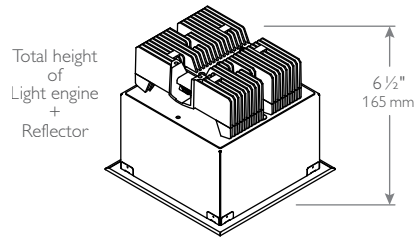




Downlighting

Calculite LED 6x6"
Downlight

Square aperture, Wide Beam
1500/2000/3000/3500lm



Calculite LED 6" features an LED array of high brightness white light LEDs. The new LED boards in Calculite LED ensure a less than 2-step SDCM color variation between luminaires.

Complete product = Frame-in kit + Trim kit
Lumen package for the frame-in kit must match the trim kit.

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

Frame-in kit

example: C6X6L15NUVBZ10V

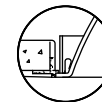
Series	Lumens	Installation	Input voltage	Version	Dimming	Options
C6X6L	<input type="checkbox"/>	N	<input type="checkbox"/>	VB	<input type="checkbox"/>	<input type="checkbox"/>
C6X6L Calculite 6" LED square aperture	15 1500lm	N New construction	U Universal (120/277V)	VB Version B	Z10V 0-10V dimming LD Lutron driver	EM Emergency ¹ LC Chicago Plenum ³
	20 2000lm 30 3000lm 35 3500lm	N New construction	1 120V 2 277V	VB Version B	Z10V 0-10V dimming LD Lutron driver	EM Emergency ¹ LC Chicago Plenum ³
	C6X6L Calculite 6" LED square aperture (347v configurations)	15 1500lm 20 2000lm 35 3500lm	N New construction	1 120V	VB Version B	Z10V 0-10V dimming
30 3000lm		N New construction	2 277V	VB Version B	Z10V 0-10V dimming	-347 347V (for Canada) ²

Trim kit

example: C6X6L1520DL35KCCDPVB

Series	Lumens	Style	CCT	Reflector	Flange	Version ¹
C6X6L	1520	DL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VB
C6X6L Calculite 6" LED square aperture	1520 1500/2000/3000/3500lm	DL Downlight	27K 2700K	CL Clear	W White (painted) P Polished (matches aperture) FT Flangeless (flush-mount) ⁴	VB Version B
			30K 3000K	CCL Comfort clear		
			35K 3500K	CCD Comfort clear diffuse		
			40K 4000K	CCZ Champagne bronze WH White (painted)		

1. Consult LED-EM spec sheet for **EM** option details and restrictions.
 2. Consult factory for availability of other 347V fixture configurations.
 3. Consult factory for availability for other **LC** fixture configurations.
 4. Accessory **CA6X6FMR** required for gypsum applications (minimal 1/4" reflector flange).
- Note: See page 3 for Energy Star[®] compatibility.



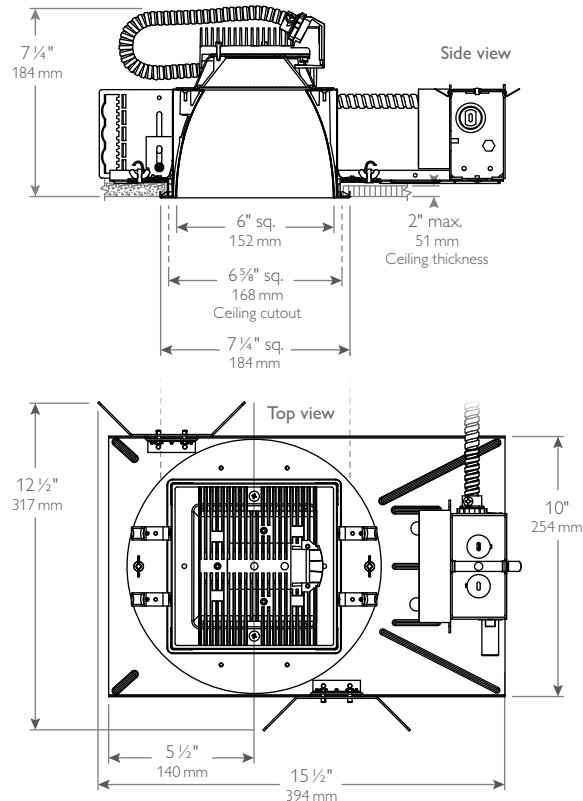
CA6X6FMR
Flangeless trim with plaster ring accessory.
(Required for gypsum installations)



C6X6L-DL-VB Calculite LED

6x6" Square Aperture, Downlight, Wide Beam 1500/2000/3000/3500lm

New Construction



Frame-in kits

New construction

Mounting frame: Galvanized stamped steel for dry or plaster ceilings.

Vertical adjustment: Light engine adjusts in frame below ceilings up to 1 1/8" max.

Horizontal adjustment: Rotating plate allows for 360° of adjustment prior to connection of power supply. Adjusts and locks via two wing nuts accessible through aperture.

Mounting brackets: Galvanized Steel. Adjustable through aperture. Use 3/4" or 1 1/2" lathing channel, 1/2" EMT or optional mounting bars (see Options and Accessories for optional mounting bars).

Options and accessories

Dimming capability:

0-10V or Lutron dimming (see LED-DIM spec sheet).

Emergency capability:

Inverter (see CP-60150 spec sheet - ZI series). Integral (see LED-EM spec sheet-add "EM" suffix).

Mounting bars:

1950 18" long (set of 2)

1951 27" long (set of 2)

7994 Wood joist telescoping mounting bars (minimum 13 1/4" and maximum 24 1/2")

T-Bar anchor clips:

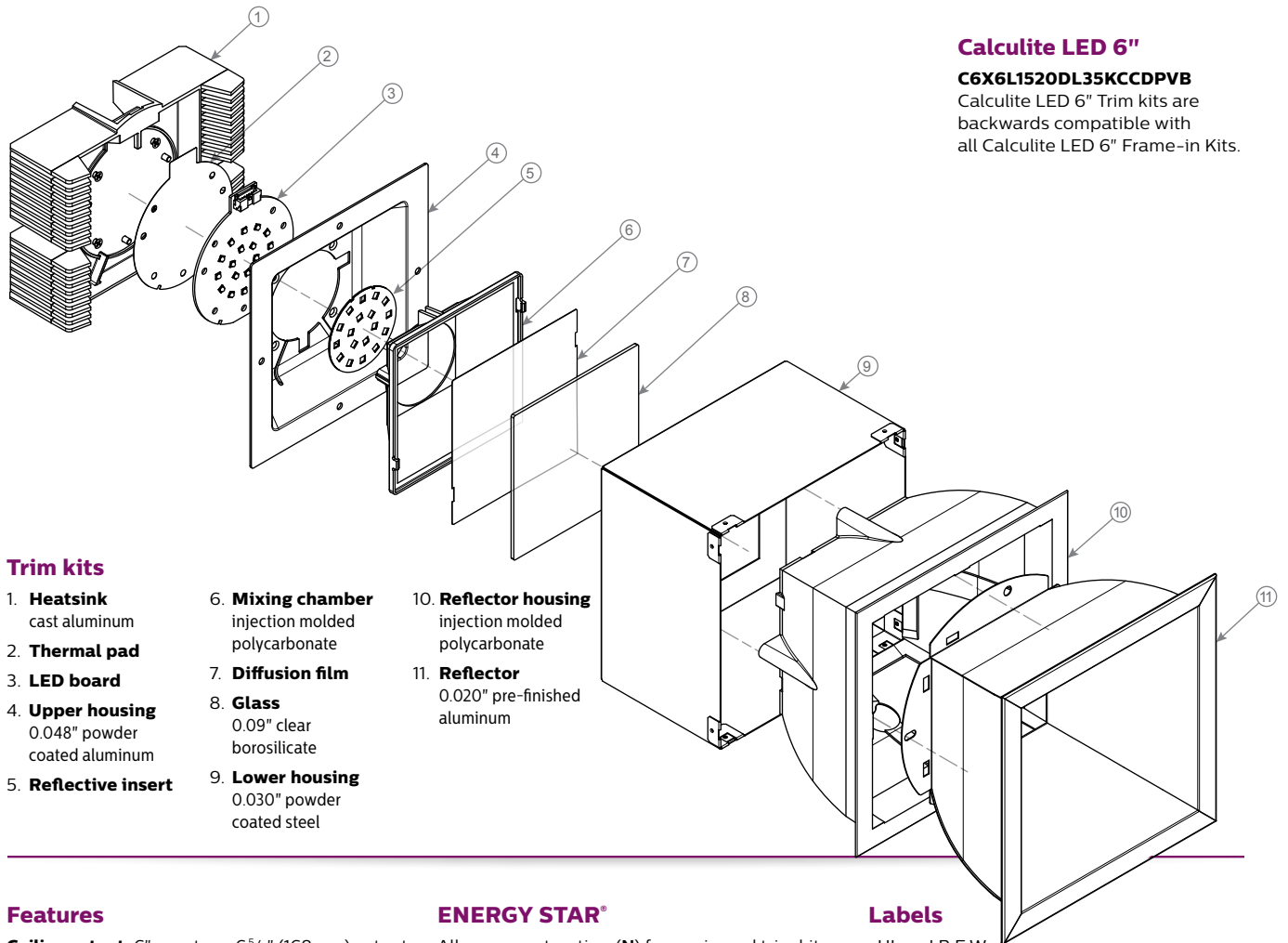
1956 For 18" and 27" mounting bars (set of 4)

Quick-ship

Philips is committed to providing customers with the products they need when they need them. For Service Smart (2 day) and Spec Smart (2 week) availability please reference the Philips Luminaire Smart Service Guide or contact your Philips Lighting representative. Quick-ship SKUs apply to the United States only.

C6X6L-DL-VB Calculite LED

6x6" Square Aperture, Downlight, Wide Beam 1500/2000/3000/3500lm



Calculite LED 6"

C6X6L1520DL35KCCDPVB

Calculite LED 6" Trim kits are backwards compatible with all Calculite LED 6" Frame-in Kits.

Trim kits

- | | | |
|--|---|--|
| <ol style="list-style-type: none"> 1. Heatsink
cast aluminum 2. Thermal pad 3. LED board 4. Upper housing
0.048" powder coated aluminum 5. Reflective insert | <ol style="list-style-type: none"> 6. Mixing chamber
injection molded polycarbonate 7. Diffusion film 8. Glass
0.09" clear borosilicate 9. Lower housing
0.030" powder coated steel | <ol style="list-style-type: none"> 10. Reflector housing
injection molded polycarbonate 11. Reflector
0.020" pre-finished aluminum |
|--|---|--|

Features

Ceiling cutout: 6" aperture; 6⁵/₈" (168mm) cutout.

Depth: 7¹/₄" (184mm) including light engine.

Power connection: Attaches to light engine via push-in connector (on frame). Removable cover provides access.

Junction box: Allows inspection from below.

Thermal protector: Meets NEC & UL requirements. Do not install insulation above or within 3" of luminaire.

Thermal Management: Heat sink and thermal design along with the clean room assembly process ensures specified performance levels are maintained.

Rated life: Offers 60,000 hour rated life (3000lm offers 50,000 hour rated life) at 70% lumen maintenance (L70). Tested in accordance with IES LM-80-08 and TM-21-11. Color consistency between luminaires over the duration of our standard warranty will not be greater than 3 points in u', v'.

ENERGY STAR®

All new construction (N) frame-in and trim kit configurations are ENERGY STAR® certified except for the following:

- **Trim Kits:** Champagne bronze (CCZ) reflector finishes.
- All 3500 lumen (35) optics configurations.
- All emergency (EM) configurations.
- All 347V configurations.

Electrical

Electronic power supply: 120 or 277V, 50/60Hz, encased, overload and short circuit protected, thermal regulation to protect against overheating, sound rating. "A", -20°C minimum starting temperature.

Frame-In kit Electrical specifications	Input volts	Input freq.	Input current	LED drive current	Input power*	LED power	THD factor	Power factor
C6X6L15NUVBZ10V 1500lm w/0-10V dimming	120V	50/60Hz	0.16A	300mA	18W	15W	<15%	>0.90
	277V	50/60Hz	0.08A	300mA	18W	15W	<20%	>0.90
C6X6L20N_VBZ10V 2000lm w/0-10V dimming	120V	50/60Hz	0.20A	400mA	25W	20W	<15%	>0.90
	277V	50/60Hz	0.09A	400mA	25W	20W	<15%	>0.90
C6X6L30N_VBZ10V 3000lm w/0-10V dimming	120V	50/60Hz	0.31A	600mA	37W	30W	<20%	>0.95
	277V	50/60Hz	0.14A	600mA	37W	30W	<20%	>0.95
C6X6L35N_VBZ10V 3500lm w/0-10V dimming	120V	50/60Hz	0.35A	700mA	41W	35W	<10%	>0.95
	277V	50/60Hz	0.16A	700mA	41W	35W	<15%	>0.90

* +/- .5%

— = Applies to both 120V (1) and 277V (2) Input voltages.

Labels

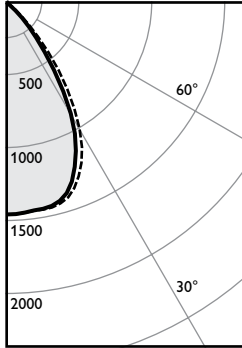
cULus, I.B.E.W.
Suitable for wet locations.
5 year warranty.
ENERGY STAR® certified
(see exclusions to the left).

C6X6L-DL-VB Calculite LED

6x6" Square Aperture, Downlight, Wide Beam 1500/2000/3000/3500lm

18W LED, 3500K, 1500 lumen

Candela Curve



Frame: C6X6L15NUVBZ10V
Trim: C6X6L1520DL35KCLWVB

CCT¹: 3500K
Output lumens: 1636 lms
Input watts²: 18.3 W
Efficacy: 59.4 lm/w
CRI: 80 min
Spacing Crit.: 1.0
Report no³: 691GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1068	65.3%
0-40	1471	89.9%
0-60	1633	99.8%
0-90	1636	100.0%

Angle	0°	45°	Lumens
0	1467	1467	
5	1459	1460	139
10	1450	1455	
15	1421	1439	399
20	1319	1367	
25	1133	1224	530
30	888	1009	
35	571	730	402
40	317	448	
45	151	215	146
50	25	83	
55	6	25	16
60	3	3	
65	2	2	2
70	1	1	
75	1	1	1
80	1	1	
85	1	0	0
90	0	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	59	5.0'
6'	41	6.0'
7'	30	7.0'
8'	23	8.0'
9'	18	9.0'

* 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'	74.2	0.81
6'	48.7	0.53
7'	34.8	0.38
8'	29.0	0.32
9'	23.2	0.25

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Finish Adjust. factors

CL = 100%
CCL = 95%
CCD = 87%
CCZ = 63%
WH = 87%

CCT Adjust. factors

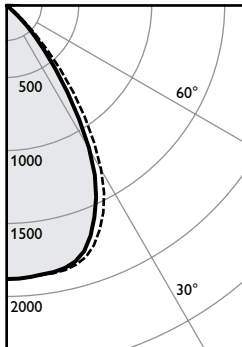
4000K = 103%
3500K = 100%
3000K = 97%
2700K = 87%

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	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	100	100	100		
1	113	110	108	106	108	104	104	101	101	101	98	93	93	93	93		
2	107	102	98	95	101	94	97	92	94	90	86	86	86	86	86		
3	102	95	90	86	94	85	91	84	89	82	80	80	80	80	80		
4	96	88	83	78	87	78	85	77	83	76	74	74	74	74	74		
5	91	82	76	72	81	71	80	71	78	70	68	68	68	68	68		
6	86	77	71	66	76	66	75	65	73	65	63	63	63	63	63		
7	82	72	66	61	71	61	70	61	69	60	59	59	59	59	59		
8	77	67	61	57	67	57	66	56	65	56	55	55	55	55	55		
9	73	63	57	53	63	53	62	53	61	52	51	51	51	51	51		
10	70	60	54	49	59	49	58	49	57	49	48	48	48	48	48		

25W LED, 3500K, 2000 lumen

Candela Curve



Frame: C6X6L20N1VBZ10V
Trim: C6X6L1520DL35KCLWVB

CCT¹: 3500K
Output lumens: 2102 lms
Input watts²: 25.2 W
Efficacy: 83.4 lm/w
CRI: 80 min
Spacing Crit.: 1.0
Report no³: 697GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1374	65.4%
0-40	1891	90.0%
0-60	2098	99.8%
0-90	2102	100.0%

Angle	0°	45°	Lumens
0	1887	1887	
5	1980	1882	179
10	1867	1873	
15	1828	1842	514
20	1691	1730	
25	1460	1515	681
30	1135	1222	
35	731	827	516
40	404	463	
45	192	217	187
50	31	69	
55	7	7	20
60	4	4	
65	2	2	3
70	2	2	
75	1	1	1
80	1	1	
85	1	0	0
90	0	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	75	5.0'
6'	52	6.0'
7'	39	7.0'
8'	29	8.0'
9'	23	9.0'

* 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'	95.3	1.12
6'	62.5	0.73
7'	44.7	0.52
8'	37.2	0.44
9'	29.8	0.35

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Finish Adjust. factors

CL = 100%
CCL = 95%
CCD = 87%
CCZ = 63%
WH = 87%

CCT Adjust. factors

4000K = 103%
3500K = 100%
3000K = 97%
2700K = 87%

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	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	100	100	100		
1	113	110	108	106	108	104	104	101	101	101	98	93	93	93	93		
2	107	102	98	95	101	94	97	92	94	90	86	86	86	86	86		
3	102	95	90	86	94	85	91	84	89	82	80	80	80	80	80		
4	96	88	83	78	87	78	85	77	83	76	74	74	74	74	74		
5	91	82	76	72	81	72	80	71	78	70	68	68	68	68	68		
6	86	77	71	66	76	66	75	66	73	65	63	63	63	63	63		
7	82	72	66	61	71	61	70	61	69	60	59	59	59	59	59		
8	77	67	61	57	67	57	66	57	65	56	55	55	55	55	55		
9	73	63	57	53	63	53	62	53	61	52	51	51	51	51	51		
10	70	60	54	50	59	49	58	49	57	49	48	48	48	48	48		

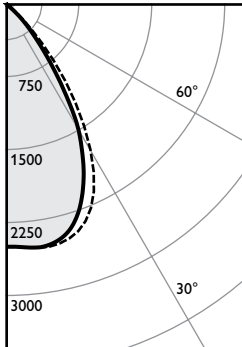
1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage controlled to within +/- 5%.
3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

C6X6L-DL-VB Calculite LED

6x6" Square Aperture, Downlight, Wide Beam 1500/2000/3000/3500lm

36W LED, 3500K, 3000 lumen

Candela Curve



Frame: C6X6L30N1VBZ10V
Trim: C6X6L1520DL35KCLWVB

CCT¹: 3500K
Output lumens: 2792 lms
Input watts²: 36.4 W
Efficacy: 76.7 lm/w
CRI: 80 min
Spacing Crit.: 1.0
Report no³: FO34802

Zonal summary

Zone	Lumens	%Luminaire
0-30	1839	65.8%
0-40	2516	90.1%
0-60	2787	99.8%
0-90	2792	100.0%

Angle	0°	45°	Lumens
0	2493	2493	
5	2510	2509	240
10	2512	2531	
15	2426	2492	690
20	2209	2373	
25	1874	2123	909
30	1469	1724	
35	930	1236	677
40	511	750	
45	254	360	243
50	59	140	
55	10	41	27
60	6	6	
65	3	3	3
70	2	2	
75	1	1	1
80	1	1	
85	1	1	1
90	0	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	100	5.0'
6'	69	6.0'
7'	51	7.0'
8'	39	8.0'
9'	31	9.0'

* 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'	126.6	1.61
6'	83.1	1.06
7'	59.4	0.76
8'	49.5	0.63
9'	39.6	0.50

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Finish Adjust. factors

CL = 100%	4000K = 103%
CCL = 95%	3500K = 100%
CCD = 87%	3000K = 97%
CCZ = 63%	2700K = 87%
WH = 87%	

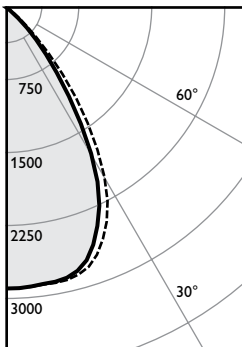
CCT Adjust. factors

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	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	100	100	93		
1	113	110	108	106	108	104	104	101	101	101	98	93	93	93	86		
2	108	102	98	95	101	94	98	92	95	90	86	80	80	80	74		
3	102	95	90	86	94	85	91	84	89	83	80	74	74	74	68		
4	96	89	83	78	87	78	85	77	83	76	74	68	68	68	63		
5	91	83	76	72	82	72	80	71	78	70	68	63	63	63	59		
6	86	77	71	66	76	66	75	66	73	65	63	59	59	59	55		
7	82	72	66	61	71	61	70	61	69	61	59	55	55	55	51		
8	77	68	61	57	67	57	66	57	65	56	55	51	51	51	48		
9	74	64	57	53	63	53	62	53	61	53	51	48	48	48	44		
10	70	60	54	50	59	50	59	50	58	49	48	44	44	44	40		

41W LED, 3500K, 3500 lumen

Candela Curve



Frame: C6X6L35N1VBZ10V
Trim: C6X6L1520DL35KCLWVB

CCT¹: 3500K
Output lumens: 3239 lms
Input watts²: 40.6 W
Efficacy: 79.8 lm/w
CRI: 80 min
Spacing Crit.: 1.0
Report no³: 699GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	2119	65.4%
0-40	2916	90.0%
0-60	3233	99.8%
0-90	3239	100.0%

Angle	0°	45°	Lumens
0	2898	2898	
5	2888	2891	275
10	2872	2884	
15	2811	2851	791
20	2603	2714	
25	2255	2435	1052
30	1737	2010	
35	1113	1452	797
40	625	888	
45	292	423	287
50	45	161	
55	11	47	31
60	6	6	
65	4	3	4
70	2	2	
75	1	1	2
80	1	1	
85	1	1	1
90	0	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	116	5.0'
6'	81	6.0'
7'	59	7.0'
8'	45	8.0'
9'	36	9.0'

* 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'	146.9	1.80
6'	96.4	1.18
7'	68.8	0.84
8'	57.4	0.70
9'	45.9	0.56

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Finish Adjust. factors

CL = 100%	4000K = 103%
CCL = 95%	3500K = 100%
CCD = 87%	3000K = 97%
CCZ = 63%	2700K = 87%
WH = 87%	

CCT Adjust. factors

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	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	100	100	93		
1	113	110	108	106	108	104	104	101	101	101	98	93	93	93	86		
2	107	102	98	95	101	94	97	92	94	90	86	80	80	80	74		
3	102	95	90	86	94	85	91	84	89	82	80	74	74	74	68		
4	96	88	83	78	87	78	85	77	83	76	74	68	68	68	63		
5	91	82	76	72	81	72	80	71	78	70	68	63	63	63	59		
6	86	77	71	66	76	66	75	66	73	65	63	59	59	59	55		
7	82	72	66	61	71	61	70	61	69	61	59	55	55	55	51		
8	77	67	61	57	67	57	66	57	65	56	55	51	51	51	48		
9	73	63	57	53	63	53	62	53	61	53	51	48	48	48	44		
10	70	60	54	50	59	49	58	49	58	49	48	44	44	44	40		

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. Wattage controlled to within +/- 5%.
3. 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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Tel. 800-668-9008