LIGHTOLIER

Downlighting

Calculite LED 6" gen 3

C6TW Cylinder Tunable White



Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Calculite LED 4" generation 3 provides an excellent coupling of lighting performance, quality of light, and visual aesthetic. Industry leading visual comfort and uniform illumination make it an ideal choice for office, institution, healthcare, public, and retail applications. Tunable white technology provides dynamic flexibility to fully capture application ambiance and enhance behaviour by supporting biorhythms.

Standard luminaire: Order without BAC option code.

Fixture

standard example: C6SDL1596TMZ10UCCW

Series	Mounting	Styles	Lumens	CRI/CCT	Beams	Dimming	Voltage	Reflector finish	Cylinder finish
C6				**96T**					
C6 Calculite LED 6"	**S** Surface **P** Pendant[1]	**DL** Downlight **WW** Wall Wash[2] **DW** Double Wall Wash[2]	**10** 1000 **15** 1500 **20** 2000 **25** 2500 **30** 3000	**96T** 90CRI / 6500–2700K	**N** Narrow **M** Medium	**Z10** 0–10V 1% **D** DALI DT8 0.1% **DMX** Digital Multiplexing w/ RDM 0.1% **LTW** Lutron T-Series 1% **RA** Integral Interact Pro RF sensor[3] (enables wireless connected lighting control)	**U** Universal 120V/277V	**CL** Specular clear **CC** Comfort clear **CD** Comfort clear diffuse **CZ** Champagne bronze **BK** Black (anodized) **WH** White (matte)	**W** White (matte) **B** Black (matte) **A** Aluminum **RAL** RAL Color[4] (standard code)

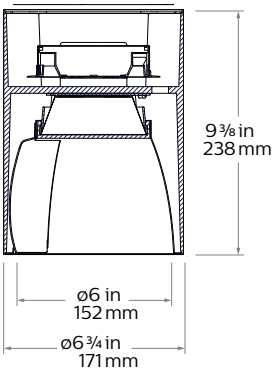
Pendant accessories (field adjustable)[1] **example:** CASK36BK

Series	Mounts	Length	Finish
CA			
CA Calculite Accessory	**SK** Stem Kit	**36** 36 inches **48** 48 inches **60** 60 inches **72** 72 inches	**WH** White (matte) **BK** Black (matte) **AL** Aluminum **RAL** RAL Color[4] (standard code)
	CK Cable Kit (RAL canopy kit will be with black cord)	**10** 120 inches	(same four color options as above)

1. Pendant (P) option needs to be ordered with an accessory.
2. Wall Wash (WW) and Double Wall Wash (DW) are only available with Wide (W) beam.
3. All configurations require remote recessed driver. See dimensions on page 3 and details on page 2.
4. RAL standard colors can be specified upon request. Add RAL standard code to (RALxxxxx).

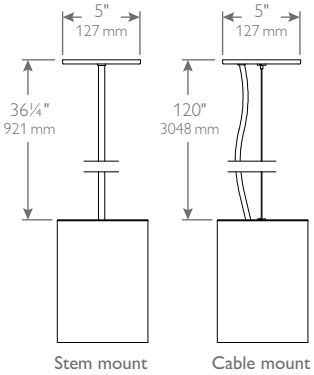
Dimensions

Surface mount



Shown for cylinder only, see page 3 for recessed driver frame dimensions.

Pendant mount



Order the Pendant mount cylinder and select the stem or cable kit.

C6 Calculite LED 6" gen 3

Cylinder

Cylinder

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

Surface mounting (C6S): Mounts directly to junction box. Listed for wet location use.

Pendant mounting (C6P): Order with the stem or cable kit. Listed for damp location use.

Pendant accessories (damp location rated)

Stem mounting kit: 0.375" diameter steel stem (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. A 1/8" hole is required to reconnect the pendant stem to the canopy swivel. Swivel accommodates max 45° pitch.

Cable mounting kit: 10' long steel cable with 5-wire cable for power and dimming. Hardware free canopy for clean aesthetics.

Remote drivers

- Available with surface and pendant mounts only
- Requires new construction or accessibility from above for initial installation
- Mains/control wiring in frame junction box
- Connection to light engine in secondary junction box
- Remote driver is accessible from below upon removal of the cylinder
- Requires 19" of space above the ceiling to mount the linear driver to the recessed frame.

Dimming (2-channel)

All configurations are FCC Class A unless otherwise specified. Dimming curves are logarithmic as standard, contact factory for options. All configurations require remote recessed driver.

- 0-10V 1% (Z10)
- DALI DT8 1% (D)
- Digital Multiplexing w/ RDM 1% (DMX)
- Lutron T-Series 1% (LTW)

Dimming options:

The following are factory-set for the SOL, D, and DMX driver options (ex. DMXLIN):

- SOL/D/DMX: Logarithmic (-) standard
- SOL/D/DMX: Linear (LIN)
- SOL/DMX: Square (SQR)

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.

MesoOptics PET optical diffusion film: Provides a smooth beam shape and mitigates color over angle with optimized luminaire efficiency.

Quality of light: 3 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.

Labels and Listings

- cULus listed for wet locations (surface mount)
- cULus listed for damp locations (pendant mount)
- RoHS certified
- Red List Declare label certified, ID SIG-0018 (View full Declare label)

Warranty

5 year warranty

Indoor Professional Luminaires complete system warranty available at: www.signify.com/warranties

Declare.

Lightolier Calculite Cylinder 6"
Genlyte Solutions by Signify

Final Assembly: Apodaca, Nuevo León, México
Life Expectancy: 10+ Year(s), Warranty 5 Year(s)
End of Life Options: Recyclable (90%), Landfill (10%)

Ingredients:

Aluminum; Small Electrical Components - RoHS Compliant[1]; Iron; Siloxanes and Silicones; Fatty acids, castor-oil, caustic-oxidized, distn. residues, esters with 1,3-butanediol; Carbonic acid, polymer with 4,4'-(1-methylethylidene)bis[phenol]; Steel; Barium sulfate; Silicon; Titanium dioxide; Copper; Magnesium; Poly[imino(1,6-dioxo-1,6- hexanediyl)imino-1,6-hexanediyl]; Zinc; Polyethylene Terephthalate/Polybutylene Terephthalate; Polyvinyl chloride; Polyethylene Terephthalate; Manganese; 1,3,5-Triglycidyl-s-triazinetrione; Amorphous silica; Tris(2-ethylhexyl) trimellitate; Urethane (Ethyl carbamate); Pulp, cellulose; Chromium, metallic; Polyethylene; Titanium; Silicone; Graphite; Tin, Organic; Nickel (Metallic); Talc; Graphite; Carbon black; Antimony oxide (Antimony trioxide); Carbon black; Polytetrafluoroethylene; 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate; Kaolin, calcined; Calcium Carbonate; Melamine cyanurate; Phosphorus; 1,3,5-Triazine-2,4,6-triamine, phosphate (1:1); Quartz; Zinc oxide; Sulfur, Elemental

[1]LBC Temp Exception RL-002 - Small Electrical Components

Living Building Challenge Criteria:

I-13 Red List:
☐ LBC Red List Free
☐ LBC Red List Approved
■ Declared

% Disclosed: 100% at 100ppm
VOC Content: Not Applicable

I-10 Interior Performance: Not Applicable
I-14 Responsible Sourcing: Not Applicable

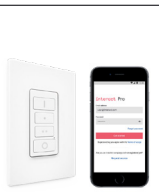
SIG-0018
EXP. 01 JUN 2026
Original Issue Date: 2025

MANUFACTURER RESPONSIBLE FOR LABEL ACCURACY
INTERNATIONAL LIVING FUTURE INSTITUTE™ living-future.org/declare

C6 Calculite LED 6" gen 3

Cylinder

interact







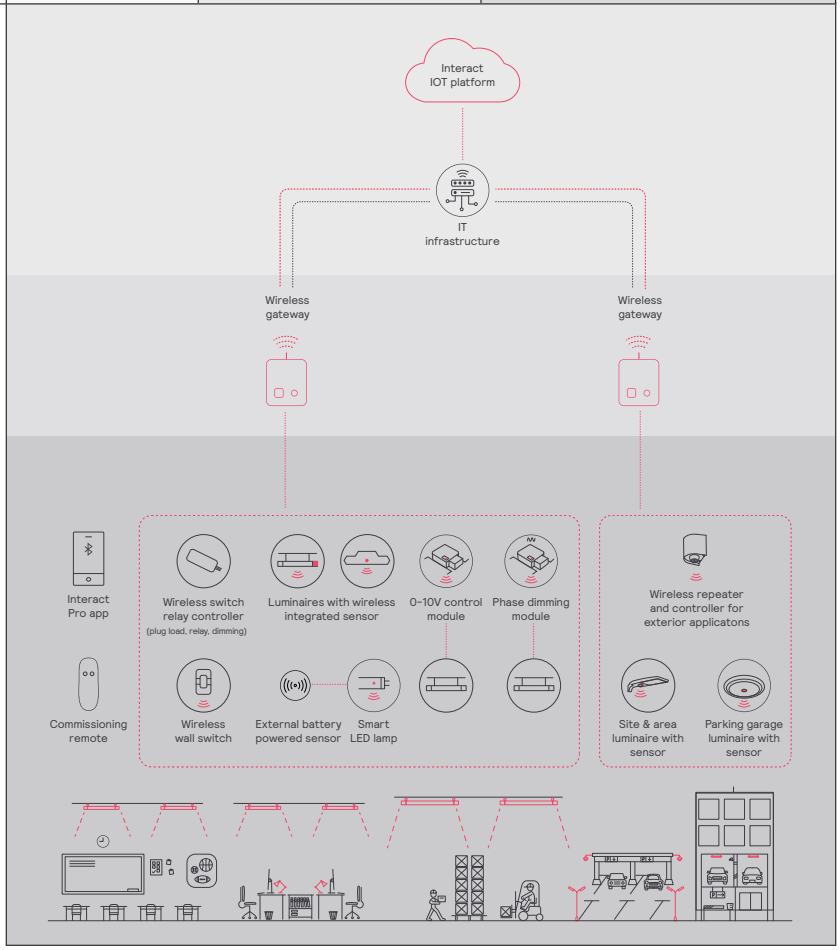
		Standalone	Gateway Connected: Option 1	Gateway Connected: Option 2
Dimming, grouping, and zoning		✓	✓	✓
Bluetooth and ZigBee enabled		✓	✓	✓
Motion sensing and daylight harvesting		✓	✓	✓
Integration with 0–10V and phase dimming fixtures		✓	✓	✓
Code compliance		✓	✓	✓
Granular dimming and dwell time		✓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



C6 Calculite LED 6" gen 3

Cylinder

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.

Polished Reflectors

Shown as round reflectors but represent the finish of Calculite square 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).



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 (CC): Semi-specular finish that softens the light at the source of the reflector and creates a subtle, even luminance from the reflector cone.



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.

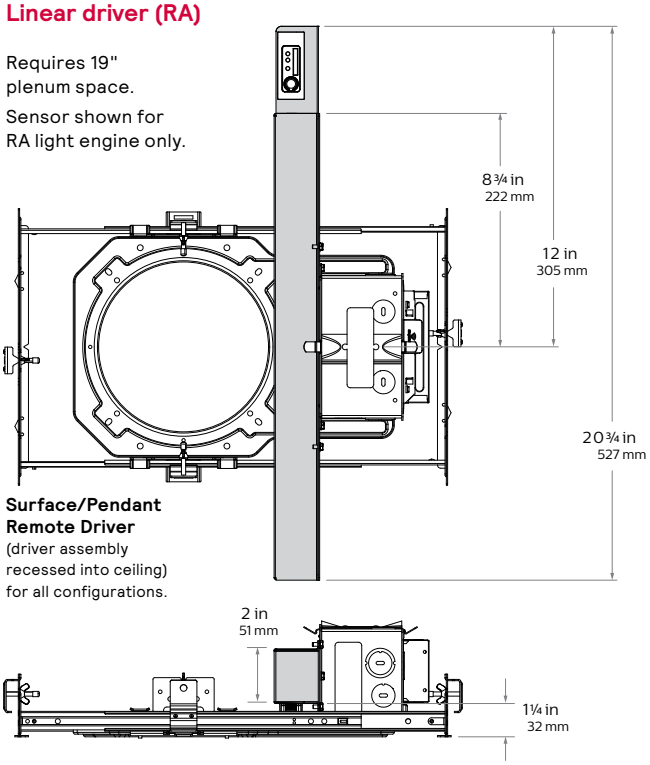
C6 Calculite LED 6" gen 3

Cylinder

Linear driver (RA)

Requires 19" plenum space.

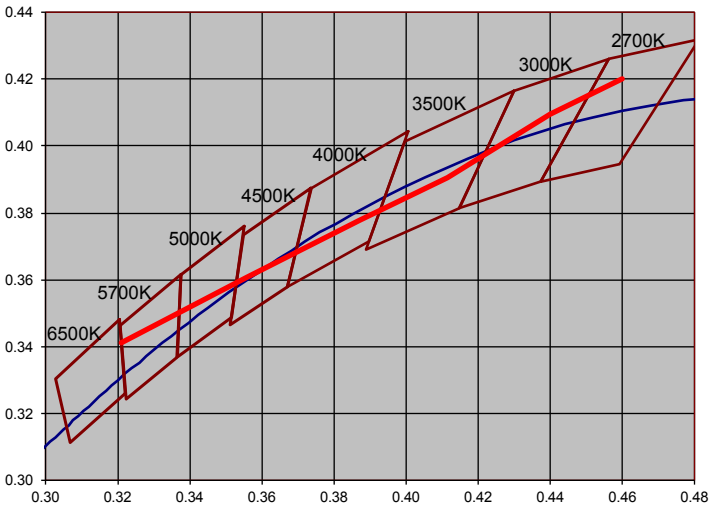
Sensor shown for RA light engine only.



Surface/Pendant Remote Driver
(driver assembly recessed into ceiling) for all configurations.

Electrical

Light engine	Input Volts	Input Freq.	90CRI, 2700K Input Current	90CRI, 2700K Input Power	90CRI, 6500K Input Current	90CRI, 6500K Input Power
C6L10	120V	50/60Hz	0.108A	12.9W	0.846A	10.9W
	277V	50/60Hz	0.047A	13.2W	0.856A	11.3W
C6L15	120V	50/60Hz	0.160A	19.2W	0.858A	16.4W
	277V	50/60Hz	0.070A	19.3W	0.858A	16.5W
C6L20	120V	50/60Hz	0.228A	27.4W	0.837A	23.0W
	277V	50/60Hz	0.099A	27.4W	0.837A	23.0W
C6L25	120V	50/60Hz	0.312A	37.4W	0.801A	29.9W
	277V	50/60Hz	0.134A	37.2W	0.806A	29.9W
C6L30	120V	50/60Hz	0.392A	47.0W	0.798A	37.5W
	277V	50/60Hz	0.169A	46.7W	0.798A	37.3W



Dimming & Beam Charts

C6RTW	Dimming					Beam	
Lumens	Z10	D	DMX	LTW	RA	N	M
1000	L	X	L	X	L	X	X
1500	L	X	L	X	L	X	X
2000	L	X	L	X	L	X	X
2500	L	X	L	X	L	X	X
3000	L	X	L	X	L	X	X

Lifetime (TM-21) data

Lumens	Narrow beam	Medium/Wide beam
1000/1500lm	L85 @ 55,000hrs.	L90 @ 60,000hrs.
2000/2500/3000lm	L85 @ 55,000hrs.	L80 @ 60,000hrs.

Lumens

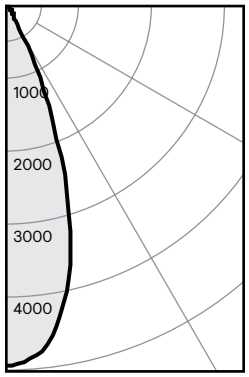
Light engine	Beam	90CRI, 2700K Input Current	90CRI, 2700K Input Power	90CRI, 2700K Input Current	90CRI, 2700K Input Power	90CRI, 2700K Input Current	90CRI, 2700K Input Power	90CRI, 2700K Input Current	90CRI, 2700K Input Power	90CRI, 2700K Input Current	90CRI, 2700K Input Power	90CRI, 6500K Input Current	90CRI, 6500K Input Power
1000 lm	Narrow (N)	1120	87	1115	89	1110	92	1106	94	1099	98	1095	100
	Medium (M)	1061	82	1056	84	1049	87	1043	89	1035	92	1029	94
1500 lm	Narrow (N)	1598	83	1599	86	1601	89	1602	91	1603	95	1604	98
	Medium (M)	1514	79	1513	81	1512	84	1511	86	1509	89	1508	92
2000 lm	Narrow (N)	2154	79	2155	81	2156	84	2158	87	2159	91	2160	94
	Medium (M)	2041	74	2039	77	2037	80	2035	82	2032	86	2030	88
2500 lm	Narrow (N)	2727	73	2723	76	2718	79	2714	83	2707	87	2703	90
	Medium (M)	2584	69	2577	72	2568	75	2559	78	2548	82	2540	85
3000 lm	Narrow (N)	3199	68	3203	71	3210	75	3215	78	3223	83	3228	86
	Medium (M)	3031	64	3031	67	3032	71	3032	74	3033	78	3034	81

C6 Calculite LED 6" gen 3

Cylinder

Narrow beam (4000 K), 2500lm Engine, 84 lm/W at 31W

Candela Curve



6RN / C6L2596TN / C6RDLCL

Output lumens:	2584 lms
Input watts:	30.8 W
CRI:	90 min
CCT[1]:	4000K
Spacing Crit.:	0.6
Beam Angle:	36°

Zonal summary

Zone	Lumens	%Luminaire
0-30	2297	88.9%
0-40	2485	96.2%
0-60	2490	96.4%
0-90	2584	100.0%

Angle	Mean CP	Lumens
0	6514	
5	6170	
10	5220	558
15	4054	
20	2717	1103
25	1365	
30	493	636
35	281	
40	234	188
45	125	
50	13	4
55	3	
60	2	1
65	1	
70	1	0
75	0	
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'	33	8.4'

* 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'	121.0	1.37
6'	79.0	0.90
7'	57.0	0.64
8'	47.0	0.53
9'	38.0	0.43

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

Efficacy: **83.9 lm/W**
Report[2]: STMR-2486

Adjustment factors

Finish		Lumens	
CL	= 100%	2000lm	= 133%
CC	= 95%	1500lm	= 100%
CD	= 87%	1000lm	= 67%
CZ	= 63%	500lm	= 33%
WH	= 87%		
BK	= 57%		

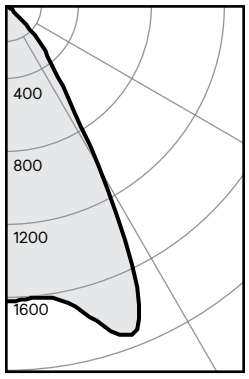
Coefficients of utilization

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

Room Cavity Ratio

Medium beam (4000 K), 2500lm Engine, 79 lm/W at 31W

Candela Curve



6RN / C6L2596TM / C6RDLCL

Output lumens:	2412 lms
Input watts:	30.7 W
CRI:	90 min
CCT[1]:	4000K
Spacing Crit.:	1.08
Beam Angle:	52°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1770	73.4%
0-40	2234	92.6%
0-60	2410	99.9%
0-90	2412	100.0%

Angle	Mean CP	Lumens
0	2076	
5	2060	
10	2064	196
15	2225	
20	2496	644
25	2176	
30	1206	930
35	705	
40	488	464
45	212	
50	19	170
55	5	
60	3	6
65	2	
70	1	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'	83	5.4'
6'	58	6.5'
7'	42	7.6'
8'	32	8.6'
9'	26	9.7'

* 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'	110.0	1.36
6'	72.0	0.89
7'	52.0	0.64
8'	43.0	0.53
9'	34.0	0.43

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

Efficacy: **78.6 lm/W**
Report[2]: STMR-2489

Adjustment factors

Finish		Lumens	
CL	= 100%	2000lm	= 133%
CC	= 95%	1500lm	= 100%
CD	= 87%	1000lm	= 67%
CZ	= 63%	500lm	= 33%
WH	= 87%		
BK	= 57%		

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	104	105	101	101	98	94
2	108	103	99	96	101	95	98	92	95	91	87
3	102	96	91	87	95	86	92	85	90	84	81
4	97	90	84	80	88	79	86	78	84	78	75
5	92	84	78	74	83	73	81	73	79	72	70
6	87	79	72	68	78	68	76	67	75	67	65
7	83	74	68	63	73	63	72	63	71	63	61
8	79	69	63	59	69	59	68	59	67	58	57
9	75	65	59	55	65	55	64	55	63	55	53
10	71	62	56	52	61	52	60	52	59	51	50

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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