

NIOB-2

2" Iolite Reflectors (New Construction and Remodel)

Source: 14W LED
800lm or 1000lm

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 or 1000lm 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-2SNDQ: Deep regressed cone reflectors optimize visual cut-off.

NIOB-2RG / NIOB-2SG: Adjustable surface gimbals adjusts up to 15° (Remodel) or 30° (New Construction).

NIOB-2SG adjust up to 15°.

NIOB-2RC / NIOB-2SC: Regressed cone reflectors optimize visual cut-off and adjust up to 15° (Remodel) or 30° (New Construction). 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° (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), 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-28	2" IC Air-Tight New Construction
NHIOICDCP-28	2" Chicago Plenum New Construction
NHRIOC-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 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
- 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° - 30° Adjustable
BB, BW, BZ, HW, MPW, NN, WW



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



NIOB-2RG
Round Adj. Surface Gimbal Trim
15° - 30° Adjustable
BB, BZ, MPW, NN, WW



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



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



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



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



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



NIOB-2RSL
Round Adj. Slot Trim
15° - 30° 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 ³	Lumens
NIOB-2R = Round	C = Cone Regress	27X = 2700K	BB = Black / Black	(blank) = 800lm
NIOB-2S = Square	G = Adj. Surface Gimbal	30X = 3000K	BMPW = Black / Matte Powder White	/10 = 1000lm
	NDC = Non-Adj. Deep Cone Regress	35X = 3500K	BW = Black / White	
	NDSQ = Deep Cone Non-Adj. Square Regress ¹	40X = 4000K	BZ = Bronze / Bronze	
	PH = Non-Adj. Pinhole ²	50X = 5000K	HN = Haze / Natural Metal	
	SL = Slot Adjustable ²	CDX = Comfort Dim [†]	HW = Haze / White	
	NB = Non-Adj. Bullnose		HZMPW = Haze / Matte Powder White	
			MPW = Matte Powder White	
			NN = Natural Metal / Natural Metal	
			WW = White / White	

¹ Available in square aperture only

² Available in round aperture only

[†] Comfort Dim technology available in 800lm & uses non-Cree COB modules. 1" & 2" Iolite uses a different dimming curve than 4" Comfort Dim

³ 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 38° Optic



Translucent Deco Collar

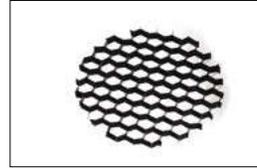
NIO-AS14(color) 5/8"
NIO-AS19(color) 3/4"
NIO-AS24(color) 1"
Color: BLU Blue, AM Amber, FR Frost, R Red



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



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-28 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 / NHIOICDCP-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. 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-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 (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)

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

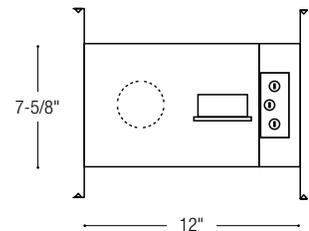
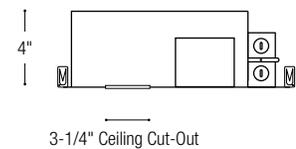
Emergency: Housing can be specified with connections for emergency battery installation. Requires top access. Must specify battery with remote test switch separately, NEPK-BSL17C-C2U.

LISTINGS AND WARRANTY

- cULus Listed for Damp Location
- cULus Listed for Wet Location (w/designated reflectors)
- 5-Year Limited Warranty
- RoHS compliant
- Patent #D824567S
- 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 = IC Air-Tight	LE3 = 120V input; Triac / ELV dimming	EM = Wire for Remote Emergency Battery (ordered separately)
NHIOICDCP-28 = Chicago Plenum	LE4 = 120-277V input; Triac / ELV / 0-10V dimming	

Optional Accessories

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

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

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 J-box and driver compartment. Integral spring brackets provided. New construction flat frame available to convert remodel housing, 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.: 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 in the "Compatibility" page under "Resources" tab

COMPATIBLE TRIMS

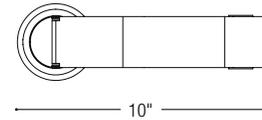
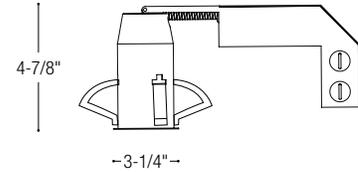
CATALOG NO.	DESCRIPTION
NIOB-2RC	2" Round Cone Regress
NIOB-2SC	2" Square Cone Regress
NIOB-2RG	2" Round Adj. Surface Gimbal
NIOB-2SG	2" Square Adj. Surface Gimbal
NIOB-2RPH	2" Round Pinhole
NIOB-2RSL	2" Round Slot Aperture
NIOB-2RNB	2" Round Bullnose
NIOB-2SNB	2" Square Bullnose
NIOB-2RNDC	2" Round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

Driver / Dimming

NHRIOIC-28LE4 = 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

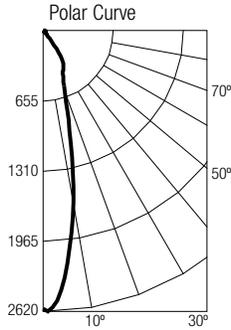
Example: **NHRIOIC-28LE4** = 2" Iolite IC Air-Tight Remodel Housing, 120-277V Input; 120V Triac/ELV/0-10V or 277V 0-10V dimming

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

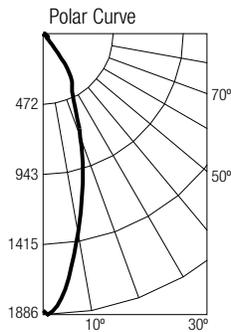
Zone	Lumens	% Luminaire
0-30	675	71.2
0-40	839	88.6
0-60	906	95.7
0-90	945	99.8
90-180	2	0.2
0-180	947	100

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

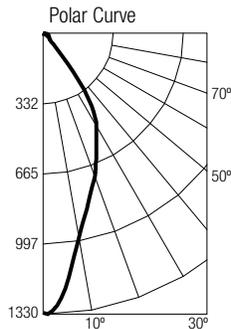
Zone	Lumens	% Luminaire
0-30	623	70.8
0-40	824	88.1
0-60	892	95.3
0-90	934	99.8
90-180	2	0.2
0-180	936	100

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

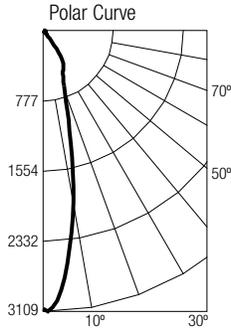
Vertical Angles	Candela
0	1324
5	1199
15	826
25	594
35	371
45	56

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

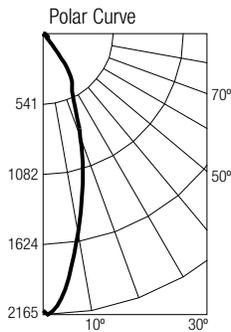
Zone	Lumens	% Luminaire
0-30	881	70.4
0-40	1089	87
0-60	1193	95.3
0-90	1248	99.7
90-180	4	0.3
0-180	1253	100

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

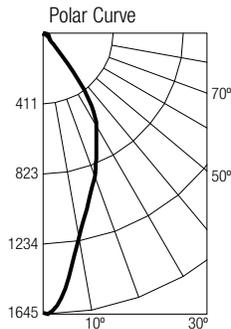
Zone	Lumens	% Luminaire
0-30	840	69.6
0-40	1044	86.5
0-60	1146	95
0-90	1203	99.8
90-180	3	0.2
0-180	1206	100

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