

**NHRIOIC-16**

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

Source: 11W LED  
600lm

**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-1.

**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:** Three 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:** 11W  
**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**

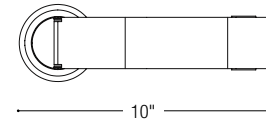
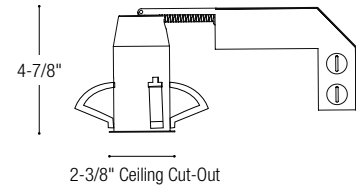
CATALOG NO.	DESCRIPTION
NIOB-1RNB	1" Round Bullnose Regress (BWF)
NIOB-1SNB	1" Square Bullnose Regress (BWF)
NIOB-1RNG	1" Round Straight Regress (BWF)
NIOB-1SNG	1" Square Straight Regress (BWF)
NIOB-1RH	1" Round Pinhole (BWF)
NIOB-1RSL	1" Round Slot Aperture (BWF)

**LABELS AND LISTINGS**

- 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-1** New Construction Frame-In for 1"

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

**1" Iolite IC Air-Tight Remodel Housing** - Compatible with NIOB-1 trims

Installation Type	Driver / Dimming / Wattage
NHRIOIC-16 = 1" Remodel	LE4 = 120-277V Input; 120V Triac/ELV/0-10V or 277V 0-10V dimming / 11W

**1" Iolite New Construction Flat Frame**

Description
NHIOFK-1 = 1" New Construction flat frame w/ bar hangers

Example: **NHRIOIC-16LE4** = 1" Iolite IC Air-Tight Remodel Housing, 120-277V Input; 120V Triac/ELV/0-10V or 277V 0-10V dimming

**NIOB-1**

**1" Iolite BWF Reflectors (New Construction or Remodel)**

**Source: 9W or 11W LED  
600lm**

**PRODUCT DESCRIPTION**

1" Iolite BWF 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, 20° and 40° optics are included and can be easily changed in the field. The reflectors produce 600lm output at 90+ CRI.

**FEATURES**

- Cree® LED COB (2700K-5000K) or Premium non-Cree Comfort Dim Technology (3100K-2000K)
- Wide variety of reflectors and finishes
- 60° (Flood) reflector installed, 20° (Narrow flood) and 20° (Spot) reflector 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:**

1" reflectors are offered in four styles; a sharp edge reflector, bullnosed soft edge reflector that blends into ceiling lines, pinhole reflector focuses the beam spread through 1-1/8" opening or slot aperture focuses the beam spread through 1-3/8" x 1-1/8" opening and adjust up to 15° (Remodel) or 30° (New Construction).

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

**Field Changeable Optics:** Each reflector comes with a 60° (installed), 40° and 20° optics (included).

**ELECTRICAL**

**Lumens / Wattage:** 600lm / 9W (LE3) or 11W (LE4)

**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-16** 1" IC Air-Tight New Construction

**NHRIIC-16** 1" IC Air-Tight Remodel

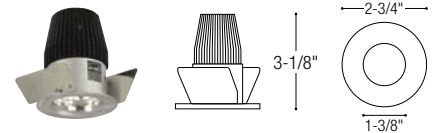
**Accessories:** Reflectors will accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see page 3. Flush mount mud ring is available to give the appearance of a trimless reflector, compatible with new construction housing only.

**LISTINGS AND WARRANTY**

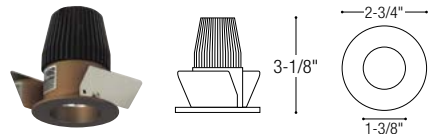
- cULus Listed for Wet Location
- ENERGY STAR certified
- [5 Year Limited Warranty](#)
- RoHS Compliant
- Can be used to comply with 2016 Title 24 – part 6 High Efficacy LED light source requirements



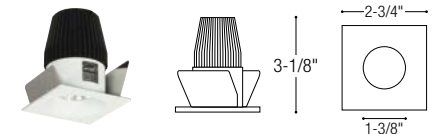
**PRODUCT IMAGES AND DIMENSIONS**



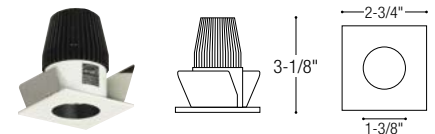
**NIOB-1RNB**  
Round Bullnose Regress  
BB, BZ, MPW, NN, WW



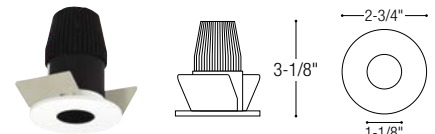
**NIOB-1RNG**  
Round Straight Regress  
BB, BW, BZ, HW, MPW, NN, WW



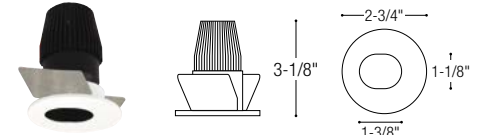
**NIOB-1SNB**  
Square Bullnose Regress  
BB, BZ, MPW, NN, WW



**NIOB-1SNG**  
Square Straight Regress  
BB, BW, BZ, HW, MPW, NN, WW



**NIOB-1RPH**  
Round Pinhole  
BB, BMPW, HZMPW, MPW



**NIOB-1RSL**  
Round Slot Aperture  
Adjustability: 15° (remodel) / 30° (new construction)  
BB, BMPW, HZMPW, MPW

**1" Iolite BWF Reflectors - Dedicated Housing Required**

Reflector Style	Color Temp.	Finish <sup>1</sup>
<b>NIOB-1RNB</b> = Round Bullnose Regress	<b>27X</b> = 2700K	<b>BB</b> = Black / Black
<b>NIOB-1RNG</b> = Round Straight Regress	<b>30X</b> = 3000K	<b>BB</b> = Black / Matte Powder White
<b>NIOB-1SNB</b> = Square Bullnose Regress	<b>35X</b> = 3500K	<b>BW</b> = Black / White
<b>NIOB-1SNG</b> = Square Straight Regress	<b>40X</b> = 4000K	<b>BZ</b> = Bronze / Bronze
<b>NIOB-1RPH</b> = Round Pinhole	<b>50X</b> = 5000K	<b>HMPW</b> = Haze / Matte Powder White
<b>NIOB-1RSL</b> = Round Slot Aperture	<b>CDX</b> <sup>1</sup> = Comfort Dim	<b>HW</b> = Haze / White
		<b>MPW</b> = Matte Powder White
		<b>NN</b> = Natural Metal / Natural Metal
		<b>WW</b> = White / White

<sup>1</sup> Comfort Dim technology uses non-Cree COB modules. 1" Iolite uses a different dimming curve than 2" & 4" Comfort Dim

<sup>1</sup> Not all finishes are available on all trims

Example: **NIOB-1RNG27XWW** = 1" Iolite BWF Round Straight Regress, 2700K, White Reflector / White Flange

## 1" 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-1REFL20FR** 20° Optic  
**NIO-1REFL40FR** 40° Optic  
**NIO-1REFL60FR** 60° Optic



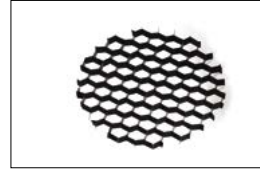
### Translucent Deco Collar

**NIO-1AS15(color)** 5/8"  
**NIO-1AS19(color)** 3/4"  
**NIO-1AS24(color)** 1"  
**Color:** BLU Blue, AM Amber, FR Frost, R Red



### Opaque Collar Snoot

**NIO-1AS15(color)** 5/8"  
**NIO-1AS19(color)** 3/4"  
**NIO-1AS24(color)** 1"  
**Color:** BLK Black, MPW Matte Powder White, WH White



### Hex Cell Louver

**NIO-1HC**  
 Hex cell louver subtly reduces aperture brightness by reducing light output by about 20%



### Flush Mount Mud Ring

**NIO-FMMR-1R** 1" Round  
**NIO-FMMR-1S** 1" Square

Mounts trim flush to ceiling with trim flange visible. Attaches to drywall. Requires professional drywall finishing. **Requires and only for use with NHIOICD-16 new construction housing and NIOB-1 trims.**  
 7-7/8" Diameter 1/2" Thick



### Ceiling Extension Collar

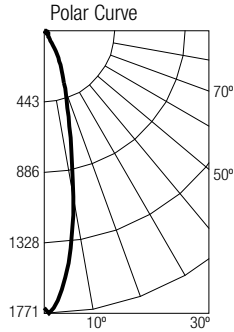
**NIO-1EXTC2**  
 Allows new construction housing to install in ceiling thicknesses up to 2". **Only for use with NHIOICD-16 new construction housing.**

**PHOTOMETRICS**

**1" Iolite Series**

**Test Information**

Test Number: NTR11253  
 Part Number: NIOB-1RNG3025WW  
 Beam Spread: Spot  
 Lumens: 556lm  
 Wattage: 9.2W  
 Efficacy: 61lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.4  
 Spacing Criteria (90°-270): 0.4



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	109fc	1'-8"
6'	48.3fc	2'-6"
8'	27.2fc	3'-4"
10'	17.4fc	4'-2"
12'	12.1fc	5'

**Zonal Lumen Summary**

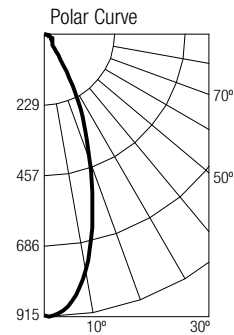
Zone	Lumens	% Luminaire
0-30	418	75.2
0-40	461	82.9
0-60	515	92.7
0-90	554	99.8
90-180	1	0.2
0-180	556	100

**Candela Table**

Vertical Angles	Candela
0	1738
5	1499
15	612
25	252
35	58
45	39

**Test Information**

Test Number: NTR11252  
 Part Number: NIOB-1RNG3038WW  
 Beam Spread: Narrow Flood  
 Lumens: 532lm  
 Wattage: 9.2W  
 Efficacy: 58lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.64  
 Spacing Criteria (90°-270): 0.64



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	56.9fc	2'-10"
6'	25.3fc	4'-2"
8'	14.2fc	5'-7"
10'	9.1fc	7'
12'	6.32fc	8'-4"

**Zonal Lumen Summary**

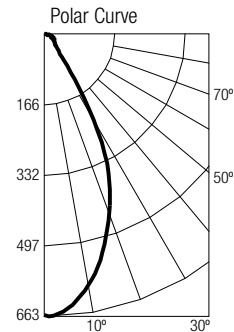
Zone	Lumens	% Luminaire
0-30	378	71
0-40	426	80.1
0-60	485	91.1
0-90	531	99.8
90-180	1	0.2
0-180	532	100

**Candela Table**

Vertical Angles	Candela
0	910
5	879
15	606
25	291
35	66
45	38

**Test Information**

Test Number: NTR11251  
 Part Number: NIOB-1RNG3060WW  
 Beam Spread: Flood  
 Lumens: 539lm  
 Wattage: 9.2W  
 Efficacy: 58lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.8  
 Spacing Criteria (90°-270): 0.82



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	41.2fc	3'-11"
6'	18.3fc	5'-10"
8'	10.3fc	7'-10"
10'	6.6fc	9'-8"
12'	4.6fc	11'-7"

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	363	67.3
0-40	436	80.9
0-60	494	91.7
0-90	538	99.8
90-180	1	0.2
0-180	539	100

**Candela Table**

Vertical Angles	Candela
0	660
5	645
15	521
25	352
35	108
45	39