

# LED QUARTZ BOLLARD AL9000



High performance, energy-saving technologies and flawless design: security lighting the Abacus way.

## Energy-efficient

In recent years LEDs have advanced significantly to become one of the most efficient, attractive and versatile forms of lighting around. For a start, LEDs use far less electricity than standard sources, producing a better quality of crisp, white light. And where a traditional bollard would emit only 28% of the light it produces, the AL9001 Quartz has a superior 90% efficiency - credentials that make it one of the most energy-efficient security lighting systems of its kind.

## Performance

Combine instantaneous, bright white light with our patented louvre-based design and the result is simply exceptional: crisp, focused light in a variety of energy-efficient beam patterns, with virtually no light escaping upwards. The bollard itself is tough and robust, made from hardwearing steel tubing protected by a durable, polyester-based coating. Anti-vandal screws give even greater protection against shocks or vibrations. The LED louvres are behind a 5mm thick polycarbonate cylinder, preventing any direct vandalism. And perhaps most importantly, LEDs don't lose performance over time in the same way as conventional HID lamps. So much so, in fact, that they last at least four times longer.

## Economical and safe

Fitted with LED technology, our Quartz Bollard can reduce wattage by a sizeable 60% - 80%, meaning you'll not only save money on energy

bills - there's less cabling needed to install them too. No UV and less heat produced makes them safe for pedestrian areas. Not to mention the fact that their longer lifespan puts them miles ahead of the competition in terms of maintenance and replacement costs.

## Visual effects

Whether you're installing bollards to give clear, visual instructions, enhance mood, highlight architectural features or even support your branding, our unique red, green and blue colour effects will create drama - without interfering in any way with the more functional white light being given off. For added visual impact, we can even print your logo, advertising or directional arrows on the top louvre ring, as shown in the picture to the right.

## Features

- Sturdy IP66 die-cast aluminium head unit with clear polycarbonate outer cylinder (UV stabilised)
- Tough bollard shaft made from heavy duty steel CHS tubing
- Black or silver textured polyester coating on bollard shaft and head-unit castings
- Louvred light controller, with LED light pumped into and through the acrylic louvres, producing a controlled light output
- Operational equipment housed in the bollard itself, using IP67 driver on a fully removable tray, with facility to loop in and loop out electric cabling
- Emergency version available





## Specification

All LED Quartz bollards, regardless of main colour, louvre rings and beam type, have the same product code – **AL9000**.

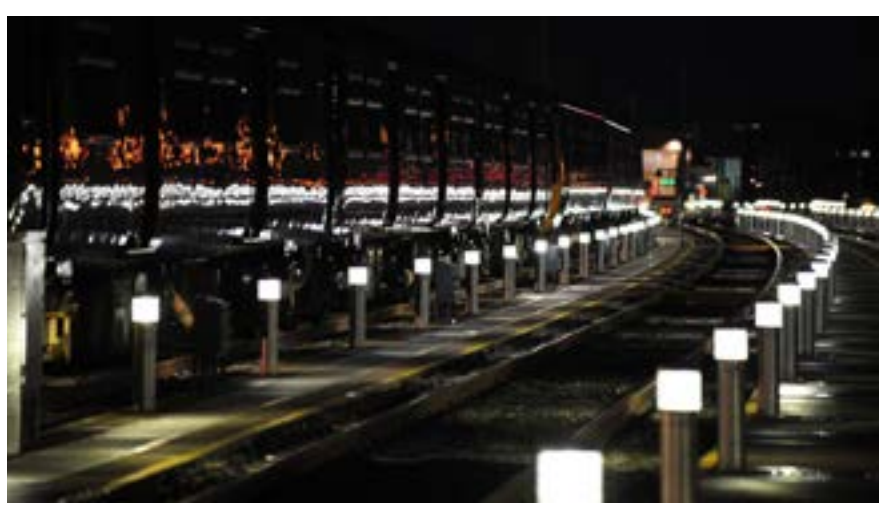
Individual requirements need to be specified when ordering – please see below for details. For emergency version, please enquire.

### Beam patterns

- Asymmetric
- Symmetric
- Axial

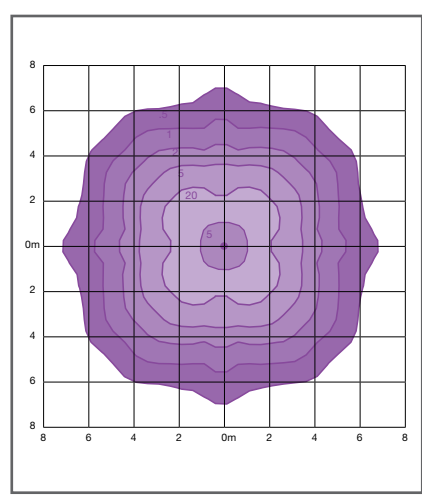
### Bollard colours

- RAL9005 Black
- Fusion Silver 25

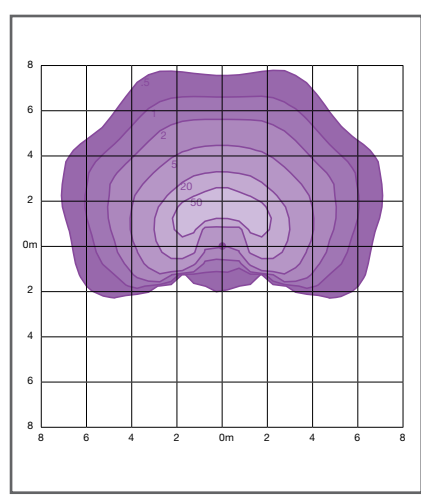


	Total Wattage (W)	Number of LEDs	Individual LED Wattage (W)	Distribution	Driver Current (mA)	Lumen Output (lm)	Colour Temp. (K)
<b>AL9001</b>	30	16	1.6	Symmetric	500	1976	4000
<b>AL9002</b>	30	16	1.6	Asymmetric	500	1976	4000
<b>AL9003</b>	30	16	1.6	Axial	500	1976	4000

## Beam patterns



Symmetric Distribution  
AL9001



Asymmetric Distribution  
AL9002



For mounting details see page 20