

P510 LED

An LED version of our large Victorian tear-drop lantern for situations needing a traditional lantern combined with the energy efficiency of the latest LED technology.

Benefits

- Increased pole spacing
- Energy efficient, programmable driver
- Improved colour rendering, ensuring safety on the roads
- No need to service LED module during long lifetime
- Not subject to UV degradation
- Versatile control capability
- Vandal resistant, suitable for most environment

Features

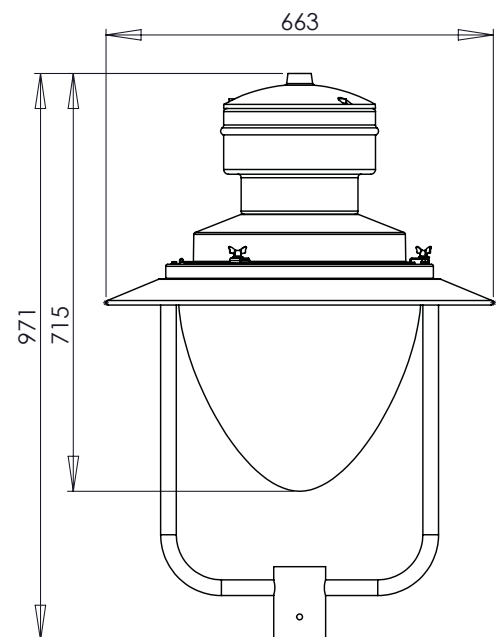
- Asymmetric & symmetrical light distribution
- Integrated electronic control gear
- Neutral white 4000K
- High performance Philips LUXEON® M LEDs
- High quality PMMA plastic lenses
- 200 - 700mA drive current in 50mA step
- L90F10 > 100,000 hours (Ta = 15°C)
- System Lifetime > 50,000 hr
- Clear vandal resistant polycarbonate bowl
- Cable included

Options

- 3 light distributions (Amenity, M-Class, P-Class)
- Miniature photocell
- Choice of RAL colours at extra cost
- Various Central Management System options (contact us for details)
- Wall bracket mounting option
- Driver programming options (see Page 4 for details)

Specification

Wind area	PT: 0.30m ² TE: 0.24m ²
IP rating	IP54
Mounting	Post top, wall or Top entry
Post top spigot	76 mm dia x 76 mm deep
Top entry size	1" BSP
Recommended mounting height	8 - 12m
Weight	12.8kg (9LED) /14kg (18LED)



Product	P510LED
Light source	Philips LUXEON® M LEDs
Number of LED	9 or 18
Power	22 - 78W or 44 - 151W (LED's Vf selected to maintain power)
Main voltage	120-277 V / 50-60 Hz
Surge protection	Lantern is protected to ANSI C62.41.2 high exposure 10kV, 10kA level
Driver	Philips Xitanium LED Programmable Driver
Drive current	200mA - 700mA (in 50mA Steps)
Lumen Maintenance	L90F10 > 100,000 hours (700mA, Ta = 15°C)
System lifetime	> 50,000 hours
CCT	4000K
Colour	Neutral white
Minimum CRI	70

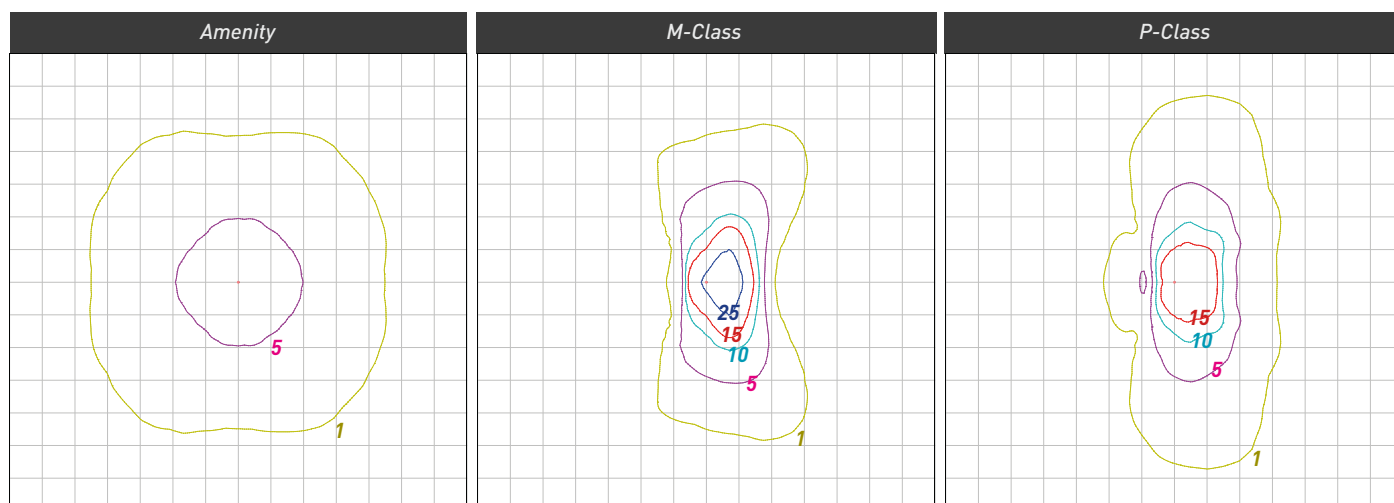
9-LED

Distribution		Amenity		M-Class		P-Class		UMSUG CODE
Current (mA)	Power (W)	Flux (lm)	Efficacy (lm/w)	Flux (lm)	Efficacy (lm/w)	Flux (lm)	Efficacy (lm/w)	
700	78	7058	90.5	7479	95.9	7396	94.8	
650	72	6648	92.3	7037	97.7	6961	96.7	
600	66	6240	94.5	6600	100.0	6531	99.0	
550	60	5817	97.0	6143	102.4	6080	101.3	
500	55	5361	97.5	5664	103.0	5613	102.1	
450	49	4907	100.1	5176	105.6	5130	104.7	
400	43	4433	103.1	4674	108.7	4624	107.5	
350	38	3941	103.7	4159	109.4	4112	108.2	
300	33	3433	104.0	3619	109.7	3581	108.5	
250	28	2910	103.9	3063	109.4	3033	108.3	
200	22	2365	107.5	2486	113.0	2466	112.1	

All luminaire flux figures are from luminaire, not LED

Photometric data

8m mounting height, 70m x 70m area with 5m grid.

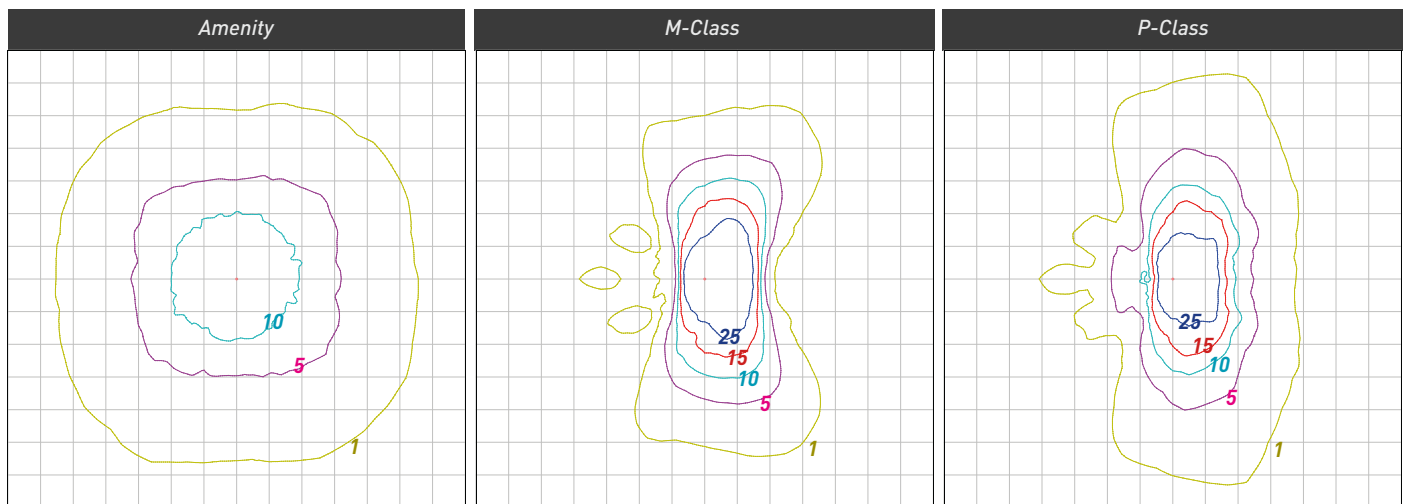


18-LED

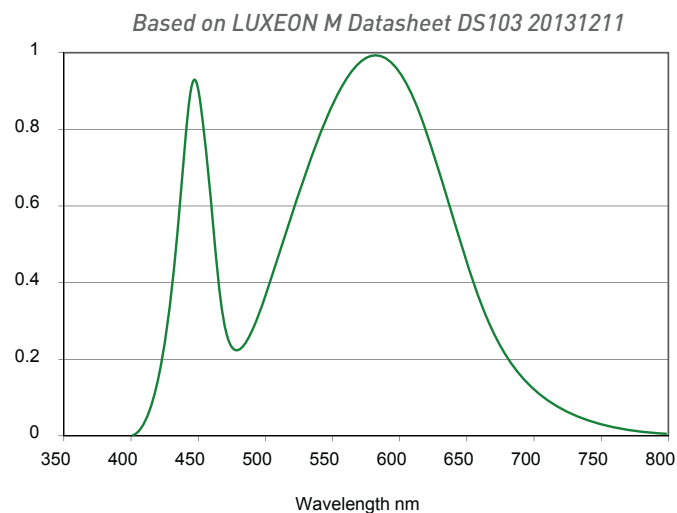
Distribution		Amenity		M-Class		P-Class		UMSUG CODE
Current (mA)	Power (W)	Flux (lm)	Efficacy (lm/w)	Flux (lm)	Efficacy (lm/w)	Flux (lm)	Efficacy (lm/w)	
700	151	13799	91.4	14797	98.0	14139	93.6	
650	141	12986	92.1	13890	98.5	13383	94.9	
600	130	12210	93.9	13068	100.5	12612	97.0	
550	119	11414	95.9	12229	102.8	11800	99.2	
500	108	10553	97.7	11322	104.8	10928	101.2	
450	98	9669	98.7	10388	106.0	10015	102.2	
400	87	8747	100.5	9403	108.1	9063	104.2	
350	76	7793	102.5	8377	110.2	8081	106.3	
300	65	6802	104.6	7309	112.5	7052	108.5	
250	54	5765	106.8	6197	114.8	5976	110.7	
200	44	4698	106.8	5055	114.9	4872	110.7	

All luminaire flux figures are from luminaire, not LED

8m mounting height, 70m x 70m area with 5m grid.

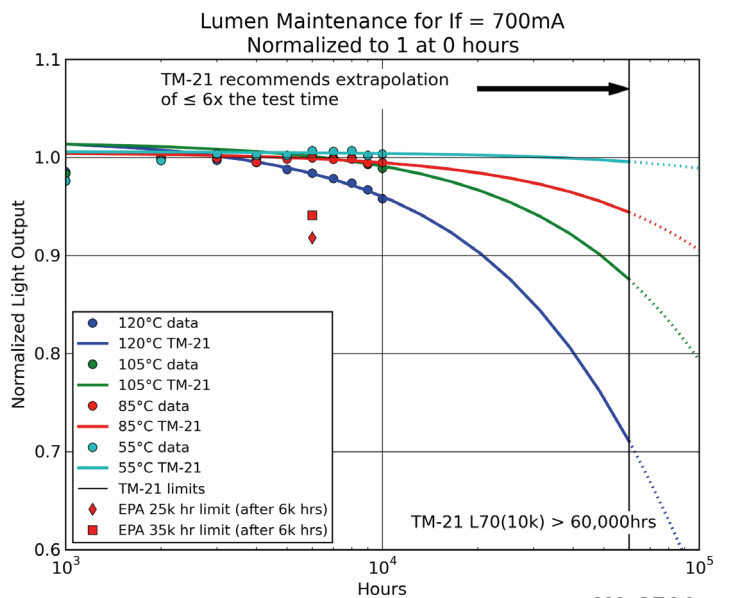


Relative Spectral Distribution vs. Wavelength Characteristics



Lumileds LUXEON® M Lumen maintenance prediction

Based on IESNA LM-80 Test Report for LXR7-SW40



Xitanium LED driver dimming options

1-10V

This is the traditional way of dimming a driver from 100% to 10% based on dimmer voltage.

DALI

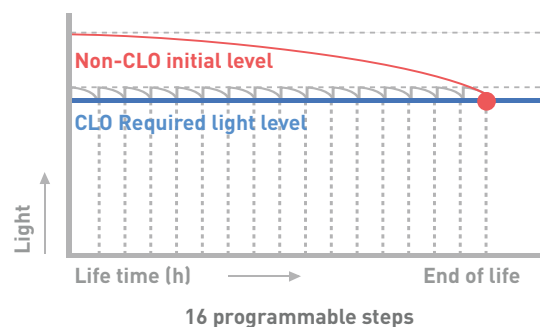
Using DALI, it is possible to send dimming commands (1-254 levels), set fade rates and fade times, query driver or LED status in addition to other features.



Xitanium LED driver programming options

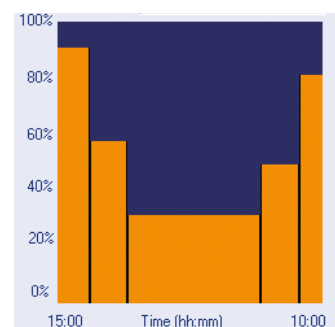
Constant Light Output (CLO)

Current traditional lighting sources (HPS, QMH and CMH) depreciate in light output during the life of the product. The CLO feature of the driver enables designers to create solutions with LEDs that deliver constant lumens through the life of the product. Based on the type of LEDs used, heat sinking and driver current, we can estimate the depreciation of light output for specific LEDs and this information can be entered into the driver using the 16 point CLO interface. The driver will increase current based on this input to enable CLO. This feature can be used to reduce the energy consumption over the life of the installation.



Integrated Dynadimmer

This driver incorporates the Dynadimmer feature which it allows dimming to predefined light levels based on the ON time duration of the driver. Its primary use is for outdoor night applications, where the light level may be reduced during non-peak hours. With flexibility in setting time and light levels, we can configure the driver for specific locations and applications. Using Integrated Dynadimmer, we can set 5 light levels and associated time frames. The driver does not have a real time clock. Instead it calculates a "virtual clock time", determined by the duration of operation of the driver in the night. After 3 valid "ON-times," the driver will be able to calculate the virtual clock time. A valid ON-time is defined as the time for which driver operates continuously for ≥ 4 hours and ≤ 24 hours. After learning driver ON-time for 3 consecutive days, the dim profile takes effect from the 4th day onwards.



Lifetime

This driver is designed to provide a life time of 100,000 hours at $\leq 70^{\circ}\text{C}$ TC and 50,000 hours at $\leq 80^{\circ}\text{C}$ TC with min. 90% survivals.