

**JUNO**

# 2" LED SQUARE DOWNLIGHT

## 600 LUMEN

### 2SQ Series

Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Location: \_\_\_\_\_

Contact/Phone: \_\_\_\_\_



#### PRODUCT DESCRIPTION

2 inch square aperture recessed downlight is IC rated for insulated or non-insulated applications • Luminaire produces up to 600 lumens and is available with optical distributions approximating that of 50W MR16 halogen lamps • Low profile form factor allows luminaire to fit in 2 x 6 construction • Designed to provide 50,000 hours of life • 5 year limited warranty on LED Components.

#### ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- No harmful ultraviolet or infrared wavelengths
- No lead or mercury, RoHS compliant
- Comparable light output to a 50W MR16 halogen lamp

#### PRODUCT SPECIFICATIONS

**LED Light Engine** Exceptional fixture to fixture color consistency within a 3-step MacAdam ellipse • 2700K, 3000K, 3500K, and 4100K color temperatures are available with 80 CRI or 90 CRI minimum.

**Modular Optics** Available with field interchangeable optics in 18° Spot, 24° Narrow Flood, or 40° Flood distributions.

**Aesthetic Trim** Die cast trim ring is available in white, black, satin nickel, and brushed bronze • Die cast reflectors are available in white and black.

**LED Driver** Choice of dedicated 120 volt driver or universal voltage driver that accommodates input voltages from 120-277 volts AC at 50/60Hz. Power factor > 0.9. Dedicated 120 volt driver (-1) is dimmable with the use of most incandescent, magnetic low voltage and electronic low voltage dimmers • Universal voltage driver (-U) is dimmable with the use of most 0-10V protocol dimmers • For a list of compatible dimmers, see [JUNO2INCH-DIM](#).

**Life** Rated for 50,000 hours at 70% lumen maintenance.

**Labels** ENERGY STAR® Qualified • 90CRI fixtures with white reflector are certified to the high efficacy requirements of California T24 with select trims • Meets energy code Air Leakage requirements per ASTM E283 • UL and cUL listed for wet locations.

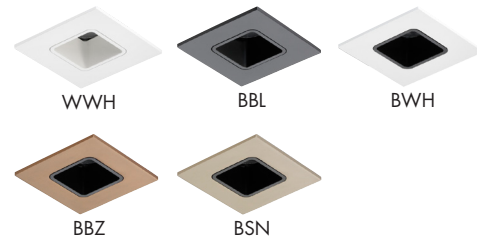
**Junction Box** Includes (2) ½" knock-outs equipped with pryout slots • Push-in electrical connectors for field connections.

**Mounting** Remodel style plaster frame installs from below the ceiling and accommodates ceiling thicknesses from ½" to 1" • For thicker ceilings up to 1 ½", order 2-JCTA150 • New Construction mounting frame, 2-NCMF, is also available with Real Nail 3® telescoping bar hangers to position fixture and locate wiring prior to ceiling installation.

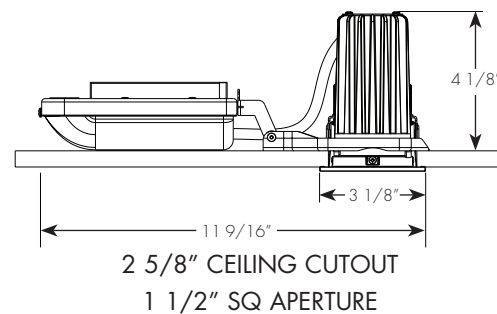
Product specifications subject to change without notice.



#### Downlight Baffle Finishes



#### DIMENSIONS



#### ENGINEERING DATA

	Dedicated 120V (-1)	Universal Voltage (-U)
Voltage	120	120 277
Input Power	10.1 (±5%)	9.7 9.8 (±5%)
Input Current	.09	.08 .04
Frequency	50/60Hz	50/60Hz
Power Factor	.94	.98 .98

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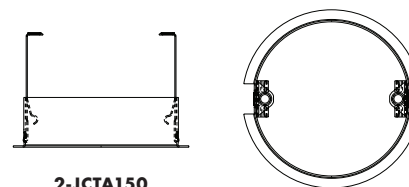
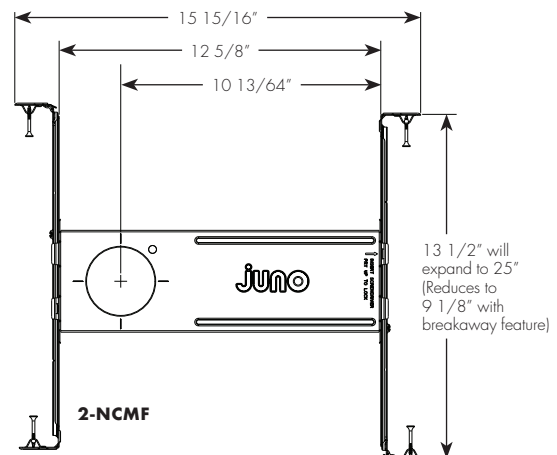
#### ORDERING INFORMATION:

Example: **2SQ-927N1-WWH**

Series	CRI/Color Temperature		Beam Optics	Drivers	Finish
<b>2SQ</b> Square Downlight	<b>827</b> 2700K, 80CRI	<b>927</b> 2700K, 90CRI	<b>S</b> 18° Spot	<b>I</b> Dedicated 120V Only (Forward Phase + ELV Dimmable)	<b>Downlight Reflector</b> <b>WWH</b> White, White Trim Ring <b>BBL*</b> Black, Black Trim Ring <b>BWH*</b> Black, White Trim Ring <b>BBZ*</b> Black, Bronze Trim Ring <b>BSN*</b> Black, Satin Nickel Trim Ring *Not T24 Certified
	<b>830</b> 3000K, 80CRI	<b>930</b> 3000K, 90CRI	<b>N</b> 24° Narrow Flood	<b>U</b> Universal Voltage 120-277V (0-10V Dimmable)	
	<b>835</b> 3500K, 80CRI	<b>935</b> 3500K, 90CRI	<b>F</b> 40° Flood		
	<b>841</b> 4100K, 80CRI	<b>941</b> 4100K, 90CRI			

#### ACCESSORIES

Catalog No.	Description
<b>2-NCMF</b>	New Construction Mounting Frame with Real Nail® 3 bar hangers
<b>2-JCTA150</b>	Thick Ceiling adapter for 1" - 1½" thick ceiling
<b>LEDOPTIC2-S</b>	18° Spot Optic
<b>LEDOPTIC2-N</b>	24° Narrow Flood Optic
<b>LEDOPTIC2-F</b>	40° Flood Optic



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#### PHOTOMETRIC REPORT

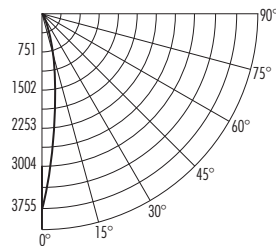
Test Report#: PT01142104R

Catalog No: 2SQ-835S1-WWH

80 CRI, 3500K LED, White  
Reflector with Spot Optic

Luminaire Spacing Criteria: 0.32

Luminaire LPW: 62



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3755
5	2969
15	862
25	98
35	30
45	14
55	11
65	8
75	5
85	2
90	0

#### AVERAGE INITIAL FOOTCANDLES Multiple Units (Square Array, 60'x60' room)

Reflectances: Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4'	44	40	37
5'	28	26	24
6'	20	18	16
7'	16	14	13
8'	13	11	11
9'	10	9	8
10'	7	6	6

#### INITIAL FOOTCANDLES (One Unit, 10.1W, 17.7° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	235.9	1.2
6'	104.9	1.9
8'	59.0	2.5
10'	37.8	3.1
12'	26.2	3.7

#### LUMINANCE (Average cd/m<sup>2</sup>)

Degrees	Average Luminance
45°	14448
55°	13749
65°	13995
75°	14542
85°	15423

#### PHOTOMETRIC REPORT

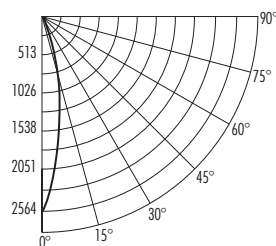
Test Report#: PT01142202R

Catalog No: 2SQ-835N1-WWH

80 CRI, 3500K LED, White  
Reflector with Narrow Flood Optic

Luminaire Spacing Criteria: 0.40

Luminaire LPW: 57



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2564
5	2235
15	848
25	141
35	29
45	15
55	11
65	8
75	5
85	2
90	0

#### AVERAGE INITIAL FOOTCANDLES Multiple Units (Square Array, 60'x60' room)

Reflectances: Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4'	41	37	33
5'	26	23	21
6'	18	16	15
7'	15	13	12
8'	12	10	10
9'	9	8	7
10'	7	6	5

#### INITIAL FOOTCANDLES (One Unit, 10.1W, 23.4° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	160.3	1.7
6'	71.2	2.5
8'	40.1	3.3
10'	25.6	4.1
12'	17.8	5.0

#### LUMINANCE (Average cd/m<sup>2</sup>)

Degrees	Average Luminance
45°	15462
55°	14062
65°	13995
75°	14542
85°	14395

#### PHOTOMETRIC REPORT

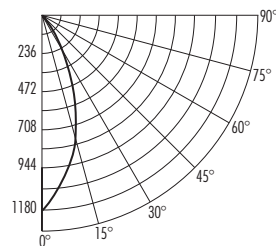
Test Report#: PT01142105R

Catalog No: 2SQ-835F1-WWH

80 CRI, 3500K LED, White  
Reflector with Flood Optic

Luminaire Spacing Criteria: 0.66

Luminaire LPW: 60



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1180
5	1126
15	811
25	343
35	66
45	24
55	10
65	9
75	5
85	2
90	0

#### AVERAGE INITIAL FOOTCANDLES Multiple Units (Square Array, 60'x60' room)

Reflectances: Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4'	42	37	33
5'	27	24	21
6'	19	16	15
7'	15	13	12
8'	12	10	9
9'	9	8	7
10'	7	6	5

#### INITIAL FOOTCANDLES (One Unit, 10.1W, 39.8° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	73.8	2.9
6'	32.8	4.3
8'	18.4	5.8
10'	11.8	7.2
12'	8.2	8.7

#### LUMINANCE (Average cd/m<sup>2</sup>)

Degrees	Average Luminance
45°	25854
55°	13437
65°	15267
75°	15235
85°	14395

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.

Multiplier:	80 CRI	90 CRI
	827 = .94	927 = .83
	830 = .97	930 = .86
	835 = 1.00	935 = .88
	841 = 1.03	940 = .90