

# EDGE EX12

## 1" x 2" Suspended Direct Linear

### Key Features

- Requires a remote mounted driver/battery per fixture
- 6063-T5 Extruded aluminum housing
- Highly reflective die-formed white painted reflector
- 5-year limited warranty covers LED, driver and fixture
- UL and cUL listed
- Approved for dry/damp location unless otherwise noted
- Maximum weight is 10 lbs. for a standard 4' fixture
- Buy American Act compliant



Example Part #: EX12-HE-N-830HO-26'-AC48G1-U-FSD-1-0-W

**EX12** - **- N** - **-** - **-** - **-** - **-** - **-** - **-** - **-** - **-** - **-**

DIRECT SHIELDING    INDIRECT SHIELDING    CRI, CCT & OUTPUT    LENGTH OR PATTERN    MOUNTING    VOLTAGE    DRIVER    CIRCUITING    BATTERY & EMERGENCY    FINISH

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DIRECT SHIELDING	INDIRECT SHIELDING	SOURCE <sup>1</sup>	LENGTH OR PATTERN <sup>2</sup>
<b>A</b> - Satine Lens <b>HE</b> - High Efficiency Lens <b>BW</b> - Batwing Insert <b>WHE</b> - Asymmetric Insert <b>HED</b> - Descent Lens <b>P</b> - Parabolic Louver <i>Shielding pg. 2</i>	<b>N</b> - None <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>_</b> - Individual Fixture <b>_</b> - Continuous Row <b>S</b> - Square <b>R_x</b> - Rectangle <b>L_x</b> - L Shape <b>U_x_x</b> - U-Shape <b>T_x</b> - T-Shape <b>X_x</b> - X-Shape <b>MOD</b> - Mod options available <i>Length and Pattern pg. 3</i>
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MOUNTING <sup>3</sup>	VOLTAGE	DRIVER	CIRCUITING
<b>AC_G_R</b> - AC to Grid <b>AC_JBR</b> - AC to J Box <b>AC_STR</b> - AC to Structure <b>WA</b> - Wall Mount <b>S</b> - Surface Mount <b>AC5_G_R</b> - 5" Non-Power Canopy <b>AC5_JBR</b> - 5" Non-Power Canopy <b>SQ_G_R</b> - 5" Square Canopy <b>SQ_JBR</b> - 5" Square Canopy <i>Mounting pg. 4</i>	<b>U</b> - Universal (120 thru 277V) <b>1</b> - 120V <b>2</b> - 277V <b>3</b> - 347V <i>Voltage pg. 4</i>	<b>FSD</b> - Factory Select Driver (1%, 0-10v) <b>PL2</b> - Advance Xitanium (1%, 0-10v) <b>OL2</b> - Osram (1%, 0-10v) <b>OL4</b> - Osram 347v (1%, 0-10v) <b>EE1</b> - eldoLED ECOdrive (1%, 0-10v) <b>ES1</b> - eldoLED SOLOdrive (0.1%, 0-10v) <b>LH1</b> - Lutron Hi-lume (1%, EcoSystem) <b>PS1</b> - Advance Xitanium (50%/100%) <i>Driver pg. 4</i>	<b>1</b> - Single Circuit <b>M</b> - Multi Circuit <b>E</b> - Emergency ( <i>entire fixture</i> ) <b>N</b> - Night Light ( <i>entire fixture</i> ) <i>Circuiting pg. 5</i>
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BATTERY & EMERGENCY <sup>4</sup>	FINISH	CONTROLS	
<b>0</b> - None <b>_FSB</b> - Factory Select Battery <b>_FSG</b> - Factory Select ALCR <b>_GI</b> - Iota ETS DR <b>_GB</b> - Bodine GTD <b>_ILL</b> - Iota 10w Integral <b>_PLL</b> - Bodine 10W ( <i>low profile</i> ) <b>_E</b> - Emergency Section <b>_N</b> - Night Light Section <b>_L</b> - Life Safety Section <i>Battery and Emergency pg. 5</i>	<b>W</b> - White <b>S</b> - Metallic Silver <b>BL</b> - Textured Black <b>BR</b> - Bronze <b>GR</b> - Graphite <b>CC</b> - Custom Color <i>Finish pg. 5</i>	<i>Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.</i>	

<sup>1</sup>When specifying CRI, CCT & OUTPUT the first \_ is for specifying either 8 - 80CRI or 9 - 90CRI. The ending \_\_\_ are for specifying output, example **HO** - High Output. See output charts for more information. <sup>2</sup>Individual fixtures come in 2', 3', 4', 5', 6', 7', & 8' lengths. Continuous row come in 1' increments. For Mod layouts Specify pattern shape and overall dimensions. Example: L6x4: L pattern that is 6'x4'. <sup>3</sup>Specify AC length standard AC is 48"; Specify grid: G1=15/16", G9=9/16", GS=Screw Slot; All EX12 fixtures require a remote driver. Distance from Remote Box to Fixture cannot exceed 10ft. Based on the size and application of the remote box, specify RB (Remote Box) or RC (Remote Canopy) at the end of the Mounting portion of the part number. See page 3 for details. Wall Mount and Surface Mount options only work with RB. <sup>4</sup>Enter quantity for Battery and Emergency, Example 2PL.

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## Shielding

### DIRECT

### INDIRECT

A	HE	BW	WHE	P	HED	N
Satine Lens	High Efficiency Lens	Batwing Insert	Asymmetric Insert	Parabolic Louver	Descent Lens	None

## Output

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory.
- 90 CRI = R9≥50

## Custom Output- Lumens OR Wattage

<b>CL</b> _____	Specify CRI, CCT and desired lumens (i.e. CL835700)	Specify lumens between standard offering listed below. Lumens are specified per color temp
<b>CW</b> _____	Specify CRI, CCT and desired wattage (i.e. CW9406)	Specify watts between standard offering listed below

### 80 CRI

	Color	Output	Watts <i>per foot</i>	Shielding		HE		BW		WHE		P		HED	
				A		High Efficiency		Batwing		Asymmetric		Louver		Descent	
				Lumens/ft	LPW	Lumens/ft	LPW	Lumens/ft	LPW	Lumens/ft	LPW	Lumens/ft	LPW	Lumens/ft	LPW
<b>830</b>	3000K	Standard	4.5	347	77.1	412	91.6	327	72.7	365	81.1	273	60.7	377	83.8
<b>830HO</b>	3000K	High	8.6	641	74.5	761	88.5	604	70.2	676	78.6	504	58.6	698	81.2
<b>835</b>	3500K	Standard	4.5	357	79.3	424	94.2	336	74.7	376	83.6	281	62.4	388	86.2
<b>835HO</b>	3500K	High	8.6	658	76.6	782	90.9	621	72.2	695	80.8	519	60.3	717	83.4
<b>840</b>	4000K	Standard	4.5	365	81.0	432	96.0	343	76.2	383	85.1	286	63.6	396	88.0
<b>840HO</b>	4000K	High	8.6	670	77.8	797	92.7	633	73.6	708	82.3	529	61.5	731	85.0

### 90 CRI

<b>927</b>	2700K	Standard	4.5	274	60.8	325	72.2	259	57.6	289	64.2	216	48.0	298	66.2
<b>927HO</b>	2700K	High	8.6	506	58.8	601	69.9	478	55.6	534	62.1	399	46.4	551	64.1
<b>930</b>	3000K	Standard	4.5	320	71.1	380	84.4	302	67.1	337	74.9	252	56.0	348	77.3
<b>930HO</b>	3000K	High	8.6	591	68.7	701	81.5	557	64.8	623	72.4	465	54.1	643	74.8
<b>935</b>	3500K	Standard	4.5	321	71.3	382	84.9	303	67.3	339	75.3	253	56.2	349	77.6
<b>935HO</b>	3500K	High	8.6	592	68.8	704	81.9	559	65.0	625	72.7	467	54.3	645	75.0
<b>940</b>	4000K	Standard	4.5	326	72.4	386	85.8	306	68.0	342	76.0	256	56.9	354	78.7
<b>940HO</b>	4000K	High	8.6	598	69.5	711	82.7	565	65.7	632	73.5	472	54.9	653	75.9

## 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** TIR Optics

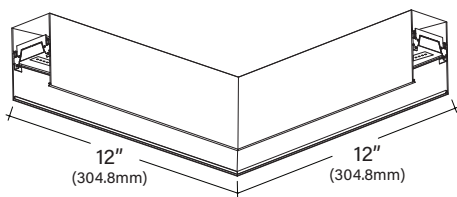


## Length

- All individual units cannot be joined, end plates are factory installed and cannot be removed
- For Continuous Runs, 1/2" (12.7mm) to the overall length of the row to account for end caps
- For patterns, refer to Pattern section on next page

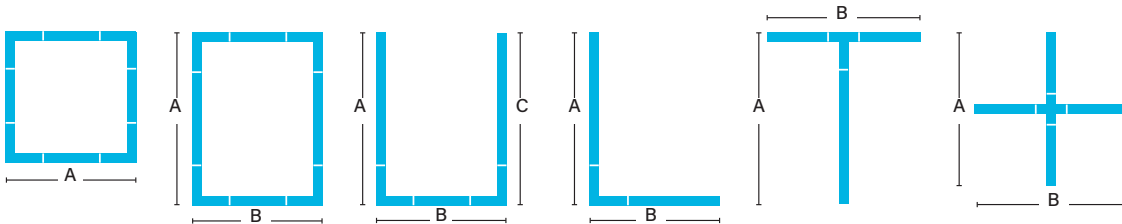
2	3	4	5	6	7	8	–
Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Cont. Run
24" (609.6mm)							Specify nominal overall row length to the 1'
36" (914.4mm)							
48" (1219.2mm)							
60" (1524mm)							
72" (1828.8mm)							
84" (2133.6mm)							
96" (2438.4mm)							
Specify to the 1' >>>							

## Pattern

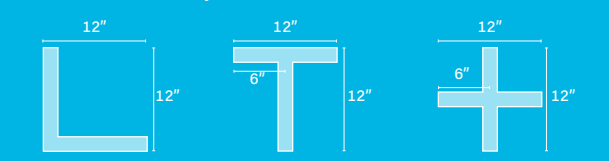


- Specify pattern shape and overall dimensions (includes corner dimensions)
- Refer to dimensions table below for available standard lengths
- All connectors are direct only
- 90 degree horizontal corners are 12"x12" (overall, outside dimension)
- Angles and shapes not shown require Mod Pattern; consult factory
- Only for HE Lens

<u>S</u>	<u>R_x</u>	<u>U_x_x</u>	<u>L_x</u>	<u>T_x</u>	<u>X_x</u>
Square Provide A dimension Example: <b>S4'</b> Minimum Length-4'x4'	Rectangle Provide AxB dimensions Example: <b>R4'x4'</b> Minimum Length-4'x4'	U-Shape Provide AxBxC dimensions Example: <b>U3'x4'x3'</b> Minimum Length-3'x4'x3'	L-Shape Provide AxB dimensions Example: <b>L3'x3'</b> Minimum Length-3'x3'	T-Shape Provide AxB dimensions Example: <b>T3'x5'</b> Minimum Length-3'x5'	X-Shape Provide AxB dimensions Example: <b>X5'x5'</b> Minimum Length-5'x5'



Horizontal Details: Every Connection is 12" x 12" in Overall Dimension



## Length or Pattern: 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>	Specify MOD for patterns, lengths or angles not shown above Hubs Connectors
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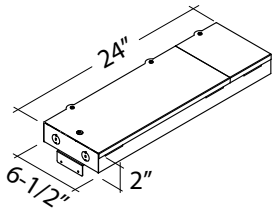


## Mounting

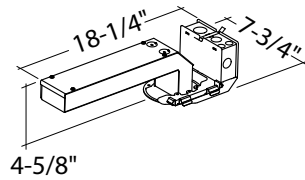
- Requires a remote mounted driver/battery per fixture specify remote type
- Total distance from remote box to fixture cannot exceed 10ft.
- Specify cable length in ordering code (AC48G1)
- Standard adjustable cable. Specify 48", 120", 240" or 350"
- End trims and power cord attached at factory
- Aircraft cable (AC) mounts on 4' (1219.2mm) and 8' (2438.4mm) centers
- Aircraft Cable supplied with 5" (127mm) power and 2" (50.8mm)

<b>AC_G1R</b>	Aircraft Cable 1" (15/16") T-Bar
<b>AC_G9R</b>	Aircraft Cable 9/16" T-Bar
<b>AC_GSR</b>	Aircraft Cable Screw Slot T-Bar
<b>AC_JBR</b>	Aircraft Cable Junction Box
<b>AC_STR</b>	Aircraft Cable Structure
<b>AC5_G R</b>	Aircraft Cable 5" (127mm) Non-Power Canopy
<b>AC5_JBR</b>	Aircraft Cable 5" (127mm) Non-Power Canopy
<b>SQ_G R</b>	Aircraft Cable 5" (127mm) Square Canopy
<b>SQ_JBR</b>	Aircraft Cable 5" (127mm) Square Canopy
<b>WA</b>	Wall Mount (only works with RB)
<b>S</b>	Surface Mount (only works with RB)

Remote Box (RB)

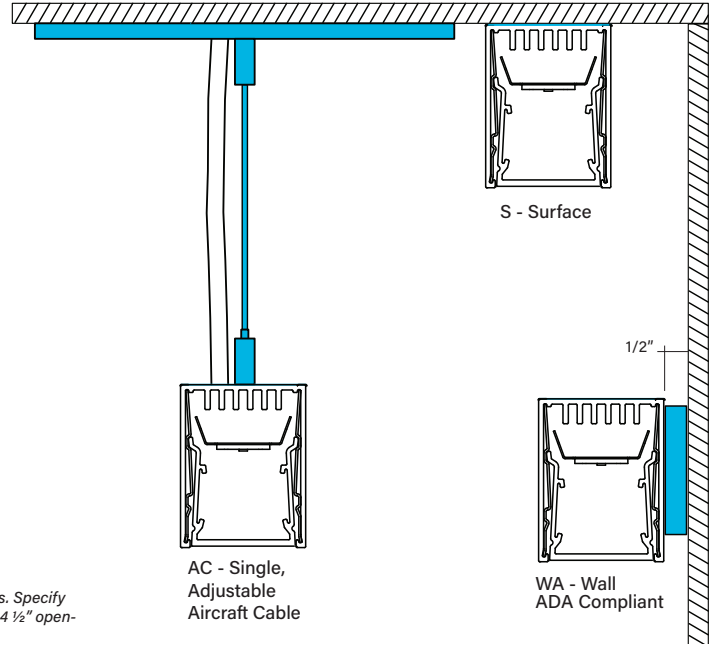


Remote Canopy (RC)



All EX12 fixtures require a remote driver. Specify Remote Box (RB) for all standard remote driver applications. Specify Remote Canopy (RC) for smaller spaces and hard ceilings. The Remote Canopy option fits in to a standard, 4 1/2" opening for a canopy in a hard ceiling application. Total distance from remote box to fixture cannot exceed 10ft.

- non-power canopies
- Canopies and pendants match fixture finish, power cords are white, grey, or black depending on fixture finish. See Finish section for additional details.
- Approved for dry/damp location unless otherwise noted
- Refer to installation instructions during installation at the job site
- Maximum fixture weight is 10 lbs for a standard 4' fixture



## Voltage

- Some EX12 configurations will not accommodate all voltage options; consult with factory

<b>U</b>	Universal
<b>1</b>	120 volt
<b>2</b>	277 volt
<b>3</b>	347 volt

## Driver

- Requires a remote mounted driver per fixture
- Standard Driver Option = PL2
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options see Pinnacle Resource Guide
- Some EX12 configurations will not accommodate all driver options;

0-10V Drivers	
<b>FSD</b>	Factory Select Driver 1%, 0-10v
<b>PL2</b>	Signify 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 option
<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
DALI Drivers	
<b>EE3</b>	eldoLED ECOdrive .1%, DALI (logarithmic)
<b>ES3</b>	eldoLED SOLOdrive .1%, DALI (logarithmic)
<b>OD1</b>	Osram Optotronic 1%, DEXAL
<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
<b>LH4</b>	Lutron Hi-Lume 1%, 2-wire, Lutron-LTEA2W, 120v only
Alternate Drivers	
<b>PS1</b>	Signify Advance Xitanium Step Dimming 50%/100%

- consult with factory
- Osram and Lutron Drivers have remote distance limitation of 10'. Consult factory for specific configurations
- eldoLED and Advance Drivers have an average remote distance limitation of 50'. Consult factory for specific configurations

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EX12\_LED\_SPEC\_APRIL2023



## How to specify Circuiting, Battery and Emergency

- 1**
- Select fixture circuiting from options below
  - Some EX12 configurations will not accommodate all circuiting options, consult with factory

### Circuiting

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

- 2** + **3**
- Battery and emergency section options are available in addition to fixture circuit
  - Select battery and emergency section options below; factory shop drawing required
  - Some EX12 configurations will not accommodate all circuiting options, consult with factory

### Battery and/or Emergency If Required

- 0** No battery or specific emergency section required

#### Battery

- Battery will be remote mounted with driver.
- Select battery section type if required, indicate total QTY. *Example 1E*
- 90 minute battery runtime; test button is remote to fixture and requires an additional drop

- Battery not available for lengths under 4'
- Entire direct fixture housing is on battery for lengths up to 5'
- Half of direct fixture is on battery for 6', 7' or 8' housing lengths
- For more battery options available, see Pinnacle Resource Guide

<b>0</b>	No Battery
<b>_FSB</b>	Factory Select Battery (10w option)
<b>_FSBST</b>	Factory Select Battery (10w, Self Testing)
<b>_ILL</b>	10w Integral Lithium, Self Testing
<b>_IRH</b>	10w Remote
<b>_PRH</b>	Bodine 20w Remote
<b>_PLL</b>	Bodine 10w Integral Lithium, Self Testing

#### For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- $92.3 \text{ (LPW)} \times 10 \text{ (watts)} = 923 \text{ battery lumen output}$

#### Emergency

- Select emergency section type if required, indicate total QTY. *Example 1E*
- Combine battery and emergency section ordering codes if both options are selected

<b>_FSG</b>	Factory Select Automatic Load Control Relay (ALCR), UNV
<b>_GI</b>	Emergency Transfer Switch (ETS) DR Emergency Control Device, UNV
<b>_GB</b>	Bodine GTD, Generator Transfer Device, 120v or 277v
<b>_E</b>	Emergency circuit section
<b>_N</b>	Night Light circuit section
<b>_L</b>	Life Safety circuit section NO THROUGH WIRE

#### Battery OR Emergency Ordering Examples

- Single circuit, 10w Integral Battery      Ordering Code: 1-1PL
- Emergency only, 10w Integral Battery      Ordering Code: E-1PL
- Single circuit, GTD required                  Ordering Code: 1-1GB

#### Combination Section Ordering Examples

- Single circuit, (1) 10w battery, (1) emergency section      Ordering Code: 1-1PL1E
- Multi circuit, (2) 10w battery, (2) emergency sections      Ordering Code: M-2PL2E
- Single circuit, (1) night light section                          Ordering Code: 1-1N

### Finish

- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

<b>W</b>	White <i>(white cord/white canopy)</i>
<b>S</b>	Metallic Silver <i>(grey cord/silver canopy)</i>
<b>BL</b>	Textured Black <i>(black cord/black canopy)</i>
<b>BR</b>	Bronze <i>(white cord/bronze canopy)</i>
<b>GR</b>	Graphite <i>(white cord/graphite canopy)</i>
<b>CC</b>	Custom Color <i>(white cord/color match canopy)</i>

### Controls

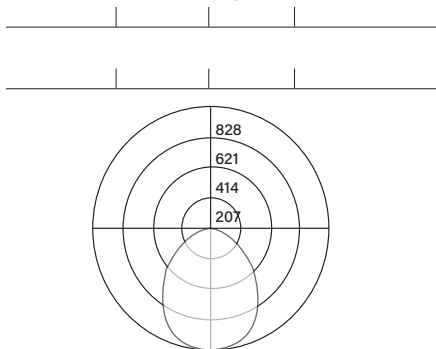
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Photometrics

Custom Output- Lumens OR Wattage



Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	828	828	828	828	828
5	823	824	823	822	821
10	810	808	804	799	796
15	787	779	769	757	751
20	753	739	722	699	690
25	710	689	662	629	614
30	657	632	595	554	537
35	596	569	524	477	459
40	528	499	449	404	387
45	457	429	379	336	323
50	385	361	315	277	266
55	317	296	256	225	216
60	253	234	203	179	172
65	194	180	156	140	135
70	142	132	116	103	100
75	97	90	79	72	70
80	58	54	48	44	44
85	26	24	21	20	20
90	0	0	0	0	0

Luminance Data (cd/sq.m)

Angle In Degrees	Average	Average	Average
	0-Deg	45-Deg	90-Deg
45	14181	11775	10034
55	12136	9795	8273
65	10063	8103	6991
75	8216	6745	5967
85	6677	5393	5136

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:** 6063-T5 Extruded aluminum housing. Highly reflective die-formed white painted reflector.

**Shielding:** Diffuse snap-in acrylic lens with matte finish, removable for maintenance.

**Mounting:** Aircraft cable, wall and surface mount available. The aircraft cable that mounts on 4'-0" (1219.2mm) and 8'-0" (2438.4mm) centers. Aircraft Cable supplied with 5" (127mm) power and 2" (50.8mm) non-power canopies. Refer to installation instructions for appropriate ceiling detail. Canopies are painted white unless otherwise specified. Maximum fixture weight is 10 lbs for a standard 4' fixture.

**LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%; 2' or 3' lengths may have a greater wattage deviation. 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 = 124,900 hours and L90 = 37,200 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:** Two lumen packages available. Standard 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 OL4 in Driver section when 347 volt (3) is selected. Some EX configurations will not accommodate all voltage options; consult with factory.

**Driver:** Requires a remote mounted driver per fixture. 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 96°F/35°C. For more driver options, see Pinnacle Resource Guide. Some EX configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), Multi circuit (M), Emergency circuit (E) or Night Light circuit (N). For emergency circuiting situations that require no through wire or circuit separation, Life Safety Circuit should be selected. This will provide a separate power feed and only the Life Safety Circuit in that section. Some EX configurations will not accommodate all circuiting options; consult with factory.

**Battery & Emergency:** Battery will be remote mounted with driver. 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 remote to fixture. For more Battery options, see Pinnacle Resource Guide.

**Finish:** Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes. Canopies painted white unless specified differently in the options section of the part number. Contact factory for additional custom color and finish options.

**Controls:** Consult factory.

**Labels:** UL and cUL 2108 or 1598 listed depending on product configuration. Standard and HO lumen packages are approved for dry/damp location unless otherwise noted.

**Fixture Weight:** Maximum fixture weight is 10 lbs for a standard 4' fixture.

**Buy American Act Compliant**

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

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