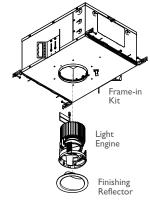


# PHILIPS LIGHTOLIER, CALCULITE, PROFESSIONAL-GRADE DOWNLIGHTING, LED 4" ADJUSTABLE ACCENT, 1500LM, C4LA

Calculite LED 4" features an LED array of high brightness white light LEDs. Preliminary Specification Sheet.

# **C4LA** CALCULITE LED 4" ADJUSTABLE ACCENT



Complete product = Frame-in Kit + Light Engine + Finishing Reflector

Project:		
_ocation:		
Catalog No:		
Fixture Type:		
Mfg:	Lamps:	Qty:
Notes:		

# Frame-in Kit

Series	Style	Lumens	Installation	Voltage	Dimming
C4L	Α	15	Ν	U	
C4L Calculite 4" LED	A Adjustable Accent	<b>15</b> 1500lm	N New construction	U Universal 120V/277V	Z10V         Non-IC with 0-10V dimming           Z10VAIC         AirSeal-IC with 0-10V dimming           LD         Non-IC with Lutron dimming           LDAIC         AirSeal-IC with Lutron dimming

# **Light Engine**

#### Series Lumens Style сст CRI Optics C4L 15 Α C4L Calculite 4" LED 15 1500 lm Α Adjustable Accent 27K 2700K 8 80 CRI TSP 11° Tight Spot 30K 3000K 9 90 CRI1 SP 17° Spot 22° Narrow Flood 35K 3500K1 NF 40K 4000K1 FL 29° Flood

# **Finishing Reflector**

Series	Style	Finish	Flange
C4L	Α		
C4L Calculite 4" LED	A Adjustable Accent	CL     Clear       CCL     Comfort Clear       CCD     Comfort Clear Diffuse       CCZ     Champagne Bronze       WH     White (painted)	<ul> <li>W White (painted)</li> <li>P Polished (matches aperture)</li> <li>FT Flangeless (flush-mount)<sup>2</sup></li> </ul>

1. Configurations using 90 CRI (9) are not compatible with 3500K (35K) and 4000K (40K) CCTs.

2. Accessory CA4FMR required for gypsum applications (minimal ¼" reflector flange).

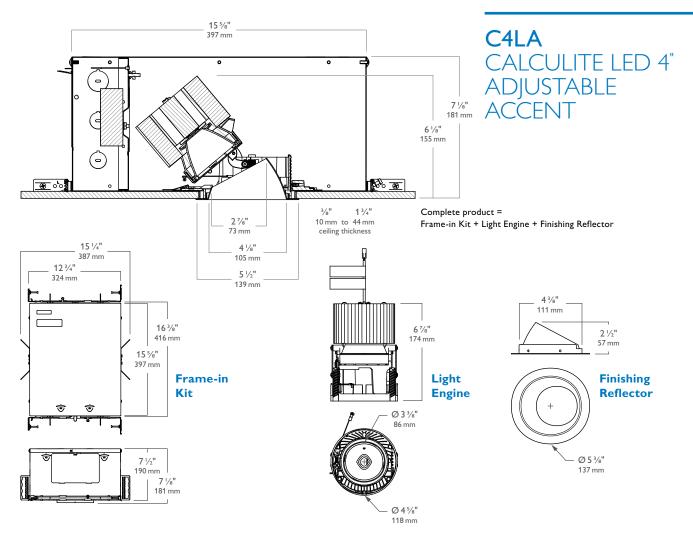


example: C4LA15NUZ10VAIC

example: C4LACLW

example: C4L15A30K8SP

PHILIPS LIGHTOLIER



# **Features**

- Finishing Reflector attachment: Attaches to the Light Engine, which is keyed to ensure correct installation. Magnetic attachment helps to ensure Finishing Reflector is mounted flush with the ceiling and prevents gaps that can commonly occur with traditional friction spring installs. Allows for secure fit, but is much easier to remove/install when making adjustments.
- Steel cable tether: Discrete tether fixed to the Light Engine body with snap in connector to Finishing Reflector body and holds securely while aiming unit or applying filters.
- Aperture Cone: Low brightness; 0.050" aluminum, anodized; Self-flange in painted white or aperture matching polished flange. Flangeless option requires Mud-in Ring accessory.
- Light Engine retention: mechanism is attached to Frame-in Kit by 3 symmetrically offset spring loaded ball and groove mating parts (patent pending).
- Light Engine vertical adjustment:
   Die-cast aluminum, 4 bar linkage design always maximizes accent light output at all angles through the 0°-40° vertical adjustment, while simultaneously minimizing glare within the cone.
  - EZ-Aim helical drive system provides fast and accurate hot aiming with phillips-head screwdriver. Vertical adjustment automatically locks once aiming is completed.
  - Unitized optics to ensure proper lamp orientation regardless of ceiling thickness.
  - Inherent aiming Indicator within Light Engine assembly (10° increments) to clearly identify respective angle of adjustment and allow for consistent aiming between fixtures if desired.

- Horizontal Adjustment Mechanism: Diecast aluminum ring with matte black finish. Unique design which allows for 366° horizontal rotation with positive stop and tool-less adjustment (patent pending).
- Light Engine Assembly: LED light engine is particularly positioned to have 50° cut-off at nadir position for adjustable accent. LED Light engine traverses thru adjustment for ideal light source positioning and maximizing accent capability.
- 8. Optics:
  - 4 beam spread options available. Can be ordered separately as tool-less field replacements; Tight Spot 11°, Spot 17°, Narrow Flood 22°, and Flood 29°
  - 1 filter can be used. Up to ¼" thick of standard 3 1/8" diameter accessories.
  - Custom engineered diffusion film (optional) helps smooth/diffuse/soften any beam spread.
- Thick Ceiling Ready Brackets: Adj. Accent functions ideally tuned at 5/8" ceiling thicknesses, but is capable of being utilized in ceiling up to 2" thick with lessened adjustability.
- 10. Frame Mounting: Accommodates virtually any commercial installation with adjustable, preinstalled mounting brackets and user supplied ½" EMT Tubing or Philips Lightolier purchased mounting bars. Additionally accommodates mounting to residential joist (steel or wood) construction spacing from 12" to 24" On Center (O.C.) joists with supplied mounting bars (Lightening Bars). Minimum joist height of 8" required.
- LED Driver: Serviceable and Replaceable from below ceiling. Two compatible dimming technologies are available depending on driver option: 0-10 Volt, and 27W Lutron Dimming (Non-IC and IC).

- 12. Frame-In Kit: See Frame-In Kit specification sheets for more information. For Non-IC, insulation must be kept 3" away from any parts of the luminaire and must not be placed above luminaire in a manner which will entrap heat. For IC AirSeal, luminaire may be in direct contact with thermal insulation.
- 13. Lifetime: 36,000 hours at L70.

#### **Optical Reflectors**

CA4ATSP:	11° Tight Spot
CA4ASP:	17° Spot
CA4ANF:	22° Narrow Flood
CA4AFL:	29° Flood

# **Options and Accessories**

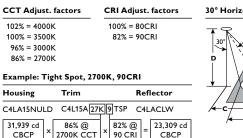
CA4DF5: 31/8" dia. diffusion filter for soft focus beam spreads CA4FMRLED: 413/6" dia. Mud-in ring for flangeless installations

#### Frame-in Kits

AirSeal: Integral to IC rated Frame-in Kit. Chicago Plenum: Integral to IC rated Frame-in Kit.

#### Labels

cU.L.us (Suitable For Damp Locations), I.B.E.W. Energy Star (pending). With exceptions, the following configurations are not certified under Energy Star: C4LA15NUZ10VAIC, C4LA15NULDAIC, C4L15A27K9TSP, C4L15A27K9SP, C4L15A27K9NF, and C4L15A27K9FL.



Report no<sup>1</sup>: 258GFR

30° Horizontal Aiming

(C)

5.8 207

30° Vertical Aiming

Dist. Dist.

1727 lms

3500K

27.2 W

80 min

11°

(FC)

FC

998 3.5

250

63.5 lm/w

31,939 c.d.

Beam

Length (L)

1.5

2.1

2.6

3.1

Beam

1.6

2.4

3.2

4.0

Beam

Width (W)

1.3

1.8

2.2

2.7

Beam Length (L) Width (W)

0.8

1.2

1.5

1.9

Output lumens:

Input watts<sup>3</sup>:

Center Beam: Beam Angle:

CCT<sup>2</sup>:

Efficacy:

Dist. Dist. F.C.

(D)

6 35 576

8 4.6 324

10 12 6.9 144

(D) (C) (FC)

2

3 5.2 444

4 6.9

5 8.7 160

CRI:

27W LED, 3500K, Tight Spot

Candela Curves

600

12000

18000

24000

30000

Frame: C4LA15NULD

Trim: C4L15A35K8TSP

Reflector: C4LACLW

Candela Curves

1900

3600

5400

7200

9000

Frame: C4LA15NULD

Trim: C4L15A35K8NF

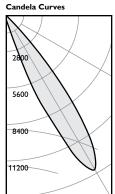
**Reflector: C4LACLW** 

# 30° Horizontal Aiming

30° Vertical Aiming

# C4LA CALCULITE LED 4" ADJUSTABLE CENT

### 27W LED, 3500K, Spot



Frame: C4LA15NULD Trim: C4L15A35K8SP Reflector: C4LACLW

Output lumens:	1543 lms
CCT <sup>2</sup> :	3500K
Input watts <sup>3</sup> :	27.2 W
Efficacy:	56.7 lm/w
CRI:	80 min
Center Beam:	13,659 c.d.
Beam Angle:	17°

#### 30° Horizontal Aiming

Report no<sup>1</sup>: 259GFR

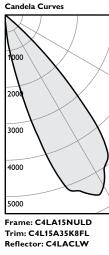
3

Dist. (D)	Dist. (C)	F.C. (FC)	Beam Length (L)	Beam Width (W)
6	3.5	246	2.4	2.1
8	4.6	139	3.2	2.8
10	5.8	89	4.0	3.5
12	69	62	48	41

# 14000

30° Ve	rtical	Aimin	g	
Dist. (D)	Dist. (C)	F.C. (FC)	Beam Length (L)	Beam Width (W)
2	3.5	427	2.6	1.2
3	5.2	190	3.8	1.8
4	6.9	107	5.1	2.4
5	8.7	68	6.4	3.0

### 27W LED, 3500K, Flood



Report no<sup>1</sup>: 261GFR Output lumens: 1474 lms 3500K CCT 2. 27.2 W Input watts3: Efficacy: 54.2 lm/w CRI: 80 min Center Beam: 5,648 c.d.

29°

# 30° Horizontal Aiming

Beam Angle:

Dist. (D)	Dist. (C)	F.C. (FC)	Beam Length (L)	Beam Width (W)
6	3.5	102	4.2	3.6
8	4.6	57	5.6	4.8
10	5.8	37	7.1	6.0
12	6.9	25	8.5	7.2

#### 30° Vertical Aiming

C4LA15NULD 4L15A35K8FL	Dist. (D)	Dist. (C)	F.C. (FC)	Beam Length (L)	Beam Width (W)
or: C4LACLW	2	3.5	177	5.2	2.1
	3	5.2	78	7.8	3.1
	4	6.9	44	10.4	4.1
	5	8.7	28	12.9	5.2

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

2. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products. 3. Wattage controlled to within 5%.

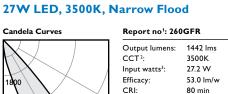


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Dist. (D)	Dist. (C)	F.C. (FC)	Beam Length (L)	Beam Width (W)
6	3.5	164	3.1	2.7
8	4.6	92	4.2	3.6
10	5.8	59	5.2	4.5
12	6.9	41	6.3	5.4
30° Ve	ertical	Aimin	g	
Dist.	Dist.	F.C.	Beam	Beam
(D)	(C)	(FC)	Length (L)	Width (W)

Center Beam: 9.103 c.d. Beam Angle: 22° 30° Horizontal Aiming

2 3.5 284 35 1.6 3 5.2 126 5.3 2.3 6.9 71 7.0 3.1 4 8.7 3.9 46 88