



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

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

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

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

# 4" IC 900 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

IC 1 LED (G4 09LM) RECESSED HOUSING

SQUARE 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

## 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 exceeding ENERGY STAR® requirements for superior fixture to fixture color uniformity • 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.

**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** 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** ENERGY STAR® Certified when used with select trims • 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 • 12SQ trim listed for wet location (covered ceiling) • 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 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 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.

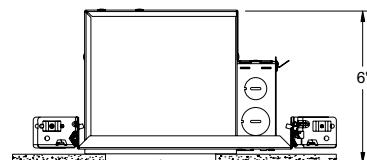
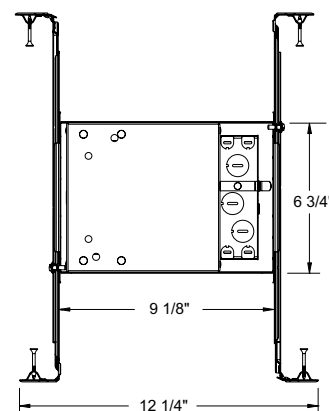
**Mounting Frame** 22-gauge die-formed galvanized steel mounting frame • Rough-in section (junction box, mounting frame, housing and bar hangers) fully assembled for ease of installation.

**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.

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



## DIMENSIONS



4 1/2" CEILING CUTOUT

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## 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

	MVOLT EZ10 and EZ1		MVOLT ZT10 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, Class B (residential)	FCC Title 47 CFR, Part 15, Class B (residential)	FCC Title 47 CFR, Part 15, Class B (residential)	FCC Title 47 CFR, Part 15, 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: IC1 LED G4 09LM 27K 90CRI 120 FRPC

Series	Generation	Lumens	Color Temperature	CRI	Distribution
IC1 LED 4" LED IC New Construction Downlight	G4 Generation 4	09LM 900 Nominal Lumens	27K 2700K 30K 3000K 35K 3500K 40K 4000K	90CRI 90+ CRI	(blank) Medium Flood (45°) WFL Wide Flood (65°)

Voltage/Driver	Territory
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), eidoLED 0-10V, 10% dim	
MVOLT EZ1 Multi-Volt (120-277), eidoLED 0-10V, 1% dim	



A+ Capable options indicated by this color background

## Trim/Description



175Q BWH<sup>3</sup>

4" Square Downlight Trim - Black, White Trim Flange



175Q HZWH<sup>3</sup>

4" Square Downlight Trim - Haze, White Trim Flange



175Q WHZWH<sup>3</sup>

4" Square Downlight Trim - Wheat Haze, White Trim Flange



175Q WWH<sup>1</sup>

4" Square Downlight Trim - White, White Trim Flange



135Q WH

4" Square Pinhole Trim - White



125Q WWH

4" Square Frosted Lens with Clear Center Trim - White, White Trim Flange



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> ENERGY STAR® Certified and T24 certified with 120 driver for 30K, 35K and 40K

<sup>2</sup> ENERGY STAR® Certified with 120 driver for 30K, 35K and 40K

<sup>3</sup> Not ENERGY STAR® Certified or T24 certified

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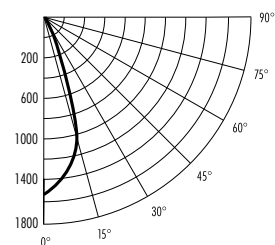
## PHOTOMETRICS

### PHOTOMETRIC REPORT

Test Report #: PT03141204R  
Catalog No: IC1LED G4 09LM 35K  
90CRI 120 with 17SQ HZWH Trim

Luminaire Spacing Criterion: 0.62

Luminaire LPW: 62



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1543
5	1486
15	1015
25	355
35	85
45	31
55	13
65	3
75	0
85	0
90	0

Multiplier: 27K - 0.89

30K - 0.94

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'	50	44	40
5.0'	32	28	25
6.0'	22	20	18
7.0'	18	16	14
8.0'	14	13	11
9.0'	11	10	9
10.0'	8	7	6

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	610	N/A	85.2
0-40°	675	N/A	94.2
0-60°	712	N/A	99.5
0-90°	716	N/A	100.0

### INITIAL FOOTCANDLES (One Unit, 11.6W, 37° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	96.4	2.7'
6	42.9	4.0'
8	24.1	5.4'
10	15.4	6.7'

### LUMINANCE (Average cd/m²)

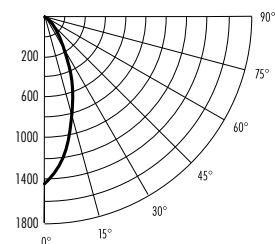
Degrees	Average Luminance
45	10600
55	5395
65	1708
75	266
85	395

### PHOTOMETRIC REPORT

Test Report #: PT03141206R  
Catalog No: IC1LED G4 09LM 35K  
90CRI 120 with 12SQ WWH Trim

Luminaire Spacing Criterion: 0.58

Luminaire LPW: 65



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1471
5	1403
15	870
25	331
35	131
45	66
55	37
65	22
75	12
85	5
90	0

Multiplier: 27K - 0.89

30K - 0.94

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'	52	45	39
5.0'	33	29	25
6.0'	23	20	17
7.0'	19	16	14
8.0'	15	13	11
9.0'	11	10	9
10.0'	8	7	6

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	539	N/A	71.3
0-40°	627	N/A	83.0
0-60°	715	N/A	94.6
0-90°	755	N/A	100.0

### INITIAL FOOTCANDLES (One Unit, 11.6W, 34.1° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	92.0	2.5'
6	40.9	3.7'
8	23.0	4.9'
10	14.7	6.1'

### LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	22708
55	15825
65	12610
75	11425
85	14597

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.