

CDA6 6" High Output Downlight

Specification Grade High Output Downlight

Product Description

The CDA6 High-Output is a 6" downlight in NICOR's Paragon series of specification grade downlights. The CDA6 High-Output offers a wide variety of reflector and flange options to fit any architectural or commercial installation. Medium and wide optics are easily field installed to customize any space. The CDA6 line features Tri dimming on every fixture, allowing the luminaires to interface with TRIAC, ELV, and 0-10V dimmers down to 1% dimming (with select dimmers). The CDA6 High-Output light engines come in 70W or 100W packages, with color temperatures ranging from 2700K to 5000K at 80 CRI. The downlights are available with plaster frame, architectural frame, or remodel housings with J-boxes pre-installed.

Trim

The CDA6 reflectors are spun from high-grade aluminum. The deep reflectors provide 55° cutoff for excellent glare control. Self-flanged and flangeless options are available in white, specular clear, and haze finishes. Flanges are available in the trim color or can be painted white. Custom finishes and flange colors are available upon request.*

Optics

The CDA6 family features two high-output optics: medium and wide distributions. Optics are designed with diffused lenses for smooth, glare-free illumination. Each optic is simple to field install and change with NICOR's twist-lock system.

Light Engine

The CDA6 light engine consists of the high-efficiency driver and the LED light module. The module is built from die-cast and extruded aluminum to effectively and efficiently cool the LED for longer fixture life. Rated for 50,000 hours lifetime at L70. Lumen outputs range from 6000 to 9600 lumens. Color temperature options include 2700K, 3000K, 3500K, 4000K, and 5000K at 80CRI. Color variation on the LED is selected within a 3-step MacAdam ellipse for consistency across fixtures. The CDA6 light module features a quick-connect FMC whip for simple connection to the driver, allowing the light module to be stored in a safe environment while the luminaire housing and driver are installed at rough-in.

Electrical

Drivers in the series operate at 120-277VAC. The high-efficiency drivers feature Tri dimming, seamlessly interfacing with TRIAC & ELV dimmers on 120VAC input, and 0-10V systems on 120-277VAC (down to 1%). The CDA6 driver comes with two flexible metal conduit (FMC) whips installed: one end featuring line voltage and 0-10V dimmer wiring with a conduit connector for simple J-box installation, the other with a quick-connect for easy connection to the light module. CDA6 High-Output Class 2 drivers are available in 70W or 100W packages with a power factor of >.90.

Housings

CDA6 housings are made of 16ga. powder-coated and galvanized steel construction, making them attractive, rugged, and corrosion resistant. The architectural housing provides butterfly brackets adjustable for up to 2" ceiling thickness, while the plaster frame comes with adjustable, stamped bar hangers to fit a range of joist spacings between 14 3/8" and 25 1/8". The remodel frame is supplied with four arch clips for simple, robust through-ceiling remodel installation. All frames have wing springs to mount the reflector, a safety-wire hook for light engine retention, and junction box with six 1/2" knockouts, one 3/8" knockout, and four non-metallic sheathed cable knockouts. Junction boxes are rated for eight 12AWG 90°C rated wires.

Installation

The CDA6's modular design is focused on ease of installation, allowing installers to rough-in the housing and driver while safely storing the trim and light engine until after ceiling work is complete. The trim twists onto the light engine with three keyholes and screws. The twist-lock optic installs tool-free for quick installation and change-out. Once the reflector and optic are installed, simply slide the light engine into the frame where it is retained by wing springs.

Warranty

The NICOR Paragon family comes with our 5-year limited system warranty standard.

Code Compliance

UL Listed for wet locations in covered ceilings only. Non-IC rated, insulation must be kept 3" away from the top and sides of the housing. Photometric testing completed in accordance with IES LM-79

Project

Catalog

Type

Date



CDA6 High Output
70W, 100W
6" Downlight
Architectural
Remodel
Plaster Frame

* Contact factory for lead time and minimum order quantity.



CDA6 6" High Output Downlight

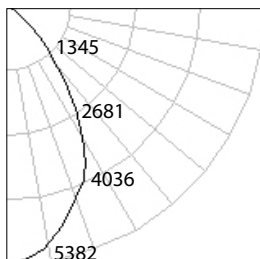
Specification Grade High Output Downlight

Photometric Data

CDA6 High Output Medium Optic

3500K 70W 80CRI

Input Voltage (VAC)	120
System Level Power (W)	70.5
Delivered Lumens (Lm)	6532
System Efficacy (Lm/W)	93.3
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	83.6
Beam Angle	68
Spacing Criteria	1.01



Adjustment Multipliers

Trim Color	CCT	Wattage
WH=104%	27K=92%	70=100%
SC=105%	30K=98%	100=143%
CZ=100%	35K=100%	
GL=99%	40K=104%	
BK=78%	50K=108%	

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
10	53.78	9.6
15	23.90	14.6
20	13.45	19.6
25	8.61	24.4
30	5.98	29.6
35	4.39	33.4
40	3.36	40.2

Intensity Summary (Candle Power)

Angle	Mean CP
0	5378
5	5302
15	4737
25	3933
35	2528
45	1163
55	346
65	74
75	21
85	2
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3615	55.3%
0-40	5189	79.4%
0-60	6425	98.4%
0-90	6532	100%

EM Mode*

EMB	Estimated Lumens
EMB45	758
EMB80	1348
EMB250	4214

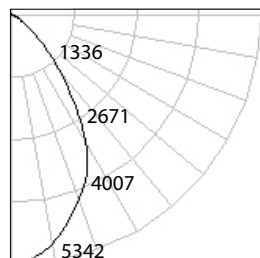
*Estimated lumen output is based on lumens per watt of the 2700K 16W test fixture and the wattage of the EM driver. For a better estimate of a specific part number, determine the fixture efficiency and use the formula:
EM Lumens = Lm/W Fixture x EM driver Wattage

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

CDA6 High Output Wide Optic

3500K 70W 80CRI

Input Voltage (VAC)	120
System Level Power (W)	70.5
Delivered Lumens (Lm)	6469
System Efficacy (Lm/W)	92.0
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	83.6
Beam Angle	68
Spacing Criteria	1.01



Adjustment Multipliers

Trim Color	CCT	Wattage
WH=104%	27K=92%	70=100%
SC=105%	30K=98%	100=143%
CZ=100%	35K=100%	
GL=99%	40K=104%	
BK=78%	50K=108%	

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
10	53.37	9.6
15	23.72	15.2
20	13.34	21.0
25	8.54	24.6
30	5.93	30.0
35	4.36	33.8
40	3.36	41.0

Intensity Summary (Candle Power)

Angle	Mean CP
0	5337
5	5263
15	4703
25	3905
35	2503
45	1145
55	340
65	73
75	21
85	2
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3589	55.5%
0-40	5147	79.6%
0-60	6364	98.4%
0-90	6469	100.0%

EM Mode*

EMB	Estimated Lumens
EMB45	751
EMB80	1335
EMB250	4173

*Estimated lumen output is based on lumens per watt of the 2700K 16W test fixture and the wattage of the EM driver. For a better estimate of a specific part number, determine the fixture efficiency and use the formula:
EM Lumens = Lm/W Fixture x EM driver Wattage

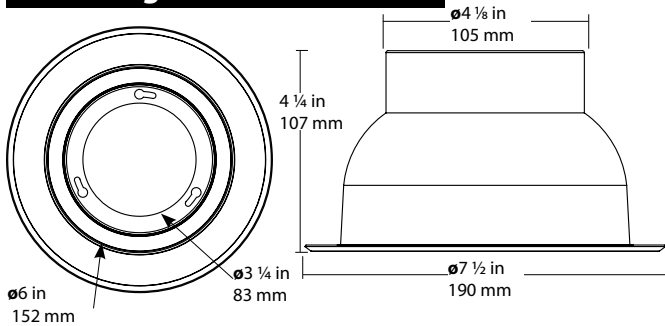
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CDA6 6" High Output Downlight

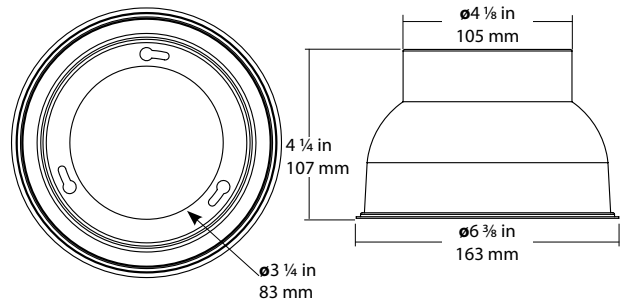
Specification Grade High Output Downlight

Trim Styles

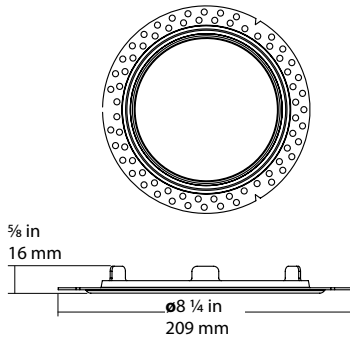
Self-Flanged



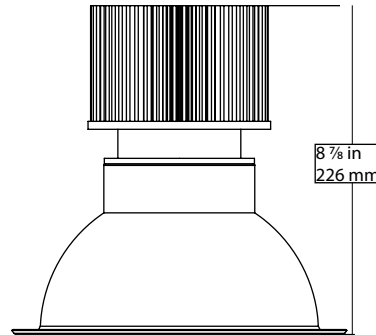
Flangeless



Flangeless Adapter

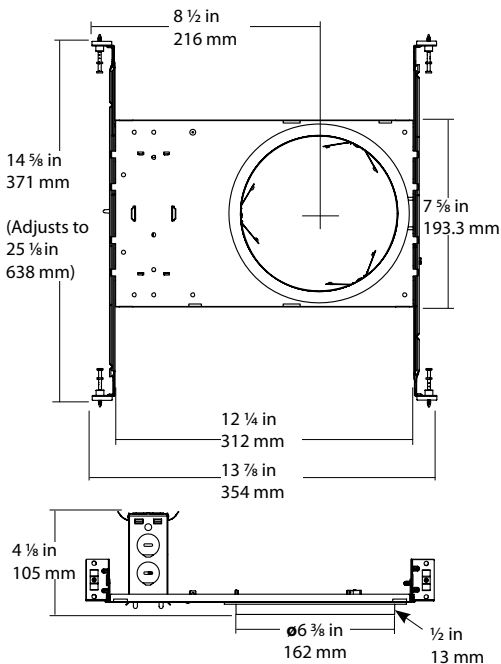


Light Engine

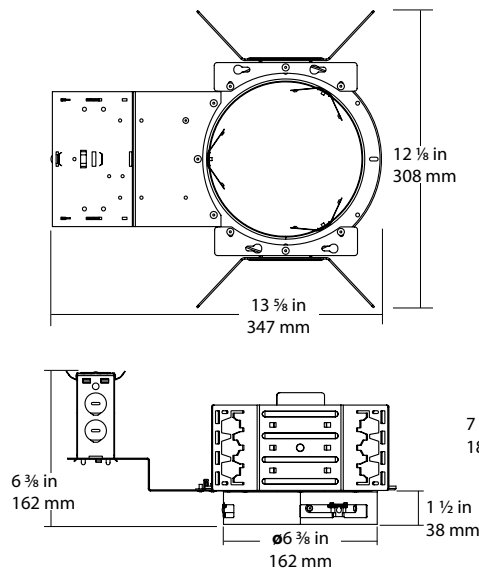


Housings

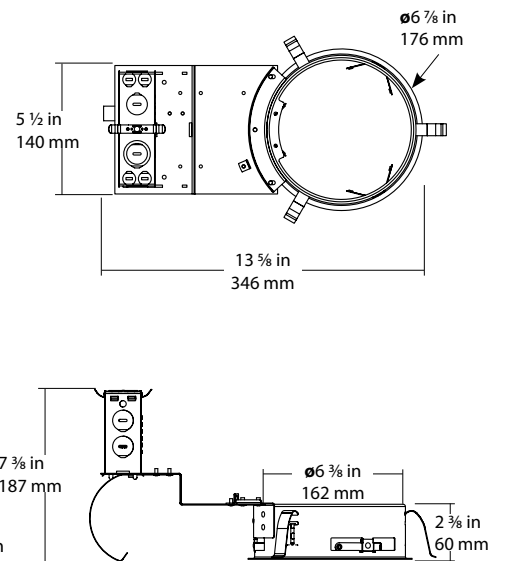
Plaster Frame



Architectural Frame



Remodel Frame



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Ordering Information

For a complete unit, order all three components; housing, light engine, trim and optic as shown below.

Housing <i>Example: CDA6H2R</i>		
Series	Version	Style
CDA6HS	2	A (Architectural)
		F (Plaster Frame)
		R (Remodel)

Light Engine <i>Example: CDALE2016U278</i>					
Series	Version	Wattage	Voltage	CCT	CRI
CDALE	2	070 (70 Watts)	U (120-277VAC)	27 (2700 K)	8 (80 CRI)
		100 (100 Watts)		30 (3000 K)	9 (90 CRI)
				35 (3500 K)	
				40 (4000 K)	
				50 (5000 K)	

High Output Trim and Optic <i>Example: CDA6HTR2H4HWHSF</i>				
Series	Version	Optic	Reflector	Flange
CDA6HTR	2	H4H (High Output Medium)	WH (White)	SF (Self-flanged)
		H6H (High Output Wide)	SC (Specular Clear)	WH (White)
			CZ (Clear Haze)	FL (Flangeless)
			GL (Wheat)	CUST (Custom)
			BK (Black)	
			CM (Champagne)	
			CUST (Custom)	

Accessories

High Output Reflector			
Series	Version	Reflector	Flange
CDA6HRFL	2	WH (White)	SF (Self-flanged)
		SC (Specular Clear)	WH (White)
		CZ (Clear Haze)	FL (Flangeless)
		GL (Wheat)	CUST (Custom)
		BK (Black)	
		CM (Champagne)	
		CUST (Custom)	

High Output Optics		
Series	Version	Style
CDAHOP	2	H4 (High Output Medium)
		H6 (High Output Wide)

Flangeless Adapter

Series
CDA6FLNGLESADAPT