

**NIO-4**

**4" Iolite Reflectors (New Construction and Remodel)**

Source: 14W LED  
800lm or 1000lm

**PRODUCT DESCRIPTION**

4" 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 ship with a 60° optic installed, 25° and 38° optics are included and can be easily changed in the field. The reflectors produce 800 or 1000 lumen 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:**

NIO-4RNDC / NIO-4SNDC / NIO-4SNSQ: Deep regressed cone reflectors optimize visual cut-off.  
 NIO-4RG / NIO-4SG: Adjustable surface gimbals adjust up to 40° (Remodel) or 45° (New Construction). NIO-4SD adjust up to 35°.  
 NIO-4RC / NIO-4SC: Regressed cone reflectors optimize visual cut-off and adjust up to 40° (Remodel) or 45° (New Construction). NIO-4SC adjust up to 35°.  
 NIO-4RD / NIO-4SD: Adjustable deep regressed cone reflectors optimize visual cut-off and adjusts up to 40° (Remodel) or 45° (New Construction). NIO-4SD adjust up to 35°.  
 NIO-4RPH: Pinhole reflector focuses the beam spread through 2-1/4" opening.  
 NIO-4RSL: Adjustable slot aperture focus the beam spread through 2-1/4" x 2" opening and adjust up to 15° (Remodel) or 35° (New Construction).

**Mounting:** Reflector includes friction blades to mount 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 2.

**ELECTRICAL**

**Lumens / Wattage:**  
 800lm / 14W (New Construction or Remodel Housing)  
 1000lm / 14W (New Construction Housing only)  
**Color Temperature:**  
 2700K, 3000K, 3500K, 4000K, 5000K  
**CRI:** 90+  
**Operating Temp.:** 0°C to 40°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
NHIOICD-48	4" IC Air-Tight New Construction
NHIOICDCP-48	4" Chicago Plenum New Construction
NHRIOIC-48	4" 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 2. 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 (NIO-4RD and NIO-4SD are 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**



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

Shape	Reflector Style	Color Temp.	Finish <sup>1</sup>	Lumens
NIO-4R = Round	C = Cone Regress	27X = 2700K	BB = Black / Black	(blank) = 800lm
NIO-4S = Square	D = Adj. Deep Cone Regress	30X = 3000K	BW = Black / White	/10 = 1000lm
	G = Adj. Surface Gimbal	35X = 3500K	BZ = Bronze / Bronze	
	NB = Non-Adj. Bullnose	40X = 4000K	HN = Haze / Natural Metal	
	NDC = Non-Adj. Deep Cone Regress	50X = 5000K	HW = Haze / White	
	NDSQ = Square Non-Adj. Deep Cone Regress (square trim only)	CDX = Comfort Dim†	HZMPW = Haze / Matte Powder White	
	PH = Non-Adj. Pinhole (round only)		MPW = Matte Powder White	
	SL = Slot Adjustable (round only)		NN = Natural Metal / Natural Metal	
			VV = White / White	

† 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

Example: NIO-4RG27XWW = 4" Iolite Round Adjustable Surface Gimbal, 2700K, White Finish, 800lm

## 4" 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** 38° Optic



### Translucent Deco Collar

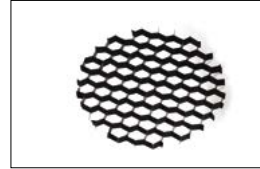
**NIO-AS14(color)** 5/8"  
**NIO-AS19(color)** 3/4"  
**NIO-AS24(color)** 1"  
**Color:** BLU Blue, AM Amber, FR Frost, R Red



### 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  
 TIR optics are not compatible with Comfort Dim technology.

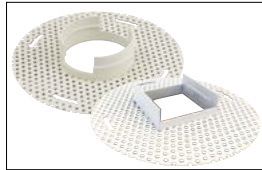


### Flush Mount Mud Ring

**NIO-FMMR-4R** 4" Round  
**NIO-FMMR-4S** 4" Square

Mounts trim flush to ceiling with trim flange visible. Attaches to drywall. Requires professional drywall finishing. **Requires and only for use with NHIOICD-48 or NHIOICDCP-48 new construction housings and NIO-4 reflectors.**

7-7/8" Diameter 1/2" Thick



### Trimless Mud Ring

**NIO-TLMR-4R** 4" Round  
**NIO-TLMR-4S** 4" Square

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 or NHIOICDCP-48 new construction housings and NIO-4RTL or NIO-4STL trimless reflectors.**

7-7/8" Diameter 1/2" Thick



### Ceiling Extension Collar

**NIO-4EXTC2**

Allows new construction housing to install in ceiling thicknesses up to 2". **Only for use with NHIOICD-48 or NHIOICDCP-48 new construction housings.**

**NHIOICD-48 / NHIOICDCP-48**  
4" 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. Patented 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%
- Patented driver assembly

**SPECIFICATION**

**Housing:** 0.040" Aluminum shallow housing with patented driver assembly, allows for driver to slide out without tools. Extension collar is available for ceiling thickness up to 2", must specify NIO-4EXTC2.

**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).

**ELECTRICAL**

**Voltage:** 120V or 120-277V (must specify)  
**Power Factor:** >0.90  
**Operating Temp.:** 104°F (40°C) max. ambient temp.  
**Wattage:** 14W  
**Dimming:** Triac / ELV or 0-10V Dimming (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 TRIMS**

CATALOG NO.	DESCRIPTION
NIO-4RC	4" Round Cone Regress
NIO-4SC	4" Square Cone Regress
NIO-4RG	4" Round Adj. Surface Gimbal
NIO-4SG	4" Square Adj. Surface Gimbal
NIO-4RD	4" Round Adj. Deep Regress
NIO-4SD	4" Square Adj. Deep Regress
NIO-4RPH	4" Round Pinhole
NIO-4RSL	4" Round Slot Aperture
NIO-4RNB	4" Round Bullnose
NIO-4SNB	4" Square Bullnose
NIO-4RND	4" Round Non-Adj. Deep Cone Regress
NIO-4SND	4" Square Non-Adj. Deep Cone Regress
NIO-4SND	4" Square Non-Adj. Deep, Square Regress
NIO-4RTLA	4" Round Trimless Surface Adj.
NIO-4RTLND	4" Round Trimless Deep Regress
NIO-4STLND	4" Square Trimless Deep Regress

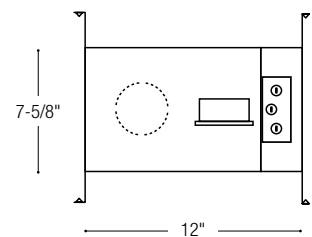
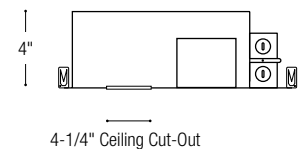
**Emergency:** Housing can be wired with connections for emergency battery installation. Requires top access. Specify NEPK-BSL17C-C2U for battery with remote test switch.

**LISTINGS AND WARRANTY**

- cULus Listed for Damp Location
- cULus Listed for Wet Location (w/designated reflectors)
- [5-Year Limited Warranty](#)
- RoHS compliant
- Patent #D824567S
- Meets or exceeds ASTM-283 Air-Tight Requirements



**PRODUCT IMAGES AND DIMENSIONS**



**4" Iolite IC Air-Tight New Construction Housing** - Compatible with NIO-4 reflectors

Housing Type	Driver / Dimming	Optional Emergency Wiring
NHIOICD-48 = IC Air-Tight	LE3 = 120V input; Triac / ELV dimming	/4W = Remote Emergency for LE3
NHIOICDCP-48 = Chicago Plenum	LE4 = 120-277V input; Triac / ELV / 0-10V dimming	/6W = Remote Emergency for LE4

**Optional Accessories**

Description
NEPK-BSL17C-C2U = Remote Emergency Battery w/Test Switch
NIO-4EXTC2 = Ceiling Extension Collar up to 2"

Example: NHIOICD-48LE3 = 4" Iolite IC Air-Tight LED Dedicated New Construction Housing, 120V input; Triac / ELV dimming

## NHRIOIC-48

### 4" Iolite IC Air-Tight Remodel Housing

Source: 14W LED  
800lm

#### PRODUCT DESCRIPTION

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 J-box and driver compartment. Integral spring brackets provided.

**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:** 120V or 120-277V

**Power Factor:** >0.90

**Operating Temp.:** 104°F (40°C) max. ambient temp.

**Wattage:** 14W

**Dimming:** Triac / ELV or 0-10V Dimming

[Click Here](#) or check complete dimmer list at [www.NoraLighting.com](http://www.NoraLighting.com) in the "Compatibility" page under "Resources" tab

#### COMPATIBLE TRIMS

##### CATALOG NO. DESCRIPTION

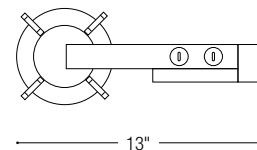
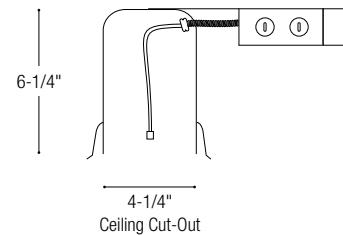
NIO-4RC	4" Round Cone Regress
NIO-4SC	4" Square Cone Regress
NIO-4RG	4" Round Adj. Surface Gimbal
NIO-4SG	4" Square Adj. Surface Gimbal
NIO-4RD	4" Round Adj. Deep Regress
NIO-4SD	4" Square Adj. Deep Regress
NIO-4RPH	4" Round Pinhole
NIO-4RSL	4" Round Slot Aperture
NIO-4RNB	4" Round Bullnose
NIO-4SNB	4" Square Bullnose
NIO-4RND	4" Round Non-Adj. Deep Cone Regress
NIO-4SND	4" Square Non-Adj. Deep Cone Regress
NIO-4SND	4" Square Non-Adj. Deep, 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



### 4" Iolite IC Air-Tight Remodel Housing - Compatible with NIO-4 reflectors

Driver / Dimming

**NHRIOIC-48LE3** = 120V input; Triac / ELV dimming

**NHRIOIC-48LE4** = 120-277V input; 120V Triac/ELV/0-10V or 277V 0-10V dimming

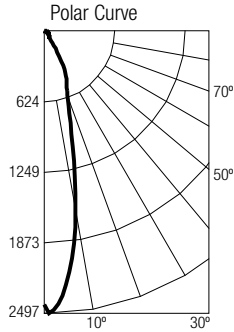
Example: **NHRIOIC-48LE4** = 4" Iolite IC Air-Tight Remodel Housing, 120-277V Input; 120V Triac/ELV/0-10V or 277V 0-10V dimming

**PHOTOMETRICS**

**4" Iolite Series**

**Test Information**

Test Number: NTR11248  
 Part Number: NIO-4RG3025WW  
 Beam Spread: Spot  
 Lumens: 939lm  
 Wattage: 14.4W  
 Efficacy: 65lpw  
 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'	156fc	1'-10"
6'	69.4fc	2'-7"
8'	39fc	3'-6"
10'	25fc	4'-5"
12'	17.3fc	5'-4"

**Zonal Lumen Summary**

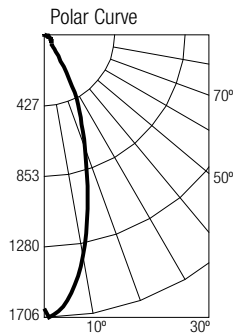
Zone	Lumens	% Luminaire
0-30	667	71
0-40	761	81
0-60	861	91.7
0-90	936	99.7
90-180	3	0.3
0-180	939	100

**Candela Table**

Vertical Angles	Candela
0	2497
5	2255
15	905
25	466
35	129
45	68

**Test Information**

Test Number: NTR11249  
 Part Number: NIO-4RG3038WW  
 Beam Spread: Narrow Flood  
 Lumens: 929lm  
 Wattage: 14.6W  
 Efficacy: 64lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.58  
 Spacing Criteria (90°-270): 0.58



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	106fc	2'-6"
6'	47.1fc	3'-10"
8'	26.5fc	5'
10'	17fc	6'-4"
12'	11.8fc	7'-6"

**Zonal Lumen Summary**

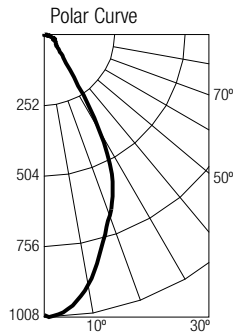
Zone	Lumens	% Luminaire
0-30	652	70.2
0-40	747	80.4
0-60	848	91.3
0-90	926	99.7
90-180	3	0.3
0-180	929	100

**Candela Table**

Vertical Angles	Candela
0	1697
5	1602
15	1013
25	495
35	126
45	68

**Test Information**

Test Number: NTR11250  
 Part Number: NIO-4RG3060WW  
 Beam Spread: Flood  
 Lumens: 927lm  
 Wattage: 14.5W  
 Efficacy: 64lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.86  
 Spacing Criteria (90°-270): 0.86



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	62.7fc	4'-2"
6'	27.9fc	6'-5"
8'	15.7fc	8'-6"
10'	10fc	10'-7"
12'	7fc	12'-8"

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	583	62.9
0-40	726	78.3
0-60	841	90.7
0-90	924	99.7
90-180	3	0.3
0-180	927	100

**Candela Table**

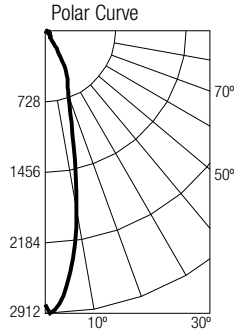
Vertical Angles	Candela
0	1003
5	979
15	802
25	594
35	212
45	80

**PHOTOMETRICS**

**4" Iolite Series**

**Test Information**

Test Number: NTR11236  
 Part Number: NIO-4RG3025WW/10  
 Beam Spread: Spot  
 Lumens: 1111lm  
 Wattage: 13W  
 Efficacy: 85lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.44  
 Spacing Criteria (90°-270): 0.46



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	176fc	1'-10"
6'	78.4fc	2'-8"
8'	44.1fc	3'-7"
10'	28.2fc	4'-6"
12'	19.6fc	5'-5"

**Zonal Lumen Summary**

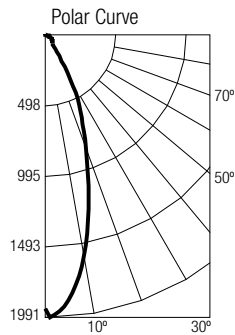
Zone	Lumens	% Luminaire
0-30	795	71.6
0-40	911	82
0-60	1022	92
0-90	1104	99.3
90-180	8	0.7
0-180	1111	100

**Candela Table**

Vertical Angles	Candela
0	2822
5	2559
15	1111
25	550
35	150
45	76

**Test Information**

Test Number: NTR11237  
 Part Number: NIO-4RG3038WW/10  
 Beam Spread: Narrow Flood  
 Lumens: 1098lm  
 Wattage: 13W  
 Efficacy: 84lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.6  
 Spacing Criteria (90°-270): 0.62



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	120fc	2'-7"
6'	53.5fc	3'-11"
8'	30.1fc	5'-2"
10'	19.3fc	6'-6"
12'	13.4fc	7'-10"

**Zonal Lumen Summary**

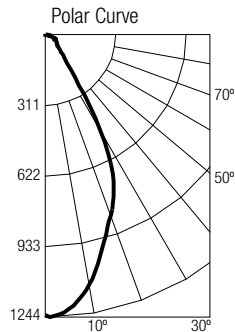
Zone	Lumens	% Luminaire
0-30	766	69.7
0-40	890	81.1
0-60	1005	91.5
0-90	1090	99.3
90-180	8	0.7
0-180	1098	100

**Candela Table**

Vertical Angles	Candela
0	1928
5	1839
15	1187
25	578
35	163
45	76

**Test Information**

Test Number: NTR11238  
 Part Number: NIO-4RG3060WW/10  
 Beam Spread: Flood  
 Lumens: 1084lm  
 Wattage: 13W  
 Efficacy: 83lpw  
 CCT / CRI: 3000K / 90 CRI  
 Spacing Criteria (0°-180): 0.84  
 Spacing Criteria (90°-270): 0.84



**Illuminance at a Distance**

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	77.3fc	4'-2"
6'	34.4fc	6'-2"
8'	19.3fc	8'-4"
10'	12.4fc	10'-5"
12'	8.6fc	12'-6"

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	701	64.7
0-40	859	79.2
0-60	987	91.1
0-90	1077	99.3
90-180	7	0.7
0-180	1084	100

**Candela Table**

Vertical Angles	Candela
0	1237
5	1212
15	971
25	713
35	227
45	89