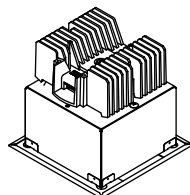




## Downlighting

### Calculite LED PoE

4x4" square aperture,  
power over ethernet, wide beam



Philips Lightolier Calculite LED downlight 4" square with power over ethernet (PoE) features an LED array of high brightness white light LEDs that ensure high color consistency. The binning process of the LEDs ensure a less than 2-step SDCM color variation between luminaires.

Complete product = Frame-in kit + Trim kit + Optional multi-sensor

Project:

Location:

Cat.No:

Type:

Lamps:

Qty:

Notes:

#### Frame-in kit

example: C4X4L20NPVB

Series	Lumens	Installation	Input voltage	Version	Optional accessory <sup>2</sup>
<b>C4X4L</b>	<b>20</b>	<b>N</b>	<b>P</b>	<b>VB</b>	
<b>C4X4L</b> Calculite 4" LED square aperture	<b>20</b> <sup>1</sup> 2000lm	<b>N</b> New construction	<b>P</b> Power over ethernet	<b>VB</b> Version B	<b>AMS</b> ActiLume multi-sensor

1. Consult IES tables and photometry on last page for detailed lumen output.

2. ActiLume multi-sensor frame-in kit accessory must be ordered separately.

#### Trim kit

example: C4X4L10DL35KCCDWVB

Series	Lumens	Style	CCT	Reflector	Flange	Version
<b>C4X4L</b>	<b>10</b>	<b>DL</b>				<b>VB</b>
<b>C4X4L</b> Calculite 4" LED square aperture	<b>10</b> <sup>1</sup> 1000lm	<b>DL</b> Downlight	<b>27K</b> 2700 K <b>30K</b> 3000 K <b>35K</b> 3500 K <b>40K</b> 4000 K	<b>CL</b> Clear <b>CCL</b> Comfort clear <b>CCD</b> Comfort clear diffuse <b>CCZ</b> Champagne bronze <b>WH</b> White (painted)	<b>W</b> White (painted) <b>P</b> Polished (matches aperture)	<b>VB</b> Version B

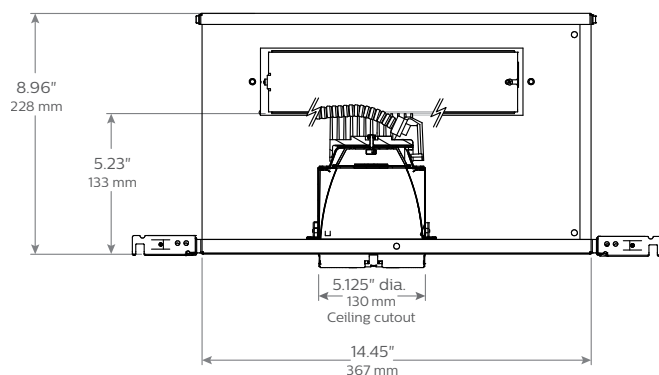
# C4X4L-DL-VB    Calculite LED downlight with PoE

4x4" square aperture, power over ethernet, wide beam

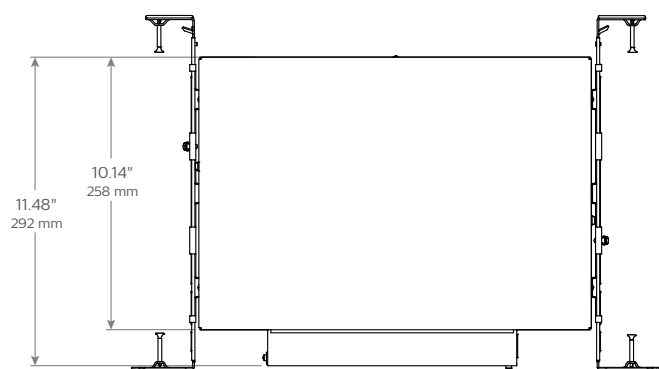
## Dimensions

### Side view

Side view



### Top view



Calculite PoE Frame-in kit  
with ActiLume multi-sensor  
(AMS option).

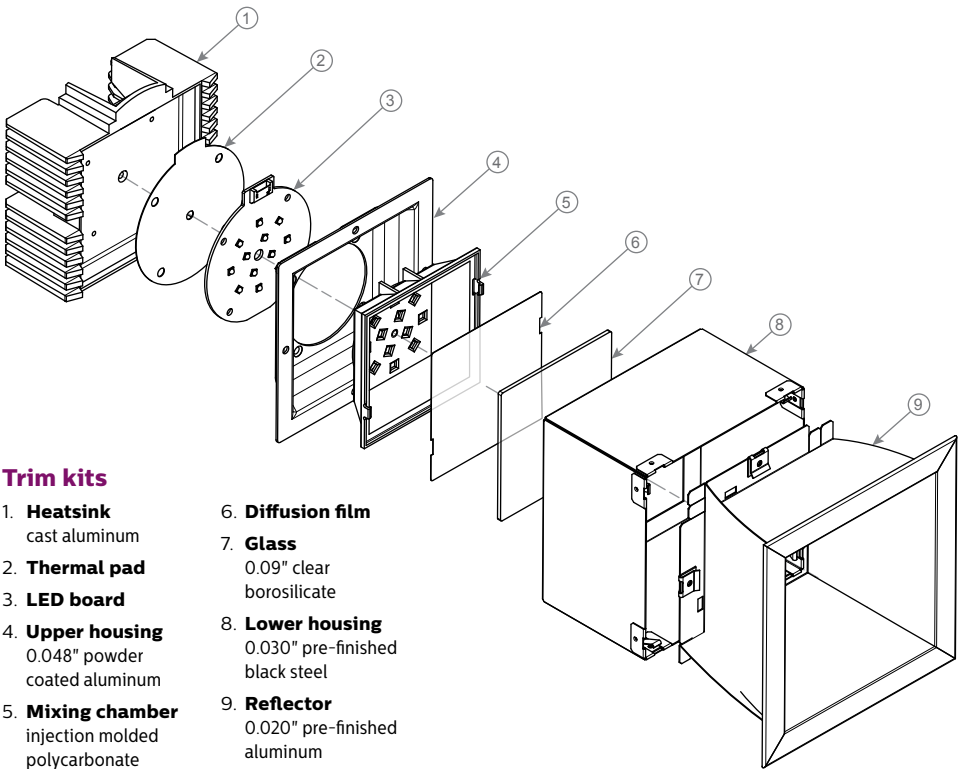
## Frame-in kit

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

**Mounting brackets:** Galvanized Steel. Adjustable 12" - 16".

# C4X4L-DL-VB    Calculite LED downlight with PoE

4x4" square aperture, power over ethernet, wide beam



### Calculite LED 4"

**C4X4L10DL35KCCDWVB**  
Calculite LED 4" Trim kits are backwards compatible with all Calculite LED 4" Frame-in Kits.

### Trim kits

- |  |  |
|--|--|
| 1. <b>Heatsink</b><br>cast aluminum                        | 6. <b>Diffusion film</b>                                   |
| 2. <b>Thermal pad</b>                                      | 7. <b>Glass</b><br>0.09" clear borosilicate                |
| 3. <b>LED board</b>  | 8. <b>Lower housing</b><br>0.030" pre-finished black steel |
| 4. <b>Upper housing</b><br>0.048" powder coated aluminum   | 9. <b>Reflector</b><br>0.020" pre-finished aluminum        |
| 5. <b>Mixing chamber</b><br>injection molded polycarbonate |  |

### Features

**Ceiling cutout:** 4" aperture; 5 1/8" (130mm)  
**Depth:** 8.96" (228 mm) including PoE frame.  
**Power connection:** Attaches to light engine via push-in connector (on frame).  
**Thermal Management:** Heat sink and thermal design along with the clean room assembly process ensures specified performance levels are maintained.

### Electrical

**Powered via Philips PoE lighting controller.** Complies with FCC rules per Title 47 Part 15 (Class A) for EMI / RFI (conducted & radiated). Wire access knockout provides RJ45 connection point for PoE network. PoE lighting controller accessible from below ceiling.

**Rated life:** 60,000 hrs at 70% lumen maintenance based on IES LM-80-08 and TM-21-11.

### Options and accessories

**Sensor option:** The ActiLume multi-sensor (**AMS**) is available as an accessory for occupancy sensing and/or daylight harvesting for additional energy savings with no reduction of life.  
**Mounting bars:** Included on frame. (See instruction sheet for installation details).

### Labels

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

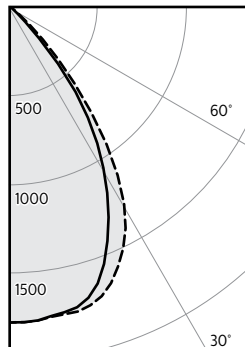
Frame-In kit Electrical specifications	Nominal input volts	Preferred volt range	Input frequency	Input current	Input power	Output power	Standby power
C4X4L20NPVB 1900lm	53V	51-54V	DC	≤600mA	≤27W	25W	<0.9W

# C4X4L-DL-VB Calculite LED downlight with PoE

4x4" square aperture, power over ethernet, wide beam

## 3500K, Wide Beam, Downlight

Candela Curve



Frame: C4X4L20NPVB  
Trim: C4X4L10DL35KCLWVB

CCT<sup>1</sup>: 3500K  
Output lumens: 1996 lms  
Input watts<sup>2</sup>: 30.9 W  
Efficacy: **64.6 lm/w**  
CRI: 80 min  
Spacing Crit.: 1.0  
Report no<sup>3</sup>: 575GFR

Zonal summary

Zone	Lumens	%Luminaire
0-30	1297	65.0%
0-40	1823	91.3%
0-60	1993	99.9%
0-90	1996	100.0%

Angle	Along	Diagonal	Lumens
0	1787	1787	
5	1782	1783	169
10	1756	1767	
15	1705	1726	483
20	1549	1594	
25	1314	1387	644
30	1052	1147	
35	764	844	526
40	418	494	
45	118	152	160
50	18	31	
55	7	11	11
60	4	3	
65	2	2	2
70	1	1	
75	1	1	1
80	0	0	
85	0	0	0
90	0	0	

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%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	111	108	106	108	104	104	101	101	98	93
2	108	103	98	95	100	94	98	92	95	90	86
3	102	95	90	86	92	85	91	84	89	83	80
4	96	89	83	78	85	78	85	77	83	76	74
5	91	83	76	72	79	72	80	71	78	70	68
6	86	77	71	66	73	66	75	66	73	65	63
7	82	72	66	61	68	61	70	61	69	61	59
8	77	68	61	57	63	57	66	57	65	56	55
9	73	63	57	53	59	53	62	53	61	53	51
10	70	60	54	50	55	50	58	49	58	49	48

Finish Adjust. factors

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

CCT Adjust. factors

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

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	71	5.0'
6'	50	6.0'
7'	36	7.0'
8'	28	8.0'
9'	22	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'	90.6	1.37
6'	59.4	0.90
7'	42.5	0.64
8'	35.4	0.53
9'	28.3	0.43

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

