

Catalog # :

Project :

Prepared By :

Date :



LAD4SQ

4" LED Architectural Square Downlight



4 inch LED new construction downlight delivers superior performance and energy efficiency. Designed to use anodized aluminum reflectors delivering even illumination and low glare. The high performance luminaire offers a 2000 lumen package with color temperatures of 3000K, 3500K, 4000K at 80 CRI. Standard driver offers universal (120-277V) and 0-10V dimming down to 1%. The LAD series is ideal for low to medium ceiling heights for retail, hospitality and commercial applications.



Features & Specifications

Optical System

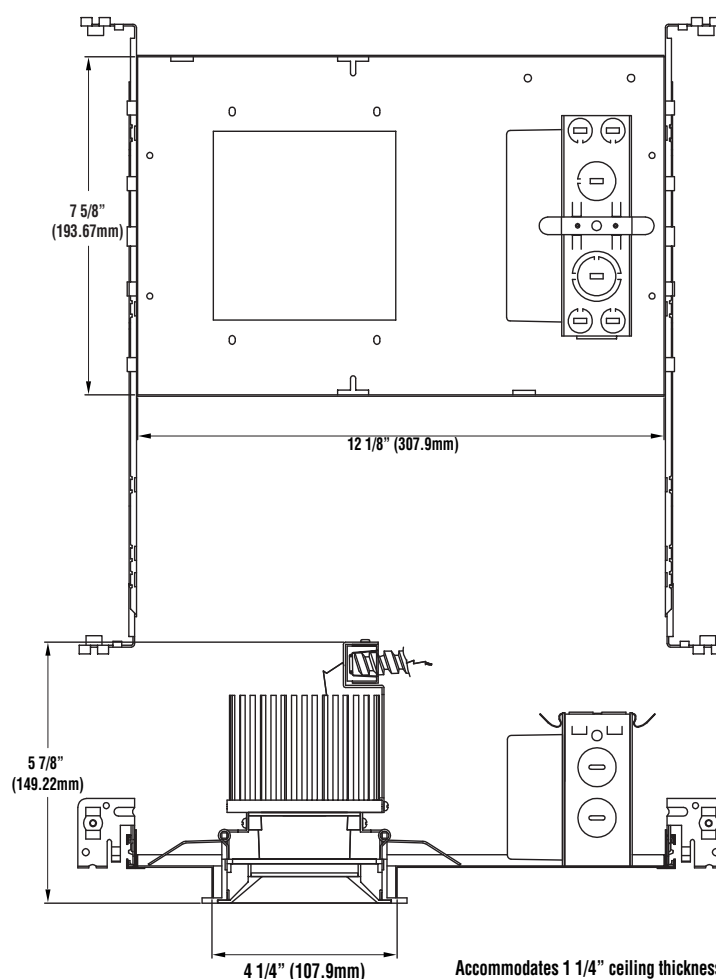
- LED source provides superior lumen output with maximum visual comfort.
- Tailored, medium flood and flood beam optics deliver glare free illumination.
- Cast aluminum white painted trim, to deliver low glare lamination of the space.
- Trims are retained with friction blades to hold the flange tight to the finished ceiling surface.
- Available in 3000K, 3500K, and 4000K color temperatures per ANSI C78.377.
- Minimum CRI of 80.-

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (1% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz.
- L70 Calculated Life: > 50k Hours projected @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%
- Power factor: >.90
- Input power stays constant over life.
- Compatible with Triac (forward-phase or leading-edge), ELV (reverse-phase or trailing edge) dimming only at 120 Vac.
- Driver can be accessed from below plenum for servicing.
- High-efficacy LEDs with integrated circuit board mount directly to an extruded aluminum heatsink to maximize heat dissipation and promote long life.
- Remote Emergency Battery (120-277V) field installed is available to meet critical life safety lighting requirements. The 90-minute battery provides 7.8watts constant power to the LED system, ensuring code compliance. To calculate light output during emergency mode(EM battery 7.8 watts x LPW of fixture being powered - see spec sheet). Detailed wiring diagram and installation instructions located on website.



Dimensions





LAD4SQ

4" LED Architectural Square Downlight

Features & Specifications (cont.)

New Construction Housing/Plaster Frame

- Designed for use in non-insulated ceiling where insulation must be kept a minimum of 3" from the fixture.
- Junction box listed for (8) #12 AWG (four in, four out) 90°C conductors and thru branch wiring.
- Junction box contains (5) 1/2" knockouts with trade pry-out slots and (4) Romex cable clamp knockouts.
- Frame accommodates up to 1 1/4" ceiling thickness.
- Standard 24" nailer bars ship with each unit and field installed.

Installation

- 24" nailer bars provide stability and support for installation on joists, T-Grid and suspended ceilings.
- Housing can be positioned at any point within the 24" joist span.
- Score lines allow adjustment for 12" joists without tools.

Warranty

- LSI LED Fixtures carry a 5-year warranty.
- 1 Year warranty on optional Emergency Battery. Test regularly in accordance with local codes.

Listing

- cETLus Listed to UL 1598 and UL 8750 standards for 25°C Ambient applications.
- RoHS Compliant.
- EMI/RFI compliant with FCC 47CFR Part 15 Class B Consumer limits and Class A Commercial and Industrial.
- Damp location rated.
- Title 24 Compliant.

Performance

Electrical Data (Amps)*				
Lumen Package	120V	208V	240V	277V
22L	0.18	0.11	0.09	0.08

*Electrical Data at 25C (77F)/ Actual Wattage may differ +/-10%

DELIVERED LUMENS*								
Lumen Pkg.	Distribution	3000K CCT		3500K CCT		4000K CCT		Wattage
		Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
22L	MF	1861	84.6	2275	103.4	2275	103.4	22
	FL	1835	83.4	2243	2243	102.0	102.0	22

*LED Chips are frequently updated therefore values may change.



LAD4SQ 4" LED Architectural Square Downlight

Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LAD4SQ LED 22L UNV DIM1 35 MF TSQ4 WH**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics ²
LAD4SQ - 4" Square Downlight	LED	22L - 2200	UNV - 120-277V	DIM1 - Dims to 1% (0-10V dimming)	30 - 3000K 35 - 3500K 40 - 4000K	Blank - 80 CRI	MF - Medium Flood FL - Flood

Reflector Type	Reflector Finish
TSQ4FX - Open Reflector	WH - White Open Reflector with White Trim Ring
TSQ4AJ - Adjustable 0-30° tilt	
TSQ4WW - Wall Wash	

NOTES:
 1. 90 CRI requires 55 day leadtime & 100 MOQ; Consult Factory
 2. Refer to IES Files for Beam Spread

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
EM - Emergency Battery	CA658633

4" Recessed square Downlight Reflectors

	TSQ4FX- White Open Reflector with White Trim Ring
	TSQ4AJ - Adjustable 0-30° tilt
	TSQ4WW - Wall Wash



LAD4SQ 4" LED Architectural Square Downlight

Photometry (cont.)

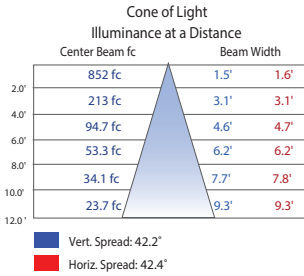
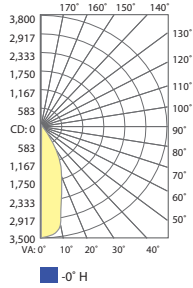
LAD4SQ-LED-22L-35-MF-TSQFX-WH

Lumens: 2,275

Watts: 21.3

Efficacy: 107

Candela Power Distribution



ZONE	LUMENS	% Fixture
0-10	318	14.0%
10-20	715	31.4%
20-30	619	27.2%
30-40	430	18.9%
40-50	152	6.7%
50-60	30	1.3%
60-70	8	0.3%
70-80	3	0.1%
80-90	1	0.0%
90-100	0	0.0%
0-180	2,275	100.0%

Degree Vertical	Candela
0	3,409
5	3,390
10	3,198
15	2,624
20	1,859
25	1,329
30	955
35	625
40	308
45	100
50	54
55	24
60	14
65	5
70	3
75	3
80	0
85	0
90	0

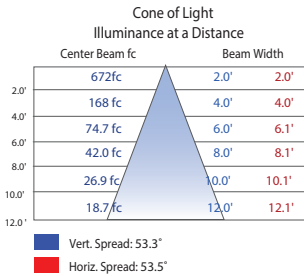
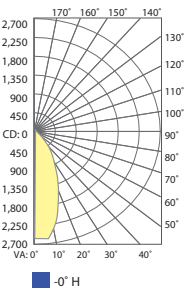
LAD4SQ-LED-22L-35-FL-TSQ4FX-WH

Lumens: 2,243

Watts: 21.3

Efficacy: 105

Candela Power Distribution



ZONE	LUMENS	% Fixture
0-10	251	11.2%
10-20	662	29.5%
20-30	703	31.3%
30-40	446	19.9%
40-50	143	6.4%
50-60	27	1.2%
60-70	7	0.3%
70-80	3	0.1%
80-90	1	0.0%
90-100	0	0.0%
0-180	2,243	100.0%

Degree Vertical	Candela
0	2,689
5	2,664
10	2,546
15	2,391
20	2,064
25	1,520
30	1,027
35	633
40	304
45	86
50	36
55	25
60	11
65	5
70	3
75	2
80	1
85	0
90	0