LIGHTOLIER
by signify

LED

Project:

Location:

Cat.No:

Type:

Qty:

Notes:

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.

Frame

standard example: 6RN | BAC example: 6RN–BAC

Series	Installation		Voltage / Options			
6R						
6R 6" Non-IC Round	N	New construction	—	Universal 120/277/347V	LC	Chicago Plenum[2]
			EM6	Emergency, 6W Self-Test/Self-Diagnostic[1]	BAC	Meets the requirements of the Buy American Act of 1933 (BAA) **
	R	Remodeler	—	Universal 120/277/347V	BAC	Meets the requirements of the Buy American Act of 1933 (BAA) **

Engine

standard example: C6L15835NZ10U | BAC example: C6L15835NZ10U–BAC

Series	Lumens		CRI	CCT		Beam	Dimming		Options		Voltage		Options
C6L													
C6L Calculite LED 6" gen 3	10	1000 lm	8 80 CRI	27	2700 K	N Narrow (40°)	**Z10**	0-10 V 1%	—— None		**U**	120/277V	**R** Retrofit[5]
	15	1500 lm	9 90 CRI	30	3000 K	M Medium (56°)			**D2O** Dim to Off		**3**	347V (Z10 only)	**BAC** Meets the requirements of the Buy American Act of 1933 (BAA) **
	20	2000 lm		35	3500 K	W Wide (76°)	**L01**	Lutron PEQ0 EcoSystem 0.1% (up to 2000lm)			**U**	120/277V	
	25	2500 lm		40	4000 K		**L1**	Lutron LDE1 EcoSystem (500lm not available)					
	30	3000 lm					**RA**	Integral Interact Pro RF sensor[4] (enables wireless connected lighting control)					
	35	3500 lm					**D**	DALI 0.1%	—— None		**U**	120/277V	
	48	4800 lm[3]							**LIN** Linear				
	60	6000 lm[3]					**SOL**	EldoLED Solo 0-10 V 0.1%	—— None		**U**	120/277V	
							DMX	Digital Multiplexing w/RDM 0.1%	**LIN** Linear	**SQR** Square			
							E	Forward & Reverse Phase			**1**	120V	
							LTE	Lutron LTE Hi-Lume Phase Cut 1% (500lm not available)					
							P	Power over Ethernet (PoE) only compatible with 1000 (10) to 2500 (25) lumen configurations			**E**	Ethernet 48V DC	

Trim

standard example: C6RDLCCP | BAC example: C6RDLCCP–BAC

Series	Aperture	Style	Finish				Flange		Options
C6	**R**								
C6 Calculite LED 6" gen 3	R Round	DL Downlight	BK	Black (annodized)	CC	Comfort clear	—	White (matte)	**IEM6** Trim mounted EM test switch
					CD	Comfort clear diffuse	P	Polished (matches aperture)	**BAC** Meets the requisites of the Buy American Act of 1933 (BAA) **
			CL	Specular clear	CZ	Champagne bronze	F	Flangeless (requires CA4RFT)	
			WH	White (matte)			—	White (matches finish)	
							F	Flangeless (requires CA4RFT)	
			WHAMF	White (gloss antimicrobial)			—	White (matches finish)	
		SL Shower light	WH	White (matte)			—	(not applicable)	
			WHAMF	White (gloss antimicrobial)					

** 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.

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

SBA	Interact Ready System Bridge Accessory (refer to Philips System Bridge Accessory spec sheet for options and details)
AMS	ActiLume multi-sensor (optional accessory for PoE configurations)
7925	Sloped ceiling 6" adapter for 6RN and 6RA frames
CA6RFT	Mud-in ring for use in 6" round flangeless trim installations (ordered with a flangeless trim)
CAEM6	Field-installable Bodine BSL6 6W battery pack with self-test/self-diagnostic (for new construction frames, 120-277V)
C6RVPWH	IP65 Rated vandal proof matte white accessory mounts onto flangeless trims (C6RDL*F) and new construction frame only
CAEM6TSCP	Must be ordered with EM6 frame for remote test switch, see page 2 for details
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 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. See marked spacings requirements on page 7.
4. Linear driver profile. See page 6 for details.
5. Retrofits select legacy Lightolier luminaires. See pages 2 and 6 for details.

c(UL)us LISTED   WET LOCATION   RoHS COMPLIANT   Bluetooth   energy STAR   mesoOptics   interact ready.

C6RDL Calculite LED 6" gen 3
Round Downlight

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 2.75" (70 mm) including PoE frame 4.88" (124 mm) plenum depth for installation.**

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.

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 RH option code at end of light engine catalog number (see details on page 5).

Compatibility:

Frames	Engines
With CFL	**Use Retrofit configuration**
S6132_series	C6R_ Trim + C6L_ Engine
With INC	**Use Retrofit configuration**
BS600_series	C6R_ Trim + C6L_ Engine
With LED	**Use Retrofit configuration**
C6L_N series	C4R_ Trim + C6L_ Engine
C6X6L_N series	C6S_ Trim + C6L_ Engine
P6RD_N_ series	C6R_ Trim + C6L_ 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: C6RDLCCIEM6).
· For remote ceiling mounted test switch, order standard trim (ex: C6RDLCC). 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 dim-to-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 (L01) EcoSystem 1%
· Lutron LTE (LTE) Hi-Lume 2-wire phase cut 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)

Power over Ethernet

Powered via Lightolier 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.

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 field-installed step-down transformer accessory.

Options and Accessories

Flangeless mud-in ring: Use **CA6RFT** for use with flangless plaster installations.

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

C6RVPWH: 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 (C6RVPWHAMF).

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. C6RDLCCIEM6). 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

– 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)
– IP65 rated with vandal proof accessory

Warranty

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

C6RDL Calculite LED 6" gen 3
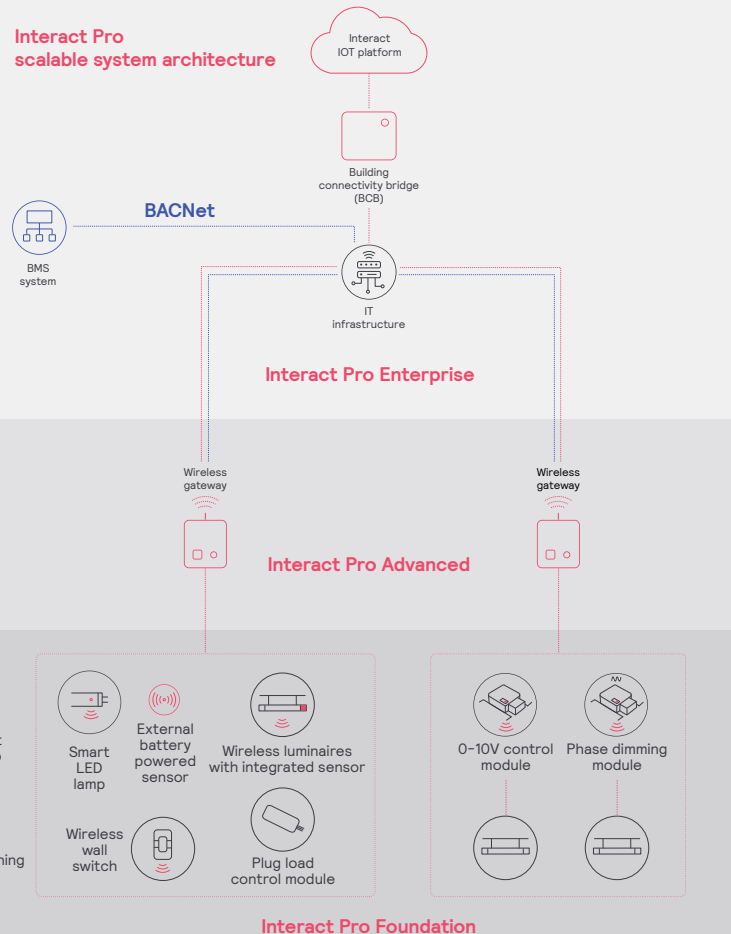
Round Downlight

interact

	Interact Pro scalable system		
	Foundation	**Advanced**	**Enterprise**
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	✓	✓	✓
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
Total number of ZGP devices (sensors and switches)	50
· sensors	30
· switches	50
· zones and groups	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16

Interact Pro scalable system architecture

Interact IOT platform

Building connectivity bridge (BCB)

BMS system — BACNet

IT infrastructure

Interact Pro Enterprise

Wireless gateway

Wireless gateway

Interact Pro Advanced

Interact Pro App

Commissioning remote

Smart LED lamp

External battery powered sensor

Wireless luminaires with integrated sensor

Wireless wall switch

Plug load control module

0-10V control module

Phase dimming module

Interact Pro Foundation

C6RDL Calculite LED 6" gen 3
Round Downlight

Wireless Controls Options

Interact Pro scalable sensor
(System Bridge Accessory with –CS option):

- CS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- Interact Pro 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 onsite to identify and group devices together.
- Compatible with:
  - SWS200 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
  - Battery powered IP65 presence sensor OCC sensor IA CM IP65 WH
  - Battery powered IP65 presence & daylight sensor OCC-DL sensor IA CM IP65 WH
- For more information on Interact Pro visit: www.interact-lighting.com/ interactproscalablesystem.

Interact Pro Enterprise
(System Bridge Accessory with –SB option):

- 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 SENSOR IA 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.
- SB option in addition to occupancy and daylight 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: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

Emergency Options (ER100)
(System Bridge Accessory with –ER100 option):

- 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

Radio only sensor (RA):

- Integral radio (RA) 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.
- Integral RF device affixed to the driver box (see page 6 for details).
- RA option available on light engines only.
- 120-347V universal.

Wired Controls Options

Interact Office Wired (PoE):

- PoE based IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on Personal Control, Space Management, wayfinding, room/desk reservation and offers open APIs for light control and data exchange.
- PoE lighting controller is accessible from below.
- Integral sensor option for occupancy sensing (PIR) and/or daylight harvesting available for additional energy savings.

- Optional integral emergency controller and battery pack provides 600lm nominal output.
- Test switch and indicator light mounted on side of chassis on one end.
- Emergency battery has a 3 month pre-installed shelf life, and must be stored and installed in environments of 20C to 30C (-4F to 86F) ambient, and 45-85% relative humidity.
- For more information on Interact Office Wired, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

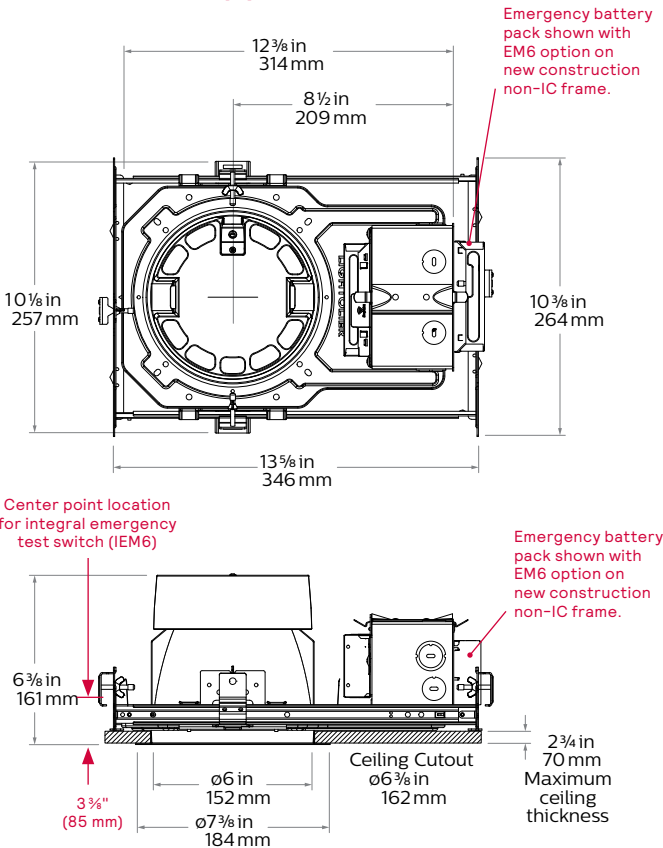### Interact Office Wired (PoE), Static White:

- 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 Zigbee Green Power wall dimmer and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on wayfinding, room/desk reservation and offers open APIs
- Requires compatible Interact Office Gateway and internet connectivity for commissioning.
- For more information on Interact Office Wireless, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.
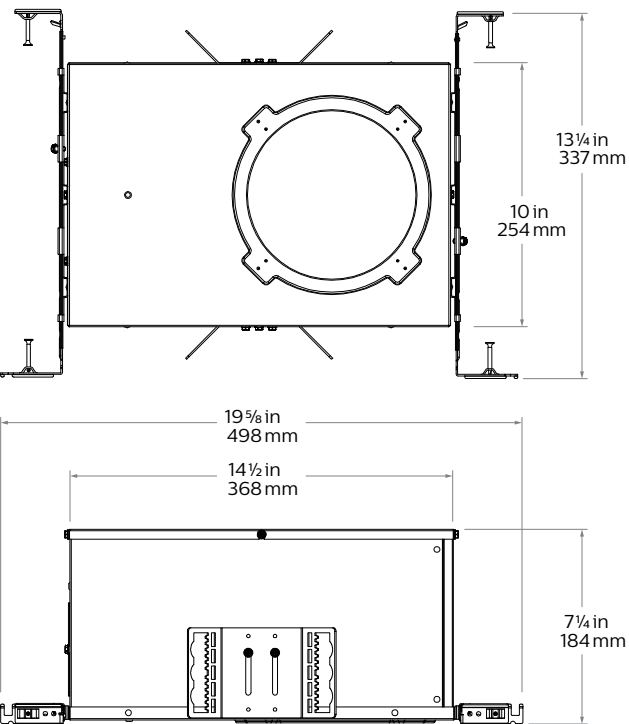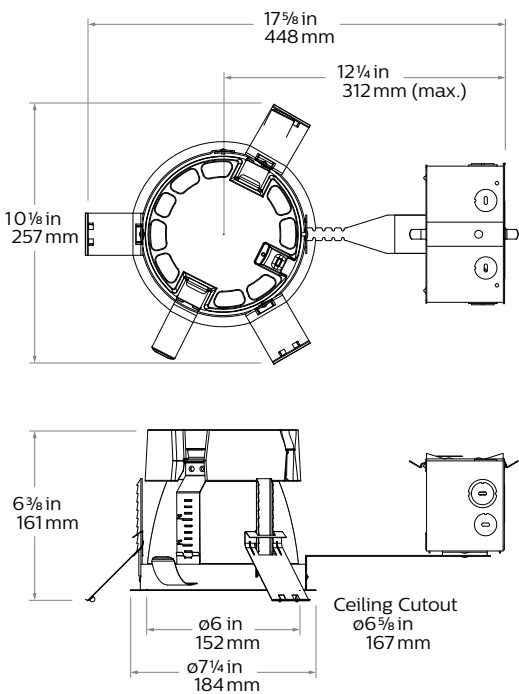
C6RDL   Calculite LED 6" gen 3

Round Downlight

New Construction (N)

12 ³⁄₈ in
314 mm

8 ½ in
209 mm

Emergency battery
pack shown with
EM6 option on
new construction
non–IC frame.

10 ⅛ in
257 mm

10 ³⁄₈ in
264 mm

13 ⅝ in
346 mm

Center point location
for integral emergency
test switch (IEM6)

Emergency battery
pack shown with
EM6 option on
new construction
non–IC frame.

6 ³⁄₈ in
161 mm

3 ⅜"
(85 mm)

ø6 in
152 mm

Ceiling Cutout
ø6 ³⁄₈ in
162 mm

2 ¾ in
70 mm
Maximum
ceiling
thickness

ø7 ³⁄₈ in
184 mm

Chicago Plenum (LC)

13 ¼ in
337 mm

10 in
254 mm

19 ⅝ in
498 mm

14 ½ in
368 mm

7 ¼ in
184 mm

Remodeler (R)

17 ⅝ in
448 mm

12 ¼ in
312 mm (max.)

10 ⅛ in
257 mm

6 ³⁄₈ in
161 mm

ø6 in
152 mm

Ceiling Cutout
ø6 ⅝ in
167 mm

ø7 ¼ in
184 mm

Flangeless mud–in ring (CA6RFT) accessory

8 ½ in
216 mm

6 ³⁄₈ in
163 mm

6 ½ in
165 mm

D

Detail D
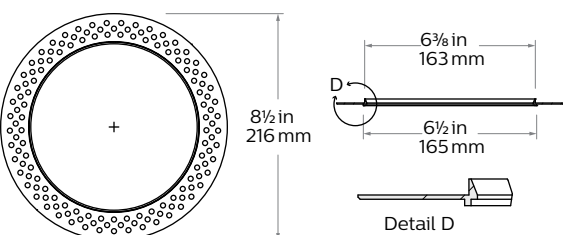
Retrofit (R) with round trim

6 ³⁄₈ in
161 mm

ø6 in
152 mm

ø7 ³⁄₈ in
187 mm
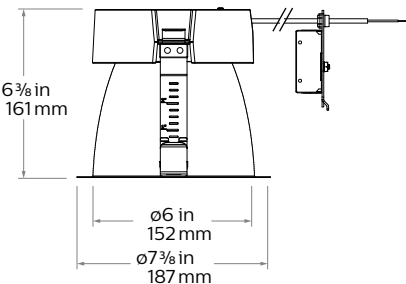
Vandal Proof (VP) accessory

ø5 ⅞ in
149 mm

⅜ in
10 mm

ø7 ¾ in
196 mm
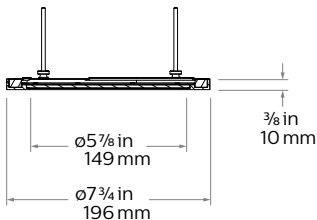
C6RDL Calculite LED 6" gen 3

Round Downlight

Linear driver (RA)

Sensor shown for RA light engine only. for RA and DMX 4800lm & 6000lm light engines.

8¾ in
222 mm

12 in
305 mm

20¾ in
527 mm

2 in
51 mm

1¼ in
32 mm

C6RDL Calculite LED 6" gen 3

Round Downlight

Narrow

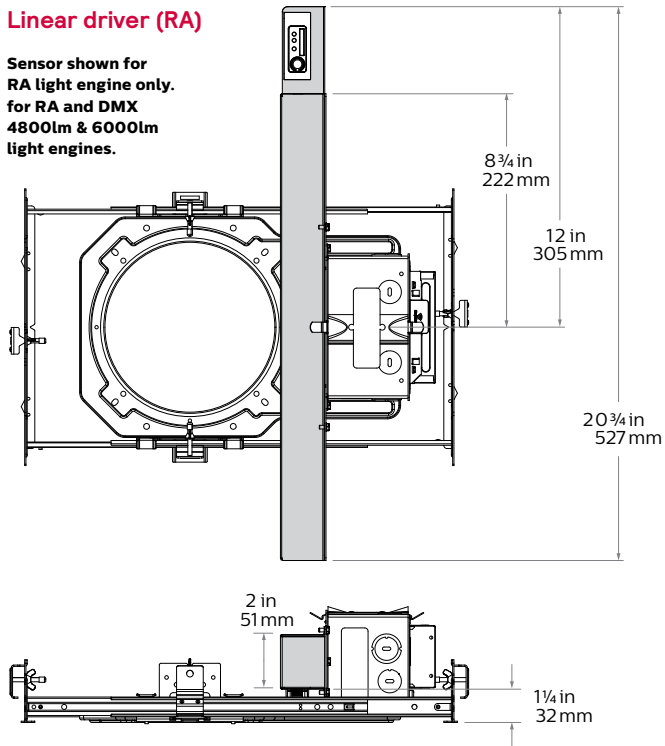| Light engine	Input volts	Input freq	Input current	Drive current	Input power	LED power	THD power	Power factor
C6L10_NZ10U/3	120V	50/60Hz	0.08	230 mA	9W	8W	<15%	>0.95
	277V		0.04				<20%	>0.95
C6L15_NZ10U/3	120V	50/60Hz	0.11	340 mA	15W	11W	<10%	>0.95
	277V		0.05				<15%	>0.95
C6L20_NZ10U/3	120V	50/60Hz	0.16	460 mA	22W	16W	<10%	>0.95
	277V		0.08				<15%	>0.95
C6L25_NZ10U/3	120V	50/60Hz	0.20	590 mA	25W	21W	<10%	>0.95
	277V		0.10				<15%	>0.95
C6L35_NZ10U/3	120V	50/60Hz	0.30	900 mA	36W	30W	<10%	>0.95
	277V		0.14				<15%	>0.95
C6L48_NZ10U/3	120V	50/60Hz	0.42	1250 mA	51W	44W	<10%	>0.95
	277V		0.19				<15%	>0.95
C6L60_NZ10U/3	120V	50/60Hz	0.48	1400 mA	57W	50W	<10%	>0.95
	277V		0.21				<15%	>0.95

Medium/Wide

Light engine	Input volts	Input freq	Input current	Drive current	Input power	LED power	THD power	Power factor
C6L10_MZ10U/3	120V	50/60Hz	0.08	210 mA	9W	8W	<15%	>0.95
	277V		0.04				<20%	>0.95
C6L15_MZ10U/3	120V	50/60Hz	0.11	320 mA	15W	11W	<10%	>0.95
	277V		0.05				<15%	>0.95
C6L20_MZ10U/3	120V	50/60Hz	0.15	430 mA	19W	15W	<10%	>0.95
	277V		0.07				<15%	>0.95
C6L25_MZ10U/3	120V	50/60Hz	0.19	550 mA	23W	19W	<10%	>0.95
	277V		0.09				<15%	>0.95
C6L35_MZ10U/3	120V	50/60Hz	0.25	570 mA	30W	25W	<10%	>0.95
	277V		0.11				<15%	>0.95
C6L48_MZ10U/3	120V	50/60Hz	0.36	810 mA	40W	34W	<10%	>0.95
	277V		0.16				<15%	>0.95
C6L60_MZ10U/3	120V	50/60Hz	0.50	1130 mA	57W	50W	<10%	>0.95
	277V		0.22				<15%	>0.95

Narrow (Power over Ethernet)

Light engine	Input				
	Volts[1]	Voltage[2]	Freq	Current	Power
C6L10___NPE	53V	51-54V	DC	160 mA	8.9 W
C6L15___NPE	53V	51-54V	DC	250 mA	13.7 W
C6L20___NPE	53V	51-54V	DC	330 mA	17.7 W
C6L25___NPE	53V	51-54V	DC	420 mA	22.8 W

Medium (Power over Ethernet)

Light engine	Input				
	Volts[1]	Voltage[2]	Freq	Current	Power
C6L10___MPE	53V	51-54V	DC	160 mA	8.4 W
C6L15___MPE	53V	51-54V	DC	230 mA	12.5 W
C6L20___MPE	53V	51-54V	DC	310 mA	16.7 W
C6L25___MPE	53V	51-54V	DC	390 mA	21.4 W

Wide (Power over Ethernet)

Light engine	Input				
	Volts[1]	Voltage[2]	Freq	Current	Power
C6L10___WPE	53V	51-54V	DC	160 mA	8.4 W
C6L15___WPE	53V	51-54V	DC	230 mA	12.5 W
C6L20___WPE	53V	51-54V	DC	310 mA	16.7 W
C6L25___WPE	53V	51-54V	DC	390 mA	21.4 W

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

Marked spacing applications

Light engine	4800 lm	6000 lm
C6L_Z10 series	X	X
C6L_L01 series	X	X
C6L_L1 series	X	X
C6L_LD series	X	X
C6L_LTE series	X	X
C6L_D series	X	X
C6L_DMX series	X	X
C6L_RA series	X	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)

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

Lifetime (TM–21 data)

Lumens	Narrow beam	Medium/Wide beam*
1000lm 1500lm 2000lm 2500lm 3500lm* 4800lm	L90 @ 60,000hrs.	L90 @ 60,000hrs.
6000lm	L90 @ 60,000hrs.	L80 @ 60,000hrs.

* Lutron 3500lm with Medium/Wide beam is L85 @ 60,000hrs.

C6RDL   Calculite LED 6" gen 3
Round Downlight

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).
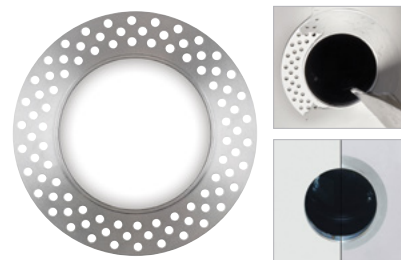
Flanges

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

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

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.

C6RDL   Calculite LED 6" gen 3

Round Downlight

Narrow beam, 2500lm Engine, 103.0 lm/W or 108.0 lm/W at 22.8W (Power over Ethernet)

Candela Curve
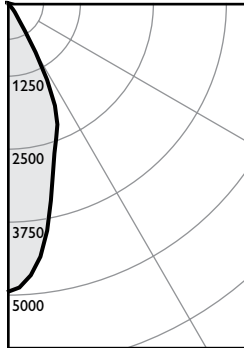
Frame: **C6RN or 6RN**
Engine: **C6L25835NZ10U**
Trim: **C6RDLCL**

Output lumens:	2462 lms
Input watts:	23.9 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	0.6
Beam Angle:	40°

Zonal summary

Zone	Lumens	%Luminaire
0–30	2113	85.8%
0–40	2383	96.8%
0–60	2459	99.9%
0–90	2462	100.0%

Angle	Mean CP	Lumens
0	4938	
5	4667	423
10	3948	
15	3027	856
20	2456	
25	1936	834
30	977	
35	352	270
40	205	
45	87	72
50	13	
55	4	4
60	3	
65	2	2
70	1	
75	1	1
80	0	
85	1	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	198	3.0'
6'	137	3.6'
7'	101	4.2'
8'	77	4.8'
9'	61	5.4'

* 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 per sq. ft.
5'	114.3	1.06
6'	75.0	0.70
7'	53.6	0.50
8'	44.7	0.41
9'	35.7	0.33

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

Efficacy: 103.0 lm/w
Report[2]:   F37145

Adjustment factors

Finish		CCT		Lumens	
CL	= 100%	80CRI 4000K =	103%	6000lm =	202%
CC	= 95%	80CRI 3500K =	100%	4800lm =	192%
CD	= 87%	80CRI 3000K =	95%	3500lm =	140%
CZ	= 63%	80CRI 2700K =	93%	2500lm =	100%
WH	= 87%	90CRI 3000K =	83%	2000lm =	80%
BK	= 57%	90CRI 2700K =	78%	1500lm =	60%
				1000lm =	40%

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method – Effective floor reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	114	112	109	107	110	106	105	102	102	99	95
2	109	105	101	98	103	97	100	95	97	93	90
3	105	99	95	91	98	90	95	89	93	88	85
4	100	94	89	85	93	85	90	84	88	83	80
5	96	89	84	80	88	79	86	79	84	78	76
6	92	84	79	75	83	75	82	74	81	74	72
7	88	80	75	71	79	71	78	71	77	70	69
8	85	76	71	67	76	67	75	67	74	67	65
9	81	73	68	64	72	64	72	64	71	64	62
10	78	70	65	61	69	61	68	61	68	61	59

Room Cavity Ratio (RCR column label, rows 0–10)

Medium beam, 2500lm Engine, 115.2 lm/W or 114.7 lm/W at 21.4W (Power over Ethernet)

Candela Curve
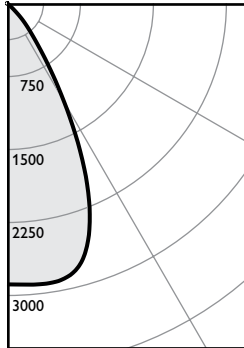
Frame: **C6RN or 6RN**
Engine: **C6L25835MZ10U**
Trim: **C6RDLCL**

Output lumens:	2454 lms
Input watts:	21.3 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	0.8
Beam Angle:	55°

Zonal summary

Zone	Lumens	%Luminaire
0–30	1896	77.2%
0–40	2319	94.5%
0–60	2450	99.8%
0–90	2454	100.0%

Angle	Mean CP	Lumens
0	2886	
5	2900	277
10	2903	
15	2809	777
20	2472	
25	1880	842
30	1178	
35	644	423
40	347	
45	153	124
50	23	
55	6	8
60	4	
65	3	3
70	2	
75	1	1
80	1	
85	1	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	115	4.0'
6'	80	4.8'
7'	59	5.6'
8'	45	6.4'
9'	36	7.2'

* 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 per sq. ft.
5'	112.7	0.94
6'	74.0	0.62
7'	52.8	0.44
8'	44.0	0.37
9'	35.2	0.30

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

Efficacy: 115.2 lm/w
Report[2]:   F37135

Adjustment factors

Finish		CCT		Lumens	
CL	= 100%	80CRI 4000K =	102%	6000lm =	240%
CC	= 95%	80CRI 3500K =	100%	4800lm =	192%
CD	= 87%	80CRI 3000K =	97%	3500lm =	140%
CZ	= 63%	80CRI 2700K =	87%	2500lm =	100%
WH	= 87%	90CRI 3000K =	77%	2000lm =	80%
BK	= 57%	90CRI 2700K =	73%	1500lm =	60%
				1000lm =	40%

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method – Effective floor reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	114	111	109	107	109	105	105	102	101	99	94
2	108	104	100	97	102	96	99	94	96	92	88
3	103	97	92	89	96	88	93	87	91	85	82
4	98	91	86	82	90	81	88	80	86	79	77
5	94	86	80	76	85	76	83	75	81	74	72
6	89	81	75	71	80	71	78	70	77	70	68
7	85	76	70	66	76	66	74	66	73	66	64
8	81	72	66	62	71	62	70	62	69	62	60
9	77	68	63	59	68	59	67	58	66	58	57
10	74	65	59	55	64	55	63	55	63	55	54

*Room Cavity Ratio (RCR column label, rows 0–10)*

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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.

C6RDL Calculite LED 6" gen 3

Round Downlight

Wide beam, 2500lm Engine, 108.3 lm/W or 107.8 lm/W at 21.4W (Power over Ethernet)

Candela Curve

375
750
1125
1500
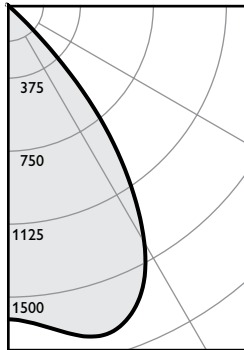
Frame: **C6RN or 6RN**
Engine: **C6L25835WZ10U**
Trim: **C6RDLCL**

Output lumens:	2307 lms
Input watts:	21.3 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	1.1
Beam Angle:	72°

Zonal summary

Zone	Lumens	%Luminaire
0–30	1394	60.4%
0–40	2059	89.2%
0–60	2302	99.8%
0–90	2307	100.0%

Angle	Mean CP	Lumens
0	1612	
5	1641	159
10	1705	
15	1760	495
20	1740	
25	1629	740
30	1408	
35	1083	665
40	700	
45	270	232
50	39	
55	9	12
60	5	
65	3	3
70	2	
75	1	1
80	1	
85	1	1
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	64	5.5'
6'	45	6.6'
7'	33	7.7'
8'	25	8.8'
9'	20	9.9'

* 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 per sq. ft.
5'	104.1	0.94
6'	68.3	0.62
7'	48.8	0.44
8'	40.7	0.37
9'	32.5	0.30

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

Efficacy: 108.3 lm/w
Report[2]: F37140

Adjustment factors

Finish		CCT		Lumens	
CL	= 100%	80CRI 4000K =	102%	6000lm =	240%
CC	= 95%	80CRI 3500K =	100%	4800lm =	192%
CD	= 87%	80CRI 3000K =	97%	3500lm =	140%
CZ	= 63%	80CRI 2700K =	87%	2500lm =	100%
WH	= 87%	90CRI 3000K =	77%	2000lm =	80%
BK	= 57%	90CRI 2700K =	73%	1500lm =	60%
				1000lm =	40%

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method – Effective floor reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	110	108	105	108	104	104	100	100	97	93
2	107	102	98	94	100	93	97	91	94	89	85
3	101	94	89	85	93	84	90	83	88	81	79
4	95	87	81	77	86	76	84	76	82	75	72
5	90	81	75	70	80	70	78	69	77	69	66
6	85	75	69	64	75	64	73	64	72	63	61
7	80	70	64	59	70	59	68	59	67	58	57
8	76	66	59	55	65	55	64	54	63	54	52
9	72	61	55	51	61	51	60	50	59	50	49
10	68	57	51	47	57	47	56	47	55	47	45

Room Cavity Ratio

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.

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