

## START Bollard IP65 1100lm 830/840 Grey 0047974



### Features

- Integrated LED bollard, contemporary design on a classic bollard, 1100LM, 19W, 58lm/W, integrated switch allows to choose between warm white (3000K) and neutral white (4000K) colour temperatures, CRI80, IP65, IK10, 90,000hrs L80B10 Lifespan, 1000x168x168mm (HxWxD), 5 step MacAdam ellipse, 7kg, RAL 7016 Anthracite grey colour, Class I safety class, -25 to +50°C operating temperature range, 1000 hrs salt spray test.

### CIBSE TM66

Result			
Category	Points Scored	Maximum possible points	Assessment
Product design	75	134.0	2.2
Manufacturing	17.1	46.5	1.5
Materials	5	24.0	0.8
Ecosystem	18	43.0	1.7
Overall performance	115.1	247.5	1.55

  

How to analyse the score	
0.0 to 0.5	Very poor circular economy performance
0.5 to 1.5	Some circular economy functionality
1.5 to 2.5	Definite/substantial progress to circularity
2.5 to 4.0	Excellent circularity

Technical Memorandum (TM) 66 describes a Circular Economy's main aims, how it can be achieved and what its practice will mean to the different branches of our industry like specifiers, manufacturers, contractors, and Facilities Managers.

The Circular Economy Assessment Method for Manufacturing (CEAM-Make)'s list of 66 searching questions, the majority of which ask for back-up evidence, is split into four sections :

- Product Design : Covering topics such as design for long life and repair
- Manufacturing : Additive and subtractive techniques and localisation
- Materials : Usage of recyclable materials rather than virgin
- Ecosystem : Repair or upgrade services to complement circular economy design

The outcome of the assessment is a single figure rating by which product comparisons can be made. A TM66 score demonstrates a product's performance in the context of a Circular Economy



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CIBSE (2021) Circular Economy Assessment Method - Make TM66 Digital Tool beta version 22nd October 2021 (London : Chartered Institution of Building Services Engineers)