



## Product codes

<b>B717501</b>	White 10°
<b>B717506</b>	Bronze 10°
<b>B717510</b>	Aluminium 10°
<b>B717701</b>	White 36°
<b>B717706</b>	Bronze 36°
<b>B717710</b>	Aluminium 36°

## Product notes

Energy efficient LED directional downlight with exclusive slimline bezel with deep black baffle system to reduce glare. Designed to match the full range of John Cullen downlights.

Colour Temperature	2700K
Chromaticity co-ordinates 100% Brightness	x, 0.460 y, 0.407
Lumens	245Lm
Wattage	4W
Efficacy	61.25Lm/W
Lifetime (70% Light output ratio)	50,000Hrs
Source type	LED
Input	350mA
Forward Voltage	12v DC
Wiring	Series
IP rating	IP20
CRI	90

## LED Technical information

### 3 Step MacAdam Ellipses

Using the latest state of the art LED's, the LED has excellent colour rendition with a colour temperature that replicates tungsten halogen. The LED is binned to 3 Step MacAdam Ellipses to ensure consistency when specified with multiple products. John Cullen continually research the latest available solution as technology develops.

## Installation notes

- 1 Connection** - Find a suitable accessible place for driver. Feed cable to required location.
- 2 Installation** - Cut an accurate 46mm cutout. Make sure the installation void has clear space of 50mm circumference from the centre point of the product. Connect supply from driver. Push fit into place using the products side clips and level. Connect 350mA supply onto the flying leads ensuring that the correct polarity has been observed (black cable -ve red cable +ve). Please note if wired incorrectly the LED will be damaged. Push fit into installation hole.
- 3 Qualified electrician** - All electrical works to be carried out by a qualified electrician.
- 4 Cable thickness** - Is the responsibility of the installer. Cable thickness must be calculated to avoid voltage drop. Calculations and cable tables can be found within the latest edition of the IEE wiring regulations.
- 5 Positioning** - Positioning is subject to interior and installation requirements. Placement guides are available for a limited number of products. Guides can also be discussed with the design department.
- 6 LED lamps in hot environments** - LED lamps should be positioned away from heat sources such as heaters, under floor heating, saunas etc. LED's will prematurely expire if in sustained contact to heat.
- 7 0-10v Dimming** - Products can be dimmed on a 0-10v dimming signal when connected to the appropriate control device. When wiring 0-10v cable back to switch control, observe exact polarity for correct installation.
- 8 Drivers** - Driver to be specified subject to installation requirements. Electrician to find discreet, accessible location for remote drivers. Calculating cable lengths and diameter to avoid voltage drop is the responsibility of the installer. For maximum distances please refer to specific driver specification sheet.
- 9 Polarity** - The product must be connected with the correct polarity (black cable -ve, red cable +ve). Incorrect wiring will damage the product, JC will not take responsibility. Please see wiring schematics for further information.

**PLEASE NOTE:-**These notes are for guidance only. John Cullen accepts no responsibility for any installation using the above notes and the final decision on installation remains with the installer.



Designed in-house and manufactured in the UK. Exclusive to John Cullen.