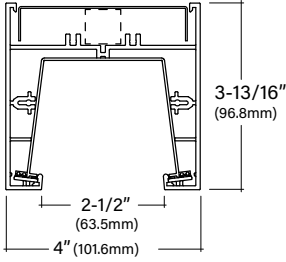


# CHUTE FORMS

## CDF

Y and X Open Suspended Direct Form



### Key Features

- 4" wide fixture with a 2 1/2" fully luminous open aperture
- Small, integral driver option for quick, easy installation
- One-piece housing in 90° 4-leg (X) and 120° 3-leg (Y) forms
- Light Protection Guard (LPG) covers LEDs for optimal performance
- Four distinct decorative endcaps for tailored designs
- 5-year limited warranty
- Buy American Act compliant



Example Part #: CDF-N-850HO-Y3-AC48G1-1-EL1-1-0-W-AT

## CDF - N



INDIRECT SHIELDING		CRI, CCT & OUTPUT <sup>1</sup>		FORM	MOUNTING <sup>2</sup>
<b>N</b> - None  <i>Direct/Indirect version available - see CDIF spec sheet</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 <i>CRI, CCT &amp; Output pg. 2</i>		<b>Y2</b> - Y Shape with 2' legs <b>Y3</b> - Y Shape with 3' legs <b>X2</b> - X Shape with 2' legs <b>X3</b> - X Shape with 3' legs <i>Length or Pattern pg. 2-3</i>	<b>AC__G_</b> - AC to Grid <b>AC__JB</b> - AC to J Box <b>AC__ST</b> - AC to Structure <b>AC5__G_</b> - 5" Non-Power Canopy <b>AC5__JB</b> - 5" Non-Power Canopy <b>SQ__G_</b> - 5" Square Canopy <b>SQ__JB</b> - 5" Square Canopy <i>Mounting pg. 3</i>
VOLTAGE		DRIVER		CIRCUITING	BATTERY & EMERGENCY <sup>3</sup>
<b>U</b> - Universal (120 thru 277V, remote) <b>1</b> - 120V <b>2</b> - 277V <b>3</b> - 347V (remote) <i>Voltage pg. 4</i>		<i>Integral Driver</i> <b>EL1</b> - ERP Power (1%, 0-10v, 120v or 277v) <i>Remote Drivers</i> <b>FSD</b> - Factory Select Driver (1%, 0-10v) <b>PL2</b> - Advance Xitanium (1%, 0-10v) <b>OL2</b> - eldoLED Optotronic (1%, 0-10v) <b>OL4</b> - eldoLED Optotronic 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) <i>Driver pg. 4</i>		<b>1</b> - Single Circuit <b>E</b> - Emergency (entire fixture) <b>N</b> - Night Light (entire fixture) <i>Circuiting pg. 4</i>	<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>_IRC</b> - Iota 10W <b>_PRD</b> - Bodine 10W <i>Battery &amp; Emergency pg. 4-5</i>
FINISH		ENDCAPS		FIXTURE OPTIONS	CONTROLS
<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>		<b>FE</b> - Flat Endcap <b>IB</b> - Inward Bevel Endcap <b>OB</b> - Outward Bevel Endcap <b>AT</b> - Angled Twist Endcap <i>Endcaps pg. 5</i>		<b>CP</b> - Chicago Plenum (remote box) <i>Fixture Options 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>Use \_\_\_ to specify cable length standard AC is **48"**, **120"**, **240"** or **350"**; Specify grid: **G1**=15/16", **G9**=9/16" or **GS**=Screw Slot. Example: AC48G1. <sup>3</sup>All Battery & Emergency options are REMOTE. Choosing EL1 with either option will include the driver(s) in the remote box with battery or emergency. Enter quantity for Battery and Emergency, Example 2P.

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
- 90 CRI not available with VHO

### Custom Output - Lumens OR Wattage

<b>CL</b> _____	Specify CRI, CCT and desired lumens (i.e. CL8401100)	Max lumens dependent on color temp. Consult factory for more information
<b>CW</b> _____	Specify CRI, CCT and desired wattage (i.e. CW9407)	For custom wattage consult factory for more information

### 80 CRI

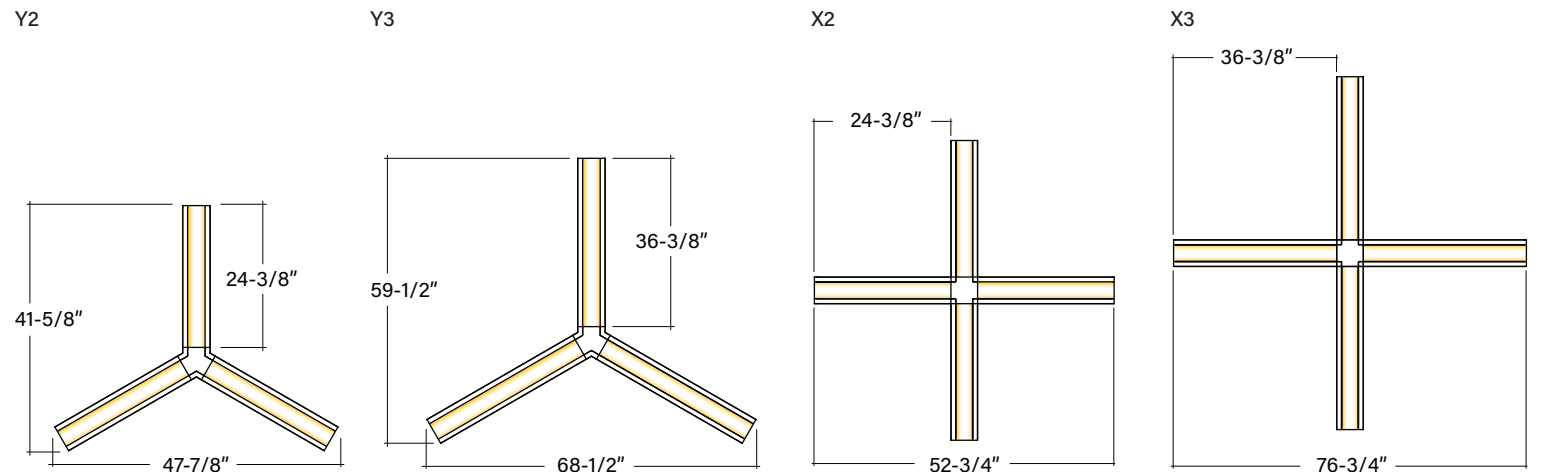
	Color	Lumens per/ft	Output <sup>1</sup>											
			Y2 - Y shape with 2' legs			Y3 - Y shape with 3' legs			X2 - X shape with 2' legs			X3 - X shape with 3' legs		
			Lumens	LPW	Watts	Lumens	LPW	Watts	Lumens	LPW	Watts	Lumens	LPW	Watts
<b>830LO</b>	3000K	250	1500	115	13.0	2250	116	19.4	2000	115	17.3	3000	117	25.6
<b>830</b>	3000K	500	3000	117	25.7	4500	119	37.8	4000	118	33.8	6000	122	49.2
<b>830HO</b>	3000K	750	4500	118	38.1	6750	121	55.8	6000	121	49.6	9000	121	74.4
<b>830VHO</b>	3000K	1000	6000	120	50.1	9000	120	75.1	8000	120	66.8	12000	120	100.2
<b>835LO</b>	3500K	250	1500	122	12.3	2250	123	18.3	2000	122	16.4	3000	123	24.4
<b>835</b>	3500K	500	3000	124	24.1	4500	127	35.3	4000	125	31.9	6000	130	46.0
<b>835HO</b>	3500K	750	4500	127	35.4	6750	130	51.9	6000	130	46.1	9000	130	69.1
<b>835VHO</b>	3500K	1000	6000	130	46.3	9000	130	69.4	8000	130	61.7	12000	130	92.6
<b>840LO</b>	4000K	250	1500	127	11.9	2250	127	17.7	2000	127	15.7	3000	128	23.4
<b>840</b>	4000K	500	3000	129	23.3	4500	131	34.4	4000	130	30.8	6000	135	44.5
<b>840HO</b>	4000K	750	4500	130	34.5	6750	134	50.3	6000	134	44.7	9000	134	67.0
<b>840VHO</b>	4000K	1000	6000	133	45.0	9000	133	67.5	8000	133	60.0	12000	133	90.1

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

<b>927LO</b>	2700K	250	1500	96	15.7	2250	96	23.3	2000	96	20.8	3000	97	30.8
<b>927</b>	2700K	500	3000	98	30.7	4500	102	44.3	4000	102	39.4	6000	102	59.1
<b>927HO</b>	2700K	750	4500	101	44.7	6750	101	67.0	6000	101	59.6	9000	101	89.4
<b>930LO</b>	3000K	250	1500	104	14.5	2250	105	21.5	2000	105	19.1	3000	105	28.5
<b>930</b>	3000K	500	3000	106	28.4	4500	110	40.8	4000	108	37.1	6000	110	54.4
<b>930HO</b>	3000K	750	4500	109	41.1	6750	109	61.7	6000	109	54.8	9000	109	82.2
<b>935LO</b>	3500K	250	1500	109	13.8	2250	110	20.5	2000	110	18.2	3000	110	27.2
<b>935</b>	3500K	500	3000	111	27.1	4500	115	39.0	4000	113	35.5	6000	115	52.0
<b>935HO</b>	3500K	750	4500	114	39.3	6750	114	59.0	6000	114	52.4	9000	114	78.6
<b>940LO</b>	4000K	250	1500	105	14.2	2250	107	21.1	2000	107	18.8	3000	107	28.0
<b>940</b>	4000K	500	3000	107	27.9	4500	112	40.2	4000	109	36.6	6000	112	53.6
<b>940HO</b>	4000K	750	4500	111	40.5	6750	111	60.7	6000	111	54.0	9000	111	81.0

<sup>1</sup>Lumens and watts based off 48" fixture size.

## Form



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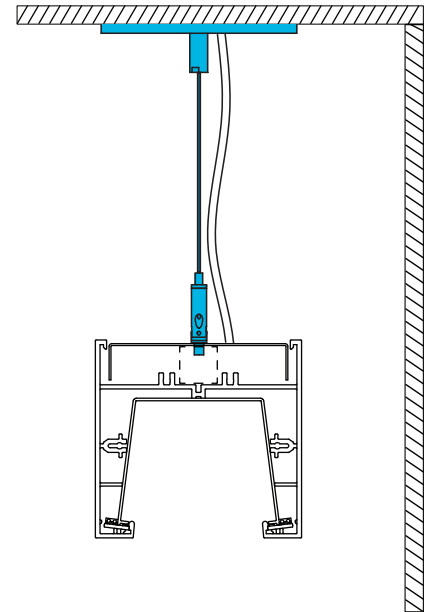
CDF\_LED\_SPEC\_AUGUST2024



## 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 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
- Refer to installation instructions during installation at the job site
- Maximum fixture weight is 6 lbs/ft
- For integral driver version, access for wiring and drivers through the indirect side of the fixture only

<b>AC__G1</b>	Aircraft Cable 1" (15/16") T-Bar
<b>AC__G9</b>	Aircraft Cable 9/16" T-Bar
<b>AC__GS</b>	Aircraft Cable Screw Slot T-Bar
<b>AC__JB</b>	Aircraft Cable Junction Box
<b>AC__ST</b>	Aircraft Cable Structure
<b>AC5_G_</b>	Aircraft Cable 5" (127mm) Non-Power Canopy
<b>AC5_JB</b>	Aircraft Cable 5" (127mm) Non-Power Canopy
<b>SQ__G_</b>	Aircraft Cable 5" (127mm) Square Canopy
<b>SQ__JB</b>	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

<b>U</b>	Universal <i>(remote)</i>
<b>1</b>	120 volt
<b>2</b>	277 volt
<b>3</b>	347 volt <i>(remote)</i>



## Driver

- 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 Optotronic, eldoLED spec and Advance Drivers have an average remote distance limitation of 50'. Consult Factory for specific configurations
- REMOTE BOX(ES) CONFIGURATIONS DEPENDANT ON LUMEN PACKAGE AND FORM SIZE. Contact factory for more information.

### Integral Driver

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

### Remote Driver

#### 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>	eldoLED Optotronic, 1%, 0-10v
<b>OL4</b>	eldoLED 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 0.1%, 0-10v, Logarithmic
<b>ES2</b>	eldoLED SOLOdrive 0.1%, 0-10v, Linear

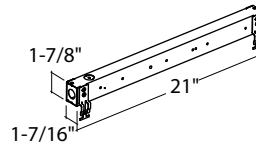
#### DALI Drivers

<b>EE3</b>	eldoLED ECOdrive 1%, DALI 2 Logarithmic, DT6
<b>ES3</b>	eldoLED SOLOdrive 0.1%, DALI 2 Logarithmic, DT6
<b>OD1</b>	eldoLED Optotronic 1%, DEXAL, DALI 2, DT6

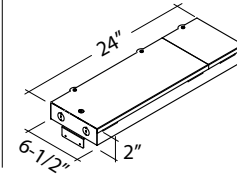
#### Lutron Drivers

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

Slim Remote Box



Standard Remote Box



## How to specify Circuiting, Battery and Emergency

- Select fixture circuiting from options below
  - Some CHUTE configurations will not accommodate all circuiting options, consult with factory
  - Section wiring not available within an individual Form. Emergency circuit and Nightlight circuit options are for designation purposes only.

### Circuiting

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

- 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 section required



## Battery

- Battery is REMOTE.
- Battery operates between 1-4 fixture legs depending on fixture shape and size.
- For approx. battery lumen output, multiply battery wattage and fixture LPW shown on lumen table.
- 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.
- For EL1 driver configurations with emergency battery option, driver and battery will be remote.
- For more battery options available, see [Pinnacle Resource Guide](#).

<b>0</b>	No Battery
<b>_FSB</b>	Factory Select Battery 10W <i>(remote in box)</i>
<b>_FSBST</b>	Factory Select Battery 10w, Self Testing <i>(remote in box)</i>
<b>_IRC</b>	Iota 10w Dual conduit flex <i>(remote with conduit)</i>
<b>_PRD</b>	Bodine 10w Dual conduit flex <i>(remote with conduit)</i>

### For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 120 (LPW) x 10 (watts) = 1200 battery lumen output

## Emergency

- Emergency is REMOTE
- For EL1 driver configurations with emergency option, driver and emergency will be remote.
- Select emergency type if required, indicate total QTY. *Example 1E*
- Combine battery and emergency ordering codes if both options are selected.

<b>_FSG</b>	Factory Select ALCR, Emergency Control Device, UNV
<b>_GI</b>	Iota ETS-DR, Emergency Control Device, UNV
<b>_GB</b>	Bodine GTC, Emergency Control Device, 120v or 277v

### Battery OR Emergency Ordering Examples

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

## Finish

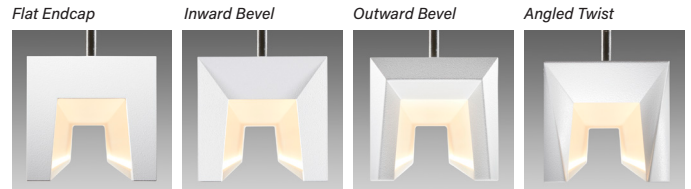
- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes.
- Center hub will be painted to specified finish, inside and outside.
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information.

<b>W</b>	White <i>(white cord/white canopy)</i>
<b>S</b>	Metallic Silver <i>(white 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>

## Endcaps

- Endcap MUST be specified.

<b>FE</b>	Flat Endcap
<b>IB</b>	Inward Bevel Endcap
<b>OB</b>	Outward Bevel Endcap
<b>AT</b>	Angled Twist Endcap



## Fixture Options

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

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

## Controls

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

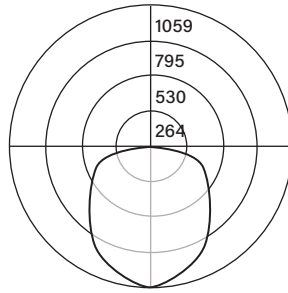
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## Photometrics

### Open

Test #	Scaled from ITL93-69
Catalog #	CD-N-835VHO-4
Lumens	3164 lm
Watts	25.8 W
Efficacy	122 LPW



NOTE: For accurate light calculations of Chute Forms using lighting design software, Pinnacle recommends assembling an arrangement from individual 2-foot or 3-foot Leg Chute Form IES files. Refer to the Chute Forms IES Instructions for more details.

## Applications & Certificates

**Construction:** 6063-T6 Extruded aluminum housing with machined aluminum central hub. Highly reflective coextruded acrylic reflector with LED protection guard.

**Mounting:** Aircraft cable mounting. Aircraft Cable supplied with 5" (127mm) power and 2" (50.8mm) non-power canopies. Refer to installation instructions for appropriate ceiling detail. Maximum fixture weight is 6 lbs/ft.

**LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. Luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. TM-21-21 Lifetime Rating L70 = >72,000 hours, L90 = 66,900 hours. MacAdam 3-Step Ellipses. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**CRI, CCT & Output:** Not all lumen packages available. Four lumen packages available. Low (LO), Standard (blank), 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 CHUTE configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is 0-10V, 1%. 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/37°C. For more driver options, see Pinnacle Resource Guide. Some CHUTE configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), dual circuit (2), Emergency circuit (E) or Night Light circuit (N). Some CHUTE configurations will not accommodate all circuiting options; consult with factory.

### Remote Mounting Guide (Advance & eldoLED)

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

Max Distance	50'	50'+
<b>Y2/Y3/X2/X3</b>	All configurations	Contact factory if more than 50' needed

**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:** Mod options available, consult with factory.

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

**Fixture Weight:** Maximum fixture weight is 6 lbs/ft.

### Buy American Act Compliant

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