



Calculite LED 6" generation 3 features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility.

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

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Frame

example: 6RA

Series	Aperture	Installation
6	R	A
6 6" Non-IC	R Round	A AirSeal IC 120 V/277V

Engine

example: C6L15835NZ10U

Series	Lumens	CRI	CCT	Beam ²	Dimming	Voltage
C6L						
C6L Calculite LED 6" aperture	10 1000lm	8 80 CRI	27 2700 K	N Narrow (40°)	Z10 0-10V 1%	U Universal 120 V/277V
	15 1500lm	9 90 CRI	30 3000 K	M Medium (55°)	SOL EldoLED Solo 0-10V 0.1%	
	20 2000lm		35 3500 K	W Wide (72°) ¹	D Dali 0.1%	
	25 2500lm		40 4000 K		L Lutron LDE1 EcoSystem (fade-to-black)	
					DMX Digital Multiplexing	
					E ELV (120V dimming only)	1 Universal 120 V/277V
	35 3500lm	8 80 CRI	27 2700 K	M Medium (55°)	Z10 0-10V 1%	U Universal 120 V/277V
		9 90 CRI	30 3000 K	W Wide (72°) ¹	SOL EldoLED Solo 0.1%	
			35 3500 K		DMX Digital Multiplexing	
			40 4000 K			

Trim

example: C6RDLNMCCP

Series	Aperture	Style	Finish	Flange
C6	R			
C6 Calculite LED 6" aperture	R Round	DL Downlight	CL Specular clear	– White (matte)
		WW Open Wall Wash	CC Comfort clear	P Polished (matches aperture)
		LW Lensed Wall Wash	CD Comfort clear diffuse	F Flangeless (requires CA4RFT)
		CW Corner Wall Wash ²	CZ Champagne bronze	
		DW Double Wall Wash ²	BK Black (anodized)	
			WH White (matte)	– White (matte)
				F Flangeless (requires CA4RFT)

Accessories

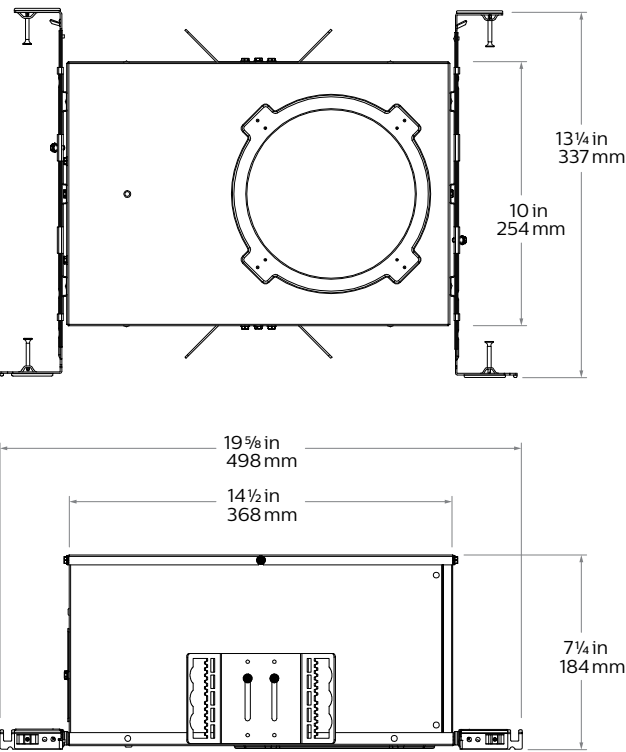
CA6SFT	Mud-in kit for use with flangeless installations (ordered with a flangeless trim)
SWZDT	SpaceWise wireless controller with dwell time functionality, compatible with all 0-10V configurations (for details see "SWZDT" spec sheet)

- Wide (W) beam is ideal for all Wall Wash (LW, WW, CW, DW) applications.
- Corner (CW) and Double (DW) Wall Wash are not available with flangeless (F) option.

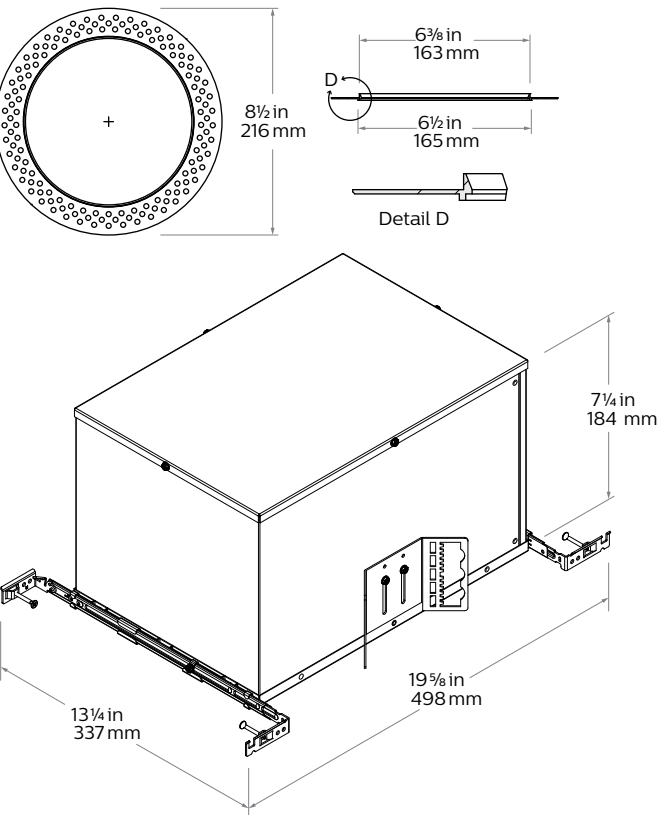
C6RA Calculite LED 6" gen 3

Round AirSeal IC frame

AirSeal (A)



Flangeless mud-in ring (CA6RFT) accessory



Narrow

Light engine	Input volts	Input freq	Input current	Drive current	Input power	THD power	Power factor
C6L10_NZ10U	120V	50/60Hz	0.08	230 mA	9W	<15%	>0.95
	277V		0.04			<20%	>0.95
C6L15_NZ10U	120V	50/60Hz	0.11	340 mA	15W	<10%	>0.95
	277V		0.05			<15%	>0.95
C6L20_NZ10U	120V	50/60Hz	0.16	460 mA	22W	<10%	>0.95
	277V		0.08			<15%	>0.95
C6L25_NZ10U	120V	50/60Hz	0.20	590 mA	25W	<10%	>0.95
	277V		0.10			<15%	>0.95
C6L35_NZ10U	120V	50/60Hz	0.30	900 mA	36W	<10%	>0.95
	277V		0.14			<15%	>0.95

Medium/Wide

Light engine	Input volts	Input freq	Input current	Drive current	Input power	THD power	Power factor
C6L10_MZ10U	120V	50/60Hz	0.08	210 mA	9W	<15%	>0.95
	277V		0.04			<20%	>0.95
C6L15_MZ10U	120V	50/60Hz	0.11	320 mA	15W	<10%	>0.95
	277V		0.05			<15%	>0.95
C6L20_MZ10U	120V	50/60Hz	0.15	430 mA	19W	<10%	>0.95
	277V		0.07			<15%	>0.95
C6L25_MZ10U	120V	50/60Hz	0.19	550 mA	23W	<10%	>0.95
	277V		0.09			<15%	>0.95
C6L35_MZ10U	120V	50/60Hz	0.25	570 mA	30W	<10%	>0.95
	277V		0.11			<15%	>0.95

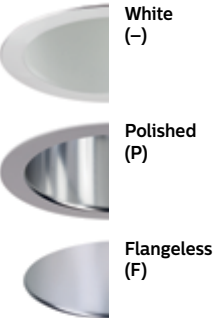
Lifetime (TM-21) data

Lumens	Narrow beam	Medium/Wide beam
1000lm	L85 @ 55,000hrs.	L85 @ 60,000hrs.
1500lm		
2000lm		
2500lm	L85 @ 55,000hrs.	L80 @ 60,000hrs.
3500lm		

Reflector



Flange



C6RA Calculite LED 6" gen 3

Round AirSeal IC frame

Frame-in-kits

AirSeal

Black painted 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.

Drivers

- Advance 0-10V 1% dimming
- Lutron Hi-lume EcoSystem H Series 1% dimming
- EldoLED ECoDrive Dali 1% dimming
- EldoLED SOLOdrive 0-10V 0.1% dimming
- ELV dimming

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.

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.

Options and Accessories

Flangeless mud-in ring: Use **CA6RFT** for use with flangeless plaster installations.

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

ENERGY STAR® exceptions

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

Title 24 exceptions

- 1000lm 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
- IBEW Union made (light engines & reflectors)

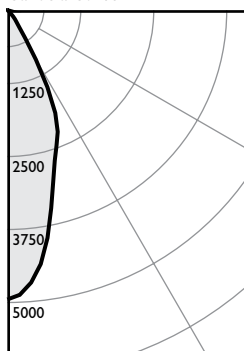
Warranty



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

Narrow beam, 2500lm Engine, 103.0 lm/w

Candela Curve



Frame: **C6RN or 6RN**
Engine: **C6L25835NZ10U**
Trim: **C6RDLCL**

Output lumens: 2462 lms
Input watts: 23.9 W
CRI: 80 min
CCT: 3500K
Spacing Crit.: 0.6
Beam Angle: 40°

Zonal summary

Zone	Lumens	%Luminaire
0-30	2113	85.8%
0-40	2383	96.8%
0-60	2459	99.9%
0-90	2462	100.0%

Angle	Mean CP	Lumens
0	4938	
5	4667	423
10	3948	
15	3027	856
20	2456	
25	1936	834
30	977	
35	352	270
40	205	
45	87	72
50	13	
55	4	4
60	3	
65	2	2
70	1	
75	1	1
80	0	
85	1	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	198	3.0'
6'	137	3.6'
7'	101	4.2'
8'	77	4.8'
9'	61	5.4'

* 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'	114.3	1.06
6'	75.0	0.70
7'	53.6	0.50
8'	44.7	0.41
9'	35.7	0.33

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

Efficacy: 103.0 lm/w
Report#: F37145

Adjustment factors

Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 103%	6000lm = 202%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 95%	3500lm = 140%
CZ = 63%	80CRI 2700K = 93%	2500lm = 100%
WH = 87%	90CRI 3000K = 83%	2000lm = 80%
BK = 57%	90CRI 2700K = 78%	1500lm = 60%
		1000lm = 40%

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%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	114	112	109	107	110	106	105	102	102	99	95
	2	109	105	101	98	103	97	100	95	97	93	90
	3	105	99	95	91	98	90	95	89	93	88	85
	4	100	94	89	85	93	85	90	84	88	83	80
	5	96	89	84	80	88	79	86	79	84	78	76
	6	92	84	79	75	83	75	82	74	81	74	72
	7	88	80	75	71	79	71	78	71	77	70	69
	8	85	76	71	67	76	67	75	67	74	67	65
	9	81	73	68	64	72	64	72	64	71	64	62
10	78	70	65	61	69	61	68	61	68	61	59	

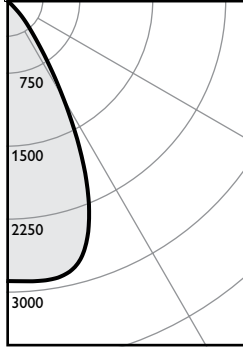
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State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

C6RA Calculite LED 6" gen 3

Round AirSeal IC frame

Medium beam, 2500lm Engine, 115.2 lm/W

Candela Curve



Frame: **C6RN or 6RN**
Engine: **C6L25835MZ10U**
Trim: **C6RDLCL**

Output lumens: 2454 lms
Input watts: 21.3 W
CRI: 80 min
CCT¹: 3500K
Spacing Crit.: 0.8
Beam Angle: 55°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1896	77.2%
0-40	2319	94.5%
0-60	2450	99.8%
0-90	2454	100.0%

Angle	Mean CP	Lumens
0	2886	
5	2900	277
10	2903	
15	2809	777
20	2472	
25	1880	842
30	1178	
35	644	423
40	347	
45	153	124
50	23	
55	6	8
60	4	
65	3	3
70	2	
75	1	1
80	1	
85	1	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	115	4.0'
6'	80	4.8'
7'	59	5.6'
8'	45	6.4'
9'	36	7.2'

* 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'	112.7	0.94
6'	74.0	0.62
7'	52.8	0.44
8'	44.0	0.37
9'	35.2	0.30

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

Efficacy: 115.2 lm/w

Report#: F37135

Adjustment factors

Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	6000lm = 240%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 97%	3500lm = 140%
CZ = 63%	80CRI 2700K = 87%	2500lm = 100%
WH = 87%	90CRI 3000K = 77%	2000lm = 80%
BK = 57%	90CRI 2700K = 73%	1500lm = 60%
		1000lm = 40%

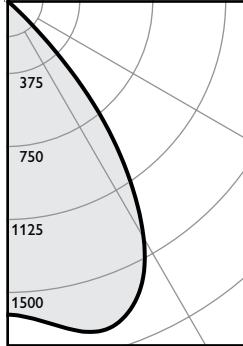
Coefficients of utilization

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%														
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100			
1	114	111	109	107	109	105	105	102	101	99	94				
2	108	104	100	97	102	96	99	94	96	92	88				
3	103	97	92	89	96	88	93	87	91	85	82				
4	98	91	86	82	90	81	88	80	86	79	77				
5	94	86	80	76	85	76	83	75	81	74	72				
6	89	81	75	71	80	71	78	70	77	70	68				
7	85	76	70	66	76	66	74	66	73	66	64				
8	81	72	66	62	71	62	70	62	69	62	60				
9	77	68	63	59	68	59	67	58	66	58	57				
10	74	65	59	55	64	55	63	55	63	55	54				

Wide beam, 2500lm Engine, 108.3 lm/W

Candela Curve



Frame: **C6RN or 6RN**
Engine: **C6L25835WZ10U**
Trim: **C6RDLCL**

Output lumens: 2307 lms
Input watts: 21.3 W
CRI: 80 min
CCT¹: 3500K
Spacing Crit.: 1.1
Beam Angle: 72°

Zonal summary

Zone	Lumens	%Luminaire
0-30	1394	60.4%
0-40	2059	89.2%
0-60	2302	99.8%
0-90	2307	100.0%

Angle	Mean CP	Lumens
0	1612	
5	1641	159
10	1705	
15	1760	495
20	1740	
25	1629	740
30	1408	
35	1083	665
40	700	
45	270	232
50	39	
55	9	12
60	5	
65	3	3
70	2	
75	1	1
80	1	
85	1	1
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	64	5.5'
6'	45	6.6'
7'	33	7.7'
8'	25	8.8'
9'	20	9.9'

* 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'	104.1	0.94
6'	68.3	0.62
7'	48.8	0.44
8'	40.7	0.37
9'	32.5	0.30

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

Efficacy: 108.3 lm/w

Report#: F37140

Adjustment factors

Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	6000lm = 240%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 97%	3500lm = 140%
CZ = 63%	80CRI 2700K = 87%	2500lm = 100%
WH = 87%	90CRI 3000K = 77%	2000lm = 80%
BK = 57%	90CRI 2700K = 73%	1500lm = 60%
		1000lm = 40%

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%														
Room Cavity Ratio	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	79				
4	95	87	81	77	86	76	84	76	82	75	72				
5	90	81	75	70	80	70	78	69	77	69	66				
6	85	75	69	64	75	64	73	64	72	63	61				
7	80	70	64	59	70	59	68	59	67	58	57				
8	76	66	59	55	65	55	64	54	63	54	52				
9	72	61	55	51	61	51	60	50	59	50	49				
10	68	57	51	47	57	47	56	47	55	47	45				

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.

C6RA Calculite LED 6" gen 3

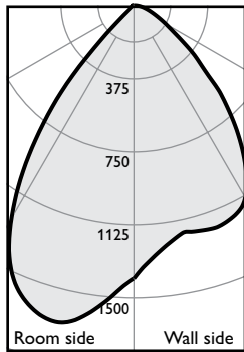
Round AirSeal IC frame

Adjustment factors

Finish	CCT	Lumens
CL = 100%	80CRI 4000K = 102%	6000lm = 202%
CC = 95%	80CRI 3500K = 100%	4800lm = 192%
CD = 87%	80CRI 3000K = 97%	3500lm = 140%
CZ = 63%	80CRI 2700K = 87%	2500lm = 100%
WH = 87%	90CRI 3000K = 77%	2000lm = 80%
BK = 57%	90CRI 2700K = 73%	1500lm = 60%
		1000lm = 40%

Wall Wash, 2500lm Engine, 103.5 lm/w

Candela Curve



Frame: **C6RN or 6RN**
Engine: **C6L25835WZ10U**
Trim: **C6RWCL**

CCT: 3500K
Output lumens: 2204 lms
Input watts: 21.3 W
CRI: 80 min

Efficacy: **103.5 lm/w**
Report#: F37141

Multiple unit data

Footcandles on wall

	2' from wall		
	3' on ctr.		
Distance from ceiling in feet	1	2	3
1	33	24	33
2	61	44	61
3	58	60	58
4	46	49	46
5	37	37	37
6	28	29	28
7	23	23	23
8	19	19	19
9	16	16	16
10	14	14	14
12	12	12	12
14	10	10	10

Multiple unit data

Footcandles on wall

	3' from wall		
	3' on ctr.		
Distance from ceiling in feet	1	2	3
1	15	15	15
2	26	26	26
3	37	37	37
4	40	42	40
5	38	38	38
6	33	33	33
7	28	28	28
8	24	24	24
9	20	20	20
10	18	18	18
12	14	15	14
14	13	12	13

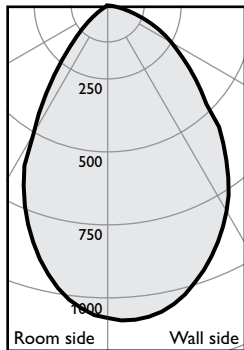
Multiple unit data

Footcandles on wall (shown above)

	3' from wall		
	4' on ctr.		
Distance from ceiling in feet	1	2	3
1	13	11	13
2	22	18	22
3	31	26	31
4	31	32	31
5	28	30	28
6	25	26	25
7	21	22	21
8	18	18	18
9	16	16	16
10	14	14	14
12	11	11	11
14	10	10	10

Lensed Wall Wash, 2500lm Engine, 72.2 lm/w

Candela Curve



Frame: **C6RN or 6RN**
Engine: **C6L25835WZ10U**
Trim: **C6RLWCL**

CCT: 3500K
Output lumens: 1538 lms
Input watts: 21.3 W
CRI: 80 min

Efficacy: **72.2 lm/w**
Report#: F37142

Multiple unit data

Footcandles on wall

	2' from wall		
	3' on ctr.		
Distance from ceiling in feet	1	2	3
1	44	31	44
2	55	47	55
3	47	45	47
4	35	36	35
5	27	27	27
6	21	21	21
7	17	17	17
8	13	14	13
9	11	11	11
10	10	10	10
12	8	8	8
14	7	7	7

Multiple unit data

Footcandles on wall

	3' from wall		
	3' on ctr.		
Distance from ceiling in feet	1	2	3
1	17	17	17
2	31	31	31
3	35	35	35
4	33	34	33
5	29	29	29
6	24	24	24
7	20	20	20
8	17	17	17
9	15	15	15
10	13	13	13
12	10	10	10
14	9	9	9

Multiple unit data

Footcandles on wall (shown above)

	3' from wall		
	4' on ctr.		
Distance from ceiling in feet	1	2	3
1	14	11	14
2	25	22	25
3	27	25	27
4	26	25	26
5	22	22	22
6	18	19	18
7	16	16	16
8	13	13	13
9	11	11	11
10	10	10	10
12	8	8	8
14	7	7	7

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI 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.

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

