

LED Street & Area Light

LRL1 Series LED Roadway Luminaire

Assembled in the USA using domestic & foreign components.



Description

The LRL1 LED roadway luminaire is a high performance, utility-grade street and area light that is designed to replace and outshine legacy HID products up to 1,000W while providing significant energy savings, virtually no maintenance, and robust features that linemen and installers have come to expect.

Construction

- Heavy duty die-cast aluminum housing
- Durable powder coat finish
- Corrosion resistant hardware
- Tool-less entry
- Three (3) station terminal block that accepts 14 to 6 AWG
- Locking Type photocontrol receptacle with tool-less positioning
- IP54 rated driver chamber
- Self cleaning heat sink
- Robust surge suppression: 10kV and 20kV options
- Tenon mount with integral tilt steps (+5° to -5°) and capable of mounting on 1-1/4" NPS to 2" NPS (1.66in to 2.375in)
- Bridge and overpass vibration rated
- Standard Wildlife guard

Options

- Adjustable Output Unit
- Long-Life photocontrol
- Shorting cap
- Glare shield (backlight)
- Side shield



Visit www.designlights.org for the Qualified Product List



Model Selection Guide

Model	Configuration	Driver	Optics	CCT ³	Housing Color	Surge Protection	Photocontrol Receptacle	Controls	Factory Installed Options	Field Installed Options
LRL1 Large LED Roadway Light	K: 200W, 29,600 Lumens S: 230W, 35,150 Lumens	MV: 120-277V w/ 0-10V DIM HV: 347-480V w/ 0-10V DIM ^{1,2} ML: DALI 120-277V ¹	2: Type II 3: Type III 4: Type IV 5: Type V	2K: 2700K ⁴ 3K: 3000K 4K: 4000K 5K: 5000K 6K: 5700K ⁴	GY: Gray BK: Black	1: 10kV 2: 20kV	P7: 7 Pin Photocontrol Receptacle	N: No Controls S: Shorting Cap 1: Black long-life, fail-on photocontrol 2: Black long-life, fail-off photocontrol 3: Green long-life, fail-on photocontrol 4: Green long-life, fail-off photocontrol	(Blank): No Options A#: Adjustable Output Unit, Define# (1-8) Pxx: Programmed Output Unit, Define xx (16-20)	G: Glare Shield (backlight, field installed)

¹Not DLC listed ²Consult factory for photocontrol options ³Other CCTs available upon request. ⁴Limited-stocked option.

Project:	
Catalog#:	
Approved by:	

Applications

Parking Areas Roadways Recreation Areas
Walkways

Electrical

- Driver power factor is > 0.9
- Driver THD < 20%
- Driver voltage 120-277V (50/60Hz)
- 0-10V dimming with 7-pin photo control receptacle standard
- Electronic driver has an expected life of 100,000 hours at 25°C ambient.
- Suitable for ambient temperatures from -40°C/-40°F to +40°C/104°F

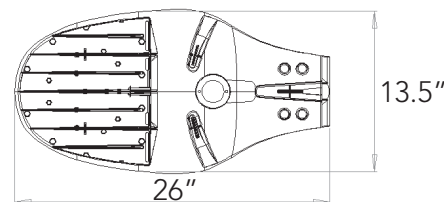
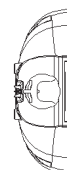
Optical

- Delivered lumens greater than 140LPW
- IP66 rated optical chamber
- UV protected lens
- Min 70 CRI
- Type II, Type III, Type IV & Type V available
- Optional back/side shield for reduction of light trespass

Dimensions

Weight: 15.5lbs

EPA: 0.86



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end user environment and application. Actual wattage may differ by $\pm 10\%$ when operating between 120-277V $\pm 10\%$. Contact factory for performance data on any configurations not shown here.

Model Configuration		Factory Installed Options	System Watts	NEMA Label	3K (3000K CCT)				4K (4000K CCT)			
					T2	T3	T4	T5	T2	T3	T4	T5
LRL1	K	P16	162	160	22070	22330	22210	22190	23410	23680	23550	23540
		P17	172	170	23450	23720	23600	23580	24870	25160	25020	25010
		P18	182	180	24830	25120	24980	24970	26330	26640	26500	26480
		P19	192	190	26210	26510	26370	26350	27800	28120	27970	27950
		P20/BLANK	198	200	27590	27910	27760	27740	29260	29600	29440	29420
	S	BLANK	229	230	32760	33150	32960	32940	34750	35150	34960	34930

BUG Rating

Model Configuration		Factory Installed Options	System Watts	NEMA Label	3K (3000K CCT)				4K (4000K CCT)			
					T2	T3	T4	T5	T2	T3	T4	T5
LRL1	K	P16	162	160	3-0-3	3-0-3	3-0-3	5-0-3	3-0-3	3-0-3	3-0-3	5-0-3
		P17	172	170	3-0-3	3-0-3	3-0-3	5-0-3	3-0-3	3-0-3	3-0-3	5-0-3
		P18	182	180	3-0-3	3-0-3	3-0-3	5-0-3	3-0-3	3-0-3	3-0-4	5-0-3
		P19	192	190	3-0-3	3-0-3	3-0-4	5-0-3	4-0-3	3-0-3	3-0-4	5-0-3
		P20/BLANK	198	200	4-0-3	3-0-3	3-0-4	5-0-3	4-0-3	3-0-3	4-0-4	5-0-4
	S	BLANK	229	230	4-0-3	4-0-3	4-0-4	5-0-4	4-0-4	4-0-3	4-0-4	5-0-4

Luminaire Lumen Maintenance Factors (LMF)

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient (tested per IESNA LM-80 and projected per IESNA TM-21). To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Model	10°C (50°F)			25°C (77°F)			40°C (104°F)		
	25kHrs	50kHrs	100kHrs	25kHrs	50kHrs	100kHrs	25kHrs	50kHrs	100kHrs
LRL1K	0.94	0.88	0.76	0.93	0.86	0.73	0.92	0.84	0.70
LRL1S	0.94	0.88	0.76	0.93	0.86	0.73	0.92	0.84	0.70

Electrical Data

Model	Operating Current (A)		Power (W)		PF		THD	
	120V	277V	120V	277V	120V	277V	120V	277V
LRL1KMV	1.65	0.71	196	196	0.993	0.985	6%	13%
LRL1SMV	1.90	0.83	229	229	0.998	0.9883	5%	12%



Adjustable Output Unit

AOU is used to lower the fixture's light output and wattage. It can be easily adjusted with a flat-blade screwdriver. Approximate lumen and wattage values are shown in the tables below. The unit consumes no standby power and can be removed to convert the luminaire to standard 0-10V dimming.

Benefits:

This unit allows maintenance departments to carry less inventory through reduced number of unique models. Specific wattages can be achieved to meet required rate structures.

Model Name	AOU Position	System Watts	NEMA Label	Delivered Lumens							
				3000K				4000K			
				Type II	Type III	Type IV	Type V	Type II	Type III	Type IV	Type V
LRL1SMV	8, 7, 6	229	230	32760	33150	32960	32940	34750	35150	34960	34930
	5	193	190	27750	28080	27920	27900	29430	29770	29610	29590
	4	161	160	23160	23440	23300	23290	24570	24850	24720	24700
	3	129	130	18670	18900	18790	18780	19810	20040	19930	19910
	2	98	100	14350	14520	14440	14430	15220	15400	15310	15300
	1	67	70	10120	10240	10180	10180	10740	10860	10800	10790
LRL1KMV	8, 7, 6	198	200	27590	27910	27760	27740	29260	29600	29440	29420
	5	165	170	23120	23390	23260	23250	24520	24800	24670	24650
	4	138	140	19340	19560	19460	19450	20510	20750	20640	20620
	3	111	110	15590	15770	15680	15670	16530	16720	16630	16620
	2	86	90	11970	12110	12050	12040	12700	12850	12780	12770
	1	60	60	8440	8540	8490	8490	8950	9060	9010	9000

Accessories

Backlight/Glare Shield (LRL1-BLS)

- For light cutoff of rearward light at approximately 1/2 mounting height behind the pole
- 4-self tapping mounting screws included

Bird Deterrent (LRX-BD)

- 6-Pcs/Kit (1 pc. shown in the pictures below and on the right)
- 1 kit required per fixture
- Tool-less installation



LRL1-BLS



LRX-BD

Side Shield

- Left side shield, 3" tall (LRL1-LSS-3)
- Right side shield, 3" tall (LRL1-RSS-3)
- Each pack contains 10 pcs.
- Self tapping mounting screws included



LRL1-RSS-3 shown