



CASE STUDY

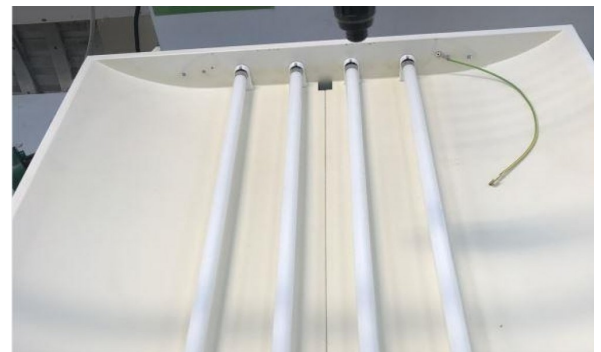
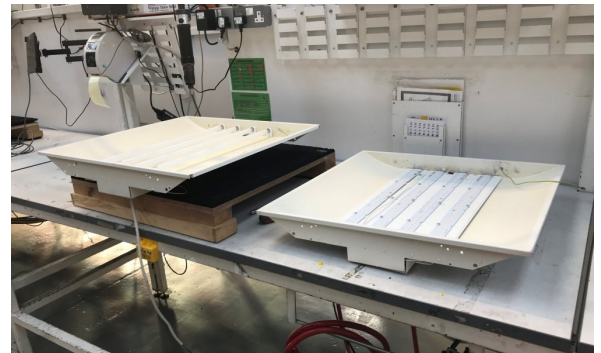
Circular Economy Success

Whitecroft's first circular economy project delivers significant cost and material savings

In 2018, BAM FM, the facilities managers of the Cheshire Police Authority (CPA) headquarters, recognised a need to update the building's 15 year-old internal lighting system as a significant number of the old light fittings were starting to need replacing, and the lighting's control system could only be maintained by rewiring each fitting.

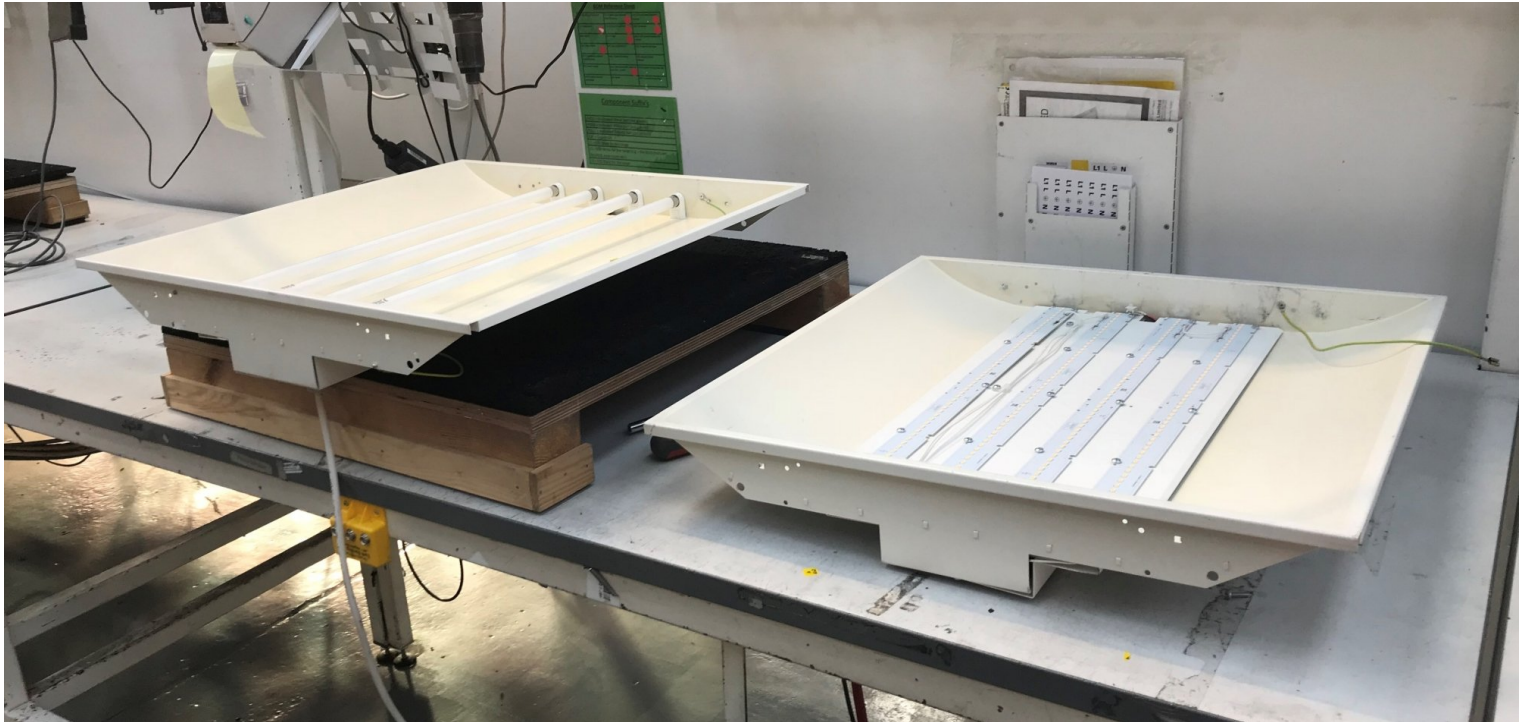
Maintaining the current lighting system would cause ongoing and significant disruption to the CPA, so instead it was proposed to upgrade their lighting, in a solution that reused many of the existing fittings and also enabled increased functionality, efficiency and a healthier work environment.

Having previously participated in BAM's circular economy workshops, Whitecroft Lighting were able to offer brand new lighting with increased efficiency and enhanced control, and take three of the original fittings back to the factory and explore the opportunity for reuse.





Upgrading ageing lighting systems to enable increased functionality and efficiency



We worked collaboratively with BAM FM and Gibson & Ryan to determine the best solution to both improve the lighting efficiency and reuse as much material as possible.

We transported 120 Cirrus light fittings back to our factory and upgraded them to LED. It was possible to reuse the luminaire body, louvre and flying leads. The retrofitted luminaire provided the required level of efficiency and it was £30 cheaper to manufacture compared to new light fittings. Additionally, we upgraded 75 stairwell fittings from fluorescent tubes to LED onsite in order to keep the stairwells in operation, provided 1300 bespoke bazel units to install more efficient downlights in the existing ceiling and modified 82 control modules to upgrade the corridor lighting functionality.

A new wireless control system, Organic Response®, was also installed, which drastically reduced the need for new cabling and also increased functionality with real-time monitoring, emergency testing and daylight dimming.

"This project was a great success, and demonstrates the advantages of long-term, collaborative relationships with our supply chain to drive innovation." - Julia Messenger, BAM Construct UK

2,000

KG OF SAVED MATERIAL
COMPARED TO USING NEW
LIGHTS

23W

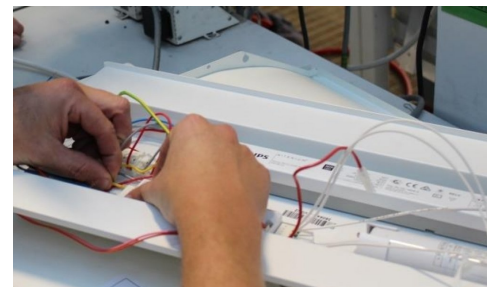
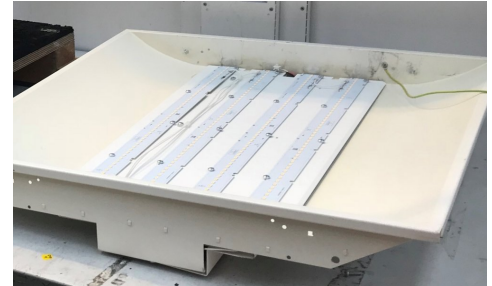
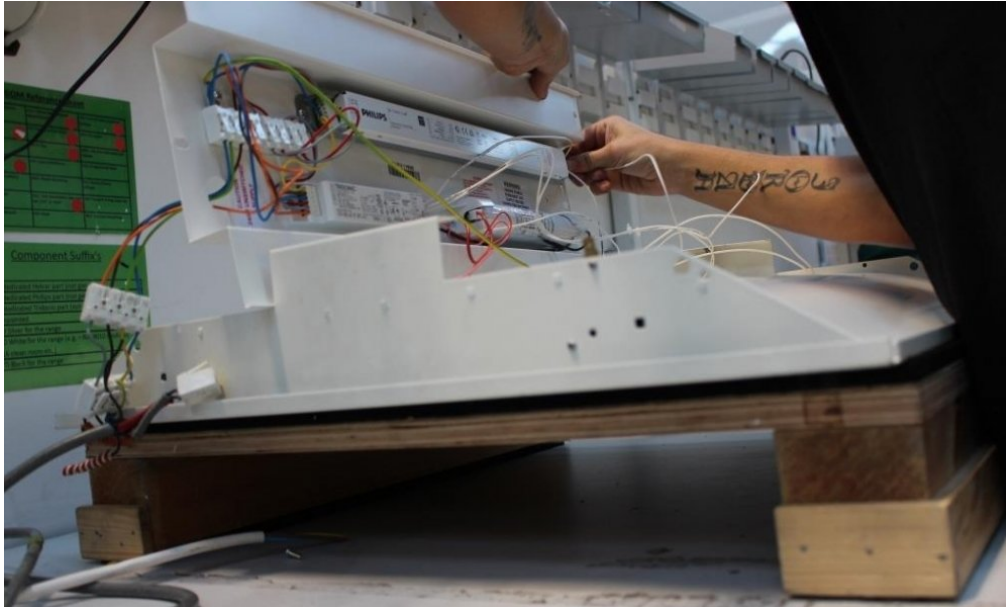
LESS ENERGY THAN THE OLD
LIGHTS

£30

CHEAPER TO MANUFACTURE
COMPARED TO NEW LIGHTS



Key Facts



Cheshire Police Authority
PROJECT NAME

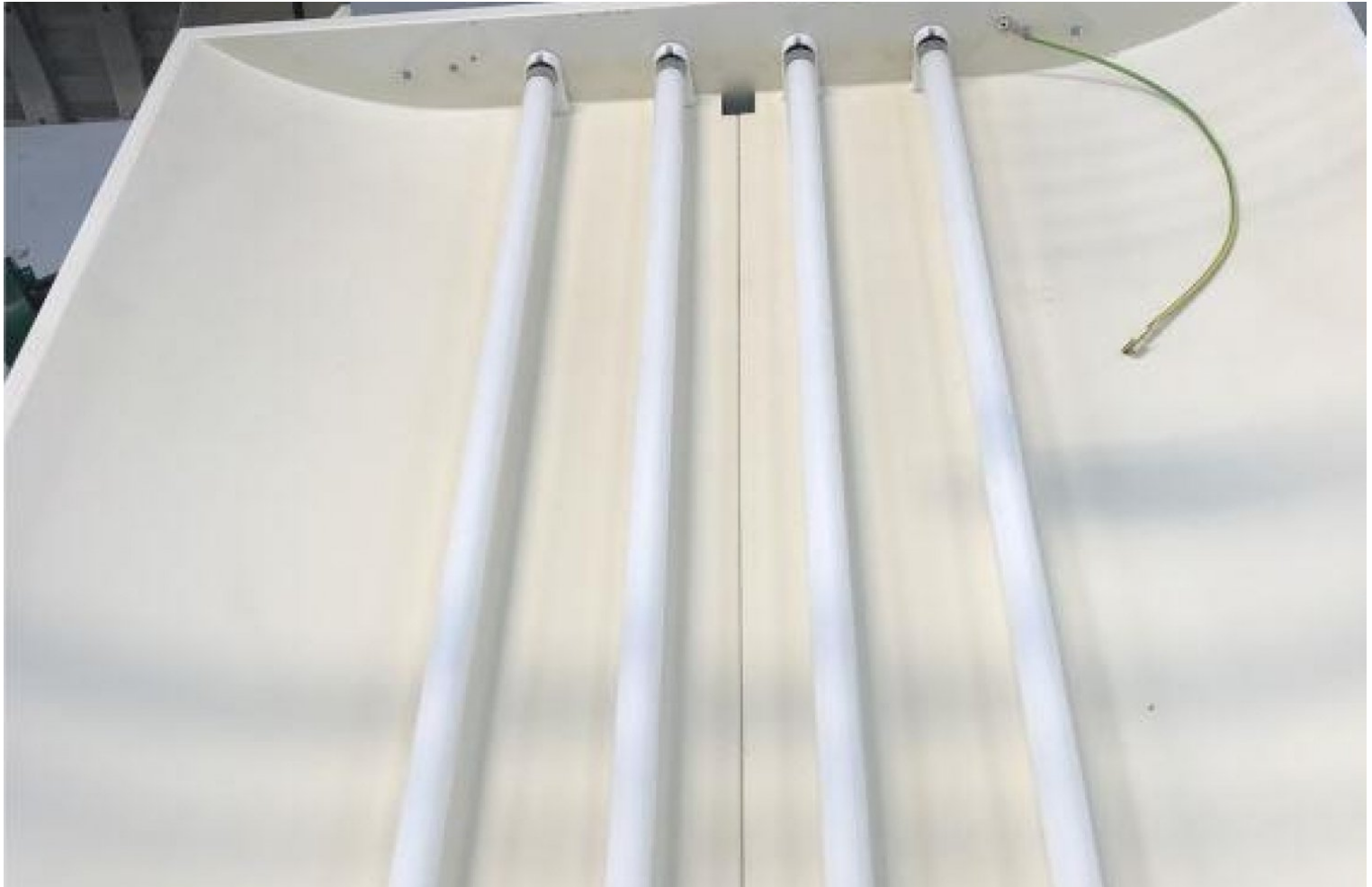
Cheshire
LOCATION

£34M
PROJECT VALUE

BAM FM
CLIENT

Gibson & Ryan
INSTALLER

2019
COMPLETION



Key products



Cascade LED