

Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

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

IC104AL, TC104AL RECESSED HOUSING
SLOT ADJUSTABLE TRIMS

PRODUCT DESCRIPTION

Patent pending dedicated LED, Air-Loc® sealed new construction housing with integral internally adjustable light engine • Double wall, shallow housing construction • IC104AL series can be completely covered with insulation and installs in 2 x 6 construction • TC104AL 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 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 wavelengths
- 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 Adjustable slot aperture features a white trim ring • 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 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 1 1/2" ceiling thickness.

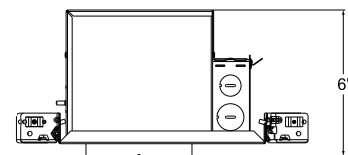
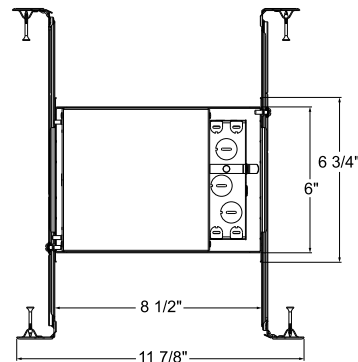
Junction Box Pre-wired junction box provided with (6) 1/2" and (1) 3/4" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 4 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts equipped 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.



DIMENSIONS



4 1/2" CEILING CUTOUT

ELECTRICAL DATA

Dedicated 120V Only Driver Option (-1) 120V

Input Power	16.4W (+/-5%)
Input Current	0.15A
Frequency	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class B (Residential)
Minimum starting temp	-25°C (-13°F)

Universal Voltage Driver (-U)

	120V	277V
Input Power	16.0W (+/-5%)	16.0W (+/-5%)
Input Current	0.15A	0.06A
Frequency	50/60Hz	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class A (Commercial)	FCC Title 47 CFR, Part 15, Class A (Commercial)
Minimum starting temp	-20°C (-4°F)	-20°C (-4°F)

Lutron Hi-Lume® LED Driver (-L)

	120V	277V
Input Power	16.4W (+/-5%)	16.6W (+/-5%)
Input Current	0.15A	0.07A
Frequency	50/60Hz	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class A (Commercial)	FCC Title 47 CFR, Part 15, 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

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ORDERING INFORMATION: Housing and trim each ordered separately.

Example: IC104AL-3K-F-1

Series	Color Temperature	Beam Optics	Input Voltage
IC104AL	27K 2700K 3K 3000K 35K 3500K 41K 4100K	S 18° Spot N 30° Narrow Flood F 40° Flood	I Dedicated 120V Only (Forward Phase + ELV Dimmable) U Universal Voltage 120-277V (0-10V Dimmable)

Series	Color Temperature	Beam Optics	Input Voltage
TC104AL	27K 2700K 3K 3000K 35K 3500K 41K 4100K	S 18° Spot N 30° Narrow Flood F 40° Flood	L Lutron Hi-Lume® 3-Wire Dimming EcoSystem Compatible

Example: 45L-WH

Trim/Description
 45L-WH Slot Aperture Downlight or Adjustable

Trim Size: 5" O.D.

Trim Finish: WH - White.

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

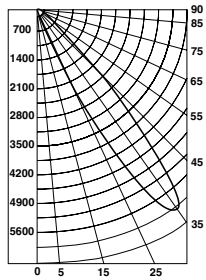
4" IC AND TC 1000 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT NEW CONSTRUCTION

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PHOTOMETRIC REPORT

Test Report: PT09153005R
Catalog No: IC104AL-35K-S-1
with 45L-WH
and Spot Optic

Watts: 16.4
Lumens: 854
Luminaire LPW: 52



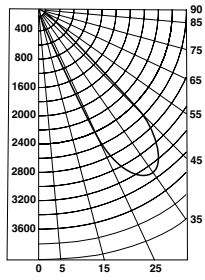
Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	59
5°	79
10°	183
15°	538
20°	1120
25°	2234
30°	4258
35°	5802
40°	4534
45°	2326
50°	1124
55°	648
60°	143
65°	48
70°	19
75°	7
80°	1
85°	0
90°	0

PHOTOMETRIC REPORT

Test Report: PT09152925R
Catalog No: IC104AL-35K-N-1
with 45L-WH and
Narrow Flood Optic

Watts: 16.4
Lumens: 873
Luminaire LPW: 53



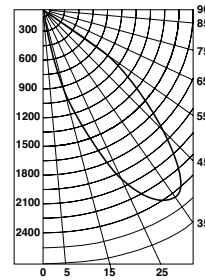
Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	69
5°	96
10°	143
15°	479
20°	1438
25°	2519
30°	3158
35°	3365
40°	3135
45°	2501
50°	1567
55°	746
60°	215
65°	87
70°	39
75°	13
80°	1
85°	0
90°	0

PHOTOMETRIC REPORT

Test Report: PT09152905R
Catalog No: IC104AL-35K-F-1
with 45L-WH
and Flood Optic

Watts: 16.4
Lumens: 955
Luminaire LPW: 58

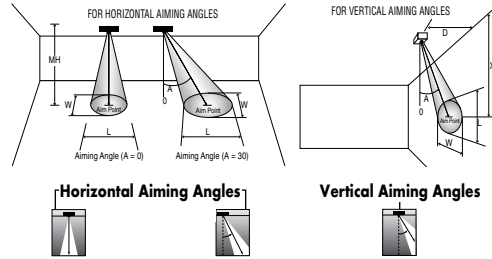


Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	131
5°	254
10°	490
15°	929
20°	1509
25°	2020
30°	2368
35°	2465
40°	2308
45°	1946
50°	1440
55°	901
60°	416
65°	210
70°	83
75°	21
80°	0
85°	0
90°	0

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°).



FIXTURE	Beam Type	Beam Spread°	CBCP	0°			30°			30°					
				MH	FC	L	W	FC	L	W	D	FC	X	L	W
IC104AL LED, 3500K Spot	SPT	18°	5802	4	363	1.3	1.3	236	1.7	1.5	2	181	3.5	2.7	1.3
				6	161	1.9	1.9	105	2.6	2.2	3	81	5.2	4.1	1.9
				8	91	2.5	2.5	59	3.4	2.9	4	45	6.9	5.5	2.5
				10	58	3.2	3.2	38	4.3	3.7	5	29	8.7	6.9	3.2
				12	40	3.8	3.8	26	5.1	4.4	6	20	10.4	8.2	3.8
IC104AL LED, 3500K Narrow Flood	NFL	30°	3365	4	210	2.1	2.1	137	2.9	2.5	2	105	3.5	5.5	2.1
				6	93	3.2	3.2	61	4.4	3.7	3	47	5.2	8.2	3.2
				8	53	4.3	4.3	34	5.9	5.0	4	26	6.9	10.9	4.3
				10	34	5.4	5.4	22	7.3	6.2	5	17	8.7	13.7	5.4
				12	23	6.4	6.4	15	8.8	7.4	6	12	10.4	16.4	6.4
IC104AL LED, 3500K Flood	FLD	40°	2465	4	154	2.9	2.9	100	4.1	3.4	2	77	3.5	9.7	2.9
				6	68	4.4	4.4	44	6.1	5.0	3	34	5.2	14.5	4.4
				8	39	5.8	5.8	25	8.1	6.7	4	19	6.9	19.3	5.8
				10	25	7.3	7.3	16	10.2	8.4	5	12	8.7	24.2	7.3
				12	17	8.7	8.7	11	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

