



Calculite LED 4" generation 3 features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility. Industry leading visual comfort and uniform illumination make it an ideal choice for office, institution, healthcare, public, and retail applications. Tunable white technology provides dynamic flexibility to fully capture application ambiance and enhance behaviour by supporting biorhythms.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Qty: _____
 Notes: _____

Complete luminaire: Frame + Engine + Trim + Accessories (optional)

Frame

example: 4RN

Series	Installation	Voltage/Options
4R	<input type="checkbox"/>	<input type="checkbox"/>
4R 4" Round	N New Construction	– Universal 120V/277V
	R Remodeler	LC Chicago Plenum EM6 Emergency, 6W Self-Test/Self-Diagnostic ¹
	A Airseal IC	– Universal 120V/277V

Engine

example: C4L1596TMDU

Series	Lumens	CRI/CCT	Beam	Dimming	Voltage
C4L		96T			
C4L Calculite LED 4"	05 500lm	96T 90CRI / 6500-2700K	N Narrow (38°) M Medium (54°)	Z10 0-10V 1%	U Universal 120V/277V For 347V order T347-75VA accessory
	10 1000lm			D DALI DT8 0.1%	
	15 1500lm			DMX Digital Multiplexing w/ RDM 0.1%	
	20 2000lm			LTW Lutron T-Series 1% ⁶	
	RA Integral Interact Pro RF sensor ⁴ (enables wireless connected lighting control)				

Trim

example: C4RDLOCP

Series	Aperture	Style	Finish	Flange	Options
C4	R				
C4 Calculite LED 4"	R Round	DL Downlight	CL Specular clear	– White (matte)	IEM6 Trim mounted EM test switch ⁵
		WW Open Wall Wash ²	CC Comfort clear	– Polished	
		LW Lensed Wall Wash ^{2,5}	CD Comfort clear diffuse	F Flangeless (requires CA4RFT)	
		CW Corner Wall Wash ^{2,3}	CZ Champagne bronze		
		DW Double Wall Wash ^{2,3}	BK Black (anodized)		
		WH White (matte)	– White (matte)		
		WHAMF White (gloss antimicrobial)	F Flangeless (requires CA4RFT)		
	SL Shower Light	WH White (matte)	– White (matte)		
		WHAMF White (gloss antimicrobial)			

Accessories

- CA4RFT** Mud-in ring for use with flangeless installations (ordered with a flangeless trim)
- CAEM6** Field installable EM pack
- C4RVPWH** IP65 rated vandal proof matte white accessory that mounts onto a flangeless trim (not available for use with Lensed Wall Wash)
- SBA** Interact Ready System Bridge accessory w/integral occupancy & daylight sensor (compatible with all 0-10v options, see SBA spec sheet)
– Requires IRT9015 IR remote & Interact Pro App for commissioning.
- T347-75VA** 347:120V step-down transformer for non-IC (N) frame only (see page 2 for details)

1. Emergency (EM6) frame is compatible with reflector mounted test switch when trim (LW not avail.) is ordered with IEM6 option code (not compatible with 347V). For remote mount switch, order standard trim and CAEM6TSCP mounting plate accessory. EM mode on 6500K circuit only.
2. Medium (M) beam recommended for all Wall Wash (LW, WW, CW, DW) applications.
3. Corner (CW) and Double (DW) wall wash are not available with flangeless (F) option.
4. Linear driver profile. See page 5 for details
5. LW style requires remote mounted EM6 test switch. Order with CAEM6TSCP test switch mounting plate.
6. 500lm not available with LTW dimming option.

C4RTW Calculite LED 4" gen 3

Round Tunable White

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 2".

Patented install Mounting frame

- Pre-installed mounting bars for fast and toolless installs into T-grid & hat channel ceilings.
- Close-cut aperture design eliminates possibility of gap between ceiling opening & 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 (2-channel)

All configurations are FCC Class A unless otherwise specified. Dimming curves are logarithmic as standard, contact factory for options.

- 0-10V 1% (Z10)
- DALI DT8 1% (D)
- Digital Multiplexing w/ RDM 1% (DMX)
- Lutron T-Series 1% (LTW)

Rated life

55,000 hrs at 85% lumen maintenance based on IES LM-80-08 and TM-21-11.

See page 5 for complete details.

Optical systems

Comfort throughout the space:

- True 50° physical cutoff and 45° reflected cutoff.
- MesoOptics PET optical diffusion film: Provides a smooth beam shape and mitigates color over angle with optimized luminaire efficiency.
- Tunable white (6T): 2700K to 6500K CCT. Use with Z10 dimming only. Fixture-to-fixture consistency of $\leq 3\text{SDCM}$ at 2700K, 5000K, and 6500K CCT.

Light Engine

Quick connect power pack comprised of light source and driver 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.

Emergency

Bodine BSL6 6W battery pack with self-test/diagnostic functionality. Factory mounted to frame.

- For trim with integral emergency test switch, order trim with IEM6 option (ex: C4RDLCCIEM6). Not avail. for LW style.
- For remote ceiling mounted test switch, order standard trim (ex: C4RDLCC). Optional accessory ceiling mounting plate available (CAEM6TSCP) for remote mounted test switch (required for LW style).
- EM mode is on 6500K circuit.
- To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire configuration efficacy, then by 1.1.

Options and Accessories

Flangeless mud-in ring: Use CA4RFT for use with flangeless plaster installations.

Sloped ceilings: Compatible with sloped ceiling adapters (see SCA spec sheet).

C4RVPWH: includes machined aluminum ring painted white, gasketed for IP65 protection, and impact resistant polycarbonate lens (IK10). Locks in place with discrete setscrew (key included). Available also with antimicrobial finish (C4RVPWHAMF).

CAEM6TSCP: Ceiling cover plate for remote mounted EM6 test switch. 1/2" (25mm) hole, 4 3/8" (109mm) x 2 3/4" (69mm) rectangular. Includes two mounting screws.

CAEM6: Field install EM6 kit with Bodine BSL6 6W battery pack with self-test/self-diagnostic, mounts to new construction frames. Includes remote ceiling plate for test switch. To mount test switch to trim for new construction frame, order trim with IEM6 option code (e.g. C4RDLCCIEM6). Refer to Calculite-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details

SBA: Interact Ready System Bridge Accessory Requires IRT9015 IR remote and Interact Pro App for commissioning.

T347-75VA: Field installable 347:120V 75VA stepdown transformer, attaches to knock out on frame junction box, for use with non-IC (N) or remodel (R) frames.

Labels and Listings

- cULus listed for wet locations (downlights)
- RoHS certified
- CCEA (frames with *LC suffix)
- IP65 rated with vandal proof accessory

Warranty



5 year warranty

Indoor Professional Luminaires complete system warranty available at: www.signify.com/warranties

C4RTW Calculite LED 4" gen 3

Round Tunable White

Polished 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.



Vandal proof (VP): Provides an elegant solution for vandal resistant needs. One piece machined aluminum ring with impact resistant clear lens. Flangeless (F) flange must be ordered. Provides the luminaire with an IK10 impact and IP65 rating.



Shower light (SL): Wet location rated shower light with clear acrylic lens applicable in any installation requiring dead front trims, interior or exterior non-corrosive applications, or where a diffused lens at the ceiling is required (non-conductive).

Flanges



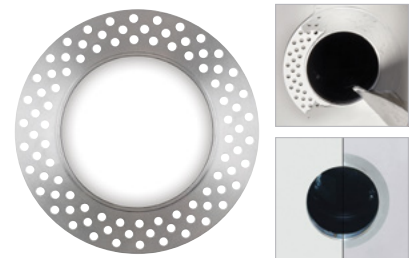
White (-): (matte) Provides the smoothest transition to ceilings when off.



Polished (P): (matches aperture) Produces a continuous look throughout the reflector (aperture matching). Not available for square trims with CL, CD, CC, and CZ finishes.



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

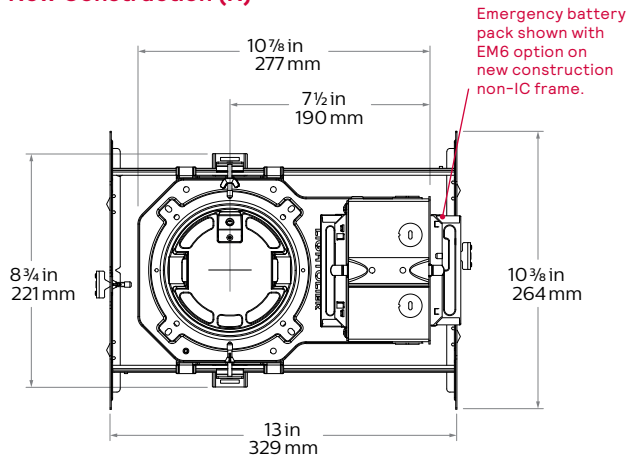


Mud-in ring (FMR): Low profile, non-metallic mud-in ring provides a raised rib to plaster up to and a 3/16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

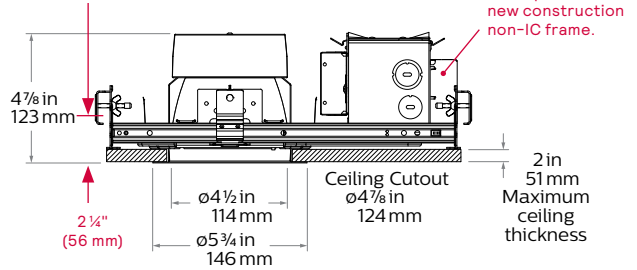
C4RTW Calculite LED 4" gen 3

Round Tunable White

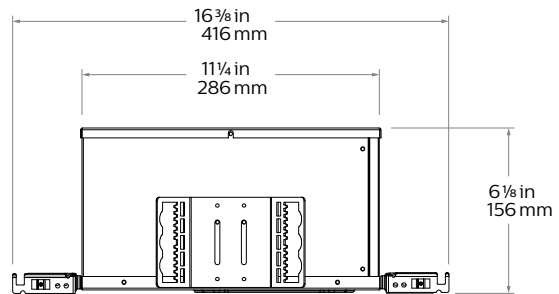
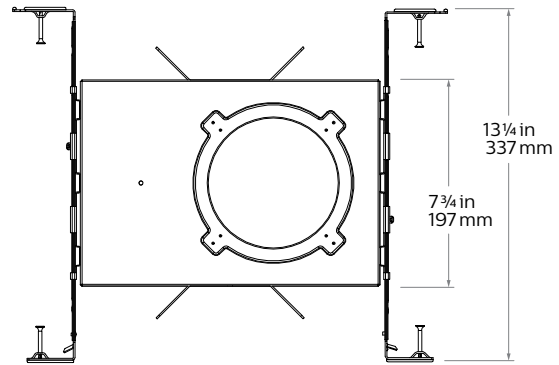
New Construction (N)



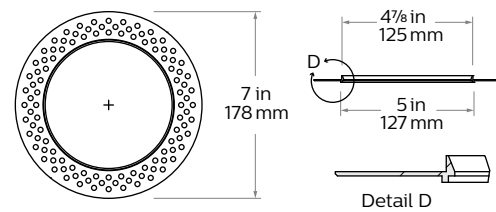
Center point location for integral emergency test switch (IEM6)



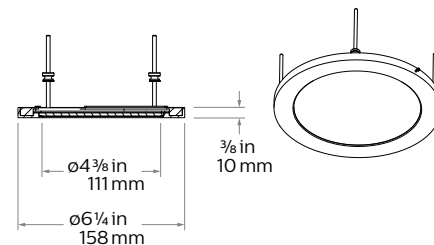
AirSeal (A) & Chicago Plenum (LC)



Flangeless mud-in ring (CA4RFT) accessory



Vandal Proof (VP) accessory

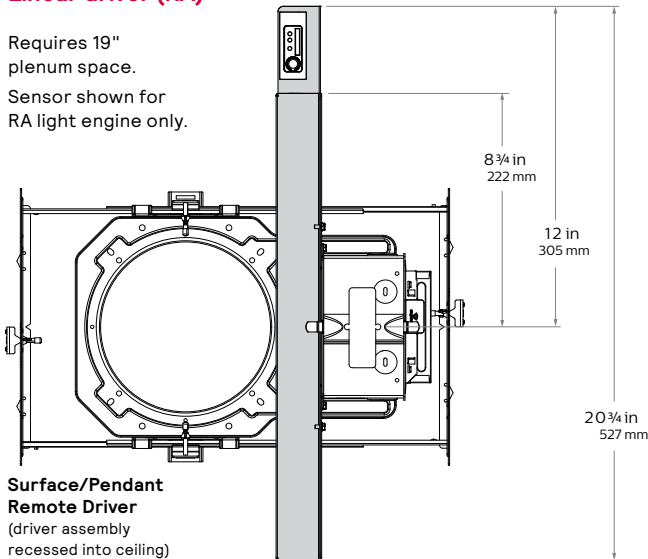


C4RTW Calculite LED 4" gen 3

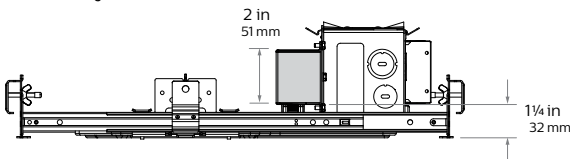
Round Tunable White

Linear driver (RA)

Requires 19" plenum space.
Sensor shown for RA light engine only.



Surface/Pendant Remote Driver
(driver assembly recessed into ceiling) for all configurations.



Lifetime (TM-21) data

Lumens	Narrow beam	Medium beam
500lm	L85 @ 55,000hrs.	L90 @ 60,000hrs.
1000lm		
1500lm		
2000lm	L85 @ 55,000hrs.	L80 @ 60,000hrs.

Lumens

Light engine	Beam	90CRI, 2700K		90CRI, 2700K		90CRI, 2700K		90CRI, 2700K		90CRI, 2700K		90CRI, 6500K	
		Input Current	Input Power	Input Current	Input Power	Input Current	Input Power	Input Current	Input Power	Input Current	Input Power	Input Current	Input Power
500m	Narrow (N)	596	83	590	85	582	88	576	90	567	92	560	95
	Medium (M)	529	74	523	76	516	78	509	79	500	82	493	83
1000m	Narrow (N)	1097	82	1091	85	1084	87	1079	90	1071	93	1065	96
	Medium (M)	974	73	968	75	960	77	954	79	944	82	938	84
1500m	Narrow (N)	1664	79	1657	81	1647	84	1638	86	1626	90	1618	93
	Medium (M)	1479	70	1470	72	1458	74	1449	76	1435	79	1425	82
2000m	Narrow (N)	2181	74	2178	76	2173	80	2170	83	2164	87	2160	89
	Medium (M)	1938	66	1932	68	1925	71	1918	73	1909	76	1903	79

Electrical

Light engine	Input Volts	Input Freq.	90CRI, 2700K		90CRI, 6500K	
			Input Current	Input Power	Input Current	Input Power
C4L05	120V	50/60Hz	0.060A	7.1W	0.828A	5.9W
	277V	50/60Hz	0.027A	7.5W	0.840A	6.3W
C4L10	120V	50/60Hz	0.111A	13.3W	0.835A	11.1W
	277V	50/60Hz	0.049A	13.5W	0.845A	11.4W
C4L15	120V	50/60Hz	0.177A	21.2W	0.823A	17.4W
	277V	50/60Hz	0.077A	21.3W	0.824A	17.5W
C4L20	120V	50/60Hz	0.246A	29.5W	0.820A	24.2W
	277V	50/60Hz	0.106A	29.5W	0.820A	24.2W

