Global Horizon
TRAINING CENTER

Training Course:
Lighting Engineering

10 - 14 November 2025
London (UK)

Training Course:
Lighting Engineering

Training Course code: EN236281 From: 10 - 14 November 2025 Venue: London (UK) - Training Course Fees: 6500 Euro

Introduction

This training program, designed by Global Horizon Training Center, provides participants with the knowledge and practical skills necessary to understand, design, and manage lighting systems in various applications. Lighting engineering is a critical discipline that combines science, technology, and creativity to improve safety, energy efficiency, and visual comfort in built environments. The course covers the fundamentals of illumination, lighting design principles, energy-saving technologies, control systems, and compliance with international standards. Participants will also gain insight into advanced techniques in smart lighting systems, sustainable design, and the integration of lighting within modern building management systems.

Objectives

By the end of this program, participants will be able to:

- Understand the fundamental principles of light and illumination.
- Analyze different types of lighting systems and their applications.
- Apply lighting design methods for indoor, outdoor, and industrial facilities.
- Evaluate energy efficiency strategies and integrate sustainable solutions.
- Use lighting calculation software and tools to design compliant systems.
- Recognize international lighting standards and safety codes.
- Incorporate advanced technologies such as LED, IoT, and smart controls into lighting projects.

Course Methodology

The program uses a blended approach combining:

- Expert-led presentations and theoretical frameworks.
- Practical case studies from real-world lighting projects.
- Hands-on exercises in lighting design and simulation tools.

- Group discussions and collaborative problem-solving.
- Interactive workshops to apply energy efficiency and smart technology principles.

Organizational Impact

Organizations that nominate staff to this program can expect:

- Improved lighting design and implementation that enhances safety and productivity.
- Reduced energy consumption and operational costs through efficient lighting systems.
- Compliance with international safety and environmental regulations.
- Better integration of lighting with building management and smart systems.
- Development of in-house technical expertise to reduce reliance on external consultants.

Target Audience

This course is designed for:

- Electrical engineers and facility engineers.
- Architects and interior designers involved in lighting design.
- Facility and building management professionals.
- Energy efficiency consultants and sustainability specialists.
- Project managers in construction and infrastructure sectors.
- Technicians and supervisors responsible for lighting system maintenance.

Outline

Day 1: Fundamentals of Light and Illumination

- Nature and properties of light
- Photometric and radiometric quantities lux, lumen, candela, etc.

- Human visual system and color perception
- Introduction to lighting technologies incandescent, fluorescent, HID, LED
- Basics of light measurement and photometry tools

Day 2: Lighting Design Principles

- Indoor lighting design methodologies
- Lumen and point-by-point methods
- Lighting design for different spaces: offices, retail, healthcare, industrial
- Uniformity, glare control, and visual comfort factors
- Software tools for lighting simulation e.g., DIALux, Relux basics

Day 3: Outdoor and Specialized Lighting

- Street and roadway lighting standards
- Floodlighting and sports facility lighting
- Architectural and decorative lighting design
- Emergency and security lighting requirements
- Case study: lighting design for public spaces

Day 4: Energy Efficiency and Smart Lighting

- Energy-efficient lighting technologies and retrofitting strategies
- Role of LED and controls in reducing consumption
- Smart lighting systems IoT, wireless controls, daylight sensors
- Integration with Building Management Systems BMS
- Green building certification requirements LEED, BREEAM

Day 5: Standards, Safety, and Practical Applications

- International lighting standards CIE, IES, EN, ISO
- Occupational safety and lighting regulations

- Environmental impact and sustainable design practices
- Troubleshooting and maintenance of lighting systems
- Final workshop: Designing a complete lighting solution for a case project.

Registration form on the Training Course: Lighting Engineering

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
Telephone / Mobile: .....
Personal E-Mail: .....
Official E-Mail: .....

Company Information

Company Name: .....
Address: .....
City / Country: .....

Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
Telephone / Mobile: .....
Personal E-Mail: .....
Official E-Mail: .....

Payment Method

☐ Please find enclosed a cheque made payable to Global Horizon

☐ Please invoice me

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Easy Ways To Register

Telephone: +201095004484 to provisionally reserve your place.	Fax your completed registration form to: +20233379764	E-mail to us : info@gh4t.com or training@gh4t.com	Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt.