



CASE STUDY

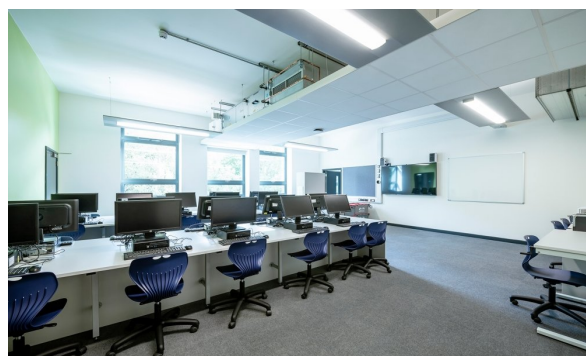
West Coventry Academy

Innovative Lighting Achieves Grade A Efficiency

West Coventry Academy in the West Midlands is one of the first Net Zero Carbon (NZC) schools under the [Department for Education's \(DfE\) Modern Methods of Construction](#) Framework. The project, led by [Bowmer + Kirkland \(B+K\)](#), required an innovative approach to meet NZC targets from the outset.

The project faced several challenges, including the need to minimise both embodied carbon and operational emissions. Additionally, the new school was working to strict completion deadlines – it had to be constructed on the existing site, before the 2023 academic year.

Whitecroft was tasked with meeting these rigorous demands while maintaining the very highest standards of comfort, compliance, and energy efficiency.



NZC
EMISSIONS

1500
LUMINAIRES

97%
OPERATIONAL EFFICIENCY



Key facts

Project Name	West Coventry Academy
Location	West Midlands
Client	Bowmer + Kirkland
Contractor	DBS
Completed	Q3 2023
Image Credit	Bowmer + Kirkland

The solution

Whitecroft leveraged its experience in educational lighting to surpass the DfE's energy efficiency standards. Collaborating with [Prolojik](#), Whitecroft introduced innovations, including a switch from traditional AC to DC systems. This shift, powered by Prolojik's power-over-ethernet DC driver, achieved 97% efficiency in lighting operations.

Custom-designed Bluetooth lanyards optimised energy use by adjusting lighting profiles based on the wearer's role. Additionally, modular lighting units and emergency testing systems streamlined installation and reduced operational carbon footprints.

The result was an energy efficiency level of 2.5 watts per square meter, setting new standards for NZC buildings. The project achieved immediate carbon and cost savings and laid the groundwork for ongoing efficiency improvements across future B+K academies, demonstrating a forward-thinking approach to sustainable school construction.

Key products



Helm



Foil SRD



Flight



Mirage 3 C165