



# PARK HOUSE - WEAVERS CROFT

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LIGHTING'S ENERGY-SAVING LED  
SOLUTIONS CONTINUE TO DELIVER  
SAVINGS FOR NHS.

**Dextra**  
LIGHTING

## ABOUT THE CLIENT

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A growing number of NHS Trusts select Dextra Group to improve their facilities whilst delivering efficiency savings for a more sustainable service. 2gether are the latest NHS Trust to benefit from the advantages of Dextra Lighting's precision-engineered luminaires, bespoke design, and fast delivery, by commissioning LED upgrades for two key units in the Gloucestershire area.



The 2gether NHS Foundation Trust provides mental and social health care services to the population of Gloucestershire, Herefordshire and surrounding regions. As part of a recent renovation programme of its infrastructure and buildings, the Trust invested in the latest LED lighting to drive the energy-efficiency and sustainability of two key units in Gloucestershire.

Weavers Croft and Park House, both community hubs for mental health services and administrative bases in Stroud, were listed for complete lighting upgrades.

The sites were undergoing extensive refurbishments and repairs, and the Trust were looking to upgrade the existing fluorescent lighting to an LED system to cut down energy and maintenance costs, reduce the carbon footprint, and improve light quality throughout.

Upon the recommendation of a number of NHS trusts, Dextra Group was contacted directly by 2gether's Sustainability Manager, Luke Champion, to provide a future-proof LED lighting solution using its wide range of LED luminaires and controls – tried and tested within the health care sector.

## BALANCING QUALITY WITH EFFICIENCY

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The challenge for NHS services today is to find ways to demonstrate value and quality in a highly competitive market and continually improve in all aspects of its operations – all whilst keeping within budgetary constraints. However, with the government-backed carbon reduction and sustainability initiatives on a national level, investment in energy-saving technology, such as LED lighting, is often favoured by a number of funding programmes, helping to deliver efficiency savings crucial to the future viability of its estate.

LED can drastically boost a building's energy-efficiency with one simple and immediate measure. This is why NHS Trusts across the country like 2gether, now, as Mr. Champion explains: "specify LED lighting for new build and refurbishment projects as a matter of course".

To summarise what this means, LED offers the following advantages to the healthcare sector compared to conventional fluorescent lighting:

- Reduced electricity consumption by approximately 60%
- Lower carbon emissions
- Long-life and extended lumen maintenance – Dextra's LED products now feature the latest LM80 verified Philips Lumileds with 90% LED lumen maintenance at 60,000 operating hours.
- Low maintenance – No lamp replacements needed
- For environmentally conscious projects, LED avoids disposal of hazardous fluorescent tubes into the environment in the long-term



## THE SOLUTION

### Administrative Offices / Consulting Rooms – MODLED Office

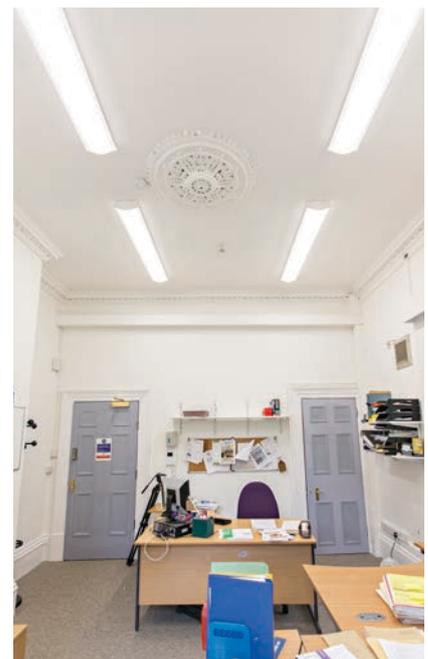
A High-Performance Solution with ECA, L2 & BSEN 12464 Compliance. Purpose-built for office environments, the MODLED Office luminaire uses high-transmission panels to offer, 90% transmission, excellent diffusion and BSEN 12464 compliant glare control to assist with computer usage and provide maximum visual comfort and clarity for staff and patients alike. This optical design allows the luminaire to offer optimum light output ratios and achieve the recommended 400 Lux for office areas within spacings as wide as 3 x 3m. This means that the MODLED Office can fulfil lighting requirements for both retrofit and new-build applications using fewer luminaires – saving NHS Trusts like 2gether more money in terms of total cost of ownership and installation.

From a range of 3 body sizes and lumen outputs of up to 11,000lm, the versatile luminaire was supplied in a 600mm x 600mm, 4400lm version for areas requiring one-for-one replacement and 5500lm for rebuilt areas.

From a wide choice of dimming options, the MODLED can be installed with an integral R24D sensor and DALI dimming functions offering daylight regulation and presence detection to boost energy savings by up to 30%. DALI dimming control also gave staff the flexibility to accurately adjust the lighting to suit office tasks or make patients feel more at ease during medical assessments.

The luminaire was surface mounted quickly and easily, but can also be provided in a recessed version in both lay-in and pull-up installation formats to suit a range of ceiling types.

For retrofit applications where smaller luminaire spacings exist, 3500lm versions using other products from the MODLED family can offer similar performance to fluorescent equivalents with significant reductions in energy consumption.



## THE SOLUTION

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### Archives & Stores – Graduate Surface LED

The Graduate LED was chosen to provide an energy-efficient, durable and low-maintenance solution for various archive and storage areas at the Park House site, further improving returns on investment for the Trust.

In terms of performance, the Graduate LED features Dextra Group's high-efficiency opal polycarbonate diffuser to provide LORs as high as 90% and excellent diffusion of its high-quality Lumileds LEDs.

The highly versatile Graduate LED was provided in a 1500mm linear body and a 6300 lumen output, to satisfy the lighting requirements at each location and conform to the existing spacings and connection points. This range of luminaires can be adapted for a wide variety of retrofit or new-build applications with different room dimensions, with lumen outputs between 2200lm to 13,200lm in 4 body sizes.

A BSEN 12464 compliant optical design or a TPA Clear Prismatic version can also be supplied upon request, to offer added flexibility in design. From a wide range of dimming options, the luminaire was provided with DALI dimming controls in conjunction with its integral microwave sensor, to offer staff to maximise energy savings and dim light accordingly.

By combining the long life of its LED source with a robust steel construction and screw retained end-caps, the durable luminaire requires minimal maintenance and offers added protection to dirt, dust, and light impact. Its removable gear tray also allows for easy maintenance as well as saving the Trust money by simplifying the installation process. To speed up installation further, luminaires were delivered fully-assembled and ready to install, with the internal sensors avoiding any additional external wiring.



“Reduced  
electricity  
consumption by  
approximately 60%.”

### Reception – Discalo LED – Low-energy Architectural Lighting Solution

The Discalo LED brought an elegant and inviting aesthetic to the reception areas of both buildings, with a blue opal rear diffuser and coloured ring projecting a decorative halo effect onto the walls, whilst offering excellent diffusion. This architectural addition to Dextra Lighting's Amenity range is available with a number of detachable coloured diffusers that can be easily removed and replaced with a twist-lock motion for a customised look, as well as facilitate installation and maintenance.

With lumen outputs of 1500lm, 2000lm and 3000lm, the luminaire is an ideal replacement for 28w 2D, 38w 2D or Circular T5 models (3000lm) respectively, offering a similar output to the previous fluorescent lighting but with considerable reductions in energy consumption.

For further energy savings, the Discalo LED can be supplied with an integral microwave sensor and a range of dimming options for presence detection, daylight regulation and a bright-out function.



## THE SOLUTION

### WC facilities / Circulation Areas – Amenity LED Range & Protec LED

Dextra Lighting's Amenity range was used extensively throughout the project to cater for different areas of each building. The popularity of this family of luminaires is owed to its versatility of function and style, wide range of control options and high levels of efficiency compared to traditional fluorescent lighting.

For the WC facilities at Park House, the Amenity Plus LED bulkhead's sturdy injection moulded polycarbonate construction offered IP65 rated protection combined with durable, high-performance Lumileds LEDs for a low-maintenance and energy saving solution.

In the building's stairwells, a 2000lm version of the Amenity Decorative LED provided a highly efficient replacement for the existing fluorescent downlights, offering light output ratios in excess of 80%, whilst operating at up to 87 luminaire lumens per circuit watt. The luminaire features an attractive minimalist construction which is adaptable to a host of environments using a range of coloured ring attachments and semi-recessing kits.

The AMED range can be offered with optional integral sensor, emergency, corridor mode or dimming options, all of which can be combined to tailor the installation to each application.

As an alternative to the Amenity family of luminaires, the popular Protec LED was selected for the WC facilities at the Weavers Croft site. The ultra-versatile Protec LED is available in a wide range of customisable options including, lumen outputs, dimming options, beam angles, custom bezels, interchangeable colour attachments and reflectors, to tailor the each installation to specific aesthetic, performance, and practical requirements.

luminaires in all locations were supplied with integral 3-hour emergency lighting in adherence to building and sector-specific safety regulations. The integral emergency drivers also reduced installation times as standalone fixtures did not need to be fitted.



## FEATURED PRODUCTS

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GRADUATE SURFACE  
LED



MODLED OFFICE



DISCALO LED



AMENITY PLUS LED



AMED LED



PROTEC LED