NIOC-2SNDSQ

2" Iolite Can-less Square Downlight
Source: 12W LED
1175lm

Type	
Project	
Catalog No.	
Notes	

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 ½" 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 ¾". 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
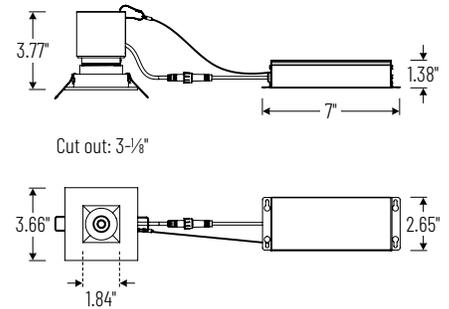· Certified to the high efficacy requirements of California Title 24 JA8-2022

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

3.77" 1.38" 7"

Cut out: 3-⅛"

3.66" 2.65" 1.84"

2" Iolite Can-less Square Downlight Trim

HW	**MPW**	**WW**
Haze Reflector White Flange	Matte Powder White Reflector & Flange	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

Three field changeable optics included

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
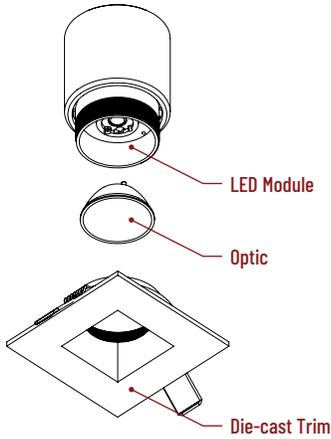
Iolite Can-less Accessories
2" Iolite Can-less Square Downlight

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.

- LED Module
- Optic
- Die-cast Trim

Frosted Optics

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

Premium TIR Optics

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

TIR optics are not compatible with hex cell louver accessory.

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.

- LED Module
- Accessory
- Die-cast Trim
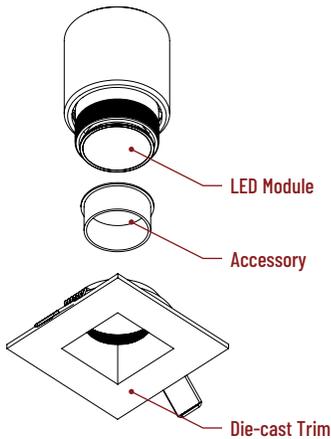
Translucent Decorative Collar

NIO-AS14(color)	⅝" length
NIO-AS19(color)	¾" 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)	⅝" length
NIO-AS19(color)	¾" length
NIO-AS26(color)	1" length

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

Opaque snoot greatly reduces aperture brightness while preserving light output.
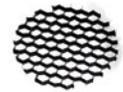
Hex Cell Louver

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.

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
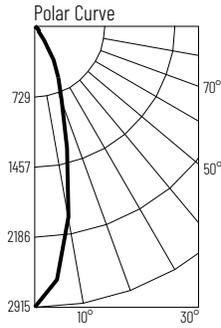## 2" Iolite Can-less Square Downlight

Test Information
Test Number: NTR2049R
Part Number: NIOC-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

Polar Curve

729
1457
2186
2915
10° 30° 50° 70°

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: NIOC-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

Polar Curve

509
1019
1528
2038
10° 30° 50° 70°
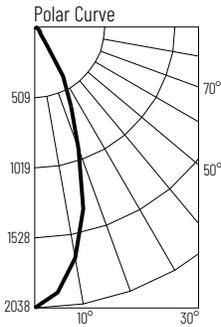
Illuminance at a Distance

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: NIOC-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

Polar Curve

327
653
980
1306
10° 30° 50° 70°
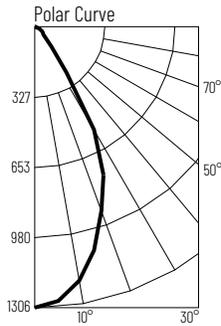
Illuminance at a Distance

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)