

## **2" LED Downlights and Adjustables**

Energy-efficient, discreet aperture, high performance LED lighting





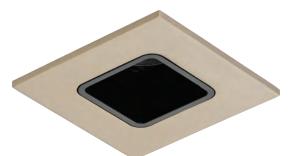
# **JUNO**°

## **2" LED IC-Rated Downlights and Adjustables... Big things come in small packages**

The sophisticated aesthetics and smaller aperture of the Juno 2" LED downlights and adjustables offers the "designer-look" that perfectly complements many of today's upscale residential and commercial interiors. These ultra-efficient fixtures produce over 600 lumens of brilliant white light, while consuming as little as 10 watts. Offered in round or square aperture, downlight or adjustable, and a wide variety of styles and finishes, Juno 2" LED fixtures are the perfect lighting solution for any décor.







## Ultra-efficient LED lighting with extra style and flair

- Produces over 600 lumens of brilliant white light
- Very low profile form factor permits installation in a wide range of applications
- Wide range of trim styles and finishes available
- Approved for use in both insulated and non-insulated ceilings
- ENERGY STAR<sup>®</sup> Qualified



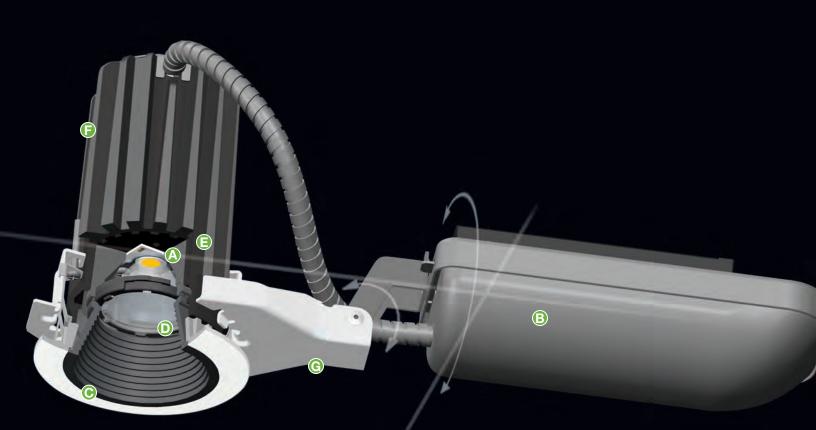


# JUNO

# **Ultra-efficient LED Lighting**

Juno 2" LED downlights and adjustables feature the latest high lumen output LED array, binned to within 3-step MacAdam Ellipse, exceeding ENERGY STAR® requirements. They provide superior fixture-to-fixture color consistency and are available in color temperatures of 2700K, 3000K, 3500K, and 4100K with 80 CRI or 90 CRI minimum. Two dimmable LED drivers are available; one for 120-volt only operation compatible with most incandescent dimmers, the other for universal 120-277V operation compatible with most 0-10V protocol dimmers. Additionally, field-interchangeable optics are available to provide distributions ranging from 18° to 40°. Energy-efficient, stylish Juno 2" LED downlights and adjustables are the little something extra for today's residential and commercial lighting applications.

3 1/8"



- A. Advanced Light Engine: Advanced LED technology produces more than 600 lumens from as little as 10 watts input. LEDs are binned to within a 3-step MacAdam Ellipse for superior fixture to fixture color consistency. Color temperatures of 2700K, 3000K, 3500K and 4100K with 80 CRI or 90 CRI minimum.
- B. LED Driver: Specify either the dedicated 120 volt driver compatible with incandescent, magnetic low voltage and ELV dimming or the universal 120V-277V driver with 0-10V dimming.
- C. Downlight Trim: All metal trim is offered in cone and baffle styles. Round aperture downlight features shadow free knife edge trim ring to blend seamlessly into the ceiling.

Adjustable Trim (not shown): Die cast gimbal trim features 35° tilt adjustment. Round aperture adjustable features shadow free knife edge trim ring to blend seamlessly into the ceiling.

D. High Efficiency Optics: Three field interchangeable/TIR optics available in 18°, 24° and 40° beam angles.

- E. Superior Thermal Management: LED array is attached to die cast trim with integral heat sink to provide excellent heat transfer and ensure long life. At the end of their rated life, LEDs can be expected to produce 70% of their initial light output with no perceptible changes in color.
- F. Low Profile Housing: Permits easy installation in a wide variety of applications and fits nicely within 2 x 6 ceiling joists for shallow applications.

Traditional 6" Downlight

65 Watt Incandescent.

650 Lumens

**G. Easy Installation:** Fixture easily installs from below the ceiling through a small 2-5/8" ceiling cut out. Product ships with galvanized steel plaster frame that accommodates ceiling thicknesses from ½" to 1". New construction mounting frame with Real Nail 3° telescoping bar hangers to position fixture and locate wiring prior to ceiling installation is also available.

#### Juno 2" LED Downlight

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10 Watt LED, 650 Lumens

Small aperture fixtures offering powerful illumination Juno 2" LED downlights and adjustables deliver the same amount of bright illumination as Juno 6" LED downlights.

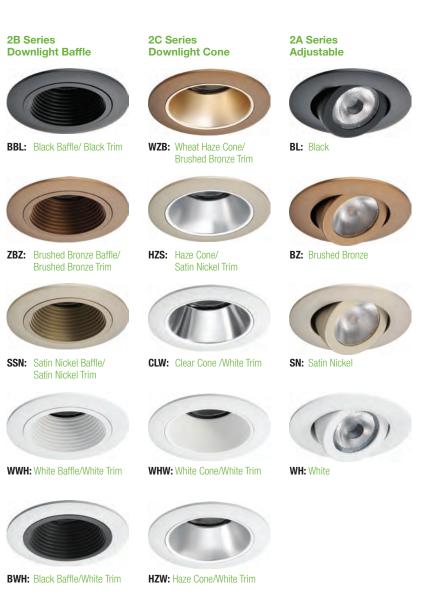


ENERGY STAR Qualified. 90CRI fixtures are certified to the high efficacy requirements of California T24. Meets energy code Air Leakage requirements per ASTM E283. Downlights are UL and cUL listed for wet locations.

# JUNO

# Juno 2" LED Round Downlights and Adjustables

Juno 2" LED round downlights and adjustables are offered in an extensive selection of trims. Downlights are available in cone and baffle styles, and downlights and adjustables are offered in white, black, satin nickel and brushed bronze with various combinations. You are certain to find the perfect fixture for any room in the home or office.





4 1/8"

3 1/8"

2 5/8" Ceiling Cutout 2" Aperture

### 2" LED Round Downlight



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

Series	(	CRI/Color	Temp	erature
	]-[			
2B Downlight Baffle	827	2700K,	927	2700K
2C Downlight Cone		80CRI		90CRI
	830	3000K,	930	3000K,
		80CRI		90CRI
	835	3500K,	935	3500K
		80CRI		90CRI
	841	4100K,	941	4100K
		80CRI		90CRI

 B	eam Optics		Drivers	
				]-[
S	18° Spot	1	Dedicated	0
Ν	24° Narrow		120V Only	V
	Flood		(Forward	
F	40° Flood		Phase + ELV Dimmable)	E
		U	Universal	E
			Voltage	
			120-277V	z
			(0-10V	

Dimmable)

	Fi	nish	
Down	light Baffle	Down	light Cone
WWH	White Baffle, White Trim Ring	WHW	White Cone, White Trim Ring
BBL	Black Baffle, Black Trim Ring	CLW	Clear Cone, White Trim Ring
BWH	Black Baffle, White Trim Ring	HZW	Haze Cone, White Trim Ring
ZBZ	Bronze Baffle, Bronze Trim Ring	HZS	Haze Cone, Satin Nickel Trim Ring
SSN	Satin Nickel Baffle, Satin Nickel Trim Ring	WZB	Wheat Haze Cone, Bronze Trim Ring

11 9/16"

### 2" LED Round Adjustable



Example: 2A-927N1-WH

#### 2A Series

2B and 2C Series

2 inch aperture recessed downlight is IC rated for insulated or non-insulated applications. Luminaire produces over 600 lumens

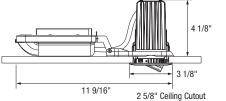
LED Light Engine provides exceptional fixture to fixture color consistency within a 3-step MacAdam ellipse. Air-Loc rated

LED housings and UL Listed for wet location.

and is available with optical distributions ranging from  $18^\circ - 40^\circ$ .

Low profile form factor allows luminaire to fit in 2 x 6 construction.

2 inch aperture recessed adjustable is IC rated for insulated or non-insulated applications. Luminaire produces over 600 lumens and is available with optical distributions ranging from  $18^{\circ} - 40^{\circ}$ . Low profile form factor allows luminaire to fit in 2 x 6 construction. LED Light Engine provides exceptional fixture to fixture color consistency within a 3-step MacAdam ellipse. Air-Loc rated LED housings and UL Listed for damp location.



2 5/8 Centing Cutor 2" Aperture

Series		CRI/Color	Temp	erature	_	Beam Optics		Drivers	_		Finish
	-								-		
2A	827	2700K,	927	2700K,	5	3 18° Spot	1	Dedicated		Dow	nlight Reflector Finish
		80CRI		90CRI	1	24° Narrow		120V Only		WH	White
	830	3000K,	930	3000K,		Flood		(Forward		BL	Black
		80CRI		90CRI	F	40° Flood		Phase + ELV		SN	Satin Nickel
	835	3500K,	935	3500K,				Dimmable)		ΒZ	Bronze
		80CRI		90CRI			U	Universal			
	841	4100K,	941	4100K,				Voltage			
		80CRI		90CRI				120-277V			
								(0-10V			
								Dimmable)			

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2-NCMF

#### Accessories

2-NCMF	New Construction Mounting Frame with	
	Real Nail <sup>®</sup> 3 bar hangers	
2-JCTA150	Thick Ceiling adapter for 1" - 11/2" thick ceiling	
LEDOPTIC2-S	18° Spot Optic	
LEDOPTIC2-N	24° Narrow Flood Optic	
LEDOPTIC2-F	40° Flood Optic	

#### **Qualified Dimmers**

Choice of dimmable drivers includes dedicated 120 volt driver compatible with the use of most incandescent, magnetic low voltage and electronic low voltage dimmers, or universal voltage driver, dimmable with the use of most 0-10V protocol dimmers. Refer to the spec sheet on **www.junolightinggroup.com** for a list of compatible dimmers.

#### **Regulatory Listings and Standards**

- UL and C-UL Listed
- Listed for Direct Contact with Insulation
- ENERGY STAR<sup>®</sup> Qualified
- RoHS Compliant

T24

a.Loc

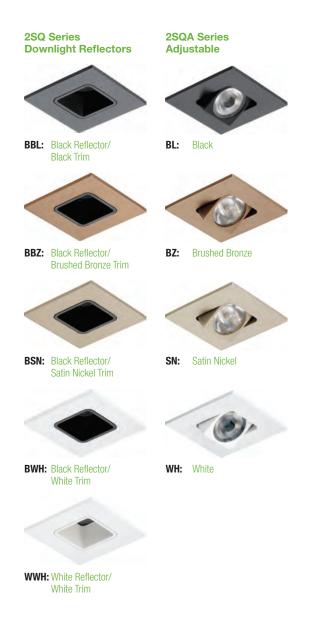
- Juno LED Downlights are certified to meet the
- high efficacy requirements of California Title 24
  Air-Loc<sup>®</sup> rated to minimize air leakage and
- All-Loc<sup>®</sup> rated to minimize all leakage a promote building energy efficiency.

2-JCTA150

# JUNO

## Juno 2" LED Square Downlights and Adjustables

Perfect for today's upscale interiors, Juno 2" LED square downlights and adjustables are offered with a wide selection of trim finishes. Downlights and adjustables are offered in white, black, satin nickel and brushed bronze with various combinations.



Juno Lighting Group | Juno 2" LED Downlights and Adjustables



### 2" LED Square Downlight

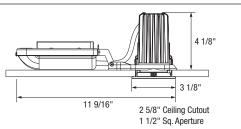


#### 2SQ Series

s Ν

F

2 inch square aperture recessed LED downlight is IC rated for insulated or non-insulated applications. Luminaire produces over 600 lumens and is available with optical distributions ranging from 18° - 40°. Low profile form factor allows luminaire to fit in 2 x 6 construction. LED Light Engine provides exceptional fixture to fixture color consistency within a 3-step MacAdam ellipse. Air-Loc rated LED housings and UL Listed for wet location.



#### Example: 2SQ-927S1-WWH

Series	(	CRI/Color Temperature							
	]-[								
2SQ	827	2700K,	927	2700K,					
		80CRI		90CRI					
	830	3000K,	930	3000K,					
		80CRI		90CRI					
	835	3500K,	935	3500K,					
		80CRI		90CRI					
	841	4100K,	941	4100K,					
		80CRI		90CRI					

Beam Optics		n Optics Drivers				Finish		
s	18° Spot	1	Dedicated		Downl	light Reflector Finish		
N	24° Narrow Flood"		120V Only (Forward		WWH	White, White Trim Ring		
F	40° Flood		Phase + ELV Dimmable)		BBL	Black, Black Trim Ring		
		U	Universal Voltage		BWH	Black, White Trim Ring		
			120-277V (0-10V		BBZ	Black, Bronze Trim Ring		
			Dimmable)		BSN	Black, Satin Nickel Trim Ring		

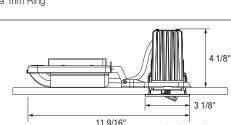
### 2" LED Square Adjustable



Example: 2SQ-927S1-WWH

#### **2SQA Series**

2 inch square aperture recessed LED adjustable is IC rated for insulated or non-insulated applications. Luminaire produces over 600 lumens and is available with optical distributions ranging from 18° - 40°. Low profile form factor allows luminaire to fit in 2 x 6 construction. LED Light Engine provides exceptional fixture to fixture color consistency within a 3-step MacAdam ellipse. Air-Loc rated LED housings and UL Listed for damp location.

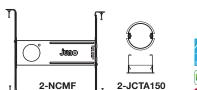


2 5/8" Ceiling Cutout 1 1/2" Sq. Aperture

Series	1 [ ]	CRI/Color	Temp	erature	Beam Optics	_	Drivers			Finish
2SQA	827	2700K, 80CRI	927	2700K, 90CRI	18° Spot 24° Narrow	1	Dedicated 120V Only	]-	Dow WH	nlight Reflector Finish White
	830	80CRI	930	90CRI	Flood 40° Flood		(Forward Phase + ELV Dimmable)		BL BZ	Black Bronze
	835	3500K, 80CRI	935	3500K, 90CRI		U	,	SN	SN	Satin Nickel
	841	4100K, 80CRI	941	4100K, 90CRI			Voltage 120-277V (0-10V Dimmable)			

#### Accessories

2-NCMF	New Construction Mounting Frame with	]
	Real Nail <sup>®</sup> 3 bar hangers	
2-JCTA150	Thick Ceiling adapter for 1" - 11/2" thick ceiling	
LEDOPTIC2-S	18° Spot Optic	
LEDOPTIC2-N	24° Narrow Flood Optic	
LEDOPTIC2-F	40° Flood Optic	



#### **Regulatory Listings and Standards**

- UL and C-UL Listed
- Listed for Direct Contact with Insulation
- ENERGY STAR® Qualified
- **RoHS** Compliant ٠

T24

P.LOC

- Juno LED Downlights are certified to meet the
- high efficacy requirements of California Title 24
- Air-Loc® rated to minimize air leakage and promote building energy efficiency.

### **Qualified Dimmers**

Choice of dimmable drivers includes dedicated 120 volt driver compatible with the use of most incandescent, magnetic low voltage and electronic low voltage dimmers, or universal voltage driver, dimmable with the use of most 0-10V protocol dimmers. Refer to the spec sheet on www.junolightinggroup.com for a list of compatible dimmers.



## **2" LED Round Downlight Photometric Information**

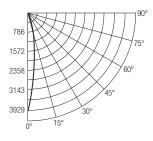
#### Downlight with Spot Optic

**Photometric Report** 

Test Report #: PT01142303R

Catalog No: 2B-835S1-WWH 80 CRI, 3500K LED White Baffle with Spot Optic

Luminaire Spacing Criterion: 0.30 Luminaire LPW: 65



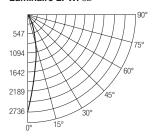
#### Downlight with Narrow Flood Optic

#### **Photometric Report**

Test Report #: PT01142307R

Catalog No: 2B-835N1-WWH 80 CRI, 3500K LED White Baffle with Narrow Flood Optic

Luminaire Spacing Criterion: 0.40 Luminaire LPW: 62



 35
 38

 45
 12

 55
 8

 65
 5

 75
 3

 85
 1

90

Candlepower

**0**°

3929

3055

917

222

0

Distribution

(Candelas)

Degrees

Vertical

0

5

15

25

Ceiling 80	%. Wall 5	0%. Floor	20%
Spacing	RCR1	RCR3	RCR
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

### 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

#### **Initial Footcandles**

(One Onit, 10.1W, 17 Dean)		
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

## Luminance (Average cd/m<sup>2</sup>) Degrees Aver

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

#### Candlepower Distribution

(Candelas)	
Degrees Vertical	<b>0</b> °
0	2736
5	2376
15	910
25	245
35	37
45	12
55	8
65	5
75	3
85	1
90	0

	e Initial F		
Ceiling 80	%, Wall 50	0%, 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
Zonal L	umen Sı	ummary	
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

624

N/A

100.0

0-90°

### Initial Footcandles

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

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

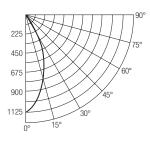
#### Downlight with Flood Optic

#### **Photometric Report**

Test Report #: PT01142303R

Catalog No: 2B-835F1-WWH 80 CRI, 3500K LED White Baffle with Flood Optic

Luminaire Spacing Criterion: 0.68 Luminaire LPW: 61



Candlepower	
Distribution	

1	(Candelas)	
	Degrees Vertical	0°
	0	1125
	5	1072
	15	786
	25	412
	35	111
	45	24
	55	9

6

4

1

0

65

75

85

90

Ceiling 80	%, Wall 50	0%, 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

#### 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

#### 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

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

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

## 

### 2" LED Square Downlight Photometric Information

#### Downlight with Spot Optic

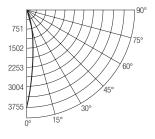
**Photometric Report** 

Test Report #: PT01142104R

Catalog No: 2SQ-835S1-WWH 80 CRI, 3500K LED White Reflector with Spot Optic

Luminaire Spacing Criterion: 0.32

#### Luminaire LPW: 62



#### (Candelas) Degrees Vertical **0**° 0 3755 5 2969 862 15 25 98 35 30

45

55

65

75

85

90

14

11

8

5

2

0

Candlepower

Distribution

Ceiling 80	%. Wall 5	0%. 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

#### Zonal Lumen Summary %Fixture Zone Lumens %Lamp 0-30° 569 N/A 90.5 0-40° 591 N/A 94.0 0-60° 613 N/A 97.5 0-90° 629 N/A 100.0

**Average Initial Footcandles** 

Ceiling 80%, Wall 50%, Floor 20%

CR1

581

Multiple Units (Square Array, 60'x60' room)

RCR3

N/A

RCR5

33

21

15

12

10

7

5

%Fixture

89.6

93.6

97.4

100.0

### Initial Footcandles

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

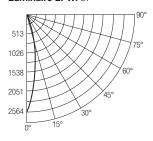
#### Downlight with Narrow Flood Optic

#### **Photometric Report**

Test Report #: PT01142202R

Catalog No: 2SQ-835N1-WWH 80 CRI, 3500K LED White Reflector with Narrow Flood Optic

Luminaire Spacing Criterion: 0.40 Luminaire LPW: 57



#### Candlepower Distribution (Candelas) Degree Vertica

0

5

15

25

35

45

55

65

75

85

90

s	-	Spacing	RCR1	RCR3	
l	<b>0</b> °	4'	41	37	
	2564	5'	26	23	
	2235	6'	18	16	
	848	7'	15	13	
	141	8'	12	10	
	29	- 9'	9	8	
	15	10'	7	6	
	11	10	I	0	
	8	Zonal Lu	umen Su	immary	
	5	Zone	Lumens	%Lamp	
	2	0-30°	520	N/A	
	0	0-40°	543	N/A	
		0-60°	565	N/A	

0-90°

#### Initial Footcandles (One Unit 10 1W/ 23 40° 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

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

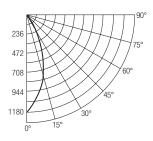
#### Downlight with Flood Optic

#### **Photometric Report**

Test Report #: PT01142105R

Catalog No: 2SQ-835F1-WWH 80 CRI, 3500K LED White Reflector with Flood Optic

Luminaire Spacing Criterion: 0.66 Luminaire LPW: 60



### Candlepower

Distribution (Candelas)			
Degrees Vertical	<b>0</b> °		
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)			
Ceiling 80	%, Wall 50	0%, Floor	20%
Spacing	RCR1	RCR3	RCR5
4'	42	37	33
5'	27	24	21
6'	19	16	15
7'	16	13	12
8'	12	10	9
9'	9	8	7
10'	7	6	5

#### **Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30°	498	N/A	82.7
0-40°	554	N/A	92.0
0-60°	585	N/A	97.2
0-90°	602	N/A	100.0

### Initial Footcandles

(One Unit, 10.1W, 39.8° Beam)		
Footcandles Beam Center	Beam Diameter	
73.8	2.9	
32.8	4.3	
18.4	5.8	
11.8	7.2	
8.2	8.7	
	Footcandles           Beam Center           73.8           32.8           18.4           11.8	

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

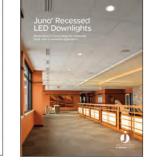
Degrees	Average Luminance	
45°	25854	
55°	13437	
65°	15267	
75°	15235	
85°	14395	



Energy efficient fixtures for standard ceilings, sloped ceilings and limited space applications







Juno Recessed LED Downlights



Juno Residential Recessed Lighting















Juno Lighting Group 1300 South Wolf Road Des Plaines, IL 60018 Ph: 847.827.9880 www.junolightinggroup.com

**Regional Offices & Warehouses** 

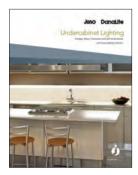
California Illinois Indiana Pennsylvania Texas Ontario, CN



Juno Retrofit LED Recessed Lighting



Juno Slope Ceiling Generation 3 LED Downlights



Juno Undercabinet Lighting



Juno Undercabinet Solo-Task LED Lighting



Juno Step Lighting

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