

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 downlights require a dedicated Iolite new construction or remodel housing. 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
- 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 trim and transfer heat.

Mounting: Luminaire includes friction blades to mount securely to housing.

OPTICS

800-1000lm: Three field changeable optics (spot, narrow flood and flood) are included with each LED module. Premium 10° TIR narrow spot optic assembly also available ([Click Here](#) for more information). Optional frosted and TIR optics are also available.

1500-2000lm: Three field changeable TIR optics (spot, narrow flood and flood) are included with each LED module.

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 (800lm) or 3000K (HL), to a romantic and comfortable 2000K on a gradual, even curve. Available in 800lm or HL (1500lm-2500lm).

Dimming: Specified by housing

COMPATIBLE HOUSINGS

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

CATALOG NO.	DESCRIPTION	LUMENS / WATTAGE
NHIOICD-48	ICAT New Construction	800-1000lm / 14W
NHIOICDP-48	Chicago Plenum	800-1000lm / 14W
NHRIOIC-48	ICAT Remodel	800-1000lm / 14W
NHIOICD-415	ICAT New Construction	1500lm / 20W
NHIOICDP-415	Chicago Plenum	1500lm / 20W
NHIOICD-420	ICAT New Construction	2000lm / 24W
NHIOICDP-420	Chicago Plenum	2000lm / 24W

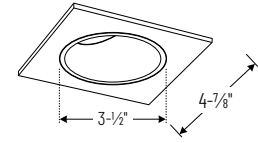
Accessories: Luminaires can accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see accessories page. Flush mount mud ring is available to give the appearance of a trimless, compatible with new construction housing only.

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 JA8-2022



PRODUCT IMAGES & DIMENSIONS



NIO-4SD

Square Deep Adjustable Reflector

Adjustability:

New Construction: 40° (800-2000lm)

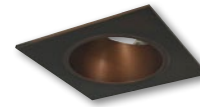
Remodel: 25° (800-1000lm)



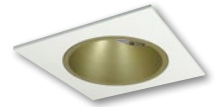
BB
Black Reflector
Black Flange



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

Color Temperature	Finish	Lumens / Wattage
NIO-4SD50X = 5000K*	BB = Black / Black	(blank) = 800lm / 14W
NIO-4SDCDX = Comfort Dim†	BW = Black / White	
NIO-4SD27X = 2700K	BZ = Bronze / Bronze	/10 = 1000lm / 14W
NIO-4SD30X = 3000K	CHMPW = Champagne / Matte Powder White	/HL = 1500-2000lm (varies by housing)
NIO-4SD35X = 3500K	HW = Haze / White	
NIO-4SD40X = 4000K	HZMPW = Haze / Matte Powder White	
NIO-4SD50X = 5000K	MPW = Matte Powder White	
NIO-4SDCDX = Comfort Dim†	NN = Natural Metal / Natural Metal	
	WW = White / White	

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

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

Compatible Housings

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

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

4" Iolite Accessories

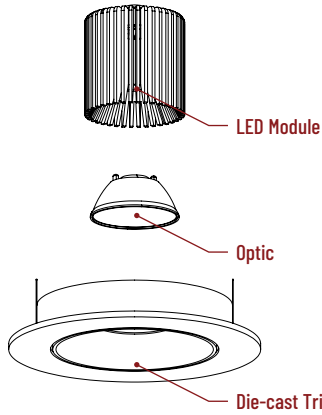
4" Iolite Square Deep Adjustable Reflector

Type
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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. Optional frosted and TIR optics are also available.

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



Frosted Optics

NIO-REFL38FR 60° Optic
NIO-REFL60FR 73° Optic

Not compatible with /HL LED module.

Premium TIR Optics

NIO-REFLTIR15 22° Optic
NIO-REFLTIR25 26° Optic

Not compatible with /HL, Comfort Dim (CDX) LED modules or Hex Cell Louver.

10° TIR Optic Assembly

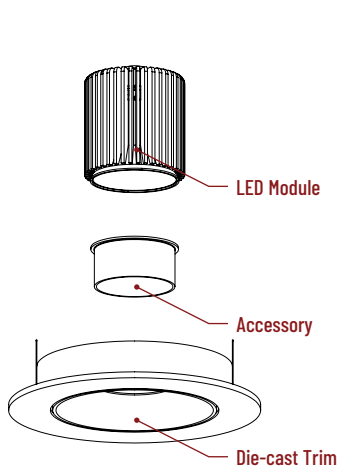
Specialized narrow spot LED module assembly is also available. Requires LE4 housing. [Click Here](#) for more information.



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

Color:
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

Color:
MPW (matte powder white), **WH** (white)

Opaque snoot greatly reduces aperture brightness while preserving light output.

Hex Cell Louver

NIO-HC Black

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

Hex cell louver is not compatible with TIR optics.

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 reflectors.**
 Dimensions: 7-7/8" diameter 1/2" thick



PHOTOMETRICS

4" Iolite Square Deep Adjustable Reflector 1000 lumens

Type

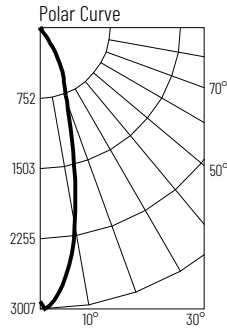
Project

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

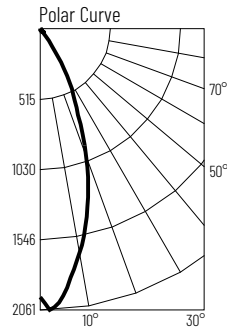
Zone	Lumens	% Luminaire
0-30	879	84.5
0-40	979	94.1
0-60	1028	98.8
0-90	1032	99.2
90-180	8	0.8
0-180	1041	100

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

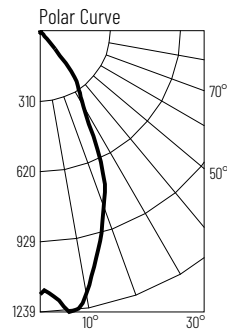
Zone	Lumens	% Luminaire
0-30	856	84.7
0-40	951	94.1
0-60	996	98.5
0-90	1002	99.1
90-180	9	0.9
0-180	1011	100

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)