

Catalog # :

Project :

Prepared By :

Date :



LAD6SQ

## 6" LED Architectural Square Downlight



6 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 1000 up to 3000 lumens with color temperatures of 2700K, 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

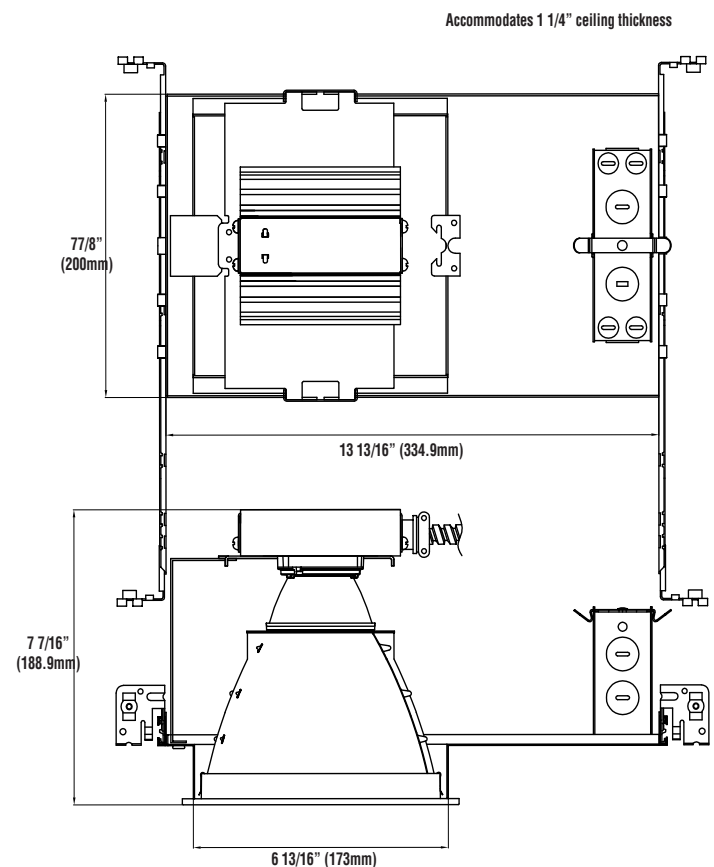
- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood and flood beam optics deliver glare free illumination.
- Flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with torsion springs holding the flange tight to the finished ceiling surface.
- Available in 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





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
12L	0.12	0.07	0.06	0.05
22L	0.18	0.11	0.09	0.08
28L	0.27	0.15	0.13	0.12
36L	0.35	0.20	0.18	0.15

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

DELIVERED LUMENS*										
Lumen Pkg.	Distribution	2700K CCT		3000K CCT		3500K CCT		4000K CCT		Wattage
		Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
12L	SP	1071	76.5	1071	76.5	1309	93.5	1309	93.5	14
	NF	1022	73.0	1022	73.0	1266	90.4	1266	90.4	14
	FL	1033	73.8	1033	73.8	1262	90.1	1262	90.1	14
22L	SP	1843	83.8	1843	83.8	2284	103.8	2284	103.8	22
	NF	1783	81.0	1783	81.0	2210	100.5	2210	100.5	22
	FL	1802	81.9	1802	81.9	2203	100.1	2203	101.1	22
28L	SP	2378	74.3	2378	74.3	2946	92.1	2946	92.1	32
	NF	2301	71.9	2301	71.9	2851	89.1	2851	89.1	32
	FL	2325	72.7	2325	72.7	2842	88.8	2842	88.8	32
36L	SP	3041	72.4	3041	72.4	3769	89.7	3769	89.7	42
	NF	2943	70.1	2943	70.1	3647	86.8	3647	86.8	42
	FL	2973	70.8	2973	70.8	3635	86.5	3635	86.5	42

\*LED Chips are frequently updated therefore values may change.



# LAD6SQ 6" LED Architectural Square Downlight

## Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **LAD6SQ LED 28L UNV DIM1 35 NF TSQ6 HAZ WH**

Family/ Size	LED Gen	Lumen Package	Voltage	Driver	Color Temperature	CRI	Beam Optics <sup>2</sup>
LAD6SQ - 6" Square Downlight	LED	12L - 1200 22L - 2200 28L - 2800 36L - 3600	UNV - 120-277V	DIM1 - Dims to 1% (0-10V dimming)	35 - 3500K 40 - 4000K	Blank - 80 CRI	SP - Spot NF - Narrow Flood FL - Flood

Reflector	Finish	
TSQ6 - Open Reflector	HAZ - Haze Semi- Diffused Reflector	WH - White Trim Ring

### Accessory Ordering Information (Accessories are field installed)

Description	Order Number
EM - Emergency Battery	658633

#### NOTES:

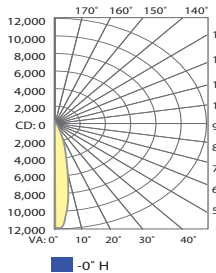
- 90 CRI requires 55 day leadtime & 100 MOQ; Consult Factory
- Refer to IES Files for Beam Optics

## Photometry

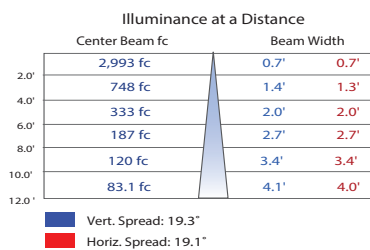
### LAD6SQ-LED-22L-35-SP-TSQ6-HAZ

Lumens: 2,284  
Watts: 21.7  
Efficacy: 105

#### Candela Power Distribution



#### Cone of Light



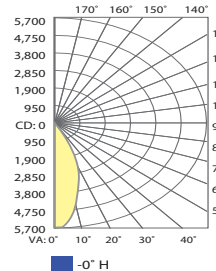
ZONE	LUMENS	% Fixture
0-10	811	35.5%
10-20	831	36.4%
20-30	505	22.1%
30-40	111	4.8%
40-50	12	0.5%
50-60	5	0.2%
60-70	4	0.2%
70-80	4	0.2%
80-90	3	0.1%
90-100	0	0.0%
0-180	2,284	100.0%

Degree Vertical	Candela
0	11,972
5	10,199
10	5,701
15	2,946
20	1,822
25	1,134
30	228
35	66
40	28
45	11
50	7
55	5
60	4
65	4
70	4
75	3
80	2
85	2
90	0

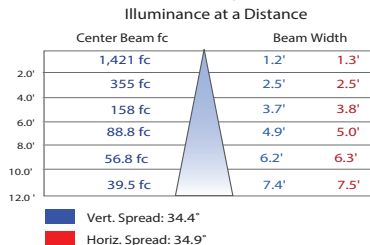
### LAD6SQ-LED-22L-35-NF-TSQ6-HAZ

Lumens: 2,210  
Watts: 21.7  
Efficacy: 102

#### Candela Power Distribution



#### Cone of Light



ZONE	LUMENS	% Fixture
0-10	478	21.5%
10-20	889	40.2%
20-30	646	29.2%
30-40	168	7.5%
40-50	18	0.8%
50-60	5	0.2%
60-70	5	0.2%
70-80	4	0.2%
80-90	3	0.1%
90-100	0	0.0%
0-180	2,210	100.0%

Degree Vertical	Candela
0	5,683
5	5,356
10	4,386
15	3,291
20	2,269
25	1,431
30	413
35	144
40	40
45	11
50	7
55	5
60	4
65	4
70	5
75	3
80	2
85	2
90	0

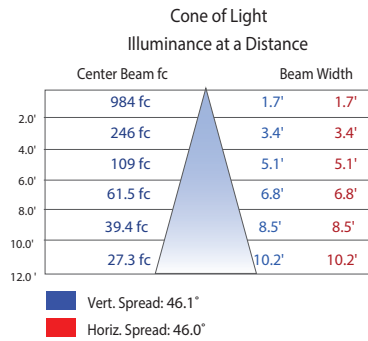
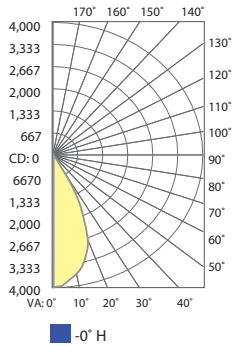


Photometry (cont.)

LAD6SQ-LED-22L-35-FL-TSQ6-HAZ

Lumens: 2,203  
 Watts: 21.7  
 Efficacy: 102

Candela Power Distribution



ZONE	LUMENS	% Fixture
0-10	350	15.9%
10-20	840	38.1%
20-30	738	33.5%
30-40	230	10.4%
40-50	27	1.2%
50-60	6	0.3%
60-70	5	0.2%
70-80	4	0.2%
80-90	3	0.1%
90-100	0	0.0%
0-180	2,203	100.0%

Candela Table	
Degree Vertical	Candela
0	3,937
5	3,794
10	3,591
15	3,210
20	2,520
25	1,670
30	569
35	244
40	63
45	13
50	8
55	6
60	5
65	4
70	5
75	4
80	2
85	2
90	0

6" Recessed Square Downlight Reflector



TSQ6 WH - Haze semi-diffused reflector with white trim ring