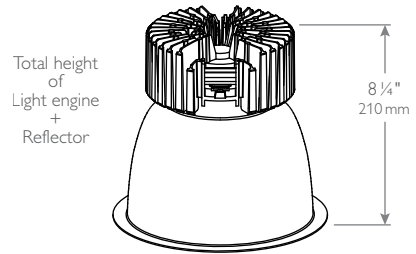


Blend performance & comfort in a downlight.

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT



PHILIPS LIGHTOLIER, CALCULITE, PROFESSIONAL-GRADE DOWNLIGHTING, WHITE LED 7" ROUND APERTURE DOWNLIGHT, NARROW MEDIUM & WIDE 1500/2000/3500/6000LM, C7L-DL-VB

Calculite LED 7" features an LED array of high brightness white light LEDs. The new LED boards in Calculite LED ensure a less than 1-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: _____
 Catalog No: _____
 Fixture Type: _____
 Mfg: _____ Lamps: _____ Qty: _____
 Notes: _____

Frame-in kit

example: C7L15NUVBZ10V

Series	Lumens	Installation	Input voltage	Version	Dimming	Options ¹
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VB	<input type="checkbox"/>	<input type="checkbox"/>
C7L Calculite 7" LED round aperture	15 1500lm	N New construction R Remodeler	U Universal (120/277V)	VB Version B	Z10V 0-10V dimming LD Lutron driver	EM Emergency ⁴ LC Chicago Plenum
	20 2000lm 50 6000lm 35 3500lm	N New construction R Remodeler ²	1 120V 2 277V	VB Version B	Z10V 0-10V dimming LD Lutron driver	EM Emergency ⁴ LC Chicago Plenum ⁵
C7L Calculite 7" LED round aperture (347v configurations)	15 1500lm 20 2000lm 35 3500lm	N New construction R Remodeler	1 120V	VB Version B	Z10V 0-10V dimming	-347 347V ⁶
	CUL Calculite LED Universal aperture	15 1500lm	J J-box mount retrofit	U Universal (120/277V)	VB Version B	Z10V 0-10V dimming Existing wiring will determine if dimming is an option.
20 2000lm		J J-box mount retrofit	1 120V 2 277V	VB Version B	Z10V 0-10V dimming Existing wiring will determine if dimming is an option.	
15 1500lm 20 2000lm		S Screw-in base retrofit	1 120V	VB Version B	Existing wiring will determine if dimming is an option.	

Trim kit

example: C7L1520DL35KWCCDPVB

Series	Lumens	Style	CCT	Beam	Reflector	Flange	Version ⁴
C7L	<input type="checkbox"/>	DL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VB
C7L Calculite 7" LED round aperture	1520 1500, 2000, & 3500lm 50 6000lm	DL Downlight	27K 2700K 30K 3000K 35K 3500K 40K 4000K	N Narrow, 20° 0.3 s.c. ⁷ M Medium, 55° 0.8 s.c. W Wide, 70° 1.1 s.c.	CL Clear CCL Comfort clear CCD Comfort clear diffuse CCZ Champagne bronze WH White (painted)	W White (painted) P Polished (matches aperture) FT Flangeless (flush-mount) ^{1,3}	VB Version B

- Available for new construction (**N**) installation frame-in kits only.
- Available for 2000 (**20**) lumen frame-in kits only.
- Accessory **CA7FMR** required for gypsum applications (minimal 1/4" reflector flange).
- Consult LED-EM spec sheet for **EM** option details and restrictions.
- Chicago Plenum (**LC**) is not available for 6000 (**50**) lumen frame-in kits.
- Consult factory for availability of other 347V (**-347**) fixture configurations.
- Available for 6000 (**50**) lumen trim kits only.

NOTE: See page 3 for Energy Star® compatibility.



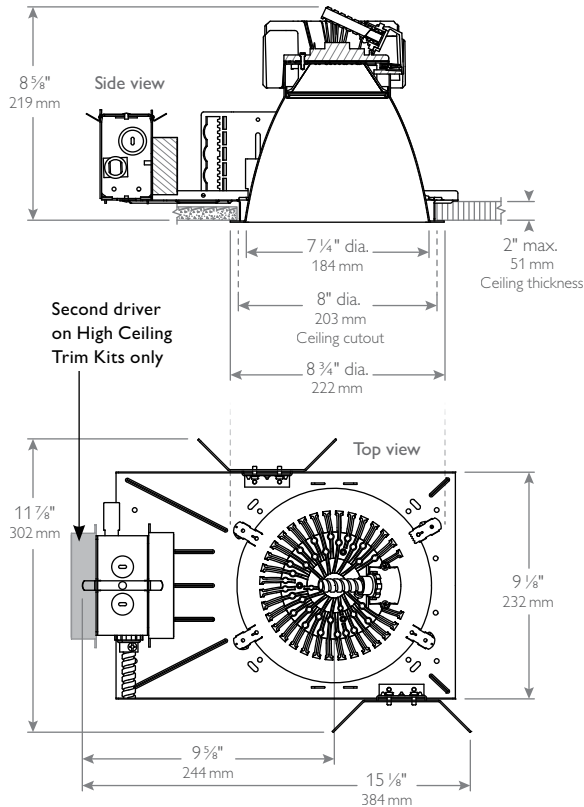
CA7FMR
Flangeless trim with plaster ring accessory.
(Recommended for gypsum installations)



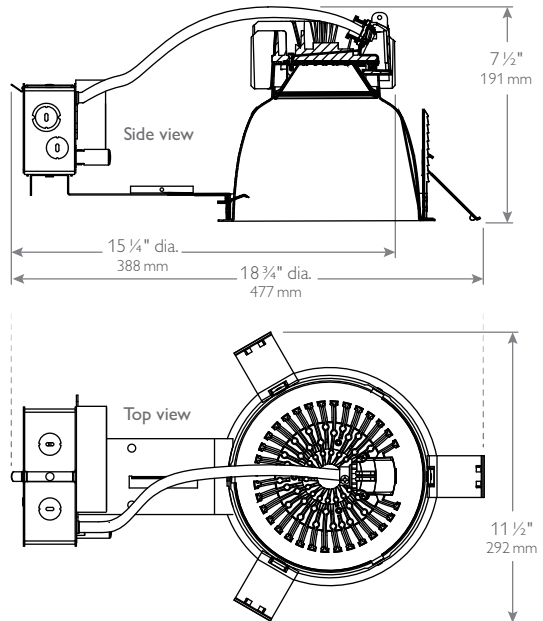
PHILIPS
LIGHTOLIER

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

New Construction



Remodeler



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".

Mounting brackets: Galvanized Steel. Adjustable through aperture. Use 3/4" or 1 1/2" lathing channel, 1/2" EMT or optional mounting bars.

Remodeler

Compatibility: Wide beam flanged downlight only.

Power pack: Swivel junction box for tight plenum spaces. Snap-off covers permits wiring from top.

Spring holder: Galvanized steel. Accepts up to 2 1/2" (64mm) ceiling thickness.

Retrofit

Compatibility: Wide beam downlight only.

Capability: Converts 6" (153mm) or 7" (178mm)

Lightolier incandescent frame-in kit without additional wiring using existing Calculite E26 base.

Socket cup support: Spun steel. Holds Calculite incandescent socket cup.

Socket extender: Phenolic E26 base. Connect to existing lampholder.

Quick-ship

Philips is committed to providing customers with the products they need when they need them.

Service Smart
Two-day quick-ship

Frame-in kits
None available

Trim kits
None available

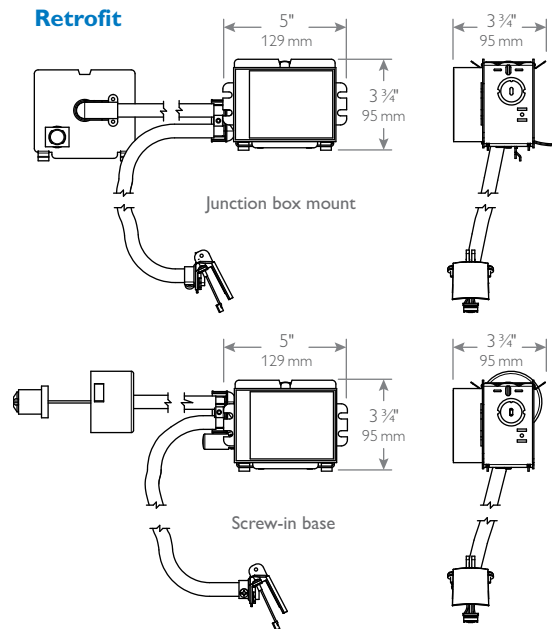
Spec Smart
Two-week quick-ship

Frame-in kits
C7L15NUVBZ10V
C7L35N1VBZ10V

Trim kits
C7L1520DL30KMCCLWVB
C7L1520DL30KWCCCLWVB
C7L1520DL35KMCCLWVB
C7L1520DL35KWCCCLWVB

Quick-ship SKUs apply to the United States only.

Retrofit

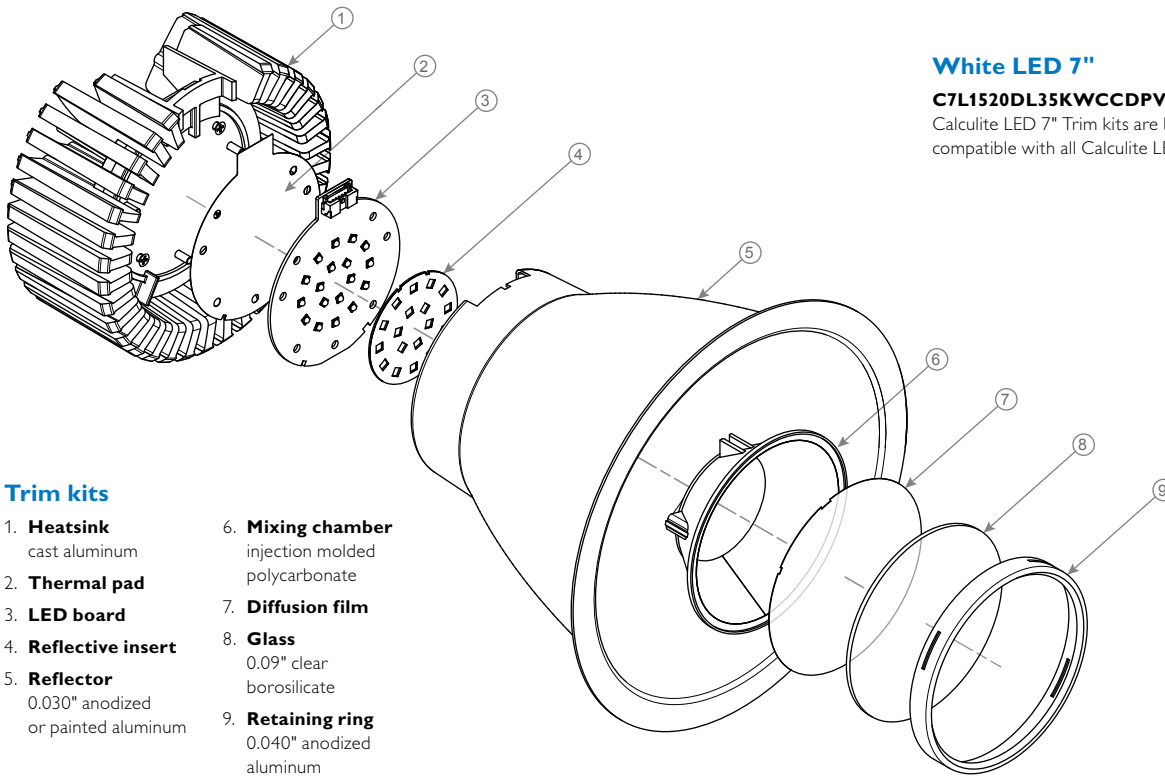


C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

White LED 7"

C7L1520DL35KWCCDPVB

Calculite LED 7" Trim kits are backwards compatible with all Calculite LED 7" Frame-in Kits.



Trim kits

- | | |
|--|--|
| 1. Heatsink
cast aluminum | 6. Mixing chamber
injection molded polycarbonate |
| 2. Thermal pad | 7. Diffusion film |
| 3. LED board | 8. Glass
0.09" clear borosilicate |
| 4. Reflective insert | 9. Retaining ring
0.040" anodized aluminum |
| 5. Reflector
0.030" anodized or painted aluminum | |

Features

Ceiling cutout: 7" aperture; 8" (203mm).
Depth: 8 1/4" (210mm) including light engine.
Power connection: Attaches to light engine via push-in connector (on frame). Removable cover provides access.
Junction box: UL listed for 8 No. 12 AWG, 90°C through branch circuit connectors. 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.

Options and accessories

Dimming capability: 0-10V or Lutron dimming. See LED-DIM specification sheet.
Emergency capability: Inverter; See LED-LMI specification sheet. Integral; Add "EM" suffix. See LED-EM spec sheet.
Sloped ceilings: Compatible with slope ceiling adaptors. See specification sheet SCA. Round apertures require SCAHID accessory.
Mounting bars: 1950-18" (set of 2) 1951-27" (set of 2)
T-Bar anchor clips: 1956 (set of 4), for use with above.

Energy Star

All new construction (N) frame-in and trim kit configurations are Energy Star certified except for the following.
 Trim Kits: Champagne bronze reflector finish configurations; C7L1520DL--KMCCZ..., C7L1520DL--KWCCZ..., All 3500 lumen configurations are NOT Energy Star certified. All EM option configurations are NOT Energy Star certified.

Electrical

Electronic power supply: 120 or 277V, 50/60Hz, enclosed, overload and short circuit protected, thermal regulation to protect against overheating, sound rating "A", -20°C minimum starting temperature, 35°C maximum ambient environment.
Rated life: 1500lm and 2000lm are 60,000 hrs at 70% lumen maintenance based on IES LM-80-08 and TM-21-11.

Labels

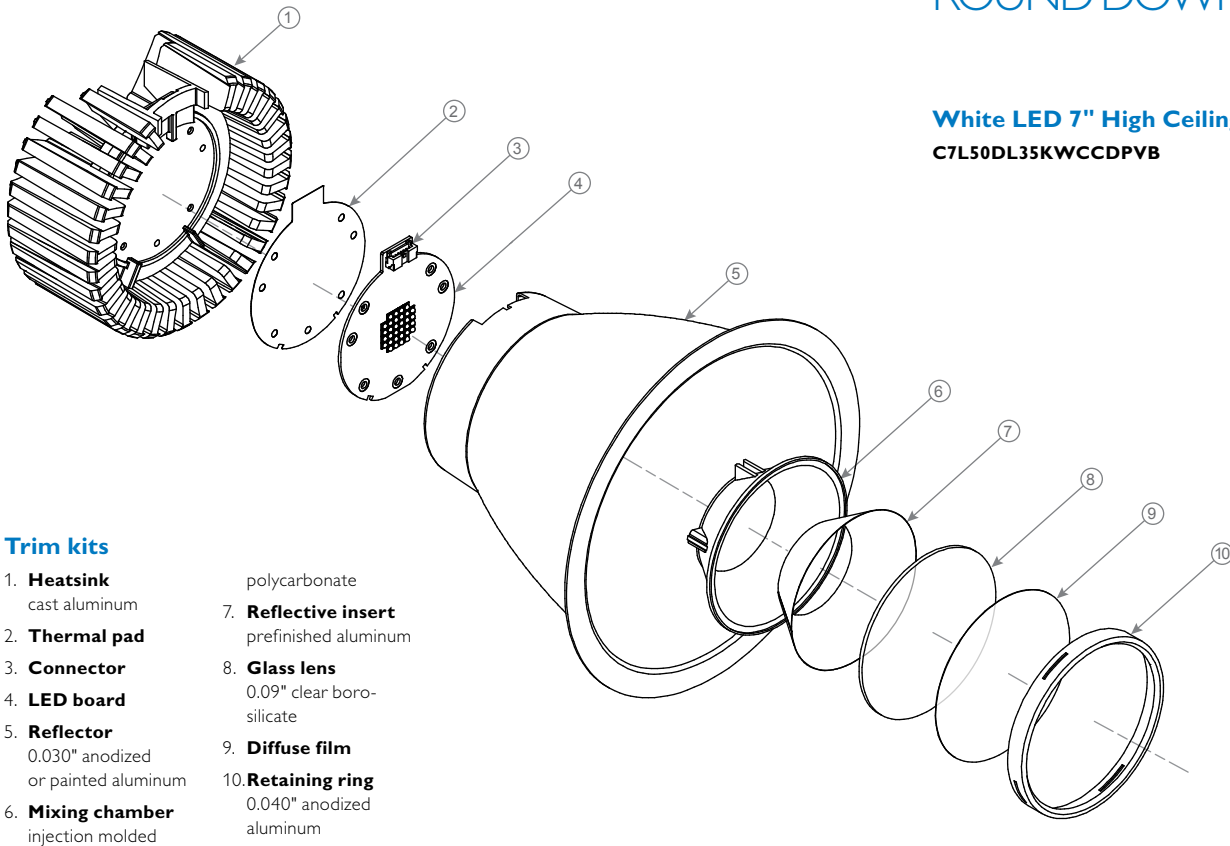
cULus, I.B.E.W.
 Suitable for wet locations.
 5 year warranty.
 Energy Star certified (see above for exclusions).

Frame-In kit Electrical specifications	Input volts	Input freq.	Input current	LED drive current	Input power*	LED power	THD factor	Power factor
C7L15_VBZ10V 1500lm w/0-10V dimming	120V	50/60Hz	0.17A	350mA	21W	18W	<20%	>0.9
	277V	50/60Hz	0.08A	350mA	21W	18W	<20%	>0.9
C7L20_VBZ10V 2000lm w/0-10V dimming	120V	50/60Hz	0.26A	520mA	32W	26W	<20%	>0.9
	277V	50/60Hz	0.12A	520mA	33W	26W	<20%	>0.9
C7L35_VBZ10V 3500lm w/0-10V dimming	120V	50/60Hz	0.43A	850mA	51W	41W	<20%	>0.9
	277V	50/60Hz	0.19A	850mA	52W	41W	<20%	>0.9

* +/- 5%

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

White LED 7" High Ceiling
C7L50DL35KWCCDPVB



Trim kits

- | | |
|---|--|
| 1. Heatsink
cast aluminum | polycarbonate |
| 2. Thermal pad | 7. Reflective insert
prefinished aluminum |
| 3. Connector | 8. Glass lens
0.09" clear boro-silicate |
| 4. LED board | 9. Diffuse film |
| 5. Reflector
0.030" anodized
or painted aluminum | 10. Retaining ring
0.040" anodized
aluminum |
| 6. Mixing chamber
injection molded | |

Features

Ceiling cutout: 7" aperture; 8" (203mm).
Depth: 8 1/4" (210mm) including light engine.
Power connection: Attaches to light engine via push-in connector (on frame). Removable cover provides access.
Junction box: UL listed for 8 No. 12 AWG, 90°C through branch circuit connectors. 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.

Options and accessories

Dimming capability: 0-10V or Lutron dimming. See LED-DIM specification sheet.
Emergency capability: Inverter; See LED-LMI specification sheet. Integral; Add "EM" suffix. See LED-EM spec sheet.
Sloped ceilings: Compatible with slope ceiling adaptors. See specification sheet SCA. Round apertures require SCAHID accessory.
Mounting bars: 1950-18" (set of 2) 1951-27" (set of 2)
T-Bar anchor clips: 1956 (set of 4), for use with above.

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, 35°C maximum ambient environment.
Rated life: 58,000 hrs at 70% lumen maintenance based on IES LM-80-08 and TM-21-11.

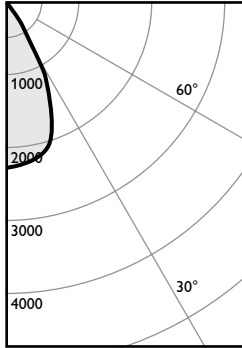
Labels

cULus, I.B.E.W.
 Suitable for wet locations.
 5 year warranty.

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

21W LED, 3500K, 55° Medium 1500 lumen

Candela Curve



Frame: C7L15NUVBZ10V
Trim: C7L1520DL35KMCLWVB

CCT¹: 3500K
Output lumens: 1615 lms
Input watts²: 21.4 W
Efficacy: 75.2 lm/w
CRI: 80 min
Spacing Crit.: 0.8
Beam Spread: 55°
Report no³: 124GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1371	85.2%
0-40	1580	98.1%
0-60	1609	99.9%
0-90	1610	100.0%

Angle Mean CP Lumens

Angle	Mean CP	Lumens
0	2287	
5	2259	218
10	2213	
15	2096	574
20	1767	
25	1327	580
30	675	
35	318	209
40	119	
45	23	27
50	3	
55	2	2
60	1	
65	1	1
70	0	
75	0	0
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	91	4.0'
6'	64	4.8'
7'	47	5.6'
8'	36	6.4'
9'	28	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'	74.8	0.95
6'	49.1	0.62
7'	35.1	0.44
8'	29.2	0.37
9'	23.4	0.30

38'x38'x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

Finish Adjust. factors

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

CCT Adjust. factors

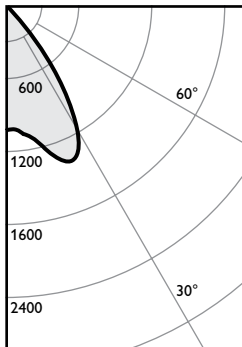
4000K = 103%
3500K = 100%
3000K = 97%
2700K = 87%

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	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	100	100
	1	114	112	109	107	109	105	105	102	102	99	95	95	97	93	89	89
	2	109	105	101	98	103	97	100	95	97	88	82	87	84	82	79	79
	3	104	99	94	91	97	90	95	88	92	87	84	82	81	78	75	75
	4	100	93	88	84	92	84	90	83	88	82	79	77	75	72	71	71
	5	95	88	83	79	87	78	85	78	84	77	75	73	71	69	67	67
	6	91	83	78	74	82	74	81	73	80	73	71	70	68	66	64	64
	7	87	79	74	70	78	70	77	69	76	69	67	66	64	62	61	61
	8	84	75	70	66	74	66	73	66	72	65	64	63	61	60	59	59
	9	80	71	66	62	71	62	70	62	69	62	61	60	59	58	57	57
	10	77	68	63	59	68	59	67	59	66	59	58	57	56	55	54	54

21W LED, 3500K, 70° Wide 1500 lumen

Candela Curve



Frame: C7L15NUVBZ10V
Trim: C7L1520DL35KWCLWVB

CCT¹: 3500K
Output lumens: 1618 lms
Input watts²: 21.4 W
Efficacy: 75.5 lm/w
CRI: 80 min
Spacing Crit.: 1.1
Beam Spread: 70°
Report no³: 127GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1053	65.2%
0-40	1530	94.7%
0-60	1612	99.8%
0-90	1615	100.0%

Angle Mean CP Lumens

Angle	Mean CP	Lumens
0	1028	
5	1020	101
10	1081	
15	1206	347
20	1346	
25	1354	605
30	1155	
35	787	477
40	371	
45	39	79
50	6	
55	4	4
60	3	
65	2	2
70	1	
75	1	1
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	41	5.5'
6'	29	6.6'
7'	21	7.7'
8'	16	8.8'
9'	13	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'	73.3	0.95
6'	48.1	0.62
7'	34.4	0.44
8'	28.6	0.37
9'	22.9	0.30

38'x38'x10' Room, Workplane 2 1/2' 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

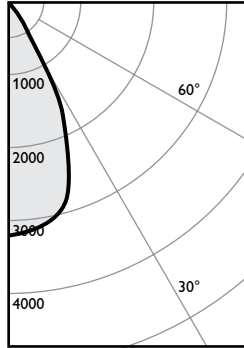
Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100
	1	113	110	108	106	108	104	104	101	100	98	93	93	94	90	86	86
	2	107	102	98	95	101	94	97	92	94	90	86	82	82	79	79	79
	3	102	95	90	86	94	85	91	84	88	82	79	77	75	73	73	73
	4	96	88	82	78	87	78	85	77	83	76	73	72	70	68	68	68
	5	91	82	76	71	81	71	79	70	78	70	68	66	64	62	62	62
	6	86	76	70	66	76	65	74	65	73	64	63	62	60	58	58	58
	7	81	71	65	60	71	60	69	60	68	60	58	57	55	54	54	54
	8	77	67	60	56	66	56	65	56	64	55	54	53	51	50	50	50
	9	73	62	56	52	62	52	61	52	60	51	50	49	48	47	47	47
	10	69	58	52	48	58	48	57	48	56	48	47	46	45	44	44	44

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.

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

32W LED, 3500K, 55° Medium 2000 lumen

Candela Curve



Frame: C7L20N1VBZ10V
Trim: C7L1520DL35KMCLWVB

CCT¹: 3500K
Output lumens: 2252 lms
Input watts²: 32.3 W
Efficacy: 69.5 lm/w
CRI: 80 min
Spacing Crit.: 0.8
Beam Spread: 55°
Report no³: 125GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1913	85.2%
0-40	2204	98.1%
0-60	2245	100.0%
0-90	2246	100.0%

Angle	Mean CP	Lumens
0	3191	
5	3152	304
10	3089	
15	2925	801
20	2465	
25	1850	808
30	942	
35	443	291
40	166	
45	32	38
50	4	
55	3	2
60	2	
65	1	1
70	1	
75	0	0
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	128	4.0'
6'	89	4.8'
7'	65	5.6'
8'	50	6.4'
9'	39	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'	104.3	1.43
6'	68.5	0.94
7'	48.9	0.67
8'	40.8	0.56
9'	32.6	0.45

38'x38'x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

Finish Adjust. factors

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

CCT Adjust. factors

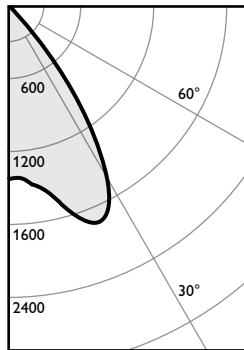
4000K = 103%
3500K = 100%
3000K = 97%
2700K = 87%

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	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	106	106	100	
	1	114	112	109	107	109	106	105	102	102	99	95	97	93	89	95	
	2	109	105	101	98	103	97	100	95	97	93	89	87	87	84	89	
	3	104	99	94	91	97	90	95	88	92	87	84	82	82	80	84	
	4	100	93	88	84	92	84	90	83	88	82	80	77	75	75	75	
	5	95	88	83	79	87	78	85	78	84	77	75	73	71	71	71	
	6	91	83	78	74	83	74	81	73	80	73	71	69	67	67	67	
	7	87	79	74	70	78	70	77	69	76	69	67	65	64	64	64	
	8	84	75	70	66	75	66	73	66	73	65	64	62	61	61	61	
	9	80	71	66	63	71	62	70	62	69	62	61	59	58	58	58	
	10	77	68	63	59	68	59	67	59	66	59	58	56	55	55	55	

32W LED, 3500K, 70° Wide 2000 lumen

Candela Curve



Frame: C7L20N1VBZ10V
Trim: C7L1520DL35KWCLWVB

CCT¹: 3500K
Output lumens: 2261 lms
Input watts²: 32.3 W
Efficacy: 69.9 lm/w
CRI: 80 min
Spacing Crit.: 1.1
Beam Spread: 70°
Report no³: 128GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1472	65.2%
0-40	2138	94.7%
0-60	2253	99.8%
0-90	2257	100.0%

Angle	Mean CP	Lumens
0	1438	
5	1426	142
10	1511	
15	1687	485
20	1883	
25	1893	845
30	1614	
35	1099	666
40	517	
45	55	110
50	8	
55	6	5
60	4	
65	3	3
70	2	
75	1	1
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	58	5.5'
6'	40	6.6'
7'	29	7.7'
8'	22	8.8'
9'	18	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'	102.4	1.43
6'	67.2	0.94
7'	48.0	0.67
8'	40.0	0.56
9'	32.0	0.45

38'x38'x10' Room, Workplane 2 1/2' 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

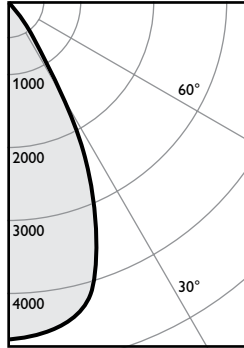
Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	106	106	100	
	1	113	110	108	106	108	104	104	101	100	98	93	94	90	86	93	
	2	107	102	98	95	101	94	97	92	94	90	86	88	82	79	86	
	3	102	95	90	86	94	85	91	84	88	82	79	83	76	73	79	
	4	96	88	82	78	87	78	85	77	83	76	73	78	70	68	73	
	5	91	82	76	71	81	71	79	70	78	70	68	73	65	63	68	
	6	86	76	70	66	76	65	74	65	73	64	63	68	60	58	63	
	7	81	71	65	61	71	60	69	60	68	60	58	64	55	54	58	
	8	77	67	60	56	66	56	65	56	64	55	54	60	51	50	54	
	9	73	62	56	52	62	52	61	52	60	51	50	56	48	46	50	
	10	69	58	52	48	58	48	57	48	56	48	46	52	44	42	46	

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.

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

51W LED, 3500K, 55° Medium 3500 lumen

Candela Curve



Frame: C7L35N1VBZ10V
Trim: C7L1520DL35KMCLWVB

CCT¹: 3500K
Output lumens: 3285 lms
Input watts²: 50.5 W
Efficacy: 64.9 lm/w
CRI: 80 min
Spacing Crit.: 0.8
Beam Spread: 55°
Report no³: 126GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	2791	85.2%
0-40	3217	98.2%
0-60	3274	99.9%
0-90	3276	100.0%

Angle Mean CP Lumens

Angle	Mean CP	Lumens
0	4648	
5	4592	442
10	4502	
15	4263	1168
20	3597	
25	2702	1181
30	1381	
35	647	425
40	241	
45	46	55
50	6	
55	2	3
60	2	
65	1	1
70	1	
75	1	0
80	0	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	186	4.0'
6'	129	4.8'
7'	95	5.6'
8'	73	6.4'
9'	57	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'	152.2	2.24
6'	99.9	1.47
7'	71.3	1.05
8'	59.4	0.87
9'	47.6	0.70

38'x38'x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

Finish Adjust. factors

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

CCT Adjust. factors

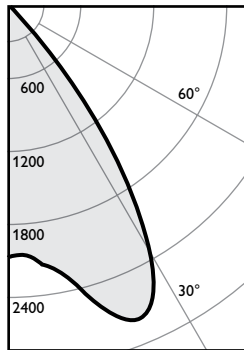
4000K = 103%
3500K = 100%
3000K = 97%
2700K = 87%

Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	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	100	100
	1	114	112	109	107	109	106	105	102	102	99	95	97	93	89	89	89
	2	109	105	101	98	103	97	100	95	97	93	87	87	84	84	84	84
	3	104	99	94	91	97	90	95	88	92	87	84	84	80	80	80	80
	4	100	93	88	84	92	84	90	83	88	82	80	80	75	75	75	75
	5	95	88	83	79	87	78	85	78	84	77	75	75	71	71	71	71
	6	91	83	78	74	83	74	81	73	80	73	71	71	67	67	67	67
	7	87	79	74	70	78	70	77	69	76	69	67	67	64	64	64	64
	8	84	75	70	66	75	66	73	66	73	65	64	64	61	61	61	61
	9	80	71	66	63	71	62	70	62	69	62	61	61	58	58	58	58
	10	77	68	63	59	68	59	67	59	66	59	58	58	55	55	55	55

51W LED, 3500K, 70° Wide 3500 lumen

Candela Curve



Frame: C7L35N1VBZ10V
Trim: C7L1520DL35KWCLWVB

CCT¹: 3500K
Output lumens: 3281 lms
Input watts²: 50.5 W
Efficacy: 64.9 lm/w
CRI: 80 min
Spacing Crit.: 1.1
Beam Spread: 70°
Report no³: 129GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	2135	65.2%
0-40	3102	94.7%
0-60	3270	99.8%
0-90	3276	100.0%

Angle Mean CP Lumens

Angle	Mean CP	Lumens
0	2086	
5	2067	206
10	2191	
15	2446	703
20	2730	
25	2747	1227
30	2343	
35	1596	967
40	750	
45	81	160
50	11	
55	8	7
60	6	
65	4	4
70	3	
75	2	2
80	1	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	83	5.5'
6'	58	6.6'
7'	43	7.7'
8'	33	8.8'
9'	26	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'	148.6	2.24
6'	97.5	1.47
7'	69.7	1.05
8'	58.1	0.87
9'	46.4	0.70

38'x38'x10' Room, Workplane 2 1/2' 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

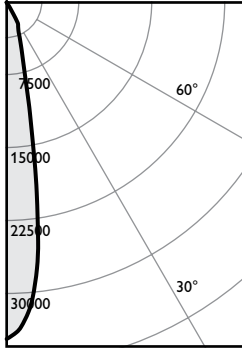
Ceiling	80%				70%				50%				30%				0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	100	100	100
	1	113	110	108	106	108	104	104	101	100	98	93	94	90	86	86	86
	2	107	102	98	95	101	94	97	92	94	90	86	86	82	79	79	79
	3	102	95	90	86	94	85	91	84	88	82	79	79	75	75	75	75
	4	96	88	82	78	87	78	85	77	83	76	73	73	70	70	70	70
	5	91	82	76	71	81	71	79	70	78	70	68	68	65	65	65	65
	6	86	76	70	66	76	65	74	65	73	64	63	63	60	60	60	60
	7	81	71	65	60	71	60	69	60	68	60	58	58	55	55	55	55
	8	77	67	60	56	66	56	65	56	64	55	54	54	51	51	51	51
	9	73	62	56	52	62	52	61	52	60	51	50	50	47	47	47	47
	10	69	58	52	48	58	48	57	48	56	48	46	46	43	43	43	43

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.

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

69W LED, 3500K, 20° Narrow 6000 lumen

Candela Curve



Frame: C7L50N1VBZ10V
Trim: C7L50DL35KNCLWVB

CCT¹: 3500K
Output lumens: 6174 lms
Input watts²: 69.4 W
Efficacy: 89.0 lm/w
CRI: 80 min
Spacing Crit.: 0.3
Beam Spread: 20°
Report no³: 327GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	5902	95.6%
0-40	6133	99.3%
0-60	6169	99.9%
0-90	6174	100.0%

Angle MeanCP Lumens

Angle	MeanCP	Lumens
0	34747	
5	30669	2475
10	16592	
15	6860	2151
20	4015	
25	2810	1276
30	1411	
35	146	231
40	100	
45	39	33
50	5	
55	2	3
60	3	
65	2	2
70	3	
75	1	2
80	0	
85	1	1
90	1	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	1390	1.5'
6'	965	1.8'
7'	709	2.1'
8'	543	2.4'
9'	429	2.7'

* 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'	294	3.08
6'	193	2.02
7'	138	1.44
8'	115	1.20
9'	92	0.96

38'x38'x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

Finish Adjust. factors

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

CCT Adjust. factors

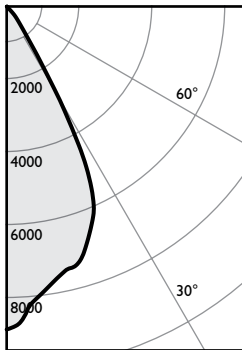
4000K = 103%
3500K = 100%
3000K = 97%
2700K = 87%

Coefficients of utilization

Ceiling	80%					70%					50%					30%					0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	0		
Wall	Zonal cavity method - Effective floor reflectance = 20%																				
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	106	106	100	100	100		
	1	115	113	111	109	111	108	107	104	103	101	97	93	91	103	101	97	93	91		
	2	111	108	105	102	106	101	103	99	100	97	94	91	88	100	97	94	91	88		
	3	108	103	100	97	102	96	100	95	97	93	91	88	85	97	93	91	88	85		
	4	105	99	95	92	98	92	96	91	94	90	88	85	82	92	87	85	82	80		
	5	102	96	92	89	95	88	93	88	92	87	85	82	80	89	84	83	80	78		
	6	99	93	88	85	92	85	91	85	89	84	83	80	78	87	82	80	77	76		
	7	96	90	86	83	89	82	88	82	87	82	80	78	76	85	80	78	76	74		
	8	93	87	83	80	86	80	86	80	85	79	78	76	74	83	77	76	74	72		
	9	91	84	80	78	84	78	83	77	83	77	76	74	72	81	75	74	72	70		
	10	89	82	78	76	82	76	81	75	81	75	74	72	70	81	75	74	72	70		

69W LED, 3500K, 55° Medium 6000 lumen

Candela Curve



Frame: C7L50N1VBZ10V
Trim: C7L50DL35KMCLWVB

CCT¹: 3500K
Output lumens: 5963 lms
Input watts²: 69.2 W
Efficacy: 86.2 lm/w
CRI: 80 min
Spacing Crit.: 0.8
Beam Spread: 55°
Report no³: 329GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	5171	86.7%
0-40	5833	97.8%
0-60	5954	99.8%
0-90	5963	100.0%

Angle MeanCP Lumens

Angle	MeanCP	Lumens
0	8911	
5	8195	770
10	7673	
15	7395	2052
20	6676	
25	5541	2348
30	2654	
35	839	662
40	421	
45	80	113
50	13	
55	10	8
60	7	
65	7	5
70	4	
75	3	4
80	1	
85	0	1
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	356	4.0'
6'	248	4.8'
7'	182	5.6'
8'	139	6.4'
9'	110	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'	276	3.07
6'	181	2.01
7'	129	1.44
8'	108	1.20
9'	86	0.96

38'x38'x10' Room, Workplane 2 1/2' 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

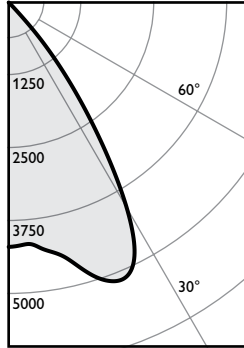
Ceiling	80%					70%					50%					30%					0%
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	0		
Wall	Zonal cavity method - Effective floor reflectance = 20%																				
RCR	Zonal cavity method - Effective floor reflectance = 20%																				
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	100	100	106	106	100	100	100		
	1	114	111	109	107	109	105	105	102	102	99	95	93	91	103	101	97	93	91		
	2	109	105	101	98	103	97	100	95	97	93	91	88	85	97	93	91	88	85		
	3	104	98	94	90	97	90	95	88	92	87	84	82	80	92	87	85	82	80		
	4	100	93	88	84	92	84	90	83	88	82	79	77	75	87	82	80	77	75		
	5	95	88	83	79	87	78	85	78	84	77	75	73	71	83	77	76	74	72		
	6	91	83	78	74	82	74	81	73	80	73	71	69	67	79	73	72	70	68		
	7	87	79	73	70	78	69	77	69	76	69	67	65	64	75	69	68	66	64		
	8	83	75	69	66	74	66	73	65	72	65	64	62	60	71	65	64	62	60		
	9	80	71	66	62	71	62	70	62	69	62	60	58	56	67	61	60	58	56		
	10	77	68	63	59	67	59	67	59	66	59	57	55	53	64	58	57	55	53		

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.

C7L-DL-VB CALCULITE WHITE LED 7" ROUND DOWNLIGHT

69W LED, 3500K, 70° Wide 6000 lumen

Candela Curve



Frame: **C7L50N1VBZ10V**
Trim: **C7L50DL35KWCLWVB**

CCT¹: 3500K
Output lumens: 5889 lms
Input watts²: 69.2 W
Efficacy: 85.1 lm/w
CRI: 80 min
Spacing Crit.: 1.1
Beam Spread: 70°
Report no³: 328GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	4013	68.1%
0-40	5608	95.2%
0-60	5881	99.9%
0-90	5889	100.0%

Angle	MeanCP	Lumens
0	4197	
5	4120	404
10	4350	
15	4705	1348
20	5106	
25	5077	2261
30	4159	
35	2538	1595
40	1197	
45	150	265
50	11	
55	10	8
60	7	
65	4	5
70	3	
75	2	2
80	1	
85	0	0
90	0	

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	168	5.5'
6'	117	6.6'
7'	86	7.7'
8'	66	8.8'
9'	52	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'	268	3.07
6'	176	2.01
7'	125	1.44
8'	105	1.20
9'	84	0.96

38'x38'x10' Room, Workplane 2 1/2' 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
Wall	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			
	1	113	111	108	106	108	104	104	101	101	98	98	93		
	2	108	103	99	95	101	94	98	92	95	90	86			
	3	102	95	90	86	94	86	91	84	89	83	80			
	4	97	89	83	79	88	78	85	77	83	76	74			
	5	91	83	77	72	82	72	80	71	78	71	69			
	6	86	77	71	67	76	66	75	66	74	66	64			
	7	82	72	66	62	72	61	70	61	69	61	59			
	8	78	68	61	57	67	57	66	57	65	57	55			
	9	74	63	57	53	63	53	62	53	61	53	51			
	10	70	60	54	50	59	50	58	49	58	49	48			

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. 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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