



NORTH DEVON CREMATORIUM

INVESTS IN LED TO FUTURE-PROOF
NEW CHAPEL.

Dextra
LIGHTING

ABOUT THE CLIENT

North Devon Crematorium invests in LED to future-proof new chapel. The brand-new £1.35m chapel in Barnstaple is elegantly lit by Dextra Lighting's precision-engineered and eco-friendly LED luminaires. The new LED lighting system helped create a high-quality, soothing environment for the bereaved and was delivered in a timely and non-disruptive manner. The savings made in this sustainable redevelopment project have allowed the North Devon Crematorium to raise the quality of its services at no extra cost to the taxpayer.



The North Devon Crematorium has been offering its services to the public since 1966 and has been run by a joint committee comprised by North Devon and Torridge district councillors. Due to a significant growth in attendance over the years, the existing chapel was no longer adequate for Barnstaple's community needs. So, after lengthy deliberations, the committee secured funding to construct a new state-of-the-art chapel with a capacity of 256 seats for larger services.

With the new chapel now complete, crematorium manager Mark Drummond says it had been "quite a journey" and that he was "immensely proud" of the results. Great attention to detail and quality was observed throughout the project as Mr Drummond believes that "people are coming to a place where some thought has been put in and some justice has been done to their loved ones".

Despite committing to stay local wherever possible, Andrew Wilson, North Devon Council building surveyor, explains how exceptions had to be made for two contractors from outside Devon to deliver the high standards required. Amongst these was Dextra Lighting, who was selected over leading competitors by Martyn Beale of EX2 Electrical of Exeter, for their comprehensive range of high-quality energy-efficient products, fast delivery times and bespoke capabilities.

The crematorium takes great care to maintain a sustainable and ethical approach in all its operations. In addition to specifying energy-saving LED luminaires and controls from Dextra Lighting; sustainability ran right across the project from appointed building contractors, South West Highways, breaking their own record for protecting the environment under the Considerate Constructor's Scheme, to safely recycling cremated metals – generating £9000 per year for charity.

THE BRIEF

In addition to keeping electricity bills and emissions low, the new lighting for the crematorium hall needed to provide an elegant, subtly decorative – yet discrete aesthetic suitable for its purpose. Comfortable light levels were to be achieved in all areas to create a soothing environment during the services. User-friendly controls were specified to allow staff to adjust the lighting according to their specific needs. With the busy crematorium remaining open throughout the redevelopment works and performing an over 1500 service a year, quick and hassle-free installation and maintenance were essential to minimise disruptions and costs. Luminaires, therefore, had to simplify the installation process for EX2's electrical engineers.

Energy-efficient standalone and integral emergency lighting also had to be supplied in compliance with building regulations. Management staff and committee members expected the installation to offer the reliability, efficiency and longevity of LED with fast returns on investment in terms of energy and maintenance costs.

Overall, LED installations can typically offer an average of 60% reduction in energy consumption compared to fluorescent sources, with sensor and dimming controls allowing users to fine tune their energy usage according to their needs for further savings.



“LED installations can typically offer an average of 60% reduction in energy consumption compared to fluorescent sources”

THE SOLUTION

Main lighting – MODLED Slim Recessed Luminaire & Protec LED Downlight.

The lighting design in the crematorium hall was based on multiple luminaires. The Protec LED downlight was utilised as primary lighting as it combines premium performance, efficiency and aesthetic appeal. With its ultra-efficient anodised aluminium reflectors and high-quality Lumileds LEDs, the Protec LED offers light-output-ratios of over 90% in lumen outputs of up to 3000lm, with average reductions of 60% in power load compared to fluorescent equivalents.

Thanks to its high-performance optics and LEDs, the Protec LED generated further savings for the crematorium, by allowing the installation to achieve the desired lux levels and with fewer, widely spaced luminaires for extra savings.

The EX2 technicians were able to choose from a wide selection of customisable options including interchangeable reflectors (available in specular and semi-specular options with narrow or open area distributions) and colour attachments, beam angles, covers, and made-to-measure bezels (ideal for retrofitting), which allow the Protec LED to adapt to a range of different interiors and lighting requirements, as well as any future changes in layout, decor or colour schemes. For both the hall and bathroom facilities, a semi-specular (OptiSpec) reflector was used for maximum coverage, whilst white bezels were supplied to match the ceiling.

Installation was kept quick, simple and cost-effective thanks to the Protec's practical four-point, self-clamping spring bracket which retains the fitting into the ceiling. The versatile luminaire is also suitable for plasterboard, mineral fibre and metal tile installation in ceiling thicknesses of up to 30mm.

A row of six 600mm x 600mm MODLED Slim luminaires was fitted in the suspended ceiling system, highlighting the focal point of the room featuring a pair of sliding glass doors with a stunning sunset print, behind which coffins are placed.

From a wide range of lumen outputs of between 1750lm to 15,200lm, the MODLED Slim was supplied in a lower lumen package of 3500lm offering BSEN 12464 compliant glare control. The luminaire's advanced optics offer 93% transmission and LORs as high as 85%, providing excellent diffusion of its Lumileds LEDs for both maximum efficiency and visual comfort for visitors.

The versatile luminaire is adaptable to a variety of ceiling types as it is available in three different body sizes and is suitable for lay-in and pull-up installation. Both luminaires were installed with DALI dimming functions from a range of control options to provide flexibility to dim the lights manually during services, using practical push-to-make switches. These dimmable drivers can also be used in conjunction with a daylight or occupancy sensor for further energy savings. Integral three-hour maintained emergency lighting (available in either self test or autotest) was also included to ensure occupant safety.



THE SOLUTION

Ambient & Accent Lighting – Capo LED Pendant Luminaire & Pro-Light MINI Spotlight.

The combination of the Capo LED and Pro-Light MINI allowed the installation to create a gentle, evocative and soothing atmosphere in the chapel.

Fusing efficiency with elegant form, the Capo LED's rear housing is manufactured in anodised spun aluminium, and is framed by a colourful translucent collar. Suspended 3 metres from the ceiling, the luminaire helped decorate the hall's central corridor in a more ceremonial style. The luminaire's attractive opal polycarbonate refractor offers efficient distributions providing ideal support for the main lighting, as well as effective ambient lighting.

The Capo LED offers more than aesthetic appeal, its high-efficiency Lumileds LED allow it to offer great coverage whilst performing at an impressive 126 luminaire lumens-per-watt in lumen outputs of 3500lm (4500lm package also available).

The Pro-Light MINI spotlight was used to provide extra focus in areas where commemorative speeches and other funerary proceedings are performed. The highly versatile luminaire is available in a wide range of options including body types, round or square frames, reflectors, three beam angles, coloured bezels and colour temperatures of 3000k or 4000k, to tailor each installation to specific design requirements.

At the chapel, the Pro-Light MINI was delivered in an attractive circular, die-cast aluminium Gimbal body type – in-line with the hall's interior design. A 40° beam angle combined with a specular reflector provided the most effective directional lighting to support speeches, readings and other tributes held at the front of the chapel.

The Pro-Light MINI is ideal for a variety of high-end applications, with its high-performance aluminium-faceted reflectors and Lumileds LEDs providing superb quality of light and efficiency in lumen outputs of between 1400lm and 4000lm.

Its extruded aluminium heat sink also optimises the luminaire's thermal management for improved performance and longer lasting components. For quick and practical fitting or post-installation replacement, reflectors simply twist lock into place and luminaires can be supplied with prewired leads to minimise installation times further.

The luminaires are compatible with most mainstream dimming functions and a range of sensors and were installed with DALI dimming drivers and controls to offer flexibility to adjust the lighting when needed.

To maintain a warm and inviting light throughout the premises, all luminaires were provided in 4000k colour temperatures. LED products featured in this project are ECA compliant and covered by Dextra Group's 5-year warranty for additional peace of mind.



THE SOLUTION

Emergency Lighting – AME LED Emergency Bulkhead & LED3 Emergency Module.

In addition to the integral emergency functions offered with the luminaires mentioned above, the LED3 Emergency module and the IP65-rated AME LED Emergency bulkhead were installed in the most effective and discrete locations to maximise emergency coverage and facilitate maintenance.

The efficient EXI LED emergency exit sign was also used to provide clear guidance in all the exits required. Thanks to LED technology, these luminaires provide highly reliable, low-maintenance emergency lighting whilst minimising the charging current and general electrical load compared to conventional sources.



FEATURED PRODUCTS



MODLED SLIM



PROTEC LED



CAPO LED



PRO-LIGHT MINI



AME LED



LED3