

EDGE EX12D

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 #: EX12D-HE-N-830HO-26'-AC48G1-U-FSD-1-0-W



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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 <i>Shielding pg. 2</i>	N - None <i>Shielding pg. 2</i>	_27_ - 2700K _30_ - 3000K _35_ - 3500K _40_ - 4000K CL - Custom Lumens CW - Custom Watts MOD - Mod options available <i>Lumen Output pg. 2</i>	_ - 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 <i>Length and Pattern pg. 3</i>
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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 <i>Mounting pg. 4</i>	U - Universal (120 thru 277V) 1 - 120V 2 - 277V 3 - 347V <i>Voltage pg. 4</i>	FSD - Factory Select Driver (1%, 0-10v) PL2 - Advance Xitanium (1%, 0-10v) OL2 - eldoLED (1%, 0-10v) OL4 - eldoLED 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%) <i>Driver pg. 4</i>	1 - Single Circuit M - Multi Circuit E - Emergency (<i>entire fixture</i>) N - Night Light (<i>entire fixture</i>) <i>Circuiting pg. 5</i>
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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 _E - Emergency Section _N - Night Light Section _L - Life Safety Section <i>Battery and Emergency pg. 5</i>	W - White S - Metallic Silver BL - Textured Black BR - Bronze GR - Graphite CC - 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>	

¹When 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. ²Individual 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'. ³Specify 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. ⁴Enter quantity for Battery and Emergency, Example 2PL.

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.



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

CL _____	Specify CRI, CCT and desired lumens (i.e. CL835600)	Specify lumens between standard offering listed below. Lumens are specified per color temp
CW _____	Specify CRI, CCT and desired wattage (i.e. CW9407)	Specify lumens between standard offering listed below. Lumens are specified per color temp

Direct 80 CRI

	Color	Lumens per foot	Shielding											
			A Satine Lens		HE High Efficiency		BW Batwing		WHE Asymmetric		P Louver		HED Descent	
			LPW	Watts/ft	LPW	Watts/ft	LPW	Watts/ft	LPW	Watts/ft	LPW	Watts/ft	LPW	Watts/ft
830	3000K	500	92	5.4	116	4.3	84	5.9	101	4.9	73	6.9	102	4.9
830HO	3000K	750	94	8.0	115	6.5	86	8.7	103	7.3	73	10.3	101	7.4
830VHO	3000K	1000	93	10.7	118	8.5	84	11.9	105	9.5	70	14.3	103	9.7
835	3500K	500	95	5.2	119	4.2	87	5.8	105	4.8	73	6.8	103	4.9
835HO	3500K	750	97	7.7	119	6.3	88	8.5	107	7.0	75	10.0	105	7.2
835VHO	3500K	1000	97	10.4	122	8.2	87	11.5	107	9.3	73	13.8	106	9.4
840	4000K	500	95	5.2	119	4.2	87	5.8	105	4.8	73	6.8	103	4.9
840HO	4000K	750	97	7.7	119	6.3	88	8.5	107	7.0	75	10.0	105	7.2
840VHO	4000K	1000	97	10.4	122	8.2	87	11.5	107	9.3	73	13.8	106	9.4

Direct 90 CRI

927	2700K	500	74	6.7	96	5.2	70	7.2	84	6.0	60	8.4	82	6.1
927HO	2700K	750	77	9.8	97	7.7	70	10.7	86	8.8	58	12.9	84	9.0
927VHO	2700K	1000	74	13.5	97	10.3	68	14.6	84	12.0	N/A		82	12.2
930	3000K	500	81	6.1	102	4.9	74	6.7	91	5.5	65	7.7	89	5.6
930HO	3000K	750	83	9.0	104	7.2	77	9.8	93	8.1	64	11.8	91	8.2
930VHO	3000K	1000	81	12.3	106	9.4	74	13.5	93	10.8	63	16.0	91	11.0
935	3500K	500	81	6.2	102	4.9	74	6.8	91	5.5	65	7.7	89	5.6
935HO	3500K	750	83	9.1	104	7.2	76	9.8	93	8.1	63	11.8	91	8.3
935VHO	3500K	1000	81	12.4	106	9.5	74	13.6	92	10.8	62	16.1	90	11.1
940	4000K	500	81	6.2	102	4.9	74	6.8	91	5.5	65	7.7	89	5.6
940HO	4000K	750	83	9.1	104	7.2	76	9.8	93	8.1	63	11.8	91	8.3
940VHO	4000K	1000	81	12.4	106	9.5	74	13.6	92	10.8	62	16.1	90	11.1

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

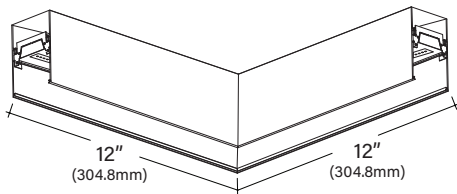


Length

- 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

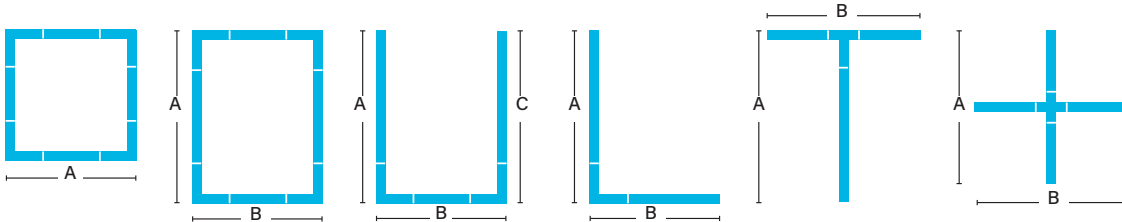
2	3	4	5	6	7	8	–
Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Cont. Run
24" (609.6mm)							Specify nominal overall row length to the 1'
36" (914.4mm)							
48" (1219.2mm)							
60" (1524mm)							
72" (1828.8mm)							
84" (2133.6mm)					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

Pattern

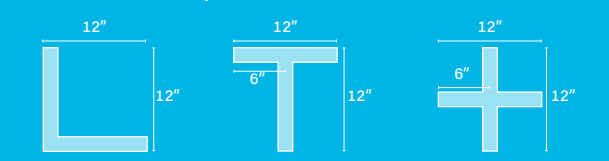


- Specify pattern shape and overall dimensions (includes corner dimensions)
- Refer to dimensions table below for available standard lengths
- All connectors are direct only
- 90 degree horizontal corners are 12"x12" (overall, outside dimension)
- Angles and shapes not shown require Mod Pattern; consult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



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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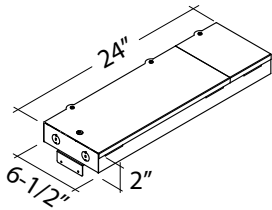


Mounting

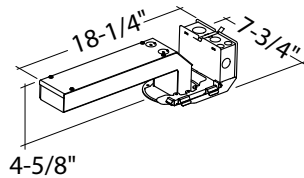
- Requires a remote mounted driver/battery per fixture specify remote type
- Total distance from remote box to fixture cannot exceed 10ft.
- Specify cable length in ordering code (AC48G1)
- Standard adjustable cable. Specify 48", 120", 240" or 350"
- End trims and power cord attached at factory
- Aircraft 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)

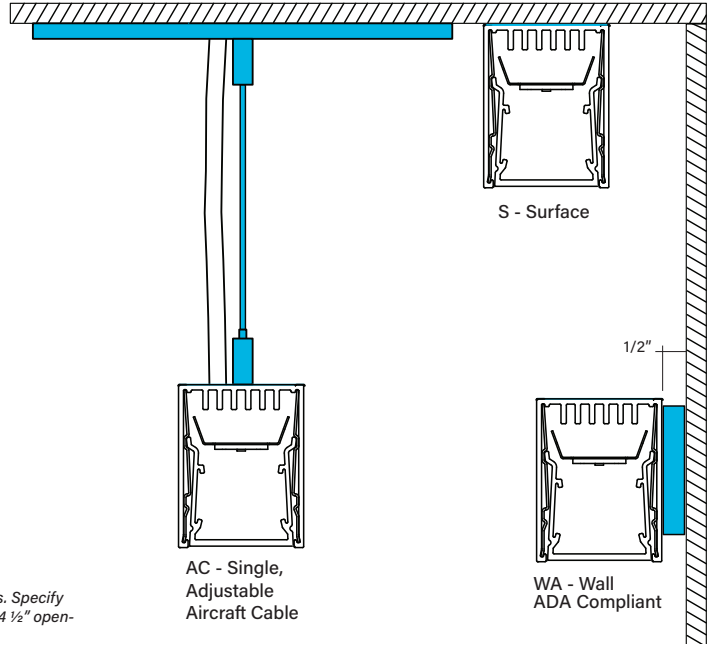


Remote Canopy (RC)



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



AC - Single, Adjustable Aircraft Cable

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 = FSD
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options see Pinnacle Resource Guide
- Some EX12D 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

Lutron Drivers

LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
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Alternate Drivers

PS1	Signify Advance Xitanium Step Dimming 50%/100%
EH1	ELV 120v only, 0-10v universal

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EX12D_LED_SPEC_DEC2023



How to specify Circuiting, Battery and Emergency

- 1**
- Select fixture circuiting from options below
 - Some EX12D 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 EX12D 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

0	No Battery
_FSB	Factory Select Battery 10w, Integral Lithium
_FSBST	Factory Select Battery 10w, Integral Lithium, Self Testing
_PLL	Bodine 10w Integral Lithium, Self Testing
_ILL	Iota 10w Integral Lithium, Self Testing
_PRH	Bodine 20w Remote, Single conduit flex
_IRH	Iota 20w Remote, Dual conduit flex

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

_FSG	Factory Select ALCR, Emergency Control Device, UNV
_GI	Iota ETS-DR, Emergency Transfer Switch, 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 <i>(white cord/white canopy)</i>
S	Metallic Silver <i>(grey cord/silver canopy)</i>
BL	Textured Black <i>(black cord/black canopy)</i>
BR	Bronze <i>(white cord/bronze canopy)</i>
GR	Graphite <i>(white cord/graphite canopy)</i>
CC	Custom Color <i>(white cord/color match canopy)</i>

Controls

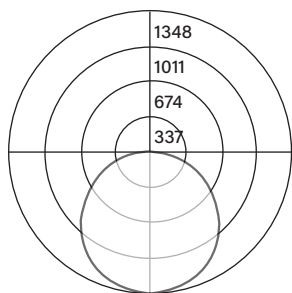
- Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.



Photometrics

High Efficiency Lens

Test # Scaled from KPL2015-57
 Catalog # EX12D-A-840VHO-4
 Lumens 3819
 Watts 39.7
 Efficacy 96 LPW



Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1337	1337	1337	1337	1337
5	1325	1337	1328	1330	1329
10	1308	1320	1310	1312	1311
15	1279	1290	1280	1281	1280
20	1239	1249	1240	1240	1239
25	1189	1197	1189	1186	1186
30	1128	1136	1128	1123	1122
35	1059	1068	1057	1053	1052
40	983	986	978	972	970
45	899	899	892	883	881
50	806	805	796	789	769
55	704	705	696	687	685
60	599	597	590	580	581
65	491	488	477	470	470
70	375	373	365	359	357
75	258	258	250	247	245
80	153	150	146	143	145
85	66	64	61	59	58
90	0	0	0	0	0

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	28469	28277	27921
55	27516	27172	26738
65	26044	25293	24939
75	22355	21618	21227
85	17058	15632	14873

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°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. Lifetime Projection L70 = 254,800 hours and L90 = 80,200 hours. MacAdam 3-Step Ellipses. For all available IES files, please visit our website at pinnacle-ltg.com.

CRI, CCT & Output: Not all lumen packages available. Three lumen packages available. Standard, High (HO) and Very High (VHO). 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 EDGE 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 115°F/46°C. For more driver options, see Pinnacle Resource Guide. Some EDGE 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: 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: Mod options available, consult with factory.

Labels: UL and cUL 1598 listed. 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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