



ROYAL AGRICULTURAL UNIVERSITY

HISTORIC AGRICULTURAL COLLEGE
REAPS THE BENEFITS OF MODERN
LED LIGHTING.

Dextra
LIGHTING

ABOUT THE CLIENT

LED upgrade brings the efficiency and functionality of modern lighting to the Royal Agricultural University's (RAU) evocative 16th century Boutflour Hall. Dextra Lighting were selected amongst competitors for their exceptional bespoke capabilities, offering the university a highly versatile, energy-efficient solution with full compatibility to the venue's existing dimming protocols.

Founded in 1845, the RAU is one of the oldest institutions of agricultural learning in the English speaking world. Although anchored in history and tradition, the Cirencester based university is now at the forefront, not only of agricultural education and research, but is also a sector leader in sustainable management and development, ranking first out of all U.K universities for carbon reduction in relation to income in 2015, alongside achieving the ISO14001 international standard for environmental management.



THE BRIEF

Situated in the heart of the Cotswold countryside, the RAU's estate stretches across 25 acres of picturesque grounds surrounding a magnificent historic building. With rooms dating back to as far back as the 16th century, the college hires out attractive venues for a variety of social events and functions, ranging from weddings to corporate conferences. One of these venues is Boutflour Hall; a beautifully spacious theatre-style hall with a capacity of 300 and notably high ceilings of 6.8m. The room is put to constant use throughout the year, functioning as a lecture theatre and examination hall, and is also used for annual student registrations, entertainment and table top sales. With this in mind, versatility, improved light levels and low power consumption were top priorities for the project.

The university's Building Services Manager, Lee Hawley, contacted Dextra Lighting to provide a solution for the multi-purpose hall as the current lighting had begun to perform poorly and unreliably, producing much lower light levels than required. Mr. Hawley recognised the potential of LED and was keen to see its superior performance and energy-efficiency in action, to enhance the cherished venue. Due to the diverse applications of the hall, the previous system had been installed with Switch Dim dimming controls, which were to be utilised for the new lighting.



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“We chose Dextra as they were able to offer complete compatibility with our switching systems dimming protocol, and achieve the high lighting level required from our very high ceilings. The lights worked perfectly with our dimming system out of the box, and we are very pleased with the results.”

THE SOLUTION

The solution – MODLED slim.

Since Mr. Hawley had intended to use the existing wiring and lighting positions in the hall's suspended ceiling system, Dextra's design team proposed to use the latest LED panel lighting to ensure quick and easy installation. With its high-transmission panels offering up to 93% transmission and excellent diffusion of the latest Lumileds LEDs, the MODLED Slim luminaire was chosen to deliver the best light distribution possible given the building's specifications.

Offering lumen outputs between 1750lm and 15,200lm across three body sizes, and suitability for lay-in installation in both 15mm and 24mm exposed T suspended ceiling systems or a pull-up version for concealed grid systems, this versatile range can be tailored to suit a variety of interior applications. Due to ceiling heights of 6.8m, a higher output option of 4500lm was needed to achieve the desired light levels in the hall. With light distribution and lux levels optimised, a C84 light source then provided a "cool white", 4000k colour temperature to help create a bright, inviting and comfortable atmosphere for visitors, staff and students alike.

The MODLED Slim was customised for the project to offer complete compatibility with the existing Switch Dim control system. The lighting can now support the entire range of activities hosted at Boutflour Hall. The versatile luminaire can also be supplied with HFR, DSI or DALI dimming functions to suit the applications.

Thanks to the longer lifespan and durability of high-quality LEDs, the MODLED Slim will minimise future maintenance costs for the university, by eliminating the need for frequent lamp changes. These benefits, combined with an average energy reduction of 60% compared to fluorescent or HID sources, will guarantee rapid returns on investment for the establishment.



LED upgrades have a proven track record of quickly boosting the environmental and financial sustainability of schools and universities. The overall cuts to energy consumption will improve the RAU's ranking in the government's Carbon Reduction League leading to increased paybacks from the scheme.

All energy savings can then be financially redistributed to frontline educational services, allowing the university to operate in a green and cost-effective way. The university was extremely pleased with the results of the upgrade and were particularly impressed by the improvement in efficiency of the new installation and Dextra Lighting's extensive bespoke capabilities.



MODLED SLIM