PHILIPS
LIGHTOLIER

Downlighting

Calculite LED gen 3 4" square lensed wall wash

500 – 3000lm

Calculite LED 4" generation 3 features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility.

Complete lumianire = Frame + Engine + Trim + Accessories (optional)

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Frame

example: C4SN

Series	Aperture	Installation	Voltage/Options
C4	**S**		
C4 Calculite LED 4" aperture	**S** Square	**N** New construction[1] **R** Remodeler	**—** Universal 120 V/277 V (specify for Power Over Ethernet configurations) **3** 347 V (not compatible with ELV dimming) **EM** Emergency[1,2] **LC** Chicago Plenum[1]

Engine

example: C4L15835NZ10U

Series	Lumens	CRI	CCT	Beam	Dimming		Voltage
C4L							
C4L Calculite LED 4" aperture	**05** 500 lm[3] **10** 1000 lm **15** 1500 lm **20** 2000 lm **25** 2500 lm[4] **30** 3000 lm[4]	**8** 80 CRI **9** 90 CRI	**27** 2700 K **30** 3000 K **35** 3500 K **40** 4000 K	**M** Medium (56°)	**Z10** 0–10 V 1%[3] **SOL** EldoLED Solo 0–10 V 0.1% **D** Dali **L** Lutron LDE1 EcoSystem (fade-to-black)		**U** Universal 120 V/277 V/347 V
					E ELV (120V dimming only)[5]	**1** Universal 120 V/277 V	
					P Power over Ethernet	**E** Ethernet 48 V DC	
					Only compatible with 1000 (10) to 2500 (25) lumen configurations.		

Trim

example: C4SLWCCP

Series	Aperture	Style	Finish		Flange
C4	**S**	**LW**			
C4 Calculite LED 4" aperture	**S** Square	**LW** Lensed Wall Wash	**CL** Specular clear **CC** Comfort clear **CD** Comfort clear diffuse		**—** White (matte) **P** Polished **F** Flangeless
			WH White (matte)		**—** White (matte) **F** Flangeless

Accessories (ordered with a flangeless trim)
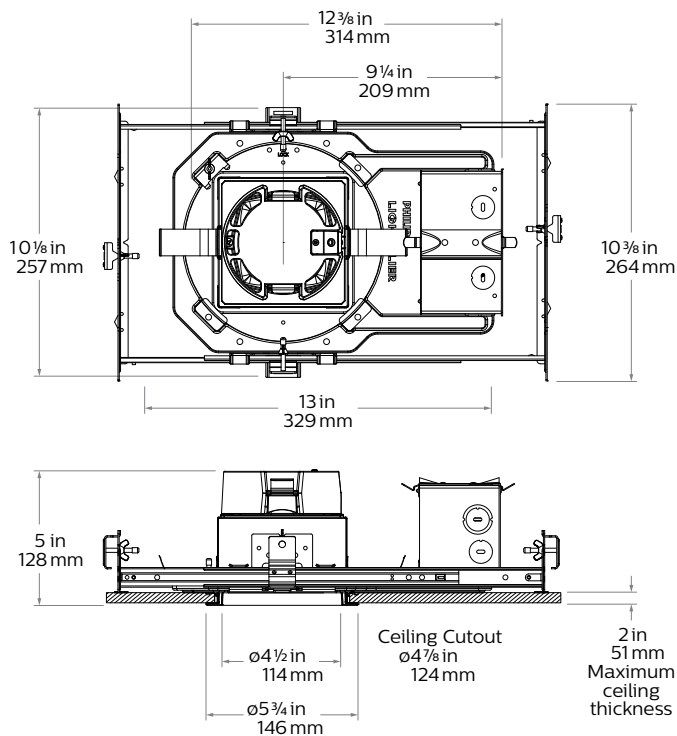
CA4SFT	Mud-in ring for use with flangeless installations
CAEM	Field installable EM pack

1. Emergency (EM) and Chicago Plenum (LC) options are only available with New construction (N) installations.
2. Emergency (EM) frame comes with emergency battery pack and ceiling mountable test switch. Reflector mounted test switch requires above ceiling access. For reflector mounted test switch, order emergency frame and add "EM" suffix to reflector (example: C4SDLCCEM).
3. The 500lm (05) option is only compatible with 0-10V (Z10) dimming.
4. The 2500lm (25), and 3000lm (30) packages have marked spacing requirements (see page 3).
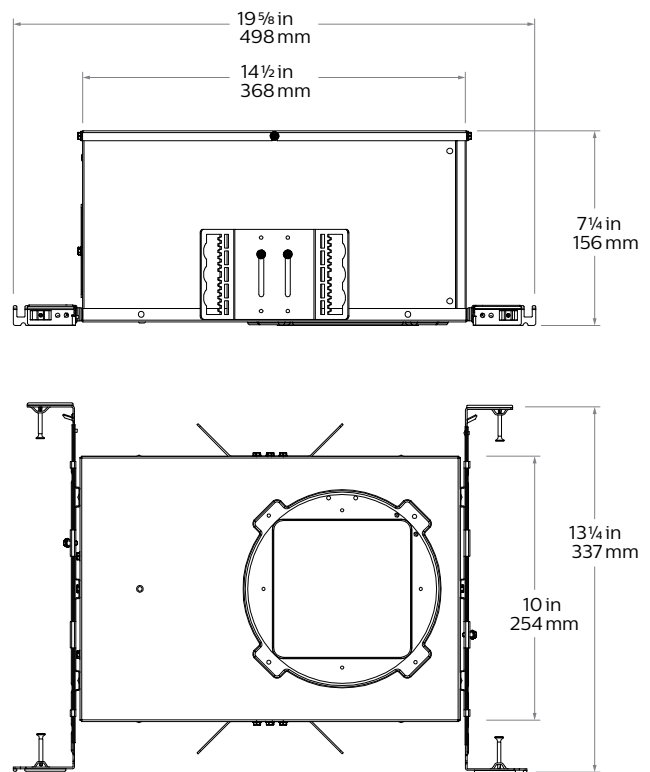5. ELV (E) dimming is only compatible with up to 2000lm (20) configurations.

c(UL)us LISTED

C4SLW   Calculite LED generation 3
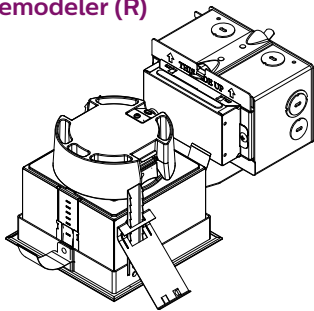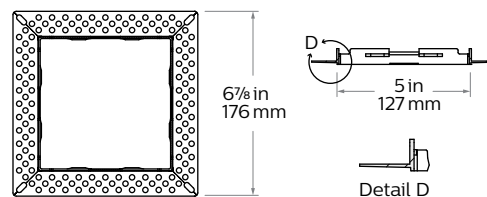
4″ square lensed wall wash

New Construction (N)

12 ⅜ in
314 mm

9 ¼ in
209 mm

10 ⅛ in
257 mm

10 ⅜ in
264 mm

13 in
329 mm

5 in
128 mm

ø4 ½ in
114 mm

Ceiling Cutout
ø4 ⅞ in
124 mm

ø5 ¾ in
146 mm

2 in
51 mm
Maximum
ceiling
thickness

Chicago Plenum (LC)

19 ⅝ in
498 mm

14 ½ in
368 mm

7 ¼ in
156 mm

13 ¼ in
337 mm

10 in
254 mm

Remodeler (R)

Flangeless mud–in ring (CA4SFT)

6 ⅞ in
176 mm

D

5 in
127 mm

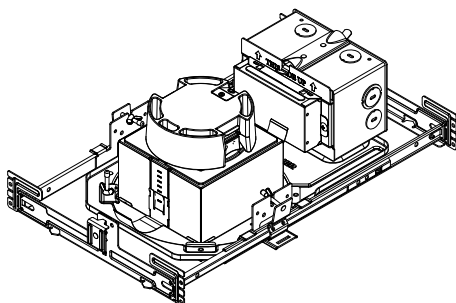Detail D

Consult factory for wood installation instructions.

C4SLW   Calculite LED generation 3

4" square lensed wall wash

Medium

Light engine	Input volts	Input freq	Input current	Drive current	Input power	THD power	Power factor
C4L05_MZ10U	120V	50/60Hz	0.05	110 mA	6W	<20%	>0.95
	277V		0.03			<20%	>0.90
C4L10_MZ10U	120V	50/60Hz	0.08	230 mA	11W	<15%	>0.95
	277V		0.04			<20%	>0.95
C4L15_MZ10U	120V	50/60Hz	0.12	350 mA	16W	<10%	>0.95
	277V		0.06			<15%	>0.95
C4L20_MZ10U	120V	50/60Hz	0.16	470 mA	21W	<10%	>0.95
	277V		0.08			<15%	>0.95
C4L25_MZ10U	120V	50/60Hz	0.21	610 mA	25W	<10%	>0.95
	277V		0.09			<15%	>0.95
C4L30_MZ10U	120V	50/60Hz	0.26	770 mA	31W	<10%	>0.95
	277V		0.12			<15%	>0.95

Medium (Power over Ethernet)

Light engine	Input				
	Volts[1]	Voltage[2]	Freq	Current	Power
C4L10___MPE	53V	51-54V	DC	160 mA	8.8 W
C4L15___MPE	53V	51-54V	DC	250 mA	13.4 W
C4L20___MPE	53V	51-54V	DC	320 mA	17.6 W
C4L25___MPE	53V	51-54V	DC	430 mA	23.2 W

1. Nominal input volts.
2. Preferred volt range.

Marked spacing applications

Light engine	2500 lm	3000 lm
C4L_Z10U series	—	X
C4L_LU series	X	X
C4L_DU series	—	X

Modules marked with an X require marked spacing:
– Center-to-center of adjacent luminaires: 24" (610mm)
– Luminaire center to side building member: 12" (305mm)

Lifetime (TM-21) data

Lumens	Narrow beam	Medium/Wide beam*
500lm 1000lm 1500lm	L90 @ 60,000 hrs.	L90 @ 60,000 hrs.
2000lm 2500lm 3000lm*	L90 @ 60,000hrs.	L85 @ 60,000hrs.

* Lutron 3000lm with Medium/Wide beam is L80 @ 60,000hrs.

C4SLW   Calculite LED generation 3

4" square lensed 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 2".

Patented install Mounting frame

With no driver attached, this versatile frame is independent of driver accommodating a wide range of lumen packages, driver types and CCTs, including 120V and 277V inputs.

Pre-installed mounting bars allow for fast and tool-less installation into T-grid and hat channel ceilings.

Close-cut aperture design eliminates the possibility of undesired gap between ceiling opening and reflector flange.

Separate wiring compartment for wiring frame to building allows inspection prior to light engine installation.

Simple plug-and-play connection between the frame and light engine from below the ceiling eliminates the need for wiring between frame and LED driver, and also saves time during installation and future replacements/upgrades. Plug-and-play receptacle accommodates technology upgrade of light engines and replacements for the life of the building.

Features for easy alignment of fixtures and present locking at 0°, 45°, and 90°. 360° rotation with tool-less locking.

Drivers

- Advance 0-10V 1% dimming
- Lutron Hi-lume EcoSystem H Series 1% dimming
- EldoLED ECOdrive Dali 1% dimming
- EldoLED SOLOdrive 0-10V 0.1% dimming
- ELV dimming

Power over Ethernet

Powered via Philips PoE lighting controller: complies with FCC rules per Title 47 part 15 (Class A) for EMI / RFI (conducted & radiated). PoE lighting controller accessible from below ceiling.

Rated life: 60,0000 hrs at 70% lumen maintenance based on IES LM-80-08 and TM-21-11.

Optical systems

Comfort throughout the space: Patented optical system combines primary and secondary optics to provide a true 50° physical cutoff and 45° reflected cutoff virtually eliminating the view of the light source and bright spots in the reflector. A new reflector curve reduces reflector brightness by up to 50% compared to existing products, allowing for the use of higher lumen packages in smaller apertures without creating bright spots in the ceiling.

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.

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.

Options and Accessories

Flangeless mud-in ring: Use **CA4SFT** for use with flangless plaster installations.

Labels and Listings

cULus listed for wet location

CCEA (frames with *LC suffix)

IBEW Union made (light engines & reflectors)

RoHS compliant

Warranty

5 year warranty on complete system.
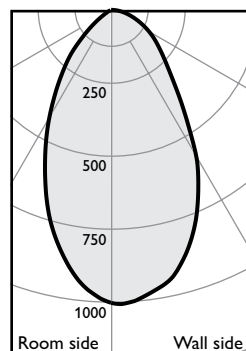
Complete warranty available at: http://images.philips.com/is/content/PhilipsConsumer/PDFDownloads/United%20States/ODLI20150930_003-UPD-en_US-Philips-warranty-indoor-PLS-us.pdf

C4SLW   Calculite LED generation 3

4″ square lensed wall wash

Lensed Wall Wash, 1500lm Engine, 83.1 lm/w or 84.5 lm/W at 13.4W (Power over Ethernet)

Candela Curve

250
500
750
1000

Room side   Wall side

Frame: **C4SN**
Engine: **C4L15835MZ10U**
Trim: **C4SLWCL**

CCT [1]:	3500K
Output lumens:	1172 lms
Input watts:	14.1 W (± 5%)
CRI:	80 min

Efficacy: 83.1 lm/w
Report [2]:   1093GFR

Multiple unit data
Footcandles on wall

2' from wall		
3' on ctr.		

Distance from ceiling in feet			
1	27	17	27
2	31	25	31
3	29	26	29
4	25	24	25
5	20	20	20
6	16	16	16
7	13	13	13
8	11	11	11
9	9	9	9
10	8	8	8
12	7	7	7
14	6	6	6

Multiple unit data
Footcandles on wall

3' from wall		
3' on ctr.		

Distance from ceiling in feet			
1	11	10	11
2	18	17	18
3	19	19	19
4	19	19	19
5	19	19	19
6	17	17	17
7	15	15	15
8	13	13	13
9	11	11	11
10	10	10	10
12	8	8	8
14	7	7	7

Multiple unit data
Footcandles on wall (shown above)

3' from wall		
4' on ctr.		

Distance from ceiling in feet			
1	10	7	10
2	15	12	15
3	16	14	16
4	15	14	15
5	15	14	15
6	13	13	13
7	11	11	11
8	10	10	10
9	9	9	9
10	8	8	8
12	6	6	6
14	6	6	6

Adjustment factors

Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	3000lm = 200%
CC = 95%	80CRI 3500K = 100%	2500lm = 167%
CD = 87%	80CRI 3000K = 97%	2000lm = 133%
CZ = 63%	80CRI 2700K = 87%	1500lm = 100%
WH = 87%	90CRI 3000K = 77%	1000lm = 67%
BK = 57%	90CRI 2700K = 73%	500lm = 33%

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.