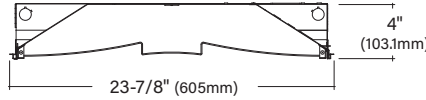




# LUCEN LU22

## 2x2 Architectural Recessed



### Key Features

- Formed 22 gauge cold rolled steel housing
- Highly reflective die-formed white painted reflector
- Wiring access available on both ends and top of housing
- LED offered with a 5-year limited warranty. Covers LED, driver and fixture
- UL and cUL Listed, LO, MO, and HO lumen packages are IC Rated
- Maximum fixture weight is 15 lbs - Surface Mount Box adds 10 lbs
- Room-Side Maintenance for LED system
- Indigo-Clean available, see Indigo-Clean specification sheets for details



Example Part #: LU22-A-830HO-G1-U-F-1-0-W

LU22 - SHIELDING - CRI, CCT & OUTPUT - MOUNTING - VOLTAGE - DRIVER - CIRCUITING - BATTERY & EMERGENCY - FINISH - FIXTURE OPTIONS - CONTROLS

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SHIELDING	SOURCE <sup>QS</sup> 1, 2	MOUNTING	VOLTAGE <sup>3</sup>
<b>A</b> - Satine Lens <sup>QS</sup> <b>W</b> - White Rails <sup>QS</sup> <b>S</b> - Silver Rails <sup>QS</sup> <i>Shielding pg. 2</i>	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K <b>TW</b> - 2CH Tunable White (2700-6500K, 90CRI) <b>CL</b> - Custom Lumens <b>CW</b> - Custom Watts <b>MOD</b> - Mod options available <i>Lumen Output pg. 2</i>	<b>G1</b> - 15/16" Grid <sup>QS</sup> <b>G9</b> - 9/16" Grid <sup>QS</sup> <b>GS</b> - Screw Slot Grid <sup>QS</sup> <b>FL</b> - Flanged <b>S</b> - Surface Mount <i>Mounting pg. 3</i>	<b>U</b> - Universal (120 thru 277V) <sup>QS</sup> <b>1</b> - 120V <sup>QS</sup> <b>2</b> - 277V <sup>QS</sup> <b>3</b> - 347V <i>Voltage pg. 3</i>
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DRIVER	CIRCUITING <sup>4</sup>	BATTERY & EMERGENCY	FINISH
<b>FSD</b> - Factory Select Driver (1%, 0-10v) <sup>QS</sup> <b>PL2</b> - Advance Xitanium (1%, 0-10v) <b>OL2</b> - eldoLED Optotronic (1%, 0-10v) <b>OL4</b> - eldoLED Optotronic 347v (1%, 0-10v) <b>EE1</b> - eldoLED ECODErive (1%, 0-10v) <b>ES1</b> - eldoLED SOLOdrive (0.1%, 0-10v) <b>LH1</b> - Lutron Hi-lume (1%, EcoSystem) <b>PR1</b> - Advance Xitanium SR <b>MOD</b> - Mod options available <i>Driver pg. 4</i>	<b>1</b> - Single Circuit <sup>QS</sup> <b>E</b> - Emergency (entire fixture) <sup>QS</sup> <b>N</b> - Night Light (entire fixture) <sup>QS</sup> <i>Circuiting pg. 4</i>	<b>0</b> - None <sup>QS</sup> <b>FSB</b> - Factory Select Battery <sup>QS</sup> <b>FSG</b> - Factory Select ALCR <b>GI</b> - Iota ETS DR <b>GB</b> - Bodine GTD <b>1ILL</b> - Iota 10W <b>1PLL</b> - Bodine 10W <i>Battery and Emergency pg. 4</i>	<b>W</b> - White <sup>QS</sup> <b>MOD</b> - Mod options available <i>Finish pg. 5</i>
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FIXTURE OPTIONS <sup>5</sup>	CONTROLS <sup>6</sup>		
<b>QS</b> - QuickShip <sup>QS</sup> <b>TW</b> - Through-wiring <b>CP</b> - Chicago Plenum <sup>QS</sup> <b>AM</b> - Antimicrobial Paint <b>FW6</b> - 6' Flex Whip <sup>QS</sup> <b>GLR</b> - Fast Blow Fusing <sup>QS</sup> <b>GMF</b> - Slow Blow Fusing <b>BA</b> - Buy American Act compliant <b>MOD</b> - Mod options available <i>Fixture Options pg. 5</i>	<b>DLMFC</b> - Wattstopper DLM (wired) <b>DLMFS</b> - Wattstopper LLC (wireless) <b>EASYS</b> - Philips EasySense (wireless) <b>SNSLM</b> - Encelium Sensilum (wireless) <b>WVLX</b> - Eaton WaveLinX (wireless) <b>VDO</b> - Lutron Vive Sensor (wireless) <b>VRF</b> - Lutron Vive Connected (wireless) <b>ENL</b> - Enlighted, "C" Connected Lighting or "I" IOT <b>ENL2</b> - Enlighted 2-Wire, "C" Connected Lighting or "I" IOT <b>MOD</b> - Mod options available <i>Controls pg. 6</i>		

<sup>1</sup>When specifying SOURCE the first \_ is for specifying either 8 - 80CRI, 9 - 90CRI. The ending \_ are for specifying output, example 835HO - 80CRI, 3500K High Output. See output charts for more information. <sup>2</sup>When specifying Tunable White, use TW and then specify output, example TWHO - Tunable White 90CRI, High Output 2700-6500K. See output charts for more information. Tunable White option requires driver option FSD which provides separate 0-10v control leads for Intensity and CCT. <sup>3</sup>Tunable White (TW) option only available with Universal (U), 120V (1) or 277V (2) options. <sup>4</sup>Consult factory for Emergency (E) or Night Light (N) options with Tunable White option. <sup>5</sup>If specifying QuickShip, QS must be used in fixture options section of part number to qualify. <sup>6</sup>Controls can only be used with Single Circuit (1) or Emergency Circuit (E). See Controls chart on page 5 for driver options and more information



## Shielding

- Single piece extruded diffuse lens with convex wings and articulated center spine
- Fully luminous housing with optimal glare control
- Highly reflective white reflectors maintain uniform lens brightness



## Output

- Specify either 80 or 90 CRI for White light LED
- Longer lead-time may apply for 90 CRI or Tunable White option. Consult factory
- Tunable White option requires driver option FSD which provides separate 0-10v control leads for Intensity and CCT.
- Tunable White lumen packages shown at 4000K CCT setpoint
- 90 CRI = R9≥50

## Custom Output - Lumens OR Wattage

<b>CL</b> _____	Specify CRI, CCT and desired lumens (i.e. CL8351200)	Specify lumens between standard offering listed below. Lumens are specified per color temp
<b>CW</b> _____	Specify CRI, CCT and desired wattage (i.e. CW94015)	Specify watts between standard offering listed below
<b>CLTW</b> _____	Specify desired lumens for Tunable White (i.e. CLTW3200)	Specify lumens between Tunable White offering listed below. Lumens are specified at 4000K CCT setpoint.

## 80 CRI

	Color	Output	Watts	Shielding		W		S	
				A Satine Lens		White Trim		Silver Trim	
				Lumens	LPW	Lumens	LPW	Lumens	LPW
<b>830LO</b>	3000K	Low	19.6	2132	108.8	1923	98.1	1814	92.6
<b>830MO</b>		Middle	30.8	3322	107.9	2996	97.3	2827	91.8
<b>830HO</b>		High	42.1	4287	101.8	3867	91.9	3648	86.7
<b>835LO</b>	3500K	Low	19.6	2191	111.8	1976	100.8	1865	95.1
<b>835MO</b>		Middle	30.8	3414	110.8	3079	100.0	2905	94.3
<b>835HO</b>		High	42.1	4406	104.7	3974	94.4	3750	89.1
<b>840LO</b>	4000K	Low	19.6	2286	116.6	2062	105.2	1945	99.3
<b>840MO</b>		Middle	30.8	3566	115.8	3217	104.4	3035	98.5
<b>840HO</b>		High	42.1	4627	109.9	4174	99.1	3938	93.5

## 90 CRI

<b>927LO</b>	2700K	Low	19.6	1777	90.7	1603	81.8	1512	77.2
<b>927MO</b>		Middle	30.8	2769	89.9	2497	81.1	2356	76.5
<b>927HO</b>		High	42.1	3573	84.9	3223	76.6	3041	72.2
<b>930LO</b>	3000K	Low	19.6	1964	100.2	1772	90.4	1671	85.3
<b>930MO</b>		Middle	30.8	3060	99.4	2760	89.6	2604	84.5
<b>930HO</b>		High	42.1	3949	93.8	3562	84.6	3361	79.8
<b>935LO</b>	3500K	Low	19.6	1970	100.5	1777	90.7	1676	85.5
<b>935MO</b>		Middle	30.8	3070	99.7	2769	89.9	2613	84.8
<b>935HO</b>		High	42.1	3961	94.1	3573	84.9	3371	80.1
<b>940LO</b>	4000K	Low	19.6	2040	104.1	1840	93.9	1736	88.6
<b>940MO</b>		Middle	30.8	3181	103.3	2869	93.2	2707	87.9
<b>940HO</b>		High	42.1	4128	98.1	3723	88.4	3513	83.4

## 2 CH Tunable White (2700-6500K, 90CRI)

<b>TWLO</b>	2700 - 6500K	Low	24.1	2300	95.3	2071	85.8	1958	81.1
<b>TWMO</b>		Middle	41.8	3600	86.2	3241	77.6	3065	73.4
<b>TWHO</b>		High	45.2	4600	101.7	4141	91.6	3916	86.6



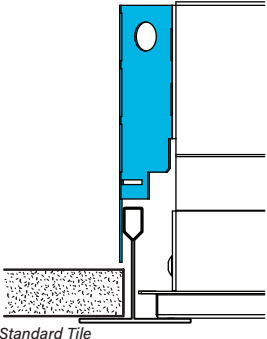
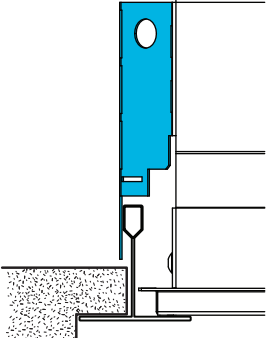
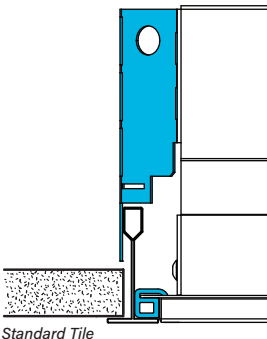
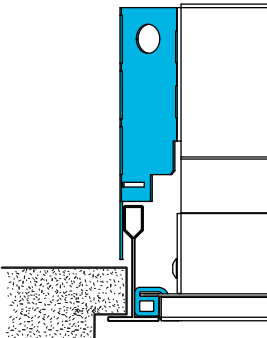
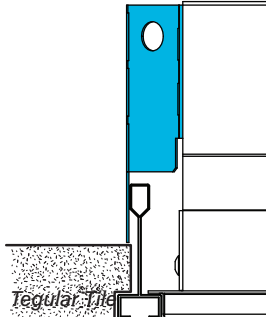
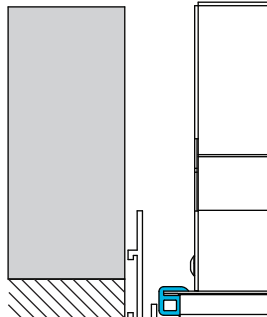
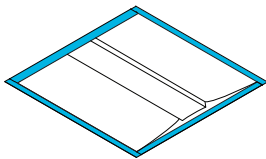
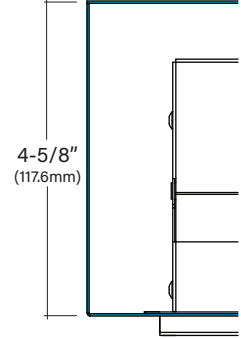
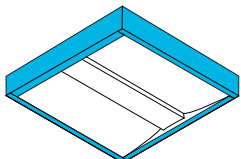
## Direct Source: MOD Options

- Specify **MOD** in the part number for any of the below options
- All RGB\_Source Options will require specific driver and control
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD		Required Driver	Required Control
		EC1/EC4	DMX
	Color Changing RGB LED	EC1/EC4	DMX
	Color Changing RGB-W LED	EC1/EC4	DMX

## Mounting

- LUCEN is offered with a universal flange for all grid types. See below for fixture placement in relation to the tile for each grid type
- Grid retention clips integral to housing and require mechanical attachment
- Tie off fixture to structure with retention wires
- Refer to installation instructions during installation
- Maximum fixture weight is 15lbs - Surface Mount Box adds 10 lbs

G1	G9	GS	FL	S
<b>1" Grid Mount</b> <i>Works with 15/16" grid ceiling types. See profile for fixture position in relation to ceiling grid and tile.</i>	<b>9/16" Grid Mount</b> <i>Works with 9/16" grid ceiling type. For tegular tile installations, fixture position will not be flush to the bottom of the tile. See tegular tile profile image below.</i>	<b>Screw Slot Mounting</b> <i>Works with screw slot and bolt slot grid ceiling types.</i>	<b>Flange Kit</b> <i>A separate flange kit is supplied for installations into inaccessible or drywall applications. Flange kit ships from factory uninstalled separately from fixture.</i>	<b>Surface Mount</b> <i>Utilize for hard lid ceiling applications. The 20 gauge steel frame easily secures to ceiling. Surface Mount Box adds 10 lbs</i>
 <p>Standard Tile</p>  <p>Tegular Tile</p>	 <p>Standard Tile</p>  <p>Tegular Tile</p>	 <p>Tegular Tile</p>	 	 <p>4-5/8" (117.6mm)</p> 

## Voltage

- Some LUCEN configurations will not accommodate all voltage options; consult with factory
- 347 volt not available with Tunable White (TW) option

U	Universal
1	120 volt
2	277 volt
3	347 volt



## Driver

- Standard Driver Option = FSD
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more Driver options, see Pinnacle Resource Guide
- Some LUCEN configurations will not accommodate all driver options; consult with factory

### 0-10V Drivers

<b>FSD</b>	Factory Select Driver 1%, 0-10v
<b>PL2</b>	Advance Xitanium 1%, 0-10v
<b>PL4</b>	Advance Xitanium 347v 1%, 0-10v, requires 347v
<b>OL2</b>	eldoLED Optotronic, 1%, 0-10v
<b>OL4</b>	eldoLED Optotronic 347v, 1% 0-10v, requires 347v
<b>EE1</b>	eldoLED ECOdrive 1%, 0-10v Logarithmic
<b>EE2</b>	eldoLED ECOdrive 1%, 0-10v Linear
<b>ES1</b>	eldoLED SOLOdrive 0-10v, 0.1% Logarithmic
<b>ES2</b>	eldoLED SOLOdrive 0-10v, 0% Linear
<b>OL5</b>	eldoLED Optotronic 1%, 0-10v, AUX
<b>PL5</b>	Advance Xitanium 1%, 0-10v, AUX

### DALI Drivers

<b>EE3</b>	eldoLED ECOdrive 1%, DALI 2, Logarithmic, DT6
<b>ES3</b>	eldoLED SOLOdrive 0.1%, DALI 2, Logarithmic, DT6
<b>OD1</b>	eldoLED Optotronic 1%, DEXAL, DALI 2, DT6, Self powered link
<b>PR1</b>	Advance Xitanium SR, DALI 2, Self powered link

### Lutron Drivers

<b>LH1</b>	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
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### Alternate Drivers

<b>PS1</b>	Advance Xitanium Step Dimming 50%/100%
<b>EH1</b>	ERP 1%, Line Voltage and ELV, requires 120v

## Driver: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

<b>MOD</b>	Power Over Ethernet
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## Circuiting

- Select fixture circuiting from options below
- Some LUCEN configurations will not accommodate all circuiting options; consult with factory
- Consult factory for Emergency (E) or Night Light (N) with Tunable White (TW) option

<b>1</b>	Single Circuit
<b>E</b>	Emergency Circuit only
<b>N</b>	Night Light Circuit only

## Battery & Emergency

- Select battery or emergency options if required
- Battery duration is 90 minutes
- For Tunable White (TW) option, battery with illuminate 6500K LED unless otherwise specified.
- Test button is integral to fixture
- For more Battery options, see Pinnacle Resource Guide
- Consult factory for Emergency Control Devices with Tunable White (TW) option

<b>0</b>	No Battery
<b>FSB</b>	Factory Select Battery 10w, Integral Lithium
<b>FSBST</b>	Factory Select Battery 10w, Integral Lithium, Self Testing
<b>FSG</b>	Factory Select ALCR Emergency Control Device, UNV
<b>GI</b>	Iota ETS-DR, Emergency Control Device, UNV
<b>GB</b>	Bodine GTD, Emergency Control Device, 120v or 277v
<b>1ILL</b>	Iota 10w, Integral Lithium, Self Testing
<b>1PLL</b>	Bodine 10w, Integral Lithium, Self Testing

### For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 10 (watts) x 92.3 (LPW) = 923 battery lumen output

### Battery & Emergency Ordering Examples

- Single circuit, 10w integral battery      Ordering Code: 1-1FSB
- Emergency circuit only, 10w integral battery      Ordering Code: E-1PLL



## Finish

- Powder-coat white painted finish

**W** White

## Finish: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

<b>MOD</b>	Wood Grain
	Acoustic
	Metallic Silver
	Textured Black
	Bronze
	Graphite
	Custom Color

## Fixture Options

- Additional options to enhance the fixture and finish of the product

<b>QS</b>	10 Day Quick Ship
<b>TW</b>	Through-Wiring
<b>CP</b>	Chicago Plenum
<b>AM</b>	Antimicrobial Paint
<b>FW6</b>	Flex Whip 6'
<b>GLR</b>	Internal Fast Blow Fuse
<b>GMF</b>	Internal Slow Blow Fuse
<b>BA</b>	Buy American Act Compliant

## Fixture Options: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

<b>MOD</b>	Remote Driver
	End Power Feed

## Quick Ship

Shielding	Output	Mounting	Voltage	Driver	Circuiting	Battery	Finish	Options
10-Day								
<b>A</b> Satine Lens <b>W</b> White Rails <b>S</b> Silver Rails	80 CRI, All color temperatures, all lumen packages <i>See pg 4</i>	<b>G1</b> 1" Grid <b>G9</b> 9/16" Grid <b>GS</b> Screw Slot	<b>U</b> Universal <b>1</b> 120v <b>2</b> 277v	<b>FSD</b> Factory Select Driver (1%, 0-10v)	<b>1</b> Single <b>E</b> Emergency <b>N</b> Night Light	<b>0</b> None <b>FSB</b> Factory Select Battery	<b>W</b> White	<b>CP</b> Chicago Plenum <b>FW6</b> Flex Whip 6' 18-gauge <b>GLR</b> Internal Fast-Blow Fuse

Consult Factory for projects that are larger than 200 units.

Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.

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LU22\_LED\_SPEC\_JUNE2025



## Controls

- Pinnacle Lighting offers easy to specify network control solutions that connect to an intelligent centralized system to maximize lighting energy efficiencies or integral sensors for individual fixture control
- Pinnacle Lighting fixtures ship technology ready; commissioning by others
- Controls can only be used with Single Circuit (1) or Emergency Circuit (E)
- Contact factory for any non-standard configurations for layout, placement, or EM options
- Controls only compatible with Satine Lens.
- Must specify required driver in Driver Section
- Consult factory for available controls with Tunable White (TW) option

	Solution	Components	Network/Sensor	Connection	Required Drivers	Limitations
<b>DLMFC</b>	Legrand Wattstopper DLM	LMFC-011	Digital Lighting Management (DLM)	Wired, two RJ45 ports	OL2, OL4	Not available with Battery
<b>DLMFS</b>	Legrand Wattstopper LLLC	LMFS-601-W / LMFI-111	Wireless DLM Fixture Sensor	Wireless	OD1, PR1 or 0-10v	0-10v requires interface
<b>EASYS</b>	Philips EasySense	SNS-210	Daylight/PIR Occupancy	Wireless to switches	PR1	Not available with 347 volt
<b>SNSLM</b>	Encelium Sensilum	EN-CLM-PIR-DD-ZB	Encelium, Daylight/PIR Occupancy	Wireless	OD1, OL5	Not available with 347 volt
<b>WLVX</b>	Eaton WaveLinx	SWPD1, MSP3IVMVD1	WaveLinx WCL, Daylight	Wireless	Any 0-10v	Not available with 347 volt
<b>VDO</b>	Lutron Vive Sensor	DFCSJ-OEM-OCC	Vive, Daylight/PIR Occupancy	Wireless	OD1, PR1	Not available with 347 volt
<b>VRF</b>	Lutron Vive Connected	DFCSJ-OEM-RF	Vive	Wireless	OD1, PR1	Not available with 347 volt
<b>ENLI</b>	Enlighted IOT	SU-5E-IOT, CU-4E	Enlighted, Daylight/PIR Occupancy	Wireless	Any 0-10v	Not available with 347 volt
<b>ENLC</b>	Enlighted Connected Lighting	SU-5E-CL, CU-4E	Enlighted, Daylight/PIR Occupancy	Wireless	Any 0-10v	Not available with 347 volt
<b>ENL2I</b>	Enlighted 2-Wire IOT	KIT-SU-5E-D-IOT	Enlighted, Daylight/PIR Occupancy	Wireless	OD1 OR PR1	Not available with 347 volt
<b>ENL2C</b>	Enlighted 2-Wire Connected Lighting	KIT-SU-5E-D-CL	Enlighted, Daylight/PIR Occupancy	Wireless	OD1 OR PR1	Not available with 347 volt

## Controls: MOD Options

- Specify **MOD** in the part number for any of the below options
- Control** Options may require specific driver. Refer to the chart below
- Consult factory for **MOD** specification details, pricing, and lead-time information

		Required Driver
<b>MOD</b>	Encelium Sensilum	OD1, OL5
	Acuity nLight Air Wireless Connected	EE6, ES6

## Approvals & Certifications

**Construction:** Formed 20 gauge cold rolled steel housing. Highly reflective die-formed white painted reflector. Wiring access available on top of housing. Captive and hinged center lens swings open for room-side maintenance of lens, driver and LED boards.

**Shielding:** Single piece extruded diffuse lens with convex wings and articulated center spine creating a fully luminous housing with optimal glare control. Available with standard satine lens or optional white or silver lens side rails.

**Mounting:** Designed to install into acoustical grid and inaccessible ceilings. Specify G1, G9 or GS for acoustical grid ceiling. Specify FL for inaccessible ceilings. Grid retention clips integral to housing and require mechanical attachment. Tie off fixture to structure with retention wires. Maximum fixture weight is 15 lbs

**White LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. Luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. TM-21-21 Lifetime Rating L70 = >54,000 hours, L90 = >54,000 hours. MacAdam 3-Step Ellipses. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**Tunable White LED:** 2 channel solution with 2700K and 6500K LED, 90CRI only, R9 >50. Lumen packages available shown at 4000K CCT setpoint, lumen output varies based on CCT. Use multipliers for other CCT; 2700K = .91 3000K = .93 3500K = .97 4000K = 1.0 5000K = 1.044 6500K = 1.078.

**CRI, CCT & Output:** Not all lumen packages available. Three lumen packages available. Low (LO), Medium (MO) and High (HO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K and 4000K. 90 CRI = R9≥50.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must

specify PL4 or OL4 in Driver section when 347 volt (3) is selected. Some LUCEN configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Factory Select Driver 0-10V, 1% = FSD. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient operating conditions. Ambient operating range: -20°F/-30°C to 107°F/42°C. For more driver options, see Pinnacle Resource Guide. Some LUCEN configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), Emergency circuit (E) or Night Light circuit (N). Some LUCEN configurations will not accommodate all circuiting options, consult with factory.

**Battery & Emergency:** Select battery or emergency options if required. If battery or emergency option is not required, enter 0. Battery duration is 90 minutes as standard. Test button is integral to fixture.

**Finish:** Powder-coat white painted finish on exposed trim.

**Controls:** Standard options available, refer to Controls section table for available options, component part number(s), connection type, required driver and limitations. Mod options available, consult with factory.

**Labels:** UL and cUL 1598 listed. LO, MO, and HO lumen packages are IC Rated, approved for dry/damp location unless otherwise noted.

**Fixture Weight:** 15 lbs maximum - Surface Mount Box adds 10 lbs.

**Warranty:** LUCEN LED offered with a 5-year limited warranty. Covers LED, driver and fixture.