



Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

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

IC4AL, TC4AL (10LM) 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 • IC4AL series can be completely covered with insulation and installs in 2 x 6 construction • TC4AL 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 4000K 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 (120) driver or universal voltage (MVOLT) 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.

Specifications subject to change without notice.

HOUSING FEATURES

Housing IC4AL designed for use in IC (insulated ceiling) or non-IC construction • TC4AL 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.

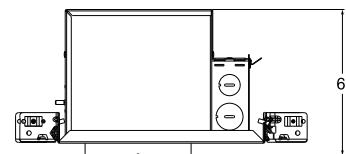
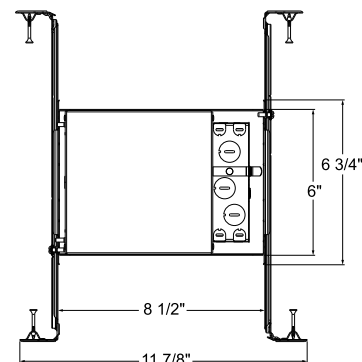
Junction Box Pre-wired junction box provided with (6) 1/2" and (1) 3/4" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 4 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts equipped 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 (120) 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 (MVOLT ZT)

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

Lutron Hi-Lume® LED Driver (MVOLT ECOD)

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

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SLOT ADJUSTABLE TRIMS

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

Example: IC4AL 10LM 27K 90CRI FL 120 FRPC

Series	Lumens	Color Temperature	CRI	Distribution	Voltage	Driver	Territory
IC4AL 4" LED Internally Adjustable New Const. IC Downlight	10LM 1000 Nominal Lumens	27K 2700K 30K 3000K 35K 3500K 40K 4000K	90CRI 90+ CRI	FL Flood NFL Narrow Flood SP Spot	120 120V MVOLT Multi-Volt (120-277V)	FRPC Forward/ Reverse Phase Cut ZT 0 - 10V Dimming Driver	CP Chicago Plenum

Notes: 120 must be ordered with FRPC. MVOLT must be ordered with ZT

Example: TC4AL 10LM 27K 90CRI FL MVOLT ECOD

Series	Lumens	Color Temperature	CRI	Distribution	Voltage	Driver	Territory
TC4AL 4" LED Internally Adjustable New Const. Non IC Downlight	10LM 1000 Nominal Lumens	27K 2700K 30K 3000K 35K 3500K 40K 4000K	90CRI 90+ CRI	FL Flood NFL Narrow Flood SP Spot	MVOLT Multi-Volt	ECOD Lutron Hi-Lume EcoSystem, 1% Dimming	CP Chicago Plenum

TC4AL is not ENERGY STAR® or T24 compliant

Trim/Description



45L WH 4" Adjustable Slot Trim - White

Trim Size: 5" O.D.

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

Accessories (ordered separately)

Catalog Number	Description
CGF 200 MPINK	Color Glass Filter - 2" Diameter - Medium Pink
CGF 200 WRED	Color Glass Filter - 2" Diameter - Warm Red
CGF 200 DLTBLUE	Color Glass Filter - 2" Diameter - Daylight Blue
CGF 200 MBLU	Color Glass Filter - 2" Diameter - Medium Blue
CGF 200 MAMB	Color Glass Filter - 2" Diameter - Medium Amber
CGF 200 MGRN	Color Glass Filter - 2" Diameter - Medium Green
DGF 200 DRED	Dichroic Glass Filter - 2" Diameter Red
DGF 200 MGRN	Dichroic Glass Filter - 2" Diameter Medium Green
DGF 200 MBLU	Dichroic Glass Filter - 2" Diameter Medium Blue
DGF 200 DYEL	Dichroic Glass Filter - 2" Diameter Yellow (Dichroic)
DGF 200 MAGEN	Dichroic Glass Filter - 2" Diameter Magenta
DGF 200 CYAN	Dichroic Glass Filter - 2" Diameter Cyan
DCCF 200 HL4250	Dichroic Color Correction Filter - 2" Diameter - Halogen - to - Daylight
DIFF 200	Diffusion Glass Lens - 2" Diameter
UVF 200	UV Filter Lens - 2" Diameter
HCLBL 200	Hexagonal Cell Louver - Black - 2" Diameter
LSPREAD 200	Linear Spread Glass Lens - 2" Diameter
PRISM 200	Prismatic Glass Lens - 2" Diameter
TIR2 SPT	TIR Optic - Spot
TIR2 NFLD	TIR Optic - Narrow Flood
TIR2 FLD	TIR Optic - Flood

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

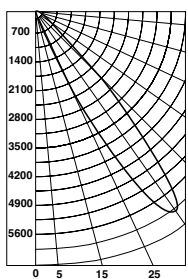
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PHOTOMETRICS

PHOTOMETRIC REPORT

Test Report: PT09153005R
Catalog No: IC4AL 10LM 35K 90CRI
SP 120 FRPC with 45L WH and
Spot Optic
Watts: 16.4
Lumens: 854
Luminaire LPW: 52

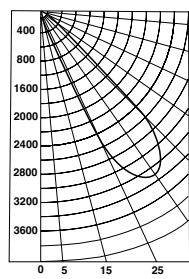


Candlepower Distribution (Candelas)

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: IC4AL 10LM 35K 90CRI
NFL 120 FRPC with 45L WH and
Narrow Flood Optic
Watts: 16.4
Lumens: 873
Luminaire LPW: 53

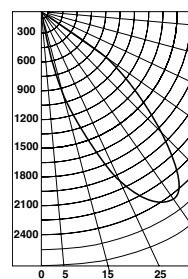


Candlepower Distribution (Candelas)

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: IC4AL 10LM 35K 90CRI
FL 120 FRPC with 45L WH and
Flood Optic
Watts: 16.4
Lumens: 955
Luminaire LPW: 58

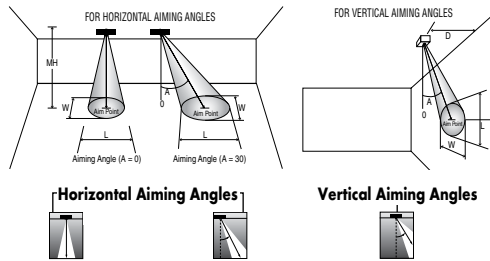


Candlepower Distribution (Candelas)

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	
IC4AL (10LM) LED, 3500K Spot	SP	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	
IC4AL (10LM) 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	
IC4AL (10LM) LED, 3500K Flood	FL	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
30K - 0.96
35K - 1.00
40K - 1.03