LIGHTOLIER

by (s) ignify

Downlighting

Calculite LED 6" gen 3









Calculite LED 4" generation 3 provides excellent performance coupled with optimized installation flexibility via UniFrame. Industry leading visual comfort and uniform illumination make it an ideal choice for open office, institution, healthcare, and retail applications.

Complete luminaire = Frame + Engine + Trim + Accessories (optional)

Project:			
Location	n:		
Cat.No:			
Туре:			
Qty:			
Notes:			

Frame	example: 6RA

Series	Aperture	Installation
6	R	A
6 6" New Construction	R Round	A AirSeal IC 120/277/347V ¹

Engine example: C4L15835NZ10U

Series C6L	Lumens	CRI/CCT	Beam	Dimming	Options	Voltage
C6L Calculite LED 6"	10 1000 lm 15 1500 lm 20 2000 lm	927 90CRI/2700K 930 90CRI/3000K 935 90CRI/3500K	N Narrow (43°) ² M Medium (56°) ²	Z10 0-10 V 1%	None D2O Dim to Off	U 120/277V 3 347V (Z10 only)
gen 3	25 2500 lm 30 3000 lm	940 90CRI/4000K 950 90CRI/5000K ²	W Wide (76°) ⁴	L01 Lutron PEQ0 EcoSystem 0.1% (up to L1 Lutron LDE1 EcoSystem 1%	2000lm)	U 120/277V
		D2W 90CRI/3000K to 1800K ³ (dim-to-warm)		D DALI 0.1%	None LIN Linear	U 120/277V
		, ,		SOL EldoLED Solo 0-10 V 0.1% DMX Digital Multiplexing w/RDM 0.1%	None LIN Linear SQR Square	U 120/277V
				E Forward & Reverse Phase (up to 300 LTE Lutron LTE Hi-Lume Phase Cut 1%	Olm)	1 120V
				P Power over Ethernet (PoE) only compatible with 1000 (10) to 2500 (2	5) lumen configs	E Ethernet 48V DC

Trim example: C6RDLNMCCP

Series C6	Aperture R	Style
C6L Calculite LED 6" gen 3	R Round	DL Downlight WW Open Wall Wash ⁴ LW Lensed Wall Wash ⁴ CW Corner Wall Wash ^{4,5} DW Double Wall Wash ^{4,5}

Finish		Fla	inge
CC C CD C CZ C	pecular clear omfort clear omfort clear diffuse hampagne bronze lack (anodized)	- P F	White (matte) Polished (matches aperture) Flangeless (requires CA6RFT)
	hite (matte) White (gloss antimicrobial)	- F	White (matches finish) Flangeless (requires CA6RFT)

Accessories

SBA Interact Ready System Bridge Accessory with integral occupancy and daylight sensor (compatible with all 0-10V options, see SBA spec sheet) 6
4" sloped ceiling adapter (refer to SCA spec sheet for slope options)
CA6RFT Mud-in ring for use with flangeless installations (ordered with a flangeless trim)

- 1. Universal 120-347V for 0-10v (Z10) dimming only. Non-Z10 dimming options available for 120/277V only.
- Consult factory for 5000K CCT (50) with narrow (N) beam.
- 3. Dim-to-warm (D2W) available only with Z10 dimming. Narrow (N) and medium (M) beams only.
- 4. Wide (W) beam is ideal for all Wall Wash (LW, WW, CW, DW) applications.
- 5. Corner (CW) and Double (DW) Wall Wash are not available with flangeless (F) option.
- 6. Requires IRT9015 IR remote & Interact Pro App for commissioning.

















Round AirSeal IC frame

Frame-in-kits

AirSeal:

Galvanized steel housing for dry or plaster ceilings. Pre-installed telescoping mounting bars from 13" to 24".

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.

Close-cut aperture design eliminates possibility of gap between ceiling opening & 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 eliminates 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.

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 EcoSystem 0.1%
- · Lutron LDE1 (L1) EcoSystem 1%
- $\bullet\,$ Lutron LTE (LTE) Hi-Lume 2-wire phase cut 1%
- Electronic low voltage (E) forward or reverse phase dimming, remodel and AirSeal IC Shallow are FCC Class B
- DALI (D) DT6 DALI 0.1%
- DMX (DMX) Digital multiplexing with RDM 0.1%
- 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.

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: 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.
- 347V light engines are 0-10v dimming only and include dedicated 347V driver for use with universal 120/277/347V (U) frames. All other dimming options available only for 120/277V input.

Options and Accessories

Flangeless mud-in ring: Use CA6RFT For use with flangless plaster installations.

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

C6RVPWH: Includes machined aluminum ring painted white, gasketed for IP65 protection, and impact resistant polycarbonate lens (IK10). Locks in place with discrete setscrew (key included). Available also with antimicrobial fiinsh (C6RVPWHAMF).

SBA: Interact Ready System Bridge Accessory. Requires IRT9015 IR remote and Interact Pro App for commissioning. Specify with integral occupancy and daylight sensing capabilities for controls and compatibility with Interact Pro.

ENERGY STAR® exceptions

- 90 CRI & all Wall wash configurations
- Champagne Bronze and Black finishes
- Dali, ELV & EldoLED Solo drivers

Title 24 exceptions

- 1000 lm in Downlight, Wall Wash & Lensed Wall Wash configurations
- Champagne Bronze and Black finishes

Labels and Listings

- cULus listed for wet locations
- ENERGY STAR® certified
- RoHS certified
- CEC Title 24 JA8 certified

Warranty



5 year limited warranty Visit Signify.com/warranties for more information on Signify's standard 5- year limited warranty on complete luminaire systems.

Round AirSeal IC frame

Reflector



Specular clear (CL): Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



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.



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).



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).



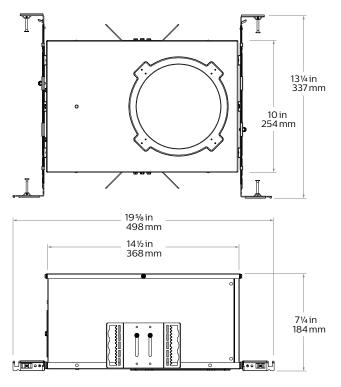
Flangeless (F): (flush-mount)Creates a flush, virtually seamless transition from aperture to ceiling.



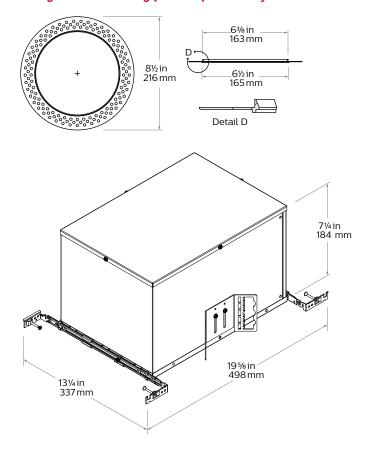
Mud-in ring (FT): Low profile, machined aluminum mud-in ring provides a raised rib to plaster up to and a 3/16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

Round AirSeal IC frame

AirSeal (A)



Flangeless mud-in ring (CA6RFT) accessory



Electrical - Narrow

Light	Input	Input	Input	Drive	Input	LED	THD Factor	Power Factor
engine	Volts	Freq.	Current	Current	Power	Power	@ Max	Load
	120V	50/60Hz	0.072A	0.22A	8.6W	7.0W	<10%	>0.9
1000lm	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
	120V	50/60Hz	0.107A	0.33A	12.8W	10.7W	<10%	>0.9
1500lm	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
	120V	50/60Hz	0.145A	0.45A	17.4W	14.7W	<10%	>0.9
2000lm	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
	120V	50/60Hz	0.178A	0.55A	21.4W	18.2W	<10%	>0.9
2500lm	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
	120V	50/60Hz	0.212A	0.65A	25.5W	21.7W	<10%	>0.9
3000lm	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

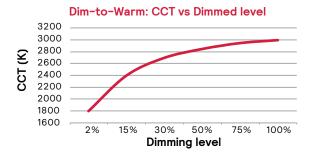
Electrical - Medium & Wide

Light	Input	Input	Input	Drive	Input	LED	THD Factor	Power Factor
engine	Volts	Freq.	Current	Current	Power	Power	@ Max	Load
	120V	50/60Hz	0.073A	0.22A	8.7W	7.1W	<10%	>0.9
1000lm	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
	120V	50/60Hz	0.109A	0.33A	13.0W	10.9W	<10%	>0.9
1500lm	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
	120V	50/60Hz	0.149A	0.45A	17.8W	15.1W	<10%	>0.9
2000lm	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
	120V	50/60Hz	0.179A	0.55A	21.4W	18.2W	<10%	>0.9
2500lm	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
	120V	50/60Hz	0.220A	0.67A	26.4W	22.4W	<10%	>0.9
3000lm	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

Round AirSeal IC frame

Lifetime (TM-21) data

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





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



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 CRI¹
- · 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_f up to 92 TM-30
 R₉ up to 67 CRI R_{f,h1} up to 91 TM-30
 G_a up to 99 CRI R₉ up to 100 TM-30
 C₉ up to 94 CRI 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

Round Downlight

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

Lumen		Flux	Efficacy	Beam				IES	TM-30)-18	
Package	Beam	(lm)	(lm/W)	Angle	СВСР	CRI	R9	R_f	R _g	R _{cs,h1}	UGR
1000 lm	Narrow (N)	989	115	36°	2510	90+	50+	91	100	-5%	0
	Medium (M)	1011	116	57°	1183	90+	50+	91	100	-5%	0
	Wide (W)	942	108	76°	641	90+	50+	91	100	-5%	0
1500 lm	Narrow (N)	1522	119	36°	3863	90+	50+	91	100	-5%	1
	Medium (M)	1530	117	57°	1790	90+	50+	91	100	-5%	1
	Wide (W)	1420	109	76°	965	90+	50+	91	100	-5%	1
2000 lm	Narrow (N)	2075	119	36°	5265	90+	50+	91	100	-5%	2
	Medium (M)	2070	116	57°	2422	90+	50+	91	100	-5%	2
	Wide (W)	1918	107	76°	1304	90+	50+	91	100	-5%	2
2500 lm	Narrow (N)	2511	115	36°	6372	90+	50+	91	100	-5%	3
	Medium (M)	2526	119	57°	2954	90+	50+	91	100	-5%	3
	Wide (W)	2377	112	76°	1616	90+	50+	91	100	-5%	3
3000 lm	Narrow (N)	2927	115	36°	7428	90+	50+	91	100	-5%	4
	Medium (M)	3051	116	57°	3568	90+	50+	91	100	-5%	4
	Wide (W)	2834	107	76°	1926	90+	50+	91	100	-5%	4

Round Wall Wash

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

Lumen		Flux	Efficacy	Beam				IES	TM-30)-18	
Package	Beam	(lm)	(lm/W)	Angle	СВСР	CRI	R9	R _f	R_g	R _{cs,h1}	UGR
1000 lm	Open (WW)	787	90	-	_	90+	50+	93	100	-3%	9
	Lensed (LW)	725	83	_	-	90+	50+	91	100	-6%	15
1500 lm	Open (WW)	1186	91	_	_	90+	50+	93	100	-3%	10
	Lensed (LW)	1093	84	-	_	90+	50+	91	100	-6%	17
2000 lm	Open (WW)	1602	90	_	_	90+	50+	93	100	-3%	11
	Lensed (LW)	1476	83	_	_	90+	50+	91	100	-6%	18
2500 lm	Open (WW)	1986	91	-	-	90+	50+	93	100	-3%	12
	Lensed (LW)	1830	84	_	-	90+	50+	91	100	-6%	19
3000 lm	Open (WW)	2367	90	-	-	90+	50+	93	100	-3%	13
	Lensed (LW)	2181	83	_	-	90+	50+	91	100	-6%	19

Round AirSeal IC frame

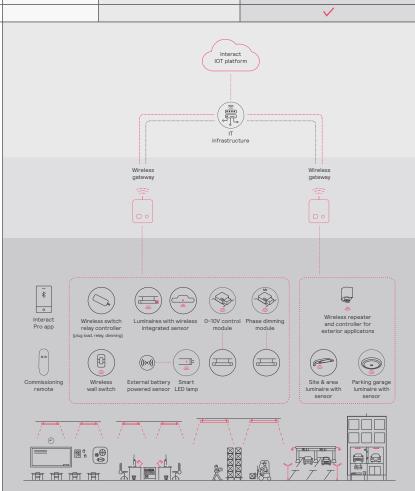
interact			
		Gatew	ay Connected
	Standalone	Option 1	Option 2
Dimming, grouping, and zoning	>	✓	~
Bluetooth and ZigBee enabled	/	✓	~
Motion sensing and daylight harvesting	>	✓	~
Integration with 0-10V and phase dimming fixtures	/	✓	~
Code compliance	/	>	~
Granular dimming and dwell time	~	✓	~
Correlated 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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Round AirSeal IC frame

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/systemareas/offices.

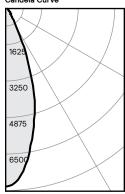
Interact supported sensor option codes across Genlyte product lines

	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	-	-

Round AirSeal IC frame

Narrow beam, 2500lm Engine, 115 lm/W at 22W

Candela Curve



6RA / C6L25935NZ10U / C6RDLCL

Output lumens:	2512 lms
Input watts:	21.8 W
CRI:	90 min
CCT1:	3500K
Spacing Crit.:	0.6
Ream Angle:	360

Zonal summary

Zone	Lumens	%Luminaire
0-30	2231	88.8%
0-40	2423	96.5%
0-60	2510	99.9%
0-90	2512	100.0%

Angle	Mean CP	Lumens
0 5	6372	
5	6006	
10	4997	540
15	3915	
20	2643	1066
25	1335	
30	514	625
35	286	
40	222	192
45	107	
50	12	83
55	4	
60	2	4
65	1	
70	1	1
75	1	
80	0	0
85	0	
an	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
8'	100	4.8'
9'	79	5.4'
10'	64	6.0'
12'	44	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'	118.0	0.97		
6'	77.0	0.63		
7'	55.0	0.45		
8'	46.0	0.38		
9'	37.0	0.30		
001 001 401 0 111 0 51				

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

Efficacy: 115.2 lm/W Report²: STMR-1590.2

Adjustment factors

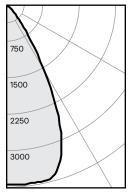
Finish	CCT	Lumens
CL = 100% CC = 95% CD = 87% CZ = 63% WH = 87% BK = 57%	90CRI, 4000K = 102% 90CRI, 3500K = 100% 90CRI, 3000K = 96% 90CRI, 2700K = 92%	3000lm = 120% 2500lm = 100% 2000lm = 80% 1500lm = 60% 1000lm = 40%

Coefficients of utilization

Ceil	ling		80)%		70	1%	50)%	30)%	0%
Wall	I	70	50	30	10	50	10	50	10	50	10	0
RCF	?	Zona	al cav	ity me	ethod	- Eff	ectiv	e floo	rrefl	ectar	nce =	20%
	0	119	119	119	119	116	116	111	111	106	106	100
0	1	114	112	110	108	110	106	106	103	102	100	95
ij	2	110	106	102	100	104	99	101	96	98	94	91
200	3	106	100	96	93	99	92	96	91	94	89	87
ΞĒ	4	102	95	91	87	94	87	92	86	90	85	83
ě	5	98	91	86	83	90	82	88	82	87	81	79
Room Cavity Ratio	6	94	87	82	78	86	78	85	78	83	77	75
o	7	91	83	78	75	82	75	81	74	80	74	72
8	8	87	80	75	71	79	71	78	71	77	71	69
	9	84	76	72	68	76	68	75	68	74	68	67
	10	81	74	69	66	73	66	72	65	72	65	64

Medium beam, 2500lm Engine, 119 lm/W at 21W

Candela Curve



6RA / C6L25935MZ10U / C6RDLCL

Output lumens:	2527 lms
Input watts:	21.3 W
CRI:	90 min
CCT1:	3500K
Spacing Crit.:	0.96
Beam Angle:	56°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1994	78.9%
0-40	2410	95.4%
0-60	2524	99.9%
0-90	2527	100.0%

Angle	Mean CP	Lumens
0 5	2954	
5	2968	
10	2965	283
15	2929	
20	2620	811
25	2022	
30	1240	900
35	628	
40	322	416
45	137	
50	15	110
55	4	
60	2	4
65	1	
70	1	1
75	0	
80	0	C
85	0	
90	0	C

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	118	4.8'
6'	82	5.8'
7'	60	6.7'
8'	46	7.7'
9'	36	8.6'

^{*} 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	0.94
6'	76.0	0.62
7'	54.0	0.44
8'	45.0	0.37
9'	36.0	0.30
201201101	2 W 0 Fl	

above floor, 80/50/20% Reflectances

Efficacy: 118.6 lm/W Report²: STMR-2437

Adjustment factors

Finis	sh	CCT	Lumens
CC CD CZ WH	= 100% = 95% = 87% = 63% = 87% = 57%	90CRI, 4000K = 102% 90CRI, 3500K = 100% 90CRI, 3000K = 96% 90CRI, 2700K = 92%	3000lm = 120% 2500lm = 100% 2000lm = 80% 1500lm = 60% 1000lm = 40%

Coefficients of utilization

Се	iling		80)%		70	1%	50)%	30)%	0%
Wa	II	70	50	30	10	50	10	50	10	50	10	0
RC	R	Zona	al cav	ity me	ethod	l – Eff	ectiv	e floo	rrefl	ectar	ice =	20%
	0	119	119	119	119	116	116	111	111	106	106	100
0	1	114	111	109	107	109	105	105	102	101	99	94
ΞĚ	2	109	104	100	97	102	96	99	94	96	92	88
20	3	103	97	93	89	96	88	93	87	91	85	83
Room Cavity Ratio	4	99	91	86	82	90	82	88	81	86	80	77
aS	5	94	86	81	76	85	76	83	75	82	75	73
Ö	6	90	81	75	71	80	71	79	71	77	70	68
6	7	85	77	71	67	76	67	75	66	73	66	64
8	8	81	72	67	63	72	63	71	62	70	62	61
	9	78	69	63	59	68	59	67	59	66	59	57
	10	74	65	60	56	65	56	64	56	63	56	54

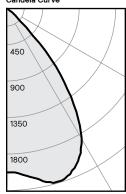
^{1.} Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

^{2.} Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

Round AirSeal IC frame

Wide beam, 2500lm Engine, 112 lm/W at 21W

Candela Curve



4RA / C6L25935WZ10U / C6RDLCL

Output lumens:	2378 lms
Input watts:	21.3 W
CRI:	90 min
CCT1:	3500K
Spacing Crit.:	1.3
Beam Angle:	76°

Zonal summary

Lumens	%Luminaire
1420	59.7%
2131	89.6%
2376	99.9%
2378	100.0%
	1420 2131 2376

Angle	Mean CP	Lumens
0 5	1616	
	1642	
10	1705	159
15	1780	
20	1762	501
25	1665	
30	1478	760
35	1160	
40	758	711
45	277	
50	25	238
55	7	
60	3	7
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'	65	6.5'
6'	45	7.8'
7'	33	9.1'
8'	25	10.4'
9'	20	11.7'

^{*} 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'	107.0	0.94			
6'	70.0	0.62			
7'	50.0	0.44			
8'	42.0	0.37			
9'	34.0	0.30			

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

Efficacy: 111.6 lm/W Report²: STMR-2438

Adjustment factors

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

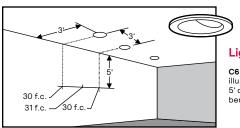
Coefficients of utilization

ng		80)%		70	1%	50)%	30)%	0%
	70	50	30	10	50	10	50	10	50	10	0
	Zona	al cav	ity me	ethod	- Eff	ectiv	e floo	r refl	ectar	ice =	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	69	66
6	85	75	69	64	74	64	73	64	71	63	61
7	80	70	64	59	69	59	68	59	67	58	56
8	76	65	59	54	65	54	64	54	63	54	52
9	72	61	55	50	61	50	60	50	59	50	48
0	68	57	51	47	57	47	56	47	55	46	45
	0 1 2 3 4 5 6 7 8 9	70 Zona 0 119 1 113 2 107 3 101 4 90 6 85 7 80 8 76 9 72	70 50 Zonal cav 0 119 119 110 110 102 2 107 102 3 101 94 4 95 87 5 90 81 6 85 75 7 80 70 8 76 65 9 72 61	70 50 30 Zonal cavity me 0 119 119 119 110 12 98 2 107 102 98 3 101 94 89 4 95 87 81 5 90 81 75 6 85 75 69 7 80 70 64 8 76 65 59 9 72 61 55	70 50 30 10 Zonal cavity method 0 119 119 119 119 1 113 110 108 105 2 107 102 98 94 3 101 94 89 85 4 95 87 81 77 5 90 81 75 70 6 85 75 69 64 7 80 70 64 59 9 72 61 55 50	70 50 30 10 50 Zonal cavity method - Eff 0 119 119 119 119 116 1 113 110 108 105 108 2 107 102 98 94 100 3 101 94 89 85 93 4 95 87 81 77 86 5 90 81 75 70 80 6 85 75 69 64 74 7 80 70 64 59 69 8 76 65 59 54 65 9 72 61 55 50 61	70 50 30 10 50 10 Zonal cavity method - Effective 10 119 119 119 119 116 116 111 113 110 108 105 108 104 2 107 102 98 94 100 93 3 101 94 89 85 93 84 4 95 87 81 77 86 76 5 90 81 75 70 80 70 6 85 75 69 64 74 64 7 80 70 64 59 69 59 8 76 65 59 54 65 54 9 72 61 55 50 61 50	70 50 30 10 50 10 50 50 20 20 20 20 20 2	To So 30 10 So 10 So 10 To To To To To To To T	To So 30 10 50 10 50 10 50 50 20 20 20 30 30 30 30 3	To So So So So So So So

^{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.

Round AirSeal IC frame



Lighting Data - Example

C6RWWCL / C6L25935W

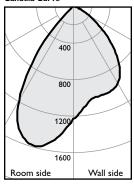
illumination on the wall 5' down from the ceiling is 30 f.c. beneath and 31 f.c. between fixtures.

Adjustment factors

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

Open Wall Wash, 2500lm Engine, 90lm/W at 22W

Candela Curve



4RA / C6RWWCL / C6L25935W

Output lumens: nput watts: CRI: CCT ¹ :	1986 lms 22.0 W 90 min 3500K
	000011

Efficacy: 90.3 lm/w Report²: STMR-1837

Multiple unit data

Footcandles on wall

	2' from wall		
	5	3' on ctr	. 💍
1 ب	25	19	25
0 2	49	41	49
_⊑ 3	49	47	49
_ව 4	39	40	39
<u>∰</u> 5	29	30	29
Distance from ceiling in feet 71 01 6 8 2 9 5 7 8 5 7 .	22	23	22
5 7	17	18	17
± 8	13	14	13
ပို့ 9	11	11	11
5 10	9	9	9
ä 12	7	8	7
14	6	6	6

Multiple unit data

Footcandles on wall

1 Ootcandles on wall			
	3' from wall		
	5	3' on ctr	. 💍
1 ب	9	8	9
0 2	21	20	21
<u>=</u> 3	32	30	32
_{වි} 4	33	34	33
	30	31	30
Distance from ceiling in feet 71 O 6 8 2 9 5 7 8 5 .	25	26	25
, 5 7	20	21	20
⊑ 8	17	17	17
ပို့ 9	14	14	14
tg 10	11	12	11
<u>≅</u> 12	9	10	9
14	8	8	8

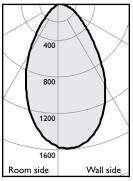
Multiple unit data

Footcandles on v

Footcandies on wall			
	3' from wall		
	6	4' on ctr	
₁ 1	7	6	7
0 2	17	13	17
2 يا 2 يا	25	21	25
<u>ව</u> 4	26	25	26
<u>≣</u> 5	23	24	23
Distance from ceiling in feet 71 O 6 8 L 9 G P 8 C	20	20	20
5 7	17	17	17
. β	14	14	14
ပို့ 9	12	12	12
# 10	10	10	10
i≝ 12	8	9	8
14	7	8	7

Lensed Wall Wash, 2500lm Engine, 83lm/W at 22W

andela Curve



4RA / C6RLWCL / C6L25935W

Output lumens:	1830 lms
nput watts:	22.0 W
ORI:	90 min
CCT1:	3500K

Efficacy: 83.2 lm/w Report²: STMR-2241

Multiple unit data

Footcandles on wall

	2' from wall		
	2	3' on ctr	. 💍
1 ب	31	25	31
Φ 2	49	42	49
<u>-</u> 3	47	43	47
_ 10 4	39	37	39
<u>∯</u> 5	30	30	30
Distance from ceiling in feet 71 01 6 8 2 9 9 4 8 8 5 .	23	23	23
5 7	18	18	18
<u></u> 8	14	14	14
ပို့ 9	11	12	11
# 10	9	10	9
≝ 12	8	8	8
14	7	7	7

Multiple unit data

Footcandles on wall

	3' from wall		
	40	3' on ctr	. 💍
₊ 1	13	13	13
Distance from ceiling in feet 71 O 6 8 2 9 9 7 8 8 7 ·	25	24	25
<u>⊑</u> 3	29	29	29
_C 4	30	30	30
<u>.</u> 5	28	28	28
Č 6	24	24	24
5 7	20	21	20
₽ 8	17	17	17
ပို့ 9	14	15	14
10 g	12	12	12
<u>≒</u> 12	10	10	10
14	9	9	9

Multiple unit data

Footcandles on wall

	3' from wall		
	0	4' on ctr.	
1 پ	11	9	11
⊕ 2	21	18	21
2 ق 2	24	22	24
ნ 4	25	23	25
Distance from ceiling in feet 71 O 6 8 2 9 9 7 8 8 7 .	23	22	23
č 6	20	19	20
5 7	17	17	17
⊕ 8	14	14	14
<u> </u>	12	12	12
g 10	10	10	10
<u>≒</u> 12	9	9	9
14	8	8	8

- 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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