LIGHTOLIER

Downlighting

Calculite LED 6" gen 3

C6SA Square AirsSeal IC frame

Calculite LED 6" 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:

Cat.No:

Type:

Qty:

Notes:

Frame

example: 6SA

Series	Aperture	Installation
6	**S**	**A**
6 6" New Construction	**S** Square	**A** AirSeal IC 120/277/347V[1]

Engine

example: C6L15835NZ10U

Series	Lumens	CRI/CCT	Beam[4]	Dimming	Options	Voltage
C6L						
C6L Calculite LED 6" gen 3	**10** 1000 lm **15** 1500 lm **20** 2000 lm **25** 2500 lm **30** 3000 lm	**927** 90CRI/2700K **930** 90CRI/3000K **935** 90CRI/3500K **940** 90CRI/4000K **950** 90CRI/5000K[2] **D2W** 90CRI/3000K to 1800K[3] (dim-to-warm)	**N** Narrow (43°) **M** Medium (56°) **W** Wide (76°)	**Z10** 0-10 V 1%	**––** None **D2O** Dim to Off	**U** 120/277V **3** 347V (Z10 only)
				L01 Lutron PEQ0 EcoSystem 0.1% (up to 2000lm) **L1** Lutron LDE1 EcoSystem 1%		**U** 120/277V
				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 3000lm)		**1** 120 V

Trim

example: C6SDLNMCCP

Series	Aperture	Style	Beam[5]
C6	**S**		
C6 Calculite LED 6" gen 3	**S** Square	**DL** Downlight	**NM** Narrow & Medium **W** Wide
		LW Lensed Wall Wash[4]	**–** blank

Finish	Flange
CL Specular clear **CC** Comfort clear **CD** Comfort clear diffuse **BK** Black (matte)	**–** White (matte) **P** Polished (matches aperture) **F** Flangeless (requires CA6SFT)
WH White (matte)	**–** White (matches finish) **F** Flangeless (requires CA6SFT)

Accessories

SBA	Interact Ready System Bridge Accessory with integral occupancy and daylight sensor (compatible with all 0-10V options, see SBA spec sheet)[5]
CA6SFT	Mud-in kit for use with flangeless installations (ordered with a flangeless trim)

Beam options

Trim	Narrow engine	Medium engine
Narrow/ Medium	37° (0.6 s.c.)	56° (0.9 s.c.)
Wide	Not recommended	65° (1.1 s.c.)

1. Universal 120-347V for 0-10v (Z10) dimming only. Non-Z10 dimming options available for 120/277V only.
2. Consult factory for 5000K CCT (50) with narrow (N) beam.
3. Dim-to-warm (D2W) available only with Z10 dimming up to 2500lm. Narrow (N) and medium (M) beams only.
4. See Beam options table to the left for light engine and trim combination spacing criterion.
5. Medium (M) beam is ideal for Lensed Wall Wash (LW) applications.
6. Requires IRT9015 IR remote & Interact Pro App for commissioning.

WET LOCATION · IC INSULATION CONTACT · cULus LISTED · RoHS COMPLIANT · ENERGY STAR · mesoOptics · interact ready.

C6SA Calculite LED 6" gen 3

Square 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%
- 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 **CA6SFT** for use with flangeless plaster installations.

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 & Lensed Wall Wash configurations
- Dali, ELV & EldoLED Solo drivers

Title 24 exceptions

- 1000 lm in Downlight & Lensed Wall Wash configurations

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.

C4SA Calculite LED 4" gen 3

Square AirSeal IC frame

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.

Comfort clear diffuse (CD): Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.

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

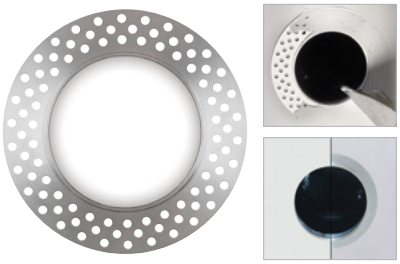
White (WH): (matte) Brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).

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.

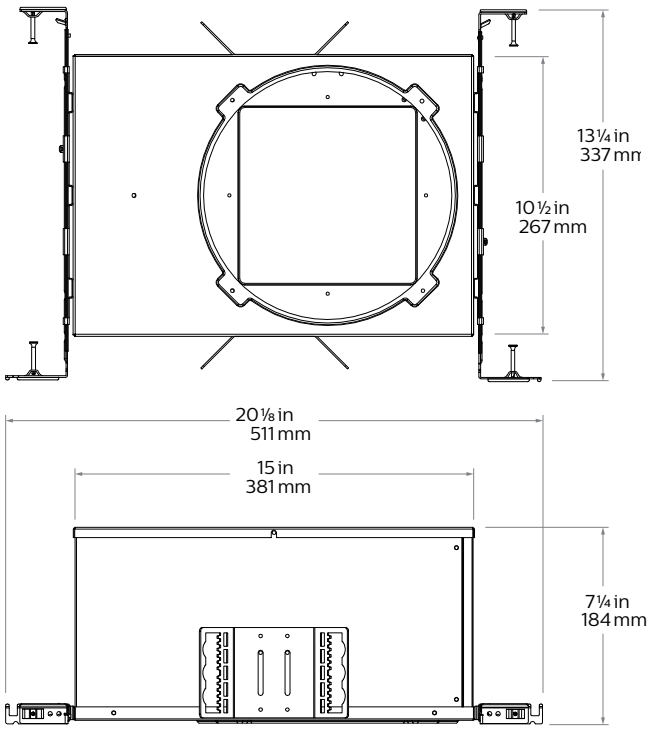


Mud-in ring (FT): Low profile, machined aluminum mud-in ring provides a raised rib to plaster up to and a 3⁄16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

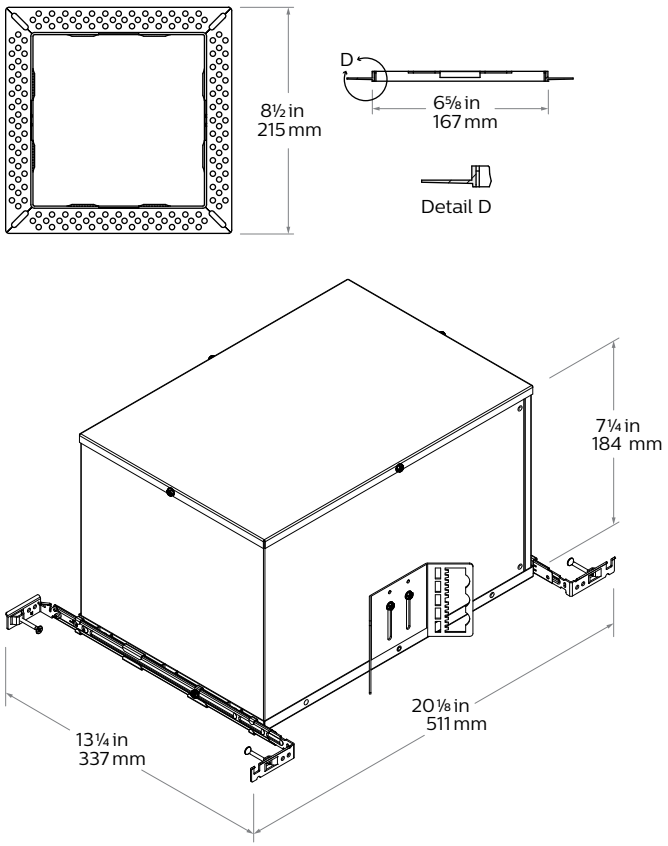
C6SA Calculite LED 6" gen 3

Square AirSeal IC frame

AirSeal (A)



Flangeless mud-in ring (CA6SFT) accessory



Electrical – Narrow

Light engine	Input Volts	Input Freq.	Input Current	Drive Current	Input Power	LED Power	THD Factor @ Max Load	Power Factor @ Max Load
1000lm	120V	50/60Hz	0.072A	0.22A	8.6W	7.0W	<10%	>0.9
	277V	50/60Hz	0.032A	0.22A	8.8W	7.0W	<20%	>0.9
	347V	50/60Hz	0.029A	0.22A	10.0W	7.0W	<30%	>0.9
1500lm	120V	50/60Hz	0.107A	0.33A	12.8W	10.7W	<10%	>0.9
	277V	50/60Hz	0.046A	0.33A	12.9W	10.7W	<10%	>0.9
	347V	50/60Hz	0.042A	0.33A	14.6W	10.7W	<25%	>0.9
2000lm	120V	50/60Hz	0.145A	0.45A	17.4W	14.7W	<10%	>0.9
	277V	50/60Hz	0.063A	0.45A	17.5W	14.7W	<10%	>0.9
	347V	50/60Hz	0.056A	0.45A	19.4W	14.7W	<20%	>0.9
2500lm	120V	50/60Hz	0.178A	0.55A	21.4W	18.2W	<10%	>0.9
	277V	50/60Hz	0.078A	0.55A	21.5W	18.2W	<10%	>0.9
	347V	50/60Hz	0.065A	0.55A	22.7W	18.2W	<20%	>0.9
3000lm	120V	50/60Hz	0.212A	0.65A	25.5W	21.7W	<10%	>0.9
	277V	50/60Hz	0.091A	0.65A	25.3W	21.7W	<10%	>0.9
	347V	50/60Hz	0.077A	0.65A	26.7W	21.7W	<15%	>0.9

Electrical – Medium & Wide

Light engine	Input Volts	Input Freq.	Input Current	Drive Current	Input Power	LED Power	THD Factor @ Max Load	Power Factor @ Max Load
1000lm	120V	50/60Hz	0.073A	0.22A	8.7W	7.1W	<10%	>0.9
	277V	50/60Hz	0.032A	0.22A	8.9W	7.1W	<20%	>0.9
	347V	50/60Hz	0.029A	0.22A	10.2W	7.1W	<30%	>0.9
1500lm	120V	50/60Hz	0.109A	0.33A	13.0W	10.9W	<10%	>0.9
	277V	50/60Hz	0.047A	0.33A	13.1W	10.9W	<10%	>0.9
	347V	50/60Hz	0.043A	0.33A	14.9W	10.9W	<25%	>0.9
2000lm	120V	50/60Hz	0.149A	0.45A	17.8W	15.1W	<10%	>0.9
	277V	50/60Hz	0.065A	0.45A	18.0W	15.1W	<10%	>0.9
	347V	50/60Hz	0.057A	0.45A	19.8W	15.1W	<20%	>0.9
2500lm	120V	50/60Hz	0.179A	0.55A	21.4W	18.2W	<10%	>0.9
	277V	50/60Hz	0.078A	0.55A	21.6W	18.2W	<10%	>0.9
	347V	50/60Hz	0.066A	0.55A	22.8W	18.2W	<20%	>0.9
3000lm	120V	50/60Hz	0.220A	0.67A	26.4W	22.4W	<10%	>0.9
	277V	50/60Hz	0.095A	0.67A	26.2W	22.4W	<10%	>0.9
	347V	50/60Hz	0.079A	0.67A	27.5W	22.4W	<15%	>0.9

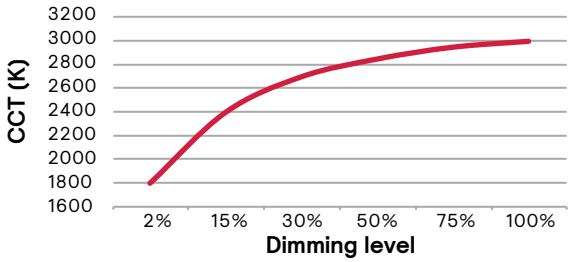
C6SA Calculite LED 6" gen 3

Square AirSeal IC frame

Lifetime (TM-21) data

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

Dim-to-Warm: CCT vs Dimmed level



AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are rendered more accurately and consistently, while doing so as efficiently as CRI 80 products.

Standard CRI 80
Good color rendering and high efficacy

Standard CRI 90
Better color rendering and low efficacy

AccuRender
Best color rendering, color preference and high efficacy

Enjoy design flexibility

Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- Multiple color temperatures (CCTs) and lumen packages offered

Promote savings

High efficacy, with no penalty:

- Energy efficacy compares well to conventional 80 CRI
- Up to 25% more energy savings vs competitor 90 CRI[1]
- Helps meet Title 24 requirements

Show your true colors

High color rendering:

- True to life colors that help energize your environment and render better flesh tones critical for healthcare hospitality and retail applications.
- R_a up to 94 CRI
  R_9 up to 67 CRI
  G_a up to 99 CRI
  C_9 up to 94 CRI
- R_f up to 92 TM-30
  $R_{f,h1}$ up to 91 TM-30
  R_9 up to 100 TM-30
  $R_{cs,h1}$ up to -5% TM-30

Achieve color balance

Best in class color consistency:

- Promote aesthetic harmony in your space with ≤ 2 SDCM

Square Downlight

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

Lumen Package	Beam	Flux (lm)	Efficacy (lm/W)	Beam Angle	CBCP	CRI	R9	IES TM-30-18			UGR
								R_f	R_g	$R_{cs,h1}$	
1000 lm	Narrow (N)	853	99	36°	2510	90+	50+	91	100	-5%	0
	Medium (M)	896	103	55°	1183	90+	50+	91	100	-5%	0
	Wide (W)	710	81	72°	641	90+	50+	91	100	-5%	0
1500 lm	Narrow (N)	1313	103	36°	3863	90+	50+	91	100	-5%	1
	Medium (M)	1355	104	55°	1790	90+	50+	91	100	-5%	1
	Wide (W)	1070	82	72°	965	90+	50+	91	100	-5%	0
2000 lm	Narrow (N)	1790	103	36°	5265	90+	50+	91	100	-5%	2
	Medium (M)	1834	103	55°	2422	90+	50+	91	100	-5%	2
	Wide (W)	1444	81	72°	1304	90+	50+	91	100	-5%	1
2500 lm	Narrow (N)	2166	101	36°	6372	90+	50+	91	100	-5%	3
	Medium (M)	2238	104	55°	2954	90+	50+	91	100	-5%	3
	Wide (W)	1791	84	72°	1616	90+	50+	91	100	-5%	2
3000 lm	Narrow (N)	2525	99	36°	7428	90+	50+	91	100	-5%	3
	Medium (M)	2703	102	55°	3568	90+	50+	91	100	-5%	4
	Wide (W)	2134	81	72°	1926	90+	50+	91	100	-5%	3

Square Wall Wash

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

Lumen Package	Beam	Flux (lm)	Efficacy (lm/W)	Beam Angle	CBCP	CRI	R9	IES TM-30-18			UGR
								R_f	R_g	$R_{cs,h1}$	
1000 lm	Lensed (LW)	828	95	–	–	90+	50+	91	100	-6%	16
1500 lm	Lensed (LW)	1248	96	–	–	90+	50+	91	100	-6%	17
2000 lm	Lensed (LW)	1685	94	–	–	90+	50+	91	100	-6%	19
2500 lm	Lensed (LW)	2089	97	–	–	90+	50+	91	100	-6%	19
3000 lm	Lensed (LW)	2491	94	–	–	90+	50+	91	100	-6%	20

C6SA Calculite LED 6" gen 3

Square AirSeal IC frame

interact

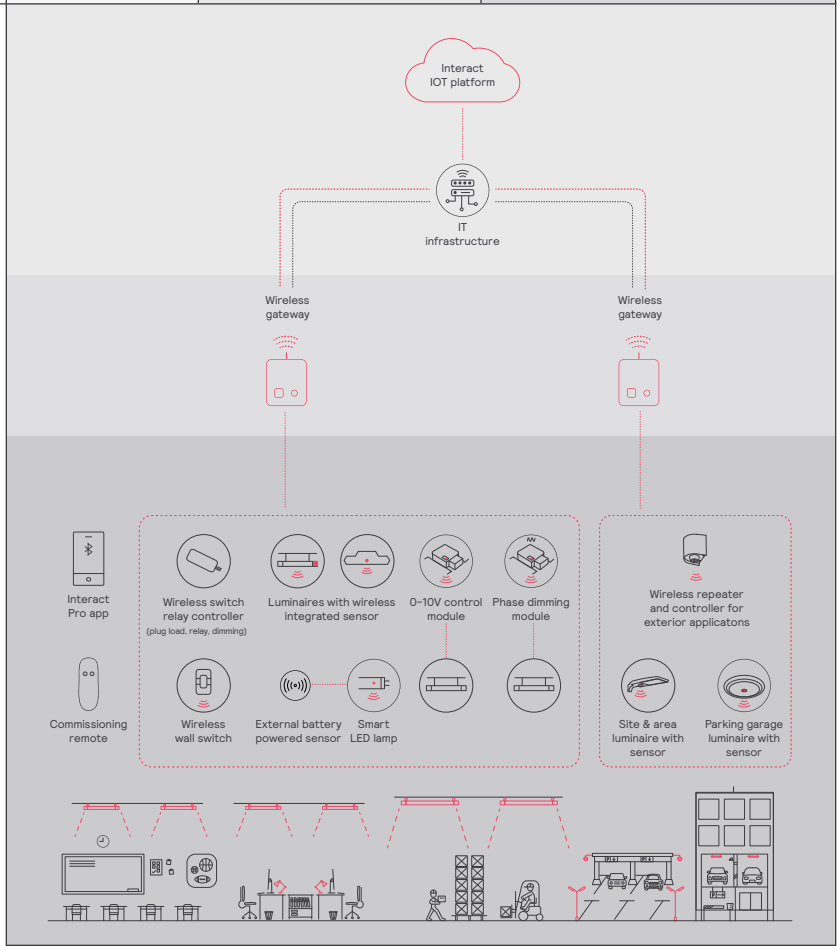
		Standalone	Gateway Connected: Option 1	Gateway Connected: Option 2
Dimming, grouping, and zoning		✓	✓	✓
Bluetooth and ZigBee enabled		✓	✓	✓
Motion sensing and daylight harvesting		✓	✓	✓
Integration with 0–10V and phase dimming fixtures		✓	✓	✓
Code compliance		✓	✓	✓
Granular dimming and dwell time		✓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



C6SA Calculite LED 6" gen 3

Square 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/system-areas/offices.

Interact supported sensor option codes across Genlyte product lines

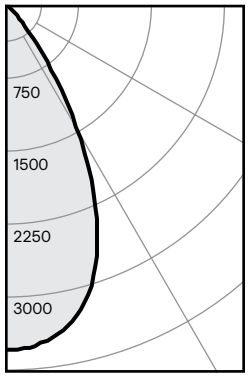
	Evokit	Day-Brite	Ledalite	Lightolier
ZigBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZigBee + Bluetooth	RADIO	RADIO	RA	RA
ZigBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZigBee + Highbay + Sensing	-	SWZCSH	-	-

C6SA Calculite LED 6" gen 3

Square AirSeal IC frame

Narrow beam, 2500lm Engine, 101lm/W at 22W

Candela Curve



6SA / C6L25935NZ10U / C6RDLCL

Output lumens:	2167 lms
Input watts:	21.5 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	0.58
Beam Angle:	36°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1840	84.9%
0-40	2093	96.6%
0-60	2166	100.0%
0-90	2167	100.0%

Angle	Mean CP	Lumens
0	4767	
5	4513	
10	3744	406
15	2838	
20	2103	788
25	1439	
30	782	646
35	381	
40	184	253
45	83	
50	23	68
55	3	
60	1	5
65	1	
70	0	1
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'	24	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'	101.0	0.95
6'	66.0	0.63
7'	47.0	0.45
8'	39.0	0.37
9'	32.0	0.30

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

Efficacy: **100.8lm/W**
Report[2]: STMR-2975

Adjustment factors

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

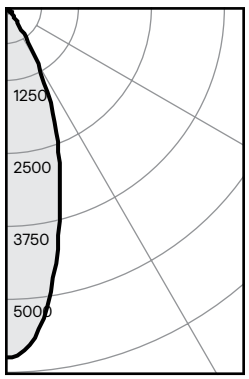
Coefficients of utilization

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	109	105	102	99	103	98	100	95	97	93	90
3	105	99	95	91	98	91	95	89	93	88	85
4	101	94	89	86	93	85	91	84	89	83	81
5	96	89	84	80	88	80	87	79	85	79	77
6	92	85	80	76	84	76	83	75	81	75	73
7	89	81	76	72	80	72	79	71	78	71	69
8	85	77	72	68	77	68	75	68	75	68	66
9	82	74	69	65	73	65	72	65	71	65	63
10	79	71	66	62	70	62	69	62	69	62	60

Room Cavity Ratio

Medium beam, 2500lm Engine, 104lm/W at 22W

Candela Curve



6SA / C6L25935MZ10U / C6SDLNMCL

Output lumens:	2238 lms
Input watts:	21.5 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	0.88
Beam Angle:	55°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1724	77.0%
0-40	2138	95.5%
0-60	2237	100.0%
0-90	2238	100.0%

Angle	Mean CP	Lumens
0	2819	
5	2790	
10	2696	263
15	2507	
20	2174	696
25	1695	
30	1152	765
35	652	
40	293	414
45	106	
50	26	93
55	4	
60	1	6
65	1	
70	1	1
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)*
5'	113	4.4'
6'	78	5.3'
7'	58	6.2'
8'	44	7.0'
9'	35	7.9'

* 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'	103.0	0.95
6'	68.0	0.63
7'	48.0	0.45
8'	40.0	0.37
9'	32.0	0.30

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

Efficacy: **104.1lm/W**
Report[2]: STMR-2440

Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	3000lm = 120%
CC = 95%	90CRI, 3500K = 100%	2500lm = 100%
CD = 87%	90CRI, 3000K = 96%	2000lm = 80%
CZ = 63%	90CRI, 2700K = 92%	1500lm = 60%
WH = 87%		1000lm = 40%
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	109	105	102	99	103	98	100	95	97	93	90
3	105	99	95	91	98	91	95	89	93	88	85
4	101	94	89	86	93	85	91	84	89	83	81
5	96	89	84	80	88	80	87	79	85	79	77
6	92	85	80	76	84	76	83	75	81	75	73
7	89	81	76	72	80	72	79	71	78	71	69
8	85	77	72	68	77	68	75	68	75	68	66
9	82	74	69	65	73	65	72	65	71	65	63
10	79	71	66	62	70	62	69	62	69	62	60

Room Cavity Ratio

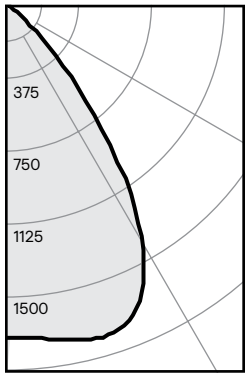
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

C6SA Calculite LED 6" gen 3

Square AirSeal IC frame

Wide beam, 2500lm Engine, 84 lm/W at 21W

Candela Curve



6SA / C6L25935MZ10U / C6SDLWCL

Output lumens:	1791 lms
Input watts:	21.4 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	1.2
Beam Angle:	72°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1125	62.8%
0-40	1610	89.9%
0-60	1789	99.9%
0-90	1791	100.0%

Angle	Mean CP	Lumens
0	1368	
5	1378	
10	1400	132
15	1421	
20	1404	401
25	1305	
30	1103	592
35	793	
40	454	485
45	202	
50	53	166
55	8	
60	2	13
65	1	
70	1	1
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	55	6.0'
6'	38	7.2'
7'	28	8.4'
8'	21	9.6'
9'	17	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'	81.0	0.95
6'	53.0	0.62
7'	38.0	0.44
8'	32.0	0.37
9'	25.0	0.30

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

Efficacy: **83.7lm/W**
Report[2]: STMR-2441

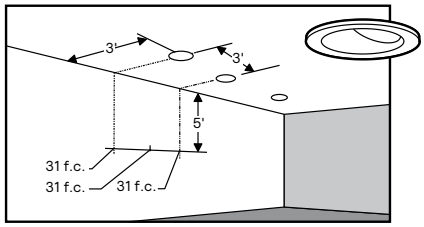
Adjustment factors

Finish	CCT	Lumens
CL = 100%	90CRI, 4000K = 102%	3000lm = 120%
CC = 95%	90CRI, 3500K = 100%	2500lm = 100%
CD = 87%	90CRI, 3000K = 96%	2000lm = 80%
CZ = 63%	90CRI, 2700K = 92%	1500lm = 60%
WH = 87%		1000lm = 40%
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	113	110	108	105	108	104	104	101	100	98	93
2	107	102	98	94	100	93	97	91	94	89	86
3	101	95	89	85	93	85	91	83	88	82	79
4	96	88	82	78	87	77	84	76	82	75	73
5	91	82	75	71	81	71	79	70	77	69	67
6	85	76	70	65	75	65	74	64	72	64	62
7	81	71	65	60	70	60	69	60	68	59	57
8	76	66	60	56	66	55	65	55	64	55	53
9	72	62	56	52	62	52	61	51	60	51	50
10	69	58	52	48	58	48	57	48	56	48	46

Room Cavity Ratio



Lighting Data - Example

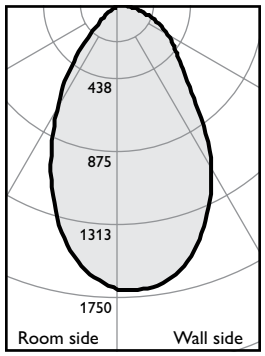
C6L25935WZ10U / C6SLWCL
illumination on the wall
5' down from the ceiling is 31 f.c.
beneath and 31 f.c. between fixtures.

Adjustment factors

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

Lensed Wall Wash, 1500lm Engine, 86 lm/W at 14W

Candela Curve



4SA / C6L25935WZ10U / C6SLWCL

Output lumens:	2090 lms
Input watts:	22.0 W
CRI:	90 min
CCT[1]:	3500K

Efficacy: **95.0 lm/w**
Report[2]: STMR-2242

Multiple unit data
Footcandles on wall

Distance from ceiling in feet	3' from wall, 3' on ctr.		
1	19	18	19
2	32	31	32
3	35	34	35
4	34	34	34
5	31	31	31
6	27	27	27
7	22	23	22
8	19	19	19
9	16	16	16
10	13	14	13
12	11	11	11
14	10	10	10

Multiple unit data
Footcandles on wall

Distance from ceiling in feet	3' from wall, 4' on ctr.		
1	16	12	16
2	26	21	26
3	28	25	28
4	27	25	27
5	25	24	25
6	22	21	22
7	18	18	18
8	15	16	15
9	13	13	13
10	10	12	10
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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