Downlighting

LIGHTOLIER

Calculite 2"

C2C Cylinder (round)

Calculite LED 2" Cylinders feature industry leading visual comfort, excellent uniform illumination over time, and installation flexibility. Downlight, Wall Wash, Adjustable Accent and Direct/Indirect configurations provide flexibility to accentuate ambiance for office, retail, and hospitality applications.

Ordering check list (x=needed for complete luminaire configuration)

Catalog Prefix	Mounting	Style	Fixture+	Reflector+	Optics+	Accessories
C2CPC(S/M/L)DL	Pendant Cable	Downlight	Х	Х		
C2CPSA	Pendant Stem	Adj Accent	Х		Х	Х
C2CSA	Surface	Adj Accent	Х		Х	
C2CPSDL	Pendant Stem	Downlight	Х	Х		Х
C2CPSWW	Pendant Stem	Wall Wash	Х			Х
C2CSDL	Surface	Downlight	Х	Х		
C2CWDL	Wall	Downlight	Х	Х		
C2CSWW	Surface	Wall Wash	Х			
C2CWWW	Wall	Wall Wash	Х			
C2CWUDW	Wall	Up/Down Wall Wash	Х			
C2CWUD	Wall	Up/Down	Х	X (2 needed)		

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

Fixture example: C2CPSA10940Z10UA

Series	Mounting	Style	Lumens	CRI/CCT	Dimming/Voltage	Finish
C2C						
C2C Calculite	PCS Pendant w/Cable 6' power/cord	DL Downlight ²	08 780lm	9D2W 90CRI/3000K-1800K	Z10U 0-10 V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V)	A Aluminum ⁴ B Black (matte) ⁴
2" Cylinder	PCM Pendant w/Cable 12' power/cord PCL Pendant w/Cable 20' power/cord		07 700lm 10 1000lm	927 90CRI/2700K 930 90CRI/3000K 935 90CRI/3500K 940 90CRI/4000K	L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)	W White (matte) ⁴ RAL RAL Color ^{4,5}
	PS Pendant w/Stem ¹ S Surface	A Adjustable Accent (needs to be ordered with Optics)	07 700 lm 10 1000 lm	927 90CRI/2700K 930 90CRI/3000K 935 90CRI/3500K 940 90CRI/4000K	Z10U 0-10V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)	A Aluminum B Black (matte) W White (matte) RAL RAL Color ⁵
	PS Pendant w/Stem ¹	DL Downlight ²	08 7801m	9D2W 90CRI/3000K-1800K	Z10U 0-10V 1% / Unv (120/277V)	A Aluminum
S Surface W Wall		DL Downlight ² WW Wall Wash	07 700lm 10 1000lm	927 90CRI/2700K 930 90CRI/3000K 935 90CRI/3500K 940 90CRI/4000K	ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)	B Black (matte) W White (matte) RAL RAL Color ⁵
	W Wall	UDW Up/Down Wall Wash ⁵ (lumens shown divided equally up and down)	15 1500lm 20 2000lm	927 90CRI/2700K 930 90CRI/3000K 935 90CRI/3500K 940 90CRI/4000K	Z10U 0-10V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V) L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)	A Aluminum B Black (matte) W White (matte) RAL RAL Color ⁵
	16 1600lm 927 90CRI/2700K L01U Lu 930 90CRI/3000K 935 90CRI/3500K 940 90CRI/4000K		L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)			
	W Wall	UD Direct/ Indirect ^{2,3}	14 1400lm	927 90CRI/2700K 930 90CRI/3000K	L01U Lutron PEQ EcoSystem 0.1% / Unv (120/277V)	A Aluminum B Black (matte)
		(lumens shown divided equally up and down)	15 1500 lm	935 90CRI/3500K 940 90CRI/4000K	Z10U 0-10V 1% / Unv (120/277V) ELV1 ELV (120V) / Unv (120/277V)	W White (matte) RAL RAL Color ⁵

^{1.} Pendant Stem (PS) mountings need to be ordered with a suspended stem kit accessory for pendants.







Downlight (DL) styles need to be ordered with one Reflector.
 Wall Mount Direct/Indirect (WUD) styles need to be ordered with two Reflectors.

^{3.} Nominal lumens shown is total luminaire, equal up and down. Both up and down are controlled on one circuit.

4. PCS/PCM/PCL mounting includes cable with matching finish to cylinder. RAL finish will be with a black cable.

5. RAL standard colors can be specified upon request. Add RAL standard code to (RALxxxxx).

Pendant, surface and wall mount luminaires

Downlight Reflector (for downlight and up/downlight)

Series C2C	_	Beam	Finish	
C2CR	Calculite 2" Cylinder	W Wide (62°)	CL Clear WH White (matte) CC Comfort Clear BK Black (anodized) CD Comfort Clear Diffuse CZ Champagne Bronze WT White Textured (painted)	

Suspended Stem Kit Accessories (for C2CPS pendant)

Series	Length	Finish	
CA Calculite Accessory w/Round Canopy Stem Kit CASQ Calculite Accessory w/Square Canopy Stem Kit	36 36 inches 48 48 inches 60 60 inches 72 72 inches	AL Aluminum BK Black (matte) WH White (matte) RAL RAL Color¹ (standard code)	

Accessories (for all configurations)

Series		Finish
CAXTC CASQXTC	Calculite Round Conduit Feed Through Canopy Extender Calculite Square Conduit Feed Through Canopy Extender	AL Aluminum BK Black (matte) WH White (matte) RAL RAL Color¹ (standard code)

Adjustable Accent Optics

(for C2CPSA & C2CSA accents)

Series C2CO		Beam		
C2CO	Calculite 2" Cylinder	SP Spot (23°) NFL Narrow Flood (35°) FL Flood (40°)		

RAL standard colors can also be specified upon request.
 Add RAL standrad code to (RALxxxxx).

Housing

Cylinder:

Extruded aluminum

Canopy:

Installation onto a 3" or 4"x1.5" octagonal junction box.

Surface mounting (C2CS):

Mounts directly to junction box.

Pendant cable mounting (C2CPC):

Canopy and field adjustable power cable included. Cylinder provided complete with canopy kit and 5-wire conductor cable. Cable finish matches that of cylinder for A, B, W finishes, and is black for RAL cylinder finish.

Pendant stem mounting (C2CPS):

Order with CASK or CASQSK stem accessory.

Pendant power cable: color to match cylinder finish (A, B, W). Black (BK) cable color for RAL finishes unless otherwise specified by customer.

Wall mounting (C2CW):

Pre-attached hardware allows for simple installation into wall mounted junction box.

Drivers

Z10U: 0-10 V 1% / Universal (120/277 V)

ELV1: Electronic low voltage (120V ELV dimming)

/ Universal (120/277V)

L01U: Lutron PEQ EcoSystem (Dim to 0.1%) / Universal (120/277V), Lutron Hi-lume Premier 0.1% EcoSystem Small Form Factor LED Driver with Soft-On, Fade to Black Dimming Technology

Optical systems

Downlight & Direct/Indirect:

True 50° physical cutoff and 45° reflected cutoff.

Wall Wash:

Polycarbonate TIR lens provides uniform distribution on the wall with minimal gap between luminaire and wall.

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.

Lumen packages

Lumen Maintenance: Predicted 70% lumen maintenance at 64,000 hrs.

Direct/Indirect: Can be ordered with different up and down lumen outputs through Special Order Process. Wall mount nominal lumens are total for luminaire divided up and down, and controlled on one circuit.

Canopy Extender Accessories

Round (CAXTC) and square (CASQXTC) canopy extenders are available to accommodate direct conduit feed. Covers conduit connector (by others) for finished look. Specify finish per ordering matrix above. Use with standard

3" or 4"x1.5" octagonal junction box (by others). Canopy extenders may be used with all mounting types, and cable or stem suspended. See page 8 for dimensions and illustrations

Pendant accessories

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

Energy Star exceptions

- For Downlights (DL), only Clear (CL) and Comfort Clear (CC) finishes are ENERGY STAR® certified.
- Wall mount up/down (WUD, WUDW) models are not certified.
- Lutron driver options are not ENERGY STAR® certified.

Labels and Listings

- · cULus listed for damp locations
- ENERGY STAR® certified
- · RoHS 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.

Pendant, surface and wall mount luminaires

Electrical

Series	Dimming	Lumens	Voltage	Amps	Wattage
C2CPC_DL	ELV	600Llm	120V	0.07	9
C2CPSDL		1000lm	7	0.12	14
C2CSDL C2CWDL		600Llm	277V	0.04	9
C2CPSWW		1000lm		0.07	14
C2CSWW	0-10V	600Llm	120V	0.07	10
C2CWWW		1000lm		0.13	15.5
		600Llm	277V	0.05	10
		1000lm	1	0.08	15.5
	Lutron	600Llm	120V	0.08	10
		1000lm	7	0.13	16
		600Llm	277V	0.06	10
		1000lm	1	0.08	16
C2CPC_DL_9D2W	ELV	800lm	120V	0.11	14
C2CPSDL_9D2W			277V	0.07	14
C2CSDL_9D2W	0-10V	800lm	120V	0.12	15
C2CWDL_9D2W			277V	0.08	15
	Lutron	800lm	120V	0.13	16
			277V	0.08	16
C2CWUD	ELV	800lm	120V	0.17	21
			277V	0.09	21
	0-10V	800lm	120V	0.16	22
			277V	0.1	22
	Lutron	600lm	120V	0.15	19
			277V	0.09	19
C2CWUDW	ELV	600lm	120V	0.1	13
			277V	0.05	13
		1000lm	120V	0.17	21
			277V	0.09	21
	0-10V	600lm	120V	0.12	14
			277V	0.06	14
		1000lm	120V	0.09	22
			277V	0.1	22
	Lutron	800lm	120V	0.14	17
			277V	0.09	17

Series	Dimming	Lumens	Voltage	Amps	Wattage
C2CPSA	ELV	600Llm	120V	0.07	9
C2CSA			277V	0.04	9
		1000lm	120V	0.11	14
			277V	0.07	14
	0-10V	600Llm	120V	0.08	10
			277V	0.05	10
		1000lm	120V	0.12	15
			277V	0.08	15
	Lutron	600Llm	120V	0.08	10
			277V	0.04	10
		1000lm	120V	0.13	16
			277V	0.08	16

ELV

Input	Brand	Dimming Type	Model No.	Minimum dimming
120V	Lutron	Trailing edge	DVELV-303P	2%
			NTELV-600	2%
			MAELV-600	2%
			SELV-300P	2%
		Leading edge	DV-600P	2%
			DVLV-600P	2%
			NFTU-5A	2%
			CTCL-153P	2%
			GL-600H	2%
			S-600P	2%
			S-600P	2%
	Leviton	-	IPE04	2%
	Philips	_	CP400RPC120	2%

Lutron

Input	Brand	Model No.	Minimum dimming	
120V	Lutron	QSN-1ECO-S	L01U (0.1%)	
		QSN-2ECO-S	L1U (1%)	
		QSGRJE (wireless)		
		QSGRE (wireless)		
		QP2 2C		
		QP2 4C		
		QP2 6C		
		QP2 8C		
		LQSE-2ECO-D		
120/277V	Lutron	RMJ-ECO32-DV-B	L01U (0.1%)	
		FCJ/FCJS-ECO1	L1U (1%)	

0-10V

Input	Brand	Model No.	Minimum dimming
120/277V	Lutron	SR1200ZTUNV	1%
	Leviton	IP7 series	1%
	Philips	SR1200ZTUNV	1%

Pendant, surface and wall mount luminaires

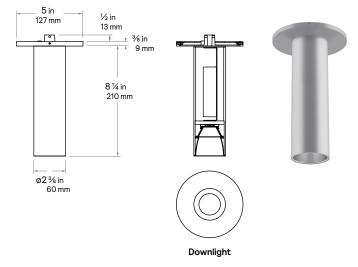
Reflector Finishes



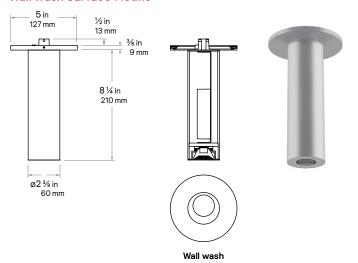
- Specular clear (CL): Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.
- Comfort clear (CC): Semi-specular finish that softens the light at the source of the reflector and creates a subtle, even luminance from the reflector cone.
- Comfort clear diffuse (CD): Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.
- White (WH): Brightest illuminated aperture (matte white) and provides the smoothest transition to most ceilings when off.
- Black (BK): Specular finish (anodized) that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.
- 6. Champagne bronze (CZ): Semi-specular finish that softens light at the source of the reflector while providing a warmer reflector appearance (slightly warmer).

Pendant, surface and wall mount luminaires

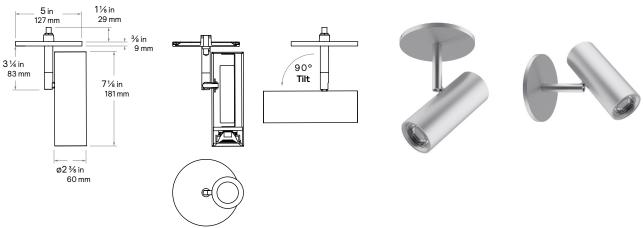
Downlight Surface Mount



Wall Wash Surface Mount

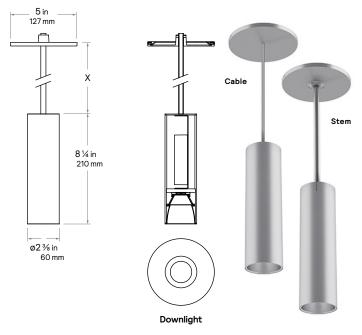


Adjustable Accent Surface Mount (Ceiling or wall)

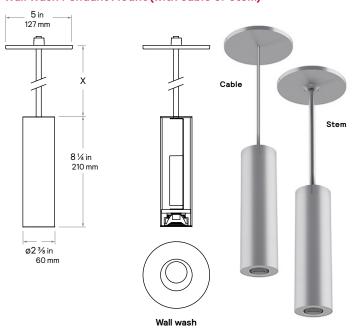


Pendant, surface and wall mount luminaires

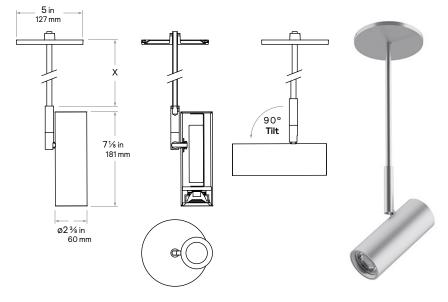
Downlight Pendant Mount (with cable or stem)



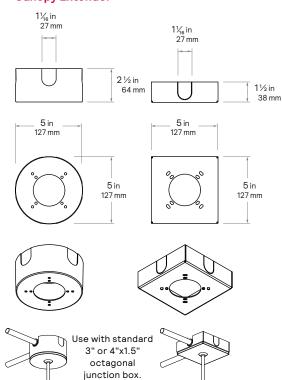
Wall Wash Pendant Mount (with cable or stem)



Adjustable Accent Pendant Mount



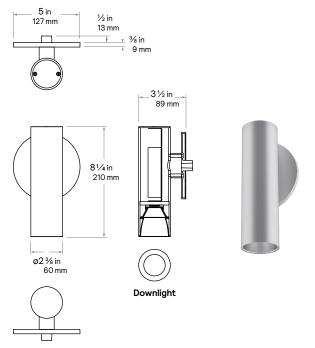
Canopy Extender



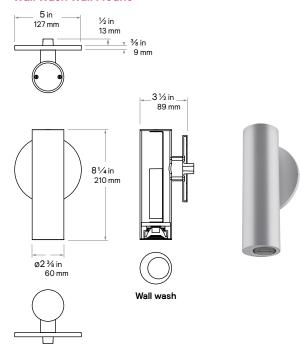
Pre-fabricated knock outs accommodate straight through or 90deg conduit direction. Standard cable and pendant canopies attach directly to the extender box as illustrated above.

Pendant, surface and wall mount luminaires

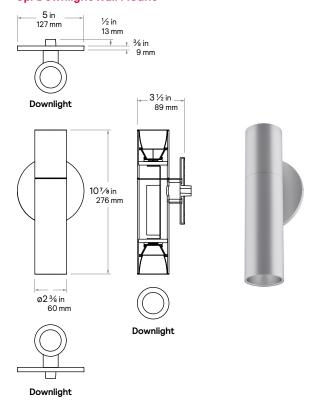
Downlight Wall Mount



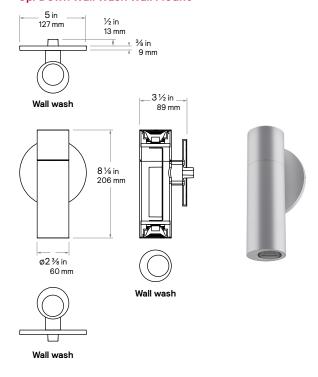
Wall Wash Wall Mount



Up/Downlight Wall Mount

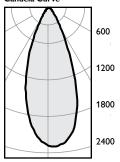


Up/Down Wall Wash Wall Mount



Pendant, surface and wall mount luminaires

Downlight, 1000lm engine, 76.0 lm/W at 13W



Fixture: C2CSDL10935ELV1B Reflector: C2CRWCL

Output lumens: 988 lms 13 W* Input watts: CCT1: 3500K Spacing Crit.: 0.76

*Wattage controlled to within 5%.

Zonal summary

Zone	Lumens	%Luminaire
0-30	561	56.8%
0-40	772	78.1%
0-60	984	99.6%
0-90	988	100.0%

Angle	MeanCP	Lumens
0	1106	
5	1091	
10	1006	99
15	864	
20	684	230
25	519	
30	405	232
35	344	
40	302	210
45	260	
50	145	179
55	19	
60	3	33
65	2	
70	1	2
75	0	
80	0	1
85	0	
90	0	l

Multiple unit data

Footcandles on wall

74

68

23

11

2' from wall

2' on ctr.

77

73

36

24

17

12

10

28

55

74

34

23

16

11

9

Single unit data

	Initial center beam foot-candles	Beam diameter (ft)*
5'	44	3.8'
6'	31	4.6'
7'	23	5.3'
8'	17	6.1'
9'	14	6.8'

* 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'	44.0	0.58
6'	29.0	0.38
7'	21.0	0.27
8'	17.0	0.23
9'	14.0	0.18
001 001 401	5	. 51

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

Report²: LRQB2261-21

Adjustment Factors

Finish		CRI/CCT
CL =100%	WT = 85%	90CRI 4000K = 104%
CC = 97%	WH = 82%	90CRI 3500K = 100%
CD = 86%	BK = 50%	90CRI 3000K = 96%
CZ = 64%	BT = 46%	90CRI 2700K = 90%

Coefficients of utilization

Ceiling		80)%		70)%	50)%	30)%	0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zon	al cav	ity m	ethod	l – Eff	ectiv	e floo	r refl	ectar	ce = :	20%
0	119	119	119	119	116	116	111	111	106	106	100
0 1	113	110	107	105	108	103	104	100	100	97	92
Room Cavity Ratio 8 2 9 9 6 7 8 6 7	107	101	97	93	100	92	96	90	93	88	85
2 3	101	94	88	84	92	83	89	82	87	80	77
.⊉ 4	95	86	80	76	85	75	83	74	81	73	71
<u>è</u> 5	89	80	74	69	79	69	77	68	76	67	65
₀ 6	84	74	68	63	74	63	72	63	71	62	60
5 7	80	69	63	58	69	58	67	58	66	57	56
윤 8	75	65	58	54	64	54	63	54	62	53	52
9	71	61	54	50	60	50	59	50	58	50	48
10	68	57	51	47	57	47	56	47	55	46	45

Wall Wash, 1000lm engine, 85.2 lm/W at 13W

Distance from ceiling in feet

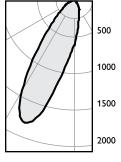
2 3

4

5 6

8 9

Candela Curve



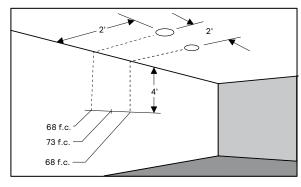
Fixture: C2CSWW10935

Output lumens: Input watts: CRI: 90 min CCT 1: 3500K Candela: 1802

Multiple unit data

Footcandles on wall

		' from wa	
Distance from ceiling in feet 1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	19 40 51 49 37 26 18 13 10 7 6 5	16 35 47 47 37 26 19 13 10 7 6	19 40 51 49 37 26 18 13 10 7 6 5



Efficacy: 85.2 lm/w Report²: LRQB2261-28B

^{*}Wattage controlled to within 5%.

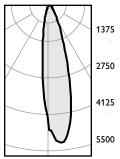
^{1.} Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

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

Pendant, surface and wall mount luminaires

Downlight (Wall Mount), 1000lm engine, 95.7 lm/W at 13W





Fixture: C2CWWW10935ELV1B

Output lumens: 1244 lms Input watts: 13 W*
CRI: 90 min CCT 1: 3500K

*Wattage controlled to within 5%.

Zonal summary

Zone	Lumens	%Luminaire
0-30 0-40 0-60 0-90	1043 1147 1224 1244	83.8% 92.2% 98.4% 100.0%

Angle	MeanCP	Lumens
0	4675	
5	5176	
10	4468	350
15	2877	
20	1588	460
25	887	
30	494	233
35	295	
40	200	104
45	145	
50	105	51
55	75	
60	51	26
65	34	
70	20	12
75	9	
80	3	4
85	1	
90	0	

Coefficients of utilization

Ceiling	3	80)%		70)%	50	1%	30)%	0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zon	al cav	ity m	ethod	I – Eff	ectiv	e floo	r refl	ectan	ce = :	20%
0	119	119	119	119	116	116	111	111	106	106	100
0 1	112	109	106	103	107	102	103	98	99	95	91
Ratio 8 8 -	105	99	94	90	97	89	94	87	91	85	81
<u>≈</u> 3	98	90	84	79	88	78	86	77	83	76	72
.≧ 4	91	82	75	69	80	69	78	68	76	67	65
Room Cavity 8 2 9 5 7	85	74	67	62	73	61	71	61	70	60	58
ပ္ 6	79	68	61	55	67	55	65	55	64	54	52
<u>5</u> 7	74	62	55	50	62	50	60	49	59	49	47
& 8	69	57	50	45	57	45	56	45	54	44	42
9	65	53	46	41	52	41	51	41	50	40	39
10	61	49	42	37	49	37	48	37	47	37	35

Efficacy: 95.7lm/w Report²: LRQB2261-29

^{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.

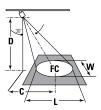
Pendant, surface and wall mount luminaires

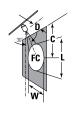
Aiming angles

 \boldsymbol{L} and \boldsymbol{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 Beam length
- Beam Width
- D Distance
- Aiming Angle Distance to center beam

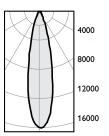
Center Beam Candlepower





Adjustment Factors

CL =100% WT = 85% 90CRI 4000K =104% 90CRI 3500K =100% 90CRI 3000K = 96% 90CRI 2700K = 90% 90CRI 2700K = 90%	Finish		CRI/CCT
CD = 86% BK = 50% 90CRI 3000K = 96%			90CRI 4000K = 104%
CZ = 64% BI = 46% 90CRI2/00K = 90%			
	CZ = 64%	BI = 46%	90CRI 2700K = 90%



Fixture: C2CSA10935 Reflector: C2COS

11311ms Output lumens: Input watts: 13 W CRI: 90 min 3500 K CBCP: 4999cd Beam Angle: 23°

Efficacy: 87.0 lm/w Report²: LRQB2261-30

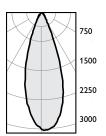
Spot, 1000lm engine, 87.0 lm/W at 13W

30° Horizontal Aiming

Distance			Bean	1
D	С	F.C.	L	W
6	3.5	90	3.3	2.8
8	4.6	51	4.4	3.8
10	5.8	32	5.5	4.7
12	6.9	23	6.6	5.6

30° Vertical Aiming

Distance			Beam	
D	С	F.C.	L	W
2	3.5	156	3.7	1.6
3	5.2	69	5.6	2.4
4	6.9	39	7.4	3.3
5	8.7	25	9.3	4.1



Fixture: C2CSA10935 Reflector: C2COS

Output lumens: 1223 lms 13 W Input watts: CCT1: 3500 K CBCP 3015 cd Beam Angle: 35°

Efficacy: 94.1lm/w Report²: LRQB226 LRQB2261-31

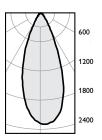
Narrow Flood, 1000lm engine, 94.1 lm/W at 13W

30° Horizontal Aiming

Distance			Beam	
D	С	F.C.	L	W
6	3.5	54	5.2	4.4
8	4.6	31	7.0	5.8
10	5.8	20	8.7	7.3
12	6.9	14	10.4	8.7

30° Vertical Aiming

Distance			Beam	
D	С	F.C.	L	W
2	3.5	94	7.2	2.5
3	5.2	42	10.8	3.8
4	6.9	24	14.4	5.0
5	8.7	15	18.0	6.3



Fixture: C2CSA10935 Reflector: C2COF

Output lumens: Input watts: CRI: 13 W 90 min 3500 K

CRCP: 2278 cd Beam Angle:

Efficacy: 90.5 lm/w Report2: LRQB2261

Flood, 1000lm engine, 90.5 lm/W at 13W

30° Horizontal Aiming

Distance			Beam	
D	С	F.C.	L	W
6	3.5	41	6.1	5.0
8	4.6	23	8.1	6.7
10	5.8	15	10.2	8.4
12	6.9	10	12.2	10.1

30° Vertical Aiming

Distance			Beam	
D	С	F.C.	L	W
2	3.5	71	9.7	2.9
3	5.2	32	14.5	4.4
4	6.9	18	19.3	5.8
5	8.7	11	24.2	7.3



^{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.