

NIOC-2NDSQ

2" Iolite Can-less Square Downlight

Source: 12W LED
1175lm

PRODUCT DESCRIPTION

2" Iolite can-less downlights can be installed in new construction or remodel applications. Deep regressed cone reflectors optimize visual cut-off.

FEATURES

- No housing required - IC Air-Tight rated
- Easy installation for remodel or new construction applications
- Variety of trim accessories to configure desired appearance
- Quick disconnect allows for extended lengths
- Dedicated CCT or Comfort Dim (warm dim)
- Flood optic, narrow flood and spot optics (included)
- 5-Year limited warranty
- ENERGY STAR certified
- cULus Listed for Wet Locations

SPECIFICATION

Construction: Trims are constructed of heat dissipating, die-cast aluminum. Aluminum die-cast LED module is threaded to fit the trim and transfer heat.

Air Flow Restriction: Luminaire has factory installed gasket to restrict airflow from room into ceiling plenum to <2CFM (cubic feet per minute) in accordance with ASTM-283 Air-Tight requirements.

Clearance: IC rated luminaires are rated for direct contact with insulation (not spray foam insulation), no minimum clearance is required.

Driver Box: Prewired junction box includes 7" quick connect wire to LED module for ease of installation. Junction box includes two 1/2" trade size knockouts and snap on cover.

Mounting: No housing is required, two tensions steel spring clips secure luminaire to ceiling. Accommodates ceiling thickness up to 3/4". New construction frame-in kit is available, see accessories.

OPTICS

Each module includes field changeable optics (spot, narrow flood and flood - preinstalled).

ELECTRICAL

Input Voltage: 120VAC

Lumens / Wattage: 1175lm / 12W

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

Color Rendering Index: 90+CRI

Operating Temperature: 0°-30°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 875lm only.

Dimming: Triac or ELV

Accessories: Luminaire will accommodate (1) hex louver and (1) translucent deco collar or opaque snoot, no accessory holder is required, see accessories page.

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



Type

Project

Catalog No.

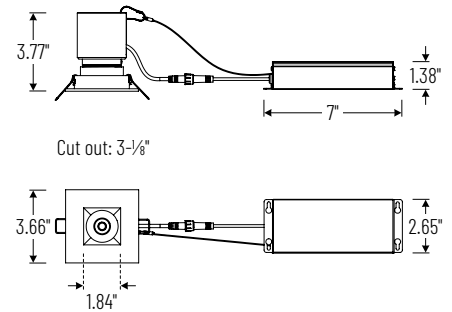
Notes

Performance Data

Part Number	Lumens	CCT	Optic
NIOC-2SNDSQ40XMPW	1191lm	4000K	Spot
NIOC-2SNDSQ40XMPW	1184lm	4000K	Narrow
NIOC-2SNDSQ40XMPW	1169lm	4000K	Flood

Delivered lumens will vary depending on CCT, optic and finish

PRODUCT IMAGES & DIMENSIONS



2" Iolite Can-less Square Downlight Trim



HW

Haze Reflector
White Flange

MPW

Matte Powder White
Reflector & Flange

WW

White Reflector
& Flange

Item Number

NIOC-2SNDSQHW = Haze Reflector / White Flange

NIOC-2SNDSQMPW = Matte Powder White Reflector & Flange

NIOC-2SNDSQWW = White Reflector & Flange

2" & 4" Iolite Can-less LED Module



Color Temperature

NIOC-24LED927X = 2700K

NIOC-24LED930X = 3000K

NIOC-24LED935X = 3500K

NIOC-24LED940X = 4000K

NIOC-24LED9CDX = Comfort Dim (3100K-2000K)

Driver Box



Wattage

NJCB-12 = 12W / 120VAC input / Triac or ELV dimming

Example: **NIOC-2SNDSQMPW / NIOC-24LED930X / NJCB-12** = 2" Iolite Can-less Square Downlight Trim, Matte Powder White finish, 3000K LED Module, 12W Driver Box with 120VAC input; Triac or ELV dimming

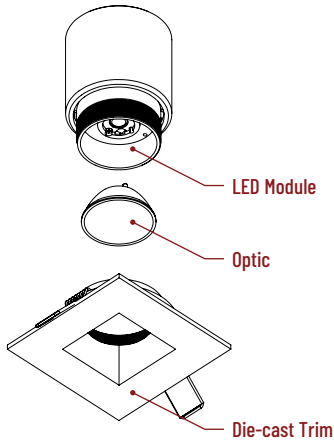
Iolite Can-less Accessories

2" Iolite Can-less Square Downlight

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 and TIR optics are also available.



Frosted Optics

NIO-REFL38FR
NIO-REFL60FR

60° Optic
73° Optic



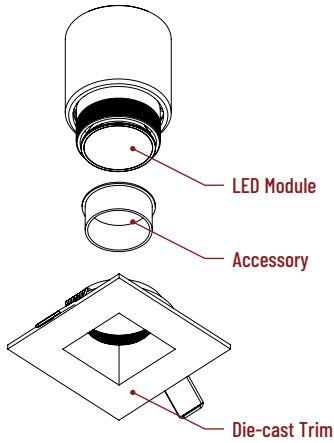
Premium TIR Optics

NIO-REFLTIR15
NIO-REFLTIR25

22° Optic
26° Optic

TRIM 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:
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%.

MOUNTING ACCESSORIES

Iolite canless luminaires are ready to be installed out of the box. Additional mounting accessories can be used to assist during installation or extend length between driver box and luminaire.



Quick Connect Extension Cables

NCA-EW-4 4" Cable
NCA-EW-10 10" Cable

Use to extend the length between luminaire and driver box. Can be connected together to create custom lengths. Maximum length between luminaire and driver is 40'.



New Construction Frame-In

NF-R124

Universal new construction frame-in can be used to assist installing can-less recessed downlighting.

PHOTOMETRICS

2" Iolite Can-less Square Downlight

Type

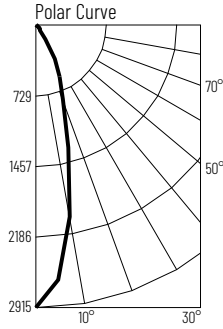
Project

Catalog No.

Notes

Test Information

Test Number: NTR2049R
 Part Number: NI0C-2SNDSQ40XMPW
 Beam Spread: 28° Spot
 Lumens: 1191lm
 Wattage: 11.73W
 Efficacy: 102lpw
 CCT / CRI: 4000K / 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'	182fc	2'-0"
6'	81.0fc	3'-0"
8'	45.5fc	3'-11"
10'	29.1fc	4'-11"
12'	20.2fc	5'-11"

Zonal Lumen Summary

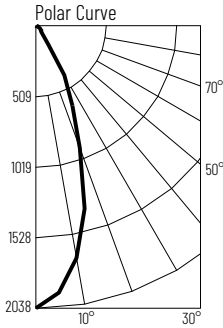
Zone	Lumens	% Luminaire
0-30	886	74.3
0-40	1052	88.3
0-60	1143	96.0
0-90	1191	100
90-180	0	0
0-180	1191	100

Candela Table

Vertical Angles	Candela
0	2915
5	2639
15	1308
25	587
35	177
45	59

Test Information

Test Number: NTR2050R1
 Part Number: NI0C-2SNDSQ40XMPW
 Beam Spread: 38° Narrow Flood
 Lumens: 1184lm
 Wattage: 11.74W
 Efficacy: 101lpw
 CCT / CRI: 4000K / 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
4'	127fc	2'-10"
6'	56.6fc	4'-1"
8'	31.8fc	5'-6"
10'	20.4fc	6'-11"
12'	14.2fc	8'-4"

Zonal Lumen Summary

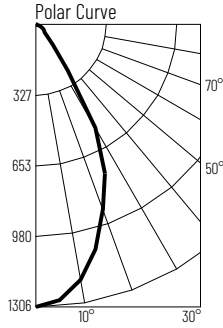
Zone	Lumens	% Luminaire
0-30	864	73.0
0-40	1037	87.6
0-60	1131	95.5
0-90	1184	100
90-180	0	0
0-180	1184	100

Candela Table

Vertical Angles	Candela
0	2038
5	1934
15	1367
25	634
35	157
45	60

Test Information

Test Number: NTR2051R1
 Part Number: NI0C-2SNDSQ40XMPW
 Beam Spread: 55° Flood
 Lumens: 1169lm
 Wattage: 11.76W
 Efficacy: 99lpw
 CCT / CRI: 4000K / 90 CRI
 Spacing Criteria (0°-180°): 0.84
 Spacing Criteria (90°-270°): 0.84



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
4'	81.6fc	4'-2"
6'	36.3fc	6'-4"
8'	20.4fc	8'-5"
10'	13.1fc	10'-6"
12'	9.07fc	12'-7"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	770	65.9
0-40	999	85.5
0-60	1112	95.1
0-90	1169	100
90-180	0	0
0-180	1169	100

Candela Table

Vertical Angles	Candela
0	1306
5	1279
15	1075
25	761
35	258
45	77

Lumen Output Multipliers

Color Temperature: 2700K (0.83), 3000K (0.88), 3500K (0.90), 4000K (1.00)