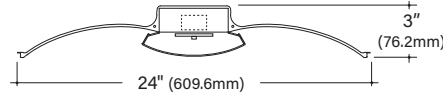




# ADEO AD24

## 2x4 Architectural Recessed



### Key Features

- Formed 20 gauge cold rolled steel housing
- Highly reflective die-formed white painted reflector
- Wiring access available on 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
- Approved for dry/damp location unless otherwise noted
- Maximum fixture weight is 28 lbs - Surface Mount Box adds 10 lbs
- Room-Side Maintenance for LED system
- Buy American Act compliant
- Indigo-Clean available, see Indigo-Clean specification sheets for details



Example Part #: AD24-A-830HO-G1-U-OL2-1-0-W

**AD24** - **SHIELDING** - **CRI, CCT & OUTPUT** - **MOUNTING** - **VOLTAGE** - **DRIVER** - **CIRCUITING** - **BATTERY & EMERGENCY** - **FINISH** - **FIXTURE OPTIONS** - **CONTROLS**

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SHIELDING	SOURCE <i>QS</i> <sup>1</sup>	MOUNTING	VOLTAGE
<b>A</b> - Satine Lens <i>QS</i> <b>R</b> - Round Perf <b>L</b> - Linear Perf <i>Shielding pg. 2</i>	<b>_27_</b> - 2700K <b>_30_</b> - 3000K <b>_35_</b> - 3500K <b>_40_</b> - 4000K <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 <i>QS</i> <b>G9</b> - 9/16" Grid <i>QS</i> <b>GS</b> - Screw Slot Grid <i>QS</i> <b>FL</b> - Flanged <b>S</b> - Surface Mount <i>Mounting pg. 3</i>	<b>U</b> - Universal (120 thru 277V) <i>QS</i> <b>1</b> - 120V <i>QS</i> <b>2</b> - 277V <i>QS</i> <b>3</b> - 347V <i>Voltage pg. 3</i>
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DRIVER	CIRCUITING	BATTERY & EMERGENCY	FINISH
<b>PL2</b> - Advance Xitanium (1%, 0-10v) <i>QS</i> <b>OL4</b> - Osram 347v (1%, 0-10v) <b>EE1</b> - eldoLED ECOdrive (1%, 0-10v) <b>ES1</b> - eldoLED SOLOdrive (0%, 0-10v) <b>LH1</b> - Lutron Hi-lume (1%, EcoSystem) <i>QS</i> <b>PS1</b> - Advance Xitanium (50%/100%) <b>OL2</b> - Osram (1%, 0-10v) <i>QS</i> <b>FSD</b> - Factory Select Driver (1%, 0-10v) <i>QS</i> <b>MOD</b> - Mod options available <i>Driver pg. 4</i>	<b>1</b> - Single Circuit <i>QS</i> <b>E</b> - Emergency <i>QS</i> <i>(entire fixture)</i> <b>N</b> - Night Light <i>QS</i> <i>(entire fixture)</i> <i>Circuiting pg. 4</i>	<b>0</b> - None <i>QS</i> <b>1P</b> - Bodine 10W <i>QS</i> <b>1IC</b> - Iota 10W, CEC Listed <i>QS</i> <b>FSG</b> - Factory Select ALCR <b>GI</b> - Bodine GTD <b>GB</b> - Bodine GTD <i>Battery and Emergency pg. 4</i>	<b>W</b> - White <i>QS</i> <b>MOD</b> - Mod options available <i>Finish pg. 5</i>
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FIXTURE OPTIONS <sup>2</sup>	CONTROLS		
<b>QS</b> - QuickShip <i>QS</i> <b>TW</b> - Through-wiring <b>CP</b> - Chicago Plenum <i>QS</i> <b>AM</b> - Antimicrobial Paint <b>AR</b> - Air Return <b>FW6</b> - 6' Flex Whip <i>QS</i> <b>GLR</b> - Fast Blow Fusing <i>QS</i> <b>GMF</b> - Slow Blow Fusing <b>MOD</b> - Mod options available <i>Fixture Options pg. 5</i>	<b>MOD</b> - Mod options available <i>Controls pg. 6</i>		

When specifying SOURCE the first \_ is for specifying either 8 - 80CRI, 9 - 90CRI or B - BIOS. The ending \_ are for specifying output, example HO - High Output. When specifying BIOS use B and then specify color temperature, either 3500K or 4000K, and output, example B35HO - BIOS 3500K High Output. If specifying QS output is 80 CRI, all color temperatures, all lumen packages. Does not include BIOS or Tunable White. See output charts for more information. BIOS dynamic available, please contact factory for more information

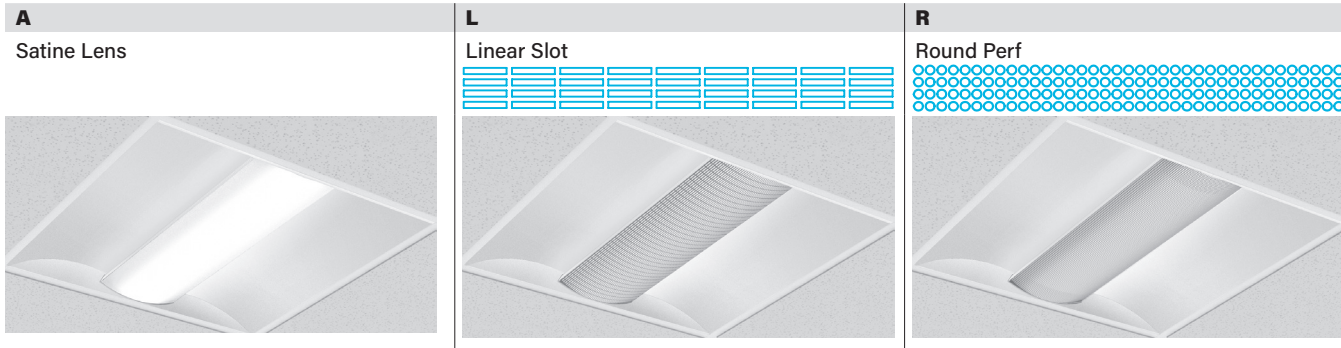
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## Shielding

- Captive and hinged center lens
- Co-extruded acrylic lens with ribbed side channels evenly illuminates the side reflector giving the appearance of a fully lensed luminaire
- Highly reflective die-formed white painted reflector
- Wiring access available on top of housing

### Ordering Code



## Output

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory.
- 80 CRI = R9≥19 and 90 CRI = R9≥61
- Not all products qualify for DLC listing. For a complete listing of the ADEO products that qualify for DLC, please go to the DLC website.

## 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

### 80 CRI

	Color	Output	Watts	Shielding					
				A Satine Lens		L Linear Slot		R Round Perf	
				Lumens	LPW	Lumens	LPW	Lumens	LPW
<b>830LO</b>	3000K	Low	24.2	2922	120.7	1736	71.7	1484	61.3
<b>830MO</b>	3000K	Middle	32.1	3862	120.3	2294	71.5	1962	61.1
<b>830HO</b>	3000K	High	40.7	4801	118.0	2852	70.1	2439	59.9
<b>830VHO</b>	3000K	Very High	63.7	6874	107.9	4083	64.1	3492	54.8
<b>835LO</b>	3500K	Low	24.2	3003	124.1	1784	73.7	1526	63.0
<b>835MO</b>	3500K	Middle	32.1	3969	123.6	2358	73.4	2016	62.8
<b>835HO</b>	3500K	High	40.7	4934	121.2	2931	72.0	2506	61.6
<b>835VHO</b>	3500K	Very High	63.7	7065	110.9	4197	65.9	3589	56.3
<b>840LO</b>	4000K	Low	24.2	3165	130.8	1880	77.7	1608	66.4
<b>840MO</b>	4000K	Middle	32.1	4195	130.7	2492	77.6	2131	66.4
<b>840HO</b>	4000K	High	40.7	5220	128.3	3101	76.2	2652	65.2
<b>840VHO</b>	4000K	Very High	63.7	7541	118.4	4479	70.3	3831	60.1

### 90 CRI

<b>927LO</b>	2700K	Low	24.2	2435	100.6	1447	59.8	1237	51.1
<b>927MO</b>	2700K	Middle	32.1	3219	100.3	1912	59.6	1635	50.9
<b>927HO</b>	3500K	High	40.7	4001	98.3	2377	58.4	2033	49.9
<b>927VHO</b>	3500K	Very High	63.7	5730	89.9	3403	53.4	2911	45.7
<b>930LO</b>	3000K	Low	24.2	2692	111.2	1599	66.1	1368	56.5
<b>930MO</b>	3000K	Middle	32.1	3557	110.8	2113	65.8	1807	56.3
<b>930HO</b>	3000K	High	40.7	4422	108.6	2627	64.5	2246	55.2
<b>930VHO</b>	3000K	Very High	63.7	6332	99.4	3761	59.0	3217	50.5
<b>935LO</b>	3500K	Low	24.2	2700	111.6	1604	66.3	1372	56.7
<b>935MO</b>	3500K	Middle	32.1	3569	111.2	2120	66.0	1813	56.5
<b>935HO</b>	3500K	High	40.7	4436	109.0	2635	64.7	2253	55.4
<b>935VHO</b>	3500K	Very High	63.7	6352	99.7	3773	59.2	3227	50.7
<b>940LO</b>	4000K	Low	24.2	2824	116.7	1677	69.3	1435	59.3
<b>940MO</b>	4000K	Middle	32.1	3742	116.6	2223	69.2	1901	59.2
<b>940HO</b>	4000K	High	40.7	4657	114.4	2766	68.0	2366	58.1
<b>940VHO</b>	4000K	Very High	63.7	6727	105.6	3996	62.7	3417	53.6

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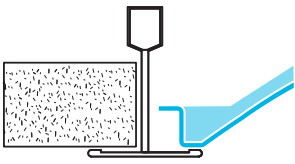
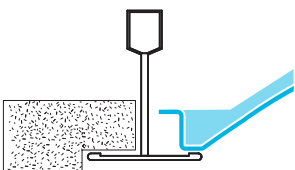
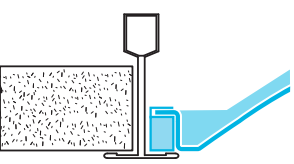
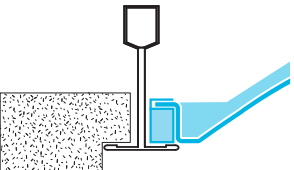
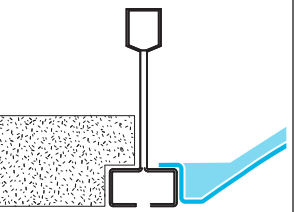
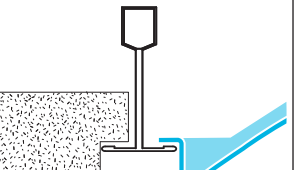
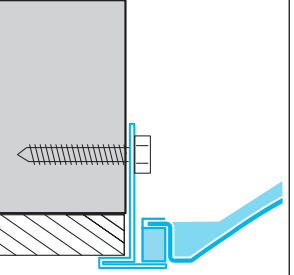
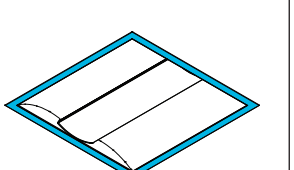
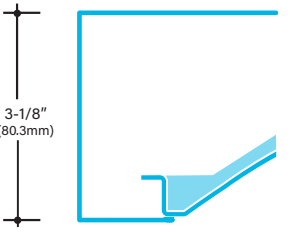
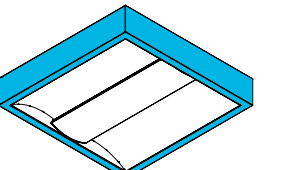
## Direct Source: MOD Options

- 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	Color Changing RGB LED	Required Driver	Required Control
	Color Changing RGB-W LED	EC2	DMX
	2 Channel Tunable White		
	Dynamic BIOS		

## Mounting

- Designed to install into acoustical grid and inaccessible ceilings
- Grid retention clips integral to housing and require mechanical attachment
- Tie off fixture to structure with retention wires
- Maximum fixture weight is 28 lbs - Surface Mount Box adds 10 lbs
- Refer to installation instructions during installation at the job site
- Approved for dry/damp location unless otherwise noted

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, bolt slot and 9/16" grid ceiling types. For 9/16" installations with tegular tile, fixture position will be flush to the bottom of the tile. See bottom profile image of 9/16" with tegular tile. Consult factory for detailed installation instructions.</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. Consult factory for detailed installation instructions.</i>	<b>Surface Mount</b> <i>Utilize for hard lid ceiling applications. The 20 gauge steel frame easily secures to ceiling.</i>
 <p>Standard Tile</p>  <p>Tegular Tile</p>	 <p>Standard Tile</p>  <p>Tegular Tile</p>	 <p>Tegular Tile</p>  <p>Tegular Tile</p>	 	 <p>3-1/8" (80.3mm)</p> 

## Voltage

- Some ADEO configurations will not accommodate all voltage options; consult with factory

U	Universal
1	120 volt
2	277 volt
3	347 volt

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AD24\_LED\_SPEC\_MAY2022



## Driver

- Standard Driver Option = PL2
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more Driver options, see Pinnacle Resource Guide
- Some ADEO 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>	Osram Optotronic, 1%, 0-10v
<b>OL4</b>	Osram 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% Logarithmic
<b>ES2</b>	eldoLED SOLOdrive 0-10v, 0% Linear
<b>OL5</b>	Osram Optotronic 1%, 0-10v, AUX
DALI Drivers	
<b>OD1</b>	Osram Optotronic 1%, DEXAL
<b>EE3</b>	eldoLED SOLOdrive .1%, DALI (logarithmic)
<b>EE4</b>	eldoLED SOLOdrive .1%, DALI (linear)
<b>OD2</b>	Osram Optotronic 1%, DALI 2 Channel
Lutron Drivers	
<b>LH1</b>	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
Alternate Drivers	
<b>PS1</b>	Signify Advance Xitanium Step Dimming 50%/100%
<b>PR1</b>	Philips Advance Xitanium SR, requires EASYS, VDO or VRF
<b>EH1</b>	ELV 120v only, 0-10v universal
<b>OD1</b>	Osram Optotronic 1%, DEXAL

## Drivers: 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
------------	---------------------

## Circuiting

- Select fixture circuiting from options below
- Some ADEO configurations will not accommodate all circuiting options; consult with factory

<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
- Test button is integral to fixture
- For more Battery options, see Pinnacle Resource Guide

<b>0</b>	No Battery
<b>1IC</b>	Iota 10w Integral
<b>1ILL</b>	Iota 10w Integral Lithium, Self Testing
<b>1IRH</b>	Iota 20w Remote
<b>1P</b>	Bodine 10w Integral
<b>1PLL</b>	Bodine 10w Integral Lithium, Self Testing
<b>1PRH</b>	Bodine 20w Remote
<b>FSG</b>	Factory Select Automatic Load Control Relay (ALCR)
<b>GI</b>	Emergency Transfer Switch (ETS) DR Emergency Control Device
<b>GB</b>	Bodine GTD, Generator Transfer Device

### 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: 1-1P
- Emergency circuit only, 10w integral battery Ordering Code: E-1P



## Finish

- Powder-coat white painted finish on exposed trim

**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
	Metallic Silver
	Textured Black
	Bronze
	Graphite
	Custom Color
	Natural

## Fixture Options

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

<b>QS</b>	Quick Ship
<b>TW</b>	Through-Wiring
<b>CP</b>	Chicago Plenum
<b>AM</b>	Antimicrobial Paint
<b>AR</b>	Air Return
<b>FW6</b>	Flex Whip 6'
<b>GLR</b>	Internal Fast Blow Fuse
<b>GMF</b>	Internal Slow Blow Fuse

## 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

	CRI, CCT & Output	Mounting	Voltage	Driver	Circuiting	Battery	Finish	Options
<b>10-Day</b>								
<b>A</b>	80 CRI, All color temperatures, all lumen packages <i>See pg 4&amp;5</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>PL2</b> Advance Xitanium 0-10v, 1% <b>LH1</b> Lutron LDE1 <b>OL2</b> Osram 0-10v, 1% <b>FSD</b> Factory Select Driver (1%, 0-10v)	<b>1</b> Single <b>E</b> Emergency <b>N</b> Night Light	<b>1P</b> Bodine 10w Integral <b>1IC</b> Iota 10w Integral	<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.



## Controls

- Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.

## Controls: MOD Options

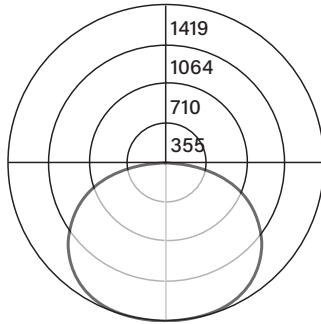
- Specify **MOD** in the part number for any of the below options
- Control** Options may require specific driver. Refer to the chart below
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD	Required Driver	
	Enlighted (Wireless) - ENLI	Any 0-10v
	Enlighted (Wireless) - ENLC	Any 0-10v
	Encelium Sensilum	OD1, OL5

## Photometrics

### Satine Lens

Test #	ITL88956
Catalog #	AD24A-840MO
Lumens	4195 lm
Watts	32.1 W
Efficacy	131 LPW



### Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1419	1419	1419	1419	1419
5	1413	1412	1413	1413	1413
10	1393	1390	1395	1396	1394
15	1360	1354	1364	1367	1364
20	1313	1304	1319	1324	1323
25	1251	1244	1262	1270	1271
30	1180	1175	1196	1207	1209
35	1098	1097	1121	1134	1138
40	1009	1011	1037	1054	1060
45	912	919	947	969	974
50	810	820	853	876	884
55	705	716	752	779	785
60	594	610	649	679	686
65	481	501	542	576	585
70	364	391	436	474	488
75	253	283	332	373	389
80	150	182	232	264	276
85	62	90	114	134	142
90	0	0	0	0	0

### Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1838	1908	1963
55	1751	1868	1950
65	1622	1827	1972
75	1393	1828	2141
85	1014	1864	2321

For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com). Photometry testing in accordance to IESNA-LM-79-08 at an NVLAP accredited testing laboratory. Testing conducted at 25°C ambient conditions

## Applications & Certificates

**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:** Co-extruded acrylic lens with ribbed side channels evenly illuminates the side reflector giving the appearance of a fully luminous aperture. Available with standard satine lens or optional clear lens with linear slot or round perf insert.

**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 28 lbs - Surface Mount box adds 10 lbs

**LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. All luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. Minimum lifetime greater than 60,000 hours. L70 = 134,700 hours and L90 = 40,100 hours. MacAdam 3-Step Ellipses. Not all products are lighting facts listed. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**CRI, CCT & Output:** Four lumen packages available. Low (LO), Medium (MO), High (HO) and Very High (VHO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on Color Temperature & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K, and 4000K. 80 CRI = R9≥19 and 90 CRI = R9≥61.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must specify OL4 in Driver section when 347 volt (3) is selected. Some ADEO configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Advance Xitanium 0-10V, 1% = PL2. 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 98°F/35°C. For more driver options, see Pinnacle Resource Guide. Some ADEO configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), Emergency circuit (E) or Night Light circuit (N). Some ADEO 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. For more Battery options, see Pinnacle Resource Guide.

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

**Controls:** Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.

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

**Fixture Weight:** 28 lbs maximum - Surface mount box adds 10 lbs.

**Buy American Act Compliant**

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