

**NHRIOIC-28**

**2" Iolite IC Air-Tight Remodel Housing**

Source: 14W LED  
800lm

**PRODUCT DESCRIPTION**

Dedicated remodel housing for use in insulated ceilings; can be in direct contact with insulation\*\*. Air-tight construction provides energy savings by reducing the flow of air through the ceiling.

**FEATURES**

- IC rated for direct contact with insulation\*\*
- Quick connect provided for electrical connection to the LED reflector
- ASTM E283 for Air-Tight
- Dimming down to 5%

**SPECIFICATION**

**Housing:** 0.030 steel can connects to integrated 0.040 steel structural arm with junction box and driver compartment. Integral spring brackets provided. New construction flat frame available to allow access to junction box from below the ceiling, must specify NHIOFK-2.

**Air Flow Restriction:** Housing has factory installed gaskets to restrict airflow from room into ceiling plenum to <2CFM (cubic feet per minute) in accordance with ASTM-283 Air-Tight requirements.

**Clearance\*\*:** "IC" Insulated ceiling housings are direct contact rated. Not to be used in direct contact with spray foam insulation.

**Mounting:** Four high-tension tempered steel springs secure remodel housing from 1/4" (min) to 5/8" (max) thick ceiling. Hole cutout template provided for convenience.

**Junction Box:** Pre-wired 25 cubic inch 0.064" thick galvanized steel, with five 1/2", two 3/4" knockouts, four Romex® pryouts, and snap on covers. All leads are #18AWG wire, the ground wire is connected to the bottom, and quick connectors are supplied on all leads. Through branch circuit wiring, (4-in, 4-out).

**ELECTRICAL**

**Voltage:** 120/277V  
**Power Factor:** >0.90  
**Operating Temp.:** 122°F (50°C) max. ambient temp.  
**Wattage:** 14W  
**Dimming:** Triac / ELV or 0-10V Dimming  
[Click Here](#) or check complete dimmer list at www.NoraLighting.com in the "Compatibility" page under "Resources" tab

**COMPATIBLE TRIMS**

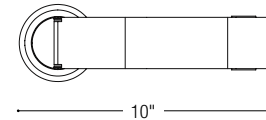
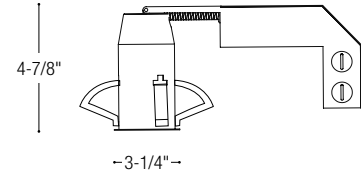
CATALOG NO.	DESCRIPTION
NIOB-2RC	2" Round Cone Regress
NIOB-2SC	2" Square Cone Regress
NIOB-2RG	2" Round Adj. Surface Gimbal
NIOB-2SG	2" Square Adj. Surface Gimbal
NIOB-2RPH	2" Round Pinhole
NIOB-2RSL	2" Round Slot Aperture
NIOB-2RNB	2" Round Bullnose
NIOB-2SNB	2" Square Bullnose
NIOB-2RNDC	2" Round Deep Cone Regress
NIOB-2SNDC	2" Square Deep Cone Regress
NIOB-2SNDSQ	2" Square Deep Cone, Square Regress

**LISTINGS AND WARRANTY**

- cULus Listed for Damp Location
- cULus Listed for Wet Location (w/designated reflectors)
- 5-Year Limited Warranty
- RoHS compliant
- Meets or exceeds ASTM-283 Air-Tight Requirements



**PRODUCT IMAGES AND DIMENSIONS**



**NHIOFK-2** New Construction Frame-In for 2"

**Frame-In Length:** 13"  
**Frame-In Width:** 8-1/4"  
**Cut-out:** 2-3/8"

**2" Iolite IC Air-Tight Remodel Housing** - Compatible with NIOB-2 reflectors

Installation Type	Driver / Dimming
NHRIOIC-28 = 2" Remodel	LE4 = 120-277V Input; 120V Triac/ELV/0-10V or 277V 0-10V dimming

**2" Iolite New Construction Flat Frame**

Description
NHIOFK-2 = 2" New Construction flat frame w/ bar hangers

Example: NHRIOIC-28LE4 = 2" Iolite IC Air-Tight Remodel Housing, 120-277V Input; 120V Triac/ELV/0-10V or 277V 0-10V dimming

**NIOB-2**  
 2" Iolite Reflectors

Source: 14W LED  
 800lm

**PRODUCT DESCRIPTION**

2" Iolite reflectors can be specified for use in new construction or remodel applications. The die-cast aluminum reflectors are available in square and round designs, with sharp and clean edges. Reflectors ships with a 60° optic installed, 25° and 38° optics are included and can be easily changed in the field. The reflectors produce 800lm output at 90+ CRI, utilizing 14W.

**FEATURES**

- Cree® LED COB or Comfort Dim Technology
- Wide variety of reflectors and finishes
- 60° (Flood) optic installed, 38° (Narrow flood) and 25° (Spot) optics included
- 5-Year limited warranty

**CONSTRUCTION**

Reflectors are constructed of heat dissipating, die-cast aluminum. The aluminum die-cast LED heat sink is threaded to fit the trim and transfer heat.

**Reflectors:**

NIOB-2RND / NIOB-2SND / NIOB-2SNSQ: Deep regressed cone reflectors optimize visual cut-off.  
 NIOB-2RG / NIOB-2SG: Adjustable surface gimbals adjusts up to 15°. NIOB-2SG adjust up to 15°.  
 NIOB-2RC / NIOB-2SC: Regressed cone reflectors optimize visual cut-off and adjust up to 15°. NIOB-2SC adjust up to 15°.  
 NIOB-2RPH: Pinhole reflector focuses the beam spread through 2-1/4" opening.  
 NIOB-2RSL: Adjustable slot aperture focus the beam spread through 1-3/4" x 1-3/8" opening and adjust up to 15°.

**Mounting:** Trim includes Friction Blades to mount trim securely to housing.

**Field Changeable Optics:** Each reflector comes with a 60° (installed), 38° and 25° optics (included). Premium TIR optics are also available in 15° or 25°, see page 3.

**ELECTRICAL**

**Lumens / Wattage:** 800lm / 14W  
**Color Temperature:** 2700K, 3000K, 3500K, 4000K, 5000K  
**CRI:** 90+  
**Operating Temp.:** 0°C to 45°C ambient temperature  
**Comfort Dim:** Comfort Dim color tunes the temperature from a bright 3100K, to a romantic and comfortable 2000K on a gradual, even curve. Available in 800lm only.  
**Dimming:** Specified by housing

**COMPATIBLE HOUSINGS**

Reflectors are compatible with respective Iolite housings manufactured by Nora Lighting.

CATALOG NO.	DESCRIPTION
NHIOIC-28	2" IC Air-Tight New Construction
NHRIOIC-28	2" IC Air-Tight Remodel

**Accessories:** Reflectors will accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see page 3.

**LISTINGS AND WARRANTY**

- cULus Listed for Wet Location
- ENERGY STAR certified
- [5 Year Limited Warranty](#)
- RoHS Compliant
- Can be used to comply with 2016 Title 24 – part 6 High Efficacy LED light source requirements



**PRODUCT IMAGES AND DIMENSIONS**



**NIOB-2RC**  
 Round Cone Regress Trim  
 15° Adjustable  
 BW, BZ, HW, MPW, NN, WW



**NIOB-2SC**  
 Square Cone Regress Trim  
 15° Adjustable  
 BW, BZ, HW, MPW, NN, WW



**NIOB-2RG**  
 Round Adj. Surface Gimbal Trim  
 15° Adjustable  
 BW, MPW, NN, WW



**NIOB-2SG**  
 Square Adj. Surface Gimbal Trim  
 15° Adjustable  
 BW, MPW, NN, WW



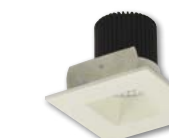
**NIOB-2RND**  
 Round Deep Cone Regress Trim  
 Non Adjustable  
 BW, BZ, HW, MPW, NN, WW



**NIOB-2SND**  
 Square Deep Cone Regress Trim  
 Non Adjustable  
 BW, BZ, HW, MPW, NN, WW



**NIOB-2RPH**  
 Round Pinhole Trim  
 Non Adjustable  
 BB, BMPW, HZMPW, MPW



**NIOB-2SNSQ**  
 Square Deep Cone, Square Regress Trim  
 Non Adjustable  
 BB, BW, BZ, HN, HW, MPW, WW



**NIOB-2RSL**  
 Round Adj. Slot Trim  
 15° Adjustable  
 BB, BMPW, HZMPW, MPW



**NIOB-2RNB**  
 Round Bullnose  
 Non-Adjustable  
 BB, BZ, MPW, NN, WW



**NIOB-2SNB**  
 Square Bullnose  
 Non-Adjustable  
 BZ, MPW, NN, WW

**2" Iolite Reflectors - Dedicated Housing Required**

Aperture	Reflector Style	Color Temp.	Finish <sup>3</sup>	Lumens
<b>NIOB-2R</b> = Round	<b>C</b> = Cone Regress	<b>27X</b> = 2700K	<b>BB</b> = Black / Black	<b>(blank)</b> = 800lm
<b>NIOB-2S</b> = Square	<b>G</b> = Adj. Surface Gimbal	<b>30X</b> = 3000K	<b>BMPW</b> = Black / Matte Powder White	
	<b>NDC</b> = Non-Adj. Deep Cone Regress	<b>35X</b> = 3500K	<b>BW</b> = Black / White	
	<b>NDSQ</b> = Deep Cone Non-Adj. Square Regress <sup>1</sup>	<b>40X</b> = 4000K	<b>BZ</b> = Bronze / Bronze	
		<b>50X</b> = 5000K	<b>HN</b> = Haze / Natural Metal	
	<b>PH</b> = Non-Adj. Pinhole <sup>2</sup>	<b>CDX</b> = Comfort Dim <sup>†</sup>	<b>HW</b> = Haze / White	
	<b>SL</b> = Slot Adjustable <sup>2</sup>		<b>HZMPW</b> = Haze / Matte Powder White	
	<b>NB</b> = Non-Adj. Bullnose		<b>MPW</b> = Matte Powder White	
			<b>NN</b> = Natural Metal / Natural Metal	
			<b>WW</b> = White / White	

<sup>1</sup> Available in square aperture only  
<sup>2</sup> Available in round aperture only  
<sup>†</sup> Comfort Dim technology uses non-Cree COB modules. 1" & 2" Iolite uses a different dimming curve than 4" Comfort Dim  
<sup>3</sup> Not all finishes are available on all trims

Example: **NIOB-2RG27XWW** = 4" Iolite Round Adjustable Surface Gimbal, 2700K, White finish, 800lm

## 2" Iolite Accessories

Iolite Accessories can be added at any point in the design process. Accessories easily install between module and die-cast reflector.



### Frosted Filter-Optic

**NIO-REFL15FR** 15° Optic  
**NIO-REFL25FR** 25° Optic  
**NIO-REFL38FR** 38° Optic  
**NIO-REFL60FR** 60° Optic



### Translucent Deco Collar

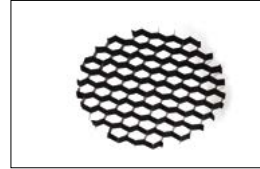
**NIO-AS14(color)** 5/8"  
**NIO-AS19(color)** 3/4"  
**NIO-AS24(color)** 1"  
**Color:** BLU Blue, AM Amber, FR Frost, R Red



### Opaque Collar Snoot

**NIO-AS14(color)** 5/8"  
**NIO-AS19(color)** 3/4"  
**NIO-AS24(color)** 1"

**Color:** BLK Black, MPW Matte Powder White, WH White



### Hex Cell Louver

**NIO-HC**  
 Hex cell louver subtly reduces aperture brightness by reducing light output by about 20%



### Premium TIR Optics

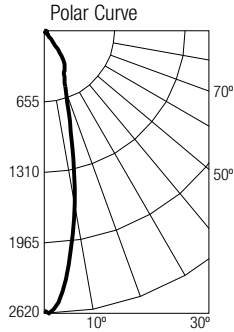
**NIO-REFLTIR15** 15° Optic  
**NIO-REFLTIR25** 25° Optic

**PHOTOMETRICS**

**2" Iolite Series**

**Test Information**

Test Number: NTR11264  
 Part Number: NIOB-2RC3025WW  
 Beam Spread: Spot  
 Lumens: 947lm  
 Wattage: 14.2W  
 Efficacy: 67lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.42  
 Spacing Criteria (90°-270): 0.42



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	162fc	1'-8"
6'	72.1fc	2'-7"
8'	40.5fc	3'-6"
10'	25.9fc	4'-5"
12'	18fc	5'-2"

**Zonal Lumen Summary**

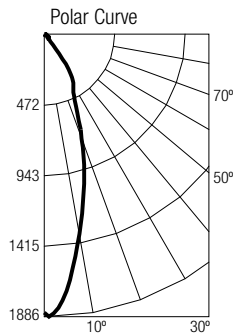
Zone	Lumens	% Luminaire
0-30	675	71.2
0-40	839	88.6
0-60	906	95.7
0-90	945	99.8
90-180	2	0.2
0-180	947	100

**Candela Table**

Vertical Angles	Candela
0	2594
5	2302
15	967
25	443
35	291
45	45

**Test Information**

Test Number: NTR11265  
 Part Number: NIOB-2RC3038WW  
 Beam Spread: Narrow Flood  
 Lumens: 936lm  
 Wattage: 14.2W  
 Efficacy: 66lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.54  
 Spacing Criteria (90°-270): 0.54



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	116fc	2'-5"
6'	51.6fc	3'-7"
8'	29fc	4'-10"
10'	18.6fc	5'-11"
12'	12.9fc	7'-1"

**Zonal Lumen Summary**

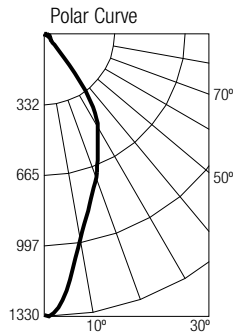
Zone	Lumens	% Luminaire
0-30	623	70.8
0-40	824	88.1
0-60	892	95.3
0-90	934	99.8
90-180	2	0.2
0-180	936	100

**Candela Table**

Vertical Angles	Candela
0	1858
5	1677
15	1021
25	480
35	279
45	45

**Test Information**

Test Number: NTR11263  
 Part Number: NIOB-2RC3060WW  
 Beam Spread: Flood  
 Lumens: 962lm  
 Wattage: 14.2W  
 Efficacy: 68lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.64  
 Spacing Criteria (90°-270): 0.66



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	82.8fc	3'-4"
6'	36.8fc	4'-11"
8'	20.7fc	6'-6"
10'	13.2fc	8'-1"
12'	9.2fc	9'-10"

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	614	63.8
0-40	831	86.3
0-60	913	94.9
0-90	960	99.8
90-180	2	0.2
0-180	962	100

**Candela Table**

Vertical Angles	Candela
0	1324
5	1199
15	826
25	594
35	371
45	56