### **Downlighting**

### LIGHTOLIER

Calculite 2"



Calculite LED 3" Cylinders feature industry leading visual comfort, excellent uniform illumination over time, and installation flexibility. Downlight, Wall Wash, Adjustable Accent and Direct/Indirect configurations provide flexibility to accentuate ambiance for office, retail, and hospitality applications.

### Ordering check list (x=needed for complete luminaire configuration)

| Catalog Prefix | Mounting      | Style             | Fixture+ | Reflector+   | Optics+ | Stem Kit Accessories |
|----------------|---------------|-------------------|----------|--------------|---------|----------------------|
| C3CPC(S/M/L)DL | Pendant Cable | Downlight         | Х        | Х            |         |                      |
| C3CPSA         | Pendant Stem  | Adj Accent        | Х        |              | Х       | (36" max)            |
| C3CSA          | Surface       | Adj Accent        | Х        |              | Х       |                      |
| C3CPSDL        | Pendant Stem  | Downlight         | Х        | Х            |         | X                    |
| C3CPSWW        | Pendant Stem  | Wall Wash         | X        |              |         | Х                    |
| C3CSDL         | Surface       | Downlight         | X        | Х            |         |                      |
| C3CWDL         | Wall          | Downlight         | Х        | Х            |         |                      |
| C3CSWW         | Surface       | Wall Wash         | Х        |              |         |                      |
| C3CWWW         | Wall          | Wall Wash         | Х        |              |         |                      |
| C3CWUDW        | Wall          | Up/Down Wall Wash | Х        |              |         |                      |
| C3CWUD         | Wall          | Up/Down           | Х        | X (2 needed) |         |                      |
| C3CSU(S/M/L)UD | Suspended     | Up/Down           | Х        | Х            |         |                      |

| Project:  |  |  |
|-----------|--|--|
| Location: |  |  |
| Cat.No:   |  |  |
| Туре:     |  |  |
| Qty:      |  |  |
| Notes:    |  |  |

**Fixture** example: C3CPSA15940Z10UA

| Series          | Mounting   | Style   | Lumens  | CRI/CCT  | Dimming/Voltage  | Finish   |
|-----------------|--|---|---|--|--|--|
| C3C             |  |   |   |  |  |  |
| C3C             | PCS Pendant w/Cable  | <b>DL</b> Downlight <sup>2</sup>  | <b>13</b> 1250lm                                    | 9D2W 90CRI/3000K-1800K   | L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)  | A Aluminum   |
| 3" Cylinder PCM | 6' power/cord <sup>5</sup> PCM Pendant w/Cable 12' power/cord <sup>5</sup>                           |   | <b>15</b> 1485 lm                                   | 9D2W 90CRI/3000K-1800K   | <b>Z10U</b> 0-10 V 1% / Unv (120/277V)<br><b>ELV1</b> ELV (120V) / Unv (120/277V)  | B Black (matte) W White (matte) RAL RAL Color <sup>6</sup>                       |
|                 | PCL Pendant w/Cable 20' power/cord <sup>5</sup>  |   | 10 1000 lm<br>15 1500 lm<br>20 2000 lm <sup>4</sup> | 927 90CRI/2700K<br>930 90CRI/3000K<br>935 90CRI/3500K<br>940 90CRI/4000K | Z10U 0-10V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)                            | (std code)   |
|                 | PS Pendant w/Stem <sup>1</sup>   | A Adjustable  | <b>15</b> 1500 lm                                   | 9D2W 90CRI/3000K-1800K   | Z10U 0-10V 1% / Unv (120/277V)   | A Aluminum   |
| S               | S Surface  | Accent<br>(needs to<br>be ordered<br>with Optics)   | 10 1000 lm<br>15 1500 lm<br>20 2000 lm <sup>4</sup> | 927 90CRI/2700K<br>930 90CRI/3000K<br>935 90CRI/3500K<br>940 90CRI/4000K | ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)   | B Black (matte) W White (matte) RAL RAL Color <sup>6</sup> (std code)            |
|                 | PS Pendant w/Stem <sup>1</sup>   | <b>DL</b> Downlight <sup>2</sup>  | <b>13</b> 1250lm                                    | 9D2W 90CRI/3000K-1800K   | L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)  | A Aluminum   |
|                 | S Surface<br>W Wall  |   | <b>15</b> 14851m                                    | 9D2W 90CRI/3000K-1800K   | <b>Z10U</b> 0-10 V 1% / Unv (120/277V)<br><b>ELV1</b> ELV (120V) / Unv (120/277V)  | B Black (matte) W White (matte) RAL RAL Color <sup>6</sup>                       |
|                 |  | <b>WW</b> Wall Wash   | <b>15</b> 1500 lm                                   | 9D2W 90CRI/3000K-1800K   | Z10U 0-10V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)                            | (std code)   |
|                 |  | DL Downlight <sup>2</sup><br>WW Wall Wash   | 10 1000 lm<br>15 1500 lm<br>20 2000 lm <sup>4</sup> | 927 90CRI/2700K<br>930 90CRI/3000K<br>935 90CRI/3500K<br>940 90CRI/4000K |  |  |
|                 | <b>W</b> Wall  | UDW Up/Down<br>Wall Wash <sup>3</sup><br>(lumens shown<br>divided equally<br>up and down) | 15 1500 lm<br>20 2000 lm<br>30 3000 lm              | 927 90CRI/2700K<br>930 90CRI/3000K<br>935 90CRI/3500K<br>940 90CRI/4000K | Z10U 0-10V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V) (Not available for 3000lm) | A Aluminum B Black (matte) W White (matte) RAL RAL Color <sup>6</sup> (std code) |
|                 | <b>W</b> Wall  | UD Up/Down Downlight <sup>2,3</sup> (lumens shown divided equally up and down)            | 10 1000lm<br>20 2000lm                              | 927 90CRI/2700K<br>930 90CRI/3000K<br>935 90CRI/3500K<br>940 90CRI/4000K | <b>Z10U</b> 0-10V 1% / Unv (120/277V) <b>ELV1</b> ELV (120V) / Unv (120/277V)  | A Aluminum B Black (matte) W White (matte) RAL RAL Color <sup>6</sup> (std code) |
|                 | SUS Suspended<br>6' power/cord<br>SUM Suspended<br>12' power/cord<br>SUL Suspended<br>20' power/cord | UD Direct/<br>Indirect <sup>2,3</sup><br>(lumens shown<br>divided equally<br>up and down) | 20 2000lm<br>30 3000lm                              | 927 90CRI/2700K<br>930 90CRI/3000K<br>935 90CRI/3500K<br>940 90CRI/4000K | <b>Z10U</b> 0-10V 1% / Unv (120/277V) <b>ELV1</b> ELV (120V) / Unv (120/277V)  | A Aluminum B Black (matte) W White (matte) RAL RAL Color <sup>6</sup> (std code) |

<sup>1.</sup> Pendant Stem (PS) mountings need to be ordered with a suspended stem kit accessory for pendants.







Downlight (DL) and Suspended Direct/Indirect (SU\_UD) styles need to be ordered with one Reflector.
 Wall Mount Direct/Indirect (WUD) styles need to be ordered with two Reflectors.

<sup>3.</sup> Nominal lumens shown is total luminaire, divided equally up and down.

Up and down for WUDW & WUD styles are controlled on a single circuit. SU\_UD styles are controlled on separate circuits.

<sup>4.</sup> Available in white (W) or black (B) finishes only with Z10 or ELV1 dimming only.

5. PCS/PCM/PCL mounting includes cable with matching finish to cylinder. RAL cylinder finish will be with a black cable.

6. RAL standard colors can be specified upon request. Add RAL standard code to (RALxxxxx).

### Pendant, surface, wall and suspended mount luminaires

### Downlight Reflector (for downlight, up/downlight & direct/indirect)

| Series Beam |                          | Finish   |  |  |  |  |
|-------------|--------------------------|--|--|--|--|--|
| C3CR        | Calculite<br>3" Cylinder | N Narrow (33°)<br>M Medium (55°)<br>W Wide (62°) | CL Clear CC Comfort Clear CD Comfort Clear Diffuse CZ Champagne Bronze | WH White (matte) BK Black (anodized) BT Black Textured (painted) WT White Textured (painted) |  |  |

### Suspended Stem Kit Accessories (for C3CPS pendant)

| Series   | Length   | Finish   |  |
|--|--|--|--|
|  |  |  |  |
| CASK Calculite Accessory w/Round Canopy Stem Kit CASQSK Calculite Accessory w/Square Canopy Stem Kit | 36 36 inches<br>48 48 inches<br>60 60 inches<br>72 72 inches | AL Aluminum BK Black (matte) WH White (matte) RAL RAL Color¹ (standard code) |  |

| Accessories (for all configurations)   |   |
|--|---|
| Series   | Finish  |
|  |   |
| CAXTC Calculite Round Conduit Feed Through Canopy Extender CASQXTC Calculite Square Conduit Feed Through Canopy Extender | AL Aluminum  BK Black (matte)  WH White (matte)  RAI RAI Color! (standard code) |

### **Adjustable Accent Optics**

(for C3CPSA & C3CSA accents)

| Series C3CO |                          | Beam   |
|-------------|--------------------------|--|
| СЗСО        | Calculite<br>3" Cylinder | NS Narrow Spot (18°)<br>SP Spot (22°)<br>NF Narrow Flood (36°) |

### **Adjustable Accent Accessories**

(for C3CPSA & C3CSA accents)

| Series |   | Finish  |
|--------|---|---|
| C3CAH  | Calculite 3" Cylinder<br>Accessory Holder                         | AL Aluminum<br>BK Black (matte)                             |
| LC20SN | Snoot   | WH White (matte) RAL RAL Color <sup>1</sup> (standard code) |
| LC20HC | Hex cell Louver<br>(needs to be ordered<br>with Accessory holder) | (matte black only)  |

1. RAL standard colors can also be specified upon request. Add RAL standrad code to (RALxxxxx). 2000lm (20) available only in black and white.

### Housing

### Cylinder:

Extruded aluminum

### Canopy:

Installation onto a 3" or 4"x1.5" octagonal junction box.

### Surface mounting (C3CS):

Mounts directly to junction box.

### Pendant cable mounting (C3CPC):

Canopy and field adjustable power cable included. Cylinder provided complete with canopy kit and 5-wire conductor cable. Cable finish matches that of cylinder for A, B, W finishes, and is black for RAL cylinder finish.

### Pendant stem mounting (C3CPS):

Order with CASK or CASQSK stem accessory.

### Wall mounting (C3CW):

Pre-attached hardware allows for simple installation into wall mounted junction box.

### Suspended cable mounting (C3CSU):

Canopy and field adjustable power cables included.

### **Drivers**

**Z10U:** 0-10 V 1% / Universal (120/277V)

ELV1: Electronic low voltage (120V ELV dimming)

/ Universal (120/277V)

L01U: Lutron PEQ EcoSystem (Dim to 0.1%) / Universal (120/277V), Lutron Hi-lume Premier 0.1% EcoSystem Small Form Factor LED Driver with Soft-On, Fade to Black Dimming Technology

### Optical systems

### Downlight & Direct/Indirect:

True 50° physical cutoff and 45° reflected cutoff.

Polycarbonate TIR lens provides uniform distribution on the wall with minimal gap between luminaire and wall.

### Suspended Downlight/Uplight:

True 50° physical cutoff and 45° reflected cutoff. Very Wide Flood distribution optical lens.

### Quality of light:

2 SDCM ensures color consistency from fixture to fixture and over the luminaire's long lifetime. Proprietary optical grade silicone lens with patterned surface provides soft, even beam diffusion without hotspots or dark rings.

### Lumen packages

Lumen Maintenance: Predicted 70% lumen maintenance at 64,000 hrs.

Direct/Indirect: Can be ordered with different up and down lumen outputs up to published maximum through Special Order Process. Wall mount nominal lumens are total for luminaire divided up and down, and controlled on one circuit. Suspended nominal lumens are each up and down, and may be controlled on separate circuits.

### **Canopy Extender Accessories**

Round (CAXTC) and square (CASQXTC) canopy extenders are available to accommodate direct conduit feed. Covers conduit connector (by others) for finished look. Specify finish per ordering matrix above. Use with standard 3" or 4"x1.5"octagonal junction box (by others). See page 8 for dimensions and illustrations.

### Pendant accessories

Stem mounting kit accessory: Steel stem, 0.375" diameter (1/8"National Pipe Thread, 5-wire conductor cable runs alongside of stem for power and dimming. Magnetic attachment of canopy to junction box provides clean look free of hardware. Self-aligning swivel mounting system ensures cylinder hangs straight down. Stem can be cut in field for length adjustment. A 1/8" hole is required to reconnect the pendant stem to the canopy swivel.

### **ENERGY STAR® exceptions**

- · For Downlights (DL), only Clear (CL) and Comfort Clear (CC) finishes are ENERGY STAR® certified.
- · Wall mount up/down (WUD, WUDW) and suspended direct/indirect (SU\_UD) models are not certified.
- · All 2000lm 2700K downlight configurations.

### **Labels and Listings**

- · cULus listed for damp locations
- · ENERGY STAR® certified
- · RoHS certified

### Warranty



5 year limited warranty Visit Signify.com/warranties for more information on Signify's standard 5-year limited warranty on complete luminaire systems.

### Pendant, surface, wall and suspended mount luminaires

### **Electrical**

| Series  | Dimming | Lumens | Voltage      | Amps  | Wattage |
|---|---------|--------|--------------|-------|---------|
| C3CPCSDL  | ELV     | 1000lm | 120V         | 0.1   | 11.8    |
| C3CPCMDL  |         | 1500lm |              | 0.17  | 20.6    |
| C3CPCLDL<br>C3CPSDL   |         | 2000lm |              | 0.19  | 22.8    |
| C3CSDL  |         | 1000lm | 277V         | 0.05  | 11.7    |
| C3CWDL  |         | 1500lm |              | 0.089 | 19.9    |
| C3CWUD  |         | 2000lm |              | 0.128 | 28.1    |
| C3CPSWW<br>C3CSWW   | 0-10V   | 1000lm | 120V         | 0.11  | 12.6    |
| C3CWWW  |         | 1500lm |              | 0.19  | 23.1    |
|   |         | 2000lm |              | 0.24  | 28.6    |
|   |         | 1000lm | 277V         | 0.05  | 12.9    |
|   |         | 1500lm |              | 0.078 | 20.5    |
|   |         | 2000lm |              | 0.108 | 28.3    |
|   | Lutron  | 1000lm | 120V         | 0.11  | 14      |
|   |         | 1500lm | 7            | 0.17  | 22      |
|   |         | 1000lm | 277V         | 0.074 | 12      |
|   |         | 1500lm |              | 0.1   | 20.1    |
| C3CPCSDL_9D2W   | ELV     | 1300m  | 120V         | 0.16  | 19.5    |
| C3CPCMDL_9D2W<br>C3CPCLDL_9D2W<br>C3CPSDL_9D2W<br>C3CSDL_9D2W |         | 1500lm |              | 0.2   | 24      |
|   |         | 1300m  | 277V         | 0.16  | 19.5    |
|   |         | 1500lm |              | 0.12  | 24      |
| C3CWDL_9D2W   | 0-10V   | 1300m  | 120V<br>277V | 0.16  | 19.5    |
| C3CWUD_9D2W   |         | 1500lm |              | 0.2   | 24      |
|   |         | 1300m  |              | 0.16  | 19.5    |
|   |         | 1500lm |              | 0.12  | 24      |
|   | Lutron  | 1300lm | 120V         | 0.16  | 19.5    |
|   |         |        | 277V         | 0.12  | 24      |
| C3CWUD  | ELV     | 1000lm | 120V         | 0.2   | 24      |
|   |         |        | 277V         | 0.12  | 24      |
|   | 0-10V   | 1000lm | 120V         | 0.2   | 24      |
|   |         |        | 277V         | 0.09  | 24      |
| C3CWUDW   | ELV     | 1000lm | 120V         | 0.17  | 20      |
|   |         |        | 277V         | 0.09  | 20      |
|   | 0-10V   | 1000lm | 120V         | 0.17  | 20      |
|   |         |        | 277V         | 0.07  | 20      |
|   | Lutron  | 1000lm | 120V         | 0.17  | 20      |
|   |         |        | 277V         | 0.1   | 20      |
| C3CWUDW_9D2W  | ELV     | 1000lm | 120V         | 0.19  | 22      |
|   |         | 1000lm | 277V         | 0.08  | 22      |
|   | 0-10V   | 1000lm | 120V         | 0.19  | 22      |
|   |         | 1000lm | 277V         | 0.08  | 22      |

| Series      | Dimming | Lumens | Voltage | Amps  | Wattage |
|-------------|---------|--------|---------|-------|---------|
| C3CPSA      | ELV     | 1000lm | 120V    | 0.081 | 10.7    |
| C3CSA       |         | 1500lm |         | 0.132 | 18      |
|             |         | 2000lm |         | 0.21  | 26      |
|             |         | 1000lm | 277V    | 0.071 | 10.7    |
|             |         | 1500lm |         | 0.08  | 21      |
|             |         | 2000lm |         | 0.12  | 33      |
|             | 0-10V   | 1000lm | 120V    | 0.091 | 12      |
|             |         | 1500lm |         | 0.14  | 18      |
|             |         | 2000lm |         | 0.2   | 24      |
|             |         | 1000lm | 277V    | 0.05  | 12      |
|             |         | 1500lm |         | 0.07  | 18      |
|             |         | 2000lm |         | 0.09  | 25      |
|             | Lutron  | 1000lm | 120V    | 0.1   | 12      |
|             |         | 1500lm |         | 0.14  | 18      |
|             |         | 1000lm | 277V    | 0.07  | 12      |
|             |         | 1500lm |         | 0.09  | 25      |
| C3CSUS      | ELV     | 2000lm | 120V    | 0.2   | 25      |
| C3CSUM      |         | 3000lm |         | 0.35  | 42      |
| C3CSUL      |         | 2000lm | 277V    | 0.11  | 25      |
|             |         | 3000lm |         | 0.18  | 42      |
|             | 0-10V   | 2000lm | 120V    | 0.2   | 25      |
|             |         | 3000lm |         | 0.35  | 42      |
|             |         | 2000lm | 277V    | 0.11  | 25      |
|             |         | 3000lm |         | 0.18  | 42      |
| C3CSUS_9D2W | ELV     | 1250lm | 120V    | 0.33  | 40      |
| C3CSUM_9D2W |         |        | 277V    | 0.17  | 40      |
| C3CSUL_9D2W | 0-10V   | 1250lm | 120V    | 0.33  | 40      |
|             |         |        | 277V    | 0.17  | 40      |

### **ELV**

| Input | Brand   | Dimming Type  | Model No.   | Minimum<br>dimming |
|-------|---------|---------------|-------------|--------------------|
| 120V  | Lutron  | Trailing edge | DVELV-303P  | 2%                 |
|       |         |               | NTELV-600   | 2%                 |
|       |         |               | MAELV-600   | 2%                 |
|       |         |               | SELV-300P   | 2%                 |
|       |         | Leading edge  | DV-600P     | 2%                 |
|       |         |               | DVLV-600P   | 2%                 |
|       |         |               | NFTU-5A     | 2%                 |
|       |         |               | CTCL-153P   | 2%                 |
|       |         |               | GL-600H     | 2%                 |
|       |         |               | S-600P      | 2%                 |
|       |         |               | S-600P      | 2%                 |
|       | Leviton | -             | IPE04       | 2%                 |
|       | Philips | _             | CP400RPC120 | 2%                 |

### Lutron

| Input    | Brand  | Model No.         | Minimum<br>dimming |
|----------|--------|-------------------|--------------------|
| 120V     | Lutron | QSN-1ECO-S        | L01U (0.1%)        |
|          |        | QSN-2ECO-S        | L1U (1%)           |
|          |        | QSGRJE (wireless) |                    |
|          |        | QSGRE (wireless)  |                    |
|          |        | QP2 2C            |                    |
|          |        | QP2 4C            |                    |
|          |        | QP2 6C            |                    |
|          |        | QP2 8C            |                    |
|          |        | LQSE-2ECO-D       |                    |
| 120/277V | Lutron | RMJ-ECO32-DV-B    | L01U (0.1%)        |
|          |        | FCJ/FCJS-ECO1     | L1U (1%)           |

### 0-10V

| Input    | Brand   | Model No.   | Minimum<br>dimming |
|----------|---------|-------------|--------------------|
| 120/277V | Lutron  | SR1200ZTUNV | 1%                 |
|          | Leviton | IP7 series  | 1%                 |
|          | Philips | SR1200ZTUNV | 1%                 |

### Pendant, surface, wall and suspended mount luminaires

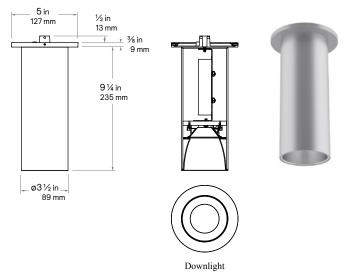
### **Reflector Finishes**



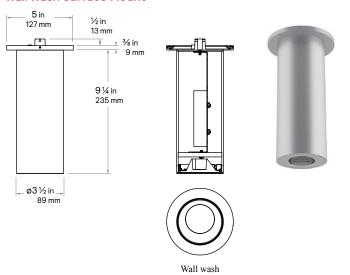
- Specular clear (CL): Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.
- 2. **Comfort clear (CC):** Semi-specular finish that softens the light at the source of the reflector and creates a subtle, even luminance from the reflector cone.
- Comfort clear diffuse (CD): Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.
- 4. White (WH): Brightest illuminated aperture (matte white) and provides the smoothest transition to most ceilings when off.
- Black (BK): Specular finish (anodized) that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.
- Champagne bronze (CZ): Semi-specular finish that softens light at the source of the reflector while providing a warmer reflector appearance (slightly warmer).

Pendant, surface, wall and suspended mount luminaires

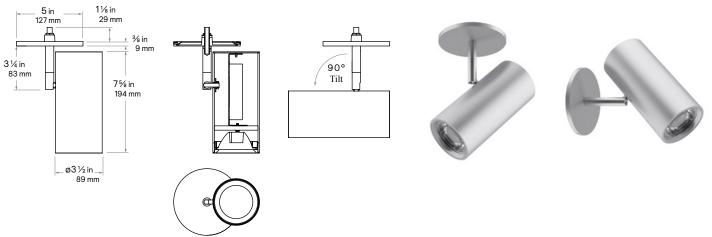
### **Downlight Surface Mount**



### **Wall Wash Surface Mount**

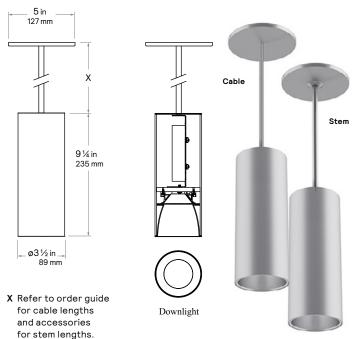


### Adjustable Accent Surface Mount (Ceiling or wall)

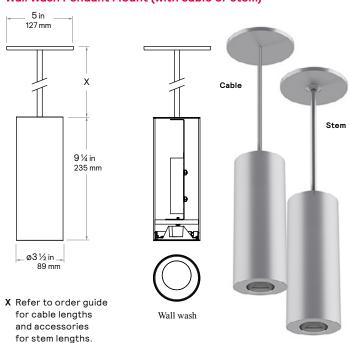


### Pendant, surface, wall and suspended mount luminaires

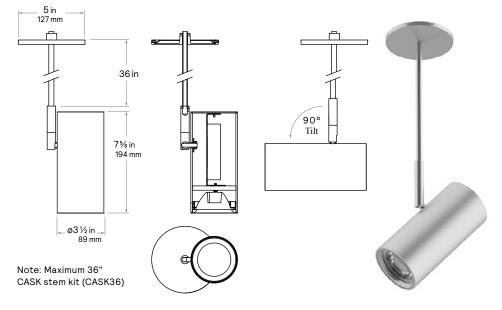
### Downlight Pendant Mount (with cable or stem)



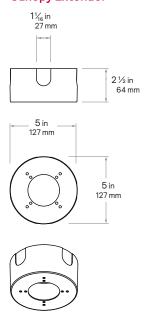
### Wall Wash Pendant Mount (with cable or stem)



### Adjustable Accent Pendant Mount



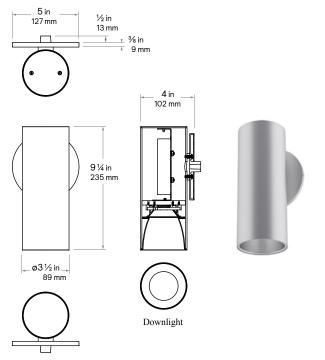
### **Canopy Extender**



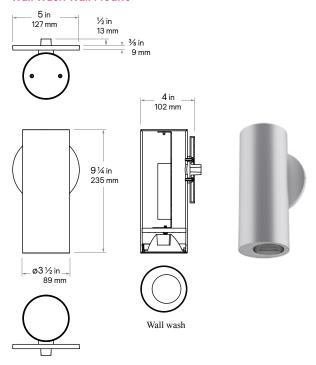
Use with standard 3" or 4"x1.5" octagonal junction box. Additional details and options on page 8.

Pendant, surface, wall and suspended mount luminaires

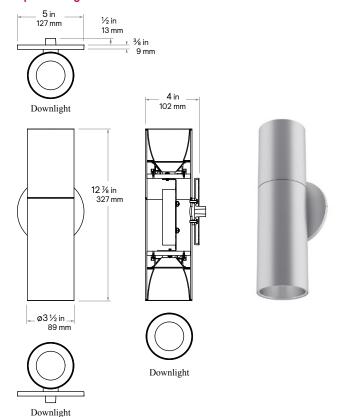
### **Downlight Wall Mount**



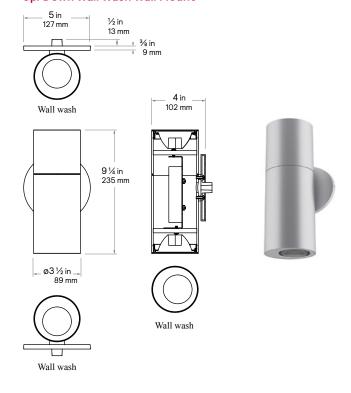
### Wall Wash Wall Mount



### **Up/Downlight Wall Mount**

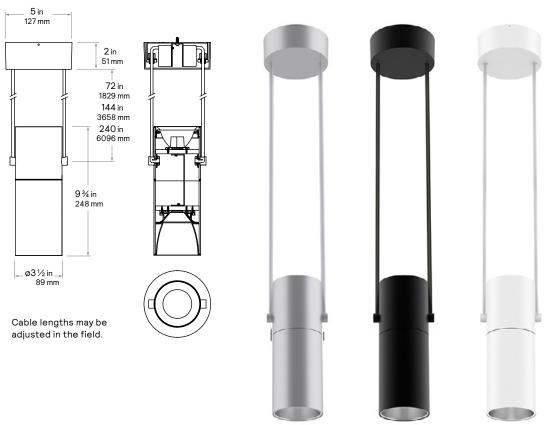


### Up/Down Wall Wash Wall Mount

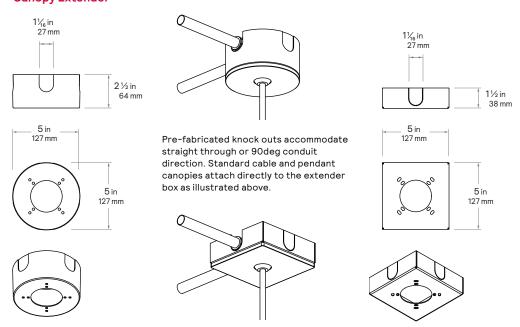


### Pendant, surface, wall and suspended mount luminaires

### **Up/Down Suspended Mount**



### **Canopy Extender**



Use with standard 3" or 4"x1.5" octagonal junction box.

### Pendant, surface, wall and suspended mount luminaires

### Downlight, 2000lm engine, 71.7 lm/W at 29W

# 1200 1800 2400

#### Fixture: C3CSDL20935Z10UB Reflector: C3CRWCL

Output lumens: 2080 lms 29 W\* Input watts: CCT 1-3500K Spacing Crit.: 1.04

\*Wattage controlled to within 5%.

### Zonal summary

| Zone         | Lumens       | %Luminaire     |
|--------------|--------------|----------------|
| 0-30         | 1568         | 75.4%          |
| 0-40<br>0-60 | 1898<br>2073 | 91.3%<br>99.7% |
| 0-90         | 2080         | 100.0%         |

| Angle | MeanCP | Lumens |
|-------|--------|--------|
| 0     | 2011   |        |
| 5     | 1987   |        |
| 10    | 1993   | 194    |
| 15    | 2055   |        |
| 20    | 2190   | 608    |
| 25    | 1815   |        |
| 30    | 953    | 767    |
| 35    | 484    |        |
| 40    | 382    | 329    |
| 45    | 282    |        |
| 50    | 32     | 168    |
| 55    | 8      |        |
| 60    | 4      | 8      |
| 65    | 2      |        |
| 70    | 1      | 2      |
| 75    | 1      |        |
| 80    | 0      |        |
| 85    | 0      |        |
| ۵0    | l 0    | I      |

### Single unit data

|    | Initial center beam foot-candles | Beam<br>diameter (ft)* |
|----|----------------------------------|------------------------|
| 5' | 80                               | 5.2'                   |
| 6' | 56                               | 6.2'                   |
| 7' | 41                               | 7.3'                   |
| 8' | 31                               | 8.3'                   |
| 9' | 25                               | 9.4'                   |

\* Beam diameter is where foot-candles drop to 50% of maximum.

### Multiple unit data - RCR 2

| Spacing on center        | Initial center beam foot-candles | Watts<br>per sq. ft. |  |  |  |  |  |
|--------------------------|----------------------------------|----------------------|--|--|--|--|--|
| 5'                       | 95.0                             | 1.29                 |  |  |  |  |  |
| 6'                       | 62.0                             | 0.84                 |  |  |  |  |  |
| 7'                       | 44.0                             | 0.60                 |  |  |  |  |  |
| 8'                       | 37.0                             | 0.50                 |  |  |  |  |  |
| 9'                       | 30.0                             | 0.40                 |  |  |  |  |  |
| 201 201 401 8 111 1 2 51 |                                  |                      |  |  |  |  |  |

38' x 38' x 10' Room, Workplane 2.5 above floor, 80/50/20% Reflectances

Report<sup>2</sup>: LRQB2240-07

#### Adjustment Factors

| Finish                           | CRI/CCT  |
|----------------------------------|--|
| CL =100%<br>CC = 95%<br>CD = 85% | 90CRI 4000K = 104%<br>90CRI 3500K = 100%<br>90CRI 3000K = 96%<br>90CRI 2700K = 90% |

### Coefficients of utilization

| Cei    | ling |     | 80     | )%    |       | 70      | )%    | 50     | )%     | 30    | )%      | 0%  |
|--------|------|-----|--------|-------|-------|---------|-------|--------|--------|-------|---------|-----|
| Wal    | II   | 70  | 50     | 30    | 10    | 50      | 10    | 50     | 10     | 50    | 10      | 0   |
| RCI    | R    | Zon | al cav | ity m | ethod | l – Eff | ectiv | e floo | r refl | ectar | ice = : | 20% |
|        | 0    | 119 | 119    | 119   | 119   | 116     | 116   | 111    | 111    | 106   | 106     | 100 |
| 0      | 1    | 114 | 111    | 108   | 106   | 109     | 104   | 105    | 101    | 101   | 98      | 94  |
| Ratio  | 2    | 108 | 103    | 99    | 96    | 101     | 95    | 98     | 93     | 95    | 91      | 87  |
|        | 3    | 103 | 96     | 91    | 88    | 95      | 87    | 92     | 85     | 90    | 84      | 81  |
| Cavity | 4    | 98  | 90     | 85    | 80    | 89      | 80    | 87     | 79     | 85    | 78      | 76  |
| á      | 5    | 93  | 84     | 79    | 74    | 83      | 74    | 82     | 73     | 80    | 73      | 71  |
| Ö      | 6    | 88  | 79     | 73    | 69    | 78      | 69    | 77     | 68     | 75    | 68      | 66  |
| Room   | 7    | 84  | 75     | 69    | 64    | 74      | 64    | 73     | 64     | 71    | 63      | 62  |
| 8      | 8    | 80  | 70     | 64    | 60    | 70      | 60    | 69     | 60     | 67    | 60      | 58  |
|        | 9    | 76  | 66     | 60    | 56    | 66      | 56    | 65     | 56     | 64    | 56      | 54  |
|        | 10   | 72  | 63     | 57    | 53    | 62      | 53    | 61     | 53     | 61    | 53      | 51  |
|        |      |     |        |       |       |         |       |        |        |       |         |     |

### Wall Wash, 2000lm engine, 82.6 lm/W at 29W

Distance from ceiling in feet

2 3

4

5

6

9

Multiple unit data

Footcandles on wall

53

64

67

57

36

3' from wall

3' on ctr.

36

52

65

69

59

48

38

30

24

17

37

53

70

67

57

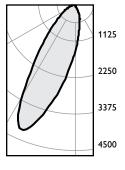
46

36

29

23

#### Candela Curve



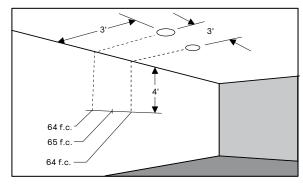
### Fixture: C3CSWW20935

Output lumens: 2396 lms Input watts: CRI: 90 min CCT 1: 3500K Candela: 4191

### Multiple unit data

Footcandles on wall

|   | 5  | ' from wa | J  |
|---|----|-----------|----|
| Distance from ceiling in feet 11 01 6 8 2 9 5 7 8 5 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 | 14 | 8         | 14 |
|   | 32 | 22        | 32 |
|   | 44 | 33        | 44 |
|   | 53 | 44        | 53 |
|   | 56 | 51        | 56 |
|   | 51 | 50        | 51 |
|   | 41 | 44        | 41 |
|   | 32 | 36        | 32 |
|   | 25 | 28        | 25 |
|   | 20 | 21        | 20 |
|   | 16 | 17        | 16 |



Efficacy: 82.6 lm/w LRQB2240-30 Report2:

<sup>\*</sup>Wattage controlled to within 5%.

<sup>1.</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

<sup>2.</sup> Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

### Pendant, surface, wall and suspended mount luminaires

### Downlight (Wall Mount), 2000lm engine, 88.7 lm/W at 29W

# 3000 6000

### Fixture: C3CSWWW20935Z10UB

12000

Output lumens: CRI: 90 min

\*Wattage controlled to within 5%.

### Zonal summary

| Zone                         | Lumens                       | %Luminaire                        |
|------------------------------|------------------------------|-----------------------------------|
| 0-30<br>0-40<br>0-60<br>0-90 | 2152<br>2362<br>2527<br>2572 | 83.7%<br>91.8%<br>98.3%<br>100.0% |
|                              |                              |                                   |

| Angle | MeanCP | Lumens |
|-------|--------|--------|
| 0     | 9729   |        |
| 5     | 11244  |        |
| 10    | 10436  | 769    |
| 15    | 6223   |        |
| 20    | 3374   | 943    |
| 25    | 1936   |        |
| 30    | 1066   | 439    |
| 35    | 634    |        |
| 40    | 412    | 210    |
| 45    | 308    |        |
| 50    | 229    | 108    |
| 55    | 161    |        |
| 60    | 112    | 57     |
| 65    | 75     |        |
| 70    | 48     | 27     |
| 75    | 28     |        |
| 80    | 14     | 10     |
| 85    | 1      |        |
| 90    | 0      | l      |

### Coefficients of utilization

| Ceiling                  |     | 80     | )%    |       | 70      | )%     | 50     | 1%     | 30    | )%     | 0%  |
|--------------------------|-----|--------|-------|-------|---------|--------|--------|--------|-------|--------|-----|
| Wall                     | 70  | 50     | 30    | 10    | 50      | 10     | 50     | 10     | 50    | 10     | 0   |
| RCR                      | Zon | al cav | ity m | ethod | I – Eff | ective | e floo | r refl | ectan | ce = : | 20% |
| 0                        | 119 | 119    | 119   | 119   | 116     | 116    | 111    | 111    | 106   | 106    | 100 |
| 0 1                      | 112 | 109    | 106   | 103   | 107     | 102    | 103    | 98     | 99    | 95     | 91  |
| Ratio<br>8 8 -           | 105 | 99     | 94    | 90    | 97      | 89     | 94     | 87     | 91    | 85     | 81  |
|                          | 98  | 90     | 84    | 79    | 88      | 78     | 86     | 77     | 83    | 76     | 72  |
| .⊉ 4                     | 91  | 82     | 75    | 69    | 80      | 69     | 78     | 68     | 76    | 67     | 65  |
| <u>8</u> 5               | 85  | 74     | 67    | 62    | 73      | 61     | 71     | 61     | 70    | 60     | 58  |
| <sub>0</sub> 6           | 79  | 68     | 61    | 55    | 67      | 55     | 65     | 55     | 64    | 54     | 52  |
| Room Cavity<br>8 2 9 5 h | 74  | 62     | 55    | 50    | 62      | 50     | 60     | 49     | 59    | 49     | 47  |
| 윤 8                      | 69  | 57     | 50    | 45    | 57      | 45     | 56     | 45     | 54    | 44     | 42  |
| 9                        | 65  | 53     | 46    | 41    | 52      | 41     | 51     | 41     | 50    | 40     | 39  |
| 10                       | 61  | 49     | 42    | 37    | 49      | 37     | 48     | 37     | 47    | 37     | 35  |
|                          |     |        |       |       |         |        |        |        |       |        |     |

LRQB2240-34

### Downlight (Suspended Up/Dn), 1500lm engine, 80.0 lm/W at 40W

Zone Lumens %Luminaire

1362

1505

1501

1511

750

197

1

40.1% 44.3%

Zonal summary

0-30

0-40

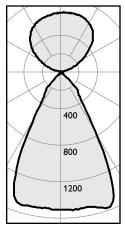
0-60

Angle

70 75

85

### Candela Curve



### Fixture: C3CSUS15935

3395 lms Output lumens: Input watts: 40 W\* 90 min CCT1: 3500K

\*Wattage controlled to within 5%.

### Zonal summary

| Zone   | Lumens | %Luminair |
|--------|--------|-----------|
| 90-120 | 524    | 15.4%     |
| 90-130 | 877    | 25.8%     |
| 90-150 | 1555   | 45.8%     |
| 90-180 | 1879   | 55.3%     |
| 0-180  | 3395   | 100.0%    |

| Angle | MeanCP |
|-------|--------|
| 95    | 0      |
| 100   | 0      |
| 105   | 5      |
| 110   | 51     |
| 115   | 104    |
| 120   | 154    |
| 125   | 281    |
| 130   | 354    |
| 135   | 430    |
| 140   | 494    |
| 145   | 546    |
| 150   | 584    |
| 155   | 613    |
| 160   | 642    |
| 165   | 647    |
| 170   | 646    |
| 175   | 644    |

### Coefficients of utilization

| Ceiling                                |   | 80  | )%  |     | /(  | 1%  | 50  | )%  | 30  | )%  | 0%  |
|--|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Wall                                   | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  | 0   |
| RCR                                    | Zonal cavity method - Effective floor reflectance = 20% |     |     |     |     | 20% |     |     |     |     |     |
| 0                                      | 119   | 119 | 119 | 119 | 116 | 116 | 111 | 111 | 106 | 106 | 100 |
| o 1                                    | 112   | 109 | 106 | 103 | 107 | 102 | 103 | 98  | 99  | 95  | 91  |
| Room Cavity Ratio<br>8 2 9 9 6 7 8 6 7 | 105   | 99  | 94  | 90  | 97  | 89  | 94  | 87  | 91  | 85  | 81  |
| ã° 3                                   | 98  | 90  | 84  | 79  | 88  | 78  | 86  | 77  | 83  | 76  | 72  |
| .≙ 4                                   | 91  | 82  | 75  | 69  | 80  | 69  | 78  | 68  | 76  | 67  | 65  |
| <u>2</u> 5                             | 85  | 74  | 67  | 62  | 73  | 61  | 71  | 61  | 70  | 60  | 58  |
| ပ္ 6                                   | 79  | 68  | 61  | 55  | 67  | 55  | 65  | 55  | 64  | 54  | 52  |
| 5 7                                    | 74  | 62  | 55  | 50  | 62  | 50  | 60  | 49  | 59  | 49  | 47  |
| දි 8                                   | 69  | 57  | 50  | 45  | 57  | 45  | 56  | 45  | 54  | 44  | 42  |
| 9                                      | 65  | 53  | 46  | 41  | 52  | 41  | 51  | 41  | 50  | 40  | 39  |
| 10                                     | 61  | 49  | 42  | 37  | 49  | 37  | 48  | 37  | 47  | 37  | 35  |
|  |   |     |     |     |     |     |     |     |     |     |     |

Efficacy: 85.0 lm/w

Report<sup>2</sup>:

<sup>1.</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

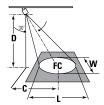
<sup>2.</sup> Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

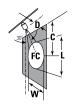
### Pendant, surface, wall and suspended mount luminaires

### Aiming angles

L and W are the outer points where the candle power drops to 50% of the maximum. FC are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

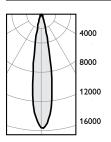
- FC Footcandles
- W Beam Width
- D Distance
- A Aiming Angle
  Distance to
  center beam
  Center Beam
  Candlepower





### **Adjustment Factors**

| inish             | CRI/CCT            |
|-------------------|--------------------|
| CL =100% WT = 85% | 90CRI 4000K = 104% |
| CC = 97% WH = 82% | 90CRI 3500K = 100% |
| CD = 86% BK = 50% | 90CRI 3000K = 96%  |
| CZ = 64% BT = 46% | 90CRI 2700K = 90%  |



#### Fixture: C3CSA20935 Reflector: C3CONS

Output lumens: 2123 lms Input watts: 25 W CRI: 90 min CCT 1: 3500 K CBCP: 15,573 cd Beam Angle: 18°

Efficacy: 84.9 lm/w Report<sup>2</sup>: LRQB2240-38

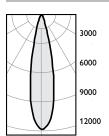
### Narrow, 2000lm engine, 84.9 lm/W at 25W

#### 30° Horizontal Aiming

| Dist | ance |      | Beam |     |
|------|------|------|------|-----|
| D    | O    | F.C. | L    | W   |
| 6    | 3.5  | 281  | 2.6  | 2.2 |
| 8    | 4.6  | 158  | 3.4  | 2.9 |
| 10   | 5.8  | 101  | 4.3  | 3.7 |
| 12   | 6.9  | 70   | 5.1  | 4.4 |

### 30° Vertical Aiming

| Dist   | ance       |           | Beam       |            |
|--------|------------|-----------|------------|------------|
| D      | С          | F.C.      | L          | W          |
| 2      | 3.5        | 487       | 2.7        | 1.3        |
| 3      | 5.2        | 216       | 4.1        | 1.9        |
| 4<br>5 | 6.9<br>8.7 | 122<br>78 | 5.5<br>6.9 | 2.5<br>3.2 |



#### Fixture: C3CSA20935 Reflector: C3COSP

Output lumens: 2132 lms Input watts: 25 W CRI: 90 min CCT¹: 3500 K CBCP: 11,774 cd Beam Angle: 22°

Efficacy: 85.3 lm/w Report<sup>2</sup>: LRQB2240-41

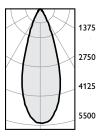
### Spot, 2000lm engine, 85.3 lm/W at 25W

| 30° | Horizontal | Aiming |
|-----|------------|--------|
|-----|------------|--------|

| Distance |     |      | Beam |     |  |
|----------|-----|------|------|-----|--|
| D        | С   | F.C. | L    | W   |  |
| 6        | 3.5 | 212  | 3.1  | 2.7 |  |
| 8        | 4.6 | 119  | 4.2  | 3.6 |  |
| 10       | 5.8 | 76   | 5.2  | 4.5 |  |
| 12       | 6.9 | 53   | 6.3  | 5.4 |  |

### 30° Vertical Aiming

| Dist | ance |      | Bean | n   |
|------|------|------|------|-----|
| D    | С    | F.C. | L    | W   |
| 2    | 3.5  | 368  | 3.5  | 1.6 |
| 3    | 5.2  | 164  | 5.3  | 2.3 |
| 4    | 6.9  | 92   | 7.0  | 3.1 |
| 5    | 8.7  | 59   | 8.8  | 3.9 |
|      |      |      |      |     |



#### Fixture: C3CSA20935 Reflector: C3CONF

Output lumens: 2282 lms Input watts: 25W CRI: 90 min CCT¹: 3500 K CBCP: 5,375 cd Beam Angle: 36°

Efficacy: 91.3 lm/w Report<sup>2</sup>: LRQB2240-44

### Narrow Flood, 2000lm engine, 91.3 lm/W at 25W

### 30° Horizontal Aiming

| Dist | ance |      | Beam |     |
|------|------|------|------|-----|
| D    | С    | F.C. | L    | W   |
| 6    | 3.5  | 97   | 5.4  | 4.5 |
| 8    | 4.6  | 55   | 7.2  | 6.0 |
| 10   | 5.8  | 35   | 9.0  | 7.5 |
| 12   | 6.9  | 24   | 10.8 | 9.0 |

### 30° Vertical Aiming

| Dist | ance |      | Beam |     |
|------|------|------|------|-----|
| D    | С    | F.C. | L    | W   |
| 2    | 3.5  | 168  | 7.6  | 2.6 |
| 3    | 5.2  | 75   | 11.4 | 3.9 |
| 4    | 6.9  | 42   | 15.2 | 5.2 |
| 5    | 8.7  | 27   | 19.0 | 6.5 |



<sup>1.</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

<sup>2.</sup> Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.