PINNACLE
ARCHITECTURAL LIGHTING®

EDGE EX12
1″ x 2″ Suspended Direct Linear

1-3/4″ (44.5mm)

2-5/16″ (58.7mm)

1-1/2″ (38.1mm)

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

BUY AMERICAN ACT COMPLIANT · LED · *5 YEAR LED WARRANTY* · cULus · IC RATED · *DESIGNED IN DENVER CO.*

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		

DIRECT SHIELDING	INDIRECT SHIELDING	SOURCE[1]	LENGTH OR PATTERN[2]
A - Satine Lens **HE** - High Efficiency Lens **BW** - Batwing Insert **WHE** - Asymmetric Insert **HED** - Descent Lens **P** - Parabolic Louver *Shielding pg. 2*	**N** - None *Shielding pg. 2*	_27_ _ - 2700K _30_ _ - 3000K _35_ _ - 3500K _40_ _ - 4000K **CL**_ _ _ _ _ _ - Custom Lumens **CW**_ _ _ _ _ _ - Custom Watts **MOD** - Mod options available *Lumen Output pg. 2*	_ _ - Individual Fixture _ _ - Continuous Row **S** _ - Square **R** _ x _ - Rectangle **L** _ x _ - L Shape **U** _ x _ x _ - U-Shape **T** _ x _ - T-Shape **X** _ x _ - X-Shape **MOD** - Mod options available *Length and Pattern pg. 3*

MOUNTING[3]	VOLTAGE	DRIVER	CIRCUITING
AC_ _G_R_ - AC to Grid **AC_ _JBR_** - AC to J Box **AC_ _STR_** - AC to Structure **WA** - Wall Mount **S** - Surface Mount **AC5_ _G_R_** - 5″ Non-Power Canopy **AC5_ _JBR_** - 5″ Non-Power Canopy **SQ_ _G_R_** - 5″ Square Canopy **SQ_ _JBR_** - 5″ Square Canopy *Mounting pg. 4*	**U** - Universal *(120 thru 277V)* **1** - 120V **2** - 277V **3** - 347V *Voltage pg. 4*	**FSD** - Factory Select Driver *(1%, 0-10v)* **PL2** - Advance Xitanium *(1%, 0-10v)* **OL2** - eldoLED Optotronic *(1%, 0-10v)* **OL4** - eldoLED Optotronic 347v *(1%, 0-10v)* **EE1** - eldoLED ECOdrive *(1%, 0-10v)* **ES1** - eldoLED SOLOdrive *(0.1%, 0-10v)* **LH1** - Lutron Hi-lume *(1%, EcoSystem)* **PS1** - Advance Xitanium *(50%/100%)* *Driver pg. 4*	**1** - Single Circuit **M** - Multi Circuit **E** - Emergency *(entire fixture)* **N** - Night Light *(entire fixture)* *Circuiting pg. 5*

BATTERY & EMERGENCY[4]	FINISH	CONTROLS
0 - None **_FSB** - Factory Select Battery **_FSG** - Factory Select ALCR **_GI** - Iota ETS DR **_GB** - Bodine GTD **_ILL** - Iota 10w Integral **_PLL** - Bodine 10W *(low profile)* **_E** - Emergency Section **_N** - Night Light Section **_L** - Life Safety Section *Battery and Emergency pg. 5*	**W** - White **S** - Metallic Silver **BL** - Textured Black **BR** - Bronze **GR** - Graphite **CC** - Custom Color *Finish pg. 5*	*Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.*

[1]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. [2]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′. [3]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. [4]Enter quantity for Battery and Emergency, Example 2PL.

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Shielding

DIRECT						INDIRECT
A Satine Lens	**HE** High Efficiency Lens	**BW** Batwing Insert	**WHE** Asymmetric Insert	**P** Parabolic Louver	**HED** Descent Lens	**N** 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

CL_ _ _ _ _	Specify CRI, CCT and desired lumens (i.e. CL835700)	Specify lumens between standard offering listed below. Lumens are specified per color temp
CW_ _ _ _ _	Specify CRI, CCT and desired wattage (i.e. CW9406)	Specify watts between standard offering listed below

80 CRI

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

90 CRI

	Color	Output	Watts per foot	A Satine Lens Lumens/ft	LPW	HE High Efficiency Lumens/ft	LPW	BW Batwing Lumens/ft	LPW	WHE Asymmetric Lumens/ft	LPW	P Louver Lumens/ft	LPW	HED Descent Lumens/ft	LPW
927	2700K	Standard	4.5	274	60.8	325	72.2	259	57.6	289	64.2	216	48.0	298	66.2
927HO	2700K	High	8.6	506	58.8	601	69.9	478	55.6	534	62.1	399	46.4	551	64.1
930	3000K	Standard	4.5	320	71.1	380	84.4	302	67.1	337	74.9	252	56.0	348	77.3
930HO	3000K	High	8.6	591	68.7	701	81.5	557	64.8	623	72.4	465	54.1	643	74.8
935	3500K	Standard	4.5	321	71.3	382	84.9	303	67.3	339	75.3	253	56.2	349	77.6
935HO	3500K	High	8.6	592	68.8	704	81.9	559	65.0	625	72.7	467	54.3	645	75.0
940	4000K	Standard	4.5	326	72.4	386	85.8	306	68.0	342	76.0	256	56.9	354	78.7
940HO	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

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pg. 2

EDGE EX12 Suspended Linear

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 *Specify nominal overall row length to the 1′*

24″ (609.6mm)
36″ (914.4mm)
48″ (1219.2mm)
60″ (1524mm)
72″ (1828.8mm)
84″ (2133.6mm)
96″ (2438.4mm)
Specify to the 1′ ⟫⟫

Pattern

12″ (304.8mm) 12″ (304.8mm)
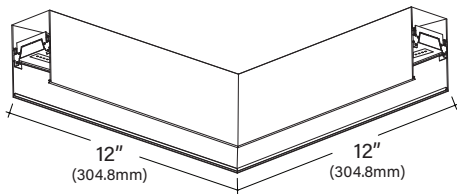
- Specify pattern shape and overall dimensions (includes corner dimensions)
- Refer to dimensions table below for available standard lengths
- All connectors are direct only
- 90 degree horizontal corners are 12″x12″ (overall, outside dimension)
- Angles and shapes not shown require Mod Pattern; consult factory
- Only for HE Lens

S_	R_x_	U_x_x_	L_x_	T_x_	X_x_
Square *Provide A dimension* Example: **S4′** Minimum Length- 4′x4′	Rectangle *Provide AxB dimensions* Example: **R4′x4′** Minimum Length- 4′x4′	U-Shape *Provide AxBxC dimensions* Example: **U3′x4′x3′** Minimum Length- 3′x4′x3′	L-Shape *Provide AxB dimensions* Example: **L3′x3′** Minimum Length- 3′x3′	T-Shape *Provide AxB dimensions* Example: **T3′x5′** Minimum Length- 3′x5′	X-Shape *Provide AxB dimensions* Example: **X5′x5′** Minimum Length- 5′x5′

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

12″ 12″ 12″
12″ 6″ 12″ 6″ 12″
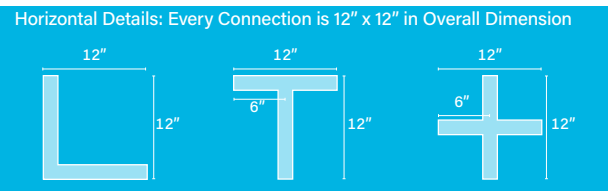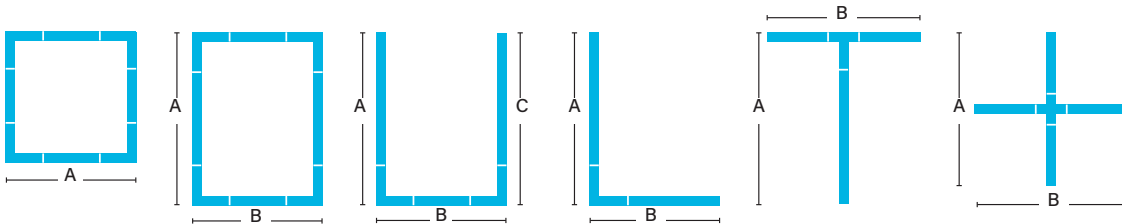
Length or Pattern: MOD Options

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

MOD	Specify MOD for patterns, lengths or angles not shown above
	Hubs Connectors

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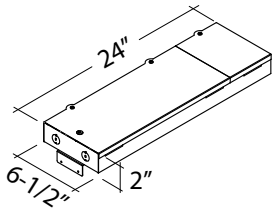
EX12_LED_SPEC_NOV2023

pg. 3

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)

AC__G1R_	Aircraft Cable 1" (15/16") T-Bar
AC__G9R_	Aircraft Cable 9/16" T-Bar
AC__GSR_	Aircraft Cable Screw Slot T-Bar
AC__JBR_	Aircraft Cable Junction Box
AC__STR_	Aircraft Cable Structure
AC5__G_R_	Aircraft Cable 5" (127mm) Non-Power Canopy
AC5__JBR_	Aircraft Cable 5" (127mm) Non-Power Canopy
SQ__G_R_	Aircraft Cable 5" (127mm) Square Canopy
SQ__JBR_	Aircraft Cable 5" (127mm) Square Canopy
WA	Wall Mount (only works with RB)
S	Surface Mount (only works with RB)

Remote Box (RB)

Remote Canopy (RC)

24"   6-1/2"   2"

18-1/4"   7-3/4"   4-5/8"
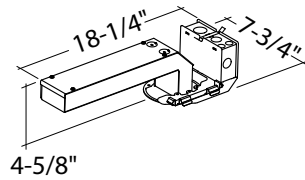
All EX12 fixtures require a remote driver. Specify Remote Box (RB) for all standard remote driver applications. Specify Remote Canopy (RC) for smaller spaces and hard ceilings. The Remote Canopy option fits in to a standard, 4 ½" opening for a canopy in a hard ceiling application. Total distance from 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
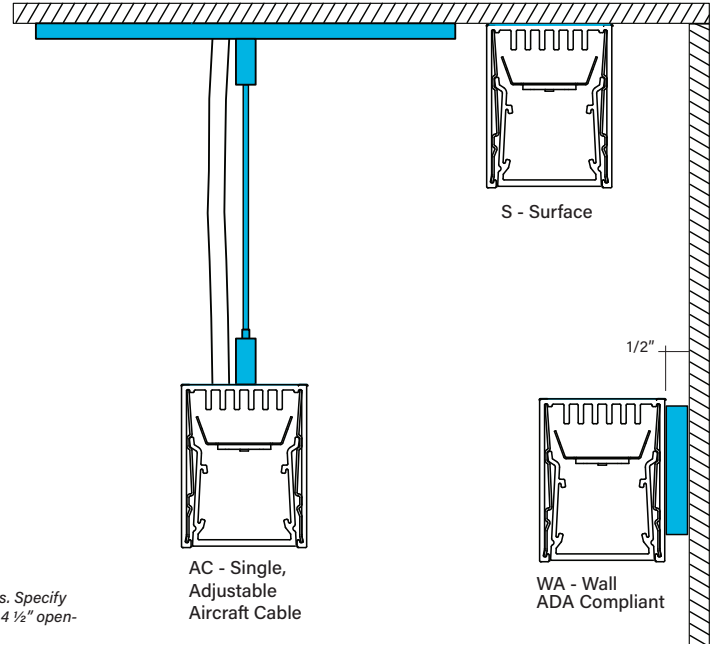- Maximum fixture weight is 10 lbs for a standard 4' fixture

S - Surface

AC - Single, Adjustable Aircraft Cable

1/2"

WA - Wall ADA Compliant

Voltage

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

U	Universal
1	120 volt
2	277 volt
3	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;

- 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

0-10V Drivers	
FSD	Factory Select Driver 1%, 0-10v
PL2	Signify Advance Xitanium 1%, 0-10v
PL4	Advance Xitanium 347v 1%, 0-10v, requires 347v
OL2	eldoLED Optotronic, 1%, 0-10v
OL4	eldoLED Optotronic 347v, 1% 0-10v, requires 347v option
EE1	eldoLED ECOdrive 1%, 0-10v Logarithmic
EE2	eldoLED ECOdrive 1%, 0-10v Linear
ES1	eldoLED SOLOdrive 0-10v, 0.1% Logarithmic
ES2	eldoLED SOLOdrive 0-10v, 0% Linear
DALI Drivers	
EE3	eldoLED ECOdrive .1%, DALI (logarithmic)
ES3	eldoLED SOLOdrive .1%, DALI (logarithmic)
OD1	eldoLED Optotronic 1%, DEXAL
OD2	eldoLED Optotronic 1%, DALI 2 Channel
Lutron Drivers	
LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
LH4	Lutron Hi-Lume 1%, 2-wire, Lutron-LTEA2W, 120v only
Alternate Drivers	
PS1	Signify Advance Xitanium Step Dimming 50%/100%

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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

1	Single Circuit
M	Multi Circuit
E	Emergency Circuit only
N	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 2PL*
- 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

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

For Approximate Battery Lumen Output
- Multiply battery wattage X fixture LPW shown on Lumen Table
- 92.3 (LPW) x 10 (watts) = 923 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

_FSG	Factory Select Automatic Load Control Relay (ALCR), UNV
_GI	Emergency Transfer Switch (ETS) DR Emergency Control Device, UNV
_GB	Bodine GTD, Generator Transfer Device, 120v or 277v
_E	Emergency circuit section
_N	Night Light circuit section
_L	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

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

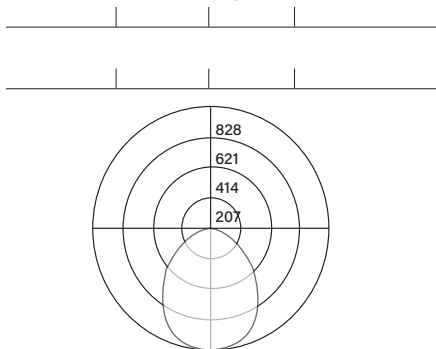## Controls

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

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pg. 5

Photometrics

Custom Output- Lumens OR Wattage

828
621
414
207

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 0-Deg	Average 45-Deg	Average 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. Photometry testing in accordance to IESNA-LM-79-08 at an NVLAP accredited testing laboratory. Testing conducted at 25℃ 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: 25ºC 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.

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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