

# NIO-4SD

## 4" Iolite Square Deep Adjustable Reflector

Source: 14W to 24W LED  
800lm to 2000lm

Type

Project

Catalog No.

Notes

### PRODUCT DESCRIPTION

4" Iolite LED luminaire can be specified for use with Iolite new construction or remodel housings. Die-cast adjustable reflectors optimize visual cut-off and adjustable to aim the light source in desired direction.

### FEATURES

- 800lm, 1000lm, 1500lm or 2000lm LED packages
- 2700K, 3000K, 3500K, 4000K, 5000K @ 90+ CRI
- Comfort Dim (warm dimming) also available in 800lm only
- Flood optic, narrow flood and spot optics (included)
- 5-Year limited warranty

### SPECIFICATION

**Construction:** Trims are constructed of heat dissipating, die-cast aluminum. The aluminum die-cast LED heat sink is threaded to fit the reflector and transfer heat.

**Mounting:** Trim includes friction blades to mount securely to housing.

### OPTICS

**800-1000lm:** Each luminaire includes field changeable optics (28° spot, 39° narrow flood and 51° flood - preinstalled). Premium 15° and 25° TIR optics are also available.

**1500-2500lm:** Each luminaire includes field changeable TIR optics (30° spot, 45° narrow flood - preinstalled and 65° flood).

### ELECTRICAL

**Lumens / Wattage:** 800lm / 14W, 1000lm / 14W, 1500lm / 20W, 2000lm / 24W

**Color Temperature:** 2700K, 3000K, 3500K, 4000K, 5000K

**Color Rendering Index:** 90+ CRI

**Operating Temperature:** Specified by housing

**Lifetime:** 50,000 hours @ L70

**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

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

CATALOG NO.	DESCRIPTION	LUMENS / WATTAGE
<a href="#">NHIOICD-48</a>	ICAT New Construction	800-1000lm / 14W
<a href="#">NHIOICDCP-48</a>	Chicago Plenum	800-1000lm / 14W
<a href="#">NHRIOIC-48</a>	ICAT Remodel	800-1000lm / 14W
<a href="#">NHIOICD-415</a>	ICAT New Construction	1500lm / 20W
<a href="#">NHIOICDCP-415</a>	Chicago Plenum	1500lm / 20W
<a href="#">NHIOICD-420</a>	ICAT New Construction	2000lm / 24W
<a href="#">NHIOICDCP-420</a>	Chicago Plenum	2000lm / 24W

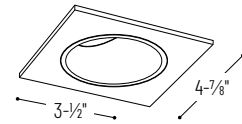
**Accessories:** Luminaires can accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see accessories page. Flush mount mud ring is available to give the appearance of a trimless, compatible with new construction housing only.

### LABELS AND LISTINGS

- cULus Listed for Damp Locations
- ENERGY STAR certified
- [5-Year Limited Warranty](#)
- RoHS Compliant
- Certified to the high efficacy requirements of California Title 24 JA8-2019



### PRODUCT IMAGES & DIMENSIONS



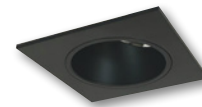
#### NIO-4SD

Square Deep Adjustable Reflector

Adjustability:

New Construction: 40° (800-2000lm)

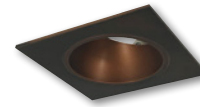
Remodel: 25° (800-1000lm)



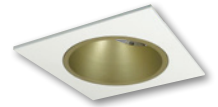
**BB**  
Black Reflector  
Black Flange



**BW**  
Black Reflector  
White Flange



**BZ**  
Bronze Reflector  
Bronze Flange



**CHMPW**  
Champagne Haze Reflector  
Matte Powder White Flange



**HW**  
Haze Reflector  
White Flange



**HZMPW**  
Haze Reflector  
Matte Powder White Flange



**MPW**  
Matte Powder White Reflector  
Matte Powder White Flange



**NN**  
Natural Metal Reflector  
Natural Metal Flange



**WW**  
White Reflector  
White Flange

### 4" Iolite Square Deep Adjustable Reflector - Dedicated Housing Required

Trim Type	Color Temperature	Finish	Lumens / Wattage
NIO-4SD = Square Deep Adjustable	<b>50X</b> = 5000K*	<b>BB</b> = Black / Black	(blank) = 800lm / 14W
	<b>CDX</b> = Comfort Dim <sup>†</sup>	<b>BW</b> = Black / White	
	<b>27X</b> = 2700K	<b>BZ</b> = Bronze / Bronze	<b>/10</b> = 1000lm / 14W
	<b>30X</b> = 3000K	<b>CHMPW</b> = Champagne / Matte Powder White	<b>/HL</b> = 1500-2000lm
	<b>35X</b> = 3500K	<b>HW</b> = Haze / White	(varies by housing)
	<b>40X</b> = 4000K	<b>HZMPW</b> = Haze / Matte Powder White	
	<b>50X</b> = 5000K	<b>MPW</b> = Matte Powder White	
		<b>NN</b> = Natural Metal / Natural Metal	
		<b>WW</b> = White / White	

\* 5000K LED modules in 800lm are while supplies last

<sup>†</sup> Comfort Dim available in 800lm only and 1" Iolite uses a different dimming curve than 2" & 4" Iolite

### Compatible Housings

Housing Type
<b>NHIOICD-48</b> = ICAT New Construction / 800-1000lm / 14W
<b>NHIOICDCP-48</b> = Chicago Plenum / 800-1000lm / 14W
<b>NHRIOIC-48</b> = ICAT Remodel / 800-1000lm / 14W
<b>NHIOICD-415</b> = ICAT New Construction / 1500lm / 20W
<b>NHIOICDCP-415</b> = Chicago Plenum / 1500lm / 20W
<b>NHIOICD-420</b> = ICAT New Construction / 2000lm / 24W
<b>NHIOICDCP-420</b> = Chicago Plenum / 2000lm / 24W

Example: **NIO-4SD50XWW** = 4" Iolite Square Deep Adjustable, 5000K, White finish, 800lm / 14W

# 4" Iolite Accessories

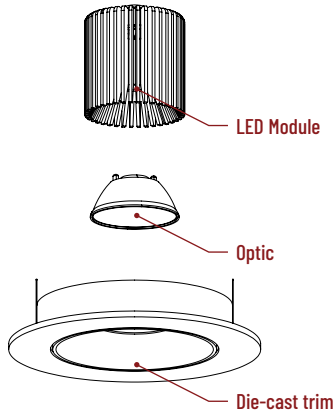
## 4" Iolite Square Deep Adjustable Reflector

Type	
Project	
Catalog No.	
Notes	

### FIELD CHANGEABLE OPTICS

Iolite luminaires include spot, narrow flood and flood optics. Optics can be changed in the field by removing LED module from die-cast trim. Replacement optics include an optional frosted lens.

**Note:** Frosted filter-optics and Premium TIR optics are not compatible with /HL LED modules.



Frosted Filter-Optic

NIO-REFL15FR	15° Optic
NIO-REFL25FR	28° Optic
NIO-REFL38FR	39° Optic
NIO-REFL60FR	51° Optic

Optic assembly includes optional frosted lens. 28°, 39° and 51° optics are included with 800lm and 1000lm modules.  
**Not compatible with /HL LED module.**



Premium TIR Optics

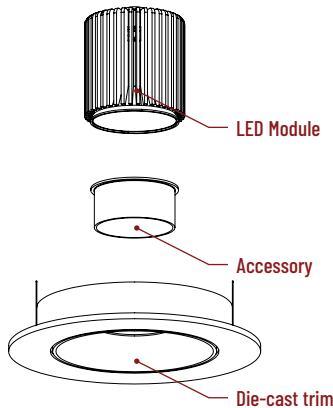
NIO-REFLTIR15	15° Optic
NIO-REFLTIR25	25° Optic

**Not compatible with /HL LED module or Comfort Dim (CDX) technology**

### ACCESSORIES

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

Luminaire will accommodate (1) hex louver and (1) collar accessory, no accessory holder required.



Translucent Decorative Collar

NIO-AS14(color)	5/8" length
NIO-AS19(color)	3/4" length
NIO-AS26(color)	1" length
<b>Color:</b>	
AM (amber), BLU (blue), FR (frosted), R (red)	

Translucent collars color the aperture with the specified color while producing white general light. Collars are available in different lengths. Use to add interest, create a theme, match a theme or define a space.



Opaque Collar Snoot

NIO-AS14(color)	5/8" length
NIO-AS19(color)	3/4" length
NIO-AS26(color)	1" length
<b>Color:</b>	
BLK (black), MPW (matte powder white), WH (white)	

Opaque snoot greatly reduces aperture brightness while preserving light output. (Note: Black snoot will reduce light)



Hex Cell Louver

NIO-HC	Black
--------	-------

Hex cell louver subtly reduces aperture brightness by reducing light output by about 20%.

### FLUSH MOUNT

4" Iolite trims can be installed flush with the drywall for a flush mount appearance. A flush mount mud ring is installed after the drywall and a professional drywall finisher floats the ceiling to blend in the mud ring.

Flush Mount Mud Ring

NIO-FMMR-4S	Square Mud Ring
-------------	-----------------

Mounts trim flush to ceiling with flange visible. Mud ring attaches to drywall. **Only for use with NH10ICD-48 or NH10ICDCP-48 new construction housings and NIO-4S trims.**  
Dimensions: 7-1/8" diameter 1/2" thick



# PHOTOMETRICS

## 4" Iolite Square Deep Adjustable Reflector 1000 lumens

Type

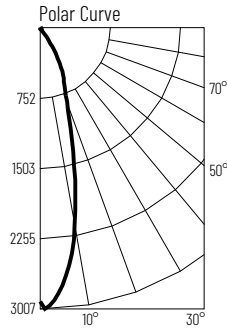
Project

Catalog No.

Notes

### Test Information

Test Number: NTR11292  
Part Number: N10-4SD30XBW/10  
Beam Spread: 28° Spot  
Lumens: 1041lm  
Wattage: 13.4W  
Efficacy: 78lpw  
CCT / CRI: 3000K / 90 CRI  
Spacing Criteria (0°-180): 0.48  
Spacing Criteria (90°-270): 0.48



### Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	186fc	2'
6'	82.7fc	3'
8'	46.5fc	4'
10'	29.8fc	5'
12'	20.7fc	6'-1"

### Zonal Lumen Summary

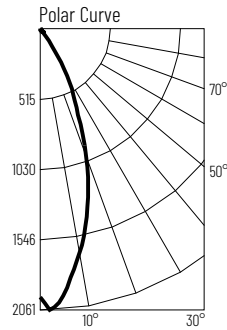
Zone	Lumens	% Luminaire
0-30	879	84.5
0-40	979	94.1
0-60	1028	98.8
0-90	1032	99.2
90-180	8	0.8
0-180	1041	100

### Candela Table

Vertical Angles	Candela
0	2975
5	2906
15	1364
25	540
35	221
45	110

### Test Information

Test Number: NTR11294  
Part Number: N10-4SD30XBW/10  
Beam Spread: 39° Narrow Flood  
Lumens: 1011lm  
Wattage: 13.55W  
Efficacy: 75lpw  
CCT / CRI: 3000K / 90 CRI  
Spacing Criteria (0°-180): 0.66  
Spacing Criteria (90°-270): 0.66



### Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	124fc	2'-10"
6'	55.3fc	4'-2"
8'	31.1fc	5'-7"
10'	19.9fc	7'-1"
12'	13.8fc	8'-6"

### Zonal Lumen Summary

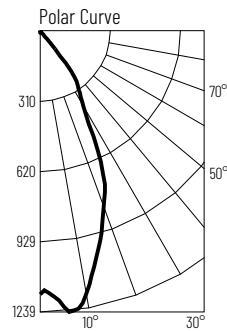
Zone	Lumens	% Luminaire
0-30	856	84.7
0-40	951	94.1
0-60	996	98.5
0-90	1002	99.1
90-180	9	0.9
0-180	1011	100

### Candela Table

Vertical Angles	Candela
0	1992
5	2034
15	1398
25	614
35	212
45	101

### Test Information

Test Number: NTR11296  
Part Number: N10-4SD30XBW/10  
Beam Spread: 51° Flood  
Lumens: 981lm  
Wattage: 13.43W  
Efficacy: 73lpw  
CCT / CRI: 3000K / 90 CRI  
Spacing Criteria (0°-180): 0.84  
Spacing Criteria (90°-270): 0.9



### Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	75.4fc	3'-8"
6'	33.5fc	5'-6"
8'	18.9fc	7'-5"
10'	12.1fc	9'-2"
12'	8.4fc	11"

### Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	708	72.1
0-40	893	91.1
0-60	963	98.2
0-90	971	99
90-180	9	1
0-180	981	100

### Candela Table

Vertical Angles	Candela
0	1207
5	1221
15	1060
25	594
35	324
45	113

### Lumen Output Multipliers

Color Temperature: 2700K (0.98), 3000K (1.00), 3500K (1.09), 4000K (1.19), 5000K (1.16)