



Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

4" IC AND TC 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT REMODEL

IC4RAL, TC4RAL RECESSED HOUSING
DOWNLIGHT TRIMS



PRODUCT DESCRIPTION

Patent pending dedicated LED, Air-Loc® remodel housing with integral internally adjustable light engine • IC4RAL series can be completely covered with insulation and installs in shallow 2 x 6 construction • TC4RAL 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) • Remodel housing for remodel application where back side of ceiling is not accessible • Installs through an opening in the ceiling from below • Secured in place by factory installed remodel springs • 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 65W 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.

Aesthetic Trim Selections Aluminum downlight 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 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.

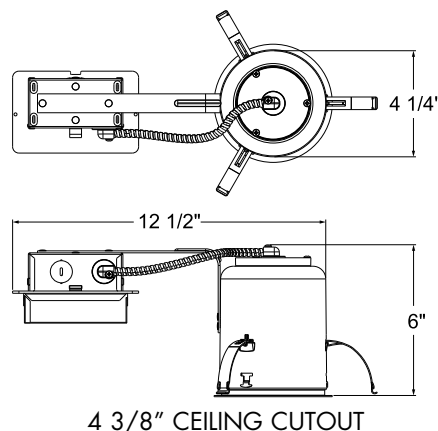
HOUSING FEATURES

Housing IC4RAL designed for use in IC (insulated ceiling) or non-IC construction • TC4RAL 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 (5) 1/2" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire • Junction box provided with removable access plates • Knockouts equipped with pryout slots • Quick connect electrical connectors supplied as standard for fast, secure installation.



DIMENSIONS



ELECTRICAL DATA

Dedicated 120V Only Driver Option (-1)

120V	
Input Power	10.5W (+/-5%)
Input Current	0.10A
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	10.0W (+/-5%)
Input Current	0.04A
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 (-L)

120V	277V
Input Power	11.1W (+/-5%)
Input Current	0.10A
Frequency	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class A (Commercial)
Minimum starting temp	0°C (32°F)

4" IC AND TC 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT REMODEL

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ORDERING INFORMATION: Housing and trim each ordered separately.

Example: **IC4RAL-3K-F-1**

Series	Color Temperature	Beam Optics	Input Voltage
IC4RAL	27K 2700K 3K 3000K 35K 3500K 41K 4100K	S 18° Spot N 30° Narrow Flood F 40° Flood	1 Dedicated 120V Only (Forward Phase + ELV Dimmable) U Universal Voltage 120-277V (0-10V Dimmable)

Series	Color Temperature	Beam Optics	Input Voltage
TC4RAL	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 † Not ENERGY STAR® or T24 compliant

Example: **42LHZ-WH**

Trim/Description
 42LC-WH Downlight Cone - Clear Alzak® 42LB-WH Downlight Cone - Black Alzak® 42LPT-SC Downlight Cone - Pewter Alzak®  42LW-WH Downlight Cone - Gloss White 42LHZ-WH Downlight Cone - Haze 42LWHZ-WH Downlight Cone - Wheat Haze 42LWHZ-ABZ Downlight 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 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT REMODEL

IC4RAL, TC4RAL RECESSED HOUSING
DOWNLIGHT TRIMS

PHOTOMETRIC REPORT

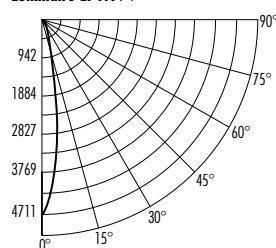
Test Report#: PT09152801R

Catalog No: IC4AL-35K-S-1

with 42LHZ-WH, Downlight Cone Haze Finish
Trim and Spot Optic

Luminaire Spacing Criteria: 0.30

Luminaire LPW: 74



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	4711
5	3582
15	935
25	312
35	78
45	10
55	0
65	0
75	0
85	0
90	0

Multipliers:
27K - 0.93 35K - 1.00
3K - 0.96 41K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	55	50	46
5.0'	35	32	29
6.0'	24	22	20
7.0'	20	18	16
8.0'	16	14	13
9.0'	12	11	10
10.0'	9	8	7

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	709	N/A	91.3
0-40°	765	N/A	98.5
0-60°	776	N/A	100.0
0-90°	776	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 10.5W, 16.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	294.4	1.2
6	130.9	1.8
8	73.6	2.4
10	47.1	3.0

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	2752
55	78
65	0
75	0
85	0

PHOTOMETRIC REPORT

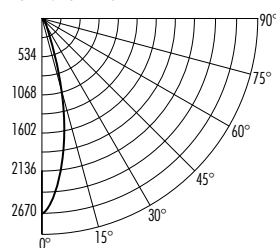
Test Report#: PT09152803R

Catalog No: IC4AL-35K-N-1

with 42LHZ-WH, Downlight Cone Haze Finish
Trim and Narrow Flood Optic

Luminaire Spacing Criteria: 0.46

Luminaire LPW: 72



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2670
5	2462
15	1110
25	314
35	85
45	18
55	1
65	0
75	0
85	0
90	0

Multipliers:
27K - 0.93 35K - 1.00
3K - 0.96 41K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	53	48	44
5.0'	34	30	28
6.0'	23	21	19
7.0'	19	17	16
8.0'	15	14	12
9.0'	11	10	10
10.0'	8	8	7

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	675	N/A	89.5
0-40°	737	N/A	97.7
0-60°	754	N/A	100.0
0-90°	754	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 10.5W, 27.0° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	166.9	1.9
6	74.2	2.9
8	41.7	3.8
10	26.7	4.8

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	4895
55	181
65	0
75	0
85	0

PHOTOMETRIC REPORT

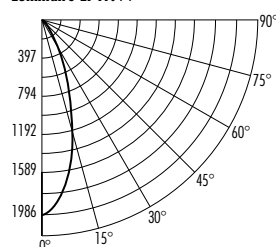
Test Report#: PT09152805R

Catalog No: IC4AL-35K-F-1

with 42LHZ-WH, Downlight Cone Haze Finish
Trim and Flood Optic

Luminaire Spacing Criteria: 0.58

Luminaire LPW: 79



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1986
5	1894
15	1206
25	489
35	116
45	22
55	0
65	0
75	0
85	0
90	0

Multipliers:
27K - 0.93 35K - 1.00
3K - 0.96 41K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	58	52	47
5.0'	37	33	30
6.0'	26	23	21
7.0'	21	19	17
8.0'	17	15	13
9.0'	13	11	10
10.0'	9	8	7

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	727	N/A	87.5
0-40°	810	N/A	97.4
0-60°	831	N/A	100.0
0-90°	831	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 10.5W, 35.0° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	124.1	2.5
6	55.2	3.8
8	31.0	5.0
10	19.9	6.3

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	5967
55	26
65	0
75	0
85	0

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.



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