WISBECH EYE CLINIC

Dextra LIGHTING

THE BRIEF

The new purpose-built surgery in Wisbech now boasts state-of-the-art LED lighting, medical equipment and security systems. Dextra Lighting were selected over competitors for their modern design approach and flexible manufacturing capabilities. The Anglia Community Eye Service (ACES), an independent NHS Eye Service provider, now serves the community more efficiently from its new off-site clinic. The move was motivated by an increase in demand for eye-care in the community and has made the surgery more accessible to the local community, helping to keep waiting times to a minimum and alleviate the pressures on the surrounding acute settings.

The concept for the 1000m squared facility involved bringing together the familiarity of a "cottage hospital" with the modernity and functionality of the latest technology. Designed to a high specification, the surgery featured cutting-edge security technology such as retina and fingerprint detection and high-resolution CCTV to enhance the building's safety. Since many ophthalmic out-patients are partially-sighted or totally blind, a well-lit environment is crucial to maintaining health and safety and allow visually-impaired patients to find their way around independently.

NHS planning guidelines emphasise that patients attending ophthalmology units, particularly for the first time and those awaiting surgery, can be apprehensive and that "furnishings and lighting should contribute to creating a relaxed and comfortable environment."

Therefore, the challenge was to design a safe, contemporary and task appropriate lighting solution, that would comply with the latest LG2 and ECA regulations and guarantee long-term financial paybacks in energy savings. The versatility and energy-efficiency of LED lighting solved all these issues without compromising on affordability.

Dextra Lighting worked closely with the client, inviting both the project consultant and registered manager to visit the factory to develop aspects of the design in detail. The in-house design department also collaborated effectively with Piquant Design, to deliver a sophisticated bespoke solution for the lighting's sensors, controls and emergency features. Once the order was completed, Smith's Electrical of Boston carried out the installation.

> "Together with Piquant Design, Dextra Lighting delivered an advanced bespoke design for the surgery's lighting controls."

THE PRODUCTS

Upon entering the building, patients are met by a "village hall" style reception area with plenty of seating. The spacious room features ceilings of over 5m and an entire wall of windows, making the most of the natural light. Small high-level, square windows have also been fitted to balance the distribution of daylight.

Here, the MODLED Surface luminaire's elegant minimalist design complements the surrounding architecture. The luminaire's square 600mm x 600mm panels also harmonise well with the shape and layout of the windows, producing an aesthetically pleasing effect. Its white powder-painted steel housing offers a stylish, yet unobtrusive look, allowing it to match a variety of decors and interior designs.

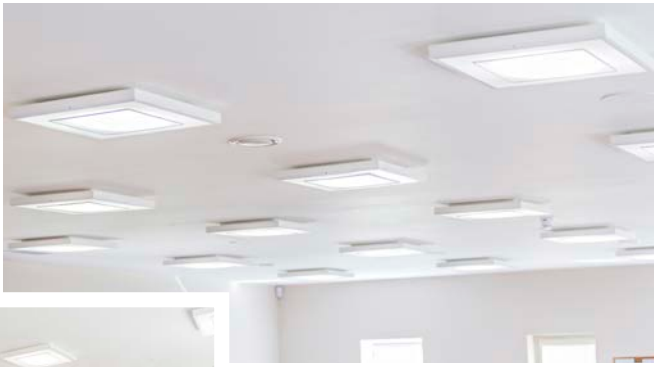
By using the latest Philips LEDs and Philips or Tridonic drivers, the MODLED Surface offers excellent efficiency and minimises maintenance in such a busy and hard to reach area. Combined with advanced optics offering 93% transmission, these high-quality sources allow the luminaire to offer maximum visual comfort (compliant with BSEN 12464 3000 candela limit glare requirements), excellent diffusion and LORs in excess of 85%.

Available in a wide range of lumen outputs between 3500lm and 13,600lm across three body sizes, the luminaire offers designers the flexibility to achieve the optimal luminaire spacings to suit the room size. To achieve the required light levels for the reception/waiting area, thirty 4400lm variants were installed, offering a bright and uniform coverage of light.

Maintaining a similar aesthetic to the entrance hall , the MODLED Office Surface was installed in the building's offices. Tried-and-tested in offices nationwide, this surface mounted luminaire combines glare control technology (a high transmission opal diffuser and central microprism optic panel), with high-output Philips LumiLeds LEDs, to achieve the recommended 400 lux average for offices with spacings as large as 3m by 3m. These excellent performance features translate into total compliance with ECA, L2 and BSEN 12464, and allowed the installation to be designed with the minimum of luminaires, capital cost and energy consumption.

This versatile product is available in lumen outputs between 4400lm and 11,000lm in three different sizes (600mm x 600mm, 1200mm x 600mm or 500mm x 500mm). The luminaire was also fitted with DALI dimming controls and compatible daylight regulation sensors. For the consulting rooms, another product from the broader MODLED family was installed to suit the ceiling type. The MODLED Slim recessed luminaire offers the premium performance and legal compliance seen in the MODLED Surface, but is designed for pull-up and lay-in installation in both 15mm and 24mm exposed T suspended ceiling systems.

The durable surface mounted Impervia LED (IMPS LED) on the other hand, was utilised in the clinic's operating theatre. Its IP65 rated steel housing and injection moulded ABS frame, offer protection from dust, dirt and moisture, making it a low maintenance and hygienic solution for a range of applications. This high-performance and versatile luminaire is also available in lumen outputs ranging from 3500lm (ideal for retrofit applications) and 9000 in two body sizes.



THE PRODUCTS

The ultra-versatile Protec LED downlight proved ideal for the corridors and reception desk. Offering a wide range of interchangeable custom bezels, covers, reflectors and colour attachments, this luminaire can be made to suit a variety of interiors and is adaptable to changes in decor, layout or colour scheme. These aesthetic features have made the Protec LED an increasingly popular choice for a host of high-end applications, including retail outlets, airports, universities and offices.

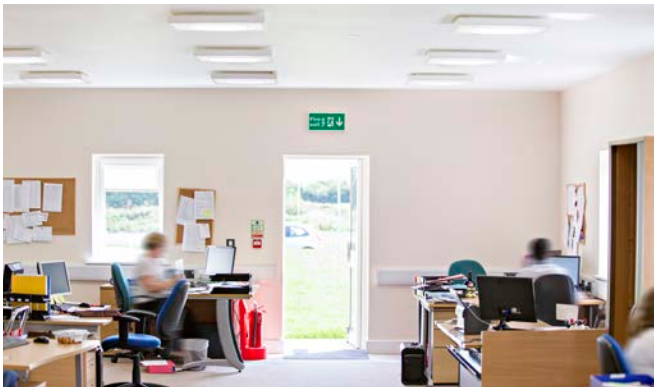
For the reception, grey bezels were fitted to complement the desk's wooden frame, whilst white bezels were ordered to match the corridor walls. An optional "white halo" decorative attachment also added a stylish touch to the luminaire. In each area, the Protec LED was delivered in both specular (Opti-Spec) and semi-specular (Opti-Sat) reflectors to provide the most effective light distribution. Luminaires were supplied with IP44 clear covers (IP65 if silicon sealed) offering added protection in the clinic's busy circulation areas.

Combining the latest Philips Fortimo/Xitanium drivers and LEDs with highly efficient anodised aluminium reflectors, the luminaire runs far more efficiently than fluorescent or HID downlights, offering impressive LORs in excess of 90% for lumen outputs between 1100lm and 3000lm. Its impressive energy-saving capabilities tie in perfectly with the NHS's commitment to ensure long-term environmental and financial sustainability for its establishments.

The luminaire is designed to provide versatility and ease at the point of installation with a practical four point self clamping spring bracket for ultra-quick (and cost-effective) installation and can be fitted in either plasterboard or mineral fibre, in ceiling thickness between 3mm and 30mm.

Other products utilised in this project include: the "fit and forget", low maintenance OPUS LED floodlight for the clinic's car park, the IP65 sealed AMEX LED on the building's external walls and the Amenity Decorative LED for amenity and storage areas.

Together with Piquant Design, Dextra Lighting delivered an advanced bespoke design for the surgery's lighting controls. All fittings were supplied with DALI dimming functions which were made compatible to the Piquant's bespoke lighting controls. In each area, selected luminaires were installed with integrated emergency lighting complete with auto-test functions. All LED products were offered with Dextra Group's comprehensive 5 year warranty for extra peace of mind.



FEATURED PRODUCTS

MODLED OFFICE SURFACE / SUSPENDED

MODLED SURFACE / SUSPENDED

PROTEC LED

IMPS LED