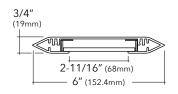
Date _____ Type ____







CUBRA CU3D 3" Direct Suspended Linear

Key Features

CU3D -

0 - None

_GI - lota ETS DR

GB - Bodine GTD

PLL - Bodine 10W

E - Emergency Section

N - Night Light Section

Battery & Emergency pg. 4-5

_**ILL -** lota 10W

FSG - Factory Select ALCR

FSB - Factory Select Battery

Ultra-Slim ¾" profile

DIRECT

PANEL

- 6", extruded aluminum housing with 3" aperture
- Direct illuminated luminaire utilizes light guide plate (LGP) for high optical efficiency
- Batwing and Lambertian optics deliver quality light while maintaining visual continuity
- Up to 1000 lumens per ft and up to 128 LPW
- Up to 18 ft on center spacing with batwing optic and 14 ft with lambertian

CRI, CCT &

OUTPUT

LENGTH

W - White

BR - Bronze

Finish pg. 5

GR - Graphite

S - Metallic Silver

BL - Textured Black

CC - Custom Color

MOUNTING

VOLTAGE

REMOTE

DRIVER

CIRCUITING

BATTERY &

EMERGENCY

- Design patterns with non-illuminated connectors
- Select from flat or rounded endcap designs

- N

INDIRECT

PANEL







CONTROLS



Example Part #: CU3D-A-N-835HO-6'-CAC48G1-U-FSD-1-0-W-ET

FIXTURE

OPTIONS

	N		
DIRECT SHIELDING	INDIRECT SHIELDING	CRI, CCT & OUTPUT ¹	LENGTH OR PATTERN ²
A - Lambertian BW - Batwing Direct Shielding pg. 2	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 SS Square, Square connector SR Square, Round connector RS_ x Rectangle, Square connector RR_ x Rectangle, Round connector US_ x U Shape, Square connector UR_ x U Shape, Round connector LS_ x L Shape, Square connector LR_ x L Shape, Round connector MOD - MOD options available Length of Pattern pg. 2-3
MOUNTING ³	VOLTAGE	REMOTE DRIVER	CIRCUITING
CAC GX - Conductive AC to Grid			
CAC_JB - Conductive AC to Grid CAC_JB - Conductive AC to J Box PAC_GX - Power over AC to Grid PAC_JB - Power over AC to J Box S - Surface Mount WA - Wall Mount Mounting pg. 3	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) PL4 - Advance Xitanium 347v (1%, 0-10v) EE1 - eldoLED ECOdrive (1%, 0-10v) ES1 - eldoLED SOLOdrive (0%, 0-10v) LH1 - Lutron Hi-lume (1%, EcoSystem) EH1 - ERP Power (1%, 0-10v) Driver pg. 4	1 - Single Circuit E - Emergency (entire fixture) N - Night Light (entire fixture) Circuiting pg. 4
CACJB - Conductive AC to J Box PACGX - Power over AC to Grid PACJB - Power over AC to J Box S - Surface Mount WA - Wall Mount	(120 thru 277V) 1 - 120V 2 - 277V 3 - 347V	PL2 - Advance Xitanium (1%, 0-10v) OL2 - eldoLED Optotronic (1%, 0-10v) PL4 - Advance Xitanium 347v (1%, 0-10v) EE1 - eldoLED ECOdrive (1%, 0-10v) ES1 - eldoLED SOLOdrive (0%, 0-10v) LH1 - Lutron Hi-lume (1%, EcoSystem) EH1 - ERP Power (1%, 0-10v)	E - Emergency (entire fixture) N - Night Light (entire fixture)

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. ²Individual fixtures come in 1', 2', 3', 4', 5', 6', 7' & 8' lengths. Continuous rows available in 1' increments. Connectors for patterns can either be closed (C) or open (O), closed is the standard if you would like the connector to be open specify by adding an O to the ordering code. example: if you want a square pattern with open rounded connectors - SRO_ ³Specify AC Cable length, standard AC is 48" or 120". ⁴All Battery options are REMOTE ONLY. Enter quantity for Battery and Emergency, Example 2PLL. ⁵Use ECC_ to specify endcap finish other then fixture finish. Fill in the "__" with a code from the FINISH section. ⁶Compliance is configuration dependent; consult factory for confirmation.

ET - Tapered Endcap

ES - Slotted Endcap

ECC__- Endcap color

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

America Buy America Compliant

EF - Flat Endcap

EI - Inset Endcap

Fixture Options pa. 5

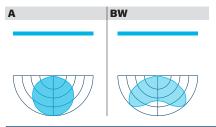
Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.

Pinnacle is able to accommodate different control

solutions from different manufacturers. Consult

Factory for more information.

Shielding



CRI, CCT & 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 v	Vattage

CL _____ Specify CRI, CCT and desired lumens (i.e. CL835500)

Max Lumens: A = 2,000 and BW = 1,760. Max lumens dependent on color temp. Consult factory for more information

CW _____ Specify CRI, CCT and desired wattage (i.e. CW9407)

Max Watts: 16.1 watts/ft. Consult factory for more information.

80 CRI

90 CRI

	Color	Lumens	Shielding ¹			
		per foot	A		BW	
			Lambert	ian	Batwing	
			LPW	Watts/ft	LPW	Watts/ft
830LO	3000K	500	115	4.3	102	4.9
830MO	3000K	750	115	6.5	101	7.5
830HO	3000K	1000	114	8.8	100	10.0
835LO	3500K	500	122	4.1	108	4.6
835MO	3500K	750	123	6.1	107	7.0
835HO	3500K	1000	121	8.3	106	9.4
840LO	4000K	500	127	3.9	112	4.5
840MO	4000K	750	128	5.9	111	6.7
840HO	4000K	1000	126	7.9	110	9.1

927LO	2700K	500	96	5.2	84	5.9
927MO	2700K	750	95	7.9	83	9.0
927HO	2700K	1000	94	10.6	83	12.1
930LO	3000K	500	105	4.8	92	5.4
930MO	3000K	750	104	7.2	91	8.2
930HO	3000K	1000	103	9.7	91	11.0
935LO	3500K	500	110	4.6	96	5.2
935MO	3500K	750	109	6.9	95	7.9
935HO	3500K	1000	108	9.3	94	10.6
940LO	4000K	500	106	4.7	93	5.4
940MO	4000K	750	105	7.1	92	8.2

104

9.6

92

10.9

¹LPW and watts/ft based off 47" fixture size.

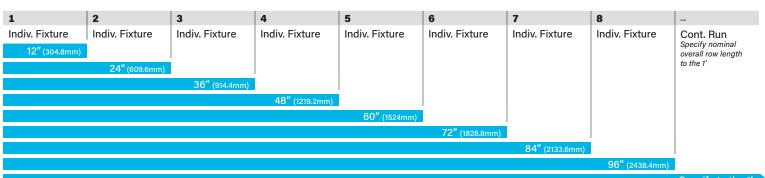
Length

940HO

All individual units are not intended to be joined.

4000K 1000

Flat endcap adds 3/8" per end, all other add 1-1/4" per end.



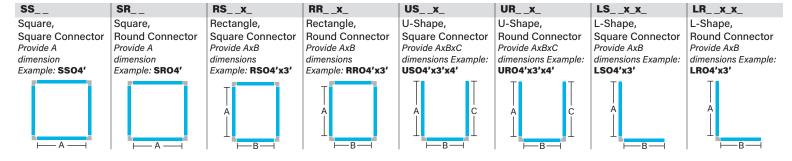
CUBRA CU3D 3" Direct Suspended Linear

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Patterns

- Specify open (O) or closed (C) connector when ordering.
 Example: SRO4 4' Square Rounded Open connector
- Specify pattern shape and requested fixture length
- Patterns configurations available on Suspended mount only
- Length specified will not reflect overall pattern dimensions
- All connectors are NON ILLUMINATED

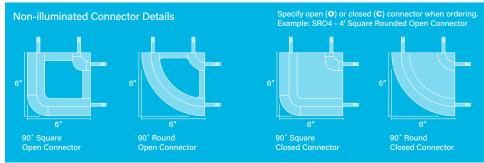
- Minimum length for any single part of a pattern is 1'
- All lengths are TO THE FOOT ONLY
- Driver/Battery Count dictated by product configuration
- Example part number: CU3D-A-835HO-RSO3x4-CAC48JB-U-FSD-1-0-W



Patterns: MOD Options

- Specify MOD in the part number for any of the below options
- MOD specifications are subject to longer lead-times. Consult factory for more information

X	X Connector
Υ	Y Connector
Т	T Connector
120	120° Connector
135	135° Connector



Mounting

- Specify cable length in ordering code example: PAC48JB
- Standard specifiable lengths are 48", 120", 240" and 350"
- Canopies are painted to match fixture finish, power cords are white or black depending on fixture finish. See Finish section for additional details
- PAC not rated for damp location

CAC _ G_	Conductive AC to Grid (specify grid type: G1, G9, GS)
CACJB	Conductive AC to Junction Box
PACJB	Power over Aircraft Cable Junction Box
PACST	Power over Aircraft Cable Structure
S	Surface Mount
WA	Wall Mount

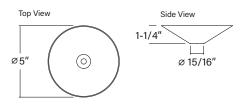
CAC Canopy Details

 CAC is an integrated power and suspension cable that is smaller in diameter than a traditional SJT cable. CAC is 2 conductive cables and suspension, standard power cable (SJT) is 5 conductive cables and no suspension.

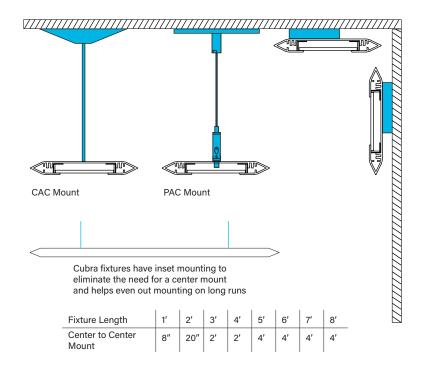


CAC = 3/16" SJT = 3/8"

 A larger power side canopy allows for adjustability of the CAC cable inside of the canopy.



- Refer to installation instructions during installation at the job site
- Maximum fixture weight is 12 lbs for a standard 4' fixture
- Remote box will be included for all specifications
- Output limitations exist with Power over AC (PAC). Consult factory.





Voltage

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

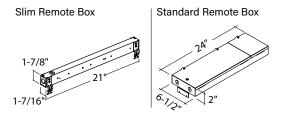
U	Universal
1	120 volt
2	277 volt
3	347 volt

Remote Driver

- Driver/Battery Count dictated by product configuration
- Standard Driver Option = FSD
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options, see Pinnacle Resource Guide
- Some CUBRA configurations will not accommodate all driver options; consult with factory

0-10V Drive	rs
FSD	Factory Select Driver 1%, 0-10v
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 option
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 2, Logarithmic, DT6
ES3	eldoLED SOLOdrive 0.1%, DALI 2, Logarithmic, DT6
OD1	eldoLED Optotronic 1%, DEXAL, DALI 2, DT6
Lutron Drive	ers
LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1

- Configurations with no PLL, ILL or Emergency Control Device options will use Slim Remote Box
- · All others will use Standard Remote Box



How to specify Circuiting, Battery and Emergency



- Select fixture circuiting from options below
- Some CUBRA configurations will not accommodate all circuiting options, consult with factory

Circuiting

1	Single Circuit
E	Emergency Circuit only
N	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 CUBRA configurations will not accommodate all circuiting options, consult with factory

Battery and/or Emergency If Required

No battery or specific emergency section 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

0	No battery
_ FSB	Factory Select Battery (10w option, remote in box)
_ FSBST	Factory Select Battery (Self Testing, remote in box)
_ILL	lota 10w (low profile, remote in box)
_IRC	lota 10w (remote with conduit)
_ PLL	Philips Bodine (low profile, remote in box)
PRC	Philips Bodine 10w (remote with conduit)

- Battery operates full length of housing up to 8' on individual fixtures or within continuous row
- For more battery options available, see <u>Pinnacle Resource Guide</u>

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 is REMOTE in driver box
- Select emergency type if required, indicate total QTY. Example 1E
- Combine battery and emergency ordering codes if both options are selected
- For use when specifying sections in continuous runs

_FSG	Factory Select ALCR Emergency Control Device, UNV
_GI	Iota ETS-DR, Emergency Control Device, UNV
_GB	Bodine GTD, Emergency Control Device, 120v or 277v
_E	Emergency circuit
_N	Night Light circuit

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

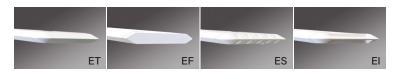
- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

W	White
S	Metallic Silver
BL	Textured Black
GR	Graphite
BR	Bronze
CC	Custom Color

Fixture Options

Additional options to enhance the fixture and finish of the product

ET	Tapered Endcap
EF	Flat Endcap
ES	Slotted Endcap
EI	Inset Endcap
ECC	Endcap Color



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

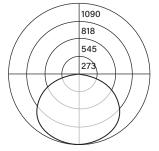
Buy America(n) Act and/or Build America Buy America Compliant

Photometrics

Lambertian

Test # Catalog # Lumens Watts Efficacy

L012210105 CU3D-A-840-4 4342 lm 34.5 W 126 LPW



Candela Distribution

Vert Angle	Horizontal Angle					
	0	22.5	45	67.5	90	
0	1067	1067	1067	1067	1067	
5	1068	1067	1067	1066	1066	
10	1070	1070	1066	1064	1062	
15	1075	1072	1065	1058	1055	
20	1080	1075	1062	1049	1043	
25	1085	1077	1056	1036	1027	
30	1086	1075	1046	1018	1005	
35	1083	1068	1030	993	976	
40	1071	1052	1006	960	940	
45	1048	1026	971	918	895	
50	1009	985	924	864	839	
55	953	927	863	799	771	
60	876	850	784	719	690	
65	777	753	687	623	594	
70	657	634	573	512	482	
75	519	499	443	389	359	
80	363	352	309	268	244	
85	210	202	178	145	114	
90	0	0	0	0	0	

Luminance Data (cd/sq.m)

Angle In	Average	Average	Average
Degrees	0-Deg	45-Deg	90-Deg
45	17324	16051	14795
55	19421	17587	15712
65	21491	19001	16429
75	23439	20007	16213
85	28164	23873	15289

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

Approvals & Certifications

Construction: 6063-T6 Extruded aluminum housing. Diecast aluminum endcaps.

Shielding: Direct distribution utilizes light guide plate technology (LGP). Single or dual side light is transmitted through the clear, acrylic engraved structure and controlled by highly reflective reflector material to achieve high optical efficiency. Specify between Lambertian (A) or Batwing (BW) optical distributions.

Mounting: Conductive Aircraft Cable (CAC), Power over AC (PAC), wall (WA) and surface (S) mount available. Power mount sup¬plied with conductive aircraft cable and round canopy 5" diameter that narrows to 15/16" and 1-1/4" tall. Non-power supplied with aircraft cable and 2" (50.8mm) canopy. Each fixture consists of two mounting points inset from the ends. 2', 3' and 4' are spaced 2ft apart and 5', 6', 7' and 8' are 4ft apart. Canopies are painted white unless otherwise specified.

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 accor-dance 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. Calculated L70 = 238,000 hours and calculated L90 = 71,200 hours. MacAdam 3-Step Ellipses. For all available IES files, please visit our website at pinnacle-ltg.com.

CRI, CCT & Lumen Output: Three lumen packages available. Low (LO), Medium (MO) 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 PL4 or OL4 in Driver section when 347 volt (3) is selected. Some CUBRA configurations will not accommodate all voltage options; consult with factory.

Remote Driver: Standard Driver option is Factory Select Driver (FSD). FSD driver specification = 0-10V, 1% dimming. Electron-ic 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 110°F/43°C. For more driver options, see Pinnacle Resource Guide. Some CUBRA configurations will not accommodate all driver options.

Remote Mounting Guide

Distance limited by max input watts shown.

Max Distance	56' (.53A)	42' (.7A)	28' (1.05A)	20' (1.5A)	12' (2A)
4' Housing	4.8w/ft	6.4w/ft	9.5w/ft	13.4w/ft	16.3w/ft
8' Housing	2.4w/ft	3.1w/ft	4.7w/ft	6.6w/ft	8.9w/ft

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

Remote 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 are painted to match the fixture finish (i.e. bronze fixture, bronze canopy). 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 Listed. Low, Medium and High Output lumen packages are approved for dry/ damp location unless otherwise noted.

Fixture Weight: Maximum fixture weight is 12 lbs (per 4' fixture).

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

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.

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