



4" Architectural Downlight (LAD4R)

Remodel



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.
- 0-10 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.
- 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.

Remodel 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.
- Collar accommodates ceiling thickness up to 5/8".
- Plaster frame with collar is designed with 20-gauge cold rolled steel, black-painted.

Installation

- For new construction use provided template to cut hole in ceiling.
- For remodel applications insert luminaire into existing ceiling hole.
- Using a screw driver or hammer, push all three clips upwards into housing capturing ceiling material.
- When housing flange is flush tight to the ceiling, installation is complete.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.
- 1 Year warranty on optional Emergency Battery. Test regularly in accordance with local codes.

Listings

- CSA 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.
- Title 24 Compliant.



4” Architectural Downlight (LAD4R) Remodel

Type : _____

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

ORDERING GUIDE

TYPICAL ORDER EXAMPLE: LAD4R LED 24L UNV DIM1 35 NF TR4R HAZ							
Prefix	Light Source	Lumen Package	Voltage	Driver	Color Temperature	CRI ²	Beam Optics ³
LAD4R - 4" Remodel ¹	LED	14L - 1,400 Lumens 24L - 2,400 Lumens	UNV - 120 - 277V	DIM1 - Dims to 1% (0-10V dimming)	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)
778196	Remote Mount Battery
786277	Remote Battery with Grid Mount Kit

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 (LAD4R) Remodel

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PERFORMANCE

DELIVERED LUMENS*										
Lumen Package	Distribution	2700K CCT		2700K 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 (LAD4R) Remodel

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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.

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

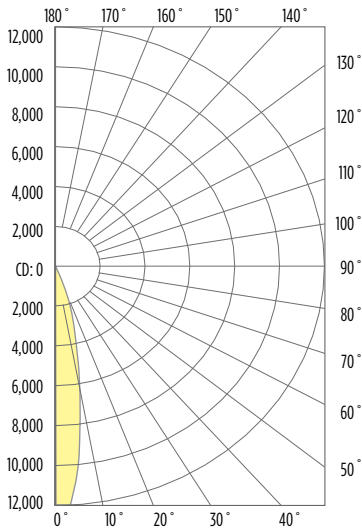
Lumens: 2,455

Watts: 22.2

Efficacy: 111

ZONAL LUMEN SUMMARY			CANDELA TABLE	
Zone	Lumens	%Fixture	Degree Vertical	Candela
0-10	803	32.7%	0	11,431
10-20	892	36.3%	5	9,951
20-30	569	23.2%	10	5,678
30-40	129	5.2%	15	3,013
40-50	43	1.7%	20	1,925
50-60	14	0.6%	25	1,322
60-70	3	0.1%	30	523
70-80	1	0.1%	35	172
80-90	0	0.0%	40	84
90-100	0	0.0%	45	54
0-180	2,455	100.0%	50	33
			55	14
			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°

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

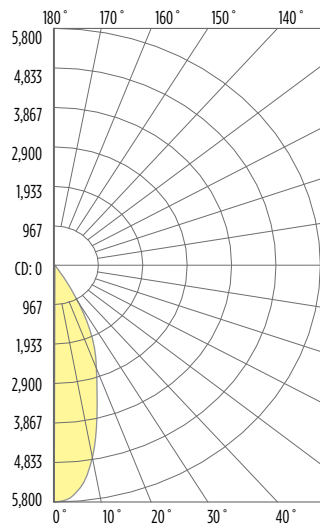
Lumens: 2,432

Watts: 22.2

Efficacy: 109

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	5.0 ft
10 ft.	57.6 fc	6.3 ft	6.3 ft
12 ft.	40.0 fc	7.6 ft	7.5 ft

■ Vert. Spread: 35.1°

■ Horiz. Spread 34.9°

4” Architectural Downlight (LAD4R) Remodel

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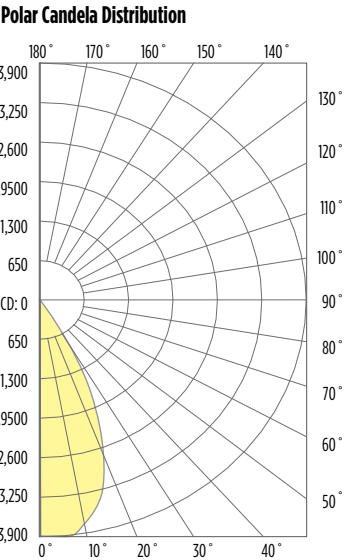
 Have questions? Call us at (800) 436-7800

PHOTOMETRICS

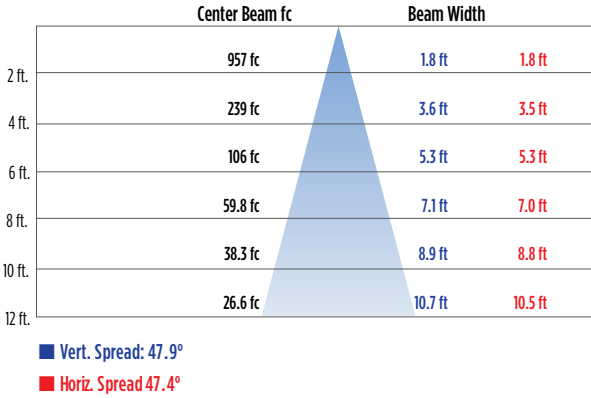
LAD4R-LED-24L-35-FL-TR4R-SF-HAZ

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



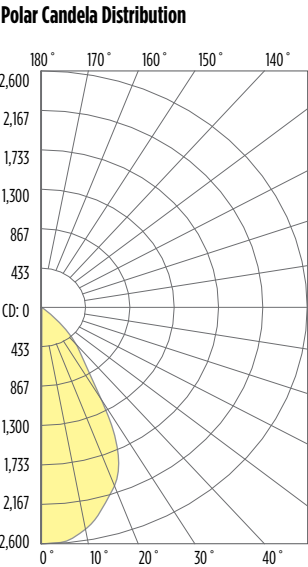
Illuminance at a Distance



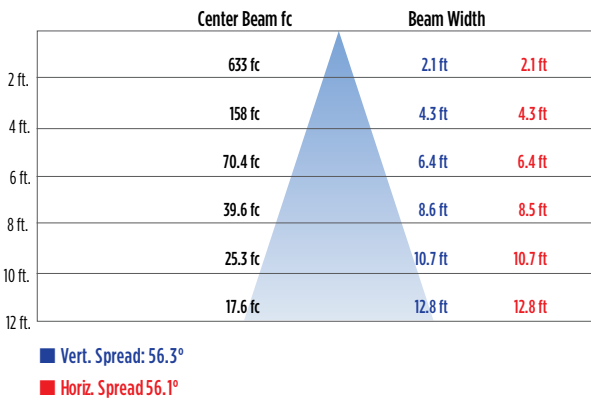
LAD4R-LED-24L-35-WF-TR4R-SF-HAZ

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



Illuminance at a Distance

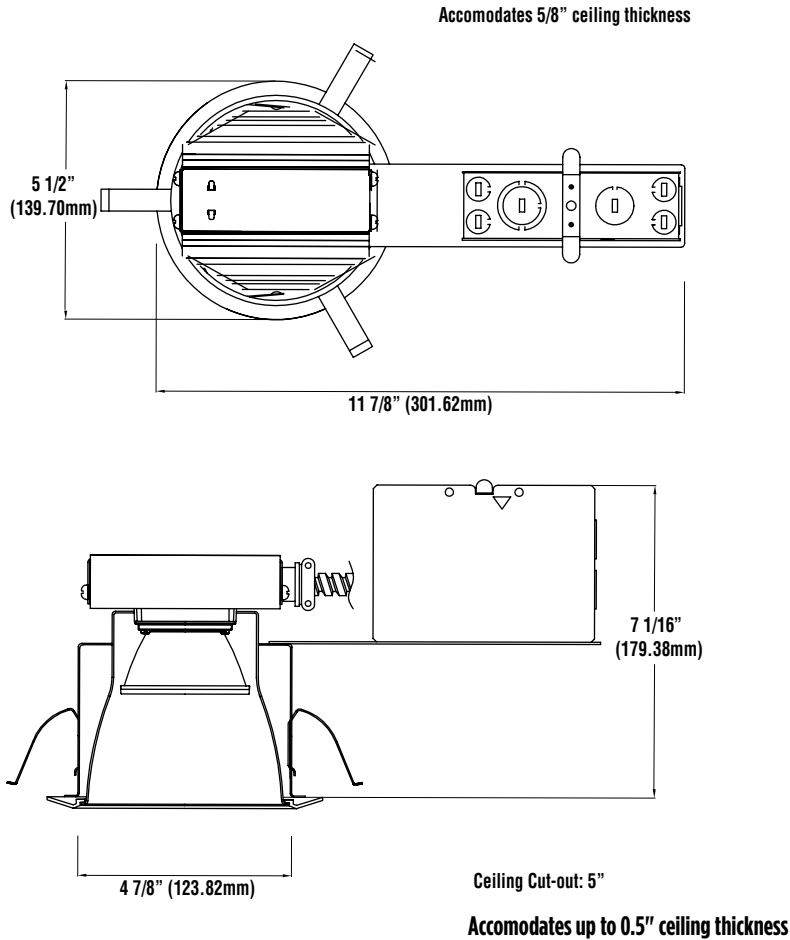


4" Architectural Downlight (LAD4R) Remodel

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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



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