

NLCBC2-45 Series

4" Cobalt Click LED Retrofit Downlights

Source: 10W to 13.5W LED
750lm to 1000lm

PRODUCT DESCRIPTION

Cobalt retrofit series is cULus classified for use in existing IC or Non-IC housings manufactured by Nora and others. The Cobalt series integrates an array of LEDs, giving bright spectacular light output and low power consumption.

SPECIFICATION

Trim: UTM thermal management features an integral driver, large heat sink and the latest LED technology. The patented "Click" system allows the aluminum spun trims to be easily changed in the field with the help of spring mounting clips which properly secure them to the LED module.

Mounting: Three steel, spring mounting clips allow for easy and secure mounting in most 4" housings.

Retrofit: Cobalt retrofit series includes medium base screw-socket adapter ([NRA-21ISM](#)) for retrofitting into existing medium base downlight housings. GU24 socket adapter is available for use with GU24 housings, must specify [NRA-212SM](#).

ELECTRICAL

Input Voltage: 120V or 120V-277V, must specify

Lumens / Wattage: See chart below

LED Module	Lumens / Wattage	Color Temperature
Dedicated CCT	750lm / 10W or 1000lm / 12W	2700K, 3000K, 3500K, 4000K
Selectable CCT	1000lm / 13.5W	2700K, 3000K, 3500K, 4000K, 5000K
Comfort Dim	900lm / 12W	3000K to 2000K

Color Temperature: Dedicated, Selectable or Comfort Dim

Color Rendering Index: 90+ CRI

Operating Temperature: 0°C to 25°C

Lifetime:

36,000 hours @ L70 (Selectable CCT)

50,000 hours @ L70 (Dedicated CCT & Comfort Dim)

Comfort Dim: Comfort Dim color tunes the temperature from a bright 3000K, to a romantic and comfortable 2000K on a gradual, even curve. Available in 900lm / 12W / 120V only.

Dimming: Phase (Triac/ELV) or 0-10V, must specify

[Click Here](#) or check complete dimmer list at

www.NoraLighting.com in the "Compatibility" page under "Resources" tab

TRIM FINISHES

	BB	BW	BZBZ	DW	HZMPW	HZW	MPW	NN	PW	WW
451	•	•	•	•	•	•	•	•		•
452	•	•	•				•	•		•
453			•	•		•	•			•
455							•			•
456	•	•*	•		•	•*	•	•	•*	•*

* Not available with Selectable CCT (TW)

COMPATIBLE HOUSINGS

Cobalt retrofit reflectors are compatible with most 4" IC and Non-IC housings by Nora and others.

Fire Box

[NFBIC-4LMRATA*](#)

ICAT Dedicated LED

[NFBIC-4LMRATA/4W*](#)

ICAT Dedicated LED for LE4

[NFBIC-4INCATA](#)

ICAT Line Voltage

[NFJB-R4](#)

ICAT Junction Box (Selectable CCT only)

New Construction

[NHIC-4LMRAT*](#)

ICAT Dedicated LED

[NHIC-4LMRAT/4W*](#)

ICAT Dedicated LED for LE4

[NHIC-4LMRAT/EM*](#)

ICAT Dedicated LED w/EM

[NHIC-4LMRAT/6WEM*](#)

ICAT Dedicated LED w/EM+LE4

[NHICCP-4LMRAT*](#)

Chicago Plenum Dedicated LED

[NSIC-401QAT](#)

ICAT Line Voltage

[NS-401QAT](#)

AT Line Voltage

[NHIC-4G24AT](#)

ICAT GU24

Remodel

[NHRIC-4LMRAT*](#)

ICAT Dedicated LED

[NHRIC-4LMRAT/4W*](#)

ICAT Dedicated LED

[NSRIC-404QAT](#)

ICAT Line Voltage

[NSR-404QAT](#)

AT Line Voltage

* Nora Dedicated LED housings are cULus listed for use only with Nora LED Retrofits.

ACCESSORIES

[NLCBC-4EYELID](#): Round eyelid for reflector or baffle

[NLCBC-4OR](#): Round oversize ring for holes up to 5-3/4"

[NEPK-23LEDUNV](#): 23W Emergency with Remote Test Switch

[NEPKA-20/23LEDRTS](#): Ribbon Test Switch for NEPK-23LEDUNV

Emergency:

Selectable CCT is compatible with NEPK-23LEDUNV

(ordered separately).

Dedicated CCT and Comfort Dim require a housing with EM.

LABELS AND LISTINGS

- cULus classified for Wet Locations
- [5-Year Limited Warranty](#)
- Airtight in accordance to ASTM E283
- FCC Compliant
- Certified to the requirements of CA Title 24 JA8-2025
- Patented (noralighting.com/patents)



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PRODUCT IMAGES & DIMENSIONS



4" Cobalt Click LED Retrofit Reflectors

Reflector Type	Color Temperature	Finish (see chart above)	Lumens	Dimming & Emergency
NLCBC2-451 = Round Reflector	27 = 2700K	BB = Black / Black	/A = 750lm (Dedicated CCT)	(blank) = 120V Phase (Triac/ELV)
NLCBC2-452 = Round Baffle	30 = 3000K	BW = Black / White	900lm (Comfort Dim)	LE4 = 120-277V Phase or 0-10V (requires Nora 4W housing)
NLCBC2-453 = Square Round ¹	35 = 3500K	BZBZ = Bronze / Bronze	/10 = 1000lm	EM = 120V with Emergency Wiring ⁴ (requires Nora EM housing)
NLCBC2-455 = Square Pinhole ¹	40 = 4000K	DW = Diffused / White		LE4EM = LE4 w/ Emergency Wiring ⁴ (requires Nora 6WEM housing)
NLCBC2-456 = Square Regress	TW = Selectable CCT ²	HZMPW = Haze / MPW		
	CD = Comfort Dim ³	HZW = Haze / White		
		MPW = Matte Powder White		
		NN = Natural Metal		
		PW = Pewter / White		
		WW = White / White		

Notes:

¹ Not available with Selectable CCT

² Available in 1000lm & 120V only. Compatible w/NEPK-23LEDUNV

³ Available in 900lm & 120V only. Compatible w/EM housings

⁴ Available with Dedicated CCT & Comfort Dim only

Optional Accessories

Description
NLCBC-4EYELIDB = 4" Round Eyelid, Black
NLCBC-4EYELIDBZ = 4" Round Eyelid, Bronze
NLCBC-4EYELIDMPW = 4" Round Eyelid, Matte Powder White
NLCBC-4EYELIDW = 4" Round Eyelid, White
NLCBC-4OR-B = 4" Round Oversize Ring, Black
NLCBC-4OR-BZ = 4" Round Oversize Ring, Bronze
NLCBC-4OR-MPW = 4" Round Oversize Ring, Matte Powder White
NLCBC-4OR-W = 4" Round Oversize Ring, White
NRA-21ISM = Medium base screw-in socket (included)
NRA-212SM = Socket adapter for use with GU24 housings
NEPK-23LEDUNV = 23W Emergency LED Driver w/Remote Test Switch

Example: NLCBC2-45130MPW/A = 4" Cobalt Click LED Retrofit Reflector, 750lm / 10W, 3000K, Matte Powder White Finish

NLCBC2-45 Series
4" Cobalt Click LED Retrofit Downlight Accessories

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Round Eyelid

NLCBC-4EYELIDB Black Finish
NLCBC-4EYELIDBZ Bronze Finish
NLCBC-4EYELIDMPW Matte Powder White
NLCBC-4EYELIDW White Finish
Round eyelid used to convert round reflector or baffle to half moon wall wash trim.



Oversize Ring

NLCBC-4OR-B Black Finish
NLCBC-4OR-BZ Bronze Finish
NLCBC-4OR-MPW Matte Powder White
NLCBC-4OR-W White Finish
Round oversize ring used to cover ceiling cut-outs up to 5-3/4"



Medium Base Socket Adapter

NRA-21ISM
Retrofit adapter allows luminaire to be installed over recessed housings with a medium base socket.
Note: Each luminaire includes one adapter



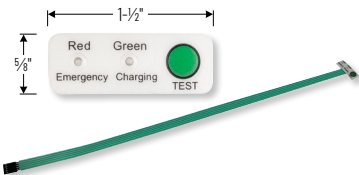
GU24 Socket Adapter

NRA-212SM
Retrofit adapter allows luminaire to be installed over recessed housings with a GU24 socket.



23W Emergency LED Driver with Remote Test Switch

NEPK-23LEDUNV
120-277V Emergency battery operates luminaire for 90 minute emergency operation with a fully charged battery. Requires 24 hours to charge the battery.
Note: Compatible with Selectable CCT only



Ribbon Test Switch for NEPK-23LEDUNV

NEPKA-20/23LEDRTS
Ribbon test switch replaces remote test switch included with emergency driver. Double sided tape is pre-installed.

PHOTOMETRICS

4" Cobalt Click LED Retrofit Downlights 750 lumens / Dedicated CCT

Type

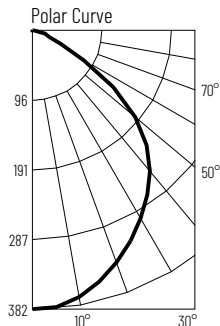
Project

Catalog No.

Notes

Test Information

Test Number: NTR1294
Part Number: NLCBC2-45127WW/A
Beam Spread: 98° Wide Flood
Lumens: 819lm
Wattage: 9.44W
Efficacy: 87lpw
CCT / CRI: 2700K / 90 CRI
Spacing Criteria (0°-180°): 1.18
Spacing Criteria (90°-270°): 1.18



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	23.9fc	9'-4"
6'	10.6fc	13'-11"
8'	6fc	18'-6"
10'	3.8fc	23'-1"
12'	2.7fc	27'-10"

Zonal Lumen Summary

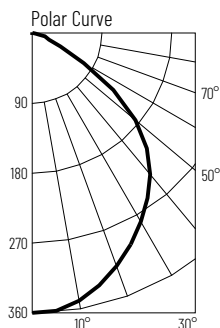
Zone	Lumens	% Luminaire
0-30	283	34.6
0-40	455	55.6
0-60	743	90.8
0-90	816	99.6
90-180	4	0.4
0-180	819	100

Candela Table

Vertical Angles	Candela
0	382
5	381
15	357
25	319
35	276
45	223

Test Information

Test Number: NTR1295
Part Number: NLCBC2-45130WW/A
Beam Spread: 99° Wide Flood
Lumens: 783lm
Wattage: 9.49W
Efficacy: 83lpw
CCT / CRI: 3000K / 90 CRI
Spacing Criteria (0°-180°): 1.18
Spacing Criteria (90°-270°): 1.18



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	22.5fc	9'-6"
6'	10fc	14'-4"
8'	5.6fc	19'
10'	3.6fc	23'-10"
12'	2.5fc	28'-7"

Zonal Lumen Summary

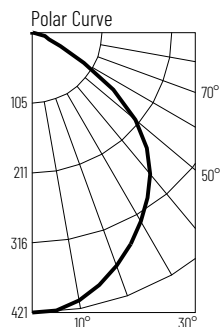
Zone	Lumens	% Luminaire
0-30	267	34.1
0-40	430	54.8
0-60	711	90.7
0-90	782	99.8
90-180	2	0.2
0-180	783	100

Candela Table

Vertical Angles	Candela
0	360
5	357
15	335
25	300
35	259
45	211

Test Information

Test Number: NTR11254
Part Number: NLCBC2-45135WW/A
Beam Spread: 100° Wide Flood
Lumens: 927lm
Wattage: 10W
Efficacy: 93lpw
CCT / CRI: 3500K / 90 CRI
Spacing Criteria (0°-180°): 1.2
Spacing Criteria (90°-270°): 1.2



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	26.3fc	9'-7"
6'	11.7fc	14'-6"
8'	6.6fc	19'-4"
10'	4.2fc	24'-1"
12'	2.9fc	28'-11"

Zonal Lumen Summary

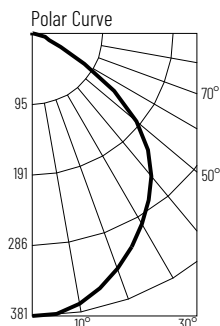
Zone	Lumens	% Luminaire
0-30	315	34
0-40	508	54.9
0-60	844	91.1
0-90	923	99.6
90-180	3	0.4
0-180	927	100

Candela Table

Vertical Angles	Candela
0	420
5	417
15	396
25	356
35	309
45	252

Test Information

Test Number: NTR11255
Part Number: NLCBC2-45140WW/A
Beam Spread: 98° Wide Flood
Lumens: 805lm
Wattage: 10W
Efficacy: 81lpw
CCT / CRI: 4000K / 90 CRI
Spacing Criteria (0°-180°): 1.18
Spacing Criteria (90°-270°): 1.18



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	23.8fc	9'-4"
6'	10.6fc	13'-11"
8'	6fc	18'-7"
10'	3.8fc	23'-2"
12'	2.6fc	27'-11"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	282	35
0-40	452	56.2
0-60	740	91.9
0-90	803	99.7
90-180	3	0.3
0-180	805	100

Candela Table

Vertical Angles	Candela
0	381
5	378
15	356
25	318
35	272
45	220

Finish Multipliers

Finish: Black (0.76), Bronze (0.76), Diffused Clear (0.92), Haze (0.9), Matte Powder White (0.98), Natural Metal (0.94)

PHOTOMETRICS

4" Cobalt Click LED Retrofit Downlights 1000 lumens / Dedicated CCT

Type

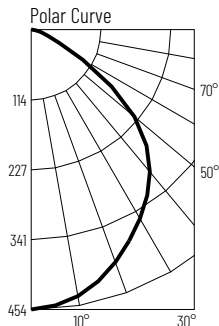
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Test Information

Test Number: NTR1300
Part Number: NLCBC2-45127WW/10
Beam Spread: 98° Wide Flood
Lumens: 978lm
Wattage: 11.56W
Efficacy: 85lpw
CCT / CRI: 2700K / 90 CRI
Spacing Criteria (0°-180°): 1.18
Spacing Criteria (90°-270°): 1.18



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	28.4fc	9'-4"
6'	12.6fc	13'-11"
8'	7.1fc	18'-6"
10'	4.5fc	23'-2"
12'	3.2fc	27'-10"

Zonal Lumen Summary

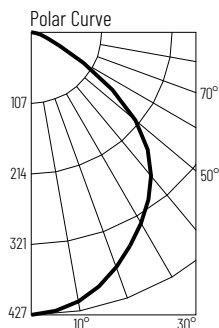
Zone	Lumens	% Luminaire
0-30	336	34.3
0-40	540	55.2
0-60	886	90.7
0-90	975	99.7
90-180	3	0.3
0-180	978	100

Candela Table

Vertical Angles	Candela
0	454
5	450
15	422
25	378
35	329
45	266

Test Information

Test Number: NTR1301
Part Number: NLCBC2-45130WW/10
Beam Spread: 99° Wide Flood
Lumens: 924lm
Wattage: 11.43W
Efficacy: 81lpw
CCT / CRI: 3000K / 90 CRI
Spacing Criteria (0°-180°): 1.18
Spacing Criteria (90°-270°): 1.18



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	26.7fc	9'-4"
6'	11.9fc	14'
8'	6.7fc	18'-7"
10'	4.3fc	23'-4"
12'	3fc	28'

Zonal Lumen Summary

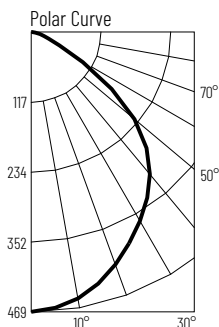
Zone	Lumens	% Luminaire
0-30	317	34.3
0-40	509	55.1
0-60	837	90.6
0-90	920	99.5
90-180	5	0.5
0-180	924	100

Candela Table

Vertical Angles	Candela
0	427
5	424
15	398
25	356
35	307
45	248

Test Information

Test Number: NTR2578R1
Part Number: NLCBC2-45140WW/10
Beam Spread: 100° Wide Flood
Lumens: 1034lm
Wattage: 11.27W
Efficacy: 92lpw
CCT / CRI: 4000K / 90 CRI
Spacing Criteria (0°-180°): 1.2
Spacing Criteria (90°-270°): 1.2



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	29.3fc	9'-6"
6'	13fc	14'-4"
8'	7.3fc	19'-1"
10'	4.7fc	23'-10"
12'	3.3fc	28'-7"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	352	34.1
0-40	569	55
0-60	938	90.7
0-90	1034	100
90-180	0	0
0-180	1034	100

Candela Table

Vertical Angles	Candela
0	469
5	465
15	443
25	402
35	348
45	281

Finish Multipliers

Finish: Black (0.76), Bronze (0.76), Diffused Clear (0.92), Haze (0.9), Matte Powder White (0.98), Natural Metal (0.94)

PHOTOMETRICS

4" Cobalt Click LED Retrofit Downlights 1000 lumens / Selectable CCT

Type

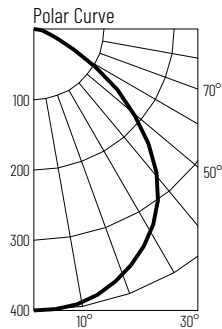
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Test Information

Test Number: NTR2253R1
Part Number: NLBCB2-451TWWW/10
Beam Spread: 96° Wide Flood
Lumens: 877lm
Wattage: 13.24W
Efficacy: 66lpw
CCT / CRI: 2700K / 90 CRI
Spacing Criteria (0°-180°): 1.24
Spacing Criteria (90°-270°): 1.22



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	25fc	9'
6'	11.1fc	13'-6"
8'	6.3fc	18'
10'	4fc	22'-6"
12'	2.8fc	27'

Zonal Lumen Summary

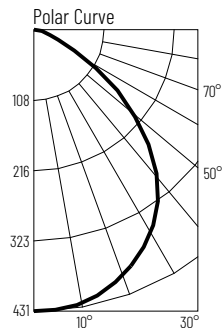
Zone	Lumens	% Luminaire
0-30	254	29
0-40	420	47.8
0-60	782	89.1
0-90	877	100
90-180	0	0
0-180	877	100

Candela Table

Vertical Angles	Candela
0	400
5	399
15	385
25	354
35	306
45	231

Test Information

Test Number: NTR2254R1
Part Number: NLBCB2-451TWWW/10
Beam Spread: 96° Wide Flood
Lumens: 945lm
Wattage: 13.46W
Efficacy: 70lpw
CCT / CRI: 3000K / 90 CRI
Spacing Criteria (0°-180°): 1.24
Spacing Criteria (90°-270°): 1.22



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	26.9fc	9'
6'	12fc	13'-6"
8'	6.7fc	17'-11"
10'	4.3fc	22'-5"
12'	3fc	26'-11"

Zonal Lumen Summary

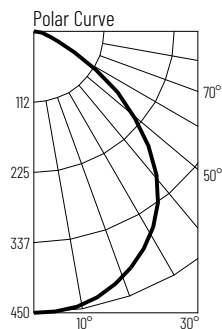
Zone	Lumens	% Luminaire
0-30	331	35.1
0-40	535	56.6
0-60	856	90.6
0-90	945	100
90-180	0	0
0-180	945	100

Candela Table

Vertical Angles	Candela
0	431
5	430
15	414
25	381
35	331
45	247

Test Information

Test Number: NTR2255R1
Part Number: NLBCB2-451TWWW/10
Beam Spread: 96° Wide Flood
Lumens: 986lm
Wattage: 13.64W
Efficacy: 72lpw
CCT / CRI: 3500K / 90 CRI
Spacing Criteria (0°-180°): 1.24
Spacing Criteria (90°-270°): 1.22



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	28.1fc	9'
6'	12.5fc	13'-5"
8'	7fc	17'-11"
10'	4.5fc	22'-5"
12'	3.1fc	26'-11"

Zonal Lumen Summary

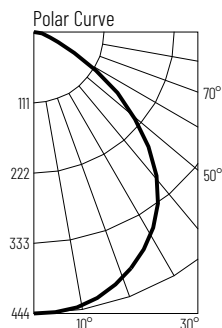
Zone	Lumens	% Luminaire
0-30	345	35
0-40	558	56.6
0-60	893	90.6
0-90	986	100
90-180	0	0
0-180	986	100

Candela Table

Vertical Angles	Candela
0	450
5	448
15	432
25	397
35	344
45	258

Test Information

Test Number: NTR2256R1
Part Number: NLBCB2-451TWWW/10
Beam Spread: 96° Wide Flood
Lumens: 971lm
Wattage: 13.5W
Efficacy: 72lpw
CCT / CRI: 4000K / 90 CRI
Spacing Criteria (0°-180°): 1.24
Spacing Criteria (90°-270°): 1.22



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	27.7fc	8'-11"
6'	12.3fc	13'-5"
8'	6.9fc	17'-11"
10'	4.4fc	22'-4"
12'	3.1fc	26'-10"

Zonal Lumen Summary

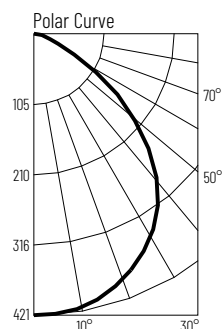
Zone	Lumens	% Luminaire
0-30	341	35.1
0-40	550	56.7
0-60	880	90.6
0-90	971	100
90-180	0	0
0-180	971	100

Candela Table

Vertical Angles	Candela
0	444
5	442
15	426
25	392
35	340
45	254

Test Information

Test Number: NTR2257R1
Part Number: NLBCB2-451TWWW/10
Beam Spread: 95° Wide Flood
Lumens: 916lm
Wattage: 13.22W
Efficacy: 69lpw
CCT / CRI: 5000K / 90 CRI
Spacing Criteria (0°-180°): 1.24
Spacing Criteria (90°-270°): 1.22



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	26.2fc	8'-10"
6'	11.7fc	13'-4"
8'	6.6fc	17'-8"
10'	4.2fc	22'-1"
12'	2.9fc	26'-6"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	322	35.2
0-40	520	56.8
0-60	830	90.6
0-90	916	100
90-180	0	0
0-180	916	100

Candela Table

Vertical Angles	Candela
0	420
5	419
15	403
25	369
35	320
45	238