

**NLCBC-45 Series**  
**4" Cobalt Retrofit Reflectors**

Source: 13W/16W LED  
 1000lm

**PRODUCT DESCRIPTION**

Cobalt retrofit series is cULus classified for use in existing IC or Non-IC housings manufactured by Nora and others. The 4" retrofit luminaires produces 1000 lumen output at 90+ CRI. The Cobalt series integrates a Cree® COB family of LED arrays, giving bright spectacular light output and low power consumption. An obvious and smart choice for Green Energy efficient lighting in commercial and residential applications.

**FEATURES**

- 1000lm LED output
- 2700K, 3000K, 3500K or 4000K @ 90+ CRI
- CREE® COB LED
- Integral dimmable driver
- Includes medium base socket adapter for easy retrofitting in 4" recessed housings
- 5-year limited warranty
- ENERGY STAR certified
- cULus classified for wet locations

**SPECIFICATION**

**Trim:** Aluminum spun reflector with deep set diffused lens for excellent visual comfort while providing high lumen output. The deep trim places the LED optics deeper, increasing the visual comfort and reduces board images when off.

**Mounting:** Two steel, spring mounting blades allow for easy and secure mounting in most 4" housings.

**Retrofit:** Cobalt retrofit series includes medium base screw-socket adapter (NRA-211SM) 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:** 1000lm  
**Wattage:** 13W (120V) or 16W (LE4)  
**Color Temperature:** 2700K, 3000K, 3500K or 4000K  
**CRI:** 90+CRI  
**Operating Temp.:** 0°C to 45°C ambient temperature  
**Dimming:** Available in Triac/ELV/0-10V, must specify [Click Here](#) or check complete dimmer list at [www.NoraLighting.com](http://www.NoraLighting.com) in the "Compatibility" page under "Resources" tab

**COMPATIBLE HOUSINGS**

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

**Fire Box**

- NFBIC-4LMRAT\*** ICAT Dedicated LED
- NFBIC-4LMRAT/4W** ICAT Dedicated LED for LE4
- NFBIC-4INCAT** ICAT Line Voltage

**New Construction**

- NHIC-4LMRAT\*** ICAT Dedicated LED
- NHICCP-4LMRAT\*** Chicago Plenum Dedicated LED (Note: NHICCP-4LMRAT is not compatible with LE4)
- NHIC-4LMRAT/277\*** ICAT Dedicated LED, 277V (includes step-down transformer)
- NHIC-4LMRAT/4W\*** ICAT Dedicated LED for LE4
- NHIC-4LMRAT/EM\*** ICAT Dedicated LED for EM
- NHIC-4LMRAT/6WEM\*** ICAT Dedicated LED for EM+LE4
- NSIC-401QAT** ICAT Line Voltage
- NS-401QAT** AT Line Voltage
- NHIC-4G24AT** ICAT GU24

**Remodel**

- NHRIC-4LMRAT\*** ICAT Dedicated LED
- NSRIC-404QAT** ICAT Line Voltage
- NSR-404QAT** AT Line Voltage
- NHRIC-4G24AT** ICAT GU24

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

**ACCESSORIES**

- NLCBC-4EYELID:** Round eyelid used to convert round reflector or baffle to half moon wall wash trim.
- NLCBC-4OR:** Round oversize ring used to cover ceiling cut-outs up to 6".

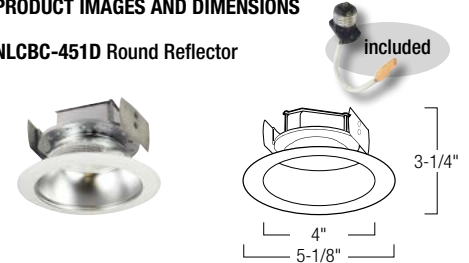
**LABELS AND LISTINGS**

- cULus classified for Wet Locations
- ENERGY STAR certified
- 5-Year Limited Warranty
- Can be used to comply with 2016 Title 24 – part 6 High Efficacy LED light source requirements

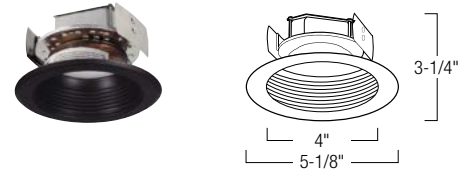


**PRODUCT IMAGES AND DIMENSIONS**

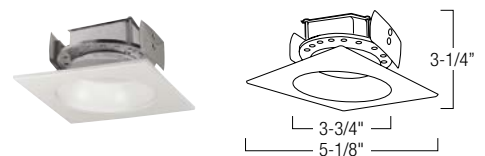
**NLCBC-451D Round Reflector**



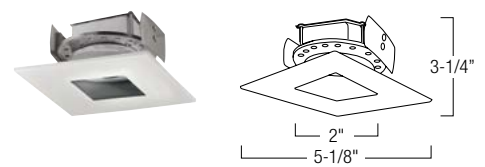
**NLCBC-452D Round Baffle**



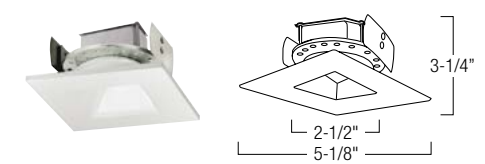
**NLCBC-453 Square Round**



**NLCBC-455 Square Pinhole**



**NLCBC-456 Square Regress**



**4" Cobalt Retrofit Reflectors**

Reflector Type	Color Temp.	Finish	Dimming & Emergency
<b>NLCBC-453</b> = Square Round	<b>27</b> = 2700K	<b>WW</b> = White / White	<b>(blank)</b> = 120V Triac/ELV
<b>NLCBC-455</b> = Square Pinhole	<b>30</b> = 3000K	<b>MPW</b> = Matte Powder White	<b>EM</b> = Remote Emergency (requires Nora EM housing)
<b>NLCBC-456</b> = Square Regress	<b>40</b> = 4000K (MPW only)		
<b>NLCBC-451D</b> = Round Reflector	<b>27</b> = 2700K	<b>BZ</b> = Bronze / Bronze	<b>(blank)</b> = 120V Triac/ELV
<b>NLCBC-452D</b> = Round Baffle	<b>30</b> = 3000K <b>40</b> = 4000K	<b>DW</b> = Diffused / White (451D only) <b>HZW</b> = Haze / White (451D only) <b>MPW</b> = Matte Powder White <b>WW</b> = White / White	<b>EM</b> = Remote Emergency (requires Nora EM housing)
<b>NLCBC-451D</b> = Round Reflector	<b>30</b> = 3000K <b>35</b> = 3500K	<b>DD</b> = Diffused / Diffused <b>DW</b> = Diffused / White <b>WW</b> = White / White	<b>LE4</b> = 120V Triac/ELV or 0-10V 277V 0-10V <b>LE4EM</b> = LE4 w/ Remote Emergency (requires Nora EM housing)

**Optional Accessories**

Description
<b>NLCBC-4EYELIDB</b> = 4" Round Eyelid, Black
<b>NLCBC-4EYELIDBZ</b> = 4" Round Eyelid, Bronze
<b>NLCBC-4EYELIDMPW</b> = 4" Round Eyelid, Matte Powder White
<b>NLCBC-4EYELIDW</b> = 4" Round Eyelid, White
<b>NLCBC-4OR-B</b> = 4" Round Oversize Ring, Black
<b>NLCBC-4OR-BZ</b> = 4" Round Oversize Ring, Bronze
<b>NLCBC-4OR-MPW</b> = 4" Round Oversize Ring, Matte Powder White
<b>NLCBC-4OR-W</b> = 4" Round Oversize Ring, White
<b>NRA-211SM</b> = Medium base screw-in socket (included)
<b>NRA-212SM</b> = Socket adapter for use with GU24 housings

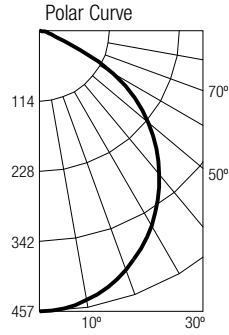
Example: **NLCBC-451D30MPW** = 4" Cobalt Retrofit Round Reflector, 1000lm / 13W LED, 3000K, Matte Powder White Finish

**PHOTOMETRICS**

**4" Cobalt Retrofit Series**

**Test Information**

Test Number: 795866  
 Part Number: NLCBC-451D40WW  
 Lumens: 1036lm  
 Wattage: 15.3W  
 Efficacy: 68lpw  
 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'	28.5fc	9'-8"
6'	12.7fc	14'-7"
8'	7.1fc	19'-5"
10'	4.6fc	24'-4"
12'	3.2fc	29'-1"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	345	33.3
0-40	556	53.6
0-60	932	90
0-90	1036	100
90-180	0	0
0-180	1036	100

Candela Table

Vertical Angles	Candela
0	457
5	454
15	432
25	392
35	337
45	270