



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

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

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

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

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

IC4AL, TC4AL (10LM) RECESSED HOUSING



LENSED 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 perimeter frosted lensed trim • Shadow free, knife edge design blends seamlessly into ceiling • Trims are wet location approved for covered ceiling applications.

**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, wet locations (covered ceilings) • 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.

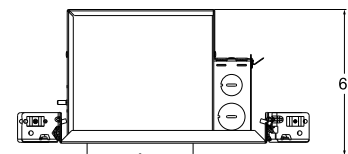
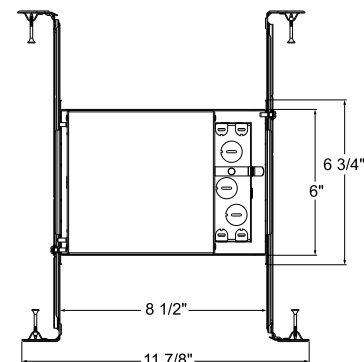
**Junction Box** Pre-wired junction box provided with (6) 1/2" and (1) 3/4" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • UL listed and cUL listed for through-branch wiring, maximum 4 #12 branch circuit conductors • Junction box provided with removable access plates • Knockouts 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%)	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 (MVOLT ECOS3) 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)

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

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

**Example:** TC4AL 10LM 27K 90CRI FL MVOLT ECOS3

Series	Lumens	Color Temperature	CRI	Distribution	Voltage	Driver
<b>TC4AL</b> 4" LED Internally Adjustable New Const. Non IC Downlight	<b>10LM</b> 1000 Nominal Lumens	<b>27K</b> 2700K <b>30K</b> 3000K <b>35K</b> 3500K <b>40K</b> 4000K	<b>90CRI</b> 90+ CRI	<b>FL</b> Flood <b>NFL</b> Narrow Flood <b>SP</b> Spot	<b>MVOLT</b> Multi-Volt	<b>ECOS3</b> Lumen Hi - Lume A Series, 3-wire fluorescent controls & Lutron Ecosystem

## Trim/Description



- 41L ABZ** 4" Adjustable Lens Shower Trim - Classic Aged Bronze  
**41L SC** 4" Adjustable Lens Shower Trim - Satin Chrome  
**41L WH** 4" Adjustable Lens Shower 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
<b>CGF 200 MPINK</b>	Color Glass Filter - 2" Diameter - Medium Pink
<b>CGF 200 WRED</b>	Color Glass Filter - 2" Diameter - Warm Red
<b>CGF 200 DLTBLUE</b>	Color Glass Filter - 2" Diameter - Daylight Blue
<b>CGF 200 MBLU</b>	Color Glass Filter - 2" Diameter - Medium Blue
<b>CGF 200 MAMB</b>	Color Glass Filter - 2" Diameter - Medium Amber
<b>CGF 200 MGRN</b>	Color Glass Filter - 2" Diameter - Medium Green
<b>DGF 200 DRED</b>	Dichroic Glass Filter - 2" Diameter Red
<b>DGF 200 MGRN</b>	Dichroic Glass Filter - 2" Diameter Medium Green
<b>DGF 200 MBLU</b>	Dichroic Glass Filter - 2" Diameter Medium Blue
<b>DGF 200 DYEL</b>	Dichroic Glass Filter - 2" Diameter Yellow (Dichroic)
<b>DGF 200 MAGEN</b>	Dichroic Glass Filter - 2" Diameter Magenta
<b>DGF 200 CYAN</b>	Dichroic Glass Filter - 2" Diameter Cyan
<b>DCCF 200 HL4250</b>	Dichroic Color Correction Filter - 2" Diameter - Halogen - to - Daylight
<b>DIFF 200</b>	Diffusion Glass Lens - 2" Diameter
<b>UVF 200</b>	UV Filter Lens - 2" Diameter
<b>HCLBL 200</b>	Hexagonal Cell Louver - Black - 2" Diameter
<b>LSPREAD 200</b>	Linear Spread Glass Lens - 2" Diameter
<b>PRISM 200</b>	Prismatic Glass Lens - 2" Diameter
<b>TIR2 SPT</b>	TIR Optic - Spot
<b>TIR2 NFLD</b>	TIR Optic - Narrow Flood
<b>TIR2 FLD</b>	TIR Optic - Flood

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## PHOTOMETRICS

### PHOTOMETRIC REPORT

Test Report: PT09153003R

Catalog No: IC4AL 10LM 35K 90CRI

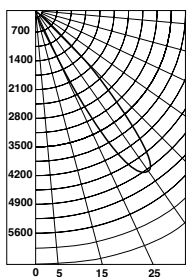
SP 120 FRPC with 41L WH and

Spot Optic

Watts: 16.4

Lumens: 848

Luminaire LPW: 52



### Candlepower Distribution (Candelas)

Degrees

Vertical

Candela

0° 142

5° 191

10° 271

15° 452

20° 828

25° 1735

30° 3387

35° 4633

40° 3756

45° 2039

50° 903

55° 318

60° 150

65° 84

70° 54

75° 32

80° 15

85° 4

90° 0

### PHOTOMETRIC REPORT

Test Report: PT09152923R

Catalog No: IC4AL 10LM 35K 90CRI

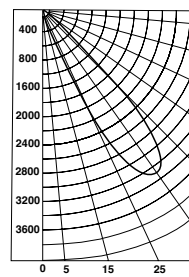
NFL 120 FRPC with 41L WH and

Narrow Flood Optic

Watts: 16.4

Lumens: 867

Luminaire LPW: 53



### Candlepower Distribution (Candelas)

Degrees

Vertical

Candela

0° 135

5° 183

10° 233

15° 468

20° 1208

25° 2208

30° 2836

35° 3030

40° 2782

45° 2169

50° 1288

55° 408

60° 149

65° 93

70° 53

75° 27

80° 12

85° 3

90° 0

### PHOTOMETRIC REPORT

Test Report: PT090152903R

Catalog No: IC4AL 10LM 35K 90CRI

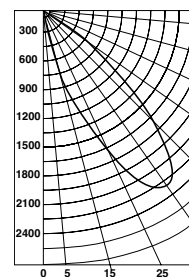
FL 120 FRPC with 41L WH and

Flood Optic

Watts: 16.4

Lumens: 936

Luminaire LPW: 57



### Candlepower Distribution (Candelas)

Degrees

Vertical

Candela

0° 139

5° 254

10° 487

15° 826

20° 1280

25° 1782

30° 2142

35° 2305

40° 2226

45° 1716

50° 1107

55° 619

60° 405

65° 224

70° 95

75° 28

80° 10

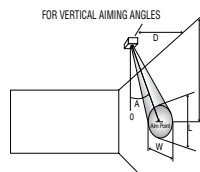
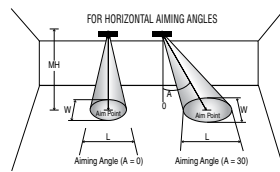
85° 1

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
IC4AL (10LM) LED, 3500K Spot	SP	18°	4633	4	290	1.3	1.3	188	1.7	1.5	2	145
				6	129	1.9	1.9	84	2.6	2.2	3	64
				8	72	2.5	2.5	47	3.4	2.9	4	36
				10	46	3.2	3.2	30	4.3	3.7	5	23
IC4AL (10LM) LED, 3500K Narrow Flood	NFL	30°	3030	12	32	3.8	3.8	21	5.1	4.4	6	16
				4	189	2.1	2.1	123	2.9	2.5	2	95
				6	84	3.2	3.2	55	4.4	3.7	3	42
				8	47	4.3	4.3	31	5.9	5.0	4	24
IC4AL (10LM) LED, 3500K Flood	FL	40°	2305	10	30	5.4	5.4	20	7.3	6.2	5	15
				12	21	6.4	6.4	14	8.8	7.4	6	11
				4	144	2.9	2.9	94	4.1	3.4	2	72
				6	64	4.4	4.4	42	6.1	5.0	3	32
				8	36	5.8	5.8	23	8.1	6.7	4	18
				10	23	7.3	7.3	15	10.2	8.4	5	12
				12	16	8.7	8.7	10	12.2	10.1	6	8

Multipliers: 27K - 0.93

30K - 0.96

35K - 1.00

40K - 1.03