

NIOB-2SNSDSQ

2" Iolite Square Reflector with Square Aperture

Source: 14W to 28W LED

800lm to 2500lm

Type

Project

Catalog No.

Notes

PRODUCT DESCRIPTION

2" Iolite LED downlights require a dedicated Iolite new construction or remodel housing. Deep regressed cone reflectors optimize visual cut-off.

FEATURES

- 800lm, 1000lm, 1500lm, 2000lm or 2500lm 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 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.

1500-2500lm: 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, 2500lm / 28W

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

Color Rendering Index: 90+ CRI

Operating Temperature: 0°C to 40°C

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
NHIOICD-28	ICAT New Construction	800-1000lm / 14W
NHIOICDCP-28	Chicago Plenum	800-1000lm / 14W
NHRIOIC-28	ICAT Remodel	800-1000lm / 14W
NHIOICD-215	ICAT New Construction	1500lm / 20W
NHIOICDCP-215	Chicago Plenum	1500lm / 20W
NHIOICD-220	ICAT New Construction	2000lm / 24W
NHIOICDCP-220	Chicago Plenum	2000lm / 24W
NHIOICD-225	ICAT New Construction	2500lm / 28W
NHIOICDCP-225	Chicago Plenum	2500lm / 28W

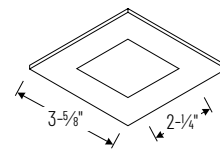
Accessories: Luminaires will accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see accessories page. Flush mount mud ring is available to give the appearance of a trimless, compatible with new construction housing only.

LABELS AND LISTINGS

- cULus Listed for Wet 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



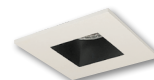
NIOB-2SNSDSQ

Square Reflector with Square Aperture
Non-Adjustable



BB

Black Reflector
Black Flange



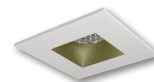
BW

Black Reflector
White Flange



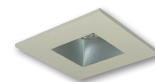
BZ

Bronze Reflector
Bronze Flange



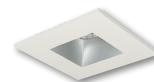
CHMPW

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



WW

White Reflector
White Flange

2" Iolite Square Reflector / Square Aperture - Dedicated Housing Required

Color Temperature	Finish	Lumens / Wattage
NIOB-2SNSDSQ50X = 5000K*	BB = Black / Black	(blank) = 800lm / 14W
NIOB-2SNSDSQCDX = Comfort Dim†	BW = Black / White	
	BZ = Bronze / Bronze	
NIOB-2SNSDSQ27X = 2700K	CHMPW = Champagne / Matte Powder White	/10 = 1000lm / 14W
NIOB-2SNSDSQ30X = 3000K	HW = Haze / White	/HL = 1500-2500lm
NIOB-2SNSDSQ35X = 3500K	HZMPW = Haze / Matte Powder White	(varies by housing)
NIOB-2SNSDSQ40X = 4000K	MPW = Matte Powder White	
NIOB-2SNSDSQ50X = 5000K	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-28 = ICAT New Construction / 800-1000lm / 14W
NHIOICDCP-28 = Chicago Plenum / 800-1000lm / 14W
NHRIOIC-28 = ICAT Remodel / 800-1000lm / 14W
NHIOICD-215 = ICAT New Construction / 1500lm / 20W
NHIOICDCP-215 = Chicago Plenum / 1500lm / 20W
NHIOICD-220 = ICAT New Construction / 2000lm / 24W
NHIOICDCP-220 = Chicago Plenum / 2000lm / 24W
NHIOICD-225 = ICAT New Construction / 2500lm / 28W
NHIOICDCP-225 = Chicago Plenum / 2500lm / 28W

Example: **NIOB-2SNSDSQ50XBB** = 2" Iolite Square Reflector / Square Aperture, 5000K, Black finish, 800lm / 14W

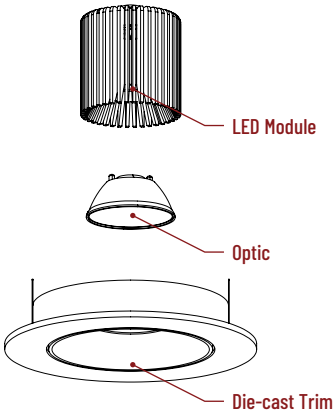
2" Iolite Accessories

2" Iolite Square Reflector with Square Aperture

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



Frosted Optics

NIO-REFL38FR
NIO-REFL60FR
60° Optic
73° Optic
Not compatible with /HL LED module.

Premium TIR Optics

NIO-REFLTIR15
NIO-REFLTIR25
22° Optic
26° Optic
Not compatible with /HL, Comfort Dim (CDX) LED modules or Hex Cell Louver.

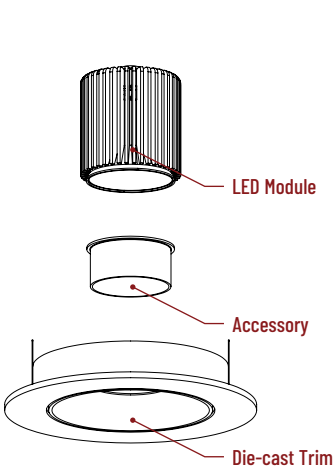
10° TIR Optic Assembly

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)
NIO-AS19(color)
NIO-AS26(color)
Color:
AM (amber), BLU (blue), FR (frosted), R (red)
5/8" length
3/4" length
1" length
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)
NIO-AS19(color)
NIO-AS26(color)
Color:
MPW (matte powder white), WH (white)
5/8" length
3/4" length
1" length
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

2" Iolite downlights 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-2S
Square Mud Ring

Mounts trim flush to ceiling with reflector flange visible. Mud ring attaches to drywall. **Only for use with NHIOICD-28 or NHIOICDCP-28 new construction housings and NIOB-2S trims.**
Dimensions: 7-7/8" diameter 1/2" thick

PHOTOMETRICS

2" Iolite Square Reflector with Square Aperture

1500 lumens

Type

Project

Catalog No.

Notes

Test Information

Test Number: NTR2292R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 38° Spot

Lumens: 1641lm

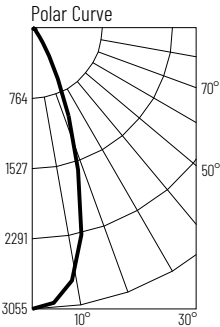
Wattage: 19.74W

Efficacy: 83lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.62

Spacing Criteria (90°-270°): 0.62



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	84.9fc	4'-1"
8'	47.7fc	5'-6"
10'	30.5fc	6'-10"
12'	21.2fc	8'-2"
14'	15.6fc	9'-6"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1147	69.9
0-40	1383	84.3
0-60	1577	96.1
0-90	1641	100
90-180	0	0
0-180	1641	100

Candela Table

Vertical Angles	Candela
0	3055
5	2976
15	2081
25	807
35	240
45	87

Test Information

Test Number: NTR2295R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 50° Narrow Flood

Lumens: 1796lm

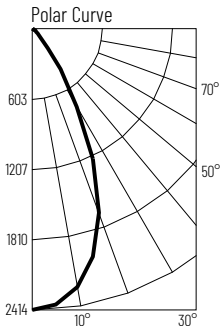
Wattage: 19.91W

Efficacy: 90lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.82

Spacing Criteria (90°-270°): 0.82



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	67fc	5'-7"
8'	37.7fc	7'-5"
10'	24.1fc	9'-4"
12'	16.8fc	11'-1"
14'	12.3fc	13'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1323	73.7
0-40	1613	89.8
0-60	1754	97.7
0-90	1796	100
90-180	0	0
0-180	1796	100

Candela Table

Vertical Angles	Candela
0	2414
5	2379
15	2025
25	1232
35	425
45	102

Test Information

Test Number: NTR2298R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 59° Flood

Lumens: 1448lm

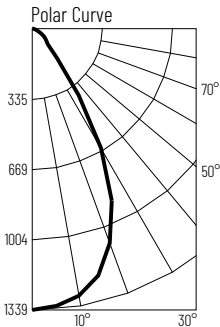
Wattage: 19.82W

Efficacy: 73lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.94

Spacing Criteria (90°-270°): 0.94



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	37.2fc	6'-10"
8'	20.9fc	9'-1"
10'	13.4fc	11'-5"
12'	9.3fc	13'-8"
14'	6.8fc	16'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	884	61
0-40	1180	81.5
0-60	1365	94.3
0-90	1448	100
90-180	0	0
0-180	1448	100

Candela Table

Vertical Angles	Candela
0	1339
5	1325
15	1216
25	903
35	389
45	105

Lumen Output Multipliers

Color Temperature: 2700K (0.92), 3000K (1.00), 3500K (1.1), 4000K (1.12), 5000K (1.18)

PHOTOMETRICS

2" Iolite Square Reflector with Square Aperture

2000 lumens

Type

Project

Catalog No.

Notes

Test Information

Test Number: NTR2293R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 38° Spot

Lumens: 1966lm

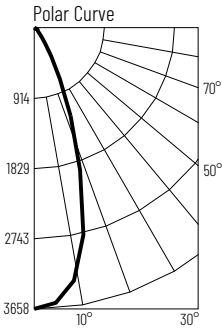
Wattage: 24.46W

Efficacy: 80lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.62

Spacing Criteria (90°-270°): 0.62



Illuminance at a Distance		
Distance from Luminaire	FC at Nadir	Beam Diameter
12'	25.4fc	8'-2"
14'	18.7fc	9'-7"
16'	14.3fc	10'-11"
18'	11.3fc	12'-4"
20'	9.1fc	13'-7"

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1373	69.9
0-40	1656	84.2
0-60	1888	96.1
0-90	1966	100
90-180	0	0
0-180	1966	100

Candela Table	
Vertical Angles	Candela
0	3658
5	3556
15	2479
25	973
35	289
45	105

Test Information

Test Number: NTR2296R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 50° Narrow Flood

Lumens: 2141lm

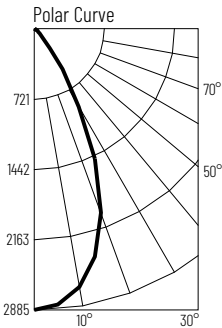
Wattage: 24.23W

Efficacy: 88lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.82

Spacing Criteria (90°-270°): 0.82



Illuminance at a Distance		
Distance from Luminaire	FC at Nadir	Beam Diameter
12'	20fc	11'-1"
14'	14.7fc	13'
16'	11.3fc	14'-10"
18'	8.9fc	16'-8"
20'	7.2fc	18'-6"

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1411	65.9
0-40	1826	85.3
0-60	2086	97.4
0-90	2141	100
90-180	0	0
0-180	2141	100

Candela Table	
Vertical Angles	Candela
0	2885
5	2838
15	2405
25	1474
35	525
45	124

Test Information

Test Number: NTR2299R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 59° Flood

Lumens: 1721lm

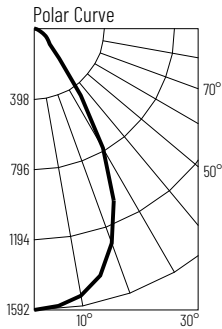
Wattage: 24.16W

Efficacy: 71lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.94

Spacing Criteria (90°-270°): 0.94



Illuminance at a Distance		
Distance from Luminaire	FC at Nadir	Beam Diameter
12'	11.1fc	13'-8"
14'	8.1fc	16'
16'	6.2fc	18'-4"
18'	4.9fc	20'-6"
20'	4fc	22'-10"

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1050	61
0-40	1402	81.4
0-60	1622	94.2
0-90	1721	100
90-180	0	0
0-180	1721	100

Candela Table	
Vertical Angles	Candela
0	1592
5	1575
15	1444
25	1070
35	466
45	127

Lumen Output Multipliers

Color Temperature: 2700K (0.94), 3000K (1.00), 3500K (1.13), 4000K (1.13), 5000K (1.2)

PHOTOMETRICS

2" Iolite Square Reflector with Square Aperture

2500 lumens

Type

Project

Catalog No.

Notes

Test Information

Test Number: NTR2294R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 38° Spot

Lumens: 2239lm

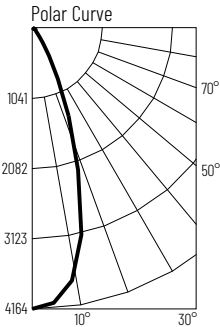
Wattage: 27.97W

Efficacy: 80lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.64

Spacing Criteria (90°-270°): 0.64



Illuminance at a Distance		
Distance from Luminaire	FC at Nadir	Beam Diameter
12'	28.9fc	8'-2"
14'	21.2fc	9'-6"
16'	16.3fc	10'-11"
18'	12.9fc	12'-2"
20'	10.4fc	13'-7"

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1696	75.7
0-40	1969	87.9
0-60	2161	96.5
0-90	2239	100
90-180	0	0
0-180	2239	100

Candela Table	
Vertical Angles	Candela
0	4164
5	4042
15	2858
25	1090
35	320
45	121

Test Information

Test Number: NTR2297R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 50° Narrow Flood

Lumens: 2439lm

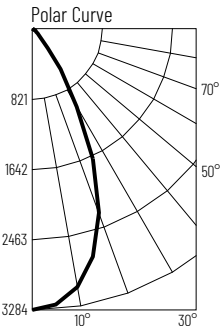
Wattage: 28.04W

Efficacy: 87lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.82

Spacing Criteria (90°-270°): 0.8



Illuminance at a Distance		
Distance from Luminaire	FC at Nadir	Beam Diameter
12'	22.8fc	11'-1"
14'	16.8fc	13'
16'	12.8fc	14'-10"
18'	10.1fc	16'-8"
20'	8.2fc	18'-6"

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1801	73.8
0-40	2193	89.9
0-60	2383	97.7
0-90	2439	100
90-180	0	0
0-180	2439	100

Candela Table	
Vertical Angles	Candela
0	3284
5	3234
15	2757
25	1676
35	571
45	135

Test Information

Test Number: NTR2300R1

Part Number: NIOB-2SNDSQ40XMPW/HL

Beam Spread: 59° Flood

Lumens: 1966lm

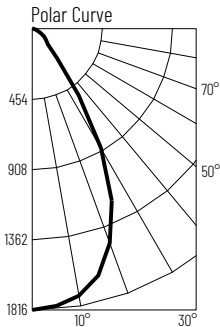
Wattage: 27.95W

Efficacy: 70lpw

CCT / CRI: 3000K / 90 CRI

Spacing Criteria (0°-180°): 0.94

Spacing Criteria (90°-270°): 0.94



Illuminance at a Distance		
Distance from Luminaire	FC at Nadir	Beam Diameter
12'	12.6fc	13'-8"
14'	9.3fc	16'
16'	7.1fc	18'-4"
18'	5.6fc	20'-6"
20'	4.5fc	22'-10"

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1199	61
0-40	1600	81.4
0-60	1853	94.2
0-90	1966	100
90-180	0	0
0-180	1966	100

Candela Table	
Vertical Angles	Candela
0	1816
5	1798
15	1649
25	1226
35	525
45	139

Lumen Output Multipliers

Color Temperature: 2700K (0.96), 3000K (1.00), 3500K (1.14), 4000K (1.16), 5000K (1.24)