LIGHTOLIER

Downlighting

Calculite 2"

C2A Adjustable Accent



The Calculite 2" family features downlight, accent adjustable, and lensed wall wash serving as a complete recessed offering to accommodate all recessed application needs. The 50° light cut off and multiple adjustable beam angles provide quality light in a miniature aperture.

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

Follow the ordering guidelines below. Each step is a separate order line.

Step 1 **Frame:** Optional accessories available. Ordered & shipped separately.



Frame

C2 [ ]

Example: 2RN

Step 2 **Engine & Trim:** Ordered & shipped as a single product.



Engine

C2 [ ]

Example: C2RA06927SPUPZULS6010-C2RAWT

Step 3 (optional) **Accessories:** Ordered & shipped separately.

Engine

example: C2RA06927SPUPZULS6010

Series[1]	Style	Lumens	CRI	CCT	Beam	Dimming / Voltage	Flange	Options
C2R Calculite 2" round **C2S** Calculite 2" square	**A** Adj. Accent	**06** 600lm **09** 900lm **15** 1500lm[2]	**9** 90CRI	**27** 2700K **30** 3000K **35** 3500K **40** 4000K	**NS** Narrow Spot (15°) **SP** Spot (19°) **NF** Narrow Flood (30°) **FL** Flood (55°)	**UPZU** 0-10V 1% ELV 3% Triac 3% Unv (120V/277V) **LU** Lutron PEQ 100% – 0.1% Unv (120V/277V)	**–** Flanged (leave blank) **F** Flangeless[3]	**MesoOptics** **–** Symmetrical soft focus **LS6010** Linear spread 60x10 **ASY21** Asymmetrical 21° bend angle **ASY8** Asymmetrical 8° bend angle **Hex Cell Louver** **HCL** 2" hex cell louver Holder standard on light engine, order with MesoOptics film option or blank for symmetrical (ex. HCLLS6010)

Trim

example: C2RAWT

Series	Style	Finish	Flange
C2R Calculite 2" round **C2S** Calculite 2" square	**A** Adjustable Accent	**WT** Textured white	**–** White **F** Flangeless[2]
		WH White (matte) **BK** Black (painted matte) **BT** Textured black **BZ** Bronze **D** Aluminum diffuse **CD** Clear diffuse (applied finish) Special painted finishes available with RAL number.	**–** White (matte) **P** Matching reflector **F** Flangeless[3]

1. Standard light engine may be used as a remodeler. Optional traditional frame-in kits are available.
2. The 1500lm (15) lumen option is available for non-IC only.
3. Flangeless option code must be ordered for both light engine and trim. Mud-in ring is integral with the light engine.
4. Requires IRT9015 IR remote & Interact Pro App for commissioning.
5. Mud-in kits provided as standard with engines but are available as accessories as needed to support construction.

Accessories (order & install separately)

Field installed changeable TIR Optics

CA2NSSFR 15° TIR reflector
CA2SPSFR 19° TIR reflector
CA2NFSFR 30° TIR reflector
CA2FLSFR 55° TIR reflector

Accent accessories

CL2HCL 2" hex cell louver

MesoOptics accessories

CA2RSYM Symmetrical
CA2RLS6010 60x10 linear spread
CA2RASY21 21° bend angle
CA2RASY8 8° bend angle

Accessories

SWCS New or remodel construction, integral RADIO or remote (recessed or surface) sensing with 0-10v luminaires. See SWCS spec sheet for more details.[4]
CA2RFT Round 2" Mud-in Kit[5]
CA2SFT Square 2x2 Mud-in Kit[5]

Declare. c UL us LISTED mesoOptics IC INSULATION CONTACT RoHS COMPLIANT interact ready.

C2A Calculite 2"

Round and Square Adjustable Accent

Applications

- Ideal for use in retail, restaurants, residential, and office spaces to accentuate the space and provide tactical or ambience lighting from a minimalistic aperture
- The light engine is designed to be installed as a retrofit without need for a frame. Frames are optional to accommodate ceiling construction.
- Driver pod is tethered electrically to light engine and includes a quick disconnect. All rough-in wiring is done on the driver pod.
- All components are designed to accommodate below ceiling accessibility through the aperture without need for tools.

Dimensions

- **Max Ceiling Thickness:** 1.50"
- **Ceiling Cutout:** 3"
- **Max vertical angle:** 22° @ 1.50", 40° @ 1.00"

Frame-in-kits (optional)

- Light engines are designed to be installed as a retrofit without need for a separate frame
- Die formed steel construction with 1/2" collar for ease of cutting the hole in ceiling.
- Rough-in wiring is done on the light engine driver pod.
- Four models offered:
  - **2RN:** 2" Round New Construction, Non-IC
  - **2SN:** 2" Square New Construction, Non-IC
  - **2RA:** 2" Round New Const., IC, AirSeal, CCEA*
  - **2SA:** 2" Square New Const., IC, AirSeal, CCEA*

* 900lm maximum for IC applications.

Optical systems

- **TIR** optics precisely control the beam pattern. Optics are field changeable.
- **PET** film provides a clean beam with mitigated spill and precise color mixing. Film is held in place via a holder integral to the engine that fits precisely TIR optic and LED socket.
- **COB** (chip on board) provides long useful life with precise color control over time.
- Finishing section trims are durable die cast aluminum with precision painted finish. May be easily repainted in the field to match desired aesthetic appeal.
- 50° cutoff angle.

Dimming

- UPZ option is universal 0-10v (1%), electronic low voltage (3%), and triac (3%) in a single driver
- Lutron PEQ (L) dimming to 0.1%

Hex Cell Louver

- Available as factory installed option or field installed accessory.
- Light engine includes holder attached to primary TIR optic.
- Holder supports one MesoOptics film and one louver.

MesoOptics optical diffusion film

- **PET** film containing surface relieved, microscopic light diffusing structures/elements.
- Provides a clean beam with mitigated spill at articulated angles.
- Optimizes luminaire efficacy via high optical transmission.
- Homogenizes light engine luminance providing smooth gradients of white light.
- Other distribution options available including linear spread and asymmetric.
- May be field installed with available accessories.
- Holder is standard on light engines.

Light engine

- Die cast heat sinks provide optimized passive thermal management to maximize LED lumen maintenance.
- Precision spun lower collar mechanically attaches to heat sink assembly tool-free via springs. Integral leaf springs for flanged configurations allow easy installation into the ceiling or on optional frame-in kits.
- May be adjusted up to 40° vertically, and 362° horizontally. Vertical axis includes indicator marks, and both axes include locking via 1/16" allen wrench (included).
- For flangeless applications, mesh mud-in ring is integral to the lower collar eliminating the need to handle/order an accessory. Must specify flangeless light engine and trim. Separate mud-in rings are available as accessories to support construction (CA2RFT, CA2SFT).
- Predicted 70% lumen maintenance to >65,000 hours.
- 32°-86°F ambient operating range (0°-30°C).

Labels and listings

- cULus listed for damp locations
- CEC Title 24 JA8 certified
- CCEA listing on 2RA/2SA frames
- Red List Declare label certified, ID SIG-0018 (View full Declare label)

Warranty

5 year limited warranty

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

0-10v/ELV/Triac Electrical Tables

Light Engine	Input volts	Input current	Drive current	Input power
C2_06_UPZU	120V	0.08A	250mA	9.8W
	277V	0.04A	–	–
C2_09_UPZU	120V	0.11A	350mA	13.4W
	277V	0.05A	–	–
C2_15_UPZU	120V	0.19A	600mA	23.3W
	277V	0.08A	–	–

Lutron Electrical Tables

Light Engine	Input volts	Input current	Drive current	Input power
C2_06_LU	120V	0.08A	250mA	9.7W
	277V	0.04A	–	–
C2_09_LU	120V	0.11A	350mA	13.6W
	277V	0.05A	–	–
C2_15_LU	120V	0.19A	600mA	23.3W
	277V	0.08A	–	–

C2A Calculite 2"

Round and Square Adjustable Accent

interact







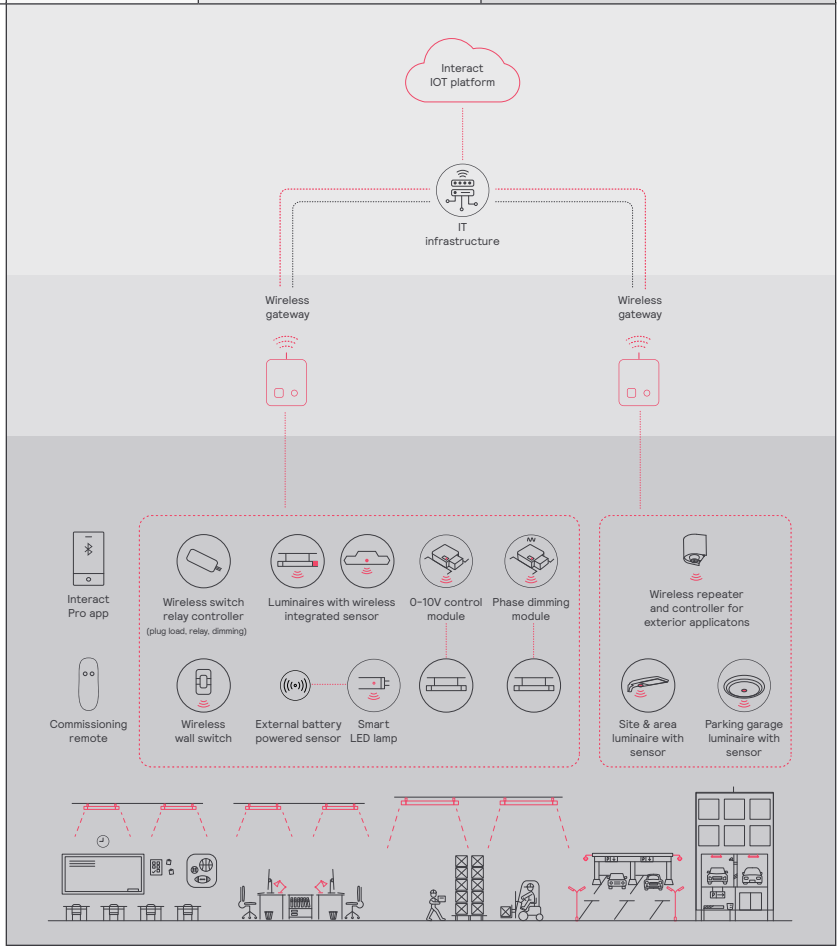
		Standalone	Gateway Connected: Option 1	Gateway Connected: Option 2
Dimming, grouping, and zoning		✓	✓	✓
Bluetooth and ZigBee enabled		✓	✓	✓
Motion sensing and daylight harvesting		✓	✓	✓
Integration with 0–10V and phase dimming fixtures		✓	✓	✓
Code compliance		✓	✓	✓
Granular dimming and dwell time		✓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



C2A Calculite 2"

Round and Square Adjustable Accent

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

SWCS Accessory

- Recessed Interact accessory for use in new construction or remodel construction for use with 0-10v luminaires. Available for integral RADIO, or remote sensing in either recessed or surface mounting. Refer to spec sheet for more details. https://www.usa.lighting.philips.com/api/assets/v1/file/Signify/content/SWCS-ESS/SWCS_Specification_Sheet.pdf

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.

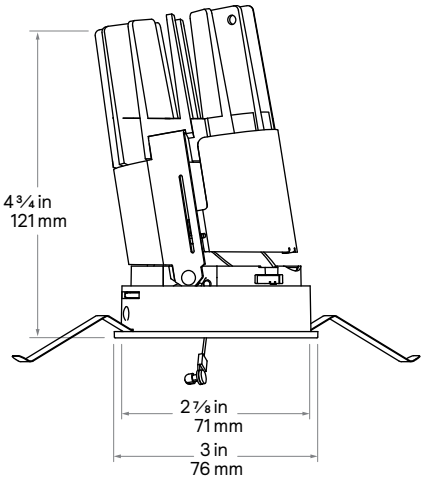
Interact supported sensor option codes across Genlyte product lines

	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	-	-

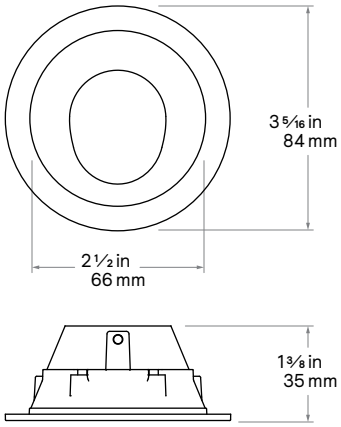
C2A Calculite 2"

Round and Square Adjustable Accent

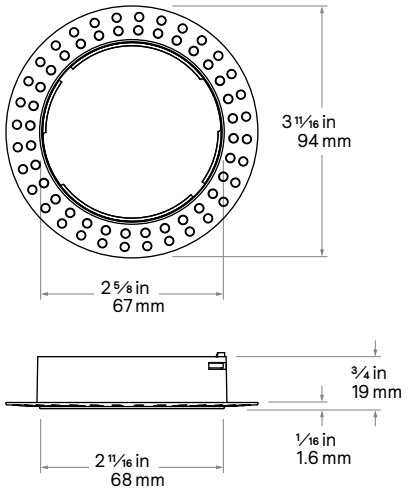
Round Engine (flanged)



Round Trim

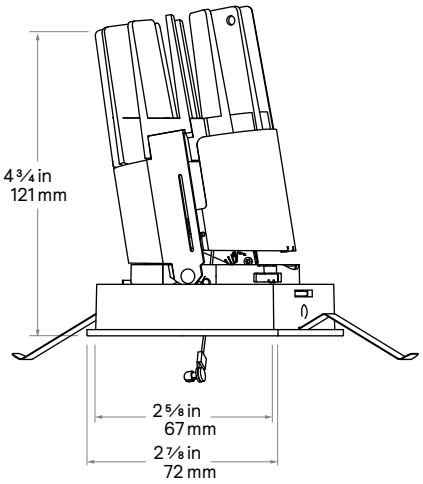


Round Mud-in ring*

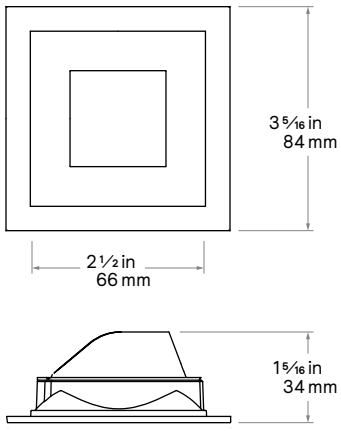


* Mud-in rings are integral to the light engine. Must order flangeless light engine and trim with (F) option code.

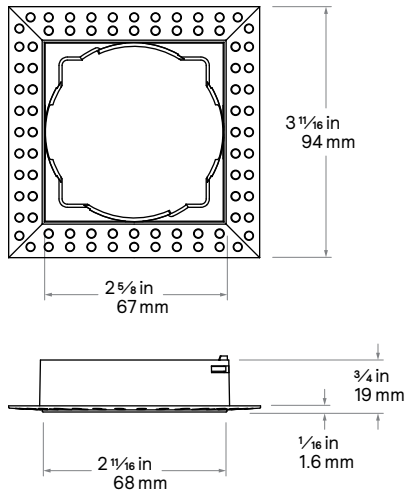
Square Engine (flanged)



Square Trim



Square Mud-in ring*



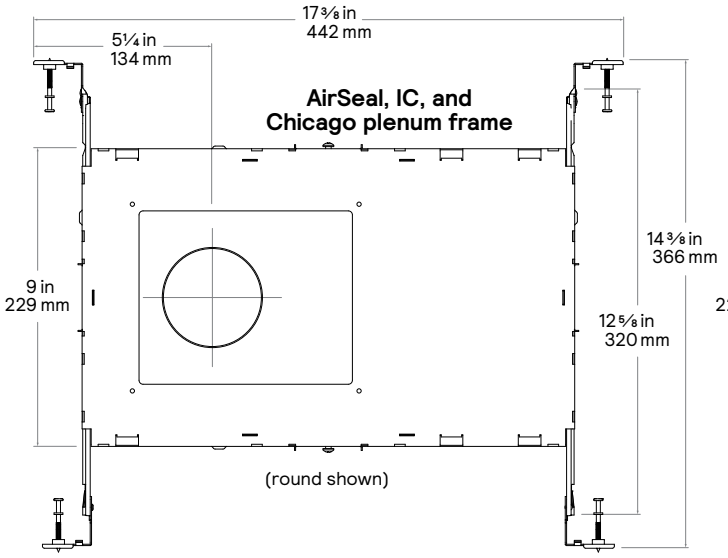
* Mud-in rings are integral to the light engine. Must order flangeless light engine and trim with (F) option code.

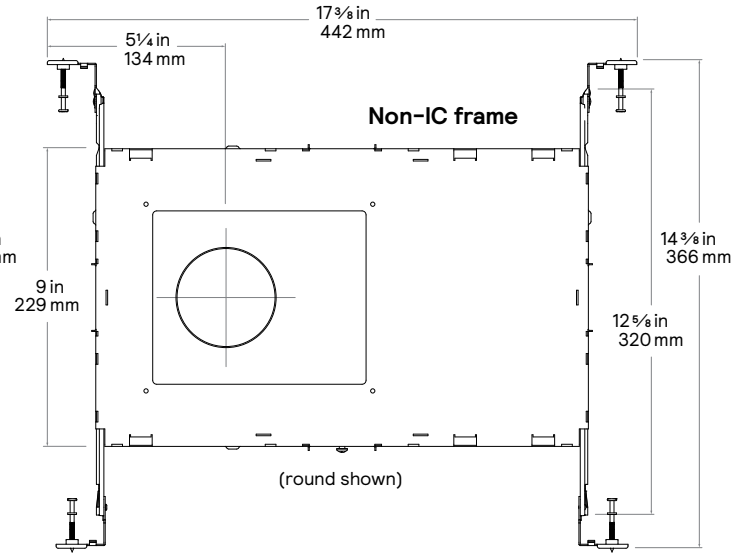
C2A Calculite 2"

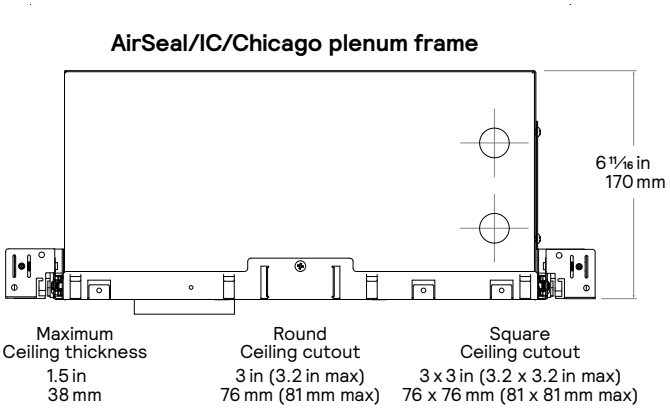
Round and Square Adjustable Accent

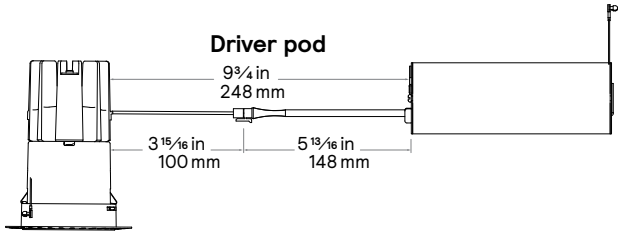
Frames

The standard C2R/C2S light engines may be installed non-IC as a remodeler with no additional frame-in kit required. Optional frames below are available to facilitate ceiling construction





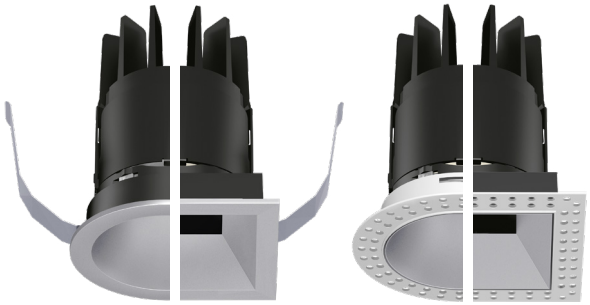




C2A Calculite 2"

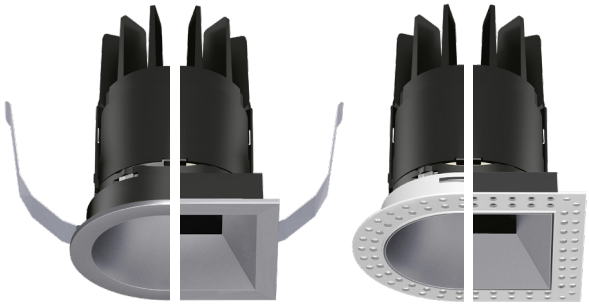
Round and Square Adjustable Accent

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



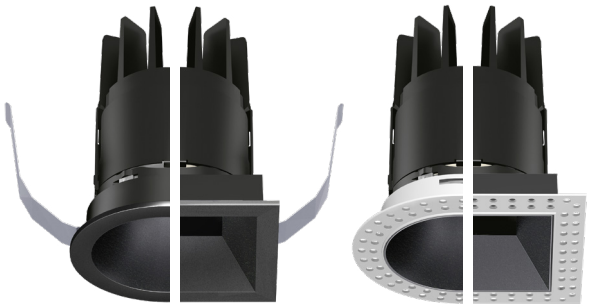
Matched Reflector Flangeless

Clear diffuse (CD): Diffused painted finish with a hint of sparkle where a refined finish is desired.



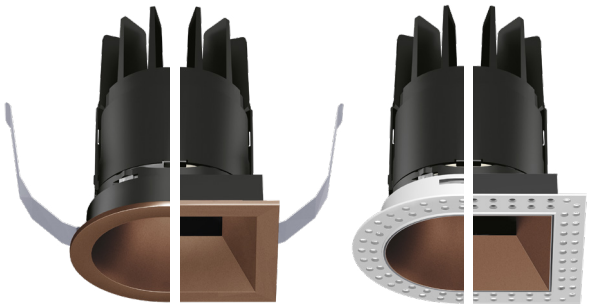
Matched Reflector Flangeless

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



Matched Reflector Flangeless

Black Textured (BT): Textured Matte finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.



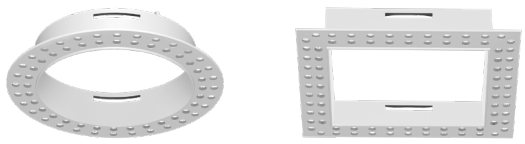
Matched Reflector Flangeless

Bronze (BZ): Matte finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.



Matched Reflector Flangeless

White Textured (WT): Textured finish that provides the brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



Mud-in ring (WH): 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 directly via flat head screws (contractor supplied).

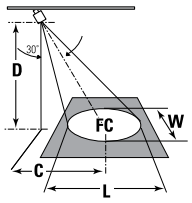
C2A Calculite 2"

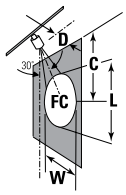
Round and Square Adjustable Accent

Aiming angles

L and **W** are the outer points where the candle power drops to 50% of the maximum. **FC** are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

FC	Footcandles
L	Beam length
W	Beam Width
D	Distance
A	Aiming Angle
C	Distance to center beam
CBCP	Center Beam Candlepower

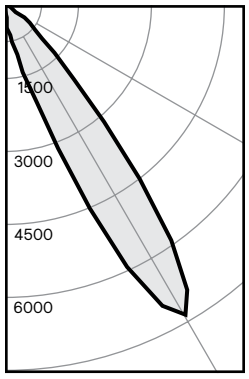




Adjustment Factors

Finish	CCT (90CRI)	Lumens
WT = 100%	4000K = 107%	1500lm = 167%
BT = 97%	3500K = 100%	900lm = 100%
BZ = 97%	3000K = 93%	600lm = 66%
D = 101%	2700K = 93%	
CD = 102%		

Candela Curve



Engine: **C2RA09935SPUPZU**
Trim: **C2RAWT**

Output lumens:	914 lms
Input watts:	13.7W
CRI:	90 min
CCT[1]:	3500K
CBCP:	5840 cd
Beam Angle:	18°

Efficacy: **66.7lm/w**
Report[2]: STMR-3199

Round, Spot, 900lm engine, 66.7lm/W at 13.7W

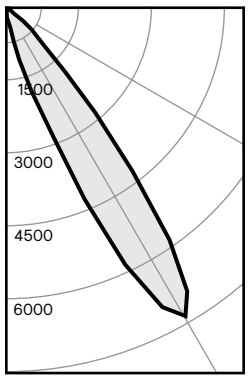
30° Horizontal Aiming

Distance			Beam	
D	C	F.C.	L	W
6	3.5	105	2.6	2.2
8	4.6	59	3.4	2.9
10	5.8	38	4.3	3.7
12	6.9	26	5.1	4.4

30° Vertical Aiming

Distance			Beam	
D	C	F.C.	L	W
2	3.5	183	2.7	1.3
3	5.2	81	4.1	1.9
4	6.9	46	5.5	2.5
5	8.7	29	6.9	3.2

Candela Curve



Engine: **C2SA09935SPUPZU**
Trim: **C2SAWT**

Output lumens:	693 lms
Input watts:	13.7W
CRI:	90 min
CCT[1]:	3500K
CBCP:	5837 cd
Beam Angle:	17°

Efficacy: **50.6lm/w**
Report[2]: STMR-3200

Square, Spot, 900lm engine, 50.6lm/W at 13.7W

30° Horizontal Aiming

Distance			Beam	
D	C	F.C.	L	W
6	3.5	105	2.4	2.1
8	4.6	59	3.2	2.8
10	5.8	38	4.0	3.5
12	6.9	26	4.8	4.1

30° Vertical Aiming

Distance			Beam	
D	C	F.C.	L	W
2	3.5	182	2.6	1.2
3	5.2	81	3.8	1.8
4	6.9	46	5.1	2.4
5	8.7	29	6.4	3.0

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.

© 2025 Signify Holding. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

GENLYTE SOLUTIONS
a signify business

Signify North America Corp.
400 Crossing Blvd, Suite 600
Bridgewater, NJ 08807
Telephone: 800-555-0050

Signify Canada Ltd.
281 Hillmount Road,
Markham, ON, Canada L6C 2S3
Telephone: 800-668-9008

All trademarks are owned by Signify Holding or their respective owners.