

# PHILIPS LIGHTOLIER

## Downlighting

### Calculite LED gen 3 7" round downlight

1000 – 6000lm



Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

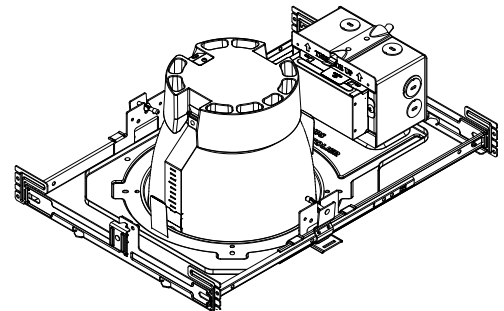
Calculite LED 7" generation 3 features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility.

Complete product = Frame + Engine + Trim

#### Frame

example: C7RN

Series	Aperture	Installation	Voltage/Options
<b>C7</b>	<b>R</b>	<b>N</b>	
<b>C7</b> Calculite LED 7" aperture	<b>R</b> Round	<b>N</b> New construction	— Universal (120/277V) <b>3</b> 347V <sup>1</sup> <b>EM</b> Emergency <sup>2</sup> <b>LC</b> Chicago Plenum



#### Engine

example: C6L15835NZ10U

Series	Lumens	CRI	CCT	Beam <sup>5</sup>	Dimming	Voltage
<b>C6L</b>						<input type="checkbox"/>
<b>C6L</b> Calculite LED 6" & 7" aperture	<b>10</b> 1000lm <b>15</b> 1500lm <b>20</b> 2000lm <b>25</b> 2500lm <b>35</b> 3500lm <b>48</b> 4800lm <sup>3</sup> <b>60</b> 6000lm <sup>3</sup>	<b>8</b> 80CRI <b>9</b> 90CRI <sup>4</sup>	<b>27</b> 2700K <sup>4</sup> <b>30</b> 3000K <sup>4</sup> <b>35</b> 3500K <b>40</b> 4000K	<b>N</b> Narrow <b>M</b> Medium <b>W</b> Wide	<b>Z10</b> 0-10V 1% <b>SOL</b> EldoLED Solo 0.1% <b>D</b> Dali <b>L</b> Lutron LDE1 EcoSystem fade-to-black <b>E</b> ELV <sup>6</sup> (120V dimming only)	<b>U</b> Universal (120/277/347V) <b>1</b> Universal (120/277V)

#### Trim

example: C7RDLNMCCP

Series	Aperture	Style	Beam <sup>5</sup>	Finish	Flange
<b>C7</b>	<b>R</b>	<b>DL</b>			
<b>C7</b> Calculite LED 7" aperture	<b>R</b> Round	<b>DL</b> Downlight	<b>NM</b> Narrow/ Medium <b>W</b> Wide	<b>CL</b> Specular clear <b>CC</b> Comfort clear <b>CD</b> Comfort clear diffuse <b>CZ</b> Champagne bronze <b>BK</b> Black (matte) <b>WH</b> White (matte)	— White (matte) <b>P</b> Polished <b>F</b> Flangeless — White (matte) <b>F</b> Flangeless

#### Beam options

Trim	Narrow engine	Medium engine	Wide engine
<b>Narrow/Medium</b>	20° (0.3 s.c.)	44° (0.7 s.c.)	59° (0.9 s.c.)
<b>Wide</b>	35° (0.6 s.c.)	59° (1.0 s.c.)	69° (1.2 s.c.)

#### Accessories (ordered with a flangeless trim)

<b>CA7RFT</b>	Mud-in ring for use with flangeless installations.
<b>CAEM</b>	Field installable EM pack.

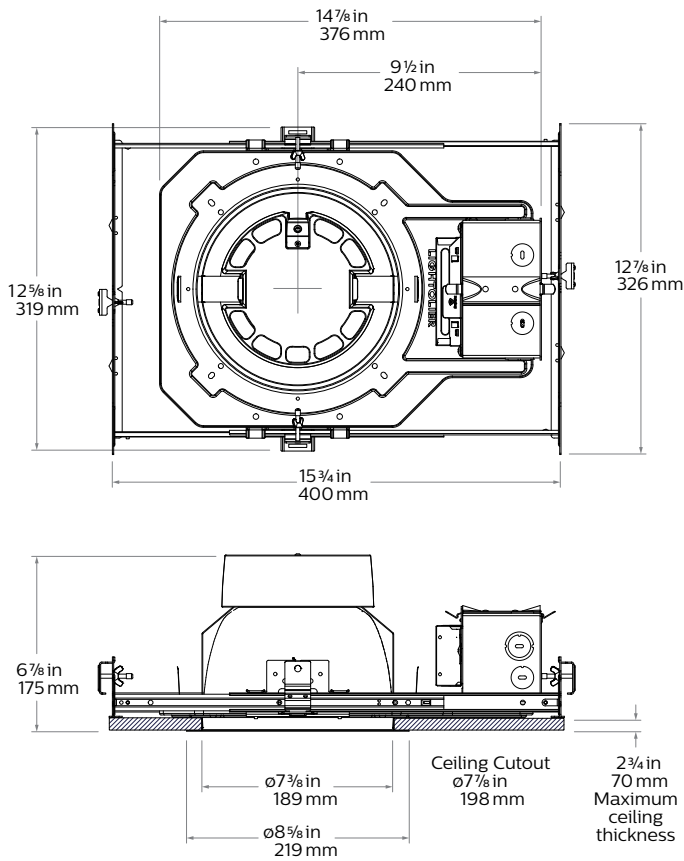
- The 347V is not compatible with ELV dimming.
- Emergency (EM) frame comes with emergency battery pack and ceiling mountable test switch. For reflector mounted test switch, order emergency frame and add "EM" suffix to reflector (example: C7RDLNMCCEM).
- The 4800lm (48) and 6000lm (60) are only available with 0-10V (Z10) dimming and have marked spacing requirements (see page 2 for the spacing requirements).
- The 90 CRI option is only available with 2700K and 3000K CCT.
- See Beam Options table to right for light engine and trim combination spacing criterion.
- ELV dimming is only compatible with up to 2500lm.



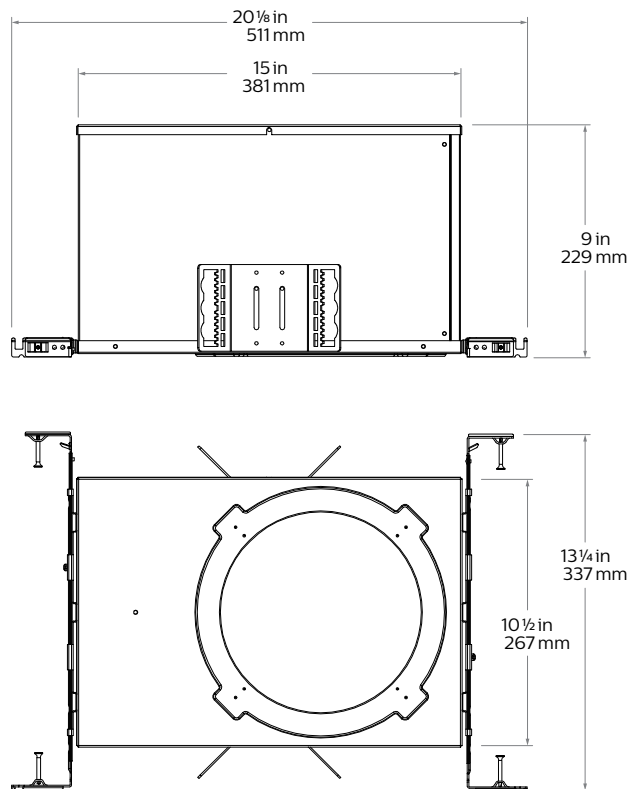
# C7RDL Calculite LED generation 3

## 7" round downlight

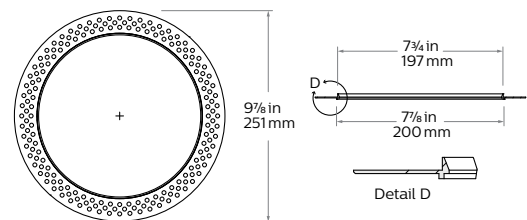
### New Construction (N)



### Chicago Plenum (LC)



### Flangeless mud-in ring (CA7RFT)



Consult factory for wood installation instructions.

### Marked spacing applications

Light engine	4800lm	6000lm
<b>C6L_Z10U series</b>	X	X
<b>C6L_LU series</b>	N/A	N/A
<b>C6L_DU series</b>	N/A	N/A

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

### Lifetime (TM-21) data

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

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

# C7RDL Calculite LED generation 3

## 7" round downlight

### Frame-in-kits

#### New Construction

Galvanized stamped steel for dry or plaster ceilings. Preinstalled telescoping mounting bars from 15-3/4" to 24". For 4' distances, use 1/2" EMT, 1-1/2" x 1/2" U or C channel.

**Max ceiling thickness is 2-3/4".**  
**Minimum ceiling thickness is 1/8".**

#### Patented install Mounting frame

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

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

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

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

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

### Drivers

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

### Optical systems

#### Comfort throughout the space

Patented optical system combines primary and secondary optics to provide a true 50° physical cutoff and 45° reflected cutoff virtually eliminating the view of the light source and bright spots in the reflector.

A new reflector curve reduces reflector brightness by up to 50% compared to existing products, allowing for the use of higher lumen packages in smaller apertures without creating bright spots in the ceiling.

#### Quality of light

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

Proprietary optical grade silicone lens with patterned surface provides soft, even beam diffusion without hotspots or dark rings.

### Light Engine

Quick connect power pack comprised of light source and driver allow for easy installation and replacement from below ceiling with no need for additional wiring. This allows for

- Frame and ceiling installation to be performed while still finalizing details such as lumen packages, CCT and control type.
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Ease and upgradability of technology

### Options and Accessories

**Flangeless mud-in ring:** Use CA7RFT for use with flangeless installations.

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

### ENERGY STAR® exceptions

1. Dali configurations
2. 90 CRI configurations
3. Champagne Bronze and Black finishes
4. 347V and Emergency configurations
5. ELV & EldoLED SOLO dimming

### Labels and Listings

cULus listed for wet location  
 ENERGY STAR  
 CCEA (frames with \*LC suffix)  
 IBEW Union made (light engines & reflectors)  
 RoHS compliant

### Warranty

5 year warranty on complete system.

Complete warranty available at: [http://images.philips.com/is/content/PhilipsConsumer/PDFDownloads/United%20States/ODLI20150930\\_003-UPD-en\\_US-Philips-warranty-indoor-PLS-us.pdf](http://images.philips.com/is/content/PhilipsConsumer/PDFDownloads/United%20States/ODLI20150930_003-UPD-en_US-Philips-warranty-indoor-PLS-us.pdf)

### Narrow

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

### Medium/Wide

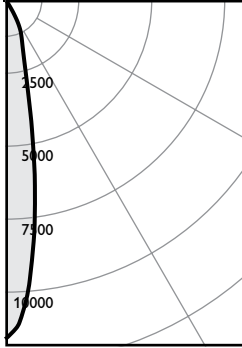
Light engine	Input volts	Input freq	Input current	Drive current	Input power	THD power	Power factor
C6L10_MZ10U	120V	50/60Hz	0.08	210 mA	9W	<15%	>0.95
	277V		0.04			<20%	>0.95
C6L15_MZ10U	120V	50/60Hz	0.11	320 mA	15W	<10%	>0.95
	277V		0.05			<15%	>0.95
C6L20_MZ10U	120V	50/60Hz	0.15	430 mA	19W	<10%	>0.95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

# C7RDL Calculite LED generation 3

## 7" round downlight

### Narrow beam (0.3 s.c.), 2500lm Engine, 101.0 lm/w

Candela Curve



Frame: **C7RN**  
 Engine: **C6L25835NZ10U**  
 Trim: **C7RDLNMCL**

Output lumens: 2414 lms  
 Input watts: 23.9 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 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	788
5	9590	
10	5675	
15	2794	
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#: F37146

#### Adjustment factors

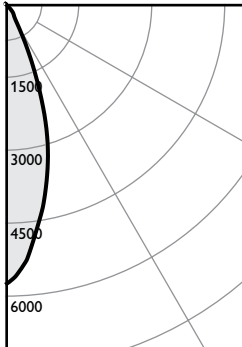
Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 103%	6000lm = 202%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 95%	3500lm = 140%
CZ = 63%	80CRI 2700K = 93%	2500lm = 100%
WH = 87%	90CRI 3000K = 83%	2000lm = 80%
BK = 57%	90CRI 2700K = 78%	1500lm = 60%
		1000lm = 40%

#### Coefficients of utilization

Ceiling	80%					70%					50%					30%					0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0				
Wall	Zonal cavity method - Effective floor reflectance = 20%																				
RCR	Zonal cavity method - Effective floor reflectance = 20%																				
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	106	106	106	106	106	100	100	100	100	
1	115	113	111	109	110	107	106	104	103	101	99	96	92	88	84	80	74	68	62	56	
2	111	107	104	101	105	100	102	98	99	96	92	88	84	80	74	68	62	56	50	44	
3	107	102	98	95	100	94	98	93	96	91	89	85	81	76	70	64	58	52	46	40	
4	103	97	93	90	96	89	94	88	92	87	85	81	77	72	66	60	54	48	42	36	
5	100	93	89	86	92	85	91	85	89	84	82	78	74	69	63	57	51	45	39	33	
6	96	90	85	82	89	82	88	81	86	81	79	75	71	66	60	54	48	42	36	30	
7	93	86	82	79	86	78	85	78	84	78	76	72	68	63	57	51	45	39	33	27	
8	90	83	79	76	83	76	82	75	81	75	74	70	66	61	55	49	43	37	31	25	
9	88	80	76	73	80	73	79	73	78	72	71	67	63	58	52	46	40	34	28	22	
10	85	78	74	71	77	71	77	70	76	70	69	65	61	56	50	44	38	32	26	20	

### Narrow beam (0.6 s.c.), 2500lm Engine, 95.5 lm/w

Candela Curve



Frame: **C7RN**  
 Engine: **C6L25835NZ10U**  
 Trim: **C7RDLWCL**

Output lumens: 2283 lms  
 Input watts: 23.9 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 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	469
5	5234	
10	4320	
15	3368	
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#: 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%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0				
Wall	Zonal cavity method - Effective floor reflectance = 20%																				
RCR	Zonal cavity method - Effective floor reflectance = 20%																				
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	106	106	106	106	106	100	100	100	100	
1	114	112	110	108	110	106	106	103	102	100	95	92	88	84	80	74	68	62	56	50	
2	110	105	102	99	104	98	101	96	98	94	90	86	82	78	72	66	60	54	48	42	
3	105	100	95	92	98	91	96	90	93	88	86	82	78	74	69	63	57	51	45	39	
4	101	95	90	86	93	86	91	85	89	84	81	77	73	68	63	57	51	45	39	33	
5	97	90	85	81	89	81	87	80	86	80	78	74	70	65	60	54	48	42	36	30	
6	93	86	81	77	85	77	83	76	82	76	74	70	66	61	55	49	43	37	31	25	
7	90	82	77	73	81	73	80	73	79	72	71	67	63	58	52	46	40	34	28	22	
8	86	78	73	70	78	70	77	69	76	69	68	64	60	55	49	43	37	31	25	19	
9	83	75	70	67	75	67	74	66	73	66	65	61	57	51	45	39	33	27	21	15	
10	80	72	67	64	72	64	71	64	70	63	62	58	54	48	42	36	30	24	18	12	

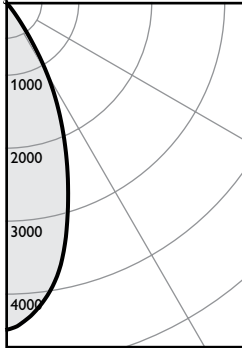
1. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
 2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

# C7RDL Calculite LED generation 3

## 7" round downlight

### Medium beam (0.7 s.c.), 2500lm Engine, 117.6 lm/w

Candela Curve



Frame: **C7RN**  
 Engine: **C6L25835MZ10U**  
 Trim: **C7RDLNMCL**

Output lumens: 2506 lms  
 Input watts: 21.3 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 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#: F37137

#### Adjustment factors

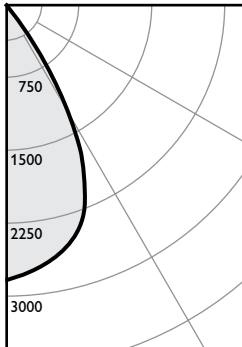
Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	6000lm = 240%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 97%	3500lm = 140%
CZ = 63%	80CRI 2700K = 87%	2500lm = 100%
WH = 87%	90CRI 3000K = 77%	2000lm = 80%
BK = 57%	90CRI 2700K = 73%	1500lm = 60%
		1000lm = 40%

#### Coefficients of utilization

Ceiling	80%					70%					50%					30%					0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	0		
RCR	Zonal cavity method - Effective floor reflectance = 20%																				
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100	100	100		
	1	114	112	109	107	109	106	105	102	102	99	95	95	95	95	95	95	95	95		
	2	109	105	101	98	103	97	100	95	97	93	90	90	90	90	90	90	90	90		
	3	105	99	94	91	98	90	95	89	93	87	85	85	85	85	85	85	85	85		
	4	100	93	89	85	92	84	90	83	88	82	80	80	80	80	80	80	80	80		
	5	96	88	83	79	88	79	86	78	84	78	76	76	76	76	76	76	76	76		
	6	92	84	79	75	83	75	82	74	80	74	72	72	72	72	72	72	72	72		
	7	88	80	74	71	79	71	78	70	77	70	68	68	68	68	68	68	68	68		
	8	84	76	71	67	75	67	74	67	73	66	65	65	65	65	65	65	65	65		
	9	81	72	67	64	72	63	71	63	70	63	62	62	62	62	62	62	62	62		
	10	78	69	64	61	69	60	68	60	67	60	59	59	59	59	59	59	59	59		

### Medium beam (0.9 s.c.), 2500lm Engine, 110.0 lm/w

Candela Curve



Frame: **C7RN**  
 Engine: **C6L25835WZ10U**  
 Trim: **C7RDLNMCL**

Output lumens: 2342 lms  
 Input watts: 21.3 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 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#: 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	50	10	50	10	50	10	50	10	0		
RCR	Zonal cavity method - Effective floor reflectance = 20%																				
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100	100	100		
	1	114	111	109	107	109	105	105	102	101	99	94	94	94	94	94	94	94	94		
	2	109	104	100	97	102	96	99	94	96	92	88	88	88	88	88	88	88	88		
	3	103	97	93	89	96	88	93	87	91	85	83	83	83	83	83	83	83	83		
	4	98	91	86	82	90	82	88	81	86	80	77	77	77	77	77	77	77	77		
	5	94	86	80	76	85	76	83	75	82	75	73	73	73	73	73	73	73	73		
	6	89	81	75	71	80	71	79	70	77	70	68	68	68	68	68	68	68	68		
	7	85	76	71	67	76	66	74	66	73	66	64	64	64	64	64	64	64	64		
	8	81	72	66	63	72	62	71	62	70	62	60	60	60	60	60	60	60	60		
	9	78	68	63	59	68	59	67	59	66	58	57	57	57	57	57	57	57	57		
	10	74	65	59	56	64	55	64	55	63	55	54	54	54	54	54	54	54	54		

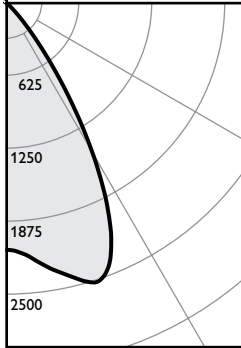
1. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.  
 2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

# C7RDL Calculite LED generation 3

## 7" round downlight

### Wide beam (1.0 s.c.), 2500lm Engine, 117.1 lm/w

Candela Curve



Frame: **C7RN**  
 Engine: **C6L25835MZ10U**  
 Trim: **C7RDLWCL**

Output lumens: 2495 lms  
 Input watts: 21.3 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 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	213
5	2180	
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#: F37136

#### Adjustment factors

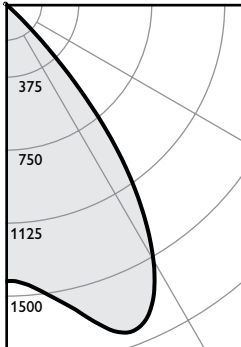
Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	6000lm = 240%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 97%	3500lm = 140%
CZ = 63%	80CRI 2700K = 87%	2500lm = 100%
WH = 87%	90CRI 3000K = 77%	2000lm = 80%
BK = 57%	90CRI 2700K = 73%	1500lm = 60%
		1000lm = 40%

#### Coefficients of utilization

Ceiling	80%					70%					50%					30%					0%				
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	0		
Wall																									
RCR	Zonal cavity method - Effective floor reflectance = 20%																								
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100	100	100	100	100	100	100		
1	114	111	108	106	109	105	105	101	101	101	98	94	94	94	94	94	94	94	94	94	94	94	94		
2	108	103	99	96	102	95	98	93	95	91	87	87	87	87	87	87	87	87	87	87	87	87	87		
3	103	96	92	88	95	87	92	86	90	84	81	81	81	81	81	81	81	81	81	81	81	81	81		
4	98	90	85	81	89	80	87	79	85	78	76	76	76	76	76	76	76	76	76	76	76	76	76		
5	93	84	79	74	83	74	82	73	80	73	71	71	71	71	71	71	71	71	71	71	71	71	71		
6	88	79	73	69	78	69	77	68	76	68	66	66	66	66	66	66	66	66	66	66	66	66	66		
7	84	74	68	64	74	64	72	64	71	63	62	62	62	62	62	62	62	62	62	62	62	62	62		
8	80	70	64	60	69	60	68	60	67	59	58	58	58	58	58	58	58	58	58	58	58	58	58		
9	76	66	60	56	66	56	65	56	64	56	54	54	54	54	54	54	54	54	54	54	54	54	54		
10	72	62	57	53	62	53	61	53	60	52	51	51	51	51	51	51	51	51	51	51	51	51	51		

### Wide beam (1.2 s.c.), 2500lm Engine, 109.7 lm/w

Candela Curve



Frame: **C6RN**  
 Engine: **C6L25835MZ10U**  
 Trim: **C6RDLCL**

Output lumens: 2336 lms  
 Input watts: 21.3 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 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	142
5	1454	
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#: 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%				
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	0		
Wall																									
RCR	Zonal cavity method - Effective floor reflectance = 20%																								
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100	100	100	100	100	100	100		
1	113	110	108	105	108	104	104	100	100	100	97	93	93	93	93	93	93	93	93	93	93	93	93		
2	107	102	98	94	100	93	97	91	94	89	85	85	85	85	85	85	85	85	85	85	85	85	85		
3	101	94	89	85	93	84	90	83	88	81	78	78	78	78	78	78	78	78	78	78	78	78	78		
4	95	87	81	77	86	76	84	75	82	75	72	72	72	72	72	72	72	72	72	72	72	72	72		
5	90	81	75	70	80	70	78	69	76	68	66	66	66	66	66	66	66	66	66	66	66	66	66		
6	85	75	69	64	74	64	73	63	71	63	61	61	61	61	61	61	61	61	61	61	61	61	61		
7	80	70	63	59	69	59	68	58	67	58	56	56	56	56	56	56	56	56	56	56	56	56	56		
8	76	65	59	54	65	54	64	54	62	54	52	52	52	52	52	52	52	52	52	52	52	52	52		
9	71	61	55	50	60	50	59	50	59	50	48	48	48	48	48	48	48	48	48	48	48	48	48		
10	68	57	51	47	57	47	56	46	55	46	45	45	45	45	45	45	45	45	45	45	45	45	45		

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.

