

# 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 14 to 6 AWG
- Locking Type photocontrol receptacle with tool-less positioning
- IP54 rated driver chamber
- Self cleaning heat sink
- Robust surge suppression: 10kV standard
- 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

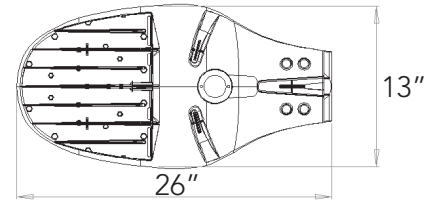
- Adjustable Output Unit
- Long-Life photocontrol
- Shorting cap
- Glare shield



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**Weight:** 20lbs  
**EPA:** 0.86



### 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 glare shield for reduction of light trespass

### Dimensions

### Model Selection Guide

Model	Configuration	Driver	Optics	CCT <sup>4</sup>	Housing Color	Surge Protection	Photocontrol Receptacle	Controls	Factory Installed Options	Field Installed Options
<b>LRL1</b> Large LED Roadway Light	<b>K:</b> 200W, 29,600 Lumens	<b>MV:</b> 120-277V w/ 0-10V DIM	<b>2:</b> Type II <sup>1</sup>	<b>2K:</b> 2700K <sup>1</sup>	<b>GY:</b> Gray	<b>1:</b> 10kV	<b>P7:</b> 7 Pin Photocontrol Receptacle	<b>N:</b> No Controls <b>S:</b> Shorting Cap <b>1:</b> Howard LL Photocontrol (HI-LL-127-15-BK-A) <b>2:</b> Howard LL Photocontrol (HI-LL-127-15-BK-AF) <b>3:</b> Howard LL Photocontrol (HI-LL-127-15-GN-A) <b>4:</b> Howard LL Photocontrol (HI-LL-127-15-GN-AF)	<b>(Blank):</b> No Options  <b>A#:</b> Adjustable Output Unit, Define# (1-5)  <b>Pxx:</b> Programmed Output Unit, Define xx (16-23)	<b>G:</b> Glare Shield <sup>1</sup> (field Installed)
	<b>S:</b> 230W, 35,150 Lumens	<b>HV:</b> 347-480V w/ 0-10V DIM <sup>1, 2, 3</sup>	<b>3:</b> Type III	<b>3K:</b> 3000K	<b>BR:</b> Bronze <sup>1</sup>	<b>2:</b> 20kV <sup>1</sup>				
		<b>ML:</b> DALI 120-277V w/ 0-10V DIM <sup>1, 2</sup>	<b>4:</b> Type IV	<b>4K:</b> 4000K						
			<b>5:</b> Type V <sup>1</sup>	<b>5K:</b> 5000K <sup>1</sup>						
				<b>6K:</b> 5700K <sup>1</sup>						

<sup>1</sup>Non-stocked option    <sup>2</sup>Not DLC listed    <sup>3</sup>Consult factory for photocontrol options    <sup>4</sup>Other CCTs available upon request.

**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 ± 10% when operating between 120-277V ± 10%. Contact factory for performance data on any configurations not shown here.

Model	Configuration	Factory Installed Options	Wattage	3K (3000K CCT)				4K (4000K CCT)			
				T2	T3	T4	T5	T2	T3	T4	T5
LRL1	K	P16	160	22070	22330	22210	22190	23410	23680	23550	23540
		P17	170	23450	23720	23600	23580	24870	25160	25020	25010
		P18	180	24830	25120	24980	24970	26330	26640	26500	26480
		P19	190	26210	26510	26370	26350	27800	28120	27970	27950
		<b>P20/BLANK</b>	<b>200</b>	<b>27590</b>	<b>27910</b>	<b>27760</b>	<b>27740</b>	<b>29260</b>	<b>29600</b>	<b>29440</b>	<b>29420</b>
	S	P21	210	30030	30390	30210	30200	31850	32220	32050	32020
		P22	220	31400	31770	31590	31570	33300	33690	33500	33470
		<b>P23/BLANK</b>	<b>230</b>	<b>32760</b>	<b>33150</b>	<b>32960</b>	<b>32940</b>	<b>34750</b>	<b>35150</b>	<b>34960</b>	<b>34930</b>

BUG Rating

Model	Configuration	Factory Installed Options	Wattage	3K (3000K CCT)				4K (4000K CCT)			
				T2	T3	T4	T5	T2	T3	T4	T5
LRL1	K	P16	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	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	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	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	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	P21	210	4-0-3	3-0-3	3-0-4	5-0-4	4-0-3	4-0-3	4-0-4	5-0-4
		P22	220	4-0-3	4-0-3	4-0-4	5-0-4	4-0-4	4-0-3	4-0-4	5-0-4
		P23/BLANK	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

**Performance Data**

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
<b>LRL1K</b>	0.94	0.88	0.76	0.93	0.86	0.73	0.92	0.84	0.70
<b>LRL1S</b>	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
<b>LRL1KMV</b>	1.65	0.71	196	196	0.993	0.985	6%	13%
<b>LRL1SMV</b>	1.90	0.83	229	229	0.998	0.9883	5%	12%



**Adjustable Output Unit**

AOU is 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							
				Type II		Type III		Type IV		Type V	
				3000K	4000K	3000K	4000K	3000K	4000K	3000K	4000K
<b>LRL1SMV</b>	8,7,6	229	<b>230</b>	32760	33150	32960	32940	34750	35150	34960	34930
	5	193	<b>190</b>	27750	28080	27920	27900	29430	29770	29610	29590
	4	161	<b>160</b>	23160	23440	23300	23290	24570	24850	24720	24700
	3	129	<b>130</b>	18670	18900	18790	18780	19810	20040	19930	19910
	2	98	<b>100</b>	14350	14520	14440	14430	15220	15400	15310	15300
	1	67	<b>70</b>	10120	10240	10180	10180	10740	10860	10800	10790
<b>LRL1KMV</b>	8,7,6	196	<b>200</b>	27590	27910	27760	27740	29260	29600	29440	29420
	5	165	<b>170</b>	23120	23390	23260	23250	24520	24800	24670	24650
	4	138	<b>140</b>	19340	19560	19460	19450	20510	20750	20640	20620
	3	111	<b>110</b>	15590	15770	15680	15670	16530	16720	16630	16620
	2	86	<b>90</b>	11970	12110	12050	12040	12700	12850	12780	12770
	1	60	<b>60</b>	8440	8540	8490	8490	8950	9060	9010	9000