



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

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

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

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

# 4" IC 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT NEW CONSTRUCTION

IC4AL (07LM) RECESSED HOUSING



## SQUARE TRIMS



### PRODUCT DESCRIPTION

Patent pending dedicated LED, Air-Loc® sealed new construction housing with integral internally adjustable light engine • Double wall, shallow housing construction • Can be completely covered with insulation and installs in 2 x 6 construction • 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 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 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** Die cast aluminum square angle cut downlight, downlight only and lensed trim options • Downlights feature black insert to minimize glare at the aperture • Lensed trim 41LSQ is 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** ENERGY STAR® Certified • Certified to the high efficacy requirements of California T24 JA8-2016 • UL listed for U.S. and Canada for through-branch wiring, damp locations (41LSQ listed for 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

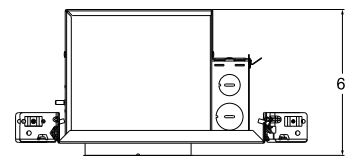
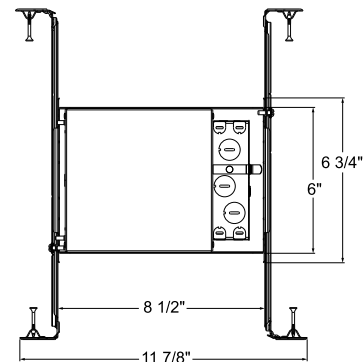
**Housing** Designed for use in IC (insulated ceiling) or non-IC construction • Aluminum housing sealed for Air-Loc® compliance • Housing is vertically adjustable to accommodate up to a 1 1/2" ceiling thickness.

**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	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 (MVOLT ZT)

	120V	277V
Input Power	10.0W (+/-5%)	10.0W (+/-5%)
Input Current	0.09A	0.04A
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	11.1W (+/-5%)	11.3W (+/-5%)
Input Current	0.10A	0.05A
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 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT NEW CONSTRUCTION

## IC4AL (07LM) RECESSED HOUSING SQUARE TRIMS

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

Example: IC4AL 07LM 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>07LM</b> 700 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>ECOS3</b> Lumen Hi - Lume A Series, 3-wire fluorescent controls & Lutron Ecosystem <b>FRPC</b> Forward/ Reverse Phase Cut <b>ZT</b> 0 - 10V Dimming Driver

Notes: 120 must be ordered with FRPC. MVOLT can be ordered with either ZT or ECOS3

### Trim/Description



- 47LSQ BWH** 4" Square Adjustable Angle Cut Reflector Trim - Black, White Trim Ring  
**47LSQ HZWH** 4" Square Adjustable Angle Cut Reflector Trim - Haze, White Trim Ring  
**47LSQ WHZWH** 4" Square Adjustable Angle Cut Reflector Trim - Wheat Haze, White Trim Ring  
**47LSQ WWH** 4" Square Adjustable Angle Cut Reflector Trim - White, White Trim Ring



- 42LSQ BWH** 4" Square Downlight Reflector Trim - Black, White Trim Ring  
**42LSQ HZWH** 4" Square Downlight Reflector Trim - Haze, White Trim Ring  
**42LSQ WHZWH** 4" Square Downlight Reflector Trim - Wheat Haze, White Trim Ring  
**42LSQ WWH** 4" Square Downlight Reflector Trim - White, White Trim Ring



- 41LSQ WH\*** 4" Square Adjustable Lens Shower Trim - White Trim Ring



Trim Size: 5" O.D.

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

\* Wet Location

### 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

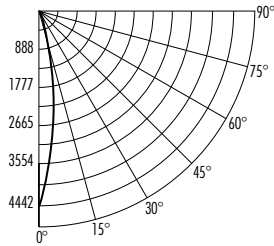
# 4" IC 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT NEW CONSTRUCTION

## IC4AL (07LM) RECESSED HOUSING SQUARE TRIMS

### PHOTOMETRICS

#### PHOTOMETRIC REPORT

Test Report#: PTO9152802R  
Catalog No: IC4AL 07LM 35K 90CRI SP 120  
FRPC with 42LSQ HZWH, Downlight Cone Haze  
Finish Square Trim and Spot Optic  
Luminaire Spacing Criteria: 0.30  
Luminaire LPW: 64



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	4442
5	3387
15	922
25	164
35	23
45	3
55	0
65	0
75	0
85	0
90	0

Multipliers:  
27K - 0.93 35K - 1.00  
30K - 0.96 40K - 1.03

#### AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)  
Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	48	44	41
5.0'	31	28	26
6.0'	21	20	18
7.0'	17	16	15
8.0'	14	13	12
9.0'	10	10	9
10.0'	8	7	6

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	650	N/A	96.0
0-40°	672	N/A	99.4
0-60°	677	N/A	100.0
0-90°	677	N/A	100.0

#### INITIAL FOOTCANDLES

(One Unit, 10.5W, 17.0° Beam)

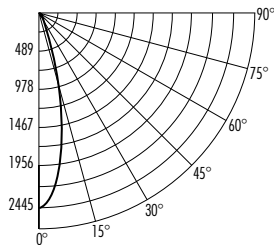
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	277.6	1.2
6	123.4	1.8
8	69.4	2.4
10	44.4	3.0

#### LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	631
55	0
65	0
75	0
85	0

#### PHOTOMETRIC REPORT

Test Report#: PTO9152804R  
Catalog No: IC4AL 07LM 35K 90CRI NFL 120  
FRPC with 42LSQ HZWH, Downlight Cone Haze  
Finish Square Trim and Narrow Flood Optic  
Luminaire Spacing Criteria: 0.48  
Luminaire LPW: 61



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2445
5	2302
15	1089
25	158
35	43
45	5
55	0
65	0
75	0
85	0
90	0

Multipliers:  
27K - 0.93 35K - 1.00  
30K - 0.96 40K - 1.03

#### AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)  
Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	45	41	38
5.0'	29	27	24
6.0'	20	18	17
7.0'	16	15	14
8.0'	13	12	11
9.0'	10	9	8
10.0'	7	7	6

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	604	N/A	93.8
0-40°	637	N/A	98.9
0-60°	644	N/A	100.0
0-90°	644	N/A	100.0

#### INITIAL FOOTCANDLES

(One Unit, 10.5W, 27.7° Beam)

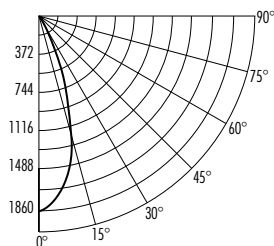
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	152.8	2.0
6	67.9	3.0
8	38.2	3.9
10	24.5	4.9

#### LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	939
55	0
65	0
75	0
85	0

#### PHOTOMETRIC REPORT

Test Report#: PTO9152806R  
Catalog No: IC4AL 07LM 35K 90CRI FL 120  
FRPC with 42LSQ HZWH, Downlight Cone Haze  
Finish Square Trim and Flood Optic  
Luminaire Spacing Criteria: 0.60  
Luminaire LPW: 71



#### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1860
5	1788
15	1186
25	370
35	79
45	7
55	0
65	0
75	0
85	0
90	0

Multipliers:  
27K - 0.93 35K - 1.00  
30K - 0.96 40K - 1.03

#### AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)  
Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	52	47	42
5.0'	33	30	27
6.0'	23	21	19
7.0'	19	17	15
8.0'	15	13	12
9.0'	11	10	9
10.0'	8	8	7

#### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	673	N/A	90.6
0-40°	732	N/A	98.6
0-60°	743	N/A	100.0
0-90°	743	N/A	100.0

#### INITIAL FOOTCANDLES

(One Unit, 10.5W, 34.7° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	116.3	2.5
6	51.7	3.7
8	29.1	5.0
10	18.6	6.2

#### LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	1376
55	0
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.

# 4" IC 700 LUMEN INTERNALLY ADJUSTABLE LED DOWNLIGHT NEW CONSTRUCTION

## IC4AL (07LM) RECESSED HOUSING SQUARE TRIMS

### PHOTOMETRICS

#### PHOTOMETRIC REPORT

Test Report: PT09153002R

Catalog No: IC4AL 07LM 35K 90CRI  
SP 120 FRPC with 47LSQ HZWH and  
Spot Optic

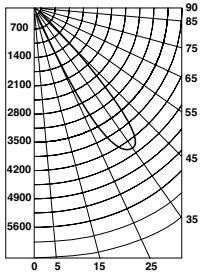
Watts: 10.5

Lumens: 730

Luminaire LPW: 69

#### Candlepower Distribution (Candelas)

Degrees	Vertical	Candela
0°	63	
5°	122	
10°	271	
15°	527	
20°	913	
25°	1746	
30°	3337	
35°	4499	
40°	3473	
45°	1794	
50°	841	
55°	275	
60°	71	
65°	23	
70°	10	
75°	3	
80°	0	
85°	0	
90°	0	



#### PHOTOMETRIC REPORT

Test Report: PT09152922R

Catalog No: IC4AL 07LM 35K 90CRI  
NFL 120 FRPC with 47LSQ HZWH and  
Narrow Flood Optic

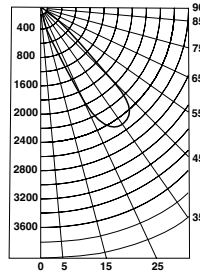
Watts: 10.5

Lumens: 735

Luminaire LPW: 70

#### Candlepower Distribution (Candelas)

Degrees	Vertical	Candela
0°	63	
5°	108	
10°	208	
15°	487	
20°	1121	
25°	1909	
30°	2407	
35°	2573	
40°	2400	
45°	1928	
50°	1220	
55°	448	
60°	106	
65°	54	
70°	24	
75°	6	
80°	0	
85°	0	
90°	0	



#### PHOTOMETRIC REPORT

Test Report: PT09152902R

Catalog No: IC4AL 07LM 35K 90CRI  
FL 120 FRPC with 47LSQ HZWH and  
Flood Optic

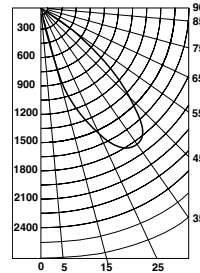
Watts: 10.5

Lumens: 780

Luminaire LPW: 74

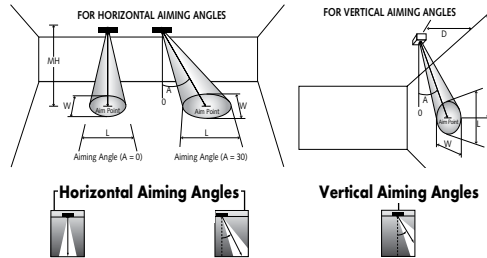
#### Candlepower Distribution (Candelas)

Degrees	Vertical	Candela
0°	118	
5°	238	
10°	467	
15°	796	
20°	1204	
25°	1581	
30°	1821	
35°	1884	
40°	1750	
45°	1463	
50°	1044	
55°	541	
60°	281	
65°	140	
70°	54	
75°	9	
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
<b>IC4AL (07LM) LED, 3500K Spot</b>	SP	18°	4499	4	281	1.3	1.3	183	1.7	1.5	2	141	3.5	2.7	1.3
				6	125	1.9	1.9	81	2.6	2.2	3	62	5.2	4.1	1.9
				8	70	2.5	2.5	46	3.4	2.9	4	35	6.9	5.5	2.5
				10	45	3.2	3.2	29	4.3	3.7	5	22	8.7	6.9	3.2
<b>IC4AL (07LM) LED, 3500K Narrow Flood</b>	NFL	30°	2573	12	31	3.8	3.8	20	5.1	4.4	6	16	10.4	8.2	3.8
				4	161	2.1	2.1	104	2.9	2.5	2	80	3.5	5.5	2.1
				6	71	3.2	3.2	46	4.4	3.7	3	36	5.2	8.2	3.2
				8	40	4.3	4.3	26	5.9	5.0	4	20	6.9	10.9	4.3
<b>IC4AL (07LM) LED, 3500K Flood</b>	FL	40°	1884	10	26	5.4	5.4	17	7.3	6.2	5	13	8.7	13.7	5.4
				12	18	6.4	6.4	12	8.8	7.4	6	9	10.4	16.4	6.4
				4	118	2.9	2.9	76	4.1	3.4	2	59	3.5	9.7	2.9
				6	52	4.4	4.4	34	6.1	5.0	3	26	5.2	14.5	4.4
				8	29	5.8	5.8	19	8.1	6.7	4	15	6.9	19.3	5.8
				10	19	7.3	7.3	12	10.2	8.4	5	9	8.7	24.2	7.3
				12	13	8.7	8.7	8	12.2	10.1	6	7	10.4	29.0	8.7

Multipliers:  
27K - 0.93    35K - 1.00  
30K - 0.96    40K - 1.03

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.