

Case Study

Lincoln University

Background

The University of Lincoln is recognised as one of the Top 10 UK universities for reducing its impact on the planet and plans to achieve net-zero carbon emissions by 2040. The university needed to implement a sustainable lighting solution for their conference centre car park as part of their goals.

Challenge

The new lighting systems needed to be environmentally sustainable and significantly reduce carbon emissions. In addition, there was an emphasis on ensuring that the installation works had minimal environmental impact and that the new lighting solution was quick and easy to install, cost-effective to run and would provide reliable year-round lighting. As the initial site was a busy car park, digging new trenches for mains-powered cabling would have caused extensive disruption. The subsequent retrofit also needed to minimise disruption to the busy location on campus.



Advanced Technology
'All in One' compact design

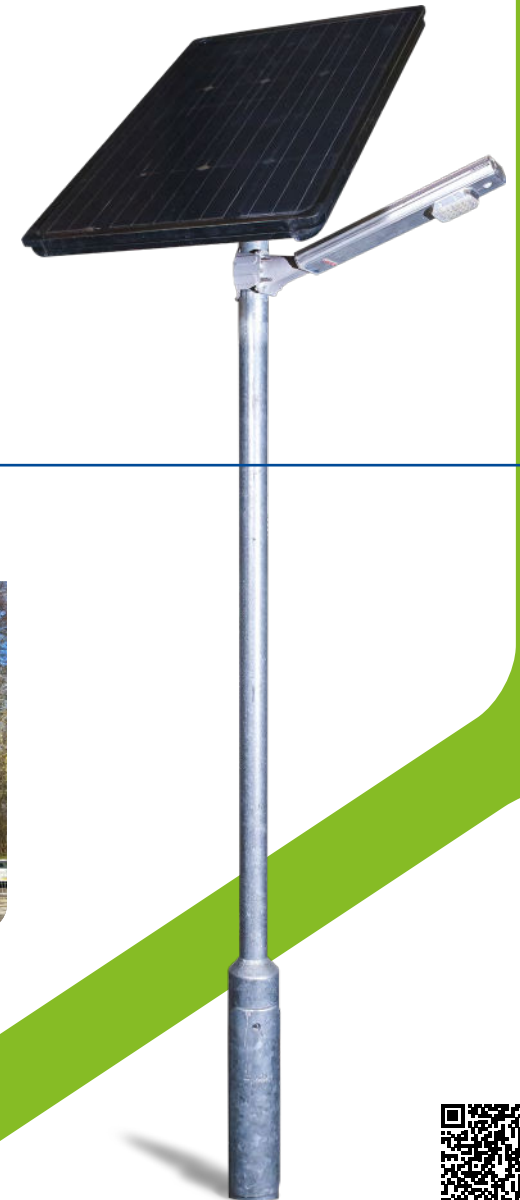


Battery Technology
Highly reliable performance during winter

The AE3 and AE6 can be installed easily, quickly and economically. There is no need for cable trunking or digging trenches. This means that installation costs can be halved compared to conventional mains power alternatives.



We were the first company in the UK to install solar-only permanent street lights in 2011 and are now the market-leader with thousands of units installed on streets, car parks and footpaths across the country.



The Solution

After a site visit, we developed a full lighting design and proposal, ensuring the new site lighting would meet British lighting standards. The initial project saw AE6 solar street lights with heavy-duty column guards and twin brackets delivered and installed at the car park, providing lighting without noise, emissions or the need for mains power. The AE6 uses new-generation lightweight lithium-ion batteries and can produce an output of up to 4,000 lumens per unit.

Following the first successful project, we revisited the university to install new AE3 solar street lights without the need to dig trenches or install trunking for cables. We also retrofitted existing lamp posts with twelve AE3 solar street lights, removing them from mains power connection to save future energy costs.

Key Statistics

- No mains power - no need to install cable trunking or dig trenches.
- Installation costs can be halved compared to conventional mains power alternatives.
- No carbon emissions - 472kg of CO₂e saved per year.
- No maintenance needed - install and forget with a long operating life.

The Result

The University of Lincoln now benefits from clean, quiet, low maintenance lighting, reducing carbon emissions and saving on future electricity costs. The lights operate reliably and efficiently year-round, from dusk until dawn, even in winter. The university has reduced its carbon emissions by 472kg CO₂e* per year and will cut

down on energy costs too. Both the AE3 and AE6 solar street lights are proven to operate reliably and efficiently throughout the UK winter, from dusk until dawn, thanks to their specially developed smart light controller.



*Savings based on 17-street lights, operating on average 12 hrs a day using 100% solar energy, saving 0.166 kg CO₂/kWh based on the national fuel mix for energy, June 2023.

Why choose Prolectric?



Lighting Designs
Custom lighting designs available, meeting British Lighting Standards.



No Mains Power
No need for trenches or cabling, external electricity or a DNO connection.



5-Year Guarantee
Cover on all parts of the lights and solar panel.



Low Cost
Installation costs are halved and no on-going running costs.



3-PIR Sensors
The only light offering detection for a wider range of motion.