LIGHTOLIER
by signify

Downlighting

Calculite LED 7" gen 3

C7RDL Round Downlight

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: 7RN | **BAC example:** 7RN-BAC

Series	Installation	Voltage/Options	
7R			
7R 7" Non-IC Round	**N** New construction	**—** Universal 120/277/347V **EM6** Emergency, 6W Self-Test/Self-Diagnostic[1]	**LC** Chicago Plenum[2] **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: C6L15935NZ10U | **BAC example:** C6L15935NZ10U-BAC

Series	Lumens	CRI	CCT	Beam[4]	Dimming	Options	Voltage	Options
C6L								
C6L Calculite LED 6" gen 3	**10** 1000 lm **15** 1500 lm **20** 2000 lm **25** 2500 lm **30** 3000 lm **35** 3500 lm **48** 4800 lm[3] **60** 6000 lm[3]	**8** 80 CRI **9** 90 CRI	**27** 2700 K **30** 3000 K **35** 3500 K **40** 4000 K	**N** Narrow (40°) **M** Medium (56°) **W** Wide (76°)	**Z10** 0-10 V 1%	**——** None **D2O** Dim to Off	**U** 120/277V **3** 347V (Z10 only)	**R** Retrofit[6] **BAC** Meets the requirements of the Buy American Act of 1933 (BAA)**
					L01 Lutron PEQ0 EcoSystem 0.1% (up to 2000lm) **L1** Lutron LDE1 EcoSystem (up to 3500lm) **RA** Integral Interact Pro RF sensor[5] (enables wireless connected lighting control)		**U** 120/277V	
					D DALI 0.1%[5]	**——** None **LIN** Linear	**U** 120/277V	
					SOL EldoLED Solo 0-10 V 0.1% **DMX** Digital Multiplexing w/RDM 0.1%	**——** None **LIN** Linear **SQR** Square	**U** 120/277V	
					E Forward & Reverse Phase (up to 2500lm) **LTE** Lutron LTE Hi-Lume Phase Cut 1% (up to 3500lm)		**1** 120V	
					P Power over Ethernet (PoE) only compatible with 1000 (10) to 2500 (25) lumen configurations		**E** Ethernet 48V DC	

Trim

standard example: C7RDLCCP | **BAC example:** C7RDLCCP-BAC

Series	Aperture	Style	Beam[4]	Finish	Flange	Options
C7	**R**	**DL**	**NM**	**BK** Black (annodized) **CL** Specular clear **CC** Comfort clear **CD** Comfort clear diffuse **CZ** Champagne bronze	**–** White (matte) **P** Polished (matches aperture)	**IEM6** Trim mounted EM test switch **BAC** Meets the requisites of the Buy American Act of 1933 (BAA)**
C7 Calculite LED 7" gen 3	**R** Round	**DL** Downlight	**NM** Narrow & Medium **W** Wide	**WHAMF** White (gloss antimicrobial) **WH** White (matte)	**–** White (matches finish)	

Beam options

Trim	Nar. engine	Med. engine	Wide engine
Narrow & Medium	20° (0.3 s.c.)	44° (0.7 s.c.)	59° (0.9 s.c.)
Wide	35° (0.6 s.c.)	59° (1.0 s.c.)	69° (1.2 s.c.)

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)
7926	Sloped ceiling 7" adapter for 7RN and 7RA frames
CAEM6	Field-installable Bodine BSL6 6W battery pack with self-test/self-diagnostic (for new const. frames, 120-277V)
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. See beam Options table for light engine and trim combination spacing criterion.
5. DALI 4800lm and 6000lm, and all RA options require linear driver configuration (see page 6).
6. Retrofits select legacy Lightolier luminaires (see pages 2 and 6).

** 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.

c UL us LISTED · WET LOCATION · RoHS COMPLIANT · ENERGY STAR · mesoOptics · interact ready.

C7RDL Calculite LED 7" 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 R option code at end of light engine catalog number (see details on page 5).

Compatibility:

Frames	Engines
With CFL	**Use Retrofit configuration**
S7142_series	C7R_ Trim + C6L_ Engine
S7226_series	C7R_ Trim + C6L_ Engine
With INC	**Use Retrofit configuration**
CS700	C7R_ Trim + C6L_ Engine
With LED	**Use Retrofit configuration**
C7L_N series	C7R_ 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: C7RDLWCCIEM6).
- For remote ceiling mounted test switch, order standard trim (ex: C7RDLWCC). 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 (L01) Hi-Lume Premier 0.1% EcoSystem
- Lutron LDE1 (L1) 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

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

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.

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. C7RDLWCCIEM6).

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

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.

C7RDL Calculite LED 7" gen 3

Round Downlight

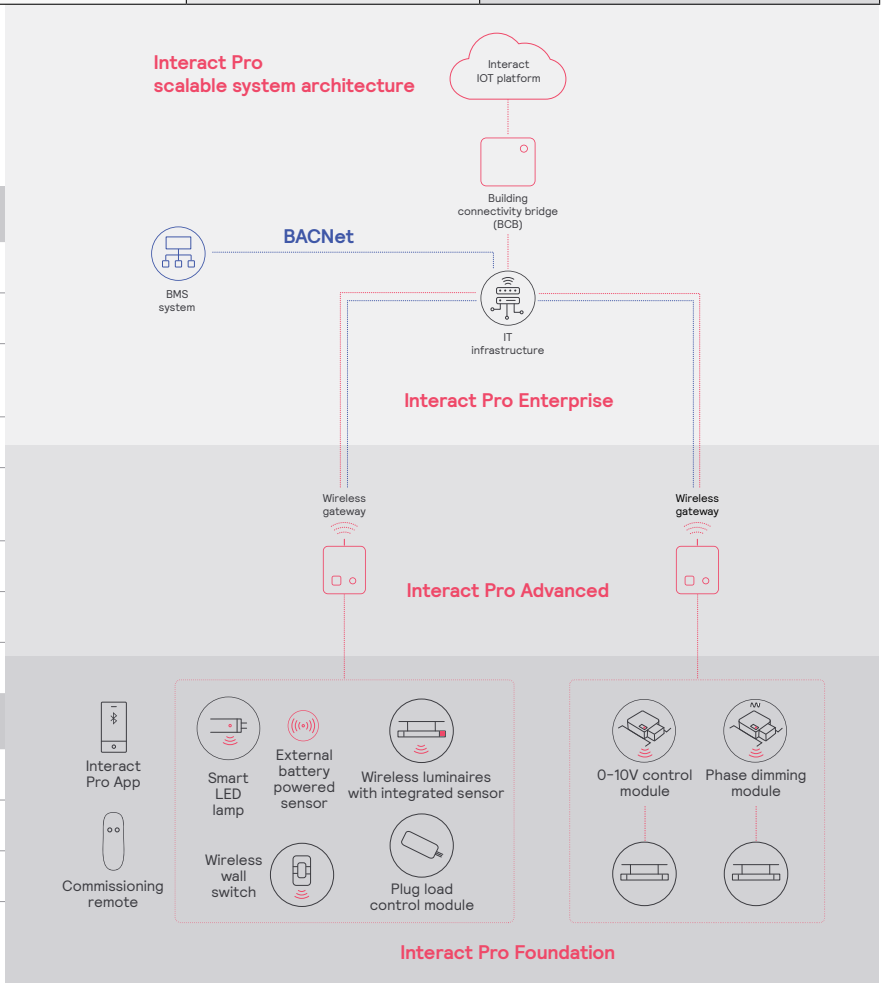
interact

	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



C7RDL Calculite LED 7" 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.

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.

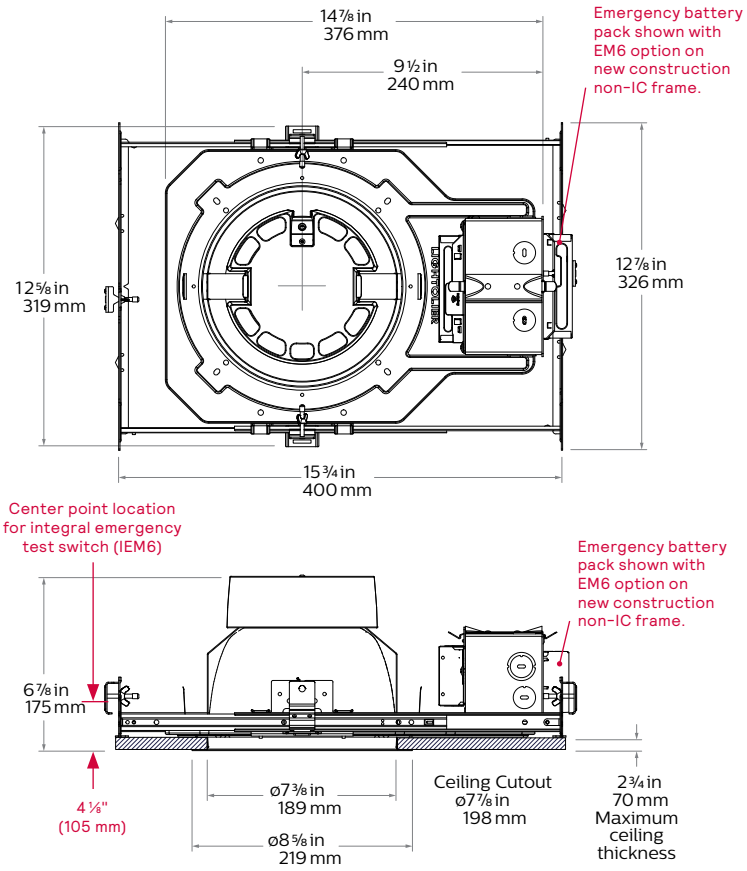
Interact Office Wired (PoE), Static White:

- 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.

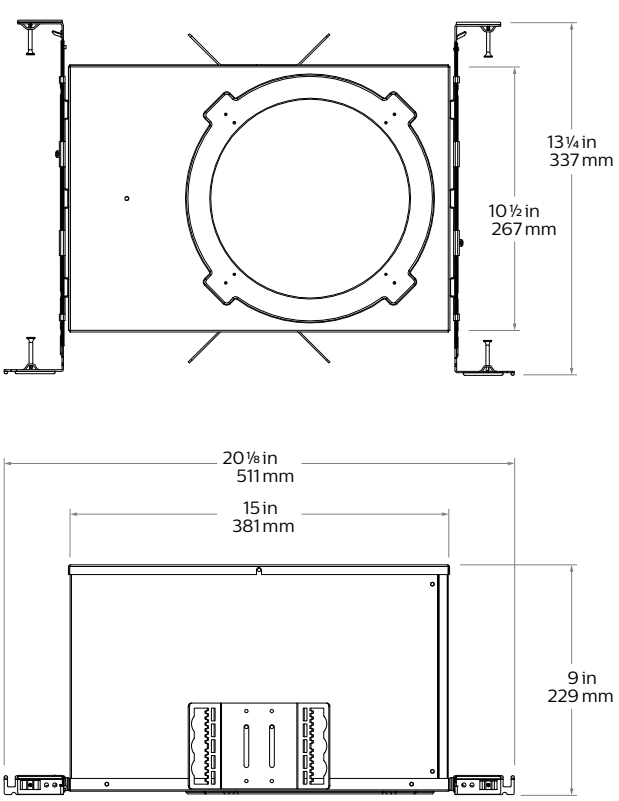
C7RDL Calculite LED 7" gen 3

Round Downlight

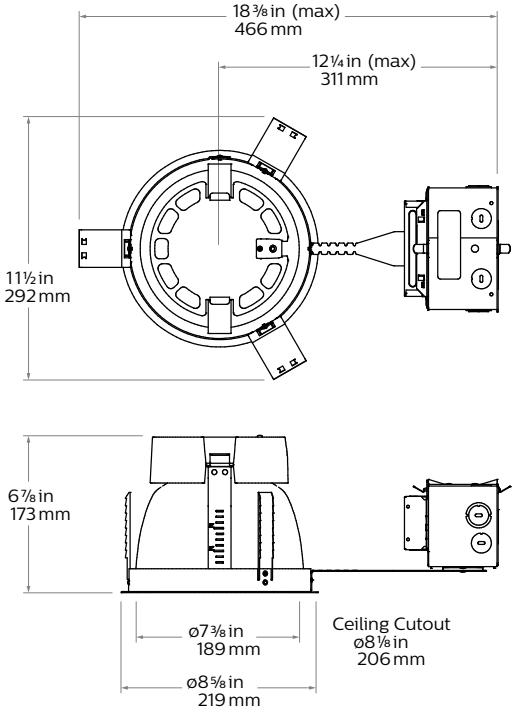
New Construction (N)



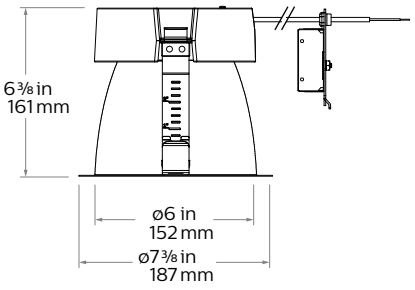
Chicago Plenum (LC)



Remodeler (R)



Retrofit (R) with round trim

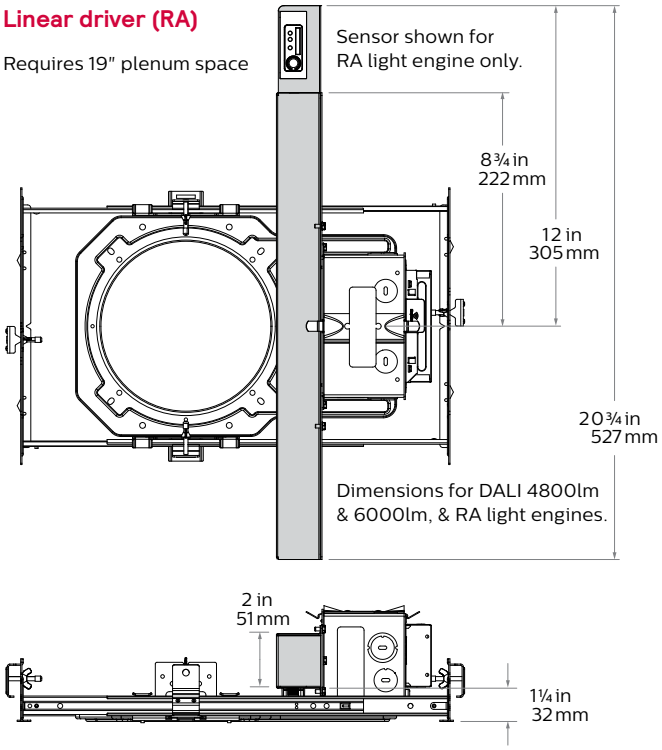


C7RDL Calculite LED 7" gen 3

Round Downlight

Linear driver (RA)

Requires 19" plenum space



C7RDL Calculite LED 7" 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)

	Input				
Light engine	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)

	Input				
Light engine	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)

	Input				
Light engine	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	4800lm	6000lm
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.

C7RDL Calculite LED 7" 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.

Flanges

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

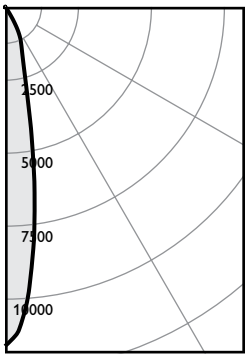
Polished (P): (matches aperture) Produces a continuous look throughout the reflector (aperture matching).

C7RDL Calculite LED 7" gen 3

Round Downlight

Narrow beam (0.3 s.c.), 2500lm Engine, 101.0 lm/w or 105.9 lm/W at 22.8W (Power over Ethernet)

Candela Curve



Frame: **C7RN or 7RN**
Engine: **C6L25835NZ10U**
Trim: **C7RDLNMCL**

Output lumens:	2414 lms
Input watts:	23.9 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	0.3
Beam Angle:	20°

Zonal summary

Zone	Lumens	%Luminaire
0-30	2193	90.8%
0-40	2380	98.6%
0-60	2412	99.9%
0-90	2414	100.0%

Angle	Mean CP	Lumens
0	11585	
5	9590	788
10	5675	
15	2794	837
20	1736	
25	1267	567
30	738	
35	242	188
40	92	
45	33	29
50	7	
55	2	2
60	2	
65	1	1
70	1	
75	1	1
80	0	
85	1	1
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	463	1.5'
6'	322	1.8'
7'	236	2.1'
8'	181	2.4'
9'	143	2.7'

* 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'	114.1	1.06
6'	74.9	0.70
7'	53.5	0.50
8'	44.6	0.41
9'	35.6	0.33

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

Efficacy: 101.0 lm/w
Report[2]: F37146

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%

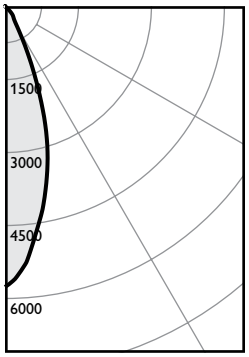
Coefficients of utilization

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	115	113	111	109	110	107	106	104	103	101	96
2	111	107	104	101	105	100	102	98	99	96	92
3	107	102	98	95	100	94	98	93	96	91	89
4	103	97	93	90	96	89	94	88	92	87	85
5	100	93	89	86	92	85	91	85	89	84	82
6	96	90	85	82	89	82	88	81	86	81	79
7	93	86	82	79	86	78	85	78	84	78	76
8	90	83	79	76	83	76	82	75	81	75	74
9	88	80	76	73	80	73	79	73	78	72	71
10	85	78	74	71	77	71	77	70	76	70	69

Room Cavity Ratio

Narrow beam (0.6 s.c.), 2500lm Engine, 95.5 lm/w or 100.1 lm/W at 22.8W (Power over Ethernet)

Candela Curve



Frame: **C7RN or 7RN**
Engine: **C6L25835NZ10U**
Trim: **C7RDLWCL**

Output lumens:	2283 lms
Input watts:	23.9 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	0.6
Beam Angle:	35°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1956	85.6%
0-40	2170	95.0%
0-60	2276	99.7%
0-90	2283	100.0%

Angle	Mean CP	Lumens
0	5763	
5	5234	469
10	4320	
15	3368	918
20	2272	
25	1203	569
30	543	
35	319	215
40	250	
45	128	99
50	21	
55	6	7
60	4	
65	3	3
70	3	
75	2	2
80	2	
85	2	2
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	231	3.0'
6'	160	3.6'
7'	118	4.2'
8'	90	4.8'
9'	71	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'	106.5	1.06
6'	69.9	0.70
7'	49.9	0.50
8'	41.6	0.41
9'	33.3	0.33

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

Efficacy: 95.5 lm/w
Report[2]: F37147

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	110	108	110	106	106	103	102	100	95
2	110	105	102	99	104	98	101	96	98	94	90
3	105	100	95	92	98	91	96	90	93	88	86
4	101	95	90	86	93	86	91	85	89	84	81
5	97	90	85	81	89	81	87	80	86	80	78
6	93	86	81	77	85	77	83	76	82	76	74
7	90	82	77	73	81	73	80	73	79	72	71
8	86	78	73	70	78	70	77	69	76	69	68
9	83	75	70	67	75	67	74	66	73	66	65
10	80	72	67	64	72	64	71	64	70	63	62

Room Cavity Ratio

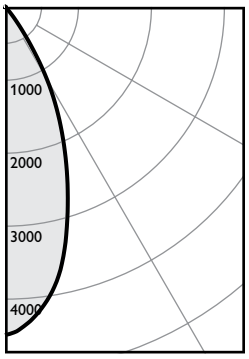
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

C7RDL Calculite LED 7" gen 3

Round Downlight

Medium beam (0.7 s.c.), 2500lm Engine, 117.6 lm/w or 117.1 lm/W at 21.4W (Power over Ethernet)

Candela Curve



Frame: **C7RN or 7RN**
Engine: **C6L25835MZ10U**
Trim: **C7RDLNMCL**

Output lumens:	2506 lms
Input watts:	21.3 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	0.7
Beam Angle:	44°

Zonal summary

Zone	Lumens	%Luminaire
0-30	2111	84.3%
0-40	2457	98.1%
0-60	2504	99.9%
0-90	2506	100.0%

Angle	Mean CP	Lumens
0	4494	
5	4292	397
10	3893	
15	3239	893
20	2493	
25	1807	821
30	1153	
35	513	346
40	168	
45	42	44
50	7	
55	2	3
60	2	
65	1	1
70	1	
75	0	0
80	0	
85	1	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	180	3.5'
6'	125	4.2'
7'	92	4.9'
8'	70	5.6'
9'	55	6.3'

* 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'	116.3	0.94
6'	76.3	0.62
7'	54.5	0.44
8'	45.4	0.37
9'	36.3	0.30

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

Efficacy: 117.6 lm/w
Report[2]: F37137

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%

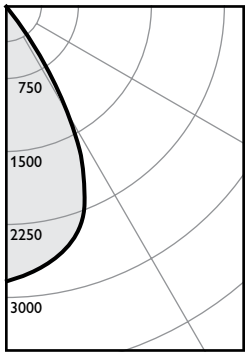
Coefficients of utilization

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	112	109	107	109	106	105	102	102	99	95
2	109	105	101	98	103	97	100	95	97	93	90
3	105	99	94	91	98	90	95	89	93	87	85
4	100	93	89	85	92	84	90	83	88	82	80
5	96	88	83	79	88	79	86	78	84	78	76
6	92	84	79	75	83	75	82	74	80	74	72
7	88	80	74	71	79	71	78	70	77	70	68
8	84	76	71	67	75	67	74	67	73	66	65
9	81	72	67	64	72	63	71	63	70	63	62
10	78	69	64	61	69	60	68	60	67	60	59

Room Cavity Ratio

Medium beam (0.9 s.c.), 2500lm Engine, 110.0 lm/w or 109.4 lm/W at 21.4W (Power over Ethernet)

Candela Curve



Frame: **C7RN or 7RN**
Engine: **C6L25835WZ10U**
Trim: **C7RDLNMCL**

Output lumens:	2342 lms
Input watts:	21.3 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	0.9
Beam Angle:	59°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1830	78.1%
0-40	2259	96.4%
0-60	2340	99.9%
0-90	2342	100.0%

Angle	Mean CP	Lumens
0	2826	
5	2766	261
10	2678	
15	2545	711
20	2318	
25	1924	858
30	1309	
35	647	428
40	270	
45	81	78
50	11	
55	3	4
60	2	
65	1	1
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'	113	4.5'
6'	79	5.4'
7'	58	6.3'
8'	44	7.2'
9'	35	8.1'

* 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'	107.7	0.94
6'	70.7	0.62
7'	50.5	0.44
8'	42.1	0.37
9'	33.6	0.30

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

Efficacy: 115.2 lm/w
Report[2]: F37143

Adjustment factors

Finish		CCT		Lumens	
CL	= 100%	80CRI 4000K	= 107%	6000lm	= 240%
CC	= 95%	80CRI 3500K	= 100%	4800lm	= 192%
CD	= 87%	80CRI 3000K	= 99%	3500lm	= 140%
CZ	= 63%	80CRI 2700K	= 93%	2500lm	= 100%
WH	= 87%	90CRI 3000K	= 87%	2000lm	= 80%
BK	= 57%	90CRI 2700K	= 81%	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	109	104	100	97	102	96	99	94	96	92	88
3	103	97	93	89	96	88	93	87	91	85	83
4	98	91	86	82	90	82	88	81	86	80	77
5	94	86	80	76	85	76	83	75	82	75	73
6	89	81	75	71	80	71	79	70	77	70	68
7	85	76	71	67	76	66	74	66	73	66	64
8	81	72	66	63	72	62	71	62	70	62	60
9	78	68	63	59	68	59	67	59	66	58	57
10	74	65	59	56	64	55	64	55	63	55	54

Room Cavity Ratio

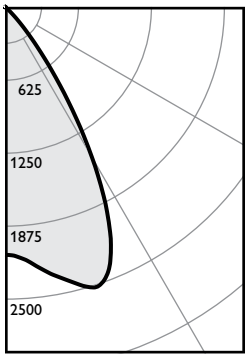
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

C7RDL Calculite LED 7" gen 3

Round Downlight

Wide beam (1.0 s.c.), 2500lm Engine, 117.1 lm/w or 116.6 lm/W at 21.4W (Power over Ethernet)

Candela Curve



Frame: **C7RN or 7RN**
Engine: **C6L25835MZ10U**
Trim: **C7RDLWCL**

Output lumens:	2495 lms
Input watts:	21.3 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	1.0
Beam Angle:	59°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1855	74.4%
0-40	2383	95.5%
0-60	2491	99.8%
0-90	2495	100.0%

Angle	Mean CP	Lumens
0	2123	
5	2180	213
10	2325	
15	2461	696
20	2486	
25	2128	947
30	1490	
35	823	527
40	354	
45	112	104
50	15	
55	4	5
60	3	
65	2	2
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'	85	5.0'
6'	59	6.0'
7'	43	7.0'
8'	33	8.0'
9'	26	9.0'

* 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'	114.1	0.94
6'	74.8	0.62
7'	53.5	0.44
8'	44.6	0.37
9'	35.6	0.30

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

Efficacy: 117.1 lm/w
Report[2]: F37136

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%

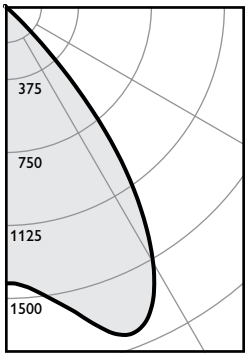
Coefficients of utilization

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	108	106	109	105	105	101	101	98	94
2	108	103	99	96	102	95	98	93	95	91	87
3	103	96	92	88	95	87	92	86	90	84	81
4	98	90	85	81	89	80	87	79	85	78	76
5	93	84	79	74	83	74	82	73	80	73	71
6	88	79	73	69	78	69	77	68	76	68	66
7	84	74	68	64	74	64	72	64	71	63	62
8	80	70	64	60	69	60	68	60	67	59	58
9	76	66	60	56	66	56	65	56	64	56	54
10	72	62	57	53	62	53	61	53	60	52	51

Room Cavity Ratio

Wide beam (1.2 s.c.), 2500lm Engine, 109.7 lm/w or 109.2 lm/W at 21.4W (Power over Ethernet)

Candela Curve



Frame: **C6RN or 7RN**
Engine: **C6L25835MZ10U**
Trim: **C6RDLCL**

Output lumens:	2336 lms
Input watts:	21.3 W
CRI:	80 min
CCT[1]:	3500K
Spacing Crit.:	1.2
Beam Angle:	69°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1411	60.4%
0-40	2117	90.6%
0-60	2332	99.8%
0-90	2336	100.0%

Angle	Mean CP	Lumens
0	1426	
5	1454	142
10	1544	
15	1676	479
20	1798	
25	1751	791
30	1522	
35	1160	706
40	690	
45	224	207
50	25	
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'	57	6.0'
6'	40	7.2'
7'	29	8.4'
8'	22	9.6'
9'	18	10.8'

* 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'	105.4	0.94
6'	69.1	0.62
7'	49.4	0.44
8'	41.2	0.37
9'	32.9	0.30

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

Efficacy: 109.7 lm/w
Report[2]: F37144

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	78
4	95	87	81	77	86	76	84	75	82	75	72
5	90	81	75	70	80	70	78	69	76	68	66
6	85	75	69	64	74	64	73	63	71	63	61
7	80	70	63	59	69	59	68	58	67	58	56
8	76	65	59	54	65	54	64	54	62	54	52
9	71	61	55	50	60	50	59	50	59	50	48
10	68	57	51	47	57	47	56	46	55	46	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.

Signify North America Corporation
400 Crossing Blvd, Suite 600
Bridgewater, NJ 08807
Telephone: 855-486-2216

Signify Canada Ltd.
281 Hillmount Road,
Markham, ON, Canada L6C 2S3
Telephone: 800-668-9008