

NIO-4SD

4" Iolite Square Deep Adjustable Reflector

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

PRODUCT DESCRIPTION

4" Iolite reflectors 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
- Cree® LED COB or Comfort Dim Technology
- Flood optic, narrow flood and spot optics (included)
- 5-Year limited warranty

SPECIFICATION

Construction: Reflectors 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: Reflector includes friction blades to mount securely to housing.

OPTICS

800-1000lm: Each reflector 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 reflector 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

CRI: 90+ CRI

Operating Temp.: 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

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

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

Accessories: Reflectors will 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 reflector, 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



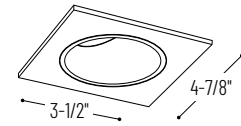
Type

Project

Catalog No.

Notes

PRODUCT IMAGES & DIMENSIONS



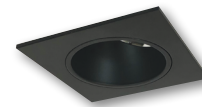
NIO-4SD

Square Deep Adjustable Reflector

Adjustability:

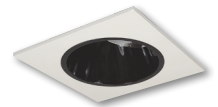
New Construction: 40° (800-2000lm)

Remodel: 40° (800-1000lm)



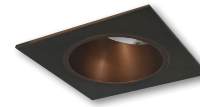
BB

Black Reflector
Black Flange



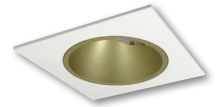
BW

Black Reflector
White Flange



BZ

Bronze Reflector
Bronze Flange



CHMPW

Champagne Haze Reflector
Matte Powder White Flange



HW

Haze Reflector
White Flange



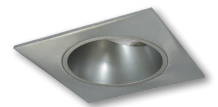
HZMPW

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

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

Compatible Housings

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

Example: NIO-4SD27XWW = 4" Iolite Square Deep Adjustable, 2700K, White finish, 800lm / 14W

4" Iolite Accessories

4" Iolite Square Deep Adjustable Reflector

Type

Project

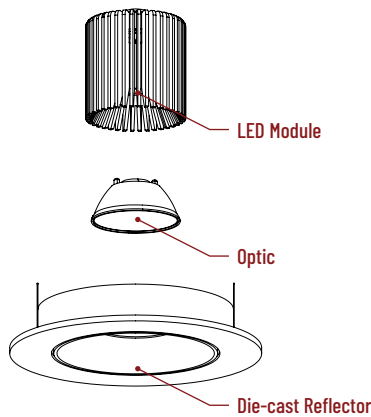
Catalog No.

Notes

FIELD CHANGEABLE OPTICS

Iolite reflectors include spot, narrow flood and flood optics. Optics can be changed in the field by removing LED module from die-cast reflector. 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
NIO-REFL25FR
NIO-REFL38FR
NIO-REFL60FR

15° Optic
25° Optic
38° Optic
60° Optic

Optic assembly includes optional frosted lens. 25°, 38° and 60° optics are included with 800lm and 1000lm reflector.
Not compatible with /HL LED module.



Premium TIR Optics

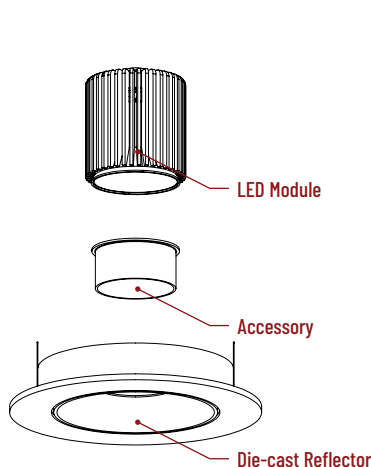
NIO-REFLTIR15
NIO-REFLTIR25

15° Optic
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 reflector. 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:
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

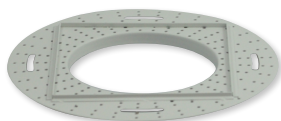
4" Iolite reflectors can be installed flush with the drywall for a flush mount appearance. A flush mount mud ring is installed after the drywall and a professional drywall finisher floats the ceiling to blend in the mud ring.

Flush Mount Mud Ring

NIO-FMMR-4S

Square Mud Ring

Mounts reflector 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

800 lumens

Type

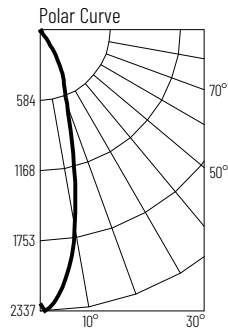
Project

Catalog No.

Notes

Test Information

Test Number: NTR11291
Part Number: NIO-4SD30XBW
Beam Spread: 28° Spot
Lumens: 797lm
Wattage: 14.56W
Efficacy: 55lpw
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'	142fc	2'
6'	63.2fc	3'
8'	35.6fc	4'
10'	22.8fc	5'-1"
12'	15.8fc	6'-1"

Zonal Lumen Summary

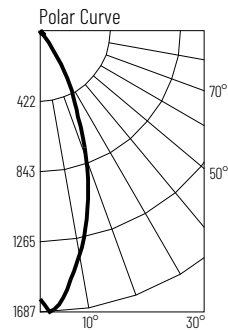
Zone	Lumens	% Luminaire
0-30	680	85.3
0-40	762	95.6
0-60	788	98.8
0-90	790	99.1
90-180	7	0.9
0-180	797	100

Candela Table

Vertical Angles	Candela
0	2276
5	2115
15	1040
25	417
35	176
45	13

Test Information

Test Number: NTR11293
Part Number: NIO-4SD30XBW
Beam Spread: 39° Narrow Flood
Lumens: 788lm
Wattage: 14.54W
Efficacy: 54lpw
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'	100fc	2'-11"
6'	44.7fc	4'-4"
8'	25.1fc	5'-8"
10'	16.1fc	7'-1"
12'	11.2fc	8'-7"

Zonal Lumen Summary

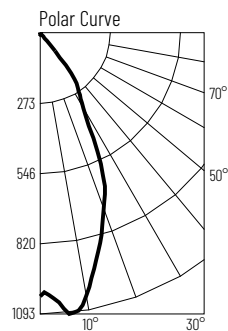
Zone	Lumens	% Luminaire
0-30	683	86.6
0-40	761	96.6
0-60	778	98.7
0-90	782	99.2
90-180	6	0.8
0-180	788	100

Candela Table

Vertical Angles	Candela
0	1608
5	1581
15	1101
25	499
35	147
45	10

Test Information

Test Number: NTR11295
Part Number: NIO-4SD30XBW
Beam Spread: 51° Flood
Lumens: 781lm
Wattage: 14.43W
Efficacy: 54lpw
CCT / CRI: 3000K / 90 CRI
Spacing Criteria (0°-180): 0.84
Spacing Criteria (90°-270): 0.88



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	63.7fc	3'-10"
6'	28.3fc	5'-7"
8'	15.9fc	7'-6"
10'	10.2fc	9'-5"
12'	7.1fc	11'-4"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	597	76.5
0-40	735	94.2
0-60	768	98.3
0-90	774	99.1
90-180	7	0.9
0-180	781	100

Candela Table

Vertical Angles	Candela
0	1020
5	1047
15	883
25	549
35	248
45	59

Lumen Output Multipliers

Color Temperature: 2700K (0.83), 3000K (0.86), 3500K (0.89), 4000K (1.00), 5000K (1.01)

PHOTOMETRICS

4" Iolite Square Deep Adjustable Reflector 1000 lumens

Type

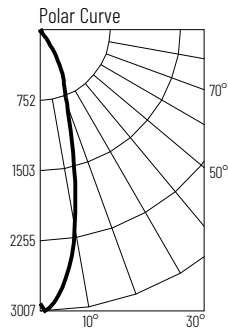
Project

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Notes

Test Information

Test Number: NTR11292
Part Number: NIO-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

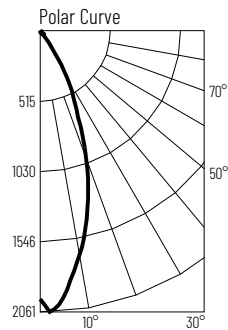
Zone	Lumens	% Luminaire
0-30	879	84.5
0-40	979	94.1
0-60	1028	98.8
0-90	1032	99.2
90-180	8	0.8
0-180	1041	100

Candela Table

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

Test Information

Test Number: NTR11294
Part Number: NIO-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

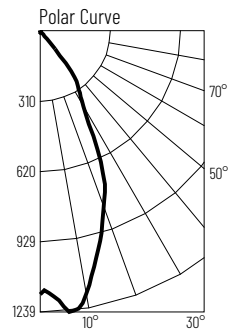
Zone	Lumens	% Luminaire
0-30	856	84.7
0-40	951	94.1
0-60	996	98.5
0-90	1002	99.1
90-180	9	0.9
0-180	1011	100

Candela Table

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

Test Information

Test Number: NTR11296
Part Number: NIO-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 (0.82), 3000K (0.84), 3500K (0.92), 4000K (1.00), 5000K (0.97)