

- > UK ATOMIC ENERGY AUTHORITY (UKAEA)
- > STREET LIGHTING & SAFETY
- > 10 WEEKS

## Culham Science Centre Lighting

Culham Science Centre in South Oxfordshire is the home of a major UK Atomic Energy Authority (UKAEA) research lab – plus a growing number of commercial tenants.

As occupancy grew, it became apparent that the street lighting on site was no longer suitable. Due to the site being a former airfield, replacing lighting columns was more complex than usual – which is where we came in.

### The Need

With a growing number of business tenants, Culham Science Centre owners UKAEA realised the on-site street lighting needed urgent improvement, both to ensure road safety and the personal security and confidence of those working on site.

Because the site was a former airfield, there were three concrete runways just below the modern surface. That meant removing lighting columns and rewiring the site could potentially be a slow and costly process. The UKAEA appointed us to devise an innovative solution.



## Our Approach

### Solving the concrete issues

Our core proposal was simple: we recommended avoiding the challenge of breaking up the concrete by reusing existing column locations. By using the bases as a sleeve for modern lighting columns, we could keep costs on a tight rein, while delivering a more efficient and effective street lighting solution. We also tested all cabling on site; though some of it had been in place for decades, we confirmed the majority adhered to current standards.

### Delivering sustainably

We worked with a lighting designer to create a bespoke column that complied with BS EN standards and improved visibility. The prototype proved effective, so we then installed 202 lighting columns, all on already

established bases, over a ten week period. Our small team replaced about 10 each day and also installed 225 LED luminaires – reducing energy consumption by around 70% compared to the previous solution, while offering better brightness and overall visibility.

- > Replaced and updated street lighting for safety and sustainability
- > Busy science park on a former airfield
- > LEDs replacing older lighting
- > New solution delivers 70% saving on energy usage
- > All relevant equipment standards met

## Associated Benefits

As well as delivering on time and providing a more pleasant and energy efficient place to work, we also managed the disposal of the older equipment. We disconnected the old lights and disposed of them according to the WEEE (Waste Electrical and Electronic Equipment) regulations.

