

# PHILIPS LIGHTOLIER



## Downlighting

### Calculite LED gen 3 4" cylinder

500 – 3000lm



Calculite LED 4" generation 3 features industry leading visual comfort and excellent uniform illumination over time.

Complete luminaire = Fixture + Accessory (optional)

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

### Fixture

example: C4SDL15835MZ10UCCW

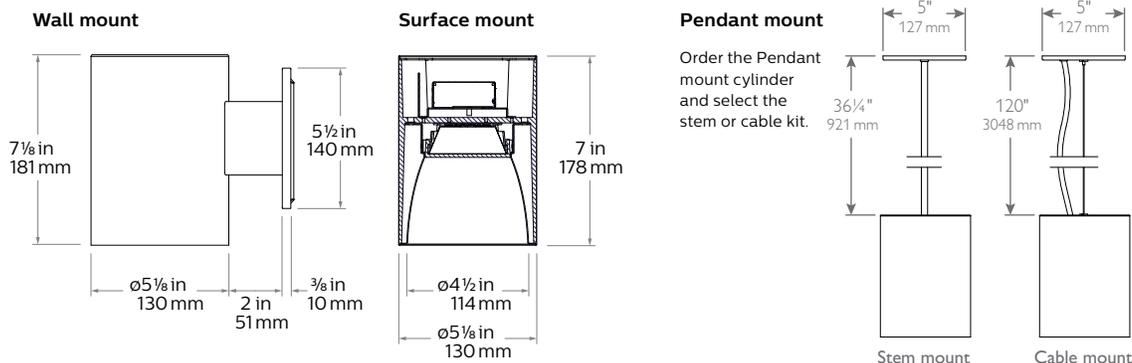
Series	Mounts	Styles	Lumens	CRI	CCT	Beams	Dimming	Voltage	Reflector finish	Cylinder finish
<b>C4</b>										
<b>C4</b> Calculite LED 4" aperture	<b>S</b> Surface <b>W</b> Wall <b>P</b> Pendant <sup>1</sup>	<b>DL</b> Downlight <b>WW</b> Wall Wash <sup>2</sup> <b>DW</b> Double Wall Wash <sup>2</sup>	<b>05</b> 500 <b>10</b> 1000 <b>15</b> 1500 <b>20</b> 2000 <b>25</b> 2500 <b>30</b> 3000	<b>8</b> 80 <b>9</b> 90 <sup>3</sup>	<b>27</b> 2700K <sup>3</sup> <b>30</b> 3000K <sup>3</sup> <b>35</b> 3500K <b>40</b> 4000K	<b>N</b> Narrow <b>M</b> Medium <b>W</b> Wide <sup>2</sup>	<b>Z10</b> 0-10V 1% <b>SOL</b> EldoLED Solo 0-10V 0.1% <sup>3</sup> <b>ELV</b> ELV <sup>3,4</sup> (120V only dimming)	<b>U</b> Universal 120V/277V <b>1</b> Universal 120V/277V	<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>W</b> White (matte) <b>B</b> Black (matte) <b>A</b> Aluminum

### Pendant accessories (field adjustable)<sup>1</sup> example: CASK36BK

Series	Mounts	Length	Finish
<b>CA</b>			
<b>CA</b> Calculite Accessory	<b>SK</b> Stem Kit	<b>36</b> 36 inches	<b>WH</b> White (matte) <b>BK</b> Black (matte) <b>AL</b> Aluminum
	<b>CK</b> Cable Kit	<b>10</b> 120 inches	<b>WH</b> White (matte) <b>BK</b> Black (matte)

- Pendant (P) option needs to be ordered with an accessory.
- Wall Wash (WW) and Double Wall Wash (DW) are only available with Wide (W) beam.
- EldoLED Solo (SOL) and ELV (ELV) dimming are not compatible with 500 (05) lumen.
- ELV (ELV) dimming is only compatible with up to 2000lm (20) configurations.

### Dimensions



# C4 Calculite LED generation 3

## 4" cylinder

### Cylinder

**Cylinder housing:** Cast aluminum, available for installation onto a 3" or 4" junction box, stem, cable, or wall mounted.

**Surface mounting (C4S):** Mounts directly to junction box. Listed for wet location use.

**Pendant mounting (C4P):** Order with the stem or cable kit.

**Wall Mounting (C4W):** Pre-attached hardware allows for simple installation into wall mounted junction box. Listed for wet location use.

### Pendant accessories

**Stem mounting kit (CASK36xx):** 36" long steel stem, 0.375" diameter (1/8" National Pipe Thread, can be field cut to required length. 5-wire conductor cable runs alongside of stem for power and dimming. Magnetic attachment of canopy to junction box provides clean look free of hardware. Self-aligning swivel mounting system ensures cylinder hangs straight down. Stem can be cut in field for length adjustment (1/8" drill bit required for through hole). Damp location rated.

**Cable mounting kit (CACK10xx):** 10' long steel cable with 5-wire cable for power and dimming. Hardware free canopy for clean aesthetics. Damp location rated.

### 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.

### Drivers

- Advance 0-10V 1% dimming
- ELV dimming
- EldoLED Solo 0.1% dimming

### Lifetime (TM-21) data

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

### ENERGY STAR® exceptions

90 CRI configurations  
Champagne Bronze and Black finishes  
ELV & EldoLED Solo dimming

### Labels and Listings

cULus listed for wet locations (surface mount)  
cULus listed for damp location (wall and pendant mount)  
ENERGY STAR®  
IBEW Union made  
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 (0-10V)

Lumen package	Input volts	Input freq	Input current	Drive current	Input power	THD power	Power factor
<b>500lm</b>	120V	50/60Hz	0.05	110 mA	6W	<20%	>0.95
	277V		0.03			<20%	>0.90
<b>1000lm</b>	120V	50/60Hz	0.08	230 mA	11W	<15%	>0.95
	277V		0.04			<20%	>0.95
<b>1500lm</b>	120V	50/60Hz	0.12	360 mA	16W	<10%	>0.95
	277V		0.06			<15%	>0.95
<b>2000lm</b>	120V	50/60Hz	0.17	490 mA	21W	<10%	>0.95
	277V		0.08			<15%	>0.95
<b>2500lm</b>	120V	50/60Hz	0.22	640 mA	27W	<10%	>0.95
	277V		0.10			<15%	>0.95
<b>3000lm</b>	120V	50/60Hz	0.27	790 mA	33W	<10%	>0.95
	277V		0.13			<15%	>0.95

### Medium/Wide (0-10V)

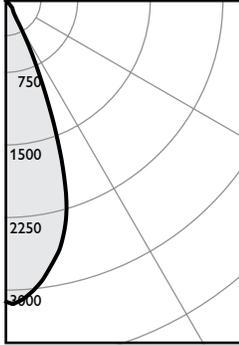
Lumen package	Input volts	Input freq	Input current	Drive current	Input power	THD power	Power factor
<b>500lm</b>	120V	50/60Hz	0.05	110 mA	6W	<20%	>0.95
	277V		0.03			<20%	>0.90
<b>1000lm</b>	120V	50/60Hz	0.08	230 mA	11W	<15%	>0.95
	277V		0.04			<20%	>0.95
<b>1500lm</b>	120V	50/60Hz	0.12	350 mA	16W	<10%	>0.95
	277V		0.06			<15%	>0.95
<b>2000lm</b>	120V	50/60Hz	0.16	470 mA	21W	<10%	>0.95
	277V		0.08			<15%	>0.95
<b>2500lm</b>	120V	50/60Hz	0.21	610 mA	25W	<10%	>0.95
	277V		0.09			<15%	>0.95
<b>3000lm</b>	120V	50/60Hz	0.26	770 mA	31W	<10%	>0.95
	277V		0.12			<15%	>0.95

# C4 Calculite LED generation 3

## 4" cylinder

### Narrow beam, 1500lm Engine, 103.8 lm/W

Candela Curve



Cylinder:  
**C4SDL15835NZ10UCLW**  
 Output lumens: 1526 lms  
 Input watts: 14.7 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 3500K  
 Spacing Crit.: 0.6  
 Beam Angle: 43°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1354	88.7%
0-40	1469	96.3%
0-60	1526	100.0%
0-90	1526	100.0%

Angle	Mean CP	Lumens
0	3112	282
5	3044	
10	2785	
15	2410	
20	1672	
25	837	420
30	324	
35	163	115
40	128	
45	77	57
50	0	
55	0	0
60	0	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	124	3.0'
6'	86	3.6'
7'	64	4.2'
8'	49	4.8'
9'	38	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'	71.3	0.65
6'	46.8	0.43
7'	33.4	0.31
8'	27.8	0.25
9'	22.3	0.20

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

**Efficacy: 103.8 lm/w**  
 Report#: T20161390

Adjustment factors

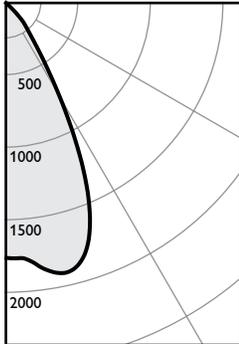
Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 107%	3000lm = 200%
CC = 95%	80CRI 3500K = 100%	2500lm = 167%
CD = 87%	80CRI 3000K = 99%	2000lm = 133%
CZ = 63%	80CRI 2700K = 93%	1500lm = 100%
WH = 87%	90CRI 3000K = 87%	1000lm = 67%
BK = 57%	90CRI 2700K = 81%	500lm = 33%

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			
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	106	106	100	106	106	100	95		
1	114	112	110	108	110	106	106	103	103	102	100	95	102	100	95	98	94	91	88		
2	110	106	102	99	104	98	98	96	96	94	91	88	91	88	81	86	80	78	78		
3	105	100	96	92	99	92	92	90	90	88	85	82	85	80	77	83	76	74	74		
4	101	95	90	87	94	86	86	85	85	84	81	79	81	77	74	79	73	71	71		
5	97	90	85	82	89	81	81	80	80	79	77	75	77	74	71	76	69	68	68		
6	93	86	81	77	85	77	77	76	76	75	73	71	73	70	67	73	66	65	65		
7	90	82	77	74	81	73	73	72	72	71	69	67	69	66	63	70	64	63	63		
8	86	79	74	70	78	70	70	69	69	68	66	64	66	63	60	67	61	60	60		
9	83	75	70	67	75	67	67	66	66	65	63	61	63	60	57	64	58	57	57		
10	80	72	67	64	72	64	64	63	63	62	60	58	60	57	54	61	55	54	54		

### Medium beam, 1500lm Engine, 114.6 lm/W

Candela Curve



Cylinder:  
**C4SDL15835MZ10UCLW**  
 Output lumens: 1627 lms  
 Input watts: 14.2 W  
 CRI: 80 min  
 CCT<sup>1</sup>: 3500K  
 Spacing Crit.: 0.9  
 Beam Angle: 56°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1269	78.0%
0-40	1537	94.5%
0-60	1627	100.0%
0-90	1627	100.0%

Angle	Mean CP	Lumens
0	1760	174
5	1783	
10	1886	
15	1887	
20	1702	
25	1283	572
30	762	
35	406	268
40	236	
45	116	89
50	14	
55	0	1
60	0	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	70	4.5'
6'	49	5.4'
7'	36	6.3'
8'	28	7.2'
9'	22	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'	74.8	0.63
6'	49.1	0.41
7'	35.0	0.30
8'	29.2	0.25
9'	23.4	0.20

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

**Efficacy: 114.6 lm/w**  
 Report#: T20161397

Adjustment factors

Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	3000lm = 200%
CC = 95%	80CRI 3500K = 100%	2500lm = 167%
CD = 87%	80CRI 3000K = 97%	2000lm = 133%
CZ = 63%	80CRI 2700K = 87%	1500lm = 100%
WH = 87%	90CRI 3000K = 77%	1000lm = 67%
BK = 57%	90CRI 2700K = 73%	500lm = 33%

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			
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	106	106	100	106	106	100	94		
1	108	104	100	97	102	96	96	94	94	92	89	86	89	86	81	86	80	77	77		
2	103	97	93	89	96	88	88	87	87	85	82	80	82	79	76	81	74	72	72		
3	98	91	86	82	90	81	81	80	80	79	77	75	77	74	71	76	70	68	68		
4	94	86	80	76	85	76	76	75	75	74	72	70	72	69	66	72	66	64	64		
5	89	81	75	71	80	71	71	70	70	69	67	65	67	64	61	67	61	60	60		
6	85	76	70	66	76	66	66	65	65	64	62	60	62	59	56	62	56	55	55		
7	81	72	66	62	71	62	62	61	61	60	58	56	58	55	52	58	52	51	51		
8	77	68	63	59	68	59	59	58	58	57	55	53	55	52	49	55	49	48	48		
9	74	65	59	55	64	55	55	54	54	53	51	49	51	48	45	51	45	44	44		
10	74	65	59	55	64	55	55	54	54	53	51	49	51	48	45	51	45	44	44		

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.

