JUNO Project: Fixture Type:

4" IC AND TC 1000 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT **NEW CONSTRUCTION**

IC104AL TC104AL RECESSED HOUSING



ANGLE CUT TRIMS



PRODUCT DESCRIPTION

Location:

Contact/Phone:

Patent pending dedicated LED, Air-Loc® sealed new construction housing with integral internally adjustable light engine • Double wall, shallow housing construction • IC 104AL series can be completely covered with insulation and installs in 2 x 6 construction • TC 104AL series for use in non-insulated areas (If installed where insulation is present, the insulation must be pulled back 3" from all sides of the TC housing) • Fully sealed housing stops infiltration and exfiltration of air reducing heating and cooling costs without the use of additional air, reducing heating and cooling costs without the use of additional gaskets • LED housing is designed to provide 50,000 hours of life • 5 year limited warranty on LED components.

ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- No harmful ultraviolet or infrared wavelenaths
- No lead or mercury, RoHS compliant
 Comparable light output to 75W incandescent

PRODUCT SPECIFICATIONS

LED Light Engine LED array attached to cast aluminum sliding heatsink integrated directly with 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 4100K color temperatures available • 90 CRI minimum.

Optics Three field interchangeable, TIR optics available in 18°, 30° and 40° beam angles • Module can accommodate one 2-inch diameter beam control lens or filter • Adjustable light engine module provides up to 35° vertical adjustment and 360° rotation.

Aesthetic Trim Selections Aluminum angle-cut reflector in clear, black, pewter, white, haze and wheat haze • Shadow free, knife edge design blends seamlessly into ceiling.

LED Driver Choice of dedicated 120 volt driver or universal voltage driver that accommodates 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 driver is dimmable with the use of most 0-10V wall box dimmers • For a list of compatible dimmers, see JUNOICLED-DIM.

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

Labels ENERGY STAR® Qualified • Certified to the high efficacy requirements of California T24 • UL listed for U.S. and Canada for through-branch wiring, damp locations • 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

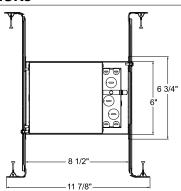
Housing IC104AL designed for use in IC (insulated ceiling) or non-IC construction • TC104AL designed for use in non-IC construction • Aluminum housing sealed for Air-Loc® compliance • Housing is vertically adjustable to accommodate up to a 1½" ceiling thickness.

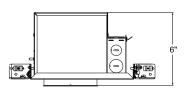
Junction Box Pre-wired junction box provided with (6) ½" and (1) ¾" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 4 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts equipped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

ELECTRICAL DATA

Minimum starting temp

Minimum starting temp

Dealtaiea 12	120V	
Input Power	16.4W (+/-5%)	
Input Current	0.15A	
Frequency	50/60Hz	
EMI/RFI	FCC Title 47 CFR, Part 15,	
	Class D (Desidential)	

-25°C (-13°F)

Dedicated 120V Only Driver Ontion (-1)

Universal Voltage Driver (-U) 120V 277V Input Power 16.0W (+/-5%) 16.0W (+/-5%) Input Current 0.15A0.06A50/60Hz 50/60Hz Frequency FCC Title 47 CFR, Part 15 EMI/RFI FCC Title 47 CFR, Part 15, Class A (Commercial) Class A (Commercial)

-20°C (-4°F)

-20°C (-4°F)

Lutron Hi-Lume® LED Driver (-L) 120V 277V Input Power 16.4W (+/-5%) 16.6W (+/-5%) 0.15A 0.07A Input Current 50/60Hz 50/60Hz Frequency EMI/RFI FCC Title 47 CFR, Part 15, FCC Title 47 CFR, Part 15 Class A (Commercial) Class A (Commercial) Minimum starting temp 0°C (32°F) 0°C (32°F)



4" IC AND TC 1000 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT NEW CONSTRUCTION

IC104AL, TC104AL RECESSED HOUSING

ANGLE CUT TRIMS

ORDERING INFORMATION: Housing and trim each ordered separately.

Example: IC104AL-3K-F-1 Color Series Temperature **Beam Optics Input Voltage** IC104AL 2700K 18° Spot Dedicated 120V Only 30° Narrow Flood 3K 3000K (Forward Phase + ELÝ Ν Dimmable) 40° Flood 35K 3500K Universal Voltage 120-277V 4100K (0-10V Dimmable) Color Temperature **Beam Optics** Input Voltage TC104AL 27K 2700K 18° Spot Lutron Hi-Lume® S 3-Wire Dimming 30° Narrow Flood 3K 3000K Ν EcoSystem Compatible 3500K 40° Flood 35K 4100K † Not ENERGY STAR® 41 K or T24 compliant

Example: 47LHZ-WH

	47LC-WH Angle Cut Cone - Clear Alzak® 47LB-WH Angle Cut Cone - Black Alzak® 47LPT-SC Angle Cut Cone - Pewter Alzak® 47LW-WH Angle Cut Cone - Gloss White 47LHZ-WH Angle Cut Cone - Haze				
	47LC-WH	Angle Cut Cone - Clear Alzak®			
	47LB-WH	Angle Cut Cone - Black Alzak®			
	47LPT-SC	Angle Cut Cone - Pewter Alzak®			
Surphit to T24	47LW-WH	Angle Cut Cone - Gloss White			
Contract in marketing	47LHZ-WH	Angle Cut Cone - Haze			
	47LWHZ-WH	Angle Cut Cone - Wheat Haze			
	47LWHZ-ABZ	Angle Cut Cone - Wheat Haze			

Trim Size: 5" O.D.

Trim Finish: ABZ - Classic Aged Bronze, SC - Satin Chrome, WH - White. Alzak is a registered trademark of Alcoa Corp.

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

ACCESSORIES

Catalog No.	Description
T741	Med. Pink Color Filter
T742	Warm Red Color Filter
T743	Daylight Blue Color Filter
T744	Med. Blue Color Filter
T745	Med. Amber Color Filter
T746	Med. Green Color Filter
T7401	Red Dichroic Lens
T7403	Med. Green Dichroic Lens
T7404	Med. Blue Dichroic Lens
T7405	Yellow Dichroic Lens
T7406	Magenta Dichroic Lens
T7411	Blue Green Dichroic Lens
T7416	Daylight Blue Correction Lens
T7420	Diffuse Spread Lens
T7422	UV Filter Lens
T7459BL	Hexcell Louver
T7478	Linear Spread Lens
T7477	Prismatic Lens
TIR-2-SP	18° Spot Optic
TIR-2-NFL	30° Narrow Flood Optic
TIR-2-FL	40° Flood Optic



4" IC AND TC 1000 LUMEN **INTERNALLY ADJUSTABLE** LED DOWNLIGHT **NEW CONSTRUCTION**

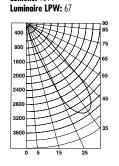
IC104AL, TC104AL RECESSED HOUSING

ANGLE CUT TRIMS

PHOTOMETRIC REPORT Test Report: PT09153001R Catalog No: IC104AL-35K-S-1 with 47LHZ-WH and Spot Optic Watts: 16.4 Lumens: 1077 Luminaire LPW: 66

Candlepower Distribution (Candelas) Vertical Candela 0° 183 10° 431 1320 20° 25° 30° 35° 40° 45° 50° 50° 60° 2571 4811 4549 656 225 65° 70° 20 80° 85° n

PHOTOMETRIC REPORT Test Report: PT09152921R Catalog No: IC104AL-35K-N-1 with 47LHZ-WH and Narrow Flood Optic Watts: 16.4 Lumens: 1091



Candlepower Distribution Candela Vertical 268 10° 400 1621 20° 25° 2700 30° 40° 45° 50° 55° 3280 2600 1618 794 60° 308 65° 70° 44 75° 80° 85°

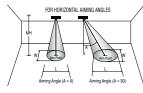
PHOTOMETRIC REPORT Test Report: PT09152901R Catalog No: IC104AL-35K-F-1 with 47LHZ-WH and Flood Optic Watts: 16.4 **Lumens: 1126** Luminaire LPW: 69

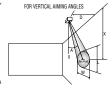
Candela Vertical 09 220 395 10° 698 1120 20° 1661 2171 30° 40° 45° 50° 55° 60° 2504 2413 972 465 65° 70° 220 87 78 80° 85° 0

Candlepower Distribution

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°).





Horizontal Aiming Angles

Vertical Aiming Angles



Beam Beam			0 °				30 °			30°					
FIXTURE	Туре	Spread®	CBCP	МН	FC	L	W	FC	L	W	D	FC	χ	L	W
IC104AL	S	18°	6185	4	387	1.3	1.3	251	1.7	1.5	2	193	3.5	2.7	1.3
LED, 3500K				6	172	1.9	1.9	112	2.6	2.2	3	86	5.2	4.1	1.9
Spot				8	97	2.5	2.5	63	3.4	2.9	4	48	6.9	5.5	2.5
•				10	62	3.2	3.2	40	4.3	3.7	5	31	8.7	6.9	3.2
		/		12	43	3.8	3.8	28	5.1	4.4	6	21	10.4	8.2	3.8
IC104AL	N	30°	3554	4	222	2.1	2.1	144	2.9	2.5	2	111	3.5	5.5	2.1
LED, 3500K				6	99	3.2	3.2	64	4.4	3.7	3	49	5.2	8.2	3.2
Narrow				8	56	4.3	4.3	36	5.9	5.0	4	28	6.9	10.9	4.3
Flood		. /		10	36	5.4	5.4	23	7.3	6.2	5	18	8.7	13.7	5.4
				12	25	6.4	6.4	16	8.8	7.4	6	12	10.4	16.4	6.4
IC104AL	F	40°	2591	4	162	2.9	2.9	105	4.1	3.4	2	81	3.5	9.7	2.9
LED, 3500K				6	72	4.4	4.4	47	6.1	5.0	3	36	5.2	14.5	4.4
Flood				8	40	5.8	5.8	26	8.1	6.7	4	20	6.9	19.3	5.8
		7 1		10	26	7.3	7.3	17	10.2	8.4	5	13	8.7	24.2	7.3
				12	18	8.7	8.7	12	12.2	10.1	6	9	10.4	29.0	8.7

Multipliers:

27K - 0.93 3K - 0.96

35K - 1.00

41K - 1.03

