# **ODEON** BOLLARD

## BOLLARD Class I IP67 IK10

EMFA's Odean Bollard combines a die-cast aluminium head housing an LED unit with an extrusion aluminium pipe. The bollard is designed to light pathways, landscapes and open spaces. The unit comes with 5 different options of heads depending on much light is required and into which direction: with one head, two adjacent heads, two opposite heads, three heads, or four heads. The head and pipe are connected by a hidden screw within the pipe. One head contains 20 medium-power LEDs consuming 6W and providing over 500lm light output. An optional galvanized steel anchorage kit is available for mounting into concrete. An alternative option is sleave anchors for mounting onto existing concrete or a picket to mount into the earth.

Head Pip

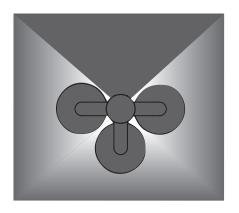
Die cast aluminium Extrusion aluminium

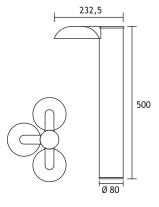
Diffusers Paint

Frosted polyamide 6.6 Electrostatic powder

#### "Customization" is EMFA's standard

EMFA offers many combinations for each fixture, as all fixtures are made in house. A combination of 6 standard paint colors, 8 LED colors, 2 wattages, and 5 or more lenses and reflectors are available to make the fixture suitable for the required application. This is done without increasing lead-time and is available for large as well as small quantities.





**Led** : Medium power LEDs

**Voltage**: 240 VAC with integrated driver

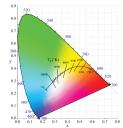
(12-24 VDC on request)

**Diffuser**: Polyamide 6.6

			Total Lighting Output	Code No
Trio	60 x 87 mA (18W) LED	3000 K	1920 lm	178131







#### **LEDs**

Only highest quality LEDs such as Cree or Toplite are used in production allowing for maximum lumen output and maximum lifetime. Most LEDs run on 350mA or 700mA depending on how much light output is required. The white color temperature binning is 200K at most, and always on the same x,y coordinates on the CIE diagram in accordance with Energy Star. This ensures consistent supply of the same color temperatture over time. As LEDs are constantly developing and becoming more efficient, lumen output given in this catalogue are current as of March 2020. At 2700K, 3000K, and 4000K LED lumen output per led is 110lm; at 6000K the lumen output per led is 125lm. Total Lighting Output as printed in this catalogue is the actual light output of the entire fixture. The minimum CRI of the LEDs used is 85 with a majority of products over 90.

### Thermal Management

All fixtures are designed to withstand ambient temperatures of at least 50°C. The LEDs are mounted on metal core pcbs, which are mounted the aluminium body of the fixture so that the entire fixture acts as a heat sink. Extensive testing is performed in EMFA's laboratory to ensure these values are maintained so that the lifetime of the LED is not compromised.

