



4" Architectural Downlight (LAD4)

New Construction



OVERVIEW

Lumen Package (lm)	1,050 - 2,500
Wattage Range (W)	14 - 22
Efficacy Range (LPW)	93 - 112
Weight lbs (kg)	7.5 (3.4)

QUICK LINKS

FEATURES & SPECIFICATIONS

Optical System

- LED source provides superior lumen output with maximum visual comfort.
- Tailored spot, narrow flood, flood and wide flood beam optics designed for glare free illumination.
- Choice of flanged or flangeless spun reflector utilizing heavy gauge highly reflective diffuse anodized aluminum to deliver low glare, even illumination of the space.
- Reflectors are retained with three retention clips holding the flange tight to the finished ceiling surface.
- Minimum CRI of 80.

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0 - 10V 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.
- 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) 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 can be located on the website..

Controls

- 0 - 10V dimming standard.
- Compatible with most 0-10V dimmers
- Compatible with LSI AirLink® Blue for networked controls
- See controls table for more information

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.

- Accommodates ceiling thickness up to 1.5".
- Plaster frame with collar is designed with 20-gauge cold rolled steel, black-painted
- Universal mounting brackets provide up to 5" vertical adjustment and accepts 1/2" EMT conduit.
- Additional channel bar, nailer bar and suspended ceiling accessories available. See accessories.
- Frame kit can be ordered separately for new construction build.

Installation

- Additional channel bar, nailer bar and suspended ceiling accessories available to accommodate a variety of ceiling types.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings



- 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 & Industrial.
- Damp location rated.
- Wet location rated with regressed lens.
- Title 24 Compliant.

4” Architectural Downlight (LAD4) New Construction

Type : _____

 Have questions? Call us at (800) 436-7800

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: LAD4 LED 24L UNV DIM1 35 NF TR4R HAZ							
Prefix	Light Source	Lumen Package	Voltage	Driver	Color Temperature	CRI ²	Beam Optics ³
LAD4 - 4" New Construction ¹	LED	14L - 1,400 Lumens 24L - 2,400 Lumens	UNV - 120 - 277V	DIM1 - Dims to 1% (0-10V dimming)	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K	Blank - 80 min.	SP - Spot NF - Narrow Flood FL - Flood WF - Wide Flood
Reflector				Finish			
Self-flanged	TR4R - Open Reflector		SF HAZ - Haze semi- diffused				
			SF SPC - Specular clear				
	TR4RWW - Wall Wash ⁴		SF HAZ - Haze semi-diffused				
Flangeless (Ships standard w/ white plastic trim ring)	TR4R - Open Reflector		HAZ - Haze semi-diffused, white trim ring				
			SPC - Specular clear, white trim ring				
	TR4RWW - Wall Wash ⁴		HAZ - Haze semi-diffused wall wash reflector, white trim ring				
	TR4RL - Regressed Lens ⁶		HAZ - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring				
			SPC - Specular clear refector w/ specular clear regressed lens and white trim ring				
				Need more information? Click here for our glossary			
				Have additional questions? Call us at (800) 436-7800 			

ACCESSORY ORDERING INFORMATION

Part Number	Description
616105	WH - White metal trim ring (only compatible w/ flangeless trims)
205599	C27 - 27" channel bars (pair)
287522	C52 - 52" channel bars (pair)
345989	NB - Nailer bar kt (set of 4)
234808	SCIK - Suspended ceiling installation kit (set of 4 channel bars & 4 T-grid clips)
698364	BL1 - Black metal trim ring
778196	Remote Mount Battery
786277	Remote Battery with Grid Mount Kit ⁵
687986	New Construction Frame Kit-1 pack
791427	New Construction Frame Kit-2 pack
791429	New Construction Frame Kit-1 pack with Self-Diagnostic EM
791430	New Construction Frame Kit-2 pack with Self-Diagnostic EM
791431	T-Grid Bracket for EM ⁶

CONTROLS ORDERING INFORMATION

Part Number	Order Number	Description
755249	ALBC 5A	5A Circuit controller
755248	ALBC 5A OS1	5A Circuit controller w/ ceiling motion & daylight 9ft mt ht
755245	ALBC 5A OS2	5A Circuit controller w/ ceiling motion & daylight 40ft mt ht
760580	ALBCM DHS	AirLink Blue Daylight Harvesting Sensor
760380	ALBCM	AirLink Blue Ceiling Mount Motion Sensor
754823	ALBWS E02B WH	AirLink Blue Two Button Switch
754824	ALBWS E04B WH	AirLink Blue Four Button Switch
741967	ALBTK	AirLink Blue Time Keeper
760921	ALBWS MW4B	AirLink Blue Wall Dimmer Four Button Switch
754821	ALBWS MW1B	AirLink Blue Wall Dimmer Switch

1 Housing can ship ahead of the light engine and reflector.
2 90 CRI requires 55 day leadtime & 100 MOQ; Consult Factory.
3 Self-flanged TR4RWW wall wash reflector comes with 40° integrated optic; additional beam optics not compatible.

4 Regressed lens trims are wet location listed. All other trims are rated for damp location.
5 For complete fixture with remote mount EM for T-Grid install, order remote battery with grid mount kit.
6 For new construction frame kit with EM for T-Grid install, order T-Grid bracket separately.

4” Architectural Downlight (LAD4) New Construction

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PERFORMANCE

DELIVERED LUMENS*										
Lumen Package	Distribution	2700K CCT		3000K CCT		3500K CCT		4000K CCT		Wattage
		Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
14L	SP	1157	82.6	1157	82.6	1414	101.0	1414	101.0	14
	NF	1147	81.9	1146	81.9	1401	100.1	1401	100.1	
	FL	1134	81.0	1134	81.0	1386	99.0	1386	99.0	
	WF	1067	76.2	1067	76.2	1304	93.1	1304	93.1	
24L	SP	2008	91.3	2008	91.3	2455	111.6	2455	111.6	22
	NF	1989	90.4	1989	90.4	2432	110.5	2432	110.5	
	FL	1969	89.5	1969	89.5	2407	109.4	2407	109.4	
	WF	1852	84.2	1852	84.2	2264	102.9	2264	102.9	

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

ELECTRICAL DATA (AMPS)*				
Lumen Package	120V	208V	240V	277V
14L	0.12	0.07	0.06	0.05
24L	0.18	0.11	0.09	0.08

*LED Chips are frequently updated therefore values may change.
Data is based on Haze Reflector.

4” Architectural Downlight (LAD4) New Construction

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PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

LAD4-LED-24L-35-SP-TR4R-SF-HAZ

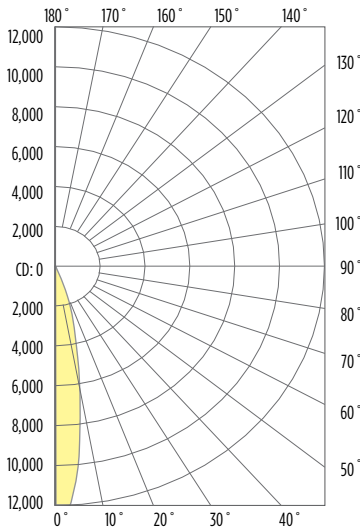
Lumens: 2,455

Watts: 22.2

Efficacy: 111

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	803	32.7%	0	5,756
10-20	892	36.3%	5	5,523
20-30	569	23.2%	10	4,611
30-40	129	5.2%	15	3,473
40-50	43	1.7%	20	2,446
50-60	14	0.6%	25	1,609
60-70	3	0.1%	30	685
70-80	1	0.1%	35	275
80-90	0	0.0%	40	136
90-100	0	0.0%	45	76
0-180	2,455	100.0%	50	39
			55	15
			60	5
			65	3
			70	2
			75	1
			80	0
			85	0
			90	0

Polar Candela Distribution



Illuminance at a Distance

	Center Beam fc	Beam Width	
2 ft.	2,858 fc	0.7 ft	0.7 ft
4 ft.	714 fc	1.4 ft	1.4 ft
6 ft.	318 fc	2.1 ft	2.1 ft
8 ft.	179 fc	2.8 ft	2.8 ft
10 ft.	114 fc	3.5 ft	3.5 ft
12 ft.	79.4 fc	4.2 ft	4.2 ft

■ Vert. Spread: 19.9°

■ Horiz. Spread 20.1°

LAD4-LED-24L-35-NF-TR4R-SF-HAZ

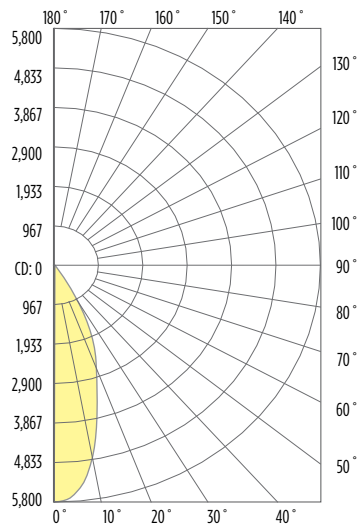
Lumens: 2,432

Watts: 22.2

Efficacy: 110

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	497	20.4%	0	5,756
10-20	949	39.0%	5	5,523
20-30	710	29.2%	10	4,611
30-40	196	8.0%	15	3,473
40-50	60	2.5%	20	2,446
50-60	16	0.6%	25	1,609
60-70	3	0.1%	30	685
70-80	1	0.0%	35	275
80-90	0	0.0%	40	136
90-100	0	0.0%	45	76
0-180	2, 432	100.0%	50	39
			55	15
			60	5
			65	3
			70	2
			75	1
			80	0
			85	0
			90	0

Polar Candela Distribution



Illuminance at a Distance

	Center Beam fc	Beam Width	
2 ft.	1,439 fc	1.3 ft	1.3 ft
4 ft.	360 fc	2.5 ft	2.5 ft
6 ft.	160 fc	3.8 ft	3.8 ft
8 ft.	89.9 fc	5.1 ft	5.1 ft
10 ft.	57.6 fc	6.3 ft	6.3 ft
12 ft.	40.0 fc	7.6 ft	7.6 ft

■ Vert. Spread: 35.1°

■ Horiz. Spread 34.9°

4” Architectural Downlight (LAD4) New Construction

Type : _____

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PHOTOMETRICS

LAD4-LED-24L-35-FL-TR4R-SF-HAZ

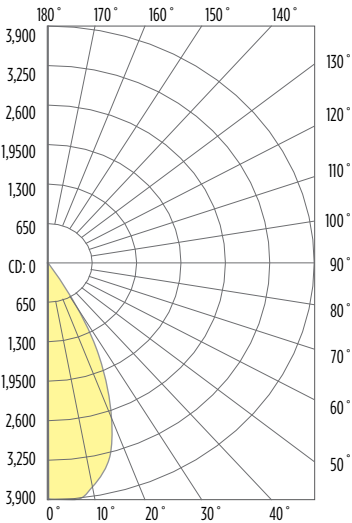
Lumens: 2,407

Watts: 22.2

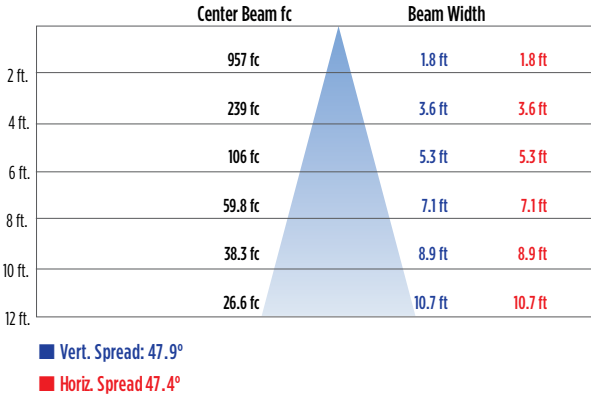
Efficacy: 108

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	359	14.9%	0	3,826
10-20	884	36.7%	5	3,844
20-30	792	32.9%	10	3,654
30-40	265	11.0%	15	3,182
40-50	85	3.5%	20	2,513
50-60	18	0.7%	25	1,770
60-70	4	0.1%	30	852
70-80	1	0.1%	35	391
80-90	0	0.0%	40	206
90-100	0	0.0%	45	104
0-180	2,407	100.0%	50	45
			55	17
			60	6
			65	3
			70	2
			75	1
			80	1
			85	0
			90	0

Polar Candela Distribution



Illuminance at a Distance



LAD4R-LED-24L-35-WF-TR4R-SF-HAZ

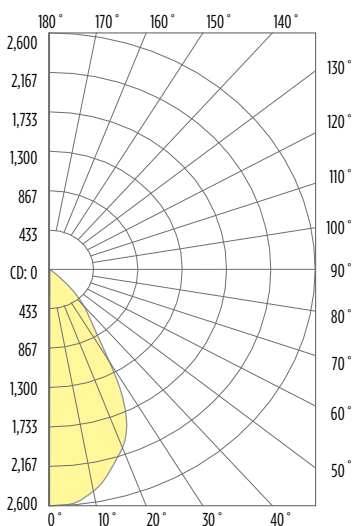
Lumens: 2,264

Watts: 22.2

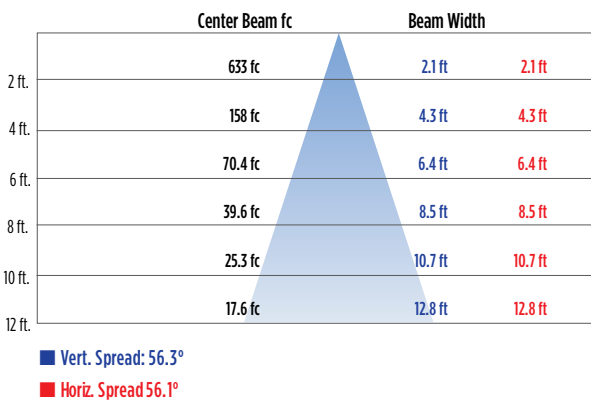
Efficacy: 102

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	237	10.5%	0	3,826
10-20	617	27.2%	5	3,844
20-30	722	31.9%	10	3,654
30-40	405	17.9%	15	3,182
40-50	219	9.7%	20	2,513
50-60	53	2.3%	25	1,770
60-70	9	0.4%	30	852
70-80	2	0.1%	35	391
80-90	0	0.0%	40	206
90-100	0	0.0%	45	104
0-180	2,264	100.0%	50	45
			55	17
			60	6
			65	3
			70	2
			75	1
			80	1
			85	0
			90	0

Polar Candela Distribution



Illuminance at a Distance

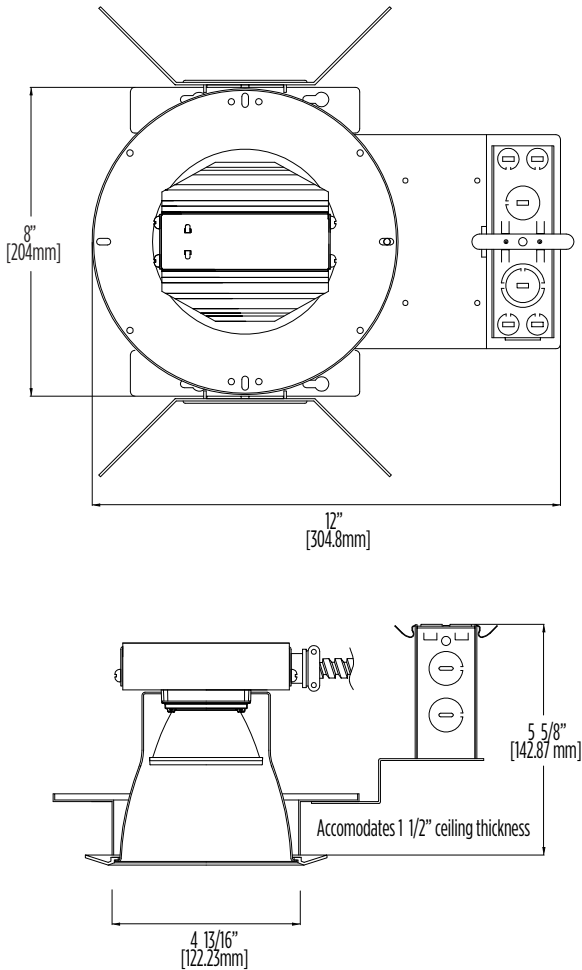


4” Architectural Downlight (LAD4) New Construction

Type : _____

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PRODUCT DIMENSIONS



4” RECESSED DOWNLIGHT REFLECTORS



TR4R - Open Reflector
Self-Flange or Flangeless
HAZ - Haze semi-diffused
SPC - Specular clear



TR4RWW - Wall Wash w/ Kick Reflector
Self-Flange or Flangeless
HAZ - Haze semi-diffused



TR4RL - Regressed Lens w/ Specular Clear Reflector
Flangeless
HAZ - Haze semi-diffused
SPC - Specular clear
Wet Location Listed