

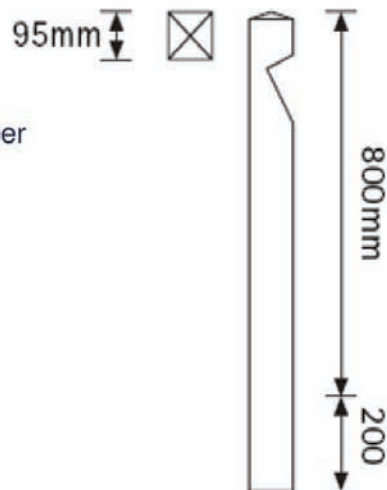
BOL LED 01



A classic wooden bollard with a modern twist. BOL LED 1 features quality Iroko wood that requires neither treatment nor varnish. It contains a high power Luxeon LED, and due to the cleverly designed cut angles, looks fantastic when approaching from any direction. A tasteful addition to paths and driveways.

Quality Wooden Bollard Incorporating A 1 Watt 350mA LED

- **IP Rating:** IP65
- **LED output:** 1watt @ 350mA
- **LED Input:** 350mA
- **LED Beam angle:** 45°
- **Material:** Solid hardwood post, FSC approved timber
- **Colour available:** Cool White, Blue & Green
- **Available to order in oak and other woods**
- **Cable:** 1.8m H05RN-F Rubber cable
- **Wiring:** Series

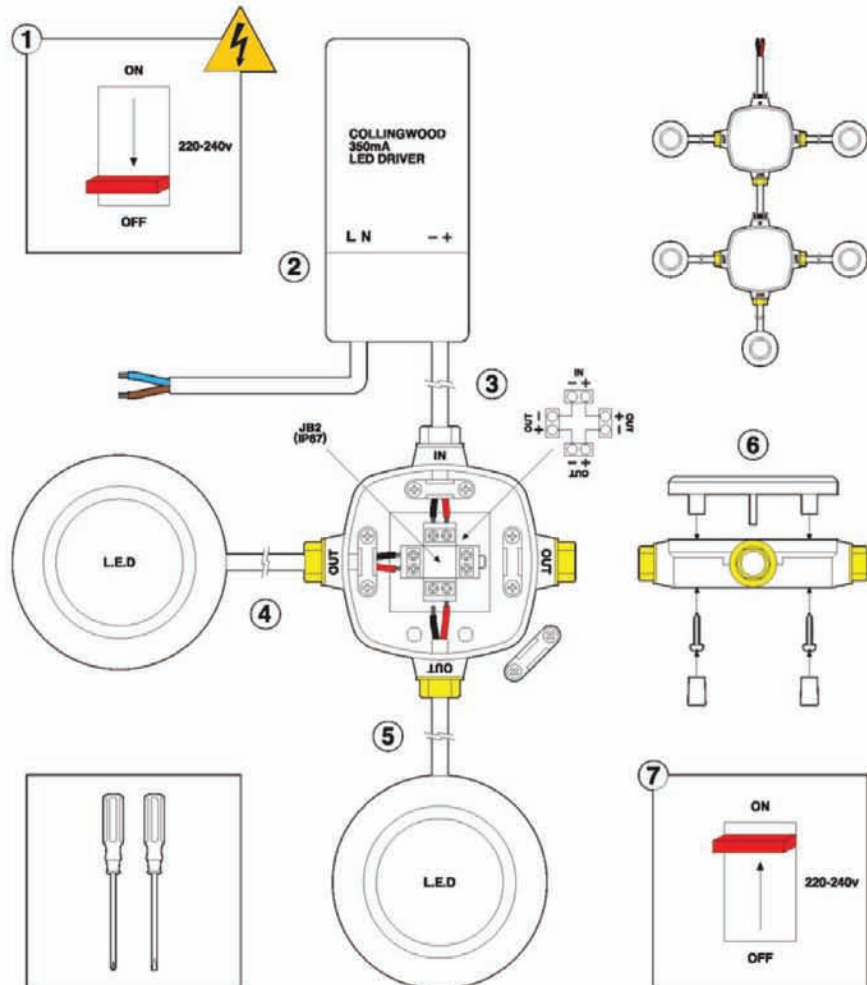


LED Drivers

Part number	Input Voltage	Specification
PLU 350 1-9	110V-240V	1-9watts, Min 1watt, Max 9watt, 1 circuit, NON-DIMMABLE
PL 350 1-6	230V-240V	1-6watts, Min 1watt, Max 6watt, 1 circuit, NON-DIMMABLE
PLR 350 1-5	230V-240V	1-5watts, Min 1watt, Max 5watt, 1 circuit, NON-DIMMABLE
PLS 350 1	230V-240V	1watt, Min 1watt, Max 1watt, 1 circuit, NON-DIMMABLE
PLS 350 2-3	230V-240V	2-3watt, Min 2watt, Max 3watt, 1 circuit, NON-DIMMABLE
PLD 350 1-16	230V-240V	2-16watt, Min 2watt, Max 16watt, 2 x 8 circuits, DIMMABLE with 0-10V only
PLD 350 3-27	230V-240V	3-27watt, Min 3watt, Max 27watt, 3 x 9 circuits, DIMMABLE with Push to make
PL IP 350 2-3	230V-240V	2-3watt, Min 2watt, Max 3watt, 1 circuit, IP67 Rated, NON-DIMMABLE
PL IP 350 1	230V-240V	1watt, Min 1watt, Max 1watt, 1 circuit, IP67 Rated, NON-DIMMABLE

SERIES LED/JB2 (IP67) WIRING INSTRUCTIONS

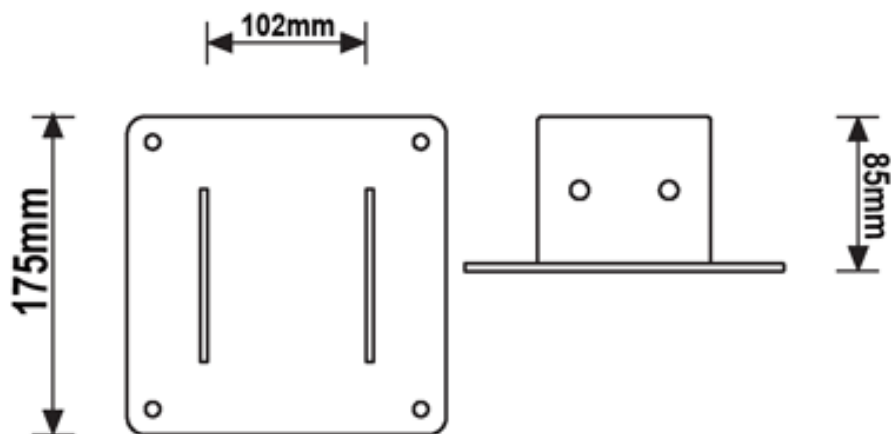
GL040/41, GL050/51, GL016, GL021,
SL030 & BOL LED 1



BOL LED Bracket



A simple and robust ground fitting for use when installing the BOL LED 1 on hard surfaces.



FAQ

Q. Why do the colour of LEDs vary so much?(Colour binning)

A. Unfortunately because Luxeon LED are at the cutting edge of technology and LED production, the colour temperature of the Luxeon LED cannot be guaranteed. Although Luxeon do currently grade LEDs into colour 'bins' the colour variation within these bins is still significant to the human eye. When designing schemes using Luxeon LED, it is important that they should be designed to not be sensitive to the colour temperature of the LEDs light.

Q. Why must Luxeon LEDs be wired in series?

A. To achieve the same current throughout a circuit, it is necessary to wire in series. Circuits wired parallel will have a constant voltage, and circuits wired in series will have a constant current for all components in the circuit.

Q. What voltage do the Luxeon LEDs run on?

A. There is no answer to this question, except somewhere between 2 and 4 volts. Every Luxeon LED requires a different voltage but a constant current.

Q. What is the output voltage of the constant current drivers?

A. The output voltage varies depending on how many LED are wired into the circuit. The more LEDs wired into the circuit, the higher the voltage.

Q. What is the maximum voltage of the constant current drivers?

A. Each driver has it's own maximum voltage, but all Collingwood drivers have a maximum voltage of below 50v DC i.e. SAFETY EXTRA LOW VOLTAGE.

Q. Can Luxeon LEDs be used in bathrooms and swimming pools?

A. Yes, (assuming the enclosure has appropriate IP rating) but always bear in mind the maximum voltage of the driver in the event of open circuit. Be careful when selecting the driver. Certain areas of bathrooms and swimming pools have maximum voltage requirements of less than normal **Safety Extra Low Voltage** e.g. bathroom zone 1, max voltage 30v DC this means that PLR and PLS could be used, but PLU and PLK could not.

Q. Can Luxeon be used in saunas?

A. Yes and no. All equipment installed in sauna areas C and D must be suitable for ambient temperature of 125degrees centigrade. As with bathroom areas, saunas have specific voltage requirements. If an LED is run constantly high temperature it's life and light output will be severely limited. Only fit LED products where the temperature of the LED can be effectively controlled.