panel\* with Element Performance

L	23	2481	99	3500K-83
M	31	3186	95	3500K-83
H	39	3862	91	3500K-83

##### Regressed Panel\* with Element & 2 Accent Performance

L	31	2973	96	3500K-83
M	39	3773	97	3500K-83
H	47	4507	96	3500K-83

##### Accent Performance (per head)

	4	262	63	3500K-83
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For photometric data, see pgs 6-8.

# Etch 2' x 2'

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## PROJECT:

## TYPE:

### Ordering Information



**1** Model  
**ECH2** (open recessed panel)  
**ECH2-EL** (open recessed panel with element)  
**ECH2-EL-2AL** (open recessed panel with element/accents;  
independantly controlled from ambient)

**2** Mounting  
**GRID** - 9/16" flat tee or screw slot, or 15/16" flat tee

**3** Wattage (Panel only)  
**L** - low, 23W  
**M** - medium, 31W  
**H** - high, 39W

**4** Color Temp (Panel only)  
Standard:  
**30** - 3000K-83  
**35** - 3500K-83  
Optional:  
**40** - 4000K-83 (consult factory)

**Note: 5, 6, & 7 are for use with ECH2-EL-2AL model. Leave blank in ordering string if ECH2 & ECH2-EL models are chosen.**

**5** Accent Wattage (ECH2-EL-2AL model only)  
**4** (per accent)

**6** Color Temp (Accent only)  
83 CRI:  
**30** - 3000K-83  
**35** - 3500K-83  
**40** - 4000K-83 (consult factory)

**7** Beam Spread (Accent only)  
**SP** - spot, 16°  
**NF** - narrow flood, 22°  
**FL** - flood, 28°

**8** Finish  
**HW** - high reflectance matte white

**9** Voltage  
**120-277**

**10** Driver (regressed panel and accent)  
**0-10V** - 1% electronic dimming, multi-volt  
constant current driver (standard). Cap 0-10V leads for non-dim  
applications  
**HILUME-H-ECO** - Lutron "H" Series, 1% dim, fade to off,  
EcoSystem®  
**DALI** - DALI driver, 1% dimming

**11** Options/Accessories  
**WHIP** - 6' armored whip (18/5 conductor (ECH2/ECH2-EL), 18/9  
conductor (ECH2-EL-2AL))  
**EM** - emergency battery pack, max output up to 1300 lumens for  
90 minutes. Wired to regressed panel only

# Etch 2' x 2'

Recessed LED



## PROJECT:

## TYPE:

### Specifications

#### Application

Etch is a dynamic recessed 2' x 2' lighting system. Configurable for a range of applications from open office area to dramatic conference/collaboration room lighting with accent lights. The variety of product configurations enables the designer to create unique patterns with effective lighting for numerous applications.

#### Construction

A steel frame houses LED edge lit panel, and extruded aluminum off-center Element. Fixtures are designed for ease of installation and maintenance.

#### Optical

A wide range of performance perimeters are available through the choice of different models. An off center extruded aluminum Element adds contrast and a location for two accent downlights.

**EL** - Solid opaque off center Element provides visual interest and contrast.

Optional 4 watt down lights can be integrated into the off center Element.

#### **Optional Accent Lights (2 only, standard)**

Beam spreads are created with different lens in Spot (16°), Narrow Flood (22°), and Flood (28°)

#### LED

Edge lit ambient panel is available in 3 standard wattages and two color temperatures and is offered with a 5 year warranty. Our LED binning is within 3 MacAdam ellipse. Boards are configured for maximum flexibility and even illumination.

Color Temperature Options:

**Standard:** 3000K, 3500K; **Optional:** 4000K (consult factory)

CRI: 83 typical

R9 16 @ CRI 83

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

#### Electrical

**Wiring:** ECH2 & ECH2-EL models are single circuit standard.

ECH2-EL-2AL model is two circuit standard. Supply wires are easily accessible through access plate on top of fixture.

**Whip:** Optional factory installed 6' armored whip, 18/5 conductor (standard) supplied for ECH2 & ECH2-EL; 18/5 + 22/4 (9 conductor) whip supplied for independent control and circuiting of Accents on ECH2-EL-2AL.

**Regressed Panel Wattages:** 23W (2683lm), 31W (3553lm), 39W (4351lm)

**Accent Light Wattage:** 4W per accent, powered by a separate 0-10V dimmable driver (standard).

**EM** - Emergency Battery Pack, 90 minutes at up to 1300 lumens, high temperature, maintenance free, lithium ion battery with 5 to 7 years of life expectancy. Illuminated test switch located in extruded Element or in side trim for ECH2 regressed panel. See page 5 for location dimensions. Emergency Battery Pack operates regressed panel only.

#### Drivers

**0-10V** - 1% electronic dimming, multi-volt (120V-277V) constant current driver (standard). Cap leads for non-dim applications.

#### **Optional Drivers:**

**HILUME-H-ECO** - Lutron "H" Series, 1% dim, fade to off, EcoSystem

**DALI** - DALI driver, 1% dimming 120V-277V

**Note: Not all compatible drivers and networks are listed.**

**Consult factory if other drivers are required.**

#### Finish

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

#### Mounting

**GRID** - Etch can be used in 9/16" or 15/16" Flat Tee or 9/16" Screw Slot ceiling types

#### Models

**ECH2** - 2' x 2' Open Regressed Panel

**ECH2-EL** - 2' x 2' Open Regressed Panel with Element

**ECH2-EL-2AL** - 2' x 2' Open Regressed Panel with Element/Accents

#### Certifications

Approved to UL standards as tested by CSA

Intended for indoor use only

#### Warranty

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

# Etch 2' x 2'

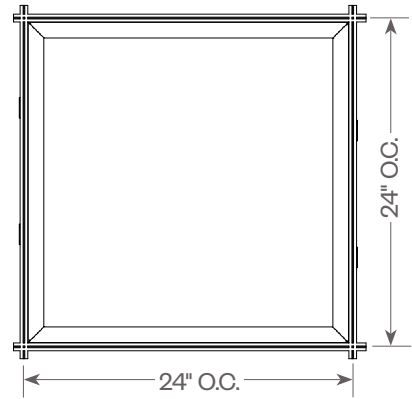
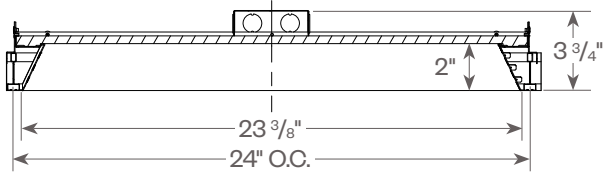
Recessed LED



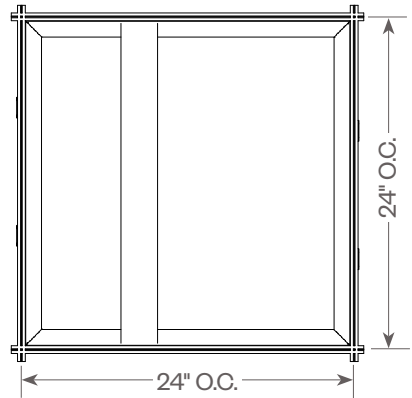
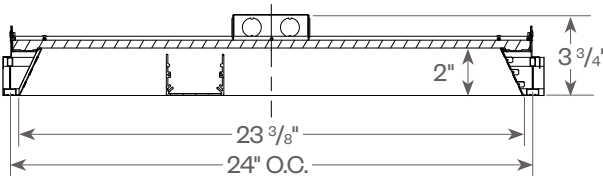
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**TYPE:**

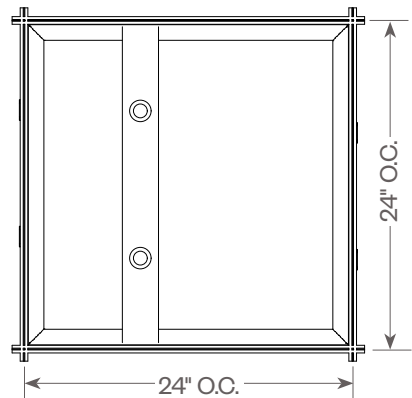
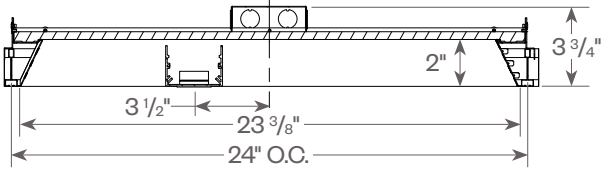
ECH2-A17 (open regressed panel)



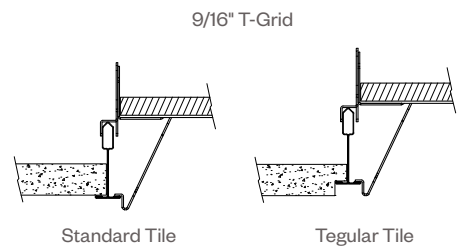
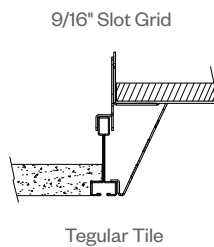
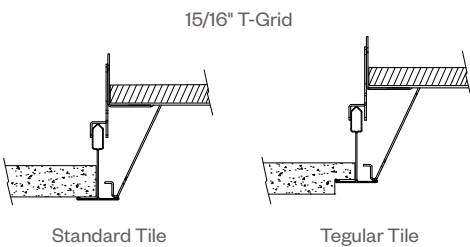
ECH2-EL-A17 (open regressed panel with element)



ECH2-EL-2AL-A17 (open regressed panel with element/accents)



## Ceiling Types



# Etch 2' x 2'

Recessed LED

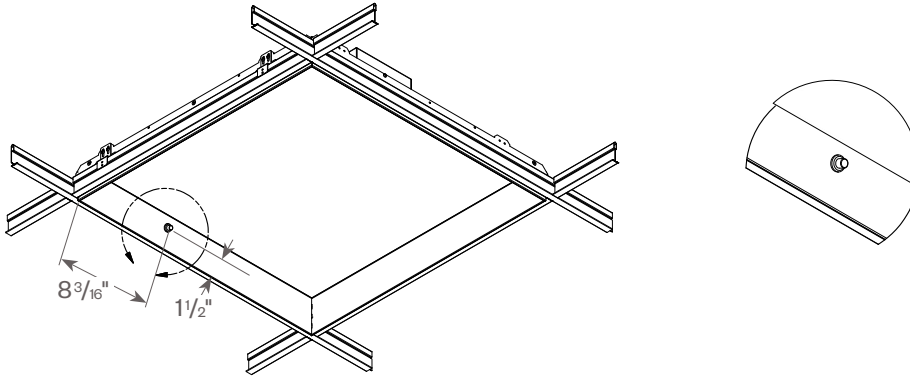


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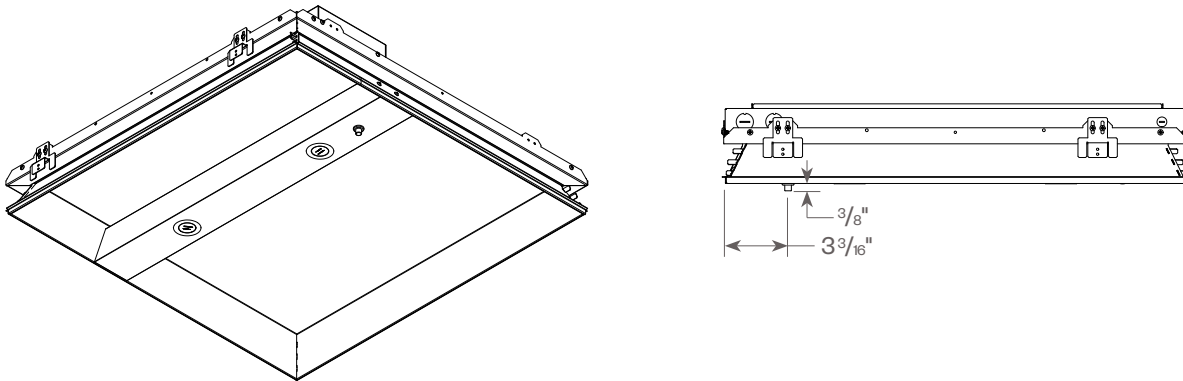
**TYPE:**

## EMERGENCY TEST SWITCH PLACEMENT:

**FOR ECH2** (open regressed panel) - test switch placed in side trim only



**FOR ECH2-EL/ECH2-EL-2AL** (open regressed panel with element or element with accents) - test switch placed in element



# Etch 2' x 2'

Recessed LED



**PROJECT:**

**TYPE:**

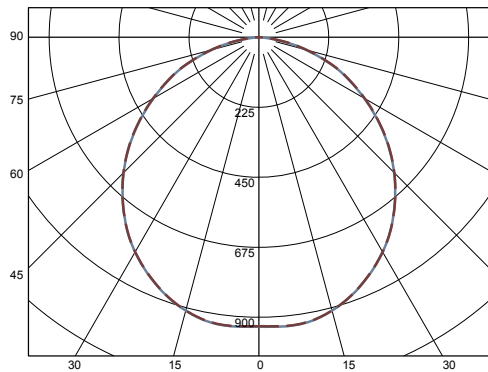
**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

**MULTIPLYING FACTORS:** (Multiplying Factor is based on 3500K-83 120V IES file on website)

CCT:	3000K-83	3500K-83	4000K-83
Factor:	0.93	1.0	1.02

## ECH2 (open regressed panel), Low Wattage, 3500K-83

LTL12494634.01

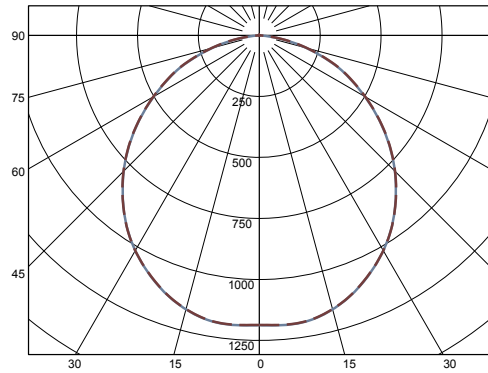


Zonal Lumen Summary			
Zone	Lumens	%Luminaire	
0-40	1200	46.2	
0-60	2093	80.6	
0-90	2596	100.00	
90-180	0	0.00	
Efficacy : 109.1 Lm/W			
Average Luminance (cd/m <sup>2</sup> )			
Horizontal Angle (Deg)			
Vertical Angle (Deg)	0	45	90
0	2664	2664	2664
45	2495	2500	2499
55	2341	2320	2348
65	2149	2087	2161
75	1757	1651	1786
85	563	736	741

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		58.1	5.10
6.00		25.8	7.64
8.00		14.5	10.2
10.0		9.29	12.7
12.0		6.45	15.3
14.0		4.74	17.8
16.0		3.63	20.4

## ECH2(open regressed panel), Med Wattage, 3500K-83

LTL12494634.02

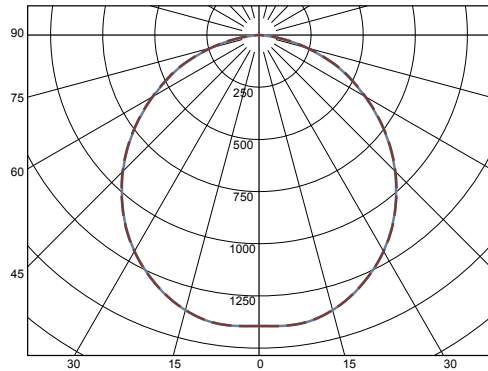


Zonal Lumen Summary			
Zone	Lumens	%Luminaire	
0-40	1533	46.2	
0-60	2674	80.6	
0-90	3317	100.00	
90-180	0	0.00	
Efficacy : 105.5 Lm/W			
Average Luminance (cd/m <sup>2</sup> )			
Horizontal Angle (Deg)			
Vertical Angle (Deg)	0	45	90
0	3403	3403	3403
45	3190	3195	3195
55	2991	2963	3000
65	2742	2666	2762
75	2233	2102	2274
85	720	945	960

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		74.2	5.10
6.00		33.0	7.65
8.00		18.5	10.2
10.0		11.9	12.7
12.0		8.24	15.3
14.0		6.05	17.8
16.0		4.64	20.4

## ECH2 (open regressed panel), High Wattage, 3500K-83

LTL12494634.03



Zonal Lumen Summary			
Zone	Lumens	%Luminaire	
0-40	1800	46.3	
0-60	3140	80.7	
0-90	3893	100.00	
90-180	0	0.00	
Efficacy : 98.2 Lm/W			
Average Luminance (cd/m <sup>2</sup> )			
Horizontal Angle (Deg)			
Vertical Angle (Deg)	0	45	90
0	3995	3995	3995
45	3740	3752	3752
55	3506	3472	3527
65	3206	3122	3244
75	2614	2465	2673
85	883	1069	859

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		87.1	5.10
6.00		38.7	7.65
8.00		21.8	10.2
10.0		13.9	12.7
12.0		9.68	15.3
14.0		7.11	17.8
16.0		5.44	20.4

# Etch 2' x 2'

Recessed LED



**PROJECT:**

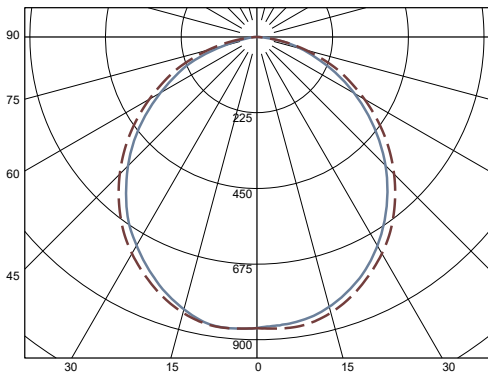
**TYPE:**

**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

**MULTIPLYING FACTORS:** (Multiplying Factor is based on 3500K-83 120V IES file on website)

CCT:	3000K-83	3500K-83	4000K-83
Factor:	0.93	1.0	1.02

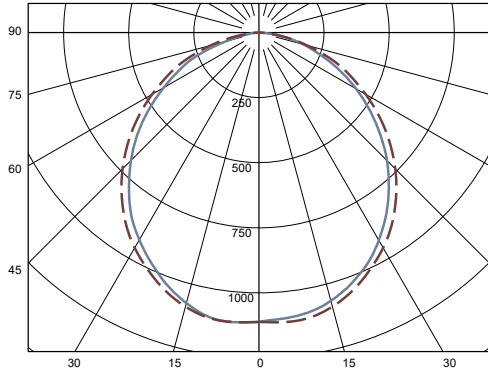
**ECH2-EL (open regressed panel w/element),  
Low Wattage, 3500K-83  
LTL12494634.04**



Zonal Lumen Summary			
Zone	Lumens	%Luminaire	
0-40	1099	47.0	
0-60	1899	81.3	
0-90	2336	100.00	
90-180	0	0.00	
<b>Efficacy : 98.9 Lm/W</b>			
Average Luminance (cd/m <sup>2</sup> )			
Horizontal Angle (Deg)			
Vertical Angle (Deg)	0	45	90
0	2481	2481	2481
45	2190	2226	2337
55	2014	2033	2201
65	1787	1784	2023
75	1513	1363	1674
85	852	763	711

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		54.1	5.00
6.00		24.0	7.51
8.00		13.5	10.0
10.0		8.65	12.5
12.0		6.01	15.0
14.0		4.41	17.5
16.0		3.38	20.0

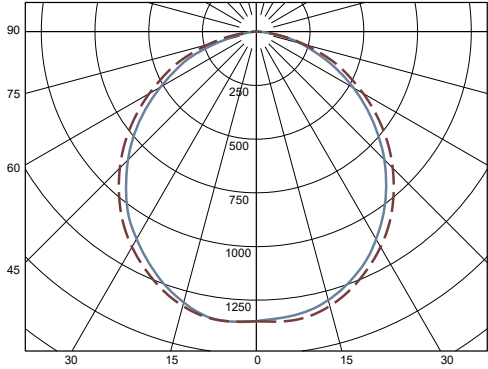
**ECH2-EL (open regressed panel w/element),  
Med Wattage, 3500K-83  
LTL12494634.05**



Zonal Lumen Summary			
Zone	Lumens	%Luminaire	
0-40	1411	47.0	
0-60	2440	81.3	
0-90	3001	100.00	
90-180	0	0.00	
<b>Efficacy : 94.9 Lm/W</b>			
Average Luminance (cd/m <sup>2</sup> )			
Horizontal Angle (Deg)			
Vertical Angle (Deg)	0	45	90
0	3186	3186	3186
45	2819	2859	3002
55	2592	2608	2826
65	2305	2292	2597
75	1959	1752	2138
85	1112	999	927

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		69.4	5.01
6.00		30.9	7.51
8.00		17.4	10.0
10.0		11.1	12.5
12.0		7.72	15.0
14.0		5.67	17.5
16.0		4.34	20.0

**ECH2-EL (open regressed panel w/element),  
High Wattage, 3500K-83  
LTL12494634.06**



Zonal Lumen Summary			
Zone	Lumens	%Luminaire	
0-40	1710	47.0	
0-60	2957	81.3	
0-90	3637	100.00	
90-180	0	0.00	
<b>Efficacy : 91.0 Lm/W</b>			
Average Luminance (cd/m <sup>2</sup> )			
Horizontal Angle (Deg)			
Vertical Angle (Deg)	0	45	90
0	3862	3862	3862
45	3410	3463	3637
55	3140	3161	3425
65	2789	2775	3147
75	2365	2123	2589
85	1321	1201	1116

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		84.2	5.00
6.00		37.4	7.51
8.00		21.0	10.0
10.0		13.5	12.5
12.0		9.35	15.0
14.0		6.87	17.5
16.0		5.26	20.0

# Etch 2' x 2'

Recessed LED



## PROJECT:

## TYPE:

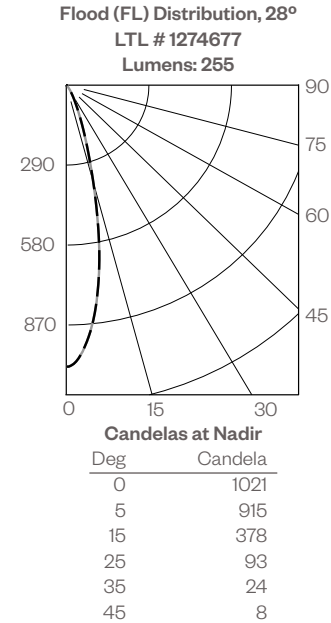
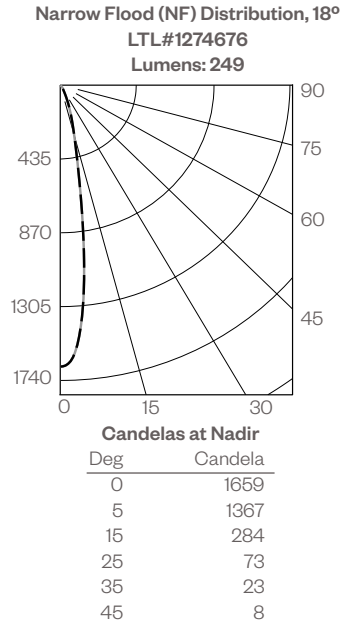
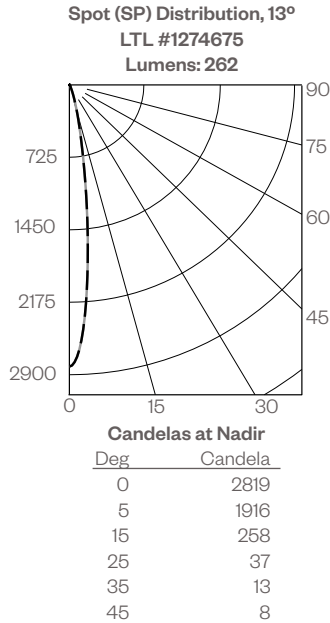
**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

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

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

### Accent Lights (-2AL) 4W

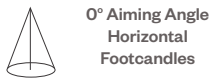
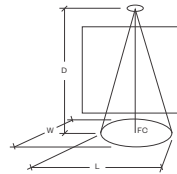
Note: Data per head



### APPLICATION DATA:

**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.



	D	FC	L	W
	5.0'	113	1.2	1.2
Spot	7.5'	50	1.7	1.7
	10.0'	28	2.5	2.5
	12.5'	18	3.0	3.0
	5.0'	67	1.4	1.4
Narrow Flood	7.5'	30	2.3	2.3
	10.0'	17	3.1	3.1
	12.5'	10	3.7	3.7
	Flood	5.0'	41	2.2
7.5'		18	3.2	3.2
10.0'		10	4.4	4.4
12.5'		6	5.4	5.4



# Etch 2' x 2'

Recessed LED



## PROJECT:

## TYPE:

### DIMMING COMPATIBILITY

Amerlux® Etch fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Wiring diagrams apply per circuit. 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 (0-10V standard)

Integrates into a variety of building management and daylighting controls. Wiring diagrams apply per circuit.

##### 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!

##### Compatible Dimmers:

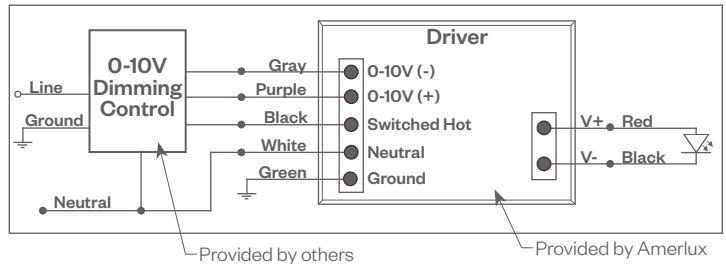
###### Wall Box

Lutron "Diva" - DTV with PP-120H Interface  
Leviton Renoir II 0-10V

###### Central System

Lutron Grafik Eye with GRX-TVI Interface

#### 0-10V Wiring Diagram



#### LUTRON HI-LUME® DIMMING (HILUME-H-ECO)

Integrates into Lutron EcoSystem® building management. Wiring diagrams apply per circuit.

##### Notes:

- 120V or 277V\*
- Dims down to less than 5% light output
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

##### Compatible Dimmers:

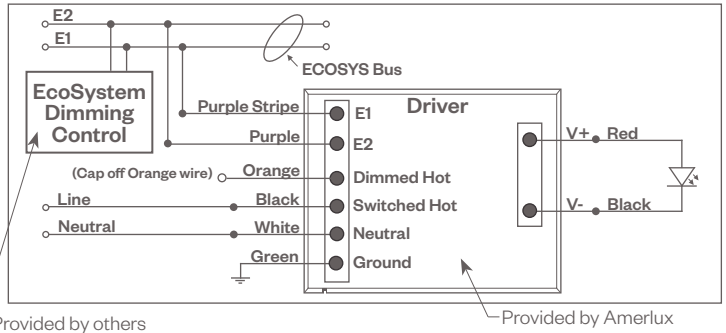
###### Wall Box

DIVA  
Maestro  
Nova T  
Vareo

###### Central System

Lutron EcoSystem compatible controls

#### HILUME-H-ECO EcoSystem Digital Control Wiring Diagram



#### DALI DIMMING (DALI)

Digital control protocol allows individual fixture control. Wiring diagrams apply per circuit.

##### Notes:

- 120V or 277V\*
- Dims down to 0.1% light output in most cases

##### Compatible Dimmers:

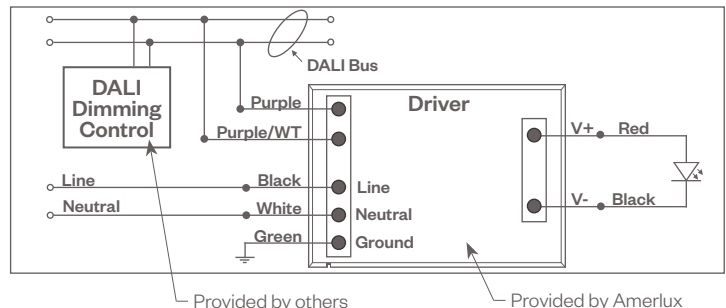
###### Wall Box (3-Wire Fluorescent)

Leviton CD250 Controller

###### Central System

Dynalite  
Fifth Light

#### DALI, DALI-01 Wiring Diagram



##### Notes:

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