

Leading stockists and distributors to the Lighting industry

General instruction for wiring of LUXEON LED and Constant Current Power Supplies

1. **LUXEON LEDs including AQUASPOTS, LEDFLOODS, LED LYNX, LEDSPOTS, AQUALEDS, LED MINIFLOOD need to be wired in series
NOT PARALELL**
2. **Why must LUXEON LEDs be wired in series? –They run on constant current.**
To achieve the same current throughout a circuit, it is necessary to wire in Series. Circuits wired in Parallel will have a constant Voltage, and circuits Wired in Series will have a constant current for all components in the circuit
3. You must use correct power supply LUXEON LEDS, use Collingwood PLU, Or PLS.
4. **If you wire a LUXEON led to a conventional transformer or constant voltage LED driver, The LED will be destroyed.**
LUXEON LEDs are high power LEDs and must be run on constant current. Each LED Requires to be supplied with a different voltage in order to be fed With a 350 mA or 700 mA Constant current.
5. Connecting the power supply to the mains supply before connecting to the LED damages the LED.
Why? – Constant current power supplies will ‘ramp up’ to their maximum Voltage In the Event of an open circuit. When the LED is then connected they are being Connected to a Massive over-voltage. If the power supply has been connected to the Mains supply with An open circuit, ensure the output terminals Are short-circuited to discharge the power Supply internal capacitors before connecting any LED
6. Switching the LED on the low voltage side of the power supply damages the LED
Why? – For the same reasons as above.
7. Not having proper thermal control for the LEDs damages the LED
Why? – The LUXEON LED is a high power LED. It has a small core from where The light is produced. This core gets hot very quickly. Overheating of LED will Severely shorten the life of the LED, and reduce light output. It is therefore necessary To ensure proper thermal design of all LED applications to ensure that the heat is Removed from the core of the LED and dissipated elsewhere.

AQUASPOT LEDs: - Colour coded leads:-

BLACK LEAD = NEGATIVE (-)

COLOUR LEAD = POSITIVE (+) and indicates colour of LED