



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

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

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

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

# 4" IC 900 LUMEN WARMDIM® LED DOWNLIGHT NEW CONSTRUCTION

IC91LWDG4 RECESSED HOUSING

WarmDim®  
Bringing Warmth to LED Dimming™**SQUARE TRIMS**

## PRODUCT DESCRIPTION

Dedicated LED, Air-Loc® sealed new construction housing with patented WarmDim® technology (US 8710754) • LED color temperature warms while dimming to emulate the dimming performance of traditional incandescent light sources • Double wall, shallow housing construction allows for fit in 2 x 6 construction • Can be completely covered with insulation • Fully sealed housing stops infiltration and exfiltration of air, reducing heating and air cooling costs without the use of additional gaskets • LED housing is designed to provide 50,000 hours of life and is compatible with many standard Juno trims • 5 year limited warranty on LED components.

## ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- No harmful ultraviolet or infrared wavelengths
- No lead or mercury, RoHS compliant

## PRODUCT SPECIFICATIONS

**LED Light Engine** Proprietary patented (US Patent 8,710,754) micro processor controlled light engine emulates dimming performance of incandescent light source • Replaceable light engine attached to high purity aluminum, thermally conductive inner housing provides superior heat transfer to ensure long life of the LEDs • 3000K color temperature at full lumen output • 90 CRI minimum throughout dimming range.

**Optical System** Computer-optimized reflector design with high reflectance finish coupled with a high transmission diffusing lens conceals the LEDs and produces uniform aperture luminance • Deep regression of lens produces a low glare, efficient system.

**Aesthetic Trim Selections** Die cast aluminum square downlight, pinhole and lensed trim options • Downlight and pinhole trims feature black insert to minimize glare at the aperture.

**LED Driver** Dedicated 120 volt driver • Power factor > 0.9 • Dimmable with the use of most incandescent, magnetic low voltage and electronic low voltage wall box dimmers • For a list of compatible dimmers, see [JUNOICLED-DIM](#) • Mounted inside housing for easy access from below ceiling.

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

**Labels** ENERGY STAR® Qualified when used with select trims • Certified to the high efficacy requirements of California T24 with select trims • UL listed for U.S. and Canada through-branch wiring, damp locations • 12SQ trim listed for wet location (covered ceiling) • Union made • UL and cUL.

**Testing** All reports are based on published industry procedures; field performance may differ from laboratory performance.

Product specifications subject to change without notice.

## HOUSING FEATURES

**Housing** Designed for use in IC (insulated ceiling) or non-IC construction • Aluminum housing sealed for Air-Loc® compliance • Housing is vertically adjustable to accommodate up to a 1 1/2" ceiling thickness.

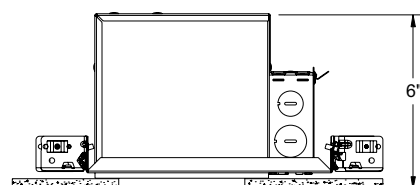
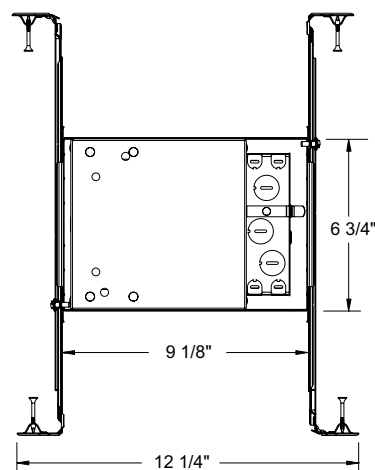
**Junction Box** Pre-wired junction box provided with (6) 1/2" and (1) 3/4" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 6 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts equipped with pryout slots • Quick connect electrical connectors supplied as standard for fast, secure installation.

**Mounting Frame** 22-gauge die-formed galvanized steel mounting frame • Rough-in section (junction box, mounting frame, housing and bar hangers) fully assembled for ease of installation.

**Real Nail 3 Bar Hangers** Patented (US Patent D552,969) Real Nail® 3 bar hangers: telescoping system permits quick placement of housing anywhere within 24" O.C. joists or suspended ceilings • Includes removable nail for repositioning of fixture in wood joist construction • Integral T-bar notch and clip for suspended ceilings.



## DIMENSIONS

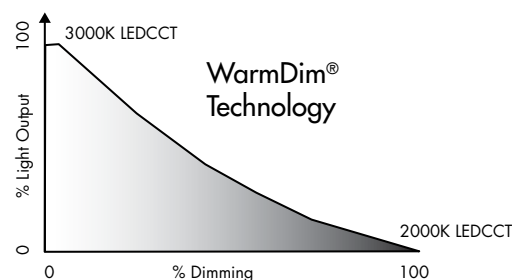


4 1/2" CEILING CUTOUT

## ELECTRICAL DATA

### Dedicated 120V Only Driver

120V	
Input Power	14.9W (+/-5%)
Input Current - Max	0.13A
Frequency	50/60 Hz
EMI/RFI	FCC Title 47 CFR, Part 15 Class B (residential)
Minimum starting temp	-20°C



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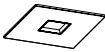
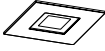
## IC91LWDG4 RECESSED HOUSING SQUARE TRIMS

**ORDERING INFORMATION:** Housing, trim and accessories each ordered separately.

Example: **IC91LWDG4-3K-1**

Housing	Color Temperature	Input Voltage
IC91LWDG4	3K 3000K	1 Dedicated 120V Only (Forward Phase + ELV dimmable)

Example: **175SQ-HZ-WH**

Trim/Description	
 <b>175SQ-HZ-WH</b> <b>175SQ-W-WH</b> <b>175SQ-B-WH<sup>1</sup></b> <b>175SQ-WHZ-WH<sup>1</sup></b>	Square Downlight
 <b>135SQ-WH</b>	Square Pinhole
 <b>125SQ-W-WH</b>	Square Frosted Lens with Clear Center

Trim Size: 5" O.D.  
Trim Finish: BL - Black, WH - White.  
Alzak is a registered trademark of Alcoa Corp.  
Note: In Canada when insulation is present, Type IC fixtures must be used.  
<sup>1</sup> Not ENERGY STAR® Qualified and T24 certified

### PHOTOMETRIC REPORT

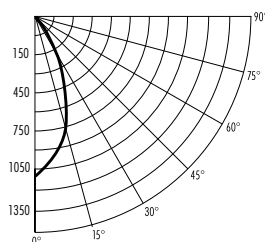
Test Report #: PTO6142504R

Catalog No: IC91LWDG4-3K-1

with 175SQ-HZ-WH Trim

Luminaire Spacing Criterion: 0.66

Luminaire LPW: 46



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1105
5	1061
15	758
25	384
35	140
45	44
55	14
65	3
75	0
85	0
90	0

### AVERAGE INITIAL FOOTCANDLES

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

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	48	42	37
5.0'	31	27	24
6.0'	21	19	16
7.0'	17	15	13
8.0'	14	12	10
9.0'	10	9	8
10.0'	8	7	6

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	520	N/A	74.8
0-40°	633	N/A	91.1
0-60°	690	N/A	99.4
0-90°	694	N/A	100.0

### INITIAL FOOTCANDLES

(One Unit, 15W, 44.3° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	69.1	3.3'
6	30.7	4.9'
8	17.3	6.5'
10	11.1	8.1'

### LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	18730
55	7223
65	1929
75	262
85	0

### PHOTOMETRIC REPORT

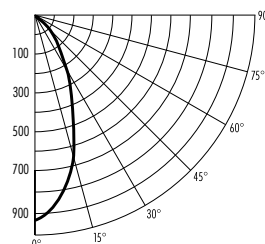
Test Report #: PTO6142604R

Catalog No: IC91LWDG4-3K-1

with 125SQ-W-WH Trim

Luminaire Spacing Criterion: 0.68

Luminaire LPW: 46



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	930
5	903
15	672
25	346
35	153
45	65
55	33
65	18
75	10
85	4
90	0

### AVERAGE INITIAL FOOTCANDLES

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

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	48	41	35
5.0'	31	26	22
6.0'	21	18	16
7.0'	17	15	13
8.0'	14	12	10
9.0'	10	9	8
10.0'	8	7	6

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	462	N/A	66.5
0-40°	572	N/A	82.3
0-60°	660	N/A	95.1
0-90°	694	N/A	100.0

### INITIAL FOOTCANDLES

(One Unit, 15W, 46.7° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	58.1	3.5'
6	25.8	5.2'
8	14.5	6.9'
10	9.3	8.6'

### LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	22527
55	13958
65	10196
75	9022
85	11801

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.



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