LIGHTOLIER

Downlighting

Calculite LED 7" gen 3

C7RDL Round Downlight

Calculite LED 7" generation 3 provides excellent performance coupled with optimized installation flexibility. Industry leading visual comfort and uniform illumination make it an ideal choice for open office, institution, healthcare, and retail applications.

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, engine, and trim will be shipped together as a single product. Accessories (optional) are not currently BAA-compliant.

Project:

Location:

Cat.No:

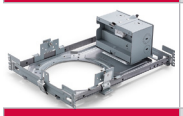
Type:

Qty:

Notes:

Follow the ordering guidelines below. Each step is a separate order line.

Step 1 **Frame:** Ordered & shipped separately.



Frame **Example:** 7RN

7R	

Step 2 **Engine & Trim:** Ordered & shipped as a single product.

Engine **Example:** C6L15935MZ10U-C7RDLNMCCP

C6L		–	C7R	

Step 3 (optional) **Accessories:** Ordered & shipped separately.

Frame

standard example: 7RN

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
	R Remodeler	**–** Universal 120/277/347V

Engine

Series	Lumens	CCT	Beam[4]	Dimming	Options	Voltage	Options
C6L							
C6L Calculite LED 6" gen 3	**10** 1000lm **15** 1500lm **20** 2000lm **25** 2500lm **30** 3000lm **35** 3500lm **48** 4800lm* **60** 6000lm* * See marked spacings requirements on page 9.	**927** 90CRI/2700K **930** 90CRI/3000K **935** 90CRI/3500K **940** 90CRI/4000K **950** 90CRI/5000K[2] **D2W** 90CRI/3000K to 1800K[3] (dim-to-warm)	**N** Narrow (40°) **M** Medium (56°) **W** Wide (76°)	**Z10** 0-10V 1%	**––** None **D2O** Dim to Off	**U** 120/277V **3** 347V[6] (Z10 only)	**R** Calculite legacy retrofit - select legacy luminaires (E & Z10 dimming only) (see pages 2 & 7)
				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 0-10V 0.1% **DMX** Digital Multiplexing w/RDM 0.1%	**––** None **LIN** Linear **SQR** Square	**U** 120/277V	
				E Forward & Reverse Phase (up to 3000lm)		**1** 120V	

Trim

standard example: C7RDLNMCCP

Series	Aperture	Style	Beam[5]	Finish	Flange	Options
C7	R					
C7 Calculite LED 7" gen 3	**R** Round	**DL** Downlight	**NM** Narrow & Medium **W** Wide	**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
				WHAMF White (gloss antimicrobial) **WH** White (matte)	**–** White (matches finish)	

See footnotes on page 2.

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Accessories (Not currently BAA-compliant) learn more below

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 (refer to SCA spec sheet for slope options)
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 3)
T347-75VA	347:120V step-down transformer for non-IC (N) frame only (see page 3). Not compatible with emergency options.

Beam options

Trim	Nar. engine	Med. engine	Wide engine
Nar. & Med.	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.)

Round Downlight

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

Lumen Package	Beam	Flux (lm)	Efficacy (lm/W)	Beam Angle	CBCP	CRI	R9	IES TM-30-18 R_f	IES TM-30-18 R_g	IES TM-30-18 $R_{cs,h1}$	UGR
1000 lm	Narrow (N)	1032	121	43°	1851	90+	50+	91	100	-5%	0
	Medium (M)	965	114	58°	1164	90+	50+	91	100	-5%	0
	Wide (W)	963	113	79°	587	90+	50+	91	100	-5%	0
1500 lm	Narrow (N)	1562	123	43°	2801	90+	50+	91	100	-5%	2
	Medium (M)	1460	115	58°	1761	90+	50+	91	100	-5%	1
	Wide (W)	1457	115	79°	889	90+	50+	91	100	-5%	1
2000 lm	Narrow (N)	2114	119	43°	5265	90+	50+	91	100	-5%	3
	Medium (M)	1976	114	58°	2384	90+	50+	91	100	-5%	2
	Wide (W)	1971	113	79°	1202	90+	50+	91	100	-5%	2
2500 lm	Narrow (N)	2579	123	43°	4625	90+	50+	91	100	-5%	3
	Medium (M)	2411	115	58°	2908	90+	50+	91	100	-5%	3
	Wide (W)	2405	115	79°	1467	90+	50+	91	100	-5%	3
3000 lm	Narrow (N)	3115	121	43°	5587	90+	50+	91	100	-5%	4
	Medium (M)	2912	113	58°	3513	90+	50+	91	100	-5%	4
	Wide (W)	2904	113	79°	1772	90+	50+	91	100	-5%	4
3500 lm	Narrow (N)	3486	121	43°	6252	90+	50+	91	100	-5%	4
	Medium (M)	3259	114	58°	3931	90+	50+	91	100	-5%	4
	Wide (W)	3250	113	79°	1983	90+	50+	91	100	-5%	4
4800 lm	Narrow (N)	4977	121	43°	8926	90+	50+	91	100	-5%	6
	Medium (M)	4652	113	58°	5613	90+	50+	91	100	-5%	5
	Wide (W)	4640	113	79°	2831	90+	50+	91	100	-5%	5
6000 lm	Narrow (N)	6219	117	43°	11152	90+	50+	91	100	-5%	6
	Medium (M)	5813	109	58°	7013	90+	50+	91	100	-5%	6
	Wide (W)	5798	109	79°	3537	90+	50+	91	100	-5%	6

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 CRI[1]
- 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.
- R_a up to 94 CRI
  R_9 up to 67 CRI
  G_a up to 99 CRI
  C_9 up to 94 CRI
- R_f up to 92 TM-30
  $R_{f,h1}$ up to 91 TM-30
  R_g up to 100 TM-30
  $R_{cs,h1}$ up to -5% TM-30

Achieve color balance

Best in class color consistency:

- Promote aesthetic harmony in your space with ≤ 2 SDCM

Footnotes for page 1

1. Specify standard Universal frame (-) for use with 347V (3) light engines.
2. Not compatible with electronic low voltage light engine dimming option (E).
3. 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.
4. Chicago Plenum (LC) frame is not available for Buy American Compliant (BAC) configurations.
5. The 2500lm (25) and 3000lm (30) packages have marked spacing requirements (see page 6).
6. See beam Options table for light engine and trim combination spacing criterion.
7. The 347V light engine voltage option available only with Z10 dimming option. For other dimming protocols order UNV (U) light engine and 347V (3) frame.
8. Universal 120-347V for 0-10v (Z10) dimming only. For 347V non-Z10 dimming, order 347V (3) frame with (U) light engine.

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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%
- 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 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) frames. Not for use with emergency options.

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.

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interact

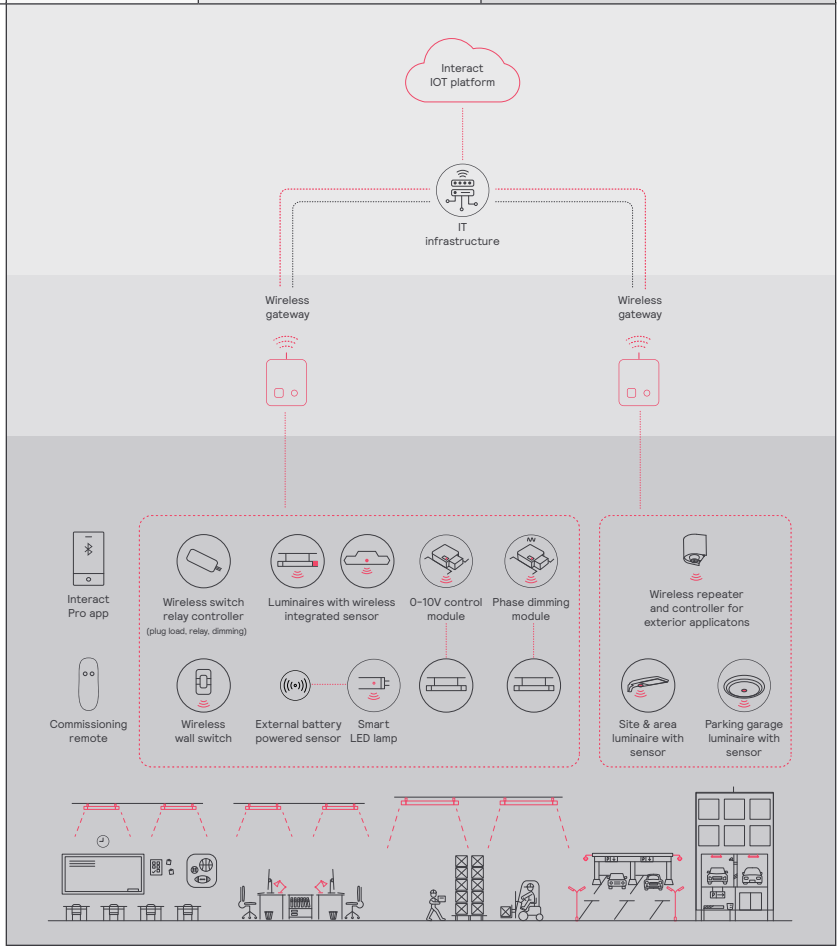
		Standalone	Gateway Connected: Option 1	Gateway Connected: Option 2
Dimming, grouping, and zoning		✓	✓	✓
Bluetooth and ZigBee enabled		✓	✓	✓
Motion sensing and daylight harvesting		✓	✓	✓
Integration with 0–10V and phase dimming fixtures		✓	✓	✓
Code compliance		✓	✓	✓
Granular dimming and dwell time		✓	✓	✓
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



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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.

Wired controls options

Interact (PoE):

- PoE based IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Test switch and indicator light mounted on side of chassis on one end.
- Supports advanced IoT Apps on Personal Control, Space Management, wayfinding, room/desk reservation and offers open APIs for light control and data exchange.
- 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.
- PoE lighting controller is accessible from below.
- 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: interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

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	-	-

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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).

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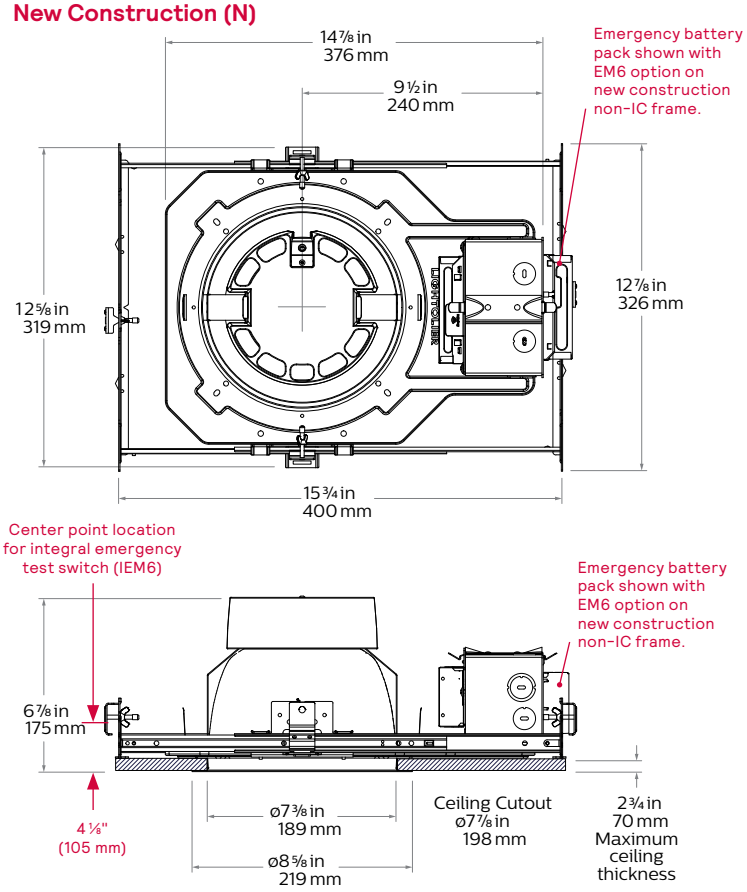
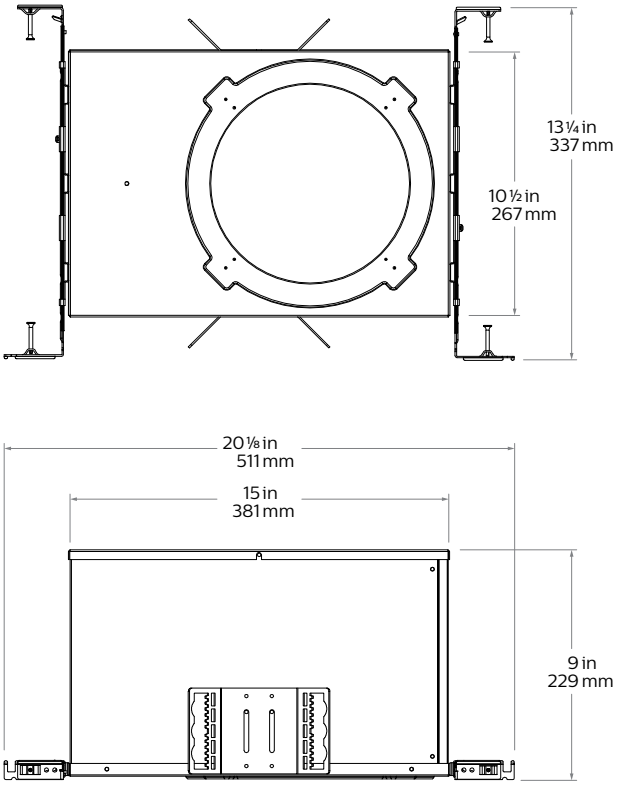
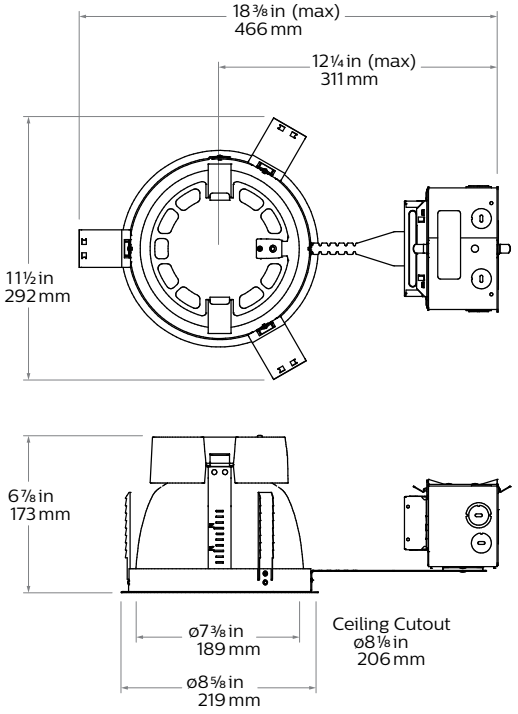
New Construction (N)



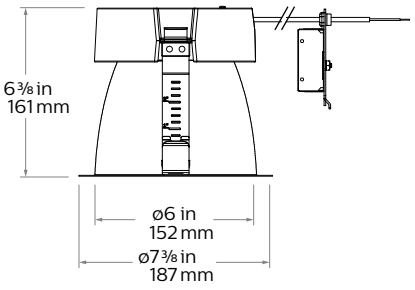
Chicago Plenum (LC)



Remodeler (R)



Retrofit (R) with round trim



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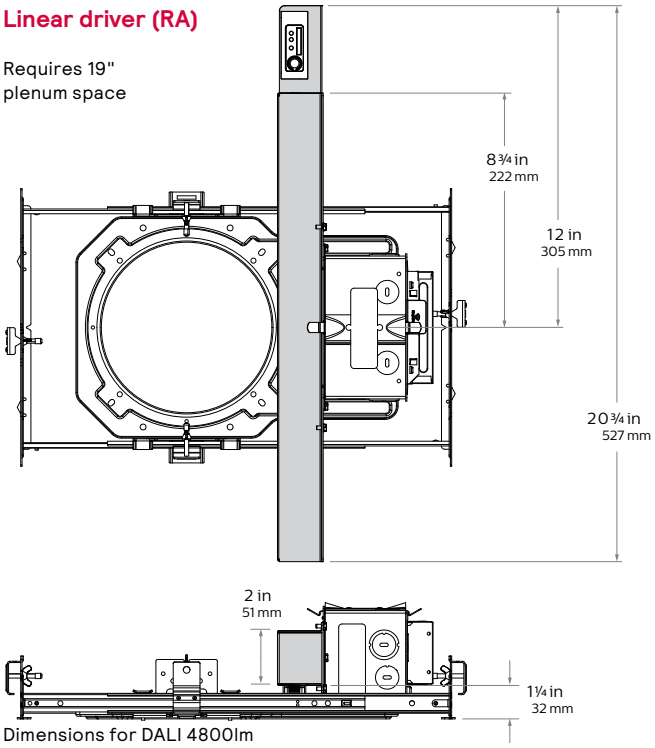
Linear driver (RA)

Requires 19"
plenum space



Dimensions for DALI 4800lm
& 6000lm, & RA light engines.

Sensor shown for
RA light engine only.

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Electrical – Narrow

Light engine	Input Volts	Input Freq.	Input Current	Drive Current	Input Power	LED Power	THD Factor @ Max Load	Power Factor @ Max Load
1000lm	120V	50/60Hz	0.072A	0.22A	8.6W	7.0W	<10%	>0.9
	277V	50/60Hz	0.032A	0.22A	8.8W	7.0W	<20%	>0.9
	347V	50/60Hz	0.029A	0.22A	10.0W	7.0W	<30%	>0.9
1500lm	120V	50/60Hz	0.107A	0.33A	12.8W	10.7W	<10%	>0.9
	277V	50/60Hz	0.046A	0.33A	12.9W	10.7W	<10%	>0.9
	347V	50/60Hz	0.042A	0.33A	14.6W	10.7W	<25%	>0.9
2000lm	120V	50/60Hz	0.145A	0.45A	17.4W	14.7W	<10%	>0.9
	277V	50/60Hz	0.063A	0.45A	17.5W	14.7W	<10%	>0.9
	347V	50/60Hz	0.056A	0.45A	19.4W	14.7W	<20%	>0.9
2500lm	120V	50/60Hz	0.178A	0.55A	21.4W	18.2W	<10%	>0.9
	277V	50/60Hz	0.078A	0.55A	21.5W	18.2W	<10%	>0.9
	347V	50/60Hz	0.065A	0.55A	22.7W	18.2W	<20%	>0.9
3000lm	120V	50/60Hz	0.212A	0.65A	25.5W	21.7W	<10%	>0.9
	277V	50/60Hz	0.091A	0.65A	25.3W	21.7W	<10%	>0.9
	347V	50/60Hz	0.077A	0.65A	26.7W	21.7W	<15%	>0.9
3500 lm	120V	50/60Hz	0.237A	0.75A	28.4W	24.4W	<10%	>0.9
	277V	50/60Hz	0.103A	0.75A	28.4W	24.4W	<10%	>0.9
	347V	50/60Hz	0.084A	0.75A	29.1W	24.4W	<15%	>0.9
4800lm	120V	50/60Hz	0.338A	1.05A	40.5W	34.9W	<10%	>0.9
	277V	50/60Hz	0.145A	1.05A	40.3W	34.9W	<10%	>0.9
	347V	50/60Hz	0.118A	1.05A	41.0W	34.9W	<10%	>0.9
6000lm	120V	50/60Hz	0.442A	1.35A	53.0W	45.6W	<10%	>0.9
	277V	50/60Hz	0.188A	1.35A	52.1W	45.6W	<10%	>0.9
	347V	50/60Hz	0.153A	1.35A	53.0W	45.6W	<10%	>0.9

Electrical – Medium & Wide

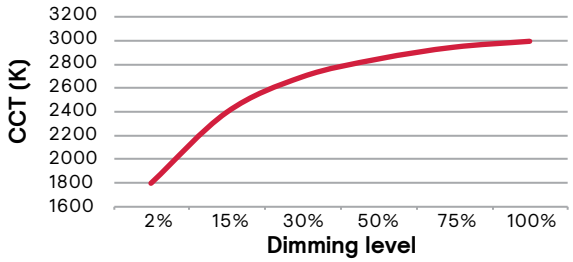
Light engine	Input Volts	Input Freq.	Input Current	Drive Current	Input Power	LED Power	THD Factor @ Max Load	Power Factor @ Max Load
1000lm	120V	50/60Hz	0.073A	0.22A	8.7W	7.1W	<10%	>0.9
	277V	50/60Hz	0.032A	0.22A	8.9W	7.1W	<20%	>0.9
	347V	50/60Hz	0.029A	0.22A	10.2W	7.1W	<30%	>0.9
1500lm	120V	50/60Hz	0.109A	0.33A	13.0W	10.9W	<10%	>0.9
	277V	50/60Hz	0.047A	0.33A	13.1W	10.9W	<10%	>0.9
	347V	50/60Hz	0.043A	0.33A	14.9W	10.9W	<25%	>0.9
2000lm	120V	50/60Hz	0.149A	0.45A	17.8W	15.1W	<10%	>0.9
	277V	50/60Hz	0.065A	0.45A	18.0W	15.1W	<10%	>0.9
	347V	50/60Hz	0.057A	0.45A	19.8W	15.1W	<20%	>0.9
2500lm	120V	50/60Hz	0.179A	0.55A	21.4W	18.2W	<10%	>0.9
	277V	50/60Hz	0.078A	0.55A	21.6W	18.2W	<10%	>0.9
	347V	50/60Hz	0.066A	0.55A	22.8W	18.2W	<20%	>0.9
3000lm	120V	50/60Hz	0.220A	0.67A	26.4W	22.4W	<10%	>0.9
	277V	50/60Hz	0.095A	0.67A	26.2W	22.4W	<10%	>0.9
	347V	50/60Hz	0.079A	0.67A	27.5W	22.4W	<15%	>0.9
3500 lm	120V	50/60Hz	0.245A	0.75A	29.4W	25.3W	<10%	>0.9
	277V	50/60Hz	0.106A	0.75A	29.4W	25.3W	<10%	>0.9
	347V	50/60Hz	0.087A	0.75A	30.1W	25.3W	<15%	>0.9
4800lm	120V	50/60Hz	0.350A	1.08A	42.0W	36.1W	<10%	>0.9
	277V	50/60Hz	0.150A	1.08A	41.5W	36.1W	<10%	>0.9
	347V	50/60Hz	0.122A	1.08A	42.5W	36.1W	<10%	>0.9
6000lm	120V	50/60Hz	0.454A	1.38A	54.5W	46.8W	<10%	>0.9
	277V	50/60Hz	0.193A	1.38A	53.5W	46.8W	<10%	>0.9
	347V	50/60Hz	0.157A	1.38A	54.5W	46.8W	<10%	>0.9

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.

Dim-to-Warm: CCT vs Dimmed level



Narrow (Power over Ethernet)

Light engine	Input Volts[1]	Input Voltage[2]	Input Freq	Input Current	Input 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]	Input Voltage[2]	Input Freq	Input Current	Input 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]	Input Voltage[2]	Input Freq	Input Current	Input 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	3120 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

Light engine	4800lm	6000lm
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)

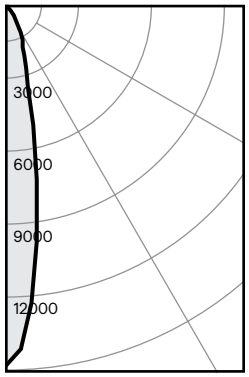
In accordance with CAN ICES-005-A/ NEB-005-A and FCC Part 15-A.

C7RDL Calculite LED 7" gen 3

Round Downlight

Narrow beam, 2500lm Engine, 117lm/W at 21W

Candela Curve



7RN / C6L25935NZ10U / C7RDLNMCL

Output lumens:	2462 lms
Input watts:	21.0 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	0.34
Beam Angle:	20°

Zonal summary

Zone	Lumens	%Luminaire
0-30	2237	90.9%
0-40	2428	98.6%
0-60	2460	99.9%
0-90	2462	100.0%

Angle	Mean CP	Lumens
0	11815	
5	9781	
10	5788	804
15	2849	
20	1771	854
25	1293	
30	753	579
35	246	
40	94	191
45	33	
50	7	30
55	2	
60	2	2
65	1	
70	1	1
75	1	
80	0	0
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	102	4.8'
9'	80	5.4'
10'	65	6.0'
12'	45	6.6'
14'	60	4.8'

* 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'	116.0	0.93
6'	76.0	0.61
7'	55.0	0.44
8'	45.0	0.36
9'	36.0	0.29

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

Efficacy: 117.2lm/W

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	6000lm = 240%
CC = 95%	90CRI, 3500K = 100%	4800lm = 192%
CD = 87%	90CRI, 3000K = 96%	3500lm = 140%
CZ = 63%	90CRI, 2700K = 92%	3000lm = 120%
WH = 87%		2500lm = 100%
BK = 57%		2000lm = 80%
		1500lm = 60%
		1000lm = 40%

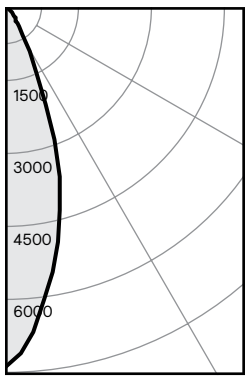
Coefficients of utilization

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, 2500lm Engine, 111lm/W at 21W

Candela Curve



7RN / C6L25935NZ10U / C7RDLWCL

Output lumens:	2329 lms
Input watts:	21.0 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	0.58
Beam Angle:	35°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1994	85.6%
0-40	2213	95.0%
0-60	2322	99.7%
0-90	2329	100.0%

Angle	Mean CP	Lumens
0	5877	
5	5338	
10	4406	478
15	3435	
20	2317	936
25	1227	
30	554	580
35	325	
40	255	219
45	130	
50	22	101
55	7	
60	4	8
65	3	
70	3	3
75	2	
80	0	2
85	0	
90	0	2

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	102	4.8'
9'	80	5.4'
10'	65	6.0'
12'	45	6.6'
14'	30	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'	109.0	0.93
6'	71.0	0.61
7'	51.0	0.44
8'	42.0	0.36
9'	34.0	0.29

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

Efficacy: 110.9lm/W

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	6000lm = 240%
CC = 95%	90CRI, 3500K = 100%	4800lm = 192%
CD = 87%	90CRI, 3000K = 96%	3500lm = 140%
CZ = 63%	90CRI, 2700K = 92%	3000lm = 120%
WH = 87%		2500lm = 100%
BK = 57%		2000lm = 80%
		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	94	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

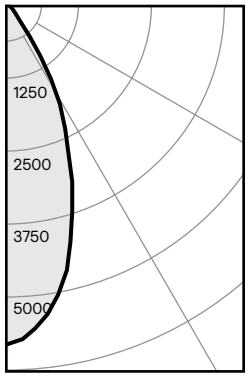
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

C7RDL Calculite LED 7" gen 3

Round Downlight

Medium beam, 2500lm Engine, 123 lm/W at 21W

Candela Curve



7RN / C6L25935MZ10U / C7RDLNMCL

Output lumens:	2579 lms
Input watts:	21.0 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	0.7
Beam Angle:	44°

Zonal summary

Zone	Lumens	%Luminaire
0-30	2173	84.3%
0-40	2529	98.1%
0-60	2577	99.9%
0-90	2579	100.0%

Angle	Mean CP	Lumens
0	4626	
5	4418	
10	4007	409
15	3333	
20	2566	919
25	1860	
30	1186	845
35	528	
40	173	356
45	43	
50	7	45
55	2	
60	2	3
65	1	
70	1	1
75	1	
80	0	0
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	185	3.5'
6'	129	4.2'
7'	94	4.9'
8'	72	5.6'
9'	57	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'	120.0	0.93
6'	79.0	0.61
7'	56.0	0.44
8'	47.0	0.36
9'	37.0	0.29

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

Efficacy: 122.8 lm/W

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	6000lm = 240%
CC = 95%	90CRI, 3500K = 100%	4800lm = 192%
CD = 87%	90CRI, 3000K = 96%	3500lm = 140%
CZ = 63%	90CRI, 2700K = 92%	3000lm = 120%
WH = 87%		2500lm = 100%
BK = 57%		2000lm = 80%
		1500lm = 60%
		1000lm = 40%

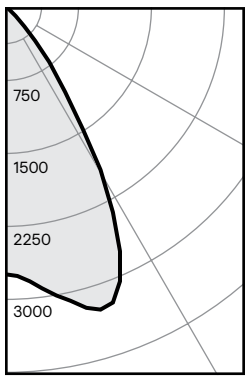
Coefficients of utilization

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	64	71	63	70	63	62
10	78	69	64	61	69	60	68	60	67	60	59

Room Cavity Ratio

Medium beam, 2500lm Engine, 123 lm/W at 21W

Candela Curve



7RN / C6L25935MZ10U / C7RDLWCL

Output lumens:	2568 lms
Input watts:	21.0 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	1.12
Beam Angle:	61°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1910	74.4%
0-40	2453	95.5%
0-60	2565	99.9%
0-90	2568	100.0%

Angle	Mean CP	Lumens
0	2185	
5	2244	
10	2393	219
15	2533	
20	2559	716
25	2191	
30	1534	975
35	847	
40	364	543
45	115	
50	15	107
55	5	
60	3	5
65	2	
70	2	2
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	87	5.6'
6'	61	6.7'
7'	45	7.8'
8'	34	9.0'
9'	27	10.1'

* 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'	116.0	0.93
6'	76.0	0.61
7'	54.0	0.44
8'	45.0	0.36
9'	36.0	0.29

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

Efficacy: 122.8 lm/W

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	6000lm = 240%
CC = 95%	90CRI, 3500K = 100%	4800lm = 192%
CD = 87%	90CRI, 3000K = 96%	3500lm = 140%
CZ = 63%	90CRI, 2700K = 92%	3000lm = 120%
WH = 87%		2500lm = 100%
BK = 57%		2000lm = 80%
		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

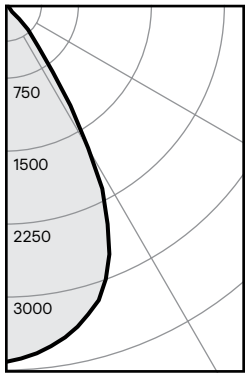
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

C7RDL Calculite LED 7" gen 3

Round Downlight

Wide beam, 2500lm Engine, 115 lm/W at 21W

Candela Curve



7RN / C6L25935WZ10U / C7RDLNMCL

Output lumens:	2411 lms
Input watts:	21.0 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	0.94
Beam Angle:	59°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1884	78.1%
0-40	2325	96.4%
0-60	2409	99.9%
0-90	2411	100.0%

Angle	Mean CP	Lumens
0	2909	
5	2847	
10	2756	269
15	2619	
20	2386	732
25	1981	
30	1347	883
35	666	
40	278	441
45	84	
50	12	80
55	3	
60	2	4
65	1	
70	1	1
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	116	4.7'
6'	81	5.6'
7'	59	6.6'
8'	45	7.5'
9'	36	8.5'

* 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'	111.0	0.93
6'	73.0	0.61
7'	52.0	0.44
8'	43.0	0.36
9'	35.0	0.29

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

Efficacy: 114.8 lm/W

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	6000lm = 240%
CC = 95%	90CRI, 3500K = 100%	4800lm = 192%
CD = 87%	90CRI, 3000K = 96%	3500lm = 140%
CZ = 63%	90CRI, 2700K = 92%	3000lm = 120%
WH = 87%		2500lm = 100%
BK = 57%		2000lm = 80%
		1500lm = 60%
		1000lm = 40%

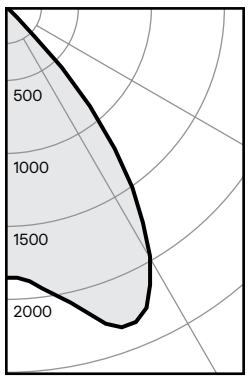
Coefficients of utilization

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

Wide beam, 2500lm Engine, 115 lm/W at 21W

Candela Curve



7RN / C6L25935WZ10U / C7RDLWCL

Output lumens:	2405 lms
Input watts:	21.0 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	1.36
Beam Angle:	75°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1453	60.4%
0-40	2180	90.6%
0-60	2401	99.8%
0-90	2405	100.0%

Angle	Mean CP	Lumens
0	1467	
5	1496	
10	1589	146
15	1725	
20	1850	493
25	1802	
30	1566	814
35	1194	
40	711	727
45	230	
50	26	213
55	7	
60	4	8
65	3	
70	2	3
75	1	
80	1	1
85	1	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	59	6.8'
6'	41	8.2'
7'	30	9.5'
8'	23	10.9'
9'	18	12.2'

* 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'	107.0	0.93
6'	70.0	0.61
7'	50.0	0.44
8'	42.0	0.36
9'	34.0	0.29

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

Efficacy: 114.5 lm/W

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	6000lm = 240%
CC = 95%	90CRI, 3500K = 100%	4800lm = 192%
CD = 87%	90CRI, 3000K = 96%	3500lm = 140%
CZ = 63%	90CRI, 2700K = 92%	3000lm = 120%
WH = 87%		2500lm = 100%
BK = 57%		2000lm = 80%
		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.

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