

**JUNO**

# 2" LED ROUND DOWNLIGHT

## 600 LUMEN

### 2B and 2C Series

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

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

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

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



#### PRODUCT DESCRIPTION

2 inch 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** Trim features die cast beveled knife edge trim ring or frame for clean ceiling interface available in white, black, satin nickel, or brushed bronze • Die cast baffles are available in white, black, satin nickel, or brushed bronze • Spun aluminum reflectors are available in clear, haze, wheat haze, and white finishes.

**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 are certified to the high efficacy requirements of California T24 • 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.

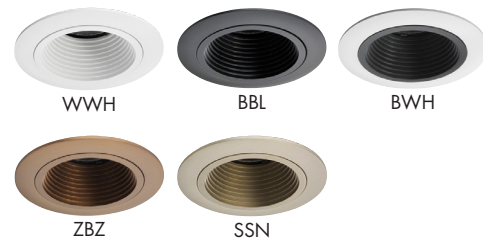
Product specifications subject to change without notice.

#### ENGINEERING DATA

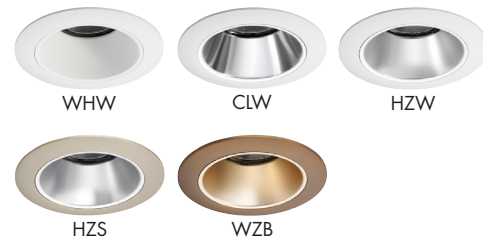
	Dedicated 120V (-1)	Universal Voltage (-U)
Voltage	120	120 277
Input Power	10.1 (±5%)	9.7 9.8 (±5%)
Input Current	.09	.08 .04
Frequency	50/60Hz	50/60Hz
Power Factor	.94	.98 .98



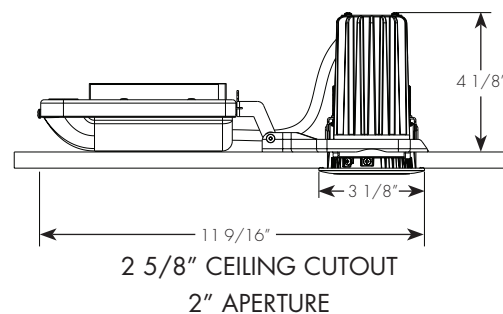
#### Downlight Baffle Finishes



#### Downlight Cone Finishes



#### DIMENSIONS



# 2" LED ROUND DOWNLIGHT

## 600 LUMEN

### 2B and 2C Series

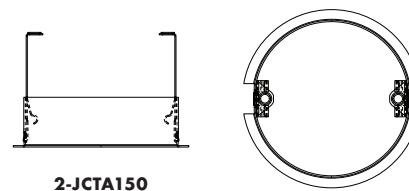
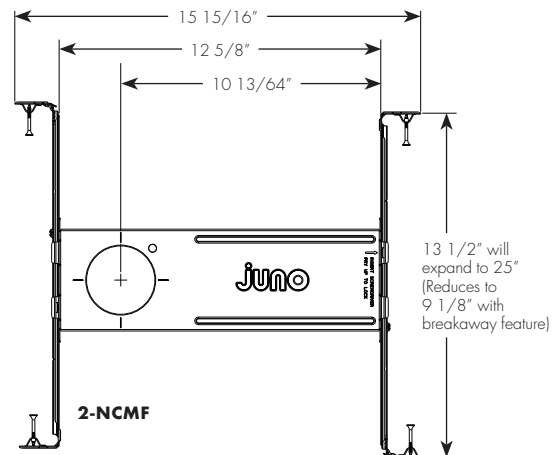
#### ORDERING INFORMATION:

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

Series	CRI/Color Temperature		Beam Optics	Drivers	Finish	
<b>2B</b> Downlight Baffle	<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 Baffle</b>	
<b>2C</b> Downlight Cone	<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>WWH</b> White Baffle, White Trim Ring	<b>Downlight Cone</b>
	<b>835</b> 3500K, 80CRI	<b>935</b> 3500K, 90CRI	<b>F</b> 40° Flood		<b>BBL</b> Black Baffle, Black Trim Ring	<b>CLW</b> Clear Cone, White Trim Ring
	<b>841</b> 4100K, 80CRI	<b>941</b> 4100K, 90CRI			<b>BWH</b> Black Baffle, White Trim Ring	<b>HZW</b> Haze Cone, White Trim Ring
					<b>ZBZ</b> Bronze Baffle, Bronze Trim Ring	<b>HZS</b> Haze Cone, Satin Nickel Trim Ring
					<b>SSN</b> Satin Nickel Baffle, Satin Nickel Trim Ring	<b>WZB</b> Wheat Haze Cone, Bronze Trim Ring

#### 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



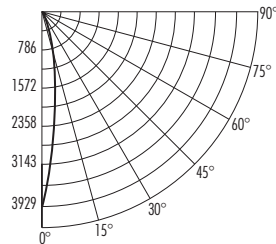
# 2" LED ROUND DOWNLIGHT

## 600 LUMEN

### 2B and 2C Series

#### PHOTOMETRIC REPORT

Test Report#: PT01142303R  
 Catalog No: 2B-835S1-WWH  
 80 CRI, 3500K LED, White Baffle  
 with Spot Optic  
 Luminaire Spacing Criteria: 0.30  
 Luminaire LPW: 65



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3929
5	3055
15	917
25	222
35	38
45	12
55	8
65	5
75	3
85	1
90	0

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

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

Spacing	RCR1	RCR3	RCR5
4'	46	42	38
5'	29	27	25
6'	20	19	17
7'	17	15	14
8'	13	12	11
9'	10	9	8
10'	7	7	6

#### INITIAL FOOTCANDLES (One Unit, 10.1W, 17° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	245.6	1.2
6'	109.1	1.8
8'	61.4	2.4
10'	39.3	3.0
12'	27.3	3.6

#### ZONAL LUMEN SUMMARY

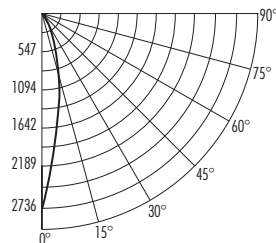
Zone	Lumens	%Lamp	%Fixture
0-30°	603	N/A	92.1
0-40°	628	N/A	96.0
0-60°	646	N/A	98.7
0-90°	655	N/A	100.0

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

Degrees	Average Luminance
45°	7799
55°	6245
65°	5650
75°	5052
85°	3914

#### PHOTOMETRIC REPORT

Test Report#: PT01142307R  
 Catalog No: 2B-835N1-WWH  
 80 CRI, 3500K LED, White Baffle  
 with Narrow Flood Optic  
 Luminaire Spacing Criteria: 0.40  
 Luminaire LPW: 62



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2736
5	2376
15	910
25	245
35	37
45	12
55	8
65	5
75	3
85	1
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	39	36
5'	28	25	23
6'	19	18	16
7'	16	14	13
8'	12	11	10
9'	10	9	8
10'	7	6	6

#### INITIAL FOOTCANDLES (One Unit, 10.1W, 23.3° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	170.9	1.6
6'	76.0	2.5
8'	42.7	3.3
10'	27.4	4.1
12'	19.0	4.9

#### ZONAL LUMEN SUMMARY

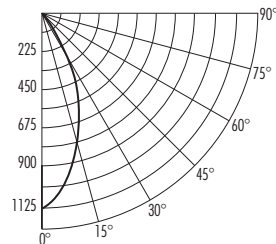
Zone	Lumens	%Lamp	%Fixture
0-30°	572	N/A	91.7
0-40°	599	N/A	96.0
0-60°	615	N/A	98.6
0-90°	624	N/A	100.0

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

Degrees	Average Luminance
45°	7799
55°	6245
65°	5650
75°	5052
85°	3914

#### PHOTOMETRIC REPORT

Test Report#: PT01142303R  
 Catalog No: 2B-835F1-WWH  
 80 CRI, 3500K LED, White Baffle  
 3500K LED with Flood Optic  
 Luminaire Spacing Criteria: 0.68  
 Luminaire LPW: 61



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1125
5	1072
15	786
25	412
35	111
45	24
55	9
65	6
75	4
85	1
90	0

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

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

Spacing	RCR1	RCR3	RCR5
4'	43	38	33
5'	27	24	21
6'	19	17	15
7'	15	14	12
8'	12	11	10
9'	9	8	7
10'	7	6	5

#### INITIAL FOOTCANDLES (One Unit, 10.1W, 42.2° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	70.3	3.1
6'	31.3	4.6
8'	17.6	6.2
10'	11.3	7.7
12'	7.8	9.3

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	502	N/A	81.6
0-40°	575	N/A	93.4
0-60°	604	N/A	98.1
0-90°	616	N/A	100.0

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

Degrees	Average Luminance
45°	16402
55°	7137
65°	7264
75°	7029
85°	5871

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

# 2" LED ROUND DOWNLIGHT

## 600 LUMEN

### 2B and 2C Series

#### PHOTOMETRIC REPORT

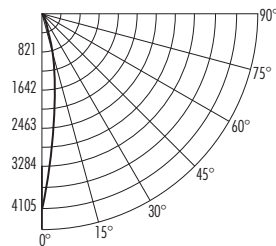
Test Report#: PT01141602R

Catalog No: 2C-835S1-CLW

80 CRI, 3500K LED, Clear Cone  
with Spot Optic

Luminaire Spacing Criteria: 0.30

Luminaire LPW: 69



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	4105
5	3206
15	948
25	239
35	43
45	12
55	3
65	0
75	0
85	0
90	0

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

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

Spacing	RCR1	RCR3	RCR5
4'	49	44	41
5'	31	28	26
6'	22	20	18
7'	17	16	15
8'	14	13	12
9'	11	10	9
10'	8	7	7

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	641	N/A	93.4
0-40°	674	N/A	98.2
0-60°	686	N/A	100.0
0-90°	687	N/A	100.0

#### INITIAL FOOTCANDLES (One Unit, 10W, 17.5° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	256.6	1.2
6'	114.0	1.8
8'	64.1	2.5
10'	41.1	3.1
12'	28.5	3.7

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

Degrees	Average Luminance
45°	8040
55°	2082
65°	135
75°	0
85°	0

#### PHOTOMETRIC REPORT

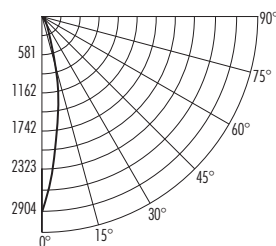
Test Report#: PT01141702R

Catalog No: 2C-835M1-CLW

80 CRI, 3500K LED, Clear Cone  
with Narrow Flood Optic

Luminaire Spacing Criteria: 0.40

Luminaire LPW: 66



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2904
5	2539
15	961
25	260
35	46
45	10
55	3
65	0
75	0
85	0
90	0

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

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

Spacing	RCR1	RCR3	RCR5
4'	47	42	39
5'	30	27	25
6'	21	19	17
7'	17	15	14
8'	13	12	11
9'	10	9	8
10'	7	7	6

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	614	N/A	93.0
0-40°	649	N/A	98.3
0-60°	660	N/A	100.0
0-90°	661	N/A	100.0

#### INITIAL FOOTCANDLES (One Unit, 10W, 23.5° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	181.5	1.7
6'	80.7	2.5
8'	45.4	3.3
10'	29.0	4.2
12'	20.2	5.0

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

Degrees	Average Luminance
45°	6673
55°	2280
65°	135
75°	0
85°	0

#### PHOTOMETRIC REPORT

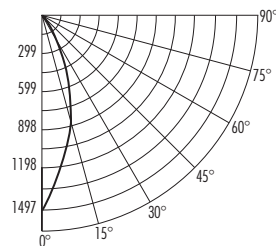
Test Report#: PT01141706R

Catalog No: 2C-835F1-CLW

80 CRI, 3500K LED, Clear Cone  
with Flood Optic

Luminaire Spacing Criteria: 0.54

Luminaire LPW: 65



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1497
5	1335
15	831
25	418
35	130
45	20
55	3
65	0
75	0
85	0
90	0

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

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

Spacing	RCR1	RCR3	RCR5
4'	45	40	36
5'	29	26	23
6'	20	18	16
7'	16	14	13
8'	13	11	10
9'	10	9	8
10'	7	6	6

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	542	N/A	83.8
0-40°	626	N/A	96.9
0-60°	646	N/A	100.0
0-90°	646	N/A	100.0

#### INITIAL FOOTCANDLES (One Unit, 10W, 33.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4'	93.6	2.4
6'	41.6	3.7
8'	23.4	4.9
10'	15.0	6.1
12'	10.4	7.3

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

Degrees	Average Luminance
45°	13106
55°	2379
65°	0
75°	0
85°	0

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



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