

B4497 PAPERMILL DRIVE

LED Lighting Scheme



Certified by DarkSky.org

The preservation of the dark sky is critical not only for the well-being of people and wildlife, but also for scientific and astronomical purposes.



BACKGROUND

Due to increasing energy costs and drive for Net Zero Worcestershire County Council (WCC) are converting all of their remaining conventional light sources to LED in order to make significant energy and carbon savings.

Prior to the design phase, WCC undertook a County wide ecological review to understand potential for negative impact of blue light on conservation. This review was undertaken by WCC consultants, Jacobs and WCC Ecology Team.

CHALLENGE

The challenge was to identify known areas of conservation where blue light content emitted by an LED light source may negatively interact with conservation and then maximise energy and carbon savings without detriment to highway safety.



As an Authority, we are rolling out LED lighting across the County and it was important to us that we really considered the ecological impact of this technology. Working with Jacobs and TRT, we were able to find a good solution for the Papermill Drive scheme. The installation with Prysmian Group and TRT ran smoothly, and we are really impressed with the outcome.



Trevor McGill Principal Lighting Engineer, Worcestershire County Council



CASE STUDY

WORCESTERSHIRE COUNTY COUNCIL



DARK SKIES ECOLOGY APPLICATION IMPROVEMENT NEW INSTALL RETROFIT

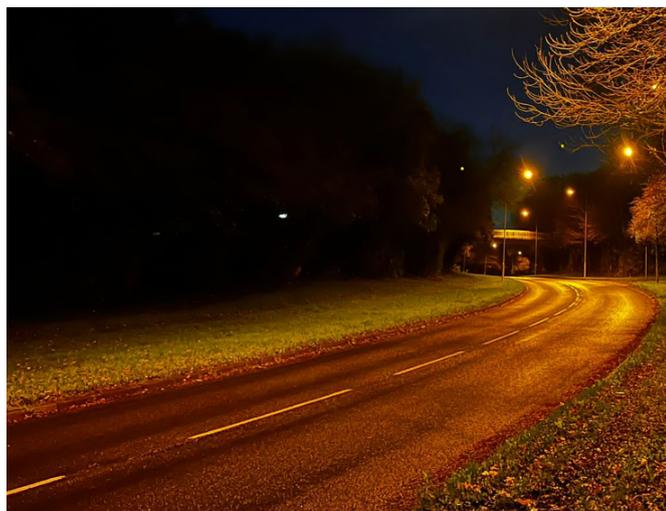


PowerSet

The PowerSet module allows on site power adjustment providing maximum flexibility both in-situ and for stock holding. Each module accommodates the selection of any one of the range of UMSUG coded system powers for Aspect 32 and Aspect 64.

SOLUTION

TRT were approached by WCC to source and photometer PC Amber LEDs which emit zero blue light to be used as mitigation in conservation sensitive areas. TRT supplied a range of PC-Amber lanterns using our PowerSet feature (a physical, on-site, integral power adjustment within lantern negating the need for any reprogramming device(s)). This enabled minimal variations for the contractor, Prysmian Group to install whilst still achieving the conservation and net zero challenges set out by WCC.



© Street photos courtesy of Benjamin Lee.

OUTCOME

By working collaboratively and using PC-Amber LEDs, we were able to meet WCC's goals to reduce:

- Energy consumption
- Direct and in-direct carbon emissions
- Impact on bio-diversity across the County

The lanterns installed on this scheme are part of our Aspect range (Aspect 32 and Aspect 64).

The Aspect range covers a vast range of residential, traffic route, conflict area and floodlighting applications. All centered around a common gear housing and universal post top or side entry mounting pivot, the aesthetic look is maintained across the range. A toughened flat glass to the underside, combined with a vast range of LED configurations and optical distributions ensures that any lighting scheme can be optimised whilst also producing zero light above 90 degrees.



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