

## DESCRIPTION

The Define series by Neo-Ray characterizes the ultimate in minimalist simplicity by providing clean, uniform lines of illumination in virtually any architectural environment. Powered by Eaton's most advanced linear LED technology, the Define series delivers outstanding efficacy in a variety of profile widths. 1", 2", 3", 4" and 5" luminaire widths are all specifiable to the nearest inch in length and can be fitted with standard flush, asymmetric flush, regressed and drop lensing. In wall corners and wall to ceiling transitions can all be ordered as standard components and blend seamlessly into the most complex architectural spaces. Custom transitions are also available. Robust construction and adaptable, modular components make installation simple and ensure laser straight runs.

## SPECIFICATION FEATURES

### Construction

Housing trim extruded from 6063 aluminum. Nominal 2' -12' illuminated sections. Used in run configuration and/or individual fixtures. All components are RoHs compliant.

### Lens

Snap in lens available in flush and drop lens profiles. End brackets include closure to prevent moisture and insect ingress.

### Finish

Fixture housing trims are high reflectance white using electrostatically applied polyester powder coat paint.

### Mounting

Recessed.

### Electrical

Long-life LED system coupled with electrical driver to deliver optimal performance. LED's are available in 2700K, 3000K, 3500K or 4000K with a typical CRI  $\leq 85$ . Projected life is 131,000 hours at L70. Electronic drivers are available for 120-277V applications. Fixtures and electrical components certified to UL and CUL standards. Fixtures are damp location listed and IC rated. For Chicago plenum, specify CP in fixture options.

### Controls

Equipped standard with a 0-10V continuous dimming driver compatible

with most standard dimming devices (refer to website for specific compatibility reference). Combine with FifthLight DALI and other energy saving products like sensors, daylighting controls and building management systems to maximize energy savings.

### Warranty

Five year warranty.

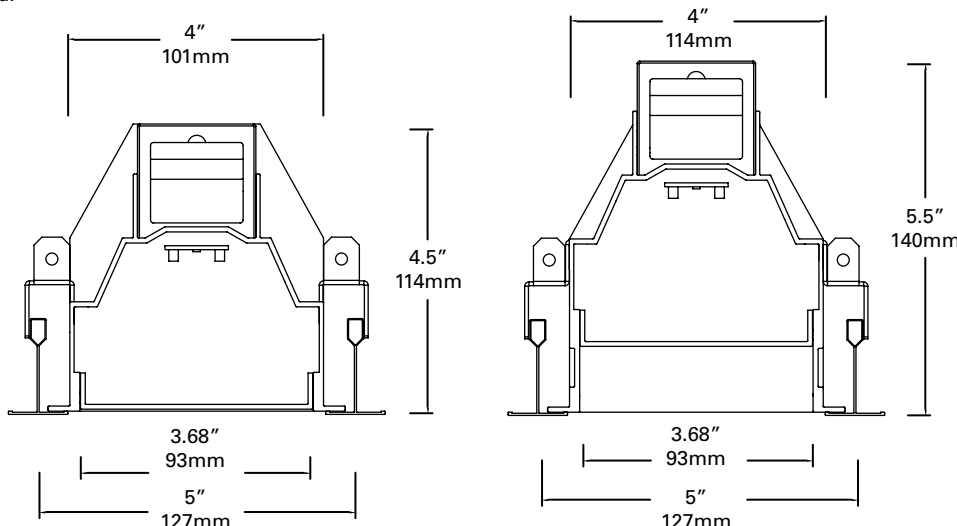


## DEFINE 4

LED

Recessed  
Direct

cULus - 1598  
Damp Location Listed  
LM79/LM80 Compliant  
ROHS Compliant  
Lumawatt Pro Wireless



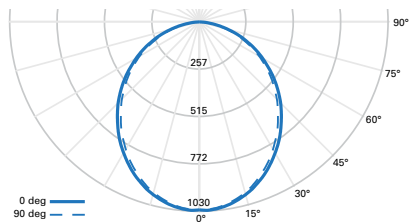
## ORDERING INFORMATION

Sample Number: S124-DR-2-35-ETG-0048-1-U-DD-1-W

Series	Light Distribution	Light Level <sup>1</sup>	Color Temperature	Celing Type <sup>2</sup>	Length <sup>3</sup>	
<b>S124</b> = Define 4 <b>QS-S124</b> = Define 4 Quick Ship	<b>-DR</b> = Direct Recessed <b>-RDR</b> = Regressed Direct Recessed	<b>-LO</b> = Light Level LO (1437 Lms @ 13.6W) (359 Lumens per ft @ 3.4W) <b>-1</b> = Light Level 1 (2918 Lms @ 27.9W) (729 Lumens per ft @ 7W) <b>-2</b> = Light Level 2 (4136 Lms @ 42.6W) (1034 Lumens per ft @ 10.7W) <b>-LC_____</b> = Custom Lm/Ft <sup>1</sup> <small>See page 2 for lumen output</small>	<b>-27</b> = LED 2700K <b>-30</b> = LED 3000K <b>-35</b> = LED 3500K <b>-40</b> = LED 4000K	<b>-ETG</b> = 15/16" T-Grid <b>-FTG</b> = 9/16" T-Grid <b>-STG</b> = 9/16" Slot T-Grid <b>-ETT</b> = 15/16" Tegular T-Grid <b>-FTT</b> = 9/16" Tegular T-Grid <b>-GYP</b> = Gypsum board <b>-FSR</b> = "Flangeless" Gypsum Board <b>-FES</b> = "Finished" Extruded Side	<b>-0024</b> = 2' Individual <sup>4</sup> <b>-0036</b> = 3' Individual <sup>4</sup> <b>-0048</b> = 4' Individual <b>-0072</b> = 6' Individual <b>-0096</b> = 8' Individual <b>-0144</b> = 12' Individual <b>-XXXX</b> = Configurable Run <sup>5</sup>	
Circuiting	Voltage	Integral LED Driver	Emergency Options	Options <sup>9</sup>	Shielding	Color
<b>-1</b> = Single Circuit <b>-2</b> = Dual Circuit	<b>-1</b> = 120V <b>-2</b> = 277V <b>-U</b> = Univ 120V-277V <b>-3</b> = 347V <sup>6</sup>	<b>-ED</b> = Non-Dimming <b>-DD</b> = 0-10 Volt Dimming <b>-5L</b> = DALI Dimming <sup>7</sup> <b>-LUE</b> = Lutron A-Series w/eeco sys <sup>13</sup> <b>-LUL</b> = Lutron A-Series w/3W dim <sup>13</sup>	<b>-B</b> = Battery Pack <sup>8</sup> <b>-E</b> = Emergency <b>-T</b> = Transfer Switch	<b>-CP</b> = Chicago Plenum <b>-SVPD1</b> = Integrated Sensor <b>-LWIPD1</b> = Lumawatt Pro Wireless Integral Sensor <sup>12</sup>	<b>-1</b> = Satin Flush Diffuser <sup>11</sup> <b>-3</b> = Asymmetric Flush Optic <sup>10</sup> <b>-4</b> = Satin Drop Diffuser	<b>-W</b> = Matte White <b>-S</b> = Silver <b>-B</b> = Black <b>-C</b> = Custom Color

Grey bar denotes available Quick ship options.

All data certified to LM-79 standards in a NAVLAB approved testing facility



FILE NAME: S124-DR-1-35-ETG-0048-1-U-DD-1-W

CCT: 3500K

LUMENS: 2918 Lms

WATTS: 27.9 W

LPW: 104 LPW

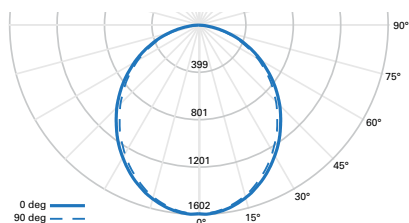
TEST NUMBER: P29680

## ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixture
0°-30°	846	29
0°-40°	1361	46
0°-60°	2336	80
0°-90°	2918	100

LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
45°	7169	6969	6844
55°	6722	6520	6381
65°	6186	5977	5788
75°	5273	5034	4896
85°	3762	3660	3660



FILE NAME: S124-DR-2-35-ETG-0048-1-U-DD-1-W

CCT: 3500K

LUMENS: 4136 Lms

WATTS: 42.6 W

LPW: 97 LPW

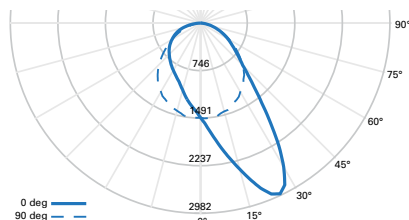
TEST NUMBER: P29682

## ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixture
0°-30°	1199	29
0°-40°	1930	46
0°-60°	3311	80
0°-90°	4136	100

LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
45°	11130	10829	10616
55°	10445	10167	9888
65°	9605	9269	8996
75°	8150	7909	7705
85°	5796	5796	5694



FILE NAME: S124-DR-2-35-ETG-0048-1-U-DD-3-W

CCT: 3500K

LUMENS: 4409 Lms

WATTS: 43 W

LPW: 103 LPW

TEST NUMBER: G2-16-1199-1

## ZONAL LUMENS SUMMARY

Zone	Lumens	% Fixture
0°-30°	1356	31
0°-40°	2237	51
0°-60°	3661	83
0°-90°	4409	100

## CANDELA DISTRIBUTION (cd)

Vertical Angle	0°	90°	180°	270°
0°	1497	1497	1497	1497
10°	1497	2041	1490	1225
20°	1411	2780	1401	990
25°	1344	2982	1328	921
30°	1259	2635	1254	862
40°	1074	1318	1055	753
50°	803	752	787	648
60°	534	498	521	523
70°	303	285	293	379
80°	113	107	103	180
90°	0	0	0	0

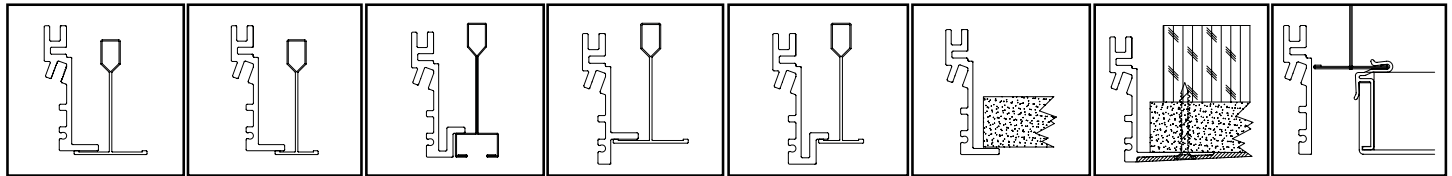
## LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (Hours)
25°C	84.29%	131,000

## MOUNTING

## Neo-Ray - Define - Recessed

Extruded Trim Flange Details - Refer to submittal drawings for detailed flange information - for additional options consult factory.



ETG 15/16"  
T-Grid

FTG 9/16"  
T-Grid

STG Slotted  
T-Grid

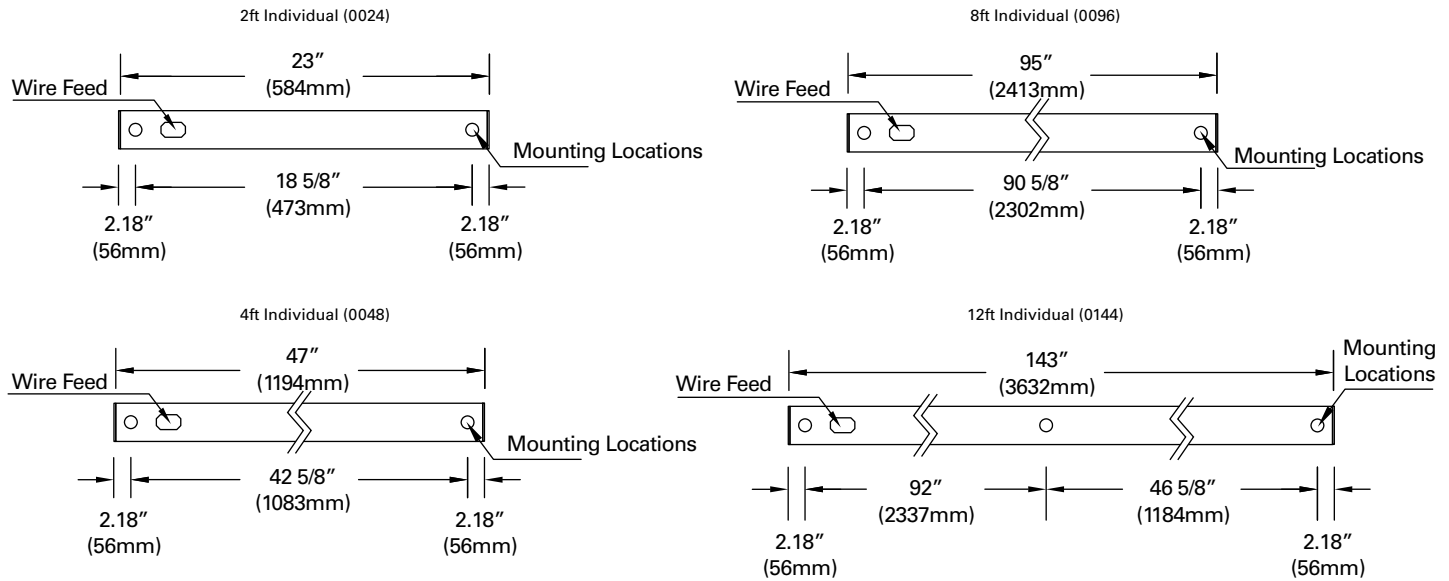
ETT 15/16"  
Tegular  
T-Grid

FTT 9/16"  
Tegular  
T-Grid

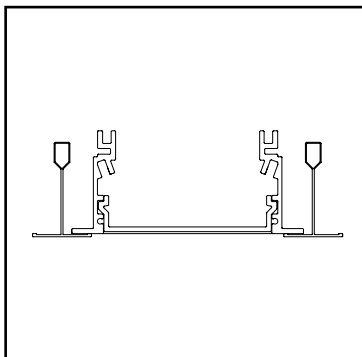
GYP  
Gypsum  
Board

FSR  
"Flangeless"  
Gypsum Board

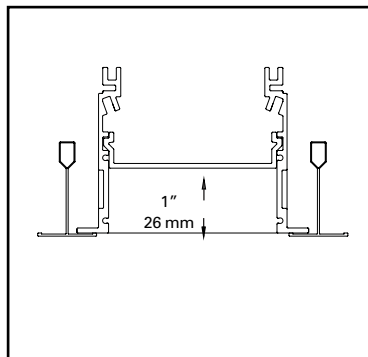
FES  
Finished  
Extruded Side



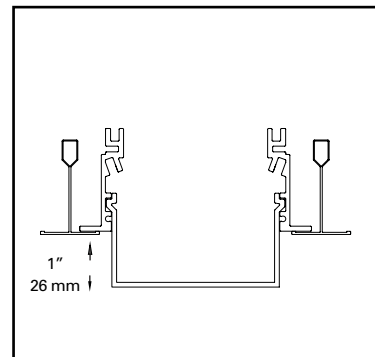
## LENS DETAIL



Satin Flush Diffuser  
Asymmetric Flush Diffuser

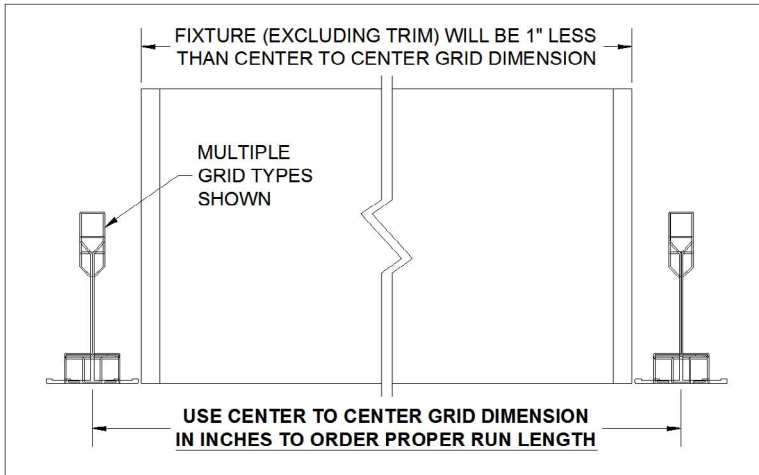


Regressed Satin Diffuser

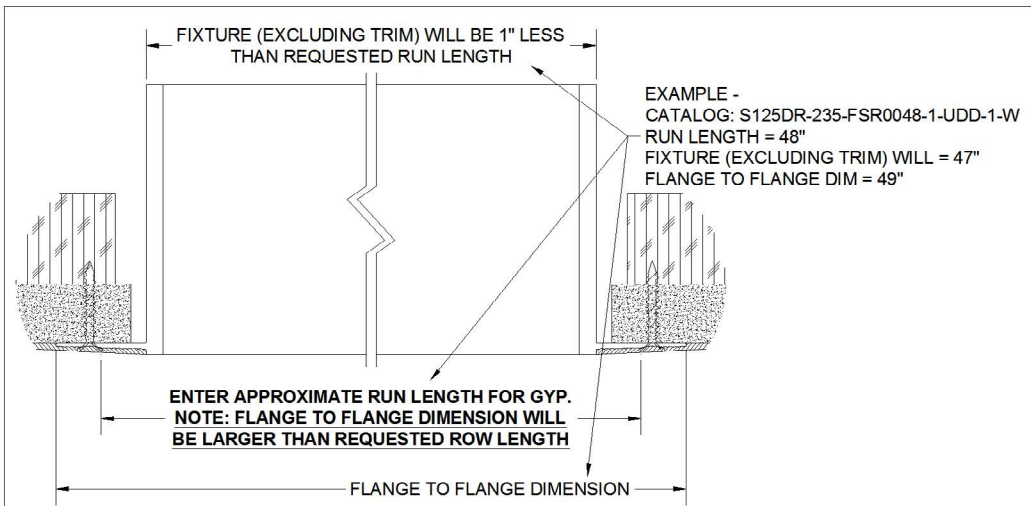


Satin Drop Down Diffuser

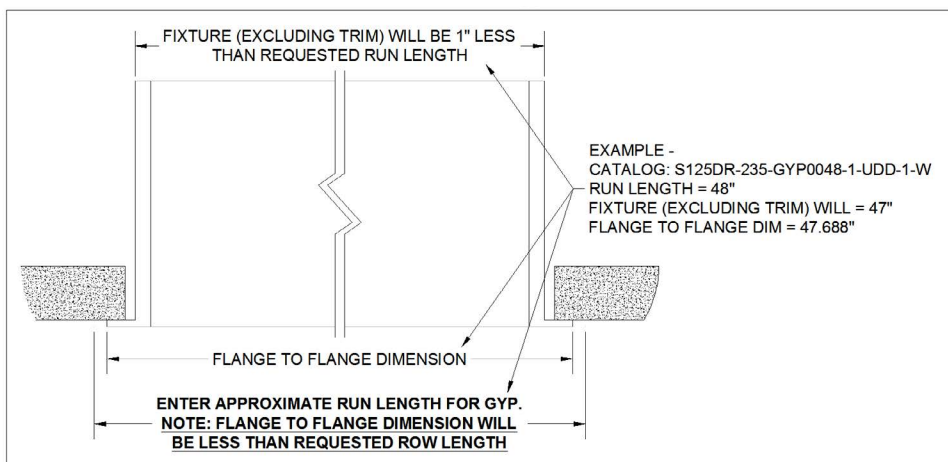
## ALL GRID TYPES SHOWN



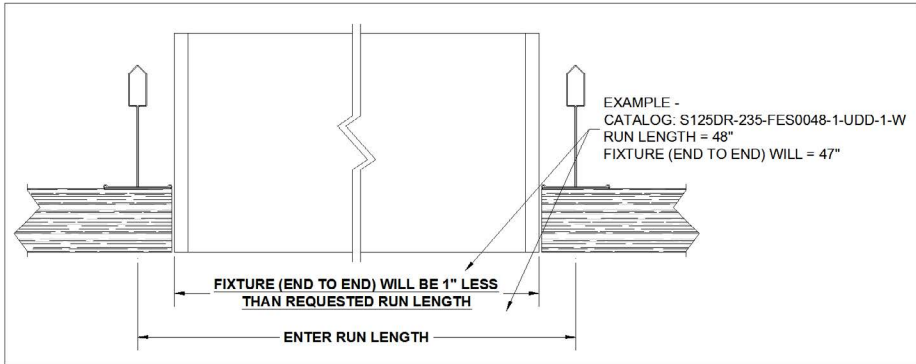
## FSR: "FLANGELESS" GYPSUM BOARD



## GYP: GYPSUM BOARD

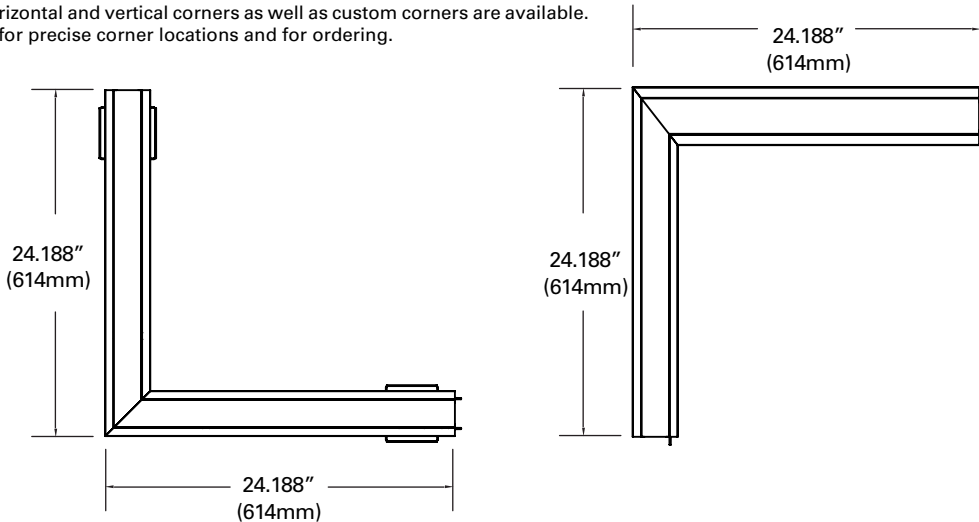


FES: "Finished" Extruded Sides



CORNER TRANSITIONS

Standard 90 degree horizontal and vertical corners as well as custom corners are available. Please consult factory for precise corner locations and for ordering.



INTEGRATED SENSOR DETAILS AND PLACEMENT<sup>12</sup>

		Sensor Series		Occupancy Technology		Sensing Technology		Coverage Pattern	
4ft Individual	<input type="radio"/>	SV	Integrated Sensor for Local Control	P	Passive Infrared	D	Dimming Daylight Harvesting (Closed Loop)	1	~144 ft²
8ft Individual	<input type="radio"/>	LWI	Lumawatt Pro Wireless Integral						
12ft Individual	<input type="radio"/>								

TECHNICAL NOTES

- Additional lower light levels available. Min fixture length will apply for a given lumen output. For a 47" fixture, the minimum lumen output is 175 Lms/ft for a standard 0-10V dimming driver. The maximum lumen output is 1050 Lms/ft. Please consult factory for specific details.
- Not all ceiling types are shown; consult factory for specific ceiling types not listed.
- All lengths are nominal. Actual sizes are one inch shorter than nominal to allow easy in-grid installation. For Gypsum or Flangeless installations add 1 inch to overall fixture length. Refer to submittal drawings for actual sizes. See "Mounting" details for example.
- Not all dimming options available for every length; please consult factory for specific details.
- For configurable runs specify length to nearest inch. Standard runs ship in 12ft increments. Specify 8ft increments if 12ft are too large to receive. Additional charges may apply; please consult factory for details.
- 347V is achieved using remote transformer.
- FifthLight DALI is achieved using digital analog converter.
- Battery pack options are not available in every length; please consult factory for specific details. Battery pack is remote installation only.
- For all options; consult factory for specific requirements.
- Asymmetric lens is not available as standard product on regressed housing RDR.
- Standard product is configured with snap-in lens end caps at the beginning and end of a run or individual fixture. End caps are provided for ease of installation and removal of the lens and eliminate light leak from the end of the fixture when flush satin lens is selected. Please contact factory if lens end-caps are not desired as alternate configurations are available.
- Integrated LumaWatt Pro Sensor available as standard product in 4ft, 8ft, and 12ft configurations. Continuous runs and alternate lengths are available. Please consult factory for details. One sensor for every 8ft of fixture length. Standard configurations include Universal voltage, single circuit and 'DD' driver selection. Not available with regressed housing or emergency options.
- Lutron A series drivers are available in light levels LO and 1. For Light level 2, a Lutron TVS is used in conjunction with a DD driver. When a TVS is used, the dimensions of the fixture will be slightly larger on the back side to accomidate the TVS.