CDA8 8" Downlight

Specification Grade Standard Downlight

Product Description

The CDA8 is a 8" downlight in NICOR's Paragon series of specification grade downlights. The CDA8 offers a wide variety of reflector and flange options to fit any architectural or commercial installation. Narrow, medium, and wide optics are easily field installed to customize any space. The CDA8 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 CDA8 standard light engines come in 16W to 50W packages, with color temperatures ranging from 2700K to 5000K at 80 or 90CRI. The dim-to-warm option provides 3000K full illumination, dimming down to a very warm 1800K at 90CRI. The downlights are available with plaster frame, architectural frame, or remodel housings with J-boxes pre-installed.

Reflector
The CDA8 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, haze, wheat, black and champagne finishes. Flanges are available in the reflector color or can be painted white. Custom finishes and flange colors are available upon request.*

Optics
The CDA8 family features three standard optics: narrow, 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. An optional glare shield is available as an accessory for increased glare reduction.

Light Engine
The CDA8 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 and provide longer fixture life. All light engines on the CDA8 are rated for 50,000 hours lifetime at L70. The CDA8 light engine is available in lumen outputs ranging from 1200 to 6000 lumens. Color temperature options include 2700K, 3000K, 3500K, 4000K, and 5000K at 80 or 90CRI. The dim-to-warm option dims from 3000K to 1800K at 90CRI. Color variation on the LED is selected within a 3-step MacAdam ellipse for consistency across fixtures. The CDA8 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 on 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% with select dimmers). The CDA8 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. CDA8 Class 2 drivers are available in 16W, 25W, 38W and 50W packages with a power factor of >.90.

Housings
CDA8 housings are made of 16ga. powder-coated and galvanized steel construction, making them attactive, 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 ⅝" and 25 ⅛". 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 ½" knockouts, one ⅜" knockout, and four non-metallic sheathed cable knockouts. Junction boxes are rated for eight 12AWG 90°C rated wires.

Installation
The CDA8'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 reflector 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

* Contact factory for lead time and minimum order quantity.

Project

Catalog

Type

Date

CDA8

16W, 25W, 38W, 50W

8" Downlight
Architectural
Remodel
Plaster Frame

Intertek ENERGY STAR WET LOCATION RATED 5 YEAR WARRANTY

NICOR® LED Paragon

CDA8 8" Downlight

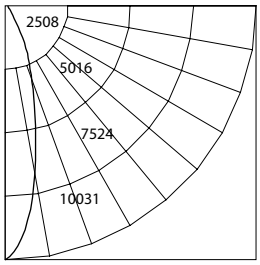
Specification Grade Standard Downlight

Photometric Data

CDA8 Narrow Optic

3500K 38W 90CRI

Input Voltage (VAC)	120
System Level Power (W)	38.7
Delivered Lumens (Lm)	3797
System Efficacy (Lm/W)	98
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	90
Beam Angle	26.4
Spacing Criteria	0.43



Adjustment Multipliers

Trim Color	CCT	Wattage	CRI
WH=104%	27K=92%	16=42%	80=117%
SC=105%	30K=98%	25=65%	90=100%
CZ=100%	35K=100%	38=100%	
GL=99%	40K=104%	50=130%	
BK=78%	50K=108%		
CM= 99%			

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	623.4	2.4
6	277.1	2.8
8	155.9	4.0
10	100.0	4.4
12	69.3	6.0
14	50.9	7.0
16	39.0	7.8

Intensity Summary (Candle Power)

Angle	Mean CP
0	9975
5	8986
15	4234
25	2042
35	1127
45	159
55	35
65	1
75	1
85	0
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	2904	77%
0-40	3593	95%
0-60	3794	99%
0-90	3797	100%

EM Mode*

EMB	Estimated Lumens
EMB45	441
EMB80	784
EMB250	2450

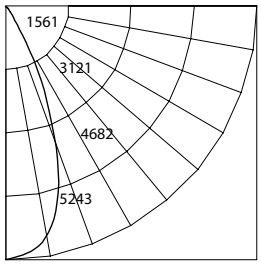
*Estimated lumen ouput is based on lumens per watt of the 3500K 38W test fixture and the wattage of the EM driver. For a better estimate of a specific part number, determine the fixture efficiency and use the formula:
EM Lumens = Lm/W Fixutre x EM driver Wattage

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

CDA8 Medium Optic

3500K 38W 90CRI

Input Voltage (VAC)	120
System Level Power (W)	38.6
Delivered Lumens (Lm)	3767
System Efficacy (Lm/W)	98
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	90
Beam Angle	44.5
Spacing Criteria	0.69



Adjustment Multipliers

Trim Color	CCT	Wattage	CRI
WH=104%	27K=92%	16=42%	80=117%
SC=105%	30K=98%	25=65%	90=100%
CZ=100%	35K=100%	38=100%	
GL=99%	40K=104%	50=130%	
BK=78%	50K=108%		
CM= 99%			

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	367.0	3.0
6	163.1	4.0
8	91.8	5.2
10	58.7	6.6
12	40.8	8.2
14	30.0	9.6
16	22.9	11.0

Intensity Summary (Candle Power)

Angle	Mean CP
0	5872
5	5590
15	4135
25	2497
35	1219
45	176
55	36
65	1
75	1
85	0
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	2792	74%
0-40	3547	94%
0-60	3763	99%
0-90	3767	100%

EM Mode*

EMB	Estimated Lumens
EMB45	441
EMB80	784
EMB250	2450

*Estimated lumen ouput is based on lumens per watt of the 3500K 38W 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 Fixutre 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.

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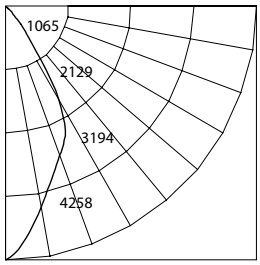
Photometric Data

CDA8 Wide Optic

3500K 38W 90CRI

Input Voltage (VAC)	120
System Level Power (W)	38.7
Delivered Lumens (Lm)	3759
System Efficacy (Lm/W)	98
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	90
Beam Angle	59.0
Spacing Criteria	0.89



Adjustment Multipliers

Trim Color	CCT	Wattage	CRI
WH=104%	27K=92%	16=42%	80=117%
SC=105%	30K=98%	25=65%	90=100%
CZ=100%	35K=100%	38=100%	
GL=99%	40K=104%	50=130%	
BK=78%	50K=108%		
CM= 99%			

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	265.8	3.4
6	118.1	5.2
8	66.5	7.0
10	42.5	8.2
12	29.5	9.8
14	21.7	11.2
16	16.6	12.8

Intensity Summary (Candle Power)

Angle	Mean CP
0	4253
5	4049
15	3277
25	2581
35	1559
45	329
55	44
65	2
75	1
85	0
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	2463	66%
0-40	3418	91%
0-60	3754	99%
0-90	3759	100%

EM Mode*

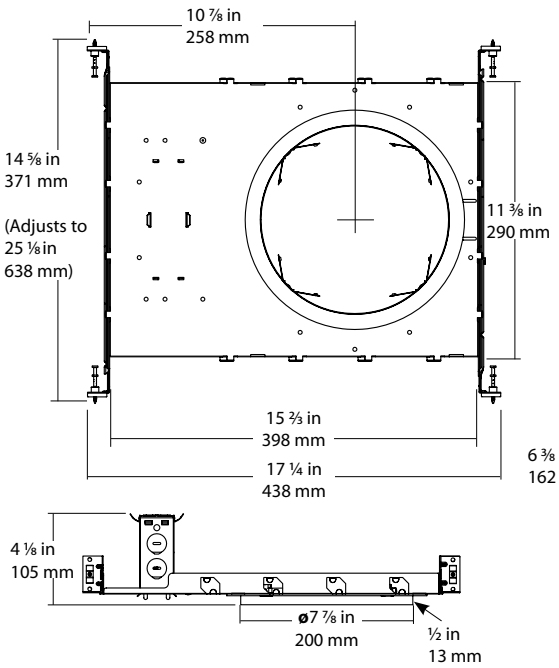
EMB	Estimated Lumens
EMB45	441
EMB80	784
EMB250	2450

*Estimated lumen ouput is based on lumens per watt of the 3500K 38W 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 Fixutre x EM driver Wattage

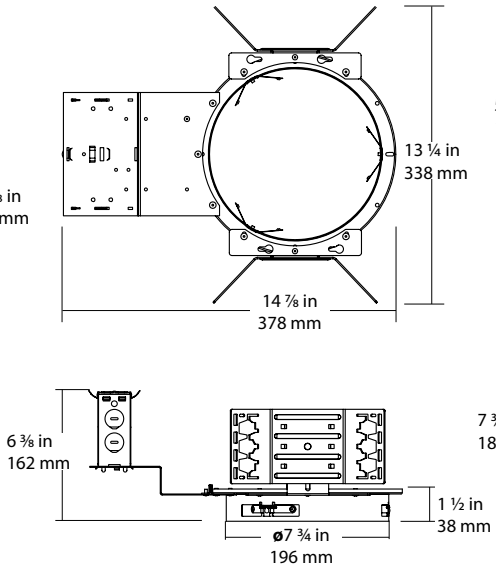
Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

Housings

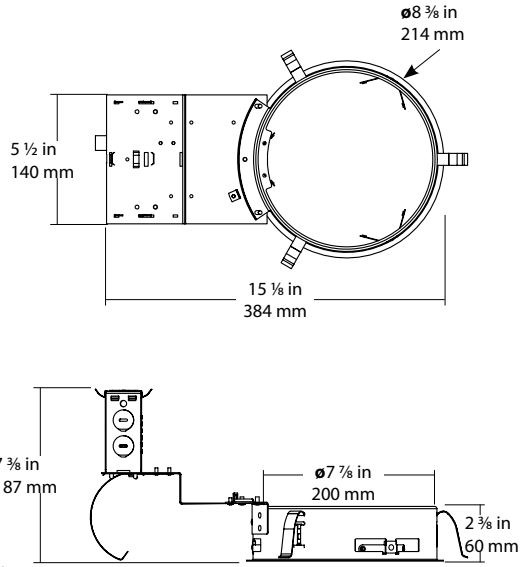
Plaster Frame



Architectural Frame



Remodel Frame



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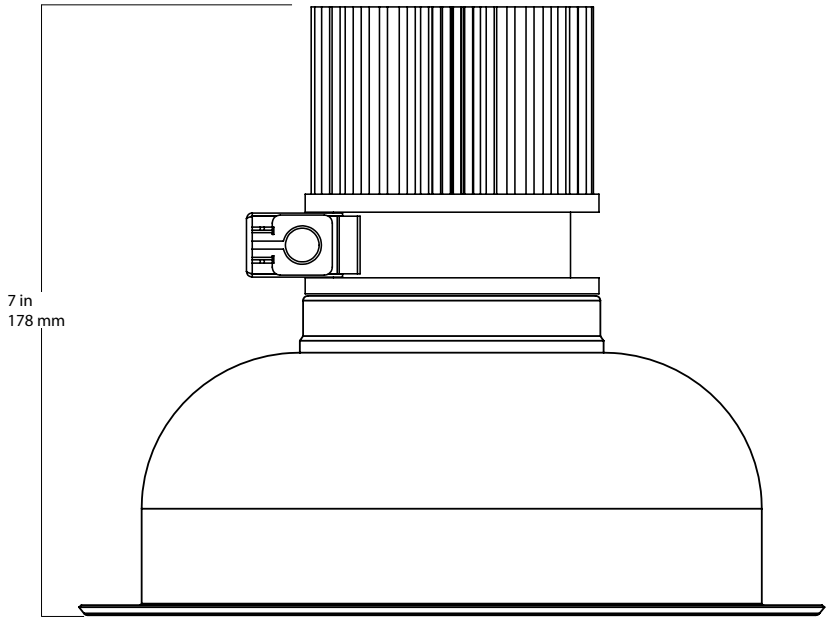
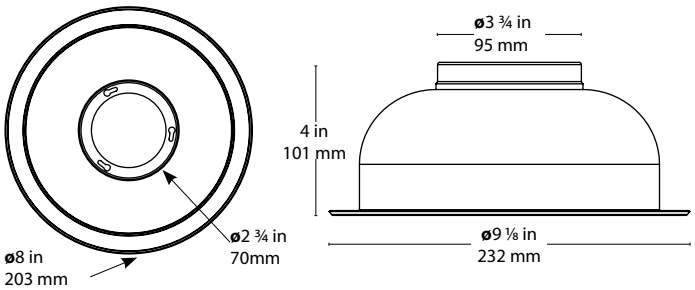
Light Engine

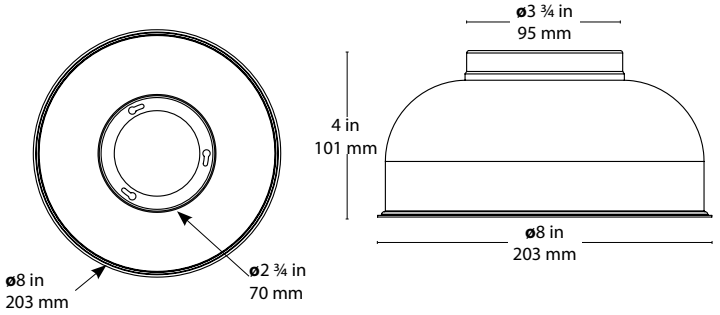


Trim Styles

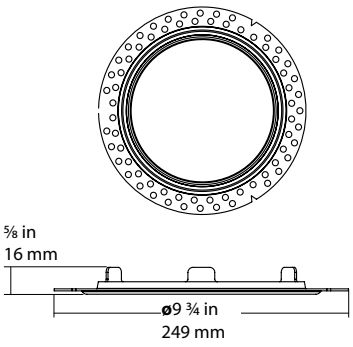
Self-Flanged



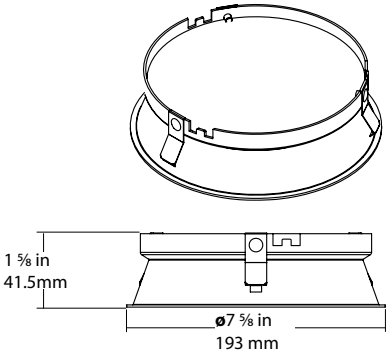
Flangeless



Flangeless Adapter



Glare Shield



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Ordering Information

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

Housing

Example: CDA8H2R

Series	Version	Style	Emergency
CDA8HS	2	☐ **A** (Architectural)	☐ **E1** (EMB45)
		☐ **F** (Plaster Frame)	☐ **E2** (EMB80)
		☐ **R** (Remodel)	☐ **E3** (EMB250)

Light Engine

Example: CDALE2016U278

Series	Version	Wattage	Voltage	CCT	CRI
CDALE	2	☐ **016** (16 Watts)	**U** (120-277VAC)	☐ **27** (2700 K)	☐ **8** (80 CRI)
		☐ **025** (25 Watts)		☐ **30** (3000 K)	☐ **9** (90 CRI)
		☐ **038** (38 Watts)		☐ **35** (3500 K)	
		☐ **050** (50 Watts)		☐ **40** (4000 K)	
				☐ **50** (5000 K)	
				☐ **DW** (Dim to Warm)[1]	

[1]Dim to Warm only available at 90CRI on 16W, 25W, and 38W fixtures

Trim and Optic

Example: CDA8TR220WHSF

Series	Version	Optic	Reflector	Flange
CDA8TR	2	☐ **20** (Narrow Optic)	☐ **WH** (White)	☐ **SF** (Self-flanged)
		☐ **40** (Medium Optic)	☐ **SC** (Specular Clear)	☐ **WH** (White)
		☐ **60** (Wide Optic)	☐ **CZ** (Clear Haze)	☐ **FL** (Flangeless)
			☐ **GL** (Wheat)	☐ **CUST** (Custom)
			☐ **BK** (Black)	
			☐ **CM** (Champagne)	
			☐ **CUST** (Custom)	

Accessories

Reflector

Series	Version	Reflector	Flange
CDA8RFL	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)	

Optics

Series	Version	Style
CDAOP	2	☐ **20** (Narrow Optic)
		☐ **40** (Medium Optic)
		☐ **60** (Wide Optic)

Glare Shield

Series	Version	Style
CDA8GS	2	☐ **WH** (White)
		☐ **SC** (Specular Clear)
		☐ **CZ** (Clear Haze)

Flangeless Adapter

Series
CDA8FLNGLESADAPT

NICOR® LED Paragon