



## 2" LED RECESSED MULTIPLE 700 & 1000 LUMEN

SQUARE 1-3/8" LENSED  
REGRESSED PINHOLE

**1, 2, & 3 Head LED Units  
with 2301SQ Trim Series**



### PRODUCT DESCRIPTION

Recessed LED multi-lamp luminaire with 1-3/8" lensed regressed pinhole square aperture delivers up to 770 lumens per head and is available with optical distributions approximating that of MR16 halogen lamps. Fixture has deep source regression for low aperture brightness. Low profile housing is available in IC rated or non-IC rated configurations, depending on lumen packages and number of heads.

### PRODUCT SPECIFICATIONS

**LED Light Engine** Consistent fixture to fixture color consistency within a 2-step MacAdam ellipse • 2700K, 3000K, 3500K, or 4000K color temperatures are available with 80 CRI minimum • 2700K and 3000K also available with 90 CRI minimum.

**Modular Optics** Available with field interchangeable optics in 18° Spot, 24° Narrow Flood, 35° Flood, and 45° wide flood distributions • Additional distributions of 20°, 30°, 50° and 55° FWHM can be achieved with the use of the diffusing films and spot primary optic.

**Adjustability** Patent pending Acu-Aim™ precision geared hot-aiming achieves 365° rotation, 40° tilt with any ceiling thickness from 1/2" to 1" • Acu-Aim™ translates light engine forward as it is aimed off nadir, ensuring maximum light and low brightness • Black aiming mechanism preserves dark aperture.

**Reflector** Die cast trim in white or black with black shield that eliminates visibility into housing.

**Trims Style** Self Flanged and Flush Mount styles are available • For flush mount installations in drywall ceilings, specify the FMASQ2 adapter • For flush mount installations in solid ceiling materials such as wood, stone, or tile ceilings, no flush mount adapter is required.

**LED Driver** Choice of two drivers to accommodate voltages from 120-277 volts AC at 50/60Hz • Dedicated 120V (-1) driver is dimmable with most incandescent, magnetic low voltage, and electronic low voltage dimmers • Universal Voltage (-U) driver is dimmable with most 0-10V protocol dimmers • For a list of compatible dimmers, refer to [ACLXLED2-DIM](#) • Power Factor > 0.9 • Field replaceable from above or below ceiling.

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

**Warranty** 5 years from date of purchase on LED components • Standard Juno Lighting Group product guarantee terms and conditions apply.

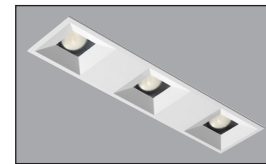
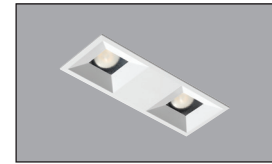
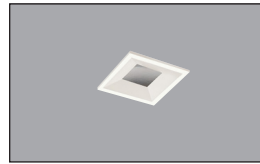
**Codes/Labels** UL and cUL listed for wet locations • IC rated new construction fixture meets energy code Air Leakage requirements per ASTM E283 • ENERGY STAR® with all color temperatures with 80 CRI and spot, narrow flood, and flood optics • Chicago Plenum (CCEA) is standard on single head and available as an option on 2 or 3 head units • Union made.

**New Construction Mounting** Features patented (US Patent 8,038,113) Pro-VI™ bar hanger system, permitting quick placement of housing with 24" on-center joists or suspended ceilings • Also features vertically adjustable mounting brackets (butterfly brackets).

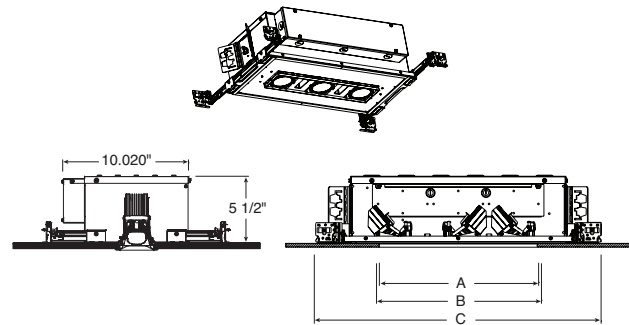
**Wiring** Housings includes multiple 1/2" knockouts and is compatible with rigid conduit and flexible supply • All housings supplied with quick connect electrical connectors.

**Ceiling Thickness** 1/2" - 3/4" ceiling standard • For thicker ceilings, order CTASQ2-120 (.75"-1.20") or CTASQ2-150 (1.20"-1.50") • Vertical aiming in ceiling 1" to 1 1/2" is reduced from 40° to 25°.

Type	Cat. No.
_____	_____
Project:	_____
Notes:	_____



### DIMENSIONS



SELF FLANGED INSTALLATION			
# of Heads	Cutout Size (A)	Trim Dimension (B)	Dimension (C)
1	2-7/8" x 2-7/8"	3.410" x 3.410"	16-1/8"
2	2-7/8" x 7-7/8"	3.410" x 8.410"	18"
3	2-7/8" x 12-7/8"	3.410" x 13.410"	23"

FLUSH MOUNT INSTALLATION			
# of Heads	Cutout Size (A)	Trim Dimension (B)	Dimension (C)
1	3" x 3"	2.875" x 2.875"	16-1/8"
2	3" x 8"	2.875" x 7.875"	18"
3	3" x 13"	2.875" x 12.875"	23"

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## 1, 2, & 3 Head LED Units with 2301SQ Trim Series

### Housing Ordering Information

Housing, trim and accessories each ordered separately


Example: **TC210LSQ3A-830-N-1**

Series	No. of Heads	CRI/CCT	Optic	Driver	Option	
<b>IC207LSQ</b>	700 lm Adjustable, IC rated	<b>A</b> 1 Head <b>2A</b> 2 Head <b>3A</b> 3 Head	<b>827</b> 80 CRI, 2700K <b>830</b> 80 CRI, 3000K <b>835</b> 80 CRI, 3500K <b>840</b> 80 CRI, 4000K <b>927</b> 90 CRI, 2700K <b>930</b> 90 CRI, 3000K	<b>S</b> 18° Spot <b>N</b> 24° Narrow Flood <b>F</b> 35° Flood <b>W</b> 45° Wide Flood	<b>1</b> 120V, Phase Dimming <b>U</b> 120-277V, 0-10V Dimming	<b>CP<sup>3</sup></b> Chicago Plenum (CCEA Approved)

<sup>1</sup>IC rated 1000 lumen fixture is only available in 1 head configuration.

<sup>2</sup>2 & 3 head 1000 lumen fixture is only available as Non-IC.

<sup>3</sup>1 head fixture is CP standard. Specify CP option for 2 or 3 head.

	<b>Construction:</b>	Type IC & Non-IC
	<b>CCT/CRI:</b>	827, 830, 835, 840
	<b>Optic:</b>	S, N, F
	<b>Trim Finish:</b>	BHZ-BL, BHZ-WH

### Trim Ordering Information

Example: **2301SQ3BHZ-WH-FM**

Series	No. of Heads	Finish	Trim Style
<b>2301SQ</b>	Lensed Regressed Pinhole	<b>BHZ</b> 1 Head <b>2BHZ</b> 2 Head <b>3BHZ</b> 3 Head	<b>BL</b> Black <b>WH</b> White <b>SF</b> Self Flange <b>FM</b> Flush Mount

Product specifications subject to change without notice.

To achieve the desired beam angle (FWHM), specify the following primary LED optic on the luminaire and order the diffusing film from the table below

Desired FWHM	Primary Optic	Film
18°	S	-
20°	S	AF2-10
24°	N	-
30°	S	AF2-20
35°	F	-
45°	W	-
50°	S	AF2-40
55°	S	AF2-50
60°x20°	S	AF2-90x1

### Accessories

Cat. #	Description
<b>FMASQ2</b>	Flush Mount Adapter for drywall ceilings (1 head)
<b>FMASQ2-2</b>	Flush Mount Adapter for drywall ceilings (2 head)
<b>FMASQ2-3</b>	Flush Mount Adapter for drywall ceilings (3 head)
<b>CTASQ2-120</b>	Thick Ceiling Adapter for .75"-1.20" thick ceiling
<b>CTASQ2-150</b>	Thick Ceiling Adapter for 1.20"-1.50" thick ceiling
<b>TIR-ACLX2-SP</b>	18° Spot Optic
<b>TIR-ACLX2-NFL</b>	24° Narrow Flood Optic
<b>TIR-ACLX2-FL</b>	35° Flood Optic
<b>TIR-ACLX2-WFL</b>	45° Wide Flood Optic
<b>AF2-10</b>	10° Film (Use with Spot Optic)
<b>AF2-20</b>	20° Film (Use with Spot Optic)
<b>AF2-40</b>	40° Film (Use with Spot Optic)
<b>AF2-50</b>	50° Film (Use with Spot Optic)
<b>AF2-90x1</b>	90°x1° Film (Use with Spot Optic)



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### ELECTRICAL DATA

Lumen Package (per Head)	700					
	1		2		3	
Number of Heads						
Driver Option	Dedicated 120V (-1)	Universal Voltage (-U)	Dedicated 120V (-1)	Universal Voltage (-U)	Dedicated 120V (-1)	Universal Voltage (-U)
Voltage	120	120 277	120	120 277	120	120 277
Input Power	10.1	9.6 9.6	20.2	19.2 19.2	30.3	28.8 28.8
Input Current	0.09	0.08 0.04	0.18	0.16 0.08	0.27	0.24 0.12
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor	0.99	0.99 0.93	0.99	0.99 0.93	0.99	0.99 0.93

### ELECTRICAL DATA

Lumen Package (per Head)	1000					
	1		2		3	
Number of Heads						
Driver Option	Dedicated 120V (-1)	Universal Voltage (-U)	Dedicated 120V (-1)	Universal Voltage (-U)	Dedicated 120V (-1)	Universal Voltage (-U)
Voltage	120	120 277	120	120 277	120	120 277
Input Power	14.8	14.8 14.6	29.6	29.6 29.2	44.4	44.4 43.8
Input Current	0.12	0.12 0.06	0.24	0.24 0.12	0.36	0.36 0.18
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor	0.99	0.99 0.95	0.99	0.99 0.93	0.99	0.99 0.93



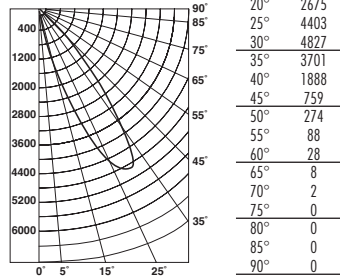
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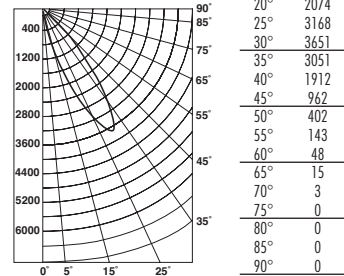
### SPOT PHOTOMETRIC REPORT

Test Report: PT02141110  
Catalog No: IC/TC210LSQA-830-S-1  
(Aim at 30°)  
with 2301SQBHZ trim  
Watts: 14.8  
Lumens: 772  
Luminaire LPW: 52



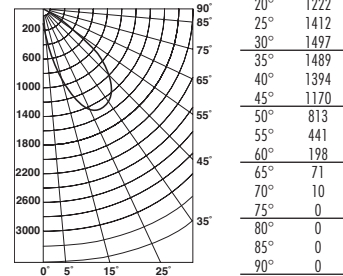
### NARROW FLOOD PHOTOMETRIC REPORT

Test Report: PT02141114  
Catalog No: IC/TC210LSQA-830-N-1  
(Aim at 30°)  
with 2301SQBHZ trim  
Watts: 14.8  
Lumens: 713  
Luminaire LPW: 48



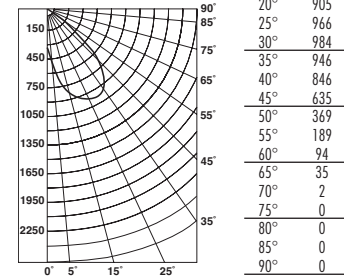
### FLOOD PHOTOMETRIC REPORT

Test Report: PT02141204  
Catalog No: IC/TC210LSQA-830-F-1  
(Aim at 30°)  
with 2301SQBHZ trim  
Watts: 14.8  
Lumens: 702  
Luminaire LPW: 47



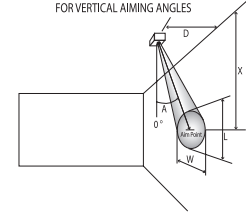
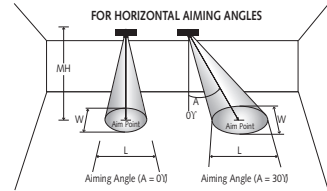
### WIDE FLOOD PHOTOMETRIC REPORT

Test Report: PT02141208  
Catalog No: IC/TC210LSQA-830-W-1  
(Aim at 30°)  
with 2301SQBHZ trim  
Watts: 14.8  
Lumens: 598  
Luminaire LPW: 40



### LUMEN OUTPUT MULTIPLIERS

Color Temperature	CRI	Multiplier
2700K	80	0.93
3000K	80	1.00
3500K	80	1.02
4000K	80	1.06
2700K	90	0.71
3000K	90	0.77



**CBCP** • Centerbeam candlepower  
**FC** • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



Beam Type	Beam Spread	CBCP	0°				30°			30°					40°			
			MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W
Spot	18°	4827	4	302	1.4	1.4	196	1.9	1.6	2	151	3.5	3.0	1.4	320	2.4	1.7	1.1
			6	134	2.1	2.1	87	2.8	2.4	3	67	5.2	4.5	2.1	142	3.6	2.6	1.6
			8	75	2.7	2.7	49	3.7	3.2	4	38	6.9	6.0	2.7	80	4.8	3.5	2.1
			10	48	3.4	3.4	31	4.6	4.0	5	24	8.7	7.5	3.4	51	6.0	4.3	2.7
			12	34	4.1	4.1	22	5.6	4.8	6	17	10.4	9.0	4.1	36	7.2	5.2	3.2
Narrow Flood	24°	3651	4	228	2.8	2.8	148	3.8	3.2	2	114	3.5	8.6	2.8	242	2.4	4.0	2.1
			6	101	4.1	4.1	66	5.7	4.8	3	51	5.2	12.8	4.1	108	3.6	6.0	3.2
			8	57	5.5	5.5	37	7.6	6.4	4	29	6.9	17.1	5.5	61	4.8	8.0	4.3
			10	37	6.9	6.9	24	9.6	8.0	5	18	8.7	21.4	6.9	39	6.0	10.0	5.4
Flood	35°	1497	4	94	2.8	2.8	61	3.9	3.2	2	47	3.5	8.7	2.8	99	2.4	4.1	2.2
			6	42	4.2	4.2	27	5.8	4.8	3	21	5.2	13.1	4.2	44	3.6	6.1	3.2
			8	23	5.6	5.6	15	7.7	6.4	4	12	6.9	17.4	5.6	25	4.8	8.1	4.3
			10	15	6.9	6.9	10	9.6	8.0	5	7	8.7	21.8	6.9	16	6.0	10.1	5.4
Wide Flood	45°	984	4	62	3.1	3.1	40	4.4	3.6	2	31	3.5	11.6	3.1	65	2.4	4.9	2.4
			6	27	4.7	4.7	18	6.6	5.4	3	14	5.2	17.4	4.7	29	3.6	7.3	3.7
			8	15	6.3	6.3	10	8.8	7.2	4	8	6.9	23.3	6.3	16	4.8	9.7	4.9
			10	10	7.8	7.8	6	11.0	9.1	5	5	8.7	29.1	7.8	10	6.0	12.1	6.1
			12	7	9.4	9.4	4	13.2	10.9	6	3	10.4	34.9	9.4	7	7.2	14.6	7.3

