

Bluecoat Trent Academy Nottingham

Case Study





Introduction

Bluecoat Trent Academy opened in September 2024. The building represents a progressive approach to sustainable construction and efficiency in schools, where the academy uses Prolojik's innovative DC lighting system, Lightmatrix.

Building

Bluecoat Trent Academy, located in Nottingham, England, is part of the Archway Learning Trust, and opened in September 2024. Designed to inspire learning and creativity, the academy boasts state-of-the-art facilities, including: nine science laboratories, sports hall, gym and dance studios, drama studios, design and technology workshops, lecture theatre, two multi-use games areas, music practice rooms and an external auditorium.

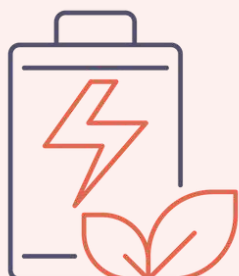
Collaboration

The £30 million development features a wide range of facilities designed to enhance both academic and extracurricular activities. The Academy was constructed by Bowmer + Kirkland. We worked with the Department of Education and Derry Building Services on this project.



Lightmatrix

Bluecoat Trent Academy used our DC lighting control system Lightmatrix.



Power Efficiency

Lightmatrix uses DC lighting to create energy efficient, sustainable spaces. Educators can create a classroom that not only prioritises well-being but also well-lit environments for learning, and sports whilst providing students and staff with comfort and productivity.

We supplied LX812, PS432 multi-sensors, GC862EW-BLE wireless switches, PC734 switch interface, PN440 area controllers, PV555 head end PC with Perspective graphical software, PN740 BACnet gateway, PS180 Proxima lanyards across 4 floors and a sports block with 2 floors.



Sustainability

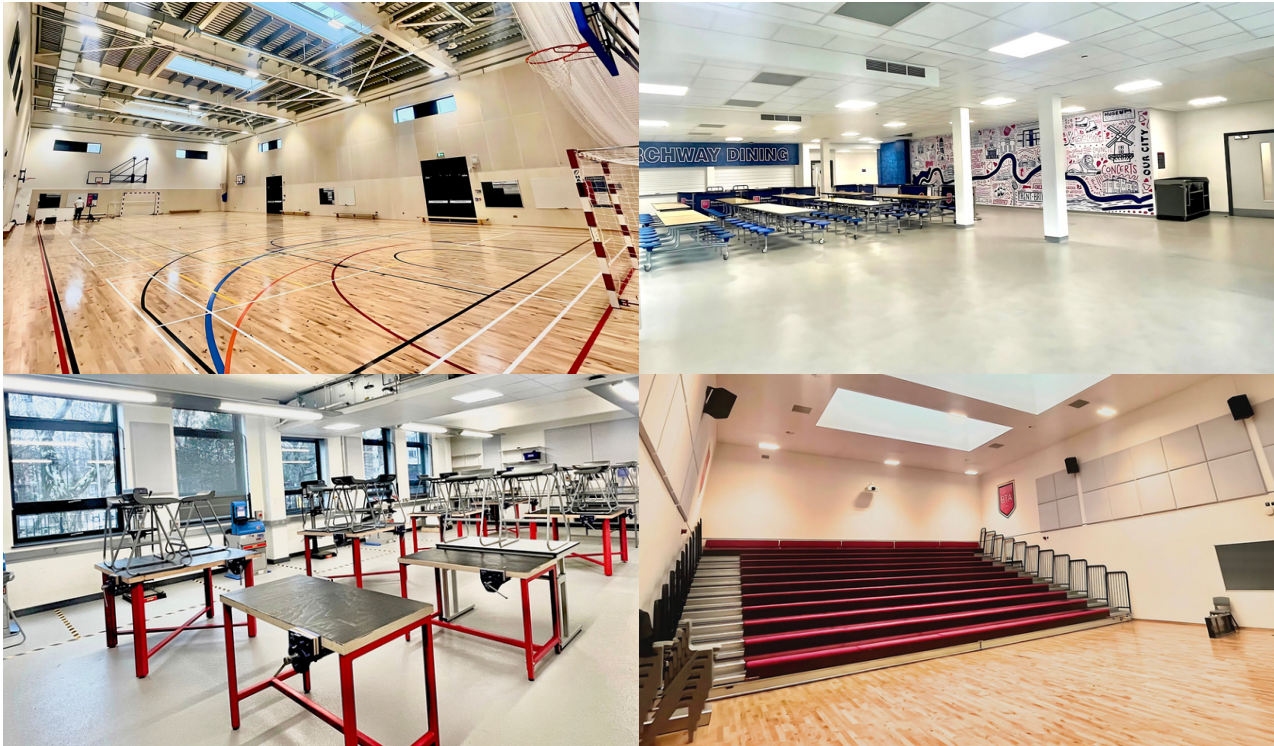
Our Lightmatrix DC lighting system delivers significant energy savings while minimizing environmental impact. By utilizing low-energy CAT6 cable patch leads, we reduced embodied carbon and optimized the system's efficiency.

The DC lighting system reduces parasitic power consumption by 0.4W, with reduced copper cabling and containment, alongside battery-less and wireless peripherals.



Energy Saving

The system contributes to an overall lighting control efficiency of 90%, with LED drivers operating at 93% efficiency, all of which work together to significantly lower the academy's total power consumption.



Summary

Bluecoat Trent Academy is sustainably designed using our Lightmatrix system to deliver a highly functional, energy-efficient lighting control, providing a building that supports sustainable, future-ready learning environments, designed for well-lit spaces to promote comfort, well-being, and productivity for both students and staff—enhancing academic performance and physical activity. To learn more, contact Prolojik at info@prolojik.com.



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