



4" LED Architectural Downlight

LAD4



OVERVIEW

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

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

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 colled 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.

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



4" LED Architectural Downlight

ORDERING GUIDE

[Back to Quick Links](#)TYPICAL ORDER EXAMPLE: **LAD4 LED 24L UNV DIM1 35 NF TR4R HAZ**

Family	LED Technology	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	
	TR4RFL - Frosted floating Lens ⁵	HAZ - Haze semi-diffused Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional trim ring not compatible)	
		SPC - Specular Clear Reflector w/ Frosted Floating Lens, w/ integrated white metal trim ring (optional ring not compatible)	
	TR4RWW - Wall Wash ⁴	HAZ - Haze semi-diffused wall wash reflector, white trim ring	
	TR4B - Baffle	HAZ - Haze semi-diffused reflector	WH - White baffle and white trim ring BLK - Black Baffle and white trim ring
		TR4BL - Baffle w/ Regressed Lens ⁶	HAZ - Haze semi-diffused reflector
	SPC - Specular clear		BLK - Black Baffle and white trim ring
	R4RL - Regressed Lens ⁶	HAZ - Haze semi-diffused reflector w/ specular clear regressed lens and white trim ring	
SPC - Specular clear reflector w/ specular clear regressed lens and white trim ring			

Accessory Ordering Information (Accessories are field installed)

Description	Order Number
WH - White metal trim ring (only compatible w/ flangeless trims)	616105
EM - Emergency Battery	658633
C27 - 27" channel bars (pair)	205599
C52 - 52" channel bars (pair)	287522
NB - Nailer bar kt (set of 4)	345989
SCIK - Suspended ceiling installation kit (set of 4 channel bars & 4 T-grid clips)	234808
Remote Mount Battery	778196
Remote Battery with Grid Mount Kit ⁷	786277
New Construction Frame Kit-1 pack	687986
New Construction Frame Kit-2 pack	791427
New Construction Frame Kit-1 pack with Self-Diagnostic EM	791429
New Construction Frame Kit-2 pack with Self-Diagnostic EM	791430
T-Grid Bracket for EM ⁸	791431

Controls

Part Number	Order Number	Description
755249	ALBC 5A	5A Circuit controller
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
754822	ALBWS MW OS	AirLink Blue Wall Motion Sensor 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 Refer to IES Files for Beam Spread.

4 Self-flanged TR4RWW wall wash reflector comes with 40° integrated optic; additional beam optics not compatible.

5 Flangeless TR4RFL frosted floating lens comes with integrated white metal trim; accessory white metal trim ring not required.

6 Regressed lens trims are wet location listed. All other trims are rated for damp location.

7 For complete fixture with remote mount EM for T-Grid install, order remote battery with grid mount kit.

8 For new construction frame kit with EM for T-Grid install, order T-Grid bracket separately.





4" LED Architectural Downlight

PERFORMANCE

[Back to Quick Links](#)

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" LED Architectural Downlight

PHOTOMETRICS

[Back to Quick Links](#)

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

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

Lumens: 2,455

Watts: 22.2

Efficacy: 111

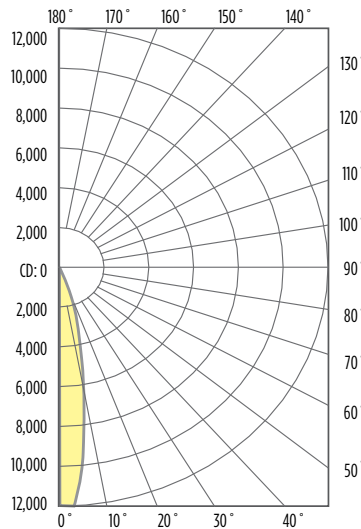
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-10	803	32.7%
10-20	892	36.3%
20-30	569	23.2%
30-40	129	5.2%
40-50	43	1.7%
50-60	14	0.6%
60-70	3	0.1%
70-80	1	0.1%
80-90	0	0.0%
90-100	0	0.0%
0-180	2,455	100.0%

CANDELA TABLE

Degree Vertical	Candela
0	5,756
5	5,523
10	4,611
15	3,473
20	2,446
25	1,609
30	685
35	275
40	136
45	76
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

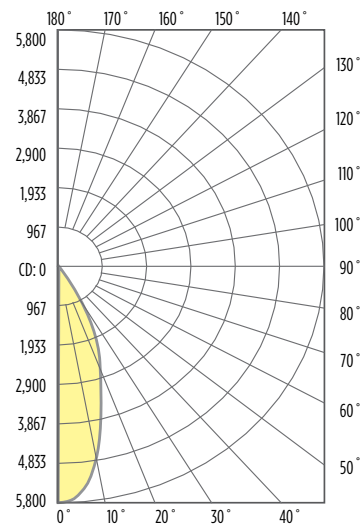
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-10	497	20.4%
10-20	949	39.0%
20-30	710	29.2%
30-40	196	8.0%
40-50	60	2.5%
50-60	16	0.6%
60-70	3	0.1%
70-80	1	0.0%
80-90	0	0.0%
90-100	0	0.0%
0-180	2,432	100.0%

CANDELA TABLE

Degree Vertical	Candela
0	5,756
5	5,523
10	4,611
15	3,473
20	2,446
25	1,609
30	685
35	275
40	136
45	76
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" LED Architectural Downlight

PHOTOMETRICS

[Back to Quick Links](#)

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

Lumens: 2,407
Watts: 22.2
Efficacy: 108

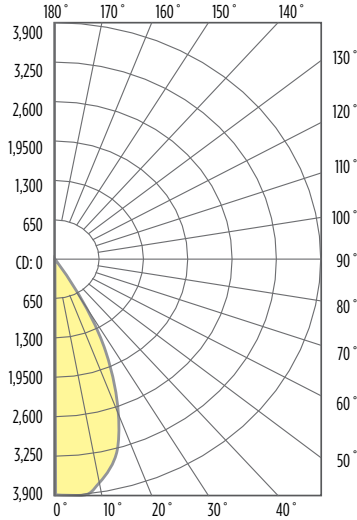
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-10	359	14.9%
10-20	884	36.7%
20-30	792	32.9%
30-40	265	11.0%
40-50	85	3.5%
50-60	18	0.7%
60-70	4	0.1%
70-80	1	0.1%
80-90	0	0.0%
90-100	0	0.0%
0-180	2,407	100.0%

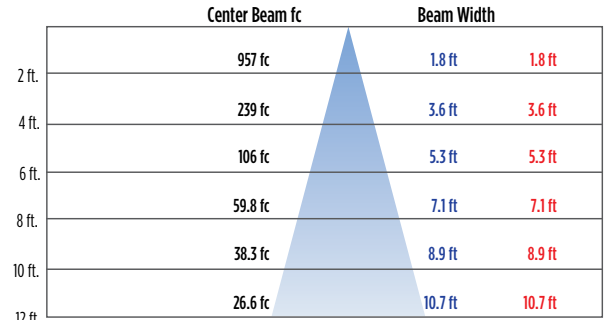
CANDELA TABLE

Degree Vertical	Candela
0	3,826
5	3,844
10	3,654
15	3,182
20	2,513
25	1,770
30	852
35	391
40	206
45	104
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



■ Vert. Spread: 47.9°

■ Horiz. Spread 47.4°

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

Lumens: 2,264
Watts: 22.2
Efficacy: 102

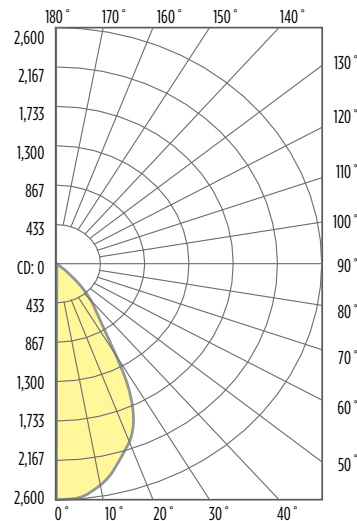
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-10	237	10.5%
10-20	617	27.2%
20-30	722	31.9%
30-40	405	17.9%
40-50	219	9.7%
50-60	53	2.3%
60-70	9	0.4%
70-80	2	0.1%
80-90	0	0.0%
90-100	0	0.0%
0-180	2,264	100.0%

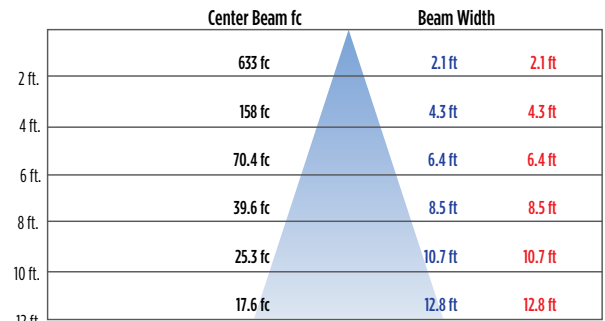
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20	2,513
25	1,770
30	852
35	391
40	206
45	104
50	45
55	17
60	6
65	3
70	2
75	1
80	1
85	0
90	0

POLAR CANDELA DISTRIBUTION



ILLUMINANCE AT A DISTANCE



■ Vert. Spread: 56.3°

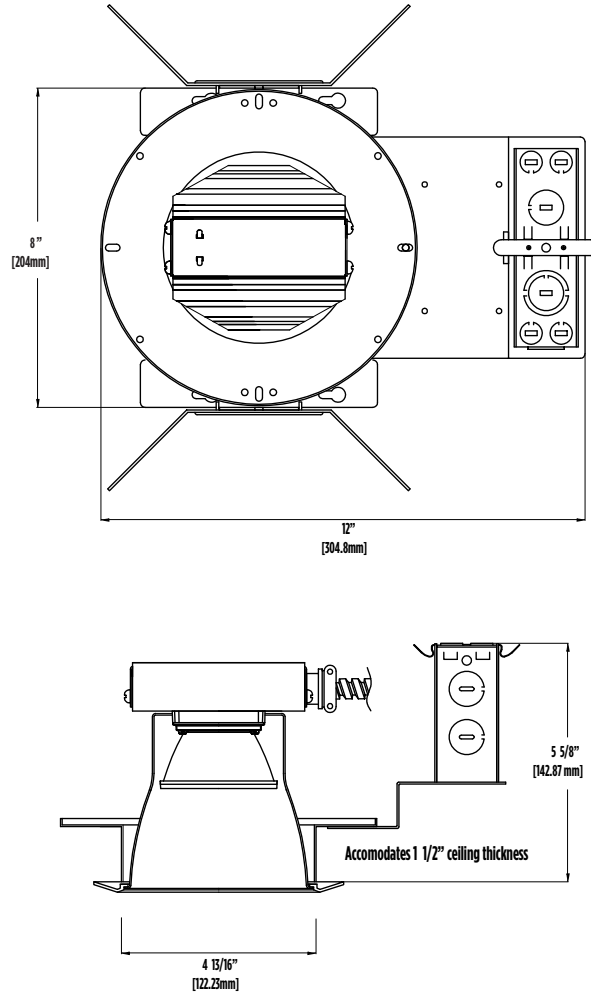
■ Horiz. Spread 56.1°



4" LED Architectural Downlight

PRODUCT DIMENSIONS

[Back to Quick Links](#)



4" RECESSED DOWNLIGHT REFLECTORS



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



TR4RFL - Frosted Floating Lens
 Flangeless
 HAZ - Haze semi-diffused
 SPC - Specular clear
 Integrated white metal trim ring



TR4RW - Wall Wash w/ Kick Reflector
 Self-Flange or Flangeless
 HAZ - Haze semi-diffused



TR4B - Baffle
 Flangeless
 HAZ - Haze semi-diffused reflector
 Choice of white or black baffle



TR4BL - Baffle w/ Regressed Lens
 Flangeless
 HAZ - Haze semi-diffused
 SPC - Specular clear
 Choice of white or black baffle
 Wet Location listed

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