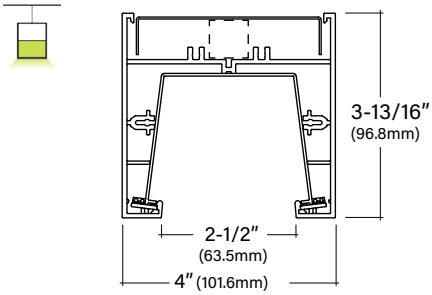
PINNACLE
ARCHITECTURAL LIGHTING®

Project Name _____

Date _____ Type _____





CHUTE CD

4" Open Suspended Linear Direct

Key Features

- 4" wide fixture with a 2 ½" fully luminous aperture
- Small, integral driver option for quick, easy installation
- Light Protection Guard (LPG) covers LEDs for optimal performance
- Four distinct decorative endcaps for tailored designs
- 6063-T6 Extruded aluminum housing
- 5-year limited warranty covers LED, driver and fixture
- ETL listed conforming to UL 1598 in US and CSA 250 in Canada
- Product transparency with third-party verified Living Building Challenge (LBC) Declared

Example Part #: CD-N-830HO-26'-AC48G1-1-EL1-1-0-W-IB

CD	- N	-	-	-	-	-	-	-	-	-	-	-	-
HOUSING	*INDIRECT SHIELDING*	*CRI, CCT & OUTPUT*	*LENGTH*	*MOUNTING*	*VOLTAGE*	*DRIVER*	*CIRCUITING*	*BATTERY & EMERGENCY*	*FINISH*	*ENDCAPS*	*FIXTURE OPTIONS*	*CONTROLS*	

N	_ _ _ _ _ _	_ _ _ _	_ _ _ _ _
INDIRECT SHIELDING	**CRI, CCT & OUTPUT[1]**	**LENGTH OR PATTERN[2]**	**MOUNTING[3]**
N - None	**_27_ _ -** 2700K **_30_ _ -** 3000K **_35_ _ -** 3500K **_40_ _ -** 4000K **CL_ _ _ _ _ _ -** Custom Lumens **CW_ _ _ _ _ _ -** Custom Watts *CRI, CCT & Output pg. 2*	**_ _ -** Individual Fixture **_ _ -** Continuous Row **S _ -** Square **R _ x _ -** Rectangle **L _ x _ -** L Shape **U _ x _ x _ -** U Shape **Y _ x _ x _ -** Y Shape **T _ x _ x _ -** T Shape **X _ x _ x _ x _ -** X Shape *Length or Pattern pg. 2-3*	**AC_ _G_ -** AC to Grid **_AC_ _JB -** (P)AC to J Box **AC_ _ST -** AC to Structure **AC5_ _G_ -** 5" Non-Power Canopy **AC5_ _JB -** 5" Non-Power Canopy **SQ_ _G_ -** 5" Square Canopy **SQ_ _JB -** 5" Square Canopy **S -** Surface Mount *Mounting pg. 3*

_	_ _ _	_	_ _ _
VOLTAGE	**DRIVER**	**CIRCUITING**	**BATTERY & EMERGENCY[4]**
U - Universal *(120 thru 277V, remote)* **1 -** 120V **2 -** 277V **3 -** 347V *(remote)* *Voltage pg. 4*	*Integral Driver* **EL1 -** ERP Power *(1%, 0-10v, 120v or 277v)* *Remote Drivers* **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)* *Driver pg. 4*	**1 -** Single Circuit **M -** Multi Circuit **E -** Emergency *(entire fixture)* **N -** Night Light *(entire fixture)* *Circuiting pg. 4*	**0 -** None **_FSB** - Factory Select Battery **_FSG -** Factory Select ALCR **_GI** - Iota ETS DR **_ILL -** Iota 10W *(remote)* **_PLL -** Bodine 10W *(remote)* **_E -** Emergency Section **_N -** Night Light Section **_L -** Life Safety Section *Battery & Emergency pg. 4-5*

_ _	_ _	_ _	_ _ _
FINISH	**ENDCAPS**	**FIXTURE OPTIONS[5]**	**CONTROLS**
W - White **S -** Metallic Silver **BL -** Textured Black **BR -** Bronze **GR -** Graphite **CC -** Custom Color *Finish pg. 5*	**FE -** Flat Endcap **IB -** Inward Bevel Endcap **OB -** Outward Bevel Endcap **AT** - Angled Twist Endcap **AE -** Arc 180° Endcap *Endcaps pg. 5*	**DSP -** Customer Supplied Battery/Driver/ Sensor **CP -** Chicago Plenum **BA -** Buy America(n) Act and/or Build America Buy America Compliant *Fixture Options 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. [3]Use first _ to specify either standard AC cable or Power over AC (**PAC**), then specify cable length standard AC is **48"**, **120"**, or **240"**; Specify grid: **G1**=15/16", **G9**=9/16" or **GS**=Screw Slot. Example: AC48G1. Power over AC (**PAC**) is available with PL2 driver individual fixtures ONLY and NOT available with AC to Grid or AC to ST. Surface mounting (**S**) requires Remote Driver. [4]All Battery & Emergency options are REMOTE. Enter quantity for Battery and Emergency, Example 2PLL. [5]Compliance is configuration dependent; consult factory for confirmation.

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.

CRI, CCT & Output

- 90 CRI = R9≥50

Custom Output - Lumens OR Wattage

CL _____	Specify CRI, CCT and desired lumens (i.e. CL8401380)	*Max lumens: 1,380. Max lumens dependent on color temp. Consult factory for more information*
CW _____	Specify CRI, CCT and desired wattage (i.e. CW9407)	*Max watts: 10.8. Consult factory for more information*

80 CRI

	Color	Output[1]		
		Lumens/ft	*LPW*	*Watts/ft*
830	3000K	500	115	4.3
830HO	3000K	750	116	6.5
830VHO	3000K	1000	116	8.6
835	3500K	500	123	4.1
835HO	3500K	750	124	6.0
835VHO	3500K	1000	125	8.0
840	4000K	500	128	3.9
840HO	4000K	750	128	5.9
840VHO	4000K	1000	128	7.8

90 CRI *(longer lead times may apply, consult factory)*

927	2700K	500	97	5.2
927HO	2700K	750	97	7.7
927VHO	2700K	1000	100	10.0
930	3000K	500	105	4.8
930HO	3000K	750	105	7.1
930VHO	3000K	1000	106	9.4
935	3500K	500	110	4.6
935HO	3500K	750	110	6.8
935VHO	3500K	1000	111	9.0
940	4000K	500	107	4.7
940HO	4000K	750	107	7.0
940VHO	4000K	1000	108	9.3

[1]LPW and watts/ft based off 48" fixture size.

Length

- For Standard Flat end cap add 5/16" (7.6mm) to each end cap or 5/8" (15.2mm) to the overall length of the row.
- For Inward Bevel end cap add 13/32" (10.1mm) to each end cap or 13/16" (20.2mm) to the overall length of the row.
- For Outward Bevel end cap add 23/32" (18.4mm) to each end cap or 1-7/16" (36.8mm) to the overall length of the row.
- For Angled Twist end cap add 1/2" (12.6mm) to each end cap or 1" (25.2mm) to the overall length of the row.
- See page 4 for endcap details.
- Consult factory for additional lengths.

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 foot*
24" (588mm)							
36" (914.4mm)							
48" (1219.2mm)							
60" (1524mm)							
72" (1828.8mm)							
84" (2133.6mm)							
96" (2438.4mm)							
Specify to the foot							

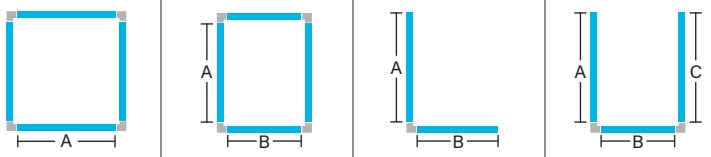
Fixture lengths do not include endcap dimensions. See bullet points listed above for each endcap. Example: 2' fixture (24") + 2 Standard Flat Endcaps (5/8") = 24 5/8" overall.

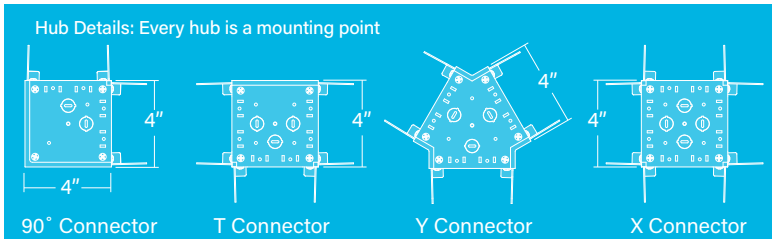
Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.

Pattern

- Patterns are made using non illuminated connector
- Interior of connector will be painted the same color as the exterior. ie. if the pattern consists of black fixtures the inside of the connector will also be black.
- Specify pattern shape and overall dimensions (includes corner dimensions)
- Refer to dimensions table below for available standard lengths
- Angles and shapes not shown require Mod Pattern; consult factory

S_	**R_x_**	**L_x_**	**U_x_x_**	**Y_x_x_**	**T_x_x_**	**X_x_x_x_**	**M**
Square *Provide A dimension* *Example:* **S4'** *Example Length-4'x4'*	Rectangle *Provide AxB dimensions* *Example:* **R4'x4'** *Example Length-4'x4'*	L-Shape *Provide AxB dimensions* *Example:* **L3'x3'** *Example Length-3'x3'*	U-Shape *Provide AxBxC dimensions* *Example:* **U5'x5'x5'** *Example Length-5'x5'x5'*	Y-Shape *Provide AxBxC dimensions* *Example:* **Y5'x5'x5'** *Example Length-5'x5'x5'*	T-Shape *Provide AxBxC dimensions* *Example:* **T5'x5'x5'** *Example Length-5'x5'x5'*	X-Shape *Provide AxBxCxD dimensions* *Example:* **X5'x5'x5'x5'x5'** *Example Length-5'x5'x5'x5'x5'*	Mod Layout *For patterns or lengths not shown or standard*

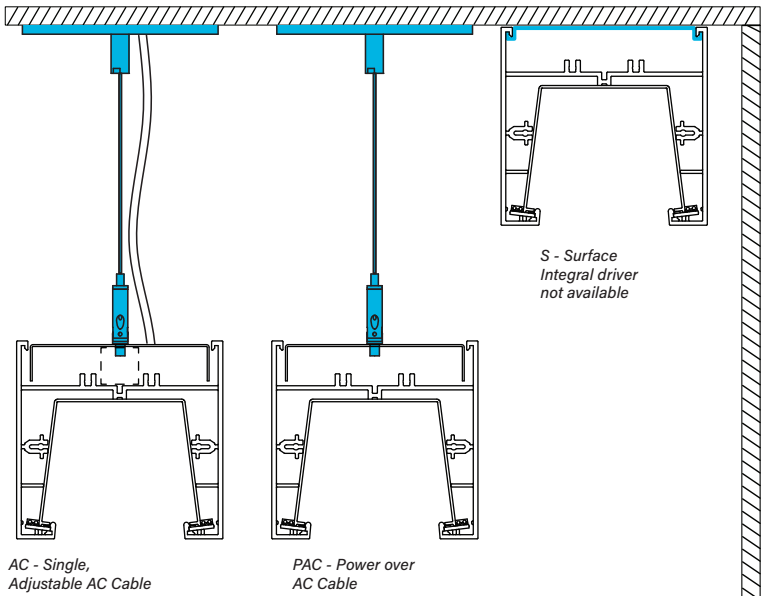




Mounting

- Specify cable length in ordering code (AC48G1)
- Standard specifiable lengths are 48", 120", 240" and 350"
- End plates 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) non-power canopies
- Canopies are painted to match fixture finish, power cords are white or black depending on fixture finish. See Finish section for additional details
- Approved for dry/damp location unless otherwise noted, PAC NOT rated for dry/damp
- Refer to installation instructions during installation at the job site
- Maximum fixture weight is 20 lbs for a standard 4' fixture
- Remote box will be included for all specifications that include batteries, GTD, or a driver OTHER THAN the EL1. See Installation Instructions for more specific information about mounting
- For integral driver version, access for wiring and drivers through the indirect side of the fixture only
- Surface Mount (**S**) requires remote driver.
- Power over AC (**PAC**) is available for PL2 Driver, INDIVIDUAL, PAC to JB FIXTURES ONLY.

AC__G1	Aircraft Cable 1" (15/16") T-Bar
AC__G9	Aircraft Cable 9/16" T-Bar
AC__GS	Aircraft Cable Screw Slot T-Bar
AC__JB	Aircraft Cable Junction Box
AC__ST	Aircraft Cable Structure
PAC__JB	Power over Aircraft Cable Junction Box
S	Surface Mount
AC5__G_	Aircraft Cable 5" (127mm) Non-Power Canopy
AC5__JB	Aircraft Cable 5" (127mm) Non-Power Canopy
SQ__G_	Aircraft Cable 5" (127mm) Square Canopy
SQ__JB	Aircraft Cable 5" (127mm) Square Canopy



Voltage

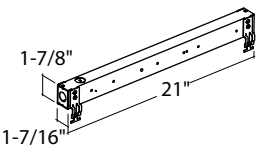
- Some CHUTE configurations will not accommodate all voltage options; consult with factory
- For EL1 driver, must specify 120v or 277v

U	Universal *(remote)*
1	120 volt
2	277 volt
3	347 volt *(remote)*

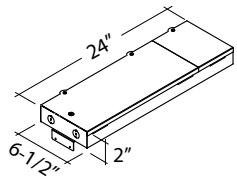
Driver

- Standard Driver Option = EL1
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options, see Pinnacle Resource Guide
- Some CHUTE configurations will not accommodate all driver options; consult with factory
- EL1 driver is integral to the fixture housing. Remote box necessary for all drivers OTHER THAN the EL1
- Osram and Lutron Drivers have a remote distance limitation of 10'
- eldoLED and Advance Drivers have an average remote distance limitation of 50'. Consult Factory for specific configurations

Slim Remote Box



Standard Remote Box



Integral Driver	
EL1	ERP Power 1%, 0-10v, requires 120 or 277

Remote Driver		Slim Remote Box	Standard Remote Box
0-10V Drivers			
FSD	Factory Select Driver 1%, 0-10v	Standard Output (STD), High Output (HO)	Very High Output (VHO), 90CRI Options
PL2	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		
EE1	eldoLED ECOdrive 1%, 0-10v, Logarithmic		
EE2	eldoLED ECOdrive 1%, 0-10v, Linear		
ES1	eldoLED SOLOdrive 0.1%, 0-10v, Logarithmic		
ES2	eldoLED SOLOdrive 0.1%, 0-10v, Linear		
DALI Drivers			
EE3	eldoLED ECOdrive .1%, DALI (logarithmic)	Standard Output (STD), High Output (HO)	Very High Output (VHO), 90CRI Options
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	All Configurations	N/A
Alternate Drivers			
EH1	ELV 120v only, 0-10v universal	All Configurations	N/A

How to specify Circuiting, Battery and Emergency

1

- Select fixture circuiting from options below
- Some CHUTE 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 options are available in addition to fixture circuit
- Select battery and emergency options below; factory shop drawing required
- Some CHUTE configurations will not accommodate all circuiting options, consult with factory

Battery and/or Emergency *If Required*

0	No battery or specific emergency required

Battery

- Battery is REMOTE
- Select battery option if required, indicate total QTY. *Example 2PLL*
- 90 minute battery runtime; test button is remote to fixture
- Battery operates full length of housing up to 8' on individual fixtures or within continuous row
- PLL and ILL not available with VHO and 927HO
- For more battery options available, see *Pinnacle Resource Guide*

0	No Battery
_FSB	Factory Select Battery *(10w option, remote in box)*
_FSBST	Factory Select Battery *(10w, Self Testing, remote in box)*
_ILL	Iota 10w *(Self Testing, remote in box)*
_IRC	Iota 10w *(remote with conduit)*
_PLL	Bodine 10w *(remote in box)*
_PRD	Bodine 10w *(Dual Flex, remote with conduit)*

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

- Emergency Control Device REMOTE in driver box
- Select emergency type if required, indicate total QTY. *Example 1E*
- Emergency available in 4' increments
- Combine battery and emergency ordering codes if both options are selected

_FSG	Factory Select ALCR Emergency Control Device, UNV
_GI	Iota ETS-DR, Emergency Control Device, UNV
_E	Emergency circuit
_N	Night Light circuit
_L	Life Safety circuit section NO THROUGH WIRE

Battery OR Emergency Ordering Examples
- Single circuit, 10w Battery — Ordering Code: 1-1PLL
- Emergency only, 10w Battery — Ordering Code: E-1PLL

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 *(white 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)*

Endcaps

- Endcap MUST be specified.

FE	Flat Endcap
IB	Inward Bevel Endcap
OB	Outward Bevel Endcap
AT	Angled Twist Endcap
AE	Arc 180° Endcap

Flat Endcap *Inward Bevel* *Outward Bevel* *Angled Twist* *Arc 180°*



Fixture Options

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

DSP	Customer Supplied Battery/Driver/Sensor
CP	Chicago Plenum, applies to remote box

- Domestic content option - compliance is configuration dependent; consult factory for conformation

BA	Buy America(n) Act and/or Build America Buy America Compliant

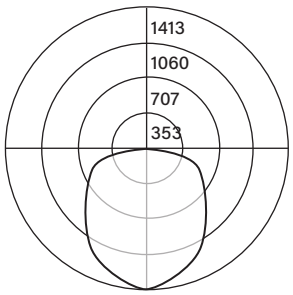
Controls

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

Photometrics

Open

Test #	ITL93-69
Catalog #	CD-N-835VHO
Lumens	4219 lm
Watts	34.5 W
Efficacy	122 LPW



Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1411	1411	1411	1411	1411
5	1410	1394	1397	1393	1386
10	1395	1369	1360	1347	1337
15	1369	1332	1311	1292	1280
20	1335	1285	1256	1228	1215
25	1289	1229	1191	1157	1141
30	1234	1164	1117	1075	1055
35	1169	1093	1037	986	964
40	1095	1014	946	891	869
45	1010	927	850	798	782
50	918	833	751	722	716
55	816	733	661	656	656
60	709	627	585	598	603
65	593	521	517	545	552
70	476	421	456	492	500
75	357	341	397	427	428
80	235	272	322	299	272
85	121	193	111	61	46
90	31	60	40	18	0

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17498	8801	7048
55	17058	7119	5990
65	16247	5991	5270
75	14843	5147	4422
85	11127	1692	536

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 or IAS accredited testing laboratory. Testing conducted at 25°C ambient conditions

Applications & Certificates

Construction: 6063-T6 Extruded aluminum housing. Highly reflective co-extruded acrylic reflector with LED protection guard.

Mounting: Aircraft cable and surface mount available. Straight 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.

LED: 25ºC test environment. Lumen output/wattage has a margin of +/- 5%; 2' 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 = 146,500 hours and L90 = 45,100 hours. MacAdam 3-Step Ellipses. For all available IES files, please visit our website at pinnacle-ltg.com.

CRI, CCT & Output: 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 OL4 in Driver section when 347 volt (3) is selected. Some CHUTE configurations will not accommodate all voltage options; consult with factory.

Driver: Standard INTEGRAL Driver Option is EL1. All other driver options will be in remote box. EL1 designed for use with 120v or 277v only. 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 128°F/54°C. When ND is specified, a spec grade driver will be provided. For more driver options, see Pinnacle Resource Guide. Some CHUTE configurations will not accommodate all driver options.

Remote Mounting Guide (Advance & eldoLED)

Distance limited by max input watts shown, Direct & Indirect should be calculated separately

Max Distance	**142'**	**107'**	**71'**	**50'**	**37'**
4' Housing	*4.9w/ft*	*6.4w/ft*	*9.5w/ft*	*13w/ft*	*N/A*
8' Housing	*N/A*	*3.1w/ft*	*4.8w/ft*	*6.9w/ft*	*9w/ft*

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 CHUTE 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 to match fixture specified fixture finish. Contact factory for additional custom color and finish options.

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

Buy America Act (BAA) and Build America, Buy America Act (BABA) Compliance: BAA and/or BABA compliance options are available to support federally funded projects requiring domestic content. Availability depends on configuration; Compliance is configuration-dependent; consult factory for confirmation.

Labels: UL and cUL 2108 or 1598 listed depending on product configuration. Approved for dry/damp location unless otherwise noted.

Sustainability: All models are Living Building Challenge (LBC) Declared with third-party verification. The Declare Label from ILFI provides transparent insights into materials, sourcing, and environmental impact, promoting informed, sustainable choices that benefit both people and the planet. View the label here.

Fixture Weight: Maximum fixture weight is 20 lbs. for a standard 4' fixture.

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