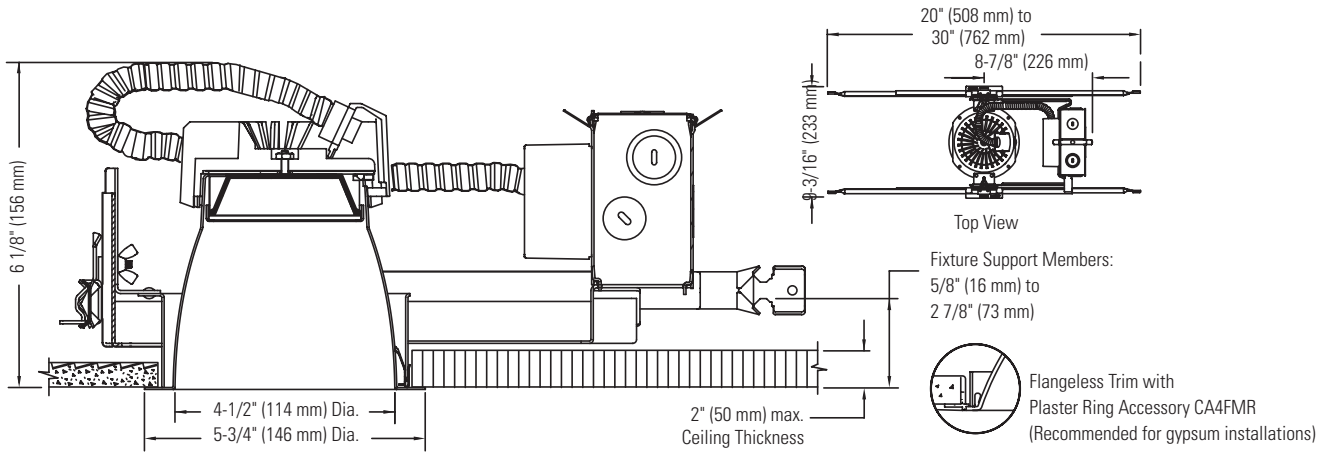


C4L05DL

Calculite 4 1/2" LED Downlight

Page 1 of 6



Ordering Guide: Light Engines

Light Engine Series	Style	Color Temperature	Reflector Finish	Flange	Options
C4L05	DL (Downlight)	27K (2700K) 30K (3000K) 35K (3500K) 40K (4000K)	CL (Clear) CCL (Comfort Clear) CCD (Comfort Clear Diffuse) CCZ (Champagne Bronze) WH (Painted White)	W (Painted white) P (Aperture-matching/polished) FT (Flush-mount/flangeless) ¹	EM (Integral emergency test switch) ²

Example: C4L05DL35KCCLWEM

¹Accessory CA4FMR recommended for gypsum applications. Reflector flange is 1/4".

²See LED-EM for details and restrictions.

Ordering Guide: Frame-in Kits

Frame-in Kit Series	Installation Options	Input Voltage	Options
C4L05	N (New construction) R (Remodeler)	1 (120V) 2 (277V)*	Blank (Electronic low voltage dimming, 120V only) EM (Emergency) Z10V (0-10V dimming)
CUL05	J (J-box mount retrofit) S (Screw-in base retrofit (120V only))	1 (120V) 2 (277V)*	Blank (Electronic low voltage dimming) Z10V (0-10V dimming)

Example: C4L05N1EM

*277V dimming applications require Z10V option.

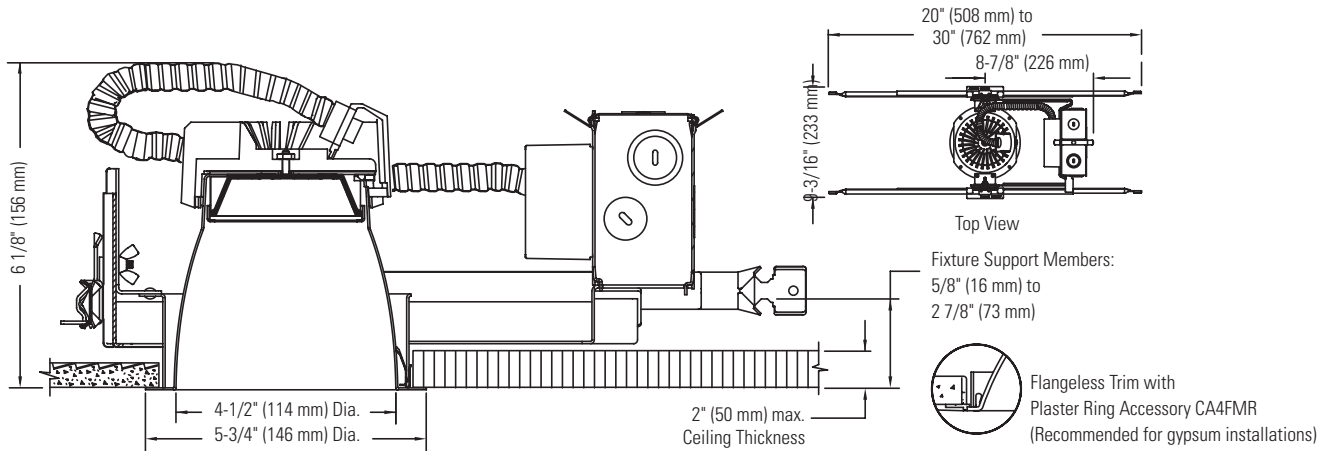
Job Information	Type:
Job Name:	
Cat. No.:	
Notes:	

PHILIPS
LIGHTOLIER

C4L05DL

Calculite 4 1/2" LED Downlight

Page 2 of 6



Features

Aperture: 4 1/2" (114mm) I.D., 5 3/4" (146mm) O.D.

Input Wattage: 9W (+/- 5%)

Reflector Cone: Aluminum. Provides 50° cutoff to source & source image. Self-flanged.

Depth (including Frame-in kit): 6 1/8" (156mm)

Power Connection: Attaches to frame-in kit via push-in connector (on frame). Removable cover provides access.

Technology

LED Board: Array of high brightness royal blue LED's.

Remote Phosphor Technology: Remote phosphor technology provides increased efficiency and color consistency. Phosphor lens assembly positioned in front of LED array converts blue light to white. Color shift will not exceed +/- 100K over life.

Optical Mixing Chamber: Lightolier-specific mixing chamber redirects back-reflected light through aperture resulting in 20% increase in efficiency.

Thermal Management: Heat sink and thermal design along with clean room assembly ensures specified performance.

Rated Life: Based on IESNA LM-80-2008
50,000 hours at 70% lumen maintenance.

Photometric Performance: Tested in accordance to IESNA LM-79-2008

Technology (continued)

Options

Dimming Capability: See LED-DIM specification sheet

Emergency Capability (Integral): Add "EM" suffix. See LED-EM spec sheet.

Labels

UL (suitable for wet locations), cUL, I.B.E.W.

5 Year Warranty

Job Information	Type:
------------------------	--------------

PHILIPS
LIGHTOLIER

C4L05DL

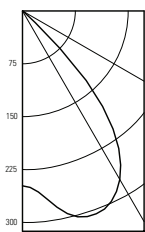
Calculite 4 1/2" LED Downlight

Reflector Finish Multipliers

CL (x 1.00), **CCL** (x 0.94), **CCD** (x 0.93), **CCZ** (x 0.76), **WH** (x 0.82) — **CL** & **CCD** finishes are tested. **CCL**, **CCZ** & **WH** are calculated.

10W LED, 2700K, CL FINISH TRIM

Candlepower Distribution



ZONAL LUMENS AND PERCENTAGES	Height to	Initial	Beam
ZONE LUMENS %LUMINAIRE	Lighted Plane	Footcandles	Diameter
0-30	5'	10	7"
0-40	6'	7	9"
0-60	7'	5	10"
0-90	8'	4	12"

CERTIFIED TEST REPORT NO. F09934B³

Trim: C410LEDDL27KCLW

Output lumens: 457 lm

Correlated Color Temp¹: 2700K

Input Watts²: 8.7 w

Efficacy: 52.5 lm/w

CRI⁴: 80

Spacing Criterion: 1.3

CEILING WALL	80%				70%				50%				30%				0%			
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	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	106	106	100	100	100	100	100	100	100	100
1	113	110	107	105	108	103	104	100	100	97	92	88	85	85	85	85	85	85	85	85
2	107	101	97	93	100	92	96	90	93	88	88	88	88	88	88	88	88	88	88	88
3	100	93	88	83	92	83	89	81	87	80	77	77	77	77	77	77	77	77	77	77
4	94	86	80	75	85	75	83	74	81	73	70	70	70	70	70	70	70	70	70	70
5	89	79	73	68	78	68	77	67	75	67	64	64	64	64	64	64	64	64	64	64
6	83	74	67	62	73	62	71	61	70	61	59	59	59	59	59	59	59	59	59	59
7	79	68	61	57	67	57	66	56	65	56	54	54	54	54	54	54	54	54	54	54
8	74	63	57	52	63	52	62	52	60	51	50	50	50	50	50	50	50	50	50	50
9	70	59	52	48	58	48	57	48	56	47	46	46	46	46	46	46	46	46	46	46
10	66	55	48	44	55	44	54	44	53	44	43	43	43	43	43	43	43	43	43	43

Spacing	Initial On Ctr.	Initial Footcandles	Watts/Sq. Ft.
6'	13	0.25	
7'	10	0.18	
8'	8	0.15	
9'	6	0.12	

38x38x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

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

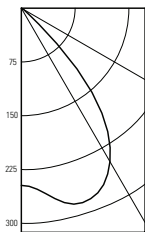
² Wattage controlled to within 5%.

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

⁴ Color Rendering Index within +/- 2%.

10W LED, 2700K, CCL FINISH TRIM

Candlepower Distribution



ZONAL LUMENS AND PERCENTAGES	Height to	Initial	Beam
ZONE LUMENS %LUMINAIRE	Lighted Plane	Footcandles	Diameter
0-30	5'	10	7"
0-40	6'	7	9"
0-60	7'	5	10"
0-90	8'	4	12"

CERTIFIED TEST REPORT NO. F09935³

Trim: C410LEDDL27KCCCLW

Output lumens: 423 lm

Correlated Color Temp¹: 2700K

Input Watts²: 8.7 w

Efficacy: 48.6 lm/w

CRI⁴: 80

Spacing Criterion: 1.2

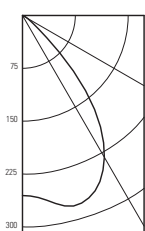
CEILING WALL	80%				70%				50%				30%				0%			
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%																			
0	119	119	119	119	116	116	111	111	106	106	106	106	100	100	100	100	100	100	100	100
1	113	110	107	105	108	103	104	100	100	97	92	88	85	85	85	85	85	85	85	85
2	106	101	97	93	99	92	96	90	93	88	88	88	88	88	88	88	88	88	88	88
3	100	93	87	83	92	82	89	81	86	80	77	77	77	77	77	77	77	77	77	77
4	94	86	80	75	85	74	82	73	80	73	70	70	70	70	70	70	70	70	70	70
5	89	79	73	68	78	67	76	67	75	67	64	64	64	64	64	64	64	64	64	64
6	83	73	66	62	72	61	71	61	69	61	59	59	59	59	59	59	59	59	59	59
7	78	68	61	56	67	56	66	56	65	56	54	54	54	54	54	54	54	54	54	54
8	74	63	56	52	62	52	61	51	60	51	50	50	50	50	50	50	50	50	50	50
9	70	59	52	48	58	47	57	47	56	47	46	46	46	46	46	46	46	46	46	46
10	66	55	48	44	54	44	53	44	53	44	43	43	43	43	43	43	43	43	43	43

Spacing	Initial On Ctr.	Initial Footcandles	Watts/Sq. Ft.
6'	12	0.25	
7'	9	0.18	
8'	7	0.15	
9'	6	0.12	

38x38x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

10W LED, 2700K, CCD FINISH TRIM

Candlepower Distribution



ZONAL LUMENS AND PERCENTAGES	Height to	Initial	Beam
ZONE LUMENS %LUMINAIRE	Lighted Plane	Footcandles	Diameter
0-30	5'	10	7"
0-40	6'	7	9"
0-60	7'	5	10"
0-90	8'	4	12"

CERTIFIED TEST REPORT NO. F09936³

Trim: C410LEDDL27KCCDW

Output lumens: 421 lm

Correlated Color Temp¹: 2700K

Input Watts²: 8.7 w

Efficacy: 48.4 lm/w

CRI⁴: 80

Spacing Criterion: 1.2

CEILING WALL	80%				70%				50%				30%				0%			
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	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	106	106	100	100	100	100	100	100	100	100
1	113	109	107	104	107	102	103	99	99	96	92	88	85	85	85	85	85	85	85	85
2	106	100	96	92	99	91	95	89	92	87	87	83	83	83	83	83	83	83	83	83
3	100	92	86	82	91	81	88	80	85	79	76	76	76	76	76	76	76	76	76	76
4	93	85	78	73	84	73	81	72	79	71	69	69	69	69	69	69	69	69	69	69
5	88	78	71	66	77	66	75	65	73	65	63	63	63	63	63	63	63	63	63	63
6	82	72	65	60	71	60	70	60	68	59	57	57	57	57	57	57	57	57	57	57
7	77	67	60	55	66	55	65	55	63	54	52	52	52	52	52	52	52	52	52	52
8	73	62	55	51	61	50	60	50	59	50	48	48	48	48	48	48	48	48	48	48
9	69	58	51	47	57	46	56	46	55	46	44	44	44	44	44	44	44	44	44	44
10	65	54	47	43	53	43	53	43	52	43	41	41	41	41	41	41	41	41	41	41

Spacing	Initial On Ctr.	Initial Footcandles	Watts/Sq. Ft.
6'	12	0.25	
7'	9	0.18	
8'	7	0.15	
9'	6	0.12	

38x38x10' Room, Workplane 2 1/2' above floor, 80/50/20% Reflectances

Job Information Type:

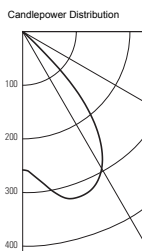


Calculite 4 1/2" LED Downlight

Reflector Finish Multipliers

CL (x 1.00), CCL (x 0.94), CCD (x 0.93), CCZ (x 0.76), WH (x 0.82) — **CL & CCD** finishes are tested. **CCL, CCZ & WH** are calculated.

10W LED, 3000K, CL FINISH TRIM



ANGLE	MEAN CP	LUMENS
0	255	
5	267	26
10	293	
15	316	89
20	321	
25	315	144
30	293	
35	253	155
40	189	
45	85	67
50	7	3
55	3	
60	2	
65	1	1
70	1	
75	0	0
80	0	
85	0	0
90	0	

Trim: C410LEDDL30KCLW

Output lumens: 485 lm

Correlated Color Temp: 3000K

Input Watts: 8.7 w

Efficacy: 55.7 lm/w

CRI: 79

Spacing Criterion: 1.3

CEILING WALL	80%				70%				50%				30%				0%	
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0	0
RZR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%																	
0	119	119	119	119	116	116	111	111	106	106	100	100	106	106	100	100		
1	113	110	107	105	108	103	104	100	100	97	92	92	93	88	84	84		
2	107	101	97	93	99	92	96	90	93	88	81	81	87	80	77			
3	100	93	88	83	92	82	89	81	87	80	73	70	80	73	70			
4	94	86	80	75	85	74	82	74	82	74	66	64	75	66	64			
5	89	79	73	68	78	68	76	67	75	66	59	59	69	61	59			
6	83	73	67	62	72	61	71	61	69	61	54	54	63	55	54			
7	78	68	61	56	67	56	66	56	65	56	49	49	58	50	49			
8	74	63	56	52	62	52	61	51	60	51	45	45	54	47	45			
9	69	59	52	47	58	47	57	47	56	47	42	42	50	43	42			
10	66	55	48	44	54	44	53	44	52	43	38	38	46	40	42			

ZONE	LUMENS	% LUMINAIRE
0-30	259	53.5%
0-40	414	85.3%
0-60	483	99.7%
0-90	485	100.0%

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	7	10"
6'	7	9"
7'	5	10"
8'	4	12"
9'	3	13"

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	22	0.39
6'	14	0.25
7'	10	0.18
8'	9	0.15
9'	7	0.12

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

CERTIFIED TEST REPORT NO. 15742²

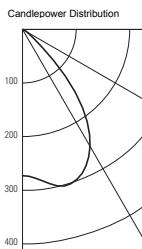
¹ Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid-State Lighting Products.

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.

⁴ Color Rendering Index within +/- 2%.

10W LED, 3000K, CCD FINISH TRIM



ANGLE	MEAN CP	LUMENS
0	277	
5	282	27
10	296	
15	306	86
20	307	
25	285	130
30	252	
35	214	131
40	156	
45	94	67
50	34	
55	16	16
60	9	
65	5	6
70	3	
75	2	2
80	1	
85	0	0
90	0	

Trim: C410LEDDL30KCCDW

Output lumens: 467 lm

Correlated Color Temp: 3000K

Input Watts: 8.7 w

Efficacy: 53.7 lm/w

CRI: 79

Spacing Criterion: 1.2

CEILING WALL	80%				70%				50%				30%				0%	
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0	0
RZR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%																	
0	119	119	119	119	116	116	111	111	106	106	100	100	106	106	100	100		
1	112	109	107	104	107	102	103	99	99	96	92	91	95	89	87	87		
2	106	100	96	92	98	91	95	89	92	87	81	81	87	80	77			
3	99	92	86	82	90	81	88	80	85	78	73	70	80	73	70			
4	93	84	78	73	83	73	81	72	79	71	65	64	75	66	64			
5	87	78	71	66	77	66	75	65	73	65	62	62	73	65	62			
6	82	72	65	60	71	60	69	59	68	59	52	52	63	54	52			
7	77	67	60	55	66	56	64	54	63	54	48	48	58	50	48			
8	73	62	55	50	61	50	60	50	59	50	44	44	54	47	45			
9	69	57	51	46	57	46	56	46	55	46	41	41	50	43	42			
10	65	54	47	43	53	43	52	42	51	42	37	37	46	40	42			

ZONE	LUMENS	% LUMINAIRE
0-30	244	52.3%
0-40	375	80.4%
0-60	458	98.2%
0-90	467	100.0%

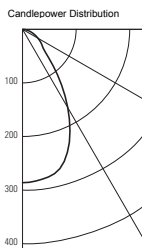
Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	11	7"
6'	8	8"
7'	6	9"
8'	4	10"
9'	3	12"

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	21	0.39
6'	14	0.25
7'	10	0.18
8'	8	0.15
9'	7	0.12

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

CERTIFIED TEST REPORT NO. F09308⁸

10W LED, 3000K, WH FINISH TRIM



ANGLE	MEAN CP	LUMENS
0	290	
5	287	27
10	293	
15	273	76
20	248	
25	213	97
30	172	
35	129	81
40	90	
45	61	50
50	49	
55	42	37
60	34	
65	27	26
70	20	
75	14	15
80	9	
85	4	5
90	0	

Trim: C410LEDDL30KWHW

Output lumens: 413 lm

Correlated Color Temp: 3000K

Input Watts: 8.7 w

Efficacy: 47.5 lm/w

CRI: 78

Spacing Criterion: 1.0

CEILING WALL	80%				70%				50%				30%				0%	
	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0	0
RZR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%																	
0	119	119	119	119	116	116	111	111	107	107	100	100	107	107	100	100		
1	111	107	104	101	105	99	101	96	97	93	89	89	97	93	89			
2	103	97	91	86	95	85	91	84	88	82	78	78	85	82	78			
3	96	87	81	76	86	75	83	74	81	73	69	69	77	73	69			
4	90	80	72	67	78	67	76	66	74	65	62	62	70	65	62			
5	84	73	66	60	72	60	70	59	68	59	56	56	64	58	56			
6	79	67	60	54	66	54	65	54	63	53	51	51	59	53	51			
7	74	62	55	50	62	49	60	49	59	49	47	47	55	49	47			
8	70	58	51	46	57	45	56	45	55	45	43	43	50	44	43			
9	66	54	47	42	53	42	52	42	52	42	40	40	48	42	40			
10	62	51	44	39	50	39	49	39	48	39	37	37	45	40	37			

ZONE	LUMENS	% LUMINAIRE
0-30	250	48.4%
0-40	281	67.9%
0-60	367	88.9%
0-90	413	100.0%

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	12	5"
6'	8	6"
7'	6	7"
8'	5	8"
9'	4	9"

Spacing On Ctr.	Initial Footcandles	Watts/Sq. Ft.
5'	18	0.39
6'	12	0.25
7'	8	0.18
8'	7	0.15
9'	6	0.12

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

CERTIFIED TEST REPORT NO. F09311³

Job Information Type:



C4L05DL

Calculite 4 1/2" LED Downlight

Reflector Finish Multipliers

CL (x 1.00), **CCL** (x 0.94), **CCD** (x 0.93), **CCZ** (x 0.76), **WH** (x 0.82) — **CL** & **CCD** finishes are tested. **CCL**, **CCZ** & **WH** are calculated.

10W LED, 3500K, CL FINISH TRIM

Candlepower Distribution		ANGLE	MEAN CP	LUMENS	Trim: C410LEDL35KCCLW
		0	290		
		5	301	30	
		10	330		
		15	353	99	
		20	358		
		25	350	160	
		30	325		
		35	281	171	
		40	209		
		45	89	72	
		50	9		
		55	2	3	
		60	1		
		65	1	1	
		70	0		
		75	0	0	
		80	0		
		85	0	0	
		90	0		



ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	289	534.0%
0-40	441	85.9%
0-60	536	99.8%
0-90	536	100.0%

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	12	7'
6'	8	8'
7'	6	10'
8'	5	12'
9'	4	13'

Multiple Unit Data - RCR 2

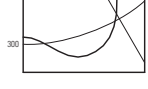
CEILING WALL	80%		70%		50%		30%		0%		
	70	50	30	10	50	10	50	10	0		
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	110	107	105	108	103	104	100	100	97	92
2	107	101	97	93	99	92	96	90	93	88	84
3	100	93	88	83	92	83	89	81	87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

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

CERTIFIED TEST REPORT NO. F09951B¹

10W LED, 3500K, CCL FINISH TRIM

Candlepower Distribution		ANGLE	MEAN CP	LUMENS	Trim: C410LEDL35KCCLW
		0	289		
		5	296	29	
		10	316		
		15	331	93	
		20	331		
		25	319	146	
		30	292		
		35	249	152	
		40	182		
		45	83	67	
		50	18		
		55	7	7	
		60	4		
		65	2	2	
		70	1		
		75	1	1	
		80	0		
		85	0	0	
		90	0		



ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	288	83.8%
0-40	420	84.3%
0-60	495	99.3%
0-90	499	100.0%

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	12	7'
6'	8	8'
7'	6	9'
8'	5	10'
9'	4	12'

Multiple Unit Data - RCR 2

CEILING WALL	80%		70%		50%		30%		0%		
	70	50	30	10	50	10	50	10	0		
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	109	107	104	107	102	103	99	99	96	92
2	106	100	96	92	99	91	95	89	92	87	83
3	100	92	86	82	91	81	88	80	85	78	76
4	93	85	78	73	83	73	81	72	79	71	69
5	88	78	71	66	77	66	75	65	73	65	63
6	82	72	65	60	71	60	70	60	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

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

CERTIFIED TEST REPORT NO. F09952²

10W LED, 3500K, CCD FINISH TRIM

Candlepower Distribution		ANGLE	MEAN CP	LUMENS	Trim: C410LEDL35KCCDW
		0	298		
		5	302	30	
		10	316		
		15	327	92	
		20	322		
		25	304	139	
		30	273		
		35	228	139	
		40	165		
		45	88	70	
		50	35		
		55	17	17	
		60	10		
		65	6	6	
		70	3		
		75	2	2	
		80	1		
		85	0	1	
		90	0		



ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	290	52.5%
0-40	400	80.7%
0-60	486	98.2%
0-90	495	100.0%

Single Unit Data

Height to Lighted Plane	Initial Footcandles	Beam Diameter
5'	12	7'
6'	8	8'
7'	6	9'
8'	5	10'
9'	4	12'

Multiple Unit Data - RCR 2

CEILING WALL	80%		70%		50%		30%		0%		
	70	50	30	10	50	10	50	10	0		
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	109	107	104	107	102	103	99	99	96	92
2	106	100	96	92	99	91	95	89	92	87	83
3	100	92	86	82	91	81	88	80	85	78	76
4	93	85	78	73	83	73	81	72	79	71	69
5	88	78	71	66	77	66	75	65	73	65	63
6	82	72	65	60	71	60	70	60	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

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

CERTIFIED TEST REPORT NO. F09953³

Job Information Type:



C4L05DL

Calculite 4 1/2" LED Downlight

Reflector Finish Multipliers

CL (x 1.00), **CCL** (x 0.94), **CCD** (x 0.93), **CCZ** (x 0.76), **WH** (x 0.82) — **CL** & **CCD** finishes are tested. **CCL**, **CCZ** & **WH** are calculated.

10W LED, 4000K, CL FINISH TRIM

Candlepower Distribution	ANGLE	MEAN CP	LUMENS
	0	296	
	5	312	31
	10	344	
	15	369	104
	20	374	
	25	366	167
	30	340	
	35	295	181
	40	222	
	45	102	80
	50	11	
	55	3	3
	60	1	
	65	1	1
	70	0	
	75	0	0
	80	0	
	85	0	0
	90	0	

Trim:
C410LEDDL40KCLW

Output lumens: 568 lm
Correlated Color Temp¹: 4000K
Input Watts²: 8.7 w
Efficacy: 65.3 lm/w
CRI³: 76
Spacing Criterion: 1.3

CEILING WALL	80%				70%				50%				30%				0%				
	70	50	30	10	50	30	10	0	50	30	10	0	50	30	10	0	50	30	10	0	
RCR	0	119	119	119	116	116	111	111	106	106	100	100	100	106	106	100	100	106	106	100	100
Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%	1	113	110	107	105	108	103	104	100	100	93	88	86	96	90	93	88	86	86	80	77
	2	106	101	97	93	99	92	96	90	93	88	86	86	86	80	77	75	66	64	54	54
	3	100	93	86	83	92	82	89	81	86	80	77	75	66	64	54	54	49	45	45	45
	4	94	86	80	75	85	74	82	73	80	73	70	64	54	49	45	45	45	45	45	45
	5	89	79	73	68	78	67	76	67	75	66	64	54	49	45	45	45	45	45	45	45
	6	83	73	66	62	72	61	71	61	69	61	58	54	49	45	45	45	45	45	45	45
	7	78	68	61	56	67	56	66	56	64	55	54	49	45	45	45	45	45	45	45	45
	8	74	63	56	52	62	51	61	51	60	51	49	45	45	45	45	45	45	45	45	45
	9	69	59	52	47	58	47	57	47	56	47	45	45	45	45	45	45	45	45	45	45
	10	65	55	48	44	54	44	53	43	52	43	42	42	42	42	42	42	42	42	42	42

ZONAL LUMENS AND PERCENTAGES	% LUMINAIRE	
ZONE	LUMENS	%
0-30	302	53.5%
0-40	483	85.1%
0-60	567	99.8%
0-90	568	100.0%

Single Unit Data		
Height to Lighted Plane	Initial	Beam
	Footcandles	Diameter
5'	12	7"
6'	8	9"
7'	6	10"
8'	5	12"
9'	4	13"

Multiple Unit Data - RCR 2		
Spacing On Chr.	Initial	Watts/
	Footcandles	Sq. Ft.
5'	25	0.39
6'	17	0.25
7'	12	0.18
8'	10	0.15
9'	8	0.12

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

CERTIFIED TEST REPORT NO. F09321³

- 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.
- ⁴ Color Rendering Index within +/- 2%.



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C4L05DL July 20, 2012

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Job Information	Type:
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