Downlighting

LIGHTOLIER

Calculite LED 4" gen 3







C4RWW Round Wall Wash

Calculite LED 4" generation 3 provides excellent performance coupled with optimized installation flexibility via UniFrame. Industry leading visual comfort and uniform illumination make it an ideal choice for open office, institution, healthcare, and retail applications.

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

Buy American Act of 1933 (BAA)** Compliant luminaire*: Complete luminaire = Frame-BAC + Engine-BAC + Trim-BAC

* BAA compliance requires that BAC option be selected for each of frame, engine, and trim. Frame and engine will be ordered/shipped together; trim will be ordered/shipped separately. Accessories (optional) are not currently BAA-compliant.

Project:
Location:
Cat.No:
Гуре:
Qty:
Notes:

Frame	standard example: 4RN	BAC example: 4RN-BAC
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Series	Installation	Voltage/Options		
4R				
4R 4" Non-IC Round	N New construction	Universal 120/277/347V Em6 Emergency, 6W Self-Test/Self-Diagnostic ¹	LC BAC	Chicago Plenum ² Meets the requirements of the Buy American Act of 1933 (BAA) ¹⁰
	R Remodeler	- Universal 120/277/347V	BAC	Meets the requirements of the Buy American Act of 1933 (BAA) ¹⁰

Engine

Series C4L	Lumens	CRI/CCT	Beam	Dimming	Options	Voltage	Options		
C4L Calculite LED 4"	05 500 lm 10 1000 lm	927 90CRI/2700K 930 90CRI/3000K	N Narrow (43°) M Medium (56°)	Z10 0-10 V 1%	None D2O Dim to Off	U 120/277V 3 347V (Z10 only)	F Flex install ⁶ (no frame required)		
gen 3	15 1500 lm 20 2000 lm 25 2500 lm 30 3000 lm*	935 90CRI/3500K 940 90CRI/4000K 950 90CRI/5000K ³ D2W 90CRI/3000K	W Wide (76°)	000K 000K³	940 90CRI/4000K 950 90CRI/5000K ³	L01 Lutron PEQO EcoSystem 0.1% L1 Lutron LDE1 EcoSystem (500Im RA Integral Interact RF sensor ⁵	n not available)	U 120/277V	<pre>R Retrofit⁷ RH Retrofit for tall collar frame⁷</pre>
	* See marked	to 1800K ⁴ (dim-to-warm)		D DALI 0.1%	None LIN Linear	U 120/277V	BAC Meets the requirements of the Buy American		
	spacings requirements on page 9.			SOL EldoLED Solo 0-10 V 0.1% DMX Digital Multiplexing w/RDM 0.1%	None LIN Linear SQR Square	U 120/277V	Act of 1933 (BAA) ¹⁰		
				E Forward & Reverse Phase (up	to 2500lm)	1 120V			

Trim standard example: C4RWWCCP | BAC example: C4RWWCCP-BAC

Series	Aperture	Style	Finish	Flange	Options
C4	R				
C4 Calculite LED 4" gen 3	R Round	WW Open Wall Wash LW Lensed Wall Wash ⁸ CW Corner Wall Wash ⁹	BK Black (annodized) CC Comfort clear CL Specular clear CD Comfort clear diffuse CZ Champagne bronze	- White (matte) P Polished (matches aperture) F Flangeless (requires CA4RFT)	IEM6 Trim mounted EM test switch BAC Meets the requisites
		DW Double Wall Wash ⁹	WH White (matte) WHAMF White (gloss antimicrobial)	- White (matches finish) F Flangeless (requires CA4RFT)	of the Buy American Act of 1933 (BAA) ¹⁰

Accessories (Not currently BAA-compliant) learn more on page 2

SBA	Interact Ready System Bridge Accessory	7920	Sloped ceiling 4" adapter for 4RN and 4RA frames
	(refer to Philips System Bridge Accessory spec sheet for options and details)	CA4RFT	Mud-in ring for use in 4" round flangeless trim installations
4RNSR	4" round/square non-IC frame with Flex (F) light engine		(ordered with a flangeless trim)
	(provides mechanical support for rough-in construction only, no junction box)	CAEM6	Field-installable Bodine BSL6 6W battery pack with self-test/self-diagnostic
LCEM6	Field installable Bodine BSL06 emergency battery pack		(for new construction frames, 120-277V)
	(for Flex (F) light engine only, includes switch mounting plate)	C4RVPWH	IP65 Rated vandal proof matte white accessory mounts onto flangeless trims
T347-75VA	347:120V step-down transformer for non-IC (N) frame only		(C6RDL□F) and new construction frame only
	(see page 2 for details)	CAEM6TSCP	Must be ordered with EM6 frame for remote test switch (see page 2 for details)

- Emergency (EM6) frame is compatible with reflector mounted test switch when trim is ordered with IEM6 option code (not compatible with 347V or Power over Ethernet configurations).
 For remote mount switch, order standard trim and CAEM6TSCP mounting plate accessory.
- 2. Chicago Plenum (LC) frame is not available for Buy American Compliant (BAC) configurations.
- 3. Consult factory for 5000K CCT (50) with narrow (N) beam.
- $4. \ \ \, \text{Dim-to-warm (D2W) available only with Z10 dimming. Narrow (N) and medium (M) beams only.}$
- 5. Linear driver profile (see page 8).
- Flex install option requires light engine (F) & trim only. Up to 2500lm only.
 Accessory frames available. Not compatible with standard frames and associated options.
 Not available with Interact (RA) light engine dimming and IEM6 trim options.
- 7. Retrofits select legacy luminaires (E & Z10 dimming only see pages 2 & 8).
- 8. Lensed Wall Wash (LW) not available with IEM6 integral emergency test switch (remote only).
- 9. Corner (CW) and Double (DW) are not compatible with flangeless (F) option.
- 10. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.













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 for Lensed Wall Wash (LW) is 1-1/2" and for Open, Corner, Double Wall Wash (WW, CW, DW) 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 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.

Retrofit

 Easily updates legacy Calculite downlights to the latest LED technology. Includes light engine, trim, and driver mounted on cover plate that mounts to junction box of previous Calculite generations. Order with R or RH option code at end of light engine catalog number (see details on page 6).

Compatibility:

Engines
Use Retrofit configuration C4R_ Trim + C4L_ Engine
Use Retrofit configuration C4R_ Trim + C4L_ Engine
Use Retrofit configuration C4R_ Trim + C4L_ Engine C4S_ Trim + C4L_ Engine C4R_ Trim + C4L_ Engine

* Not available for retrofitting luminaires with integral emergency battery.

Emergency

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

- For trim with integral emergency test switch, order trim with IEM6 option (ex: C4RWWCCIEM6).
- For remote ceiling mounted test switch, order standard trim (ex: C4RWWCC). Optional accessory ceiling mounting plate available (CAEM6TSCP) for remote mounted test switch.
- Refer to Calculite-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.

Dimming

All configurations are FCC Class A unless otherwise specified.

- Advance 0-10V 1% (Z10), logarithmic curve is standard. Specify D2O for factory-set dimto-off function, consult factory for linear dimming curve.
- EldoLED SOLODrive (SOL) 0-10v 0.1%
- Lutron PEQ0 (L) Hi-Lume Premier 0.1% EcoSystem
- · Lutron LDE1 (LO1) EcoSystem 1%
- Electronic low voltage (E) forward or reverse phase dimming, Remodel and AirSeal IC Shallow are FCC Class B
- DALI (D) DT6 DALI 0.1%
- DMX (DMX) Digital Multiplexing with RDM 0.1%

Dimming Options

The following are factory-set options for the SOL, D, and DMX driver options (ex. DMXLIN):

- · SOL/D/DMX: Logarithmic (-) standard
- · SOL/D/DMX: Linear (LIN)
- · SOL/DMX: Square (SQR)
- Dim to Warm (D2W): option changes CCT from 3000-1800K gradually as it dims. Use with Z10 dimming only. Fixture-to-fixture consistency of ≤3SDCM at 2700K & 3000K, and ≤5SDCM at 1800K.

Optical systems

Comfort throughout the space:

True 50° physical cutoff and 45° reflected cutoff.

Quality of light:

2 SDCM ensures color consistency from fixture to fixture and over the luminaire's long lifetime.

MesoOptics PET optical diffusion film:

Provides a smooth beam shape and mitigates color over angle with optimized luminaire efficiency.

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.
- 347V light engines are Z10 dimming only and include dedicated 347V driver. For 347V non-Z10 dimming, order T347-75VA fieldinstalled step-down transformer accessory.

Options and Accessories

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

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

Vandal Proof: 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 fiinsh (C4RVPWHAMF).

CAEM6TSCP: Ceiling cover plate for remote mounted EM6 test switch. $\frac{1}{2}$ " (25mm) hole, 4 %" (109mm) x 2 %" (69mm) rectangular. Includes two mounting screws.

Field Installed Emergency: Refer to Calculite-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.

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. C4RWWCCIEM6). 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 step-down transformer, attaches to knock out on frame junction box, for use with non-IC (N) or remodel (R) frames.

ENERGY STAR® exceptions

- 500lm & 90 CRI configurations
- Champagne Bronze & Black finishes
- 347V & Emergency voltage/options
- Dali, EldoLED Solo & PoE drivers

Title 24 exceptions

- 1000lm configurations
- Champagne Bronze & Black finishes

Labels and Listings

- cULus listed for wet locations
- ENERGY STAR® certified
- RoHS certified
- CEC Title 24 JA8 certified
- CCEA (frames with *LC suffix)

Warranty



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

Round Wall Wash



AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are rendered more accurately and consistently, while doing so as efficiently as CRI 80 products.



Standard CRI 80

Good color rendering and high efficacy



Standard CRI 90

Better color rendering and low efficacy



AccuRender

Best color rendering, color preference and high efficacy

Enjoy design flexibility

Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- Multiple color temperatures (CCTs) and lumen packages offered

Promote savings

High efficacy, with no penalty:

- Energy efficacy compares well to conventional 80 CRI
- Up to 25% more energy savings vs competitor 90 CRI¹
- · Helps meet Title 24 requirements

Show your true colors

High color rendering:

- True to life colors that help energize your environment and render better flesh tones critical for healthcare hospitality and retail applications.

Achieve color balance

Best in class color consistency:

Promote aesthetic harmony in your space with ≤ 2 SDCM

Round Wall Wash

Photometric - Downlights with CRI of 90+ & R9 of 50+

Lumen		Flux	Efficacy	Beam				IES TM-30-18		D-18	
Package	Beam	(lm)	(lm/W)	Angle	СВСР	CRI	R9	R_f	R _g	R _{cs,h1}	UGR
500 lm	Open (WW)	555	91	-	-	90+	50+	91	99	-6%	10
	Lensed (LW)	396	65	-	_	90+	50+	91	99	-6%	16
1000 lm	Open (WW)	937	93	_	_	90+	50+	91	99	-6%	12
	Lensed (LW)	668	66	_	-	90+	50+	91	99	-6%	18
1500 lm	Open (WW)	1348	96	-	_	90+	50+	91	99	-6%	13
	Lensed (LW)	961	69	-	_	90+	50+	91	99	-6%	19
2000 lm	Open (WW)	1731	94	-	_	90+	50+	91	99	-6%	14
	Lensed (LW)	1234	67	_	_	90+	50+	91	99	-6%	20
2500 lm	Open (WW)	2174	92	-	_	90+	50+	91	99	-6%	15
	Lensed (LW)	1549	66	-	_	90+	50+	91	99	-6%	21
3000 lm	Open (WW)	2630	89	_	_	90+	50+	91	99	-6%	16
	Lensed (LW)	1874	63	-	_	90+	50+	91	99	-6%	22

Round Wall Wash

interact

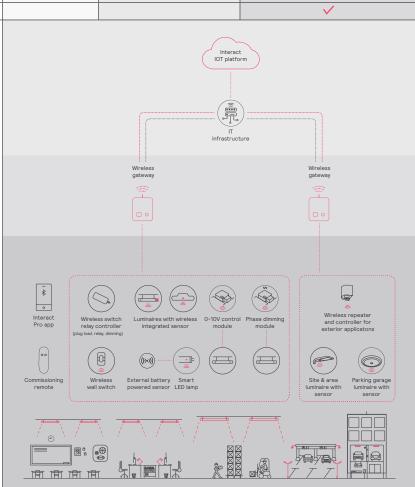
THUCH GOU				
			Gatev	vay Connected
		Standalone	Option 1	Option 2
Dimming, grouping, and zoning		~	✓	~
Bluetooth and ZigBee enabled		✓	✓	~
Motion sensing and daylight harvesting		✓	✓	~
Integration with 0-10V and phase dimming fixtures		~	✓	~
Code compliance		~	✓	~
Granular dimming and dwell time		/	✓	~
Correlated color temperature (CCT) tuning by switch	New	✓	✓	~
Support for sensor-based Tunable White luminaires	New	✓	✓	~
Energy reporting and monitoring			~	~
Scheduling			~	~
Demand response			✓	~
BMS integration (BACnet)				~
Floor plan visualization				~
IoT sensors for wellness				~
IoT Apps for productivity				~

Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
Luminaires with integrated sensors	150
Smart TLEDS	150
· Zones + groups	64
Total number of ZGP devices (sensors and switches)	50
Sensors	30
· Switches	50

Group level	
Recommended number of lights	40 (maximum 150)
Number of ZGP devices	5
Number of scenes	16



dillatin

Round Wall Wash

Wireless controls options

Interact

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the standalone mode (similar to SpaceWise) when configured without a gateway or in a cloud connected mode if a compatible gateway is used.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & BlueTooth connectivity.
 The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote on-site to identify and group devices together.

Compatible with:

- SWS200 & UID8465 wireless scene switch
- Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
- Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
- LCN3110: battery powered IP65 presence sensor, OCC sensor IA CM IP65W
- LCN3120: battery powered IP65 presence & daylight sensor, OCC-DL sensor IA CM IP65 WH
- For more information on Interact visit: interact-lighting.com/interactproscalablesystem

Radio only sensor (RA or RADIO)

- Integral RA or RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity.
 The App provides flexibility to choose between a gateway or non-gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely, identify and group devices together onsite.
- Compatible with SWS200 and UID8465 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- For more information on Interact visit: interact-lighting.com/interactproscalablesystem

Sensor bundle (IAOSB or SB)

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible with SWS200 wireless scene switch, wireless Occ sensor (OCC SENSORIA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available. Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- IAOSB or SB option in addition to occupancy and daylights sensing supports advanced IoT capabilities, such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit: interact-lighting.com/interactproscalablesystem

Emergency Options (ER100)

- Power Sensing (factory default) –
 Recommended UL924 option requires unswitched
 power sense line, absence of voltage on the
 normal circuit triggers luminaire to 100% output.
- Power Interruption Detection (field option) –
 Detects AC power interruption >30ms triggers
 90 minute emergency mode with luminaire at
 100% output.

Interact supported sensor option codes across Genlyte product lines

	Evokit	Day-Brite	Ledalite	Lightolier
ZigBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZigBee + Bluetooth	RADIO	RADIO	RA	RA
ZigBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZigBee + Highbay + Sensing	-	SWZCSH	-	-

Round Wall Wash

Reflector



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



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.



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



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



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



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

Flange



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.

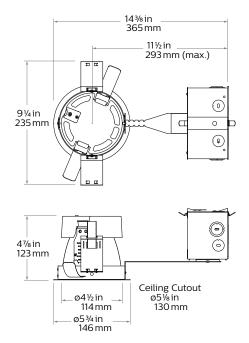


Mud-in ring (FT): Low profile, machined aluminum mud-in ring provides a raised rib to plaster up to and a 3/16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

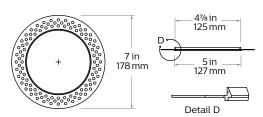
Round Wall Wash

New Construction (N) Chicago Plenum (LC) **Emergency battery** pack shown with 10% in 277 mm EM6 option on new construction non-IC frame. 7½ in 190 mm 13¼ in 337 mm 7¾ in 197 mm 10 % in 83/4 in 221 mm 264 mm 13 in 16% in 416 mm Center point location **Emergency battery** 11¼ in for integral emergency pack shown with 286 mm test switch (IEM6) EM6 option on new construction non-IC frame. 6%in 4%in 123 mm ▼ Maxium Ceiling 156 mm (a) [m] Thickness Lensed Wall Wash (LW): 1½ in 38mm Ĺ**™**. Ceiling Cutout ø4%in 124mm Wall Wash ø4½in (WW, DW, CW): 1in 25mm 114 mm (60 mm) ø5¾in _ 146 mm

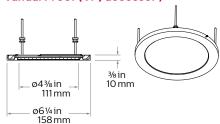
Remodeler (R)



Flangeless mud-in ring (CA4RFT) accessory

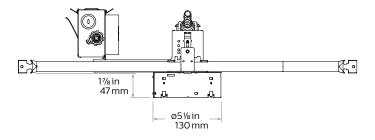


Vandal Proof (VP) accessory

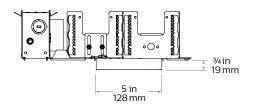


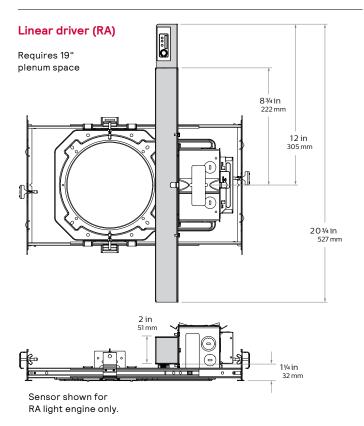
Round Wall Wash

Round tall collar frame (RH type light engine required)

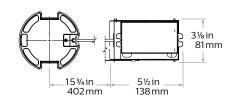


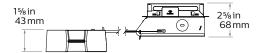
Round standard steel frame (R type light engine required)



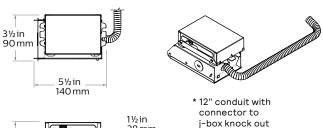


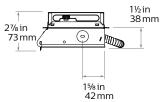
Flex Install (F)



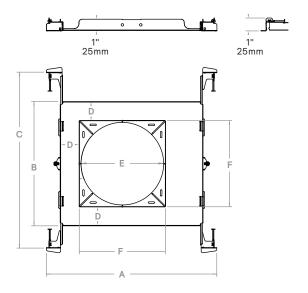


LCEM6 Flex install (F) engine only





4RNSR Flex install non-IC frame



Α	В	С	D	E	F
10 %"	7¼"	13 %"	1"	4%"	5¼"
276mm	184mm	345mm	25mm	124mm	132mm

Round Wall Wash

Electrical - Narrow

Light	Input	Input	Input	Drive	Input	LED	THD Factor	Power Factor
engine	Volts	Freq.		Current		Power	@ Max	Load
	120V	50/60Hz	0.050A	0.15A	6.0W	4.8W	<10%	>0.9
500lm	277V	50/60Hz	0.023A	0.15A	6.3W	4.8W	<30%	>0.9
	347V	50/60Hz	0.020A	0.15A	7.0W	4.8W	N/A	>0.9
	120V	50/60Hz	0.072A	0.22A	8.7W	7.1W	<10%	>0.9
1000lm	277V	50/60Hz	0.032A	0.22A	8.9W	7.1W	<20%	>0.9
	347V	50/60Hz	0.029A	0.22A	10.1W	7.1W	<30%	>0.9
	120V	50/60Hz	0.108A	0.33A	12.9W	10.8W	<10%	>0.9
1500lm	277V	50/60Hz	0.047A	0.33A	13.0W	10.8W	<10%	>0.9
	347V	50/60Hz	0.043A	0.33A	14.8W	10.8W	<25%	>0.9
	120V	50/60Hz	0.147A	0.45A	17.6W	14.9W	<10%	>0.9
2000lm	277V	50/60Hz	0.064A	0.45A	17.7W	14.9W	<10%	>0.9
	347V	50/60Hz	0.056A	0.45A	19.6W	14.9W	<20%	>0.9
	120V	50/60Hz	0.180A	0.55A	21.6W	18.3W	<10%	>0.9
2500lm	277V	50/60Hz	0.078A	0.55A	21.7W	18.3W	<10%	>0.9
	347V	50/60Hz	0.066A	0.55A	22.9W	18.3W	<20%	>0.9
	120V	50/60Hz	0.231A	0.70A	27.7W	23.7W	<10%	>0.9
3000lm	277V	50/60Hz	0.100A	0.70A	27.6W	23.7W	<10%	>0.9
	347V	50/60Hz	0.083A	0.70A	28.9W	23.7W	<15%	>0.9

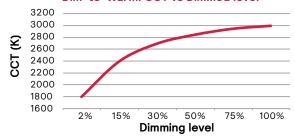
Lifetime (TM-21) data

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

Electrical - Medium & Wide

Light	Input	Input	Input	Drive	Input	LED	THD Factor	Power Factor
engine	Volts	Freq.	Current	Current		Power	@ Max	Load
•	120V	50/60Hz	0.051A	0.15A	6.1W	4.8W	<10%	>0.9
500lm	277V	50/60Hz	0.023A	0.15A	6.4W	4.8W	<30%	>0.9
	347V	50/60Hz	0.020A	0.15A	7.1W	4.8W	N/A	>0.9
	120V	50/60Hz	0.084A	0.25A	10.1W	8.3W	<10%	>0.9
1000lm	277V	50/60Hz	0.037A	0.25A	10.3W	8.3W	<10%	>0.9
	347V	50/60Hz	0.034A	0.25A	11.7W	8.3W	<30%	>0.9
	120V	50/60Hz	0.117A	0.36A	14.0W	11.8W	<10%	>0.9
1500lm	277V	50/60Hz	0.051A	0.36A	14.1W	11.8W	<10%	>0.9
	347V	50/60Hz	0.046A	0.36A	16.0W	11.8W	<25%	>0.9
·	120V	50/60Hz	0.153A	0.47A	18.4W	15.5W	<10%	>0.9
2000lm	277V	50/60Hz	0.067A	0.47A	18.5W	15.5W	<10%	>0.9
	347V	50/60Hz	0.059A	0.47A	20.3W	15.5W	<20%	>0.9
	120V	50/60Hz	0.197A	0.60A	23.6W	20.1W	<10%	>0.9
2500lm	277V	50/60Hz	0.085A	0.60A	23.6W	20.1W	<10%	>0.9
	347V	50/60Hz	0.072A	0.60A	24.9W	20.1W	<20%	>0.9
	120V	50/60Hz	0.247A	0.75A	29.7W	25.5W	<10%	>0.9
3000lm	277V	50/60Hz	0.107A	0.75A	29.7W	25.5W	<10%	>0.9
	347V	50/60Hz	0.087A	0.75A	30.4W	25.5W	<15%	>0.9

Dim-to-Warm: CCT vs Dimmed level



Narrow (Power over Ethernet)

	Input				
Light engine	Volts ¹	Voltage ²	Freq	Current	Power
C4L10NPE	53V	51-54V	DC	160 mA	8.9 W
C4L15NPE	53V	51-54V	DC	250 mA	13.6 W
C4L20NPE	53V	51-54V	DC	340 mA	18.5 W
C4L25NPE	53V	51-54V	DC	460 mA	24.6 W

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

Medium (Power over Ethernet)

	Input				
Light engine	Volts ¹	Voltage ²	Freq	Current	Power
C4L10MPE	53V	51-54V	DC	160 mA	8.8 W
C4L15MPE	53V	51-54V	DC	250 mA	13.4 W
C4L20MPE	53V	51-54V	DC	320 mA	17.6 W
C4L25MPE	53V	51-54V	DC	430 mA	23.2 W

Wide (Power over Ethernet)

	Input				
Light engine	Volts ¹	Voltage ²	Freq	Current	Power
C4L10WPE	53V	51-54V	DC	160 mA	8.8 W
C4L15WPE	53V	51-54V	DC	250 mA	13.4 W
C4L20WPE	53V	51-54V	DC	320 mA	17.6 W
C4L25WPE	53V	51-54V	DC	430 mA	23.2 W

Lifetime (TM-21 data)

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

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

Marked spacing applications

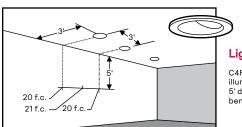
3000lm
Х
Х
Х
Х
Х
Х
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Х

Modules marked with an X require marked spacing:

- Center-to-center of adjacent luminaires: 24" (610mm)
- Luminaire center to side building member: 12" (305mm)

In accordance with CAN ICES-005-A/ NEB-005-A and FCC Part 15-A.

Round Wall Wash



Lighting Data - Example

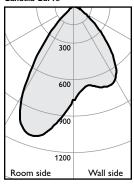
C4RWWCL / C4L15935W illumination on the wall 5' down from the ceiling is 20 f.c. beneath and 21 f.c. between fixtures.

Adjustment factors

Finish	CCT	Lumens
CL = 100% CC = 95% CD = 87% CZ = 63% WH = 87% BK = 57%	90CRI, 4000K = 102% 90CRI, 3500K = 100% 90CRI, 3000K = 96% 90CRI, 2700K = 92%	3000lm = 200% 2500lm = 167% 2000lm = 133% 1500lm = 100% 1000lm = 67% 500lm = 33%

Open Wall Wash, 1500lm Engine, 96 lm/W at 14W

Candela Curve



4RN / C4L15935W / C4RWWCL

Output lumens: 1348 lms Input watts: 14.0 W CRI: 90 min CCT¹: 3500K

Efficacy: 96.3 lm/w Report²: STMR-1614.2

Multiple unit data

Footcandles on wall

	2' from wall					
	3' on ctr.					
₁ 1	16	13	16			
Distance from ceiling in feet 71 0 6 8 2 9 9 7 8 8 7 .	30	25	30			
<u>-</u> 3	32	30	32			
ნ 4	27	27	27			
<u>≡</u> 5	20	21	20			
္ 6	16	16	16			
5 7	12	13	12			
_ 8	9	10	9			
ပို့ 9	8	8	8			
5 10	6	6	6			
<u>≅</u> 12	5	5	5			
14	4	5	4			

Multiple unit data

Footcandles on wall

1 Ootoanaics on wan					
	3' from wall				
3' on ctr.					
Distance from ceiling in feet 15 0 6 8 2 9 5 7 8 5 7 15	7 13 19 21 20 18	6 13 18 21 21 18	7 13 19 21 20 18		
Distance from 71 01 01 01 01 01 01 01 01 01 01 01 01 01	14 12 10 8 7 6	15 12 10 8 7 6	14 12 10 8 7 6		

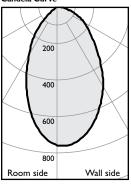
Multiple unit data

Footcandles on wall

ootoanaloo on wan					
	3' from wall				
	40	4' on ctr.			
1	6	5	6		
2	11	9	11		
3	16	13	16		
4	17	16	17		
5	16	16	16		
	14	14	14		
7	12	12	12		
8	10	10	10		
9	8	8	8		
10	7	7	7		
12	6	6	6		
14	5	5	5		
	2 3 4 5 6 7 8 9 10	1 6 2 11 3 16 4 17 5 16 6 14 7 12 8 10 9 8 10 7 12 6	1 6 5 2 11 9 3 16 13 4 17 16 5 16 16 6 14 14 7 12 12 8 10 10 9 8 8 10 7 7 12 6 6		

Lensed Wall Wash, 1500lm Engine, 69 lm/W at 14W

andela Curve



4RN / C4L15935W / C4RLWCL

Output lumens: 961 lms Input watts: 14.0 W CRI: 90 min CCT 1: 3500K

Efficacy: 68.6 lm/w Report²: STMR-1614.3

Multiple unit data

Footcandles on wall

2' from wall			
3' on ctr.			
19	16	19	
29	26	29	
25	24	25	
20	20	20	
15	15	15	
11	12	11	
9	9	9 7	
7	7		
6	6	6	
5	5	5	
4	4	4 3	
3	3	3	
	19 29 25 20 15 11 9 7 6 5	3' on ctr 19	

Multiple unit data

Footcandles on wall

1 Ootcandies on wall					
	3' from wall				
	6	3' on ctr	. 💍		
1 ل	9	8	9		
Distance from ceiling in feet 71 O 6 8 L 9 G P 8 C	17	16	17		
2 3 4 5	18	18	18		
ව 4	17	17	17		
<u>≣</u> 5	15	15	15		
္ 6	12	13	12		
5 7	10	10	10		
⊑ 8	8	9	8		
ပို့ 9	7	7	7		
5 10	6	6	6		
	5	5 4	5		
14	4	4	4		

Multiple unit data

Footcandles on wall

	3' from wall			
	6	4' on ctr		
1	7	6	5	
2	12	12	14	
3	15	13	17	
4	14	13	15	
5	12	12	12	
6	10	10	10	
7	8	8	8	
8		7	7	
9	6	6	6	
10	5	5	5	
12	4	4	5 4 3	
14	3	3	3	
	2 3 4 5 6 7 8 9 10 12	1 7 2 12 3 15 4 14 5 12 6 10 7 8 8 7 9 6 10 5 12 4	4' on ctr. 1 7 6 2 12 13 15 13 4 14 13 5 12 12 6 10 10 7 8 8 8 7 7 9 6 6	

- 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.