

# LIGHTOLIER

by @signify

## Downlighting

Calculite 3"

C3RWW Round wall wash



Calculite 3" features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility. This meticulously engineered downlight is pre-adjusted to 22.5° out of the box, saving installation time. It can be vertically adjusted to 45° with three quick turns of a screwdriver and locked into place.

**Complete luminaire** = Frame + Engine + Trim + Accessories (optional)

**Complete remodel luminaire** = Engine + Trim + Accessories (optional)

Project: \_\_\_\_\_  
Location: \_\_\_\_\_  
Cat.No: \_\_\_\_\_  
Type: \_\_\_\_\_  
Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
Notes: \_\_\_\_\_

### Frame

**Note:** For remodeler installations, order light engine and trim only (no frame needed).

**example:** 3RAS

Series	Installation	Voltage / Options
<b>3R</b>	<input type="checkbox"/>	<input type="checkbox"/>
3R Uniframe 3" round frame	<b>N</b> New Construction Non-IC	<b>—</b> Universal (120V/277V) <b>EM</b> Emergency (see pg 2 for details & limitations) <sup>1</sup> <b>IP</b> Interact Pro ready (for 0-10V engine only) <sup>2</sup>
	<b>A</b> AirSeal IC (1000lm max)	<b>—</b> Standard universal (120V/277V) <b>S</b> Shallow universal (120V/277V) <sup>3</sup>
		<b>LC</b> Chicago plenum <b>3</b> 347V (not compatible with ELV dimming) <b>3IP</b> 347V with Interact Pro (for 0-10V engine only) <sup>2</sup>

### Engine

**example:** C3L07930NZ10US

Series	Lumens	CRI	CCT	Beam	Dimming	Voltage	Plenum
<div>C3L</div>	<div></div>	<div>9</div>	<div></div>	<div>N</div>	<div></div>	<div></div>	<div></div>
C3L Calculite 3" light engine	05 500lm	9 90CRI	27 2700K	N Narrow (33°)	Z10 0-10V 1% L Lutron PEQ0 (Dim to 0.1%)	U Universal (120V/277V/347V)	- Standard
	07 750lm		30 3000K		E ELV	1 120V	
	10 1000lm		35 3500K				
	15 1500lm <sup>4</sup>	40 4000K					
	10 1000lm	9 90CRI	D2W 3000K-1800K <sup>5</sup>				
	07 750lm	9 90CRI	27 2700K	N Narrow (33°)	Z10 0-10V 1%	U Universal (120V/277V/347V)	R Remodeler <sup>6</sup> S Shallow <sup>3</sup>
			30 3000K		E Electronic low voltage	1 120V	
			35 3500K				
			40 4000K				

### Trim

**example:** C3RLWBTF

Series	Style	Reflector	Flange	Type
<b>C3R</b>	<b>LW</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C3R Calculite 3" round trim	<b>LW</b> Lensed wall wash <sup>7</sup> (for remodeler & new construction)	<b>BK</b> Black (anodized)	<b>—</b> White (matte)	<b>—</b> Standard depth with 50° cutoff
		<b>CL</b> Specular clear	<b>P</b> Matching reflector	
		<b>CC</b> Comfort clear	<b>F</b> Flangeless <sup>8</sup>	
		<b>CD</b> Comfort clear diffuse		
		<b>CZ</b> Champagne bronze (anodized)		
		<b>WH</b> White (matte)	<b>—</b> White (matte)	
			<b>F</b> Flangeless <sup>8</sup>	
		<b>WT</b> Textured white (painted)	<b>P</b> Matching reflector	
		<b>BT</b> Textured black (painted)	<b>F</b> Flangeless <sup>8</sup>	
		<b>BZ</b> Bronze (painted)		
		<b>D</b> Aluminum diffuse (painted)		

### Accessories

**CA3RFT**  
Mud-in ring for use in flangeless installs (ordered with a flangeless trim)

**SWZDT**  
SpaceWise wireless controller with dwell time functionality (compatible with all 0-10V options, see SWZDT spec sheet)

**SRAINT**  
InterAct Office accessory (for use with Lightolier UniFrame 0-10V frames)

- Emergency (EM) frame includes emergency battery with ceiling mounted test switch (no reflector mountable test switch). Requires above ceiling access. Ceiling mount test switch only (see page 2 for details and limitations).
- InterAct Pro (IP & 3IP) requires above ceiling access.
- Must order shallow IC frame (S), shallow engine (S) for complete shallow assembly. Standard depth trims are compatible with shallow frame.
- The 1500lm (15) option is not available with standard AirSeal IC frame (3SA-).
- Dim to Warm (D2W) engines are for Non-IC (N) frames only.
- For remodeler installations, order light engine and trim only (no frame needed).
- Lensed wall wash (LW) trims have a 1500lm (15) engine limit and should not be used in Airseal configurations.
- Flangeless (F) trims require CA3SFT mud-in accessory for installation.



interact ready.

# C3RWW Calculite 3"

## Round wall wash

### Frame-in-kits

#### New construction:

Galvanized stamped steel for dry or plaster ceilings. Preinstalled telescoping mounting bars from 13" to 24". For 4' distances, use 1/2" EMT, 1-1/2" x 1/2" U or C channel.

Max ceiling thickness is 1.25" (32mm)

#### Patented install mounting frame:

- Pre-installed mounting bars for fast and tool-less installs into T-grid & hat channel ceilings.
- Close-cut aperture design eliminates possibility of gap between ceiling opening and reflector flange.
- Separate wiring compartment for wiring frame to building allows inspection prior to light engine install.
- Simple plug-and-play connection between frame and light engine from below ceiling.

### Dimming

All configurations are FCC Class A unless otherwise specified.

- Advance 0-10V 1% (Z10)
- Lutron PEQO Hi-lume Premier 0.1% EcoSystem
- Electronic low voltage (ELV) - Remodel and AirSeal IC Shallow are FCC Class B
- Dim to Warm (D2W) - option changes CCT from 3000K to 1800K gradually as it dims

### Optical systems

**Quality of light:** 2 SDCM ensures color consistency from fixture to fixture and over the luminaire's long lifetime.

**Construction:** Precision spun high grade aluminum reflectors with options for anodized or painted finishes. Shallow die cast trims available in painted finish.

#### Comfort throughout the space:

True 50° physical cutoff.

### SpaceWiseDT (SWZDT)

- Remote mounted and centralized SWZDT module accessory controls multiple luminaires.
- Compatible with any 0-10v driver
- 120-347V mains input voltage
- Up to 730VA load at 120V

### Interact Office (SRAINT)

- Provides Interact Office functionality either remotely to a group of luminaires, or to individual luminaires
- Compatible with any 0-10v driver
- 120-347V mains input voltage

### Interact Pro (IA)

- Requires above ceiling access for service.
- Interact Pro brings the power of connected lighting to small and medium businesses without the complexity usually associated with connected lighting.
- Interact Pro includes an app, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Commissioning via Interact Pro App (Android or iPhone).
- Prepare commissioning remotely via Interact Pro portal.
- Requires compatible Interact Pro Gateway and internet connectivity for commissioning.
- Compatible with UID8451/10 ZigBee Greenpower wireless dimmer switch.
- Compatible with wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) or wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- For more information on Interact Pro visit: [www.interact-lighting.com/pro](http://www.interact-lighting.com/pro).
- For more information on Interact Ready visit: [www.philips.com/interact-ready](http://www.philips.com/interact-ready).

### Light engine

Quick connect power pack allow for easy installation and replacement from below ceiling with no need for additional wiring. This allows for:

- Frame and ceiling installation to be performed while still finalizing details such as lumen packages, CCT and control type.
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Ease and upgradability of technology.
- Predicted 70% lumen maintenance to 57,000 hrs.
- Max operating ambient temperature of 30°C.

### Options and accessories

**Flangeless mud-in ring:** Use CA3RFT for use with flangeless plaster installations.

### Labels and listings

- cULus listed for wet locations
- CCEA (frames with \*LC suffix)

### Warranty



5 year limited warranty  
Visit [Signify.com/warranties](http://Signify.com/warranties) for more information on Signify's standard 5-year limited warranty on complete luminaire systems.

### 0-10V electrical tables

Light engine	Input volts	Input current	Drive current	Input power
C3L05_Z10U	120 V	0.06 A	150 mA	7.0 W
	277 V	0.02 A		
C3L07_Z10U	120 V	0.08 A	220 mA	9.5 W
	277 V	0.03 A		
C3L10_Z10U	120 V	0.12 A	330 mA	13.6 W
	277 V	0.05 A		
C3L15_Z10U	120 V	0.16 A	450 mA	18.6 W
	277 V	0.07 A		
C3L18_Z10U	120 V	0.17 A	500 mA	20.4 W
	277 V	0.07 A		
C3L07_Z10US C3L07_Z10UR	120 V	0.08 A	220 mA	9.4 W
	277 V	0.03 A		
C3L10_Z10UR C3L10_Z10US	120 V	0.12 A	330 mA	14.1 W
	277 V	0.05 A		

### ELV electrical tables

Light engine	Input volts	Input current	Drive current	Input power
C3L05_E1	120 V	0.05 A	150 mA	5.4 W
	277 V	0.02 A		
C3L07_E1	120 V	0.08 A	220 mA	8.7 W
	277 V	0.03 A		
C3L10_E1	120 V	0.11 A	330 mA	13.2 W
	277 V	0.05 A		
C3L15_E1	120 V	0.15 A	450 mA	17.4 W
	277 V	0.06 A		
C3L18_E1	120 V	0.17 A	500 mA	19.7 W
	277 V	0.07 A		
C3_A05_E1S C3_A05_E1R	120 V	0.08 A	220 mA	8.7 W
	277 V	0.03 A		
C3_A10_E1R C3_A10_E1S	120 V	0.11 A	330 mA	13.2 W
	277 V	0.05 A		

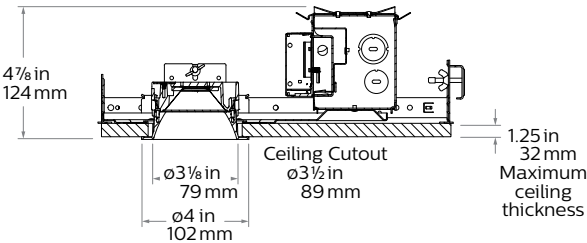
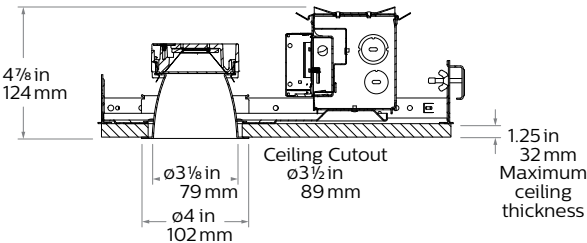
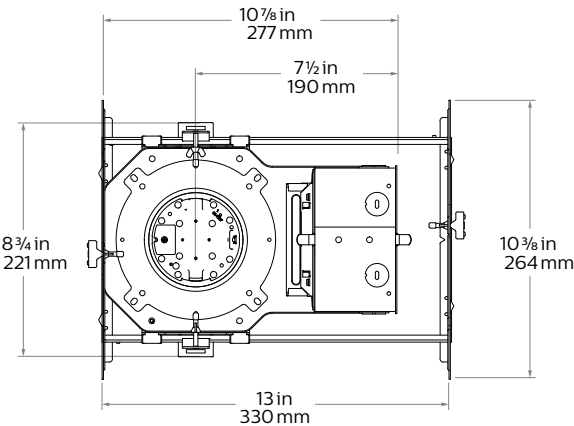
### Lutron electrical tables

Light engine	Input volts	Input current	Drive current	Input power
C3L05_LU	120 V	0.06 A	150 mA	6.2 W
	277 V	0.02 A		
C3L07_LU	120 V	0.08 A	220 mA	8.8 W
	277 V	0.03 A		
C3L10_LU	120 V	0.12 A	330 mA	13.0 W
	277 V	0.05 A		
C3L15_LU	120 V	0.15 A	450 mA	17.7 W
	277 V	0.06 A		
C3L18_LU	120 V	0.17 A	500 mA	19.8 W
	277 V	0.07 A		

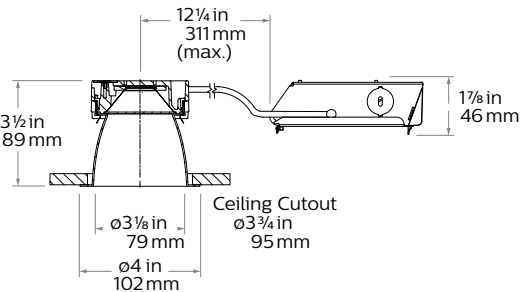
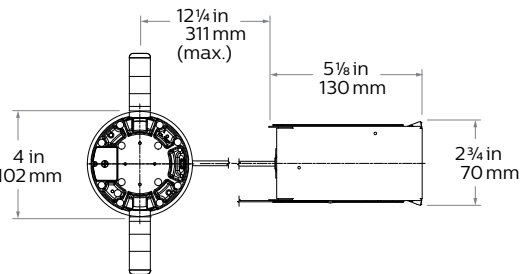
# C3RWW Calculite 3"

## Round wall wash

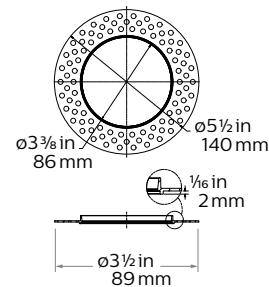
### New construction (N)



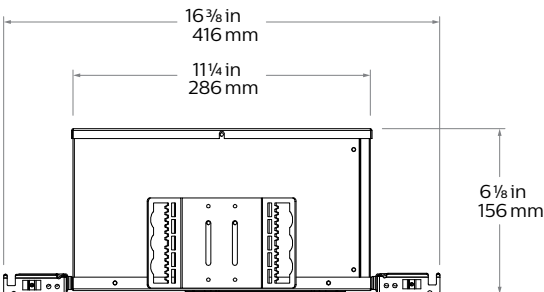
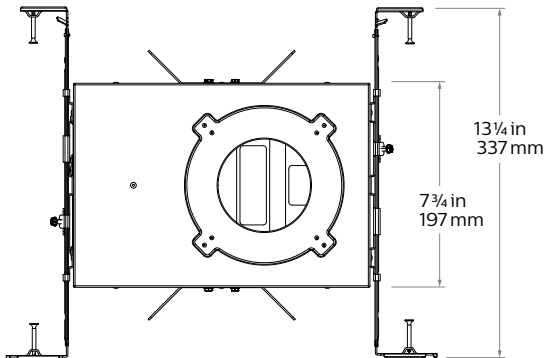
### Remodeler (R)



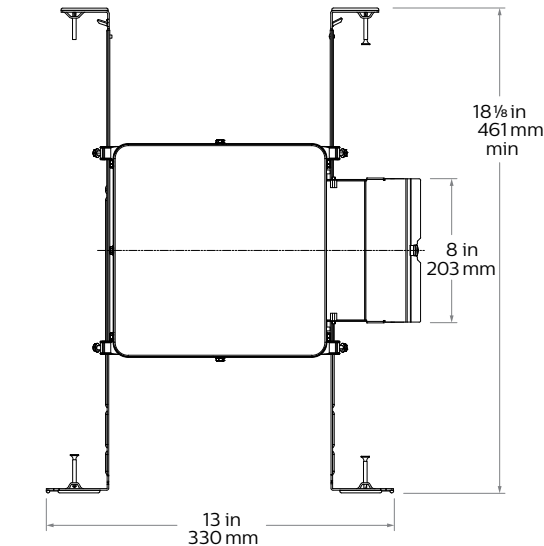
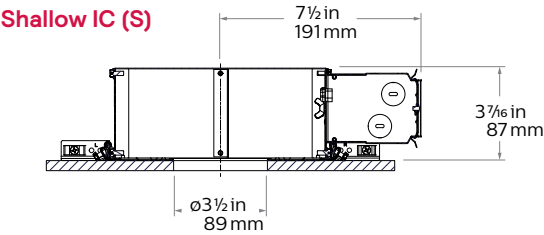
### Flangeless mud-in ring (CA3RFT) accessory



### Standard IC (A) and Chicago plenum (LC)



### Shallow IC (S)



# C3RWW Calculite 3"

## Round wall wash

**Polished Reflectors** Shown as round reflectors but represent the finish of Calculite square reflectors.



**Specular clear (CL):** Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



**Champagne bronze (CZ):** Semi-specular finish that softens light at the source of the reflector while providing a warmer reflector appearance (slightly warmer).



**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.



**White (WH):** (matte) Brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



**Comfort clear diffuse (CD):** Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.



**Black (BK):** (anodized) Specular finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.

**Textured Reflectors** Shown as square reflectors but represent the finish of Calculite round reflectors.



**Aluminum diffuse (D):**  
Matte painted finish.



**Textured white (WT):**  
Matte painted finish.



**Bronze (BZ):**  
Matte painted finish.



**Textured black (BT):**  
Matte painted finish.

### Flanges



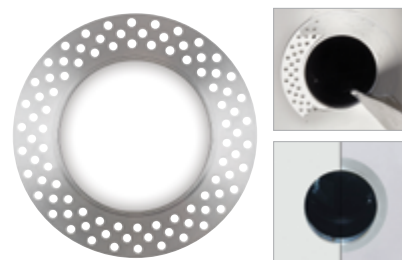
**White (-):** (matte) Provides the smoothest transition to ceilings when off.



**Polished (P):** (matches aperture) Produces a continuous look throughout the reflector (aperture matching).



**Flangeless (F):** (flush-mount) Creates a flush, virtually seamless transition from aperture to ceiling.



**Mud-in ring (FT):** Low profile, machined aluminum mud-in ring provides a raised rib to plaster up to and a 3/16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

# C3RWW Calculite 3"

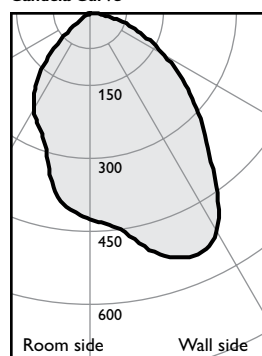
## Round wall wash

### Adjustment factors

Finish	CCT	Lumens
CL = 102%	90CRI 4000K = 104%	1500lm = 130%
CC = 100%	90CRI 3500K = 100%	1000lm = 100%
CD = 95%	90CRI 3000K = 96%	750lm = 70%
WH = 95%	90CRI 2700K = 90%	500lm = 50%
WT = 95%		
CZ = 90%		
D = 90%		
BK = 85%		
BZ = 80%		
BK = 80%		
BT = 75%		

### Wall wash, 1000lm engine, 56.0 lm/W

#### Candela Curve



Frame: **3RN**  
Engine: **C3L10935NZ10U**  
Trim: **C3RLWCC**

Output lumens: 777 lms  
Input watts: 14 W  
CRI: 90 min  
CCT: 3500K

Efficacy: **56.0 lm/w**  
Report#: 1764GFR

#### Multiple unit data

##### Footcandles on wall

	2' from wall		
	3' on ctr.		
Distance from ceiling in feet	1	2	3
1	23	19	23
2	33	30	33
3	28	26	28
4	20	19	20
5	14	14	14
6	10	10	10
7	7	7	7
8	5	5	5
9	4	4	4
10	3	3	3
12	2	2	2
14	2	2	2

#### Multiple unit data

##### Footcandles on wall

	2' from wall		
	4' on ctr.		
Distance from ceiling in feet	1	2	3
1	19	11	19
2	28	28	28
3	23	18	23
4	16	14	16
5	11	10	11
6	8	8	8
7	6	6	6
8	5	5	5
9	4	4	4
10	3	3	3
12	2	2	2
14	2	2	2

#### Multiple unit data

##### Footcandles on wall

	2' from wall		
	5' on ctr.		
Distance from ceiling in feet	1	2	3
1	21	7	21
2	28	12	28
3	21	12	21
4	14	10	14
5	9	8	9
6	7	6	7
7	5	5	5
8	4	4	4
9	3	3	3
10	3	3	3
12	2	2	2
14	2	2	2

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