Sugg Lighting

A Tradition with Technology
Established in 1837, Sugg Lighting is renowned as the leading name in decorative and heritage lighting. Ornate Sugg Lighting columns and decorative lanterns now adorn numerous thoroughfares, prestigious buildings and parks across the world, with many nineteenth century installations continuing to survive in excellent working order today.

The historic skills and traditions behind this unique pedigree remain the cornerstone of the Sugg Lighting success story. Using the techniques of our craftsmen handed down through the generations, the same materials and even some of the original tooling from those early days, Sugg Lighting continues to set the highest standards in the manufacture, reproduction, refurbishment or refit of heritage lighting projects across the globe.

By embracing modern technology, such as lamp technology, electronics and discharge lamps, we are able to provide an authentic luminaire with performance that belies its historic appearance, providing economic performance solutions for modern day requirements, which applies to both interior and exterior projects.

In 2008 Sugg Lighting were very proud to receive the appointment of the Royal Warrant, the prestigious award to become the Heritage Lantern Manufacturer and Refurbishment Specialist to Her Majesty the Queen.

Sugg had supplied the majority of the existing lanterns currently installed in Buckingham Palace having received the Royal Signal in 1911; these lanterns are still in use and are currently undergoing refurbishment. The 100 year old lanterns and globes are now being updated with modern controls and will be returned to site for a further term of service.

The original lanterns were manufactured in Westminster at the Sugg Vincent Works and are plated with the original William Sugg plates, which will return with the lanterns having been fully refurbished; we are also making replicas for additional areas to complete this re-lighting project.

The art of lighting is a proven science. Sugg’s fully accredited laboratory and test facility is equipped with state of the art software design and photometric technology. A photometer is used to capture the intensity data required in the conversion of various formats for use, such as TM14, IES. Different optical controls are rigorously tested for efficiency on the Sugg range of luminaires while additional tests are carried out to verify luminaire output in full accordance with British Standards. We also recognise the importance of effective temperature and ingress protection. Dust and moisture can seriously affect optical performance, dulling the reflective surfaces over time and drastically reducing the luminaires output. Using a combination of physical barriers and gasket seals, luminaires can be effectively sealed. Our solutions are tested to a range of ingress ratings, up to and including IP65, to suit individual applications. With the development of electronic gear for HPS, HQI, Cosmopolis, Fluorescent and LED’s internal temperatures are critical to the effective running of both the gear and LED’s, as they are generally rated to lower temperatures than traditional discharge gear.

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Harnessing discharge and optic technology

By bringing together low maintenance performance, lamp reliability and durability, discharge light sources have proved the natural first choice for street lighting and other external schemes.

Improved lamp technology and the development of performance optics has challenged the luminaire manufacturer to achieve larger wattages from smaller fittings and at wider spaced intervals to satisfy ever more demanding lighting standards. Now, and through the ages, Sugg Lighting has risen successfully to this challenge.

Commercially appropriate and always effective, Sugg Lighting solutions perfectly balance the degrees of illumination and range of distributions required for road lighting, amenity areas and open areas, such as car parks. Our decorative luminaires satisfy both performance and aesthetic considerations to provide customers with fully integrated lighting designs.

High Standards in testing

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**Special Architectural Projects**

**Shopping Centres**

Trafford Park, Manchester, is our largest single project. Exterior car parks, roads and associated areas are all lit by specially designed reproduction Sugg Arc lanterns and with decorative brackets on cast aluminium columns provide a powerful, eye-catching appearance to the whole development and achieve a striking feature by day and important task lighting by night.

Sugg also designed interior architectural light fittings for the shopping mall areas, and artificial flame effect units for heightened visual impact on the roofline. For the interior of the mall, Sugg produced a series of brass polished bowls with decorative fixtures to offer highly decorative demarcation to the balustrade surrounding the upper malls.

The Pedrosa development in Barcelona has Sugg decorative luminaires, the scale of this project required large fittings that would balance the scale of the Shopping Malls. This project required 4m diameter feature chandeliers and large wall mounted fitting to adorn the mall interiors. All were fitted with modern lamp and gear combinations to provide minimum maintenance periods and economic running costs.

**Feature Applications**

Sugg Lighting have worked with a number of Architects to provide unique decorative features for large developments. The stainless steel spike detail shown was developed for the St Faiths Hat Shopping Development where a tiffany style illuminated dome was required to provide a feature for the entrance to this redeveloped area. The initial design was a number of sketches that were then developed into 3D modeled drawings, then produced in stainless steel, this was polished and glazed with individual panels to provide the effect required.

Sugg have also manufactured bespoke special luminaires for theatres and private developments where the craft skills and manufacturing capabilities of the factory combine to realise individual requirements. With Dali dimming circuits and innovative use of photoelectric daylight saving, a full range of lighting requirements can be met.

With the introduction of LED lighting and its extended longevity provide a range of floodlights and accent luminaries that are now available from Sugg. These small high powered luminaires are ideal for accent lighting within large structures as they have a long life and excellent lamp colours available, with colour changing options a new palette of lighting solutions are now available.

**Churches**

Church lighting hasn’t changed a great deal over the years due mainly to a lack of funding, also many of the luminaires are listed. A large number of these luminaires are now used for a wider range of applications and functions as different lighting requirements are now needed. Sugg have refurbished existing fittings and upgraded the wiring and type of lamps used and incorporated these with modern switching controls providing a wide range of solutions for the client that are easy to maintain. This includes raising and lowering systems to bring inaccessible fittings to the ground for re-lamping and ongoing maintenance, so reducing costs where specialist access equipment would have been required.

**Special Projects**

Sugg being a manufacturer have the ability to fulfill individual requirements in terms of design and lighting solutions within both modern and heritage lighting markets, for indoor applications and exterior. This lighting design service coupled with product development ensure that we continue to offer a product that meets the ever changing requirements of lighting in terms of design and the decorative expectations of the modern architect and engineer.

**Carbon Offsetting**

Sugg is committed to minimising the environmental impact of both its manufacturing processes and its products. However, even with the most responsible approach, some carbon dioxide (CO2) will be released into the atmosphere as an indirect result of factory and selling activities and our customers use of luminaires. Sugg has therefore designed an ambitious carbon-offsetting scheme to help compensate for these emissions. Tree planting is an effective approach to carbon offsetting. Each tree planted will offset approximately 1 Tonne of CO2 during its lifetime of 100 years.

1 Tonne of CO2 equates to approximately 1900kWH of electricity.
Specialist historic refurbishments are a speciality of Sugg Lighting, refurbishing historic luminaries and refinishing them, providing modern light sources and controls, improving the ingress protection of the fittings as part of the refurbishment. Sugg have been manufacturing fittings since the 1850’s and we are now having some of these original fittings returned for full refurbishment. Our craftsmen and experience in the manufacture of copper and bronze fittings ensure the refurbishment is carried out without compromise. Castings, columns and overthrowes are also replicated and refurbished where new patterns are required we are able to offer this service ensuring that the finished product is sympathetic with the original fittings, this coupled with modern production techniques ensure that no compromise is made in the reproductions. We are able the repair shot, bead and garnet blast columns and castings and re-bronze to the original patina ensuring the fittings are returned fit for another century of service.
**Lighting Technology**

With the introduction of the new BS5489 lighting standards in 2003, the methods having changed to meet new lighting requirements with a view to providing effective lighting with reduced lighting levels utilising whiter light sources. Thereby reducing ongoing power requirements while not compromising on the visual appearance of the nightscape or public safety. This coupled with part night dimming and part night operations, with a view to reduce wasted energy. Sugg lighting have a range of optical solutions that suit both clear and coated lamps including fluorescent lamps providing a wide palette for a variety of applications and with new LED solutions available greatly reduced power consumptions, this can be achieved while not compromising the design objectives. Sugg Lighting offer a complimentary lighting design service where proposed solutions to given areas can be provided and through mutual discussion a performance proposal, with ongoing maintenance and running costs, can be considered in equal measure to arrive at the preferred solution.

**Large Road Lighting Optic**

The large Road Lighting Optic is ideally suited to main road lighting where a beam toe for vehicular traffic is important, providing even illumination and effective performance lumiance solutions with both good overall uniformities as well as achieving longitudinal uniformities. Ideally suited for mounting heights of 6m to 15m, depending on the lantern selection and road geometries. This optic is used for lighting categories ME1/CE0 through to ME3/CE2 lighting requirements and can accommodate a wide range of lamp and gear combinations; see individual product data sheets for more details.

**Small Road Lighting Optic**

The Small Road Lighting Optic differs in both size and lighting performance to the larger unit, this optic has been designed to fit within smaller fittings and provide solutions for lower category roads where the mounting heights are reduced and a greater surround ratio is required for the pedestrian user. This optic has a limited wattage range which is governed by the lamp size, but will accommodate a wide range of lamps and gear. Widely used for lighting residential roads and associated footways ME3/CE2 > ME6/CE5/S3, it provides a controlled light distribution and has a full cut off to prevent light pollution and reduce obtrusive light.

**LED Road Lighting Module**

The introduction of the LED into street lighting has created a great deal of excitement and the longevity of the light source and the reduction in potential power requirements have both driven the industry for an effective solution. Sugg Lighting have adopted the approach of using an asymmetric optical unit that can easily fit into a wide range of fittings, this high performance optical unit has a fixed output in terms of lumens, but where higher standards are required multiple units can be added into the product to overlay the units distributions, meeting standardised ME4/CE3/S1 > ME6/CE5/S3, enabling a range of standards to be met. Mounted within a lantern at 5m with a 5m wide road a 25m spacing will achieve a Eave of 5lux (S4) providing a cost effective LED solution to urban areas, residential and village lighting requirements, coupled with part night switching can also reduce ongoing energy costs.

**Cycle Optic**

The Cycle Optic provides a longitudinal distribution that is more evenly spread either side of the column so providing ideal lighting for footpaths, cycle paths, car parks and dual carriageways where the columns are centrally mounted. Sugg lighting were awarded the Lighting Design Award in 2004 for an innovative solution to the Boulevard in Hull where a 28m Ew area, the road was lined with mature trees, was effectively lit by the cycle optic suspended at 8m from a catenary system. Suspended centrally across the carriageway, with 5m pedestrian luminaires mounted on the transmission poles to provide pedestrian lighting and verge illumination. The scheme at 35m spacings used 1 x 70w HPST lamp for the carriageway and 2 x 35w Metal halide lamps for the pedestrian areas all merging together to provide a lighting solution that could not be achieved from conventional column mounted luminaires.

**Full Length Glass Refractor**

The Full Length Glass Refractor completes the lighting pallet on offer from Sugg. This glass refractor houses vertical coated lamps and provides a vertical element to lighting projects where columns are used to light footways or narrow streets that have high buildings. This option provides a vertical wash of light enhancing areas, or in open parkland areas providing a vertical distribution that can reveal people moving towards a lit area, ensuring vehicles and the drivers are able to see approaching hazards. This unit is also used in our illuminated bollards providing 14m spacings for footway schemes and building illumination by projecting an evenly illuminated facade from a low level as shown in the Wellington College scheme where the bollards were used in conjunction with LED floodlights to light the facades of the college with less than 500w of lamp power, so lifting the building from its dark sky environment but containing the lighting with back shields on the bollards.

**Photometric Data**

Full photometric data is available from our web site www.sugglighting.co.uk and IES files are also distributed with the Lighting Reality Design package as part of the Data provided. Additional photometry can be obtained upon request from the office for special applications.

**Full Length Glass Refractor**

Refurbished lanterns with 70w HQI
Large Road Lighting Optic

Small Road Lighting Optic

LED Road Lighting Module

Cycle Optic

Area Optic

Village Lighting LED Module 57w

Catenary Pembroke 70w HPST

Upright Pembroke PLH60w
LED Floodlighting

Combining compact fluorescent lamps and LED projectors we have completed a number of projects. The image shown is Wellington College using six 57w compact lamps in glass reflectors mounted into illuminated bollards which were shielded at the rear and with 4 x 3w LED’s with 50 degree lenses, we were able to light the entire facade in a wash of low level illumination with good modeling and colour for the brick and Portland detailing and all with 414w of lamp power. The award winning Armed Forces Memorial built to commemorate those who have fallen since the Second World War, was a project we were proud to be involved with. This structure has been illuminated with LED projectors: 12v DC 12w projectors 4 x 3w set within a cast aluminium marker that was painted in a special Portland stone powder finish to ensure they blended into the overall appearance of the monument. The LED units are illuminated when the site is used after dark and these low level units lift the entire structure out of the night-scape so providing soft even illumination with low running costs.

Other LED floodlighting projects include cemetery lighting and shopping centre accent lighting.

Cycle Path Optic

The Cycle Path Optic is ideal for lighting areas such as rail platforms where overall uniformities and both horizontal and vertical levels of illuminance at the platform edge require a specialist optic. Close control of the levels and projection of the light are important as glare and the threshold increment toward the driver are paramount in terms of driver safety.

Special Solutions

Where environmental issues dictate a non-standard approach to lighting we are able to work with clients and offer solutions to problems. The scheme here was Eaton Bridge in Windsor where the bridge structure prevented the use of columns for the deck lighting. A special compact fluorescent fitting was incorporated within the balustrade to provide even low level illumination with a structure that enhanced the bridge both in the day and after dark.

The same technology is used for manufacturing retrofit subway fittings that fit into existing subways and underpasses reducing costs as the fittings, glazing and gear trays will fit within existing obsolete mountings.

Security Lighting

Many of the products we have supplied have a secondary role to the provision of illumination, they have to perform with CCTV systems that are existing or, in certain installations, covert cameras are required. We are able to provide lighting designs that consider camera positions and have incorporated cameras within lantern canopies or alongside lantern and column bracket combinations. This reduces clutter within a development and provide the best visual scene possible while still complying to design considerations, and standards. Combining the functions greatly improve the cohesion of cabling and ongoing maintenance.

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