

**NIO-2RTL**

**2" Iolite Trimless Reflectors (New Construction only)**

Source: 14W LED  
800lm or 1000lm

**PRODUCT DESCRIPTION**

2" Trimless Iolite reflectors have no exposed trim flange and do not extend beyond the ceiling plane. Iolite Trimless requires a Trimless Mud Ring and New Construction housing. Reflectors ships with a 60° optic installed, 25° and 38° optics are included which can be easily changed in the field. The reflectors produce 800lm or 1000lm output at 90+ CRI, utilizing 14W.

**FEATURES**

- Cree® LED COB or Comfort Dim Technology
- Wide variety of trims and finishes
- 60° (Flood) optic installed, 38° (Narrow flood) and 25° (Spot) optics included
- 800 or 1000 lumens @ 14W
- 5-year limited warranty

**CONSTRUCTION**

Trimless 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:**

NIO-4RTLNDNC / NIO-4STLNDNC: Deep regressed cone reflectors optimize visual cut-off.  
NIO-4RTL: Regressed cone reflector optimizes visual cut-off and adjust up to 35°.

**Mounting:** Reflector includes friction clips to mount securely in trimless die-cast mud-ring.

**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 2.

**ELECTRICAL**

**Lumens / Wattage:**  
800lm or 1000lm / 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 housing manufactured by Nora Lighting.

CATALOG NO.	DESCRIPTION
NHIOICD-28	4" IC Air-Tight New Construction

**Accessories:** Reflectors will accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see page 2.

**LISTINGS AND WARRANTY**

- cULus Listed for Wet Location (NIO-2RTLA is rated for damp 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**



**NIO-2RTLA** Round Trimless Surface  
15° Adjustable  
BB, BW, BZ, HW, HZ, MPW, WW



**NIO-2RTLNDNC** Round Trimless Deep Regressed Cone  
Non-Adjustable  
BB, BW, BZ, MPW, WW

**2" Iolite Trimless Reflectors - New Construction Housing & Trimless Mud Ring Required**

Aperture	Reflector Style	Color Temp.	Finish <sup>1</sup>	Lumens
<b>NIO-2RTL</b> = Round	<b>A</b> = Adjustable	<b>27X</b> = 2700K	<b>BB</b> = Black	<b>(blank)</b> = 800lm
	<b>NDC</b> = Non-Adj. Deep Cone Regress	<b>30X</b> = 3000K	<b>BW</b> = Black / White	<b>/10</b> = 1000lm
		<b>35X</b> = 3500K	<b>BZ</b> = Bronze	
		<b>40X</b> = 4000K	<b>HZ</b> = Haze	
		<b>50X</b> = 5000K	<b>HW</b> = Haze / White	
		<b>CDX</b> = Comfort Dim <sup>†</sup>	<b>MPW</b> = Matte Powder White	
			<b>WW</b> = White	

<sup>†</sup> Comfort Dim technology available in 800lm & uses non-Cree COB modules. 1" & 2" Iolite uses a different dimming curve than 4" Comfort Dim  
<sup>1</sup> Not all finishes are available on all trims

**2" Trimless Mud Ring**

Description

**NIO-TLMR-2R** = 2" Round Trimless Mud Ring



Example: **NIO-2RTLNDNC27XWW / NIO-TLMR-2R** = 2" Iolite Round Trimless Non-Adjustable Deep Cone Regress, 2700K, White Finish, 800lm / 2" Round Trimless Mud Ring

## 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

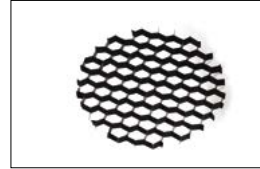
**NIO-AS14(color)** 5/8"  
**NIO-AS19(color)** 3/4"  
**NIO-AS24(color)** 1"  
**Color:** BLU Blue, AM Amber, FR Frost, R Red



### 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

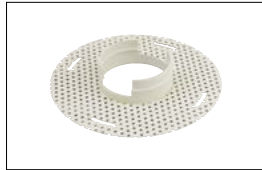
**NIO-REFLTIR15** 15° Optic  
**NIO-REFLTIR25** 25° Optic



### Flush Mount Mud Ring

**NIO-FMMR-2R** 2" Round  
**NIO-FMMR-2S** 2" Square

Mounts trim flush to ceiling with trim flange visible. Attaches to drywall. Requires professional drywall finishing. **Requires and only for use with NHIOICD-28 new construction housing and NIOB-2 trims.**  
 7-7/8" Diameter 1/2" Thick



### Trimless Mud Ring

**NIO-TLMR-2R** 2" Round

Mounts Trimless trim with no exposed flange and no extension beyond ceiling plane. Attaches to drywall. Requires professional drywall finishing. **Requires and only for use with NHIOICD-48 new construction housing and NIO-2RTL Trimless reflector.**  
 7-7/8" Diameter 1/2" Thick



### Ceiling Extension Collar

**NIO-2EXTC2**

Allows new construction housing to install in ceiling thicknesses up to 2". **Only for use with NHIOICD-28 new construction housing.**

## NHIOICD-28

### 2" Iolite IC Air-Tight New Construction Housing

Source: 14W LED  
800lm to 1000lm

#### PRODUCT DESCRIPTION

New construction 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. Patent-pending design allows for easy, tool-less removal of the driver.

#### 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:** 0.040" Aluminum shallow housing with patent pending driver mechanism, allowing driver to slide out. Extension collar is available for ceiling thickness up to 2", must specify NIO-2EXTC2.

**Air Flow Restriction:** Meets requirements of Air-Tight (AT) <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.

**Bar Hangers:** Two 13-3/4" to 24-1/2" adjustable bar hangers with captive nails are included on housing. Bar hangers are parallel to junction box, but can be repositioned 90° perpendicular to junction box if desired. "L"-shaped bar hanger foot to align to bottom of construction joist. A T-bar notch allows for easy installation in a suspended ceiling.

**Junction Box:** Pre-wired 25 cubic inch 0.064" thick galvanized steel, with seven 1/2" 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). **ACCESS ABOVE CEILING REQUIRED.**

#### ELECTRICAL

**Voltage:** 120V or 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
NIOB-2RTL	2" Round Trimless Surface Adj.
NIOB-2RTLDC	2" Round Trimless Deep Regress

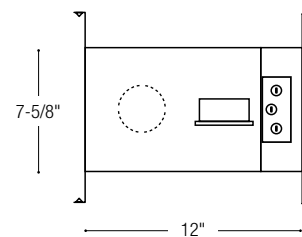
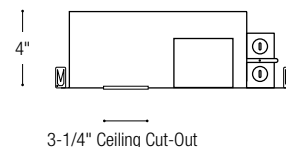
**Emergency:** Housing can be specified with connections for emergency battery installation. Requires top access. Must specify battery with remote test switch separately, NEPK-BSL17C-C2U.

#### 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



### 2" Iolite IC Air-Tight New Construction Housing - Compatible with NIOB-2 reflectors

Housing Type	Driver / Dimming	Optional Emergency
NHIOICD-28 = 2" Iolite IC Air-Tight LED Dedicated New Construction Housing	LE3 = 120V input; Triac / ELV dimming LE4 = 120-277V input; Triac / ELV / 0-10V dimming	EM = Wire for Remote Emergency Battery (ordered separately)

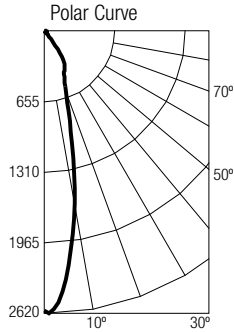
Example: NHIOICD-28LE3 = 2" Iolite IC Air-Tight New Construction Housing, 120V Input; Triac/ELV dimming

**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**

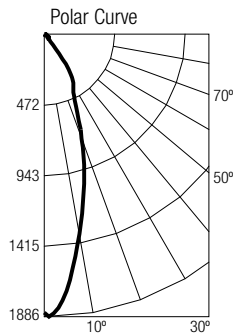
Zone	Lumens	% Luminaire
0-30	675	71.2
0-40	839	88.6
0-60	906	95.7
0-90	945	99.8
90-180	2	0.2
0-180	947	100

**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**

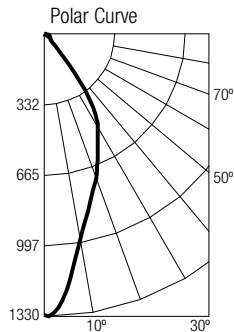
Zone	Lumens	% Luminaire
0-30	623	70.8
0-40	824	88.1
0-60	892	95.3
0-90	934	99.8
90-180	2	0.2
0-180	936	100

**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**

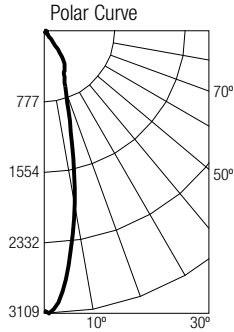
Vertical Angles	Candela
0	1324
5	1199
15	826
25	594
35	371
45	56

**PHOTOMETRICS**

**2" Iolite Series**

**Test Information**

Test Number: NTR11273  
 Part Number: NIOB-2RC3025WW/10  
 Beam Spread: Spot  
 Lumens: 1253lm  
 Wattage: 13.2W  
 Efficacy: 95lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.44  
 Spacing Criteria (90°-270): 0.5



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	185fc	1'-11"
6'	82.3fc	2'-10"
8'	46.3fc	3'-8"
10'	29.6fc	4'-7"
12'	20.6fc	5'-7"

**Zonal Lumen Summary**

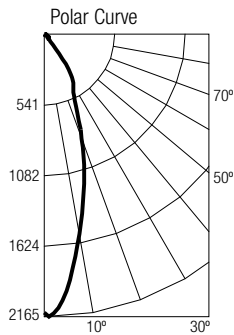
Zone	Lumens	% Luminaire
0-30	881	70.4
0-40	1089	87
0-60	1193	95.3
0-90	1248	99.7
90-180	4	0.3
0-180	1253	100

**Candela Table**

Vertical Angles	Candela
0	2964
5	2708
15	1198
25	558
35	367
45	60

**Test Information**

Test Number: NTR11272  
 Part Number: NIOB-2RC3038WW/10  
 Beam Spread: Narrow Flood  
 Lumens: 1206lm  
 Wattage: 13W  
 Efficacy: 93lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.58  
 Spacing Criteria (90°-270): 0.6



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	132fc	2'-7"
6'	58.9fc	3'-11"
8'	33.1fc	5'-2"
10'	21.2fc	6'-5"
12'	14.7fc	7'-8"

**Zonal Lumen Summary**

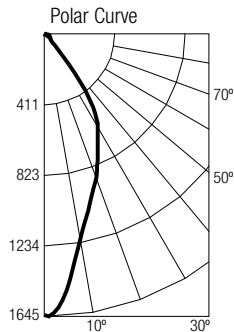
Zone	Lumens	% Luminaire
0-30	840	69.6
0-40	1044	86.5
0-60	1146	95
0-90	1203	99.8
90-180	3	0.2
0-180	1206	100

**Candela Table**

Vertical Angles	Candela
0	2119
5	1972
15	1264
25	605
35	357
45	57

**Test Information**

Test Number: NTR11274  
 Part Number: NIOB-2RC3060WW/10  
 Beam Spread: Flood  
 Lumens: 1246lm  
 Wattage: 13.2W  
 Efficacy: 94lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.68  
 Spacing Criteria (90°-270): 0.6



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	102fc	3'-6"
6'	45.4fc	5'-2"
8'	25.5fc	6'-11"
10'	16.4fc	8'-8"
12'	11.4fc	10'-5"

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	793	63.7
0-40	1071	86
0-60	1180	94.7
0-90	1243	99.8
90-180	3	0.2
0-180	1246	100

**Candela Table**

Vertical Angles	Candela
0	1635
5	1525
15	1070
25	768
35	474
45	74