

CHUTE CDI

4" Open Suspended Linear
Direct/Indirect

Key Features

- 4" wide fixture with a 2 1/2" fully luminous aperture
- Small, integral driver option for quick, easy installation
- Light Protection Guard (LPG) covers LEDs for optimal performance
- 4 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
- Buy American Act compliant



Example Part #: CDI-BW-830HO-830-26'-AC48G1-1-EL1-1-0-W-AT

CDI - **BW** - **INDIRECT SHIELDING** - **DIRECT OUTPUT** - **INDIRECT OUTPUT** - **LENGTH** - **MOUNTING** - **VOLTAGE** - **DRIVER** - **CIRCUITING** - **BATTERY & EMERGENCY** - **FINISH** - **ENDCAPS** - **CONTROLS**

INDIRECT SHIELDING	DIRECT CRI, CCT & OUTPUT ¹	INDIRECT CRI, CCT & OUTPUT ¹	LENGTH OR PATTERN ²	
BW - Batwing	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K CL - Custom Lumens CW - Custom Watts <i>Direct CRI, CCT & Output pg. 2</i>	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K CL - Custom Lumens CW - Custom Watts <i>Direct CRI, CCT & Output pg. 2</i>	--- - 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 <i>Length or pattern pg. 3</i>	
MOUNTING ³	VOLTAGE	DRIVER	CIRCUITING	
AC_G - AC to Grid AC_JB - 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 <i>Mounting pg. 4</i>	U - Universal (120 thru 277V, remote) 1 - 120V 2 - 277V 3 - 347V (remote) <i>Voltage pg. 4</i>	<i>Integral Driver</i> EL1 - ERP Power (1%, 0-10v, 120v or 277v) <i>Remote Drivers</i> 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) <i>Driver pg. 5</i>	1 - Single Circuit 2 - Dual Circuit M - Multi Circuit E - Emergency (entire fixture) N - Night Light (entire fixture) <i>Circuiting pg. 5</i>	
BATTERY & EMERGENCY ⁴	FINISH	ENDCAPS	FIXTURE OPTIONS	CONTROLS
0 - None FSB - Factory Select Battery FSG - Factory Select ALCR GI - Iota ETS DR GB - Bodine GTD IRC - Iota 10W (remote) PRD - Bodine 10W (remote) E - Emergency Section N - Night Light Section L - Life Safety Section <i>Battery & Emergency pg. 5</i>	W - White S - Metallic Silver BL - Textured Black BR - Bronze GR - Graphite CC - Custom Color <i>Finish pg. 6</i>	FE - Flat Endcap IB - Inward Bevel Endcap OB - Outward Bevel Endcap AT - Angled Twist Endcap <i>Endcaps pg. 6</i>	DSP - Customer Supplied Battery/Driver/Sensor CP - Chicago Plenum <i>Fixture Options pg. 6</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. ³Specify cable length standard AC is **48", 120", or 240"**; Specify grid: **G1=15/16", G9=9/16"** or **GS=Screw Slot**. Example: AC48G1 4AL Battery & Emergency options are REMOTE. Enter quantity for Battery and Emergency, Example 2P.

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CRI, CCT & Output

- 90 CRI = R9≥50

Custom Output - Lumens OR Wattage

CL _____	Specify CRI, CCT and desired lumens (i.e. CL8401380)	Max lumens: Direct - 1,380 Indirect - 1,720 Max lumens dependent on color temp. Consult factory for more information
CW _____	Specify CRI, CCT and desired wattage (i.e. CW9407)	Max watts: Direct - 10.8 Indirect - 11.2. Consult factory for more information

Direct 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

Direct 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

Indirect 80 CRI

	Color	Lumens per foot	Shielding ¹	
			BW Batwing LPW	Watts/ft
830	3000K	500	143	3.5
830HO	3000K	750	144	5.2
830VHO	3000K	1000	144	6.9
835	3500K	500	153	3.3
835HO	3500K	750	155	4.8
835VHO	3500K	1000	155	6.4
840	4000K	500	159	3.2
840HO	4000K	750	160	4.7
840VHO	4000K	1000	159	6.3

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

927	2700K	500	120	4.2
927HO	2700K	750	120	6.2
927VHO	N/A			
930	3000K	500	130	3.8
930HO	3000K	750	131	5.7
930VHO	3000K	1000	131	7.6
935	3500K	500	136	3.7
935HO	3500K	750	137	5.5
935VHO	3500K	1000	137	7.3
940	4000K	500	132	3.8
940HO	4000K	750	133	5.7
940VHO	4000K	1000	133	7.5

¹LPW and watts/ft based off 48" fixture size, see IES files for specific fixture length.

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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 5 for endcap details
- Consult Factory for additional length options

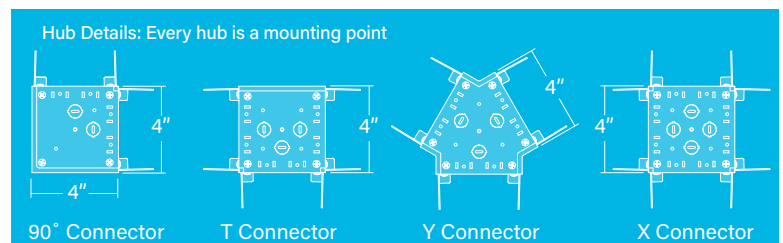
2	3	4	5	6	7	8	-
Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Cont. Run Specify nominal overall row length to the foot
24" (588mm)							
	36" (914.4mm)						
		48" (1219.2mm)					
			60" (1524mm)				
				72" (1828.8mm)			
					84" (2133.6mm)		
						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.

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 Ax B dimensions Example: R4'x4' Example Length- 4'x4'	L-Shape Provide Ax B dimensions Example: L3'x3' Example Length- 3'x3'	U-Shape Provide Ax BxC dimensions Example: U5'x5'x5' Example Length- 5'x5'x5'	Y-Shape Provide Ax BxC dimensions Example: Y5'x5'x5' Example Length- 5'x5'x5'	T-Shape Provide Ax BxC dimensions Example: T5'x5'x5' Example Length- 5'x5'x5'	X-Shape Provide Ax BxCxD dimensions Example: X5'x5'x5'x5' Example Length- 5'x5'x5'x5'	Mod Layout For patterns or lengths not shown or standard

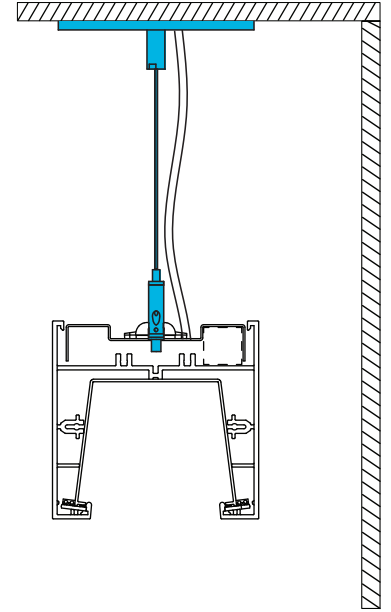




Mounting

- 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, 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 25 lbs for a standard 4' fixture
- AC__GS works with screw slot and bolt slot grid ceiling types
- 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

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
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

Integral Driver

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

Remote Driver

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
ES1	eldoLED SOLOdrive 0-10v, 0.1% Logarithmic

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

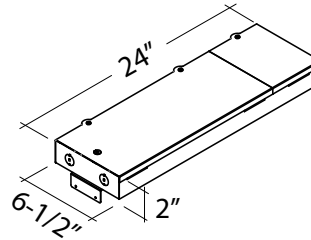
Lutron Drivers

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

EH1	ELV 120v only, 0-10v universal
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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

Circuiting

1	Single Circuit
2	Dual Circuit
M	Multi Circuit
E	Emergency Circuit only
N	Night Light Circuit only

- Battery and emergency section options are available in addition to fixture circuit
 - Select battery and emergency section 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
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Battery

- Battery is REMOTE
- 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
- Entire fixture housing is on battery for 2' and 4' lengths
- 4' of fixture is on battery for 6' or 8' housing lengths
- PLL and ILL not available with VHO and 90 CRI
- 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	lota 10w Integral (Self Testing, remote in box)
_IRC	lota 10W (remote with conduit)
_IRH	lota 20W (remote with conduit)
_PRL	Bodine 7W (remote with conduit)
_PRS	Bodine 7W (Self Testing, remote with conduit)
_PRH	Bodine 20W (remote with conduit)
_PLL	Bodine 10w Integral (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

- GTD is REMOTE
- 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 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
_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
- Single circuit, GTD required Ordering Code: 1-1G

Combination Section Ordering Examples

- Single circuit, (1) 10w battery, (1) emergency Ordering Code: 1-1PLL1E
- Multi circuit, (2) 10w battery, (2) emergency Ordering Code: M-2PLL2E
- Single circuit, (1) night light Ordering Code: 1-1N

Finish

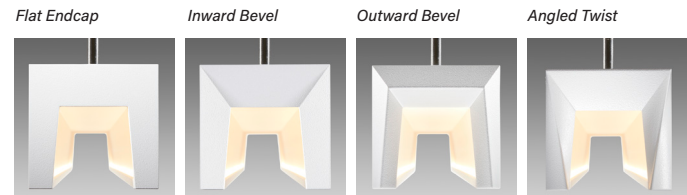
- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

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)

Fixture Options

- Endcap MUST be specified.

FE	Flat Endcap
IB	Inward Bevel Endcap
OB	Outward Bevel Endcap
AT	Angled Twist Endcap



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

Controls

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

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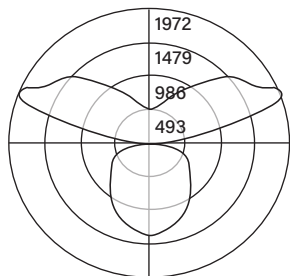
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Photometrics

Open - Batwing

Test # ITL93069 & 94661
 Catalog # CDI-BW-835VHO-835VHO-4
 Lumens 8894 lm
 Watts 64.3 W
 Efficacy 138.3 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
15	1369	1332	1311	1292	1280
25	1289	1229	1191	1157	1141
35	1169	1093	1037	986	964
45	1010	927	850	798	782
55	818	735	662	656	656
65	597	524	519	545	552
75	362	346	401	428	428
85	126	200	116	62	46
90	39	116	139	111	100
95	101	229	303	262	232
105	264	416	623	682	641
115	440	573	809	1052	1100
125	579	720	969	1216	1294
135	681	824	1105	1333	1409
145	779	880	1129	1351	1435
155	867	915	1068	1194	1250
165	932	950	1008	1060	1081
175	964	967	973	978	982
180	967	967	967	967	967

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17498	8801	7048
55	17100	7130	5990
65	16357	6014	5270
75	15051	5199	4422
85	11586	1768	536

Applications & Certificates

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

Mounting: Aircraft cable mounting. 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. Maximum fixture weight is 25 lbs. for a standard 4' fixture.

LED: 25°C 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 = 45,000 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: 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.

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 25 lbs. for a standard 4' fixture.

Buy American Act Compliant

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

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