

Ceiling Cutout: 5 1/5"

Light Engine	Wattage*	CCT	Finish	Frame-In Kit	Wattage*	Input Voltage
C420LEDDL30K CCLW	20W	3000K	Comfort Clear, White flange	C420LED1	20W	120V
C420LEDDL30K CCLP	20W	3000K	Comfort Clear, Polished flange	C420LED2	20W	277V
C420LEDDL30K CCLFT *	20W	3000K	Comfort Clear, Flush mount			
C420LEDDL40K CCLW	20W	4000K	Comfort Clear, White flange			
C420LEDDL40K CCLP	20W	4000K	Comfort Clear, Polished flange			
C420LEDDL40K CCLFT *	20W	4000K	Comfort Clear, Flush Mount			
*Accessory ring CA4FMR recommended						
	* +/- 5%		See "Options and Accessories" for other finishes		* +/- 5%	

Features

- Aperture Cone:** Provides 50° visual cutoff to source and source image. Self-flanged in painted white, aperture-matching polished, or flush-mount minimal flange.
- Optical Mixing Chamber:** Patented remote phosphor technology provides increased efficiency and color stability. Phosphor lens assembly positioned in front of LED array converts blue light to white and produces a wide even pattern of diffused light without bright spots created by individual LEDs. Uniform phosphor coating provides consistent, stable color with a shift of no more than +/- 100K over life. Mixing chamber redirects scattered light back out through the emitting aperture.
- LED Board:** Array of 16 high brightness royal blue LEDs.
- Thermal Management:** Proprietary heat sink design maintains junction temperature for consistent, reliable performance and 50,000 hour lifetime at 70% lumen maintenance.
- Mounting Frame:** 0.048" (18-ga.) galvanized steel. Vertical adjustment mechanism accommodates mounting to virtually any ceiling system using mounting bars (provided, or 1/2" EMT tubing (by others). Single locking feature secures all adjustments. Alignment holes and markings allow fixture to be preset prior to installation.
- Mounting Ring:** 0.048"(18-ga.) galvanized steel. Designed for vertical adjustment from above or below for ceilings from 0" to 2" thick. Center-line notches allow consistent alignment of multiple fixtures.
- Mounting Bars:** 0.048" (18-ga.) pre-installed, telescoping bars extend to 30" long and lock securely into position. Built-in locking tabs provide positive attachment to common T-bar systems. Self-centering feature simplifies installation in 24" O.C. grid systems. Attaches to steel or wood joists without accessories.
- Trim Retention Springs:** Rust resistant springs secure reflector/housing for quick, tool-less installation.
- Power Supply / Connector Cover Assembly:** Die-cast aluminum PSU enclosure. Assembly snaps onto junction box without tools for inspection and replacement, accessible from below. Attaches to light engine via push-in connector on LED board, removable cover provides access.
- Junction Box:** 0.059" (16-ga.) galvanized steel. UL listed for 8 No. 12 AWG, 90°C through branch circuit conductors. Allows inspection from below.
- Thermal Protector:** Meets NEC and UL requirements. Do not install insulation above nor within 3" (76mm) of any part of the luminaire.

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, dimmable with standard electronic low voltage (ELV) dimmer.

Input Voltage	Input Frequency	Input Current	LED Drive Current	Input Power	LED Power	THD	Power Factor
120V	50/60Hz	0.167	350mA	20W*	18W	<5%	>0.9
277V	50/60Hz	0.072	350mA	20W*	18W	<10%	>0.8

* +/- 5%

Options and Accessories

Slope Ceiling Adapters: See Specification Sheet SCA.

Comfort Clear™ Finishes¹

Comfort Clear **CCL**
 Diffuse **CCD**
 Champagne Bronze **CCZ**

Other Finishes

Specular Clear **CL**
 White **WH***

*Aperture brightness from white finish may be objectionable

¹Specify desired flange. **W** White, **P** Polished, **FT** Flangeless

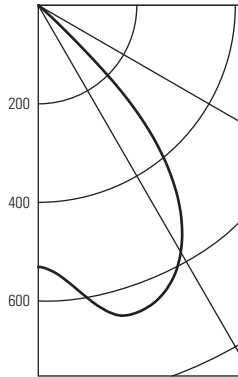
Labels

UL (Suitable for Wet Locations), CUL, I.B.E.W.
 5 Year Warranty

Job Information	Type:
Job Name:	
Cat. No.:	
Lamp(s):	
Notes:	

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20W LED, 3000K, CL Finish Trim



Angle	Mean CP	Lumens
0	531	
5	554	55
10	608	
15	652	183
20	627	
25	627	288
30	579	
35	501	308
40	385	
45	185	138
50	13	
55	4	4
60	2	
65	1	1
70	0	
75	0	0
80	0	
85	0	0
90	0	

Certified Test Report No. 14820³

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	21	7'
6'	15	9'
7'	11	10'
8'	8	12'
9'	7	13'

Multiple Unit Data (RCR 2)

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	44	0.87
6'	29	0.57
7'	21	0.41
8'	17	0.34
9'	14	0.27

38' x 38' x 10' Room, Workplane 2½' above floor, 80/50/20% Reflectances

Coefficients of Utilization

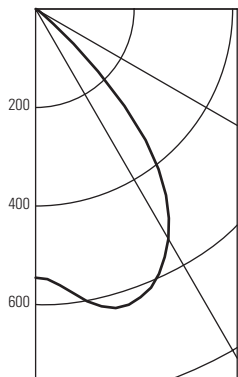
Ceiling WALL	80%		70%		50%		30%		0		
	70	50	30	10	50	10	50	10			
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	110	107	105	108	103	104	100	100	97	92
2	106	101	97	93	99	92	96	90	93	88	84
3	100	93	88	83	92	83	89	81	87	80	77
4	94	86	80	75	85	75	82	74	80	73	70
5	89	79	73	68	78	68	76	67	75	66	64
6	83	73	67	62	73	62	71	61	69	61	59
7	78	68	61	57	67	56	66	56	65	56	54
8	74	63	56	52	63	52	61	51	60	51	49
9	70	59	52	48	58	48	57	47	56	47	46
10	66	55	48	44	54	44	53	44	53	44	42

Trim: C420LEDDL30KCLW
 Output lumens³: 978 lm
 Correlated Color Temp¹: 3000K
 Input Watts²: 19.6 w
 Efficacy: 49.9 lm/w
 CRI⁴: 79
 Spacing Criterion: 1.3

Zonal Lumens and Percentages

Zone	Lumens	%Luminaire
0-30	525	53.8%
0-40	833	85.3%
0-60	976	99.9%
0-90	978	100.0%

20W LED, 3000K, CCL Finish Trim



Angle	Mean CP	Lumens
0	546	
5	563	56
10	603	
15	629	177
20	623	
25	593	271
30	539	
35	462	282
40	348	
45	179	141
50	47	
55	14	16
60	7	
65	4	4
70	2	
75	1	1
80	1	
85	0	0
90	0	

Certified Test Report No. F09003³

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	22	7'
6'	15	8'
7'	11	10'
8'	9	11'
9'	7	12'

Multiple Unit Data (RCR 2)

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	42	0.87
6'	28	0.57
7'	20	0.41
8'	17	0.34
9'	13	0.27

38' x 38' x 10' Room, Workplane 2½' above floor, 80/50/20% Reflectances

Coefficients of Utilization

Ceiling WALL	80%		70%		50%		30%		0		
	70	50	30	10	50	10	50	10			
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	107	107	100
1	113	110	107	105	108	103	104	100	100	97	92
2	106	101	96	93	99	92	96	90	93	88	84
3	100	93	87	83	91	82	89	81	86	79	77
4	94	86	79	74	84	74	82	73	80	72	70
5	88	79	72	67	78	67	76	66	74	66	64
6	83	73	66	61	72	61	70	61	69	60	58
7	78	68	61	56	67	56	65	55	64	55	53
8	73	63	56	51	62	51	61	51	60	51	49
9	69	58	52	47	58	47	57	47	56	47	45
10	65	54	48	44	54	43	53	43	52	43	42

Trim: C420LEDDL30KCCLW
 Output lumens³: 948 lm
 Correlated Color Temp¹: 3000K
 Input Watts²: 19.6 w
 Efficacy: 48.4 lm/w
 CRI⁴: 79
 Spacing Criterion: 1.2

Zonal Lumens and Percentages

Zone	Lumens	%Luminaire
0-30	503	53.0%
0-40	785	82.8%
0-60	942	99.4%
0-90	948	100.0%

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

² Wattage controlled to within +/- 5%.

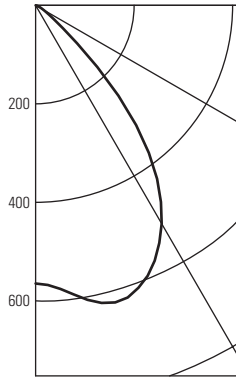
³ Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

⁴ Color Rendering Index within +/- 2%.

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20W LED, 3000K, CCD Finish Trim



Angle	Mean CP	Lumens
0	565	
5	578	57
10	607	
15	624	175
20	610	
25	572	261
30	512	
35	430	263
40	318	
45	177	139
50	72	
55	34	33
60	18	
65	11	11
70	6	
75	4	4
80	2	
85	0	1
90	0	

Certified Test Report No. F09004A³

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	23	6'
6'	16	8'
7'	12	9'
8'	9	10'
9'	7	12'

Multiple Unit Data (RCR 2)

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	42	0.87
6'	28	0.57
7'	20	0.41
8'	16	0.34
9'	13	0.27

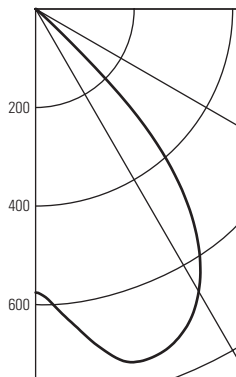
38' x 38' x 10' Room, Workplane 2½' above floor, 80/50/20% Reflectances

Coefficients of Utilization

Ceiling WALL	80%		70%		50%		30%		0		
	70	50	30	10	50	10	50	10			
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	107	107	100
1	113	110	107	104	107	103	103	99	100	96	92
2	106	100	96	92	99	91	95	89	92	87	83
3	100	92	86	82	91	81	88	80	85	79	76
4	93	85	78	73	83	73	81	72	79	71	69
5	88	78	71	66	77	66	75	65	73	65	62
6	82	72	65	60	71	60	70	59	68	59	57
7	77	67	60	55	66	55	65	54	63	54	52
8	73	62	55	50	61	50	60	50	59	50	48
9	69	58	51	46	57	46	56	46	55	46	44
10	65	54	47	43	53	43	52	43	52	42	41

Trim: C420LEDDL30KCCDW
 Output lumens³: 944 lm
 Correlated Color Temp¹: 3000K
 Input Watts²: 19.6 w
 Efficacy: 48.2 lm/w
 CRI⁴: 79
 Spacing Criterion: 1.2

20W LED, 4000K, CL Finish Trim



Angle	Mean CP	Lumens
0	576	
5	621	61
10	689	
15	742	208
20	743	
25	717	329
30	662	
35	573	353
40	440	
45	208	155
50	14	
55	5	5
60	3	
65	1	1
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

Certified Test Report No. 14821³

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	23	7'
6'	16	9'
7'	12	10'
8'	9	12'
9'	7	13'

Multiple Unit Data (RCR 2)

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	50	0.87
6'	33	0.57
7'	23	0.41
8'	20	0.34
9'	16	0.27

38' x 38' x 10' Room, Workplane 2½' above floor, 80/50/20% Reflectances

Coefficients of Utilization

Ceiling WALL	80%		70%		50%		30%		0		
	70	50	30	10	50	10	50	10			
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	110	107	105	108	103	104	100	100	97	92
2	106	101	97	93	99	92	96	90	93	88	84
3	100	93	88	83	92	83	89	81	87	80	77
4	94	86	80	75	85	75	82	74	80	73	70
5	89	79	73	68	78	68	76	67	75	66	64
6	83	73	67	62	73	62	71	61	69	61	59
7	78	68	61	57	67	56	66	56	65	56	54
8	74	63	56	52	63	52	61	51	60	51	49
9	70	59	52	48	58	48	57	47	56	47	46
10	66	55	48	44	54	44	53	44	53	44	42

Trim: C420LEDDL40KCLW
 Output lumens³: 1113 lm
 Correlated Color Temp¹: 4000K
 Input Watts²: 19.6 w
 Efficacy: 56.8 lm/w
 CRI⁴: 76
 Spacing Criterion: 1.3

¹ Correlated Color Temperature within specs as defined in ANSL_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.

⁴ Color Rendering Index within +/- 2%.

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