

CDA4 ICAT 4" Downlight

Specification Grade IC Air-Tight Downlight

Product Description

The CDA4 ICAT is a 4" insulation-contact/air-tight rated downlight in NICOR's Paragon series of specification grade downlights. The CDA4 offers a wide variety of reflector and flange options to fit any architectural or commercial installation. Narrow, medium, wide, and wall wash optics are easily field installed to customize any space. The CDA4 line features Tri-D dimming on every fixture, allowing the luminaires to interface with TRIAC, ELV, and 0-10V dimmers down to 1% dimming (with select dimmers). The CDA4 light engines come in 16W to 38W 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.

Trim

The CDA4 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 trim color or can be painted white. Custom finishes and flange colors are available upon request.*

Optics

The CDA4 family features four standard optics: narrow, medium, and wide distributions as well as a wall wash. 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 as an accessory for increased glare reduction.

Light Engine

The CDA4 light engine module is built from die-cast and extruded aluminum to effectively and efficiently cool the LED. All light engines on the CDA4 are rated for 50,000 hours lifetime at L70. Lumen outputs ranging from 1200 to 4000 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 CDA4 light module features a quick-connect whip for simple connection to the driver located in the housing. This allows 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%). The CDA4 ICAT driver comes pre-installed in the ICAT housing with a quick-connect whip for easy light engine connection. CDA4 Class 2 drivers are available in 16W, 25W, and 38W packages with a power factor of >.90.

Housings

CDA4 ICAT housings are made of 16ga. powder-coated and galvanized steel construction, making them attractive, rugged, and corrosion resistant. The ICAT housing allows for insulation contact for the luminaire while also creating an air-tight seal for residential, multi-family, and hospitality applications. 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 ¾" knockout, and four non-metallic sheathed cable knockouts. Junction boxes are rated for (8) 12AWG 90°C rated wires.

Installation

The CDA4'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



CDA4 ICAT
16W, 25W, 38W
4" ICAT Housing

* Contact factory for lead time and minimum order quantity.



CDA4 ICAT 4" Downlight

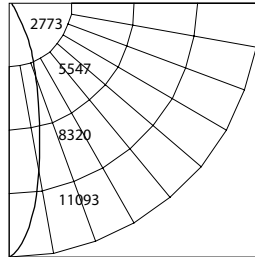
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Photometric Data

CDA4 Narrow Optic

3500K 38W 90CRI

Input Voltage (VAC)	120
System Level Power (W)	38.7
Delivered Lumens (Lm)	3677
System Efficacy (Lm/W)	95
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	90
Beam Angle	29.5
Spacing Criteria	0.47



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	643.7	2.3
6	286.1	3.2
8	160.9	3.9
10	103.0	5.6
12	71.5	6.4
14	52.6	7.2
16	40.2	6.0

Intensity Summary (Candle Power)

Angle	Mean CP
0	10300
5	9551
15	5063
25	2127
35	398
45	138
55	69
65	10
75	2
85	0
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3206	87%
0-40	3493	95%
0-60	3662	99%
0-90	3677	100%

EM Mode*

EMB	Estimated Lumens
EMB45	427
EMB80	760
EMB250	2375

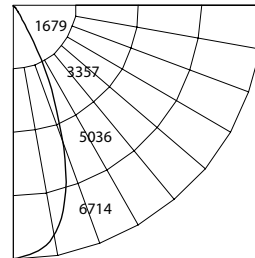
*Estimated lumen output is based on lumens per watt of the 3500K 38W test fixture and the wattage of the EM driver. For a better estimate of a specific part number, determine the fixture efficiency and use the formula:
EM Lumens = Lm/W Fixture x EM driver Wattage

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

CDA4 Medium Optic

3500K 38W 90CRI

Input Voltage (VAC)	120
System Level Power (W)	38.7
Delivered Lumens (Lm)	3627
System Efficacy (Lm/W)	94
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	90
Beam Angle	44.8
Spacing Criteria	0.74



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	388.9	2.6
6	172.8	4.2
8	97.2	5.6
10	62.2	8.0
12	43.2	9.0
14	31.8	10.4
16	24.3	12.0

Intensity Summary (Candle Power)

Angle	Mean CP
0	6222
5	6162
15	5075
25	2457
35	476
45	160
55	70
65	10
75	3
85	1
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3082	85%
0-40	3423	94%
0-60	3611	99%
0-90	3627	100%

EM Mode*

EMB	Estimated Lumens
EMB45	423
EMB80	752
EMB250	2350

*Estimated lumen output 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 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.

CDA4 ICAT 4" Downlight

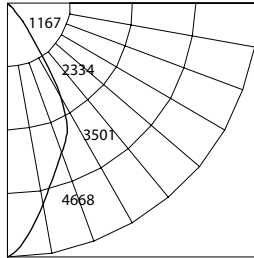
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Photometric Data

CDA4 Wide Optic

3500K 38W 90CRI

Input Voltage (VAC)	120
System Level Power (W)	38.7
Delivered Lumens (Lm)	3608
System Efficacy (Lm/W)	93
Correlated Color Temp (K)	3500
Color Rendering Index (CRI)	90
Beam Angle	50.8
Spacing Criteria	0.81



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	312.6	2.8
6	139.0	5.0
8	78.2	6.0
10	50.0	8.4
12	34.7	10
14	25.5	11.6
16	19.5	13.0

Intensity Summary (Candle Power)

Angle	Mean CP
0	5002
5	4919
15	4210
25	2597
35	816
45	231
55	85
65	14
75	4
85	1
90	0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	2786	77%
0-40	3321	92%
0-60	3588	99%
0-90	3608	100%

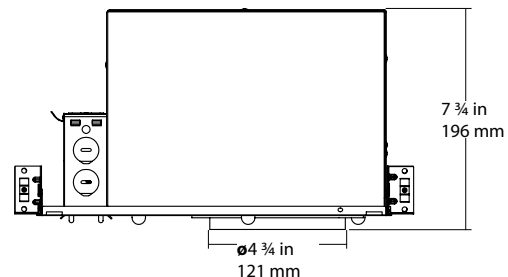
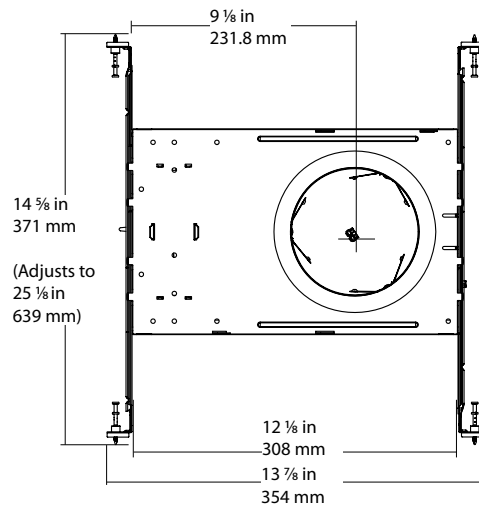
EM Mode*

EMB	Estimated Lumens
EMB45	418
EMB80	744
EMB250	2325

*Estimated lumen output 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 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.

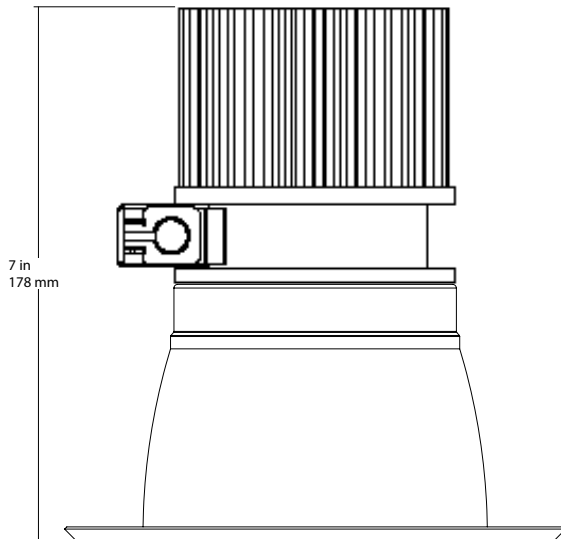
ICAT Housing



CDA4 ICAT 4" Downlight

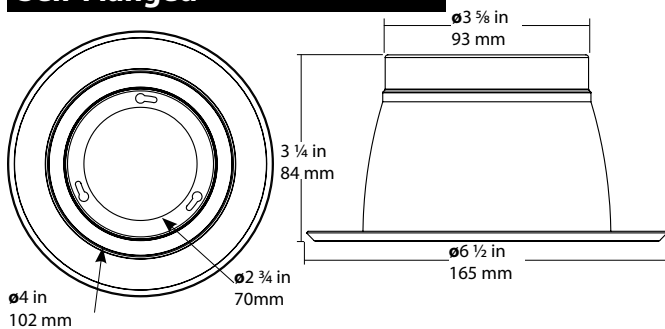
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Light Engine

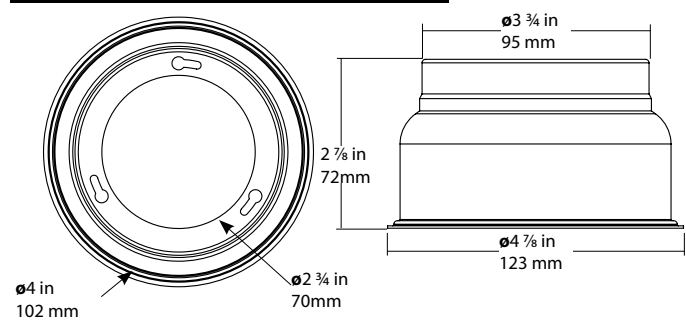


Trim Styles

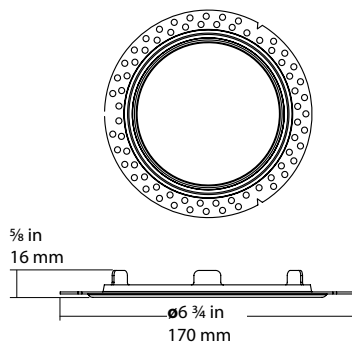
Self-Flanged



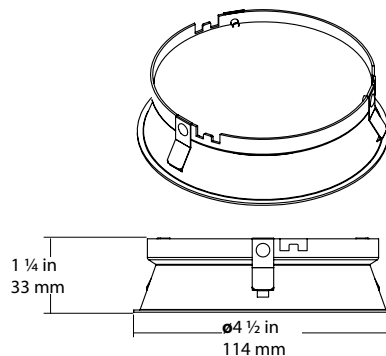
Flangeless



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

Series	Version	Type	Wattage
CDA4HS	2	I (ICAT)	016 (16 Watts)
			025 (25 Watts)
			038 (38 Watts)

Light Engine

Example: CDALE2016U278

Series	Version	Wattage	Voltage	CCT	CRI
CDAIC	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)	
				40 (4000 K)	
				50 (5000 K)	
				DW (Dim to Warm)*	

*Dim to Warm only available at 90CRI

Trim and Optic

Example: CDA4TR220WHSF

Series	Version	Optic	Reflector	Flange
CDA4TR	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)
		WW (Wall Wash White Insert)**	GL (Wheat)	CUST (Custom)
		WS (Wall Wash Specular Clear Insert)**	BK (Black)	
			CM (Champagne)	
			CUST (Custom)	

**Only available in white or specular clear

Accessories

Reflector

Series	Version	Reflector	Flange
CDA4RFL	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)	

Flangeless Adapter

Series
CDA4FLNGLESADAPT

Optics

Series	Version	Style
CDAOP	2	20 (Narrow Optic)
		40 (Medium Optic)
		60 (Wide Optic)
		WWSC (Wall Wash Specular Clear)
		WWWH (Wall Wash White)

Glare Shield

Series	Version	Style
CDA4GS	2	WH (White)
		SC (Specular Clear)
		CZ (Clear Haze)