# **JUNO**®

Project:	
Fixture Type:	
Location:	
Contact/Phone:	

# 4" IC 900 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

IC1LED (G4 09LM) RECESSED HOUSING





## **OPEN TRIMS**

## PRODUCT DESCRIPTION

Dedicated LED, Air-Loc® sealed new construction housing with integral light engine • 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
- Comparable light output to 75W incandescent

#### PRODUCT SPECIFICATIONS

**LED Light Engine** LED array attached to high purity aluminum, thermally conductive inner housing provides superior heat transfer to ensure long life of the LED • Replaceable light engine mounts directly to inner housing assembly and incorporates the latest generation, high lumen output LED array • LEDs are binned within a 3-step MacAdam Ellipse • 2700K, 3000K, 3500K, or 4000K color temperatures available • 90 CRI minimum.

Optical System Two field interchangeable optics available in medium flood (45° beam angle) and wide flood (65° beam angle) ● 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 that can produce over 900 lumens with select trims (see page 2 for details) using less than 12W\*

Aesthetic Trim Selections Compatible with wide selection of existing Juno trims • Shadow free, knife edge design blends seamlessly into ceiling. LED Driver Choice of dedicated 120 volt (120) driver or universal voltage (MVOLT) drivers that accommodate input voltages from 120-277 volts AC at 50/60Hz • Power factor > 0.9 at 120V input • 120 volt only driver is dimmable with the use of most incandescent, magnetic low voltage and electronic low voltage wall box dimmers • Universal voltage drivers are dimmable with the use of most 0-10V 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** Can be used to comply with 2019 Title 24, Part 6, JA8 high efficacy LED light source requirements with select trims • UL listed for U.S. and Canada through-branch wiring, damp locations • Union made • UL and cUL • CP option is compatible with spray foam insulation with an R-value of 3.2 per inch or less.

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

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 1½" ceiling thickness.

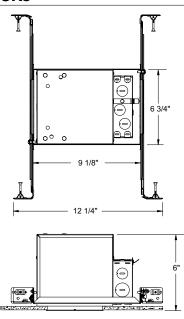
**Junction Box** Pre-wired junction box provided with (6) ½" and (1) ¾" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 4 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts equipped 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

<sup>\*</sup> Nominal input wattage @ 120-volt operation with dedicated 120-volt driver under stable operating conditions.

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## **OPEN TRIMS**

## **ELECTRICAL DATA**

## Dedicated 120V Only Driver Option (120 FRPC)

	120V	
Input Power	11.6W (+/-5%)	
Input Current	0.10A	
Frequency	50/60Hz	
EMI/RFI	FCC Title 47 CFR, Part 15,	
	Class B (residential)	
Minimum starting temp	-25°C	

## **ELECTRICAL DATA**

Universal	Voltage
Ulliversu	. vonaut

	MVOLT EZ	MVOLT EZ10 and EZ1 MVOLT ZT1		10 and ZT1	
	120V	277V	120V	277V	
Input Power	11.2W (+/-5%)	12.2W (+/-5%)	11.2W (+/-5%)	12.2W (+/-5%)	
Input Current	0.10A	0.05A	0.10A	0.05A	
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	
EMI/RFI	FCC Title 47 CFR, Part 15,	FCC Title 47 CFR, Part 15,	FCC Title 47 CFR, Part 15,	FCC Title 47 CFR, Part 15,	
	Class B (residential)	Class B (residential)	Class B (residential)	Class B (residential)	
Minimum starting temp	-20°C	-20°C	-20°C	-20°C	

## ORDERING INFORMATION Housing and trim can be ordered together or separate, but will always ship separately.

Example: IC1LED G4 09LM 27K 90CRI 120 FRPC

Series		Gene	eration	Lumens		Color	Temperature	CRI		Distribut	ion
IC1LED	4" LED IC New Construction Downlight	G4	Generation 4	09LM	900 Nominal Lumens	27K	2700K	90CRI	90+ CRI	(blank)	Medium Flood (45°)
						30K	3000K			WFL	Wide Flood (65°)
						35K	3500K				
						40K	4000K				

Voltage/Driv	er	Terri	tory
120 FRPC	120V Forward/Reverse Phase Cut, 5% dim	CP	Chicago Plenum
MVOLT ZT10	Multi-Volt (120-277), 0-10V, 10% dim		
MVOLT ZT1	Multi-Volt (120-277), 0-10V, 1% dim		
MVOLT EZ10	Multi-Volt (120-277), eldoLED 0-10V, 10% dim		
MVOLT EZ1	Multi-Volt (120-277), eldoLED 0-10V, 1% dim		



## Trim/Description



13 WH 4" Pinhole with Integral Shield - White



 14 BBRZ¹
 4" Downlight Baffle Tirn - Black Baffle, Bronze Trim Ring

 14 BBL¹
 4" Downlight Baffle Tirn - Black Baffle, Black Trim Ring

 14 BSC¹
 4" Downlight Baffle Tirn - Black Baffle, Satin Chrome Trim Ring

 14 BWH¹
 4" Downlight Baffle Tirn - Black Baffle, White Tirn Ring

 14 WWH
 4" Downlight Baffle Tirn - White Baffle, White Tirn Ring



17 BWH 4" Downlight Cone Trim - Black Cone, White Trim Ring
17 CWH 4" Downlight Cone Trim - Clear Alzak® Cone, White
17 HZWH 4" Downlight Cone Trim - Haze Cone, White Trim
17 PTSC 4" Downlight Cone Trim - Pewter Cone, Satin Chrome Trim
17 WHZBRZ 4" Downlight Cone Trim - Wheat Haze Cone, Bronze Trim Ring
17 WHZWH 4" Downlight Cone Trim - Wheat Haze Cone, White Trim
17 WWH 4" Downlight Cone Trim - White Cone, White Trim Ring

Trim Size: 5" O.D.

Alzak is a registered trademark of Alcoa Corp.

Note: In Canada when insulation is present, Type IC fixtures must be used.

<sup>1</sup> Multi-Volt: T24 @ 30K, 35K, 40K only

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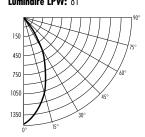
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## **OPEN TRIMS**

## **PHOTOMETRICS**

#### PHOTOMETRIC REPORT

Test Report #: PT02141303R Catalog No: IC1LED G4 09LM 35K 90CRI 120 with 14 WWH Trim Luminaire Spacing Criterion: 0.72 Luminaire LPW: 81



# CANDLEPOWER DISTRIBUTION

(Candelas)

Degrees		
Vertical	0°	
0	1491	
5	1449	
15	1118	
25	600	
35	206	
45	54	
55	22	
65	10	
75	6	
85	1	
90	0	
Multiplier:	27K - 0.89 30K - 0.94	
	40K - 1.03	

# AVERAGE INITIAL FOOTCANDLES

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

•	Celling 80	% vvali 30	J% Floor Z	0%
	Spacing	RCR1	RCR3	RCR5
	4.0′	65	57	50
	5.0′	42	36	32
	6.0′	29	25	22
	7.0′	23	20	18
	8.0′	18	16	14
	9.0′	14	12	11
	10.0′	10	9	8

#### **ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixture	
0 - 30°	717	N/A	76.5	
0 - 40°	852	N/A	91.0	
0 - 60°	917	N/A	98.0	
0 - 90°	936	N/A	100.0	

## INITIAL FOOTCANDLES

(One Unit, 11.6W , 44.2° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	93.2	3.2'
6	41.4	4.9′
8	23.3	6.5′
10	14.9	8.1′

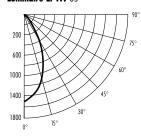
## **LUMINANCE** (Average cd/m²)

	Average	
Degrees	Luminance	
45	12517	
55	6382	
65	4034	
75	4069	
85	2014	

## PHOTOMETRIC REPORT

Test Report #: LTL26327R Catalog No: IC1LED G4 09LM 35K 90CRI 120 with 17 CWH Trim

Luminaire Spacing Criterion: 0.70 Luminaire LPW: 85



# CANDLEPOWER DISTRIBUTION

(Candelas)

Degrees		
Vertical	0°	
0	1508	
5	1482	
15	1104	
25	620	
35	254	
45	82	
55	26	
65	3	
75	0	
85	0	
90	0	
Multiplier: 27K	- 0.89	

40K - 1.03

# AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0′	68	59	52
5.0´	44	38	33
6.0′	30	26	23
7.0′	25	21	19
8.0′	19	17	15
9.0′	15	13	11
10.0′	11	10	8

## **ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixture
0 - 30°	725	N/A	73.9
0 - 40°	887	N/A	90.5
0 - 60°	977	N/A	99.6
0 - 90°	981	N/A	100.0

## **INITIAL FOOTCANDLES**

(One Unit, 11.6W, 43.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	94.3	3.2'
6	41.9	4.8'
8	23.6	6.4'
10	15.1	8.1′

## LUMINANCE (Average cd/m²)

Average				
Degrees	Luminance			
45	18733			
55	7144			
65	1077			
75	0			
85	0			

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