

Lorraine Calcott

IEng FILP IALD MSLI MCIBSE BSS

Milton Keynes, MK8 | 01908 560110 | lcalcott@itdoes.co.uk | [/in/lorrainecalcott/](#)

Visionary Lighting Designer Bridging Design, Technology, and Market Growth

- Research & Development
- Commercialisation
- Business Development

Neurodiverse, inquisitive and innovative Commercial Director & Experienced Lighting Designer with a strong record of developing fresh concepts/technologies into profitable commercial products and bringing them to market. Recently led the development of a novel lighting solution to mitigate health risks associated with blue enriched LED light, in collaboration with UCL and leading scientists. Led the design and implementation of a spectrally specific lighting range for care environments, successfully reducing falls, medication use and improving sleep at Ashmere Care Home. Adept at driving business growth, managing high-profile projects, and building strong client relationships. Now seeking to embrace new challenges, continue to drive innovation in product development and bring new concepts to market.

Areas of Expertise

- Leadership
- Imagination
- Client Relationship Management
- Sales Strategy
- Project Management
- Financial Management
- Stakeholder Engagement
- Negotiation
- Marketing and Branding
- Risk Management
- Technical Expertise
- Training and Development

Key Achievements

- ✓ **Commercial Innovation:** - Led the research, development, and upcoming market launch of a groundbreaking product in collaboration with UCL and leading scientists, designed to mitigate health risks associated with enriched blue LED light by integrating red light solutions for improving mitochondrial health.
- ✓ **Award-Winning Design Solutions:** Delivered award-winning projects such as The Wellesley Hotel, integrating Art Deco aesthetics with innovative LED technology, demonstrating a pioneering approach to combining functionality, sustainability, and artistic design along with a cost neutral solution against conventional light sources.
- ✓ **Care Environments:** Developed and implemented a spectrally specific lighting product range that simulates natural daylight, significantly reducing falls, reducing medication use, improving sleep, and enhancing well-being in care homes and hospitals, earning industry recognition and awards
- ✓ **Thought Leadership and Guidance:** Authored and delivered industry-leading guidance and training, including updating circadian guidance for the IALD, Secured by Design standards and CIBSE/SLL LG6 revisions, influencing best practices and bridging technical knowledge gaps across the sector internationally.

Professional Experience

Director | it does Lighting Ltd, Milton Keynes | Jan 2004 – Present

Launched a Lighting consultancy focusing on and promoting the healthy, smart, energy-efficient design of lighting schemes and products. Accountable for implementing all internal processes, and delivering specialist lighting design solutions for diverse stakeholders, including architects, engineers, developers, ecologists, civil engineers, M&E consultants, and end-users.

- Conducting research and development to mitigate the health risks associated with blue enriched LED light by promoting the use of specific frequencies of red light.
 - Currently collaborating with UCL and leading scientists to develop an innovative product, with the first product scheduled for market launch by mid-next year.

- Led research and product development in spectrally specific lighting, advancing beyond standard “circadian” solutions, developed a unique product range that uses targeted spectrally specific light to simulate natural daylight in care homes, hospitals and other interior environments.
 - Achieved measurable benefits, including reduced trips and falls, improved sleep for residents and staff, decreased medication use, and positive feedback on the dynamic 24-hour lighting environment.
- Delivered numerous industry-leading projects whilst consistently pushing the boundaries of lighting design, addressing technical innovation, human and ecological needs, defining excellence, and shaping the future of the lighting sector.
- Served as a trainer and author of guidance for Secured by Design (SBD), the UK's only accredited and approved consultancy for crime prevention through environmental design, acting as the sole approved designer.
 - Helped bridge technical gaps, mentor SBD teams, and ensure effective design approvals in the absence of internal technical support
- Regularly contributes articles to industry publications, providing thought leadership and advancing best practices in lighting design.

Key Projects:

Office Lighting Design: Google, London:

- Delivered innovative lighting solutions for a nine-floor office with outdoor spaces, balancing energy efficiency to maintain BREEAM Gold standards. Designed a unique, quirky lighting scheme aligned with Penson Architects' creative interior design, enhancing both workspaces and breakout areas. Used unconventional luminaires, ensuring functional and visually striking results. The project successfully transformed traditional office spaces into vibrant, engaging environments, exceeding client expectations.

Spectrally Specific Lighting Design: Ashmere Care Home, Heanor Park:

- Designed and implemented a spectrally specific lighting scheme based on PhD research for Heanor Park Care Home, supporting residents' sleep patterns and overall well-being. The solution featured flexible, algorithm-driven lighting tailored to human circadian cycles, reducing falls, medication use and enhancing engagement for residents and staff.
- By simulating natural daylight exposure, the system provided precise colour/intensity adjustments throughout the day. Highly Commended at the Lux Awards 2020, the project demonstrated the transformative impact of innovative lighting on elderly and dementia care.

Street Lighting Design with architectural structure and landscape design: Rochester Riverside, Kent:

- Delivered adoptable street, amenity, and landscape lighting design for a landmark riverside development in Medway, aligning with council specifications and developer aspirations, ensured lighting enhanced key architectural features, balanced safety with ecological preservation, and minimised light pollution using advanced optical controls.
- The design achieved aesthetic appeal whilst safeguarding ecological areas and maintaining dark skies. The successful project has been praised by Vistry Homes, with ongoing collaboration as the development progresses. The Blue Boar Crane, which formed a key area within the site and is visible from miles away is a groundbreaking design showcasing how blue light can be achieved without the use of blue within the spectrum. This is a novel approach and hasn't previously been achieved in other applications.

Airport Lighting Design: Gatwick Airport, South Terminal:

- Designed/implemented an innovative LED lighting system for an airport facelift, enhancing traveller experience whilst ensuring safety and functionality. The lighting provided clear visual cues, supported wayfinding, and created a welcoming, airy ambience.
- Integrated energy effective LED technology aligned with the design vision, futureproofing the space and encouraging customer engagement in high-revenue areas. The project successfully balanced aesthetics, operational needs, and sustainability.

Hospitality Lighting Design: The 5* Wellesley Hotel, Knightsbridge:

- Designed modern LED lighting for a boutique hotel behind a listed façade, blending 1940s Art Deco glamour with energy-efficient solutions. Collaborated with Fox Linton to integrate lighting seamlessly with interiors, enhancing both exterior and interior aesthetics.
- Delivered the project on budget and within a tight timeframe, earning finalist status for two Lighting Design Awards in 2014. The design featured colour-changing LEDs for special occasions and cosy, energy-saving interiors, achieving elegance and functionality.
- Proposed the use of Li-Fi, then a cutting-edge concept from Edinburgh University, offering a secure alternative to Wi-Fi for guests and staff. Whilst not implemented, this demonstrated a forward-thinking approach to integrating new technologies for client benefit.

National Account Manager - City Beautification/Lighting Sales & Design Engineer | Philips Lighting, Europe/UK | 2000 – 2004

Promoted innovative lighting practices across urban design, architecture, and landscape projects. As one of the few female engineering designers, delivered training to colleagues, clients, and industry professionals through designing the City Beautification Excellence programme. Led strategies, urban lighting designs, and regeneration schemes, whilst managing sales and training across Europe and the UK.

Education

IEng FILP, Degree level lighting engineering qualification through the Engineering Council – Currently undertaking CEng upgrade.

PhD Research, Spectrally specific lighting and its effects on human health and well-being, on-going.

PhD Research with UCL and NICE, InfraRed light and its effects on Mitochondrial Health, on-going.

Awards & Accolades

Fellow of the Institution of Lighting Professionals – Less than 30 worldwide

Worshipful Company of Lightmongers – application in progress

Incorporated Engineer IEng – CEng in progress

Only accredited Secured by Design Lighting Designer

National Design Award

Lighting Design Awards: finalist in two categories for Wellesley Hotel

Electrical Industry Award – shortlisted for innovation in lighting

RIBA: commended for lighting of retail area

SMART city expert for European Commission

IES illumination awards

Lux Awards

Young Lighter of the Year Finalist

ILP: Designer Competency Framework – Level 4 Lighting Designer (highest achievable)

Personal Development

IALD committee member and co-author of international industry guidance around circadian lighting, blue light impacts, ecology and environmental health. Commenting on and challenging new guidance as it's being developed.

PhD Research: Current research with UCL and NICE - Development of a product and lab-based research outcomes of infrared light and its effects on mitochondrial health aiding numerous positive health outcomes.

PhD Research: Spectrally specific lighting and its effects on health and wellbeing within an aging population.

IEMA: Carbon Foot-printing and Energy Reduction