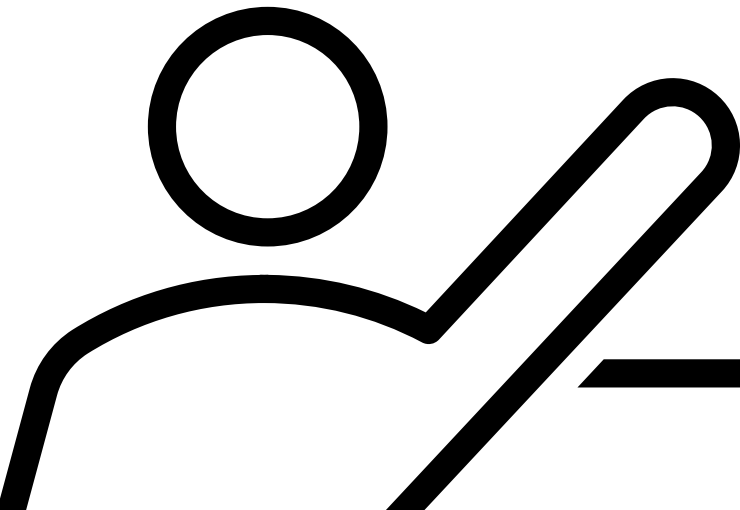


**LIGHTING DESIGN  
ENGINEER**

Whitecroft  
Academy

**PROGRAMME  
SCHEDULE**



This programme is split into three different components with multiple modules within them. To pass this programme, all modules within all three components have to be completed and passed. Each module is constructed of a learning, a task, and an assessment.

This programme is designed so that each component delivers the content in the most suitable, organic and interesting manner. The three components differ from each other in how they are delivered - this is detailed below:

## **ACADEMY COMPONENT**

CLASSROOM BASED LEARNING

## **DIRECTED COMPONENT**

ASSISTED-BASED LEARNING

## **SELF-DIRECTED COMPONENT**

SELF-TAUGHT BASED LEARNING

## **ACADEMY COMPONENT**

- Face-to-Face traditional classroom-based learning – with a trainer and student-type learning
- Assessed and measured through MCQ assessments with a set minimum pass rate
- Provided on a monthly scheduled plan with expert trainers delivering their expertise on subjects

## **DIRECTED COMPONENT**

- Independent learning whereby the learner uses provided information to learn and develop
- Assessed and measured through presentations to Leadership/Managers or assessed written essays
- Provided and delivered on a bi-weekly structure with Mentors providing guidance and support

## **SELF-DIRECT COMPONENT**

- Modules set-out by the programme and worked upon during day-to-day and on-the-job activities
- Assessed and measured through assigned Mentors, Team Leader and Department Manager
- Provided and delivered on a daily plan with Mentors providing guidance and support

# ACADEMY COMPONENT

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## Lighting Principles

Module that looks at the most fundamental basics of lighting and the core of lighting design. Touching on the core idea of design such as the Lumen Method – understanding principles of metrics such as Illuminance, Luminance, Uniformity etc.

## LED Technology

What is LED technology and how has the Lighting Market changed due to its invention. This module looks at not only LED's, but also the technology that it has replaced – and what we as a Lighting Solutions company can do to capitalise on these changes.

## Photometry

How do we measure lighting into a digital format? An in-depth look at the polar distribution curves, distribution types and intensity curves. How does this effect Glare and Surface Brightness of luminaires? Also, how do we perceive ULOR and DLOR? The file types that are often associated with photometry and their link to the lighting design software packages.

## Lighting Controls

Why do we need lighting control systems and what are they useful for? What types of control systems are available – Wired and Wireless? A look into the DALI control systems and the differences between a DALI Broadcast and DALI Addressable systems. What Software and Hardware is required and the future possibilities for building services.

## Energy Assessment

Detailed insight into the impact of lighting on a building energy consumption. What tools are available to allow us to run these assessments against traditional light sources to run Return on Investments and give both energy and carbon assessment reports.

## Specialist Sectors

Whitecroft Lighting are involved in many Service Sectors – Education, Healthcare, Workspace, Industrial, External etc. Each sector type has differing requirements ranging from lighting specifications to product specifications. This module will be a deep-dive into all sectors.

## Sustainability & Circular Economy

## **DIRECTED COMPONENT**

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The logo for Whitecroft Academy features the company name in a white sans-serif font on a black rectangular background. To the right of the text are three white, curved, overlapping lines that resemble a stylized 'W' or a series of arcs.

### **Lighting & Emergency Standards**

British Standards dictate all aspects of building and construction – all the way through to lighting manufacture and lighting planning. Varying sector to sector, there are many different standards that lighting must achieve. One most paramount to this is emergency lighting – as a life saving tool, it is vastly important to comply with all British standards.

### **Maintenance Factors & LED Life**

What is a maintenance factor and how are our lighting calculations effected by them? What is LED Life and how does this effect maintenance factors? We harness a competitive advantage from these two key points and ensure our lighting proposals are industry leading.

### **WELL Standard V2**

WELL applies the science of physical and social environments to benefit the health, well-being and performance of your people. Lighting plays a large part of the WELL Standard and it's important for us to understand how to design inline with this.

### **Lighting Metrics**

As lighting designers, there are multiple key metrics that we are always interested in for compliance and light quality. What are these metrics, why are they important and what are the key considerations of them.

### **Route To Market & Key Stakeholders**

All projects have stakeholders and dependant on their design and build phase determines who is most important to Whitecroft. Understanding the route to market for Whitecroft and the typical stakeholders we encounter in this industry is vital to offer a efficient design service.

### **DALI Controls & Protocols**

As the main lighting controls technology in the lighting industry – its hugely important to understand how it works and the different protocols embedded. How does it work, how does Whitecroft use this within it's products?

## SELF-DIRECTED COMPONENT

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### Relux & Dialux Software

The key software's in the lighting industry for lighting design. Being able to use these software efficiently and capably will make producing a lighting package much easier. Learning the basic through to the advanced.

### AutoCAD Software

The industry standard for 2D drafting – AutoCAD is the tool for complex drawing details. This software provides the basis of our lighting package offer; allowing us to take customer drawings and populate them with our luminaries and controls designs.

### C4C CRM

Learning how to use our in-house CRM software is crucial to learning about the stakeholders of a project, project details and attachments, salesforce collaboration etc.

### Energy Assessment Tools

With the move from traditional source technologies such as fluorescent lamps – how do we quantify and qualify the benefits of upgrading technologies to LED. Many answers to this tend to be based around energy savings and can be expressed through pay back metrics.

### Commercial Financials

Base price, margin, discount etc etc. What do these terms mean and how do we calculate them so that we ensure that our pricing is competitive whilst also leaving room for adequate levels of profit. How do we as designers ensure that we design with a commercial mindset to allow us to unlock the best profits possible, whilst also delivering compliant design.

### Lighting Control Design

Whitecroft Lighting isn't only a lighting manufacture – it's a lighting and controls project partner. Controls and Lighting go hand-in-hand, and the future of lighting controls is smart. Learning the different technologies in the market, and learning Whitecroft's controls offer from a design perspective to develop the most functional and compliant designs.

## PLACEMENTS & EXPERIENCES

Whitecroft  
Academy



### Manufacturing Placement

As a lighting manufacturer – its key that we all have an understanding of the core Whitecroft business. How does the business manufacture it's product, and what steps are taken to ensure that we always deliver what is needed. Working within the operations of the business to get a understanding and appreciation for the work behind the scenes.

### Product Design & Laboratory Placement

Whitecroft Lighting luminaires are some of the best in the industry. How do we conceptualise, prototype, develop and test our luminaires to the highest standard? With the in-house design and laboratory teams – what competitive advantage do we have that many in the industry don't.

### After Sales & Customer Service Placement

Once we have secured the order from our customers – what journey has the project still got to go on? How does the project management team, customer service teams deliver to the customer to keep the project on track with deadlines and expectations. We strive for the best customer experience and these areas are critical to this.

### LIA Certificate Course

Want to work in the Lighting Industry? Everyone who aspires for a career in lighting needs to attend this course. As a recognised qualification in the industry, you will need to attend a 5 days intensive course where you learn and understand the lighting fundamentals. Following 3 assessment and extended coursework do you obtain a lighting certification.

### LIA Advanced Course

The advancement from the certificate course delves further into the concepts of lighting for both internal and external lighting. These courses really set you up for a career in lighting design – showing you the considerations and knowledge needed to develop compliant lighting schemes.

# PROGRAMME SCHEDULE



LIGHTING PRINCIPLES	LIGHTING METRICS	RELUX INTERNAL
LED TECHNOLOGY	BRITISH STANDARDS & BUILDING REGULATIONS	RELUX EXTERNAL
PHOTOMETRY	SLL LIGHTING GUIDES	AUTOCAD SOFTWARE
LIGHTING CONTROLS	LED LIFE	C4C CRM / DPS
ENERGY	MAINTENANCE FACTORS	ENERGY ASSESSMENT TOOLS
SPECIALIST SECTORS	GLARE METRICS	COMMERCIAL FINANCIALS
OFFICE & EDUCATION	ROUTE TO MARKET	PHOTOMETRY TYPES / TOOLS
INDUSTRIAL	KEY STAKEHOLDERS	
SUSTAINABILITY	SUSTAINABILITY	
HEALTHCARE	CIRCULAR ECONOMY	
	HUMAN CENTRIC LIGHTING & CIRCADIUM RHYTHM	
	WELL STANDARD V2	

LIA CERTIFICATE COURSE

LIA ADVANCED INTERNAL / EXTERNAL