

Why Buy From Thorlux?





Thorlux, from its technically sophisticated facilities in the UK, designs and manufactures a comprehensive range of professional lighting and control systems, including energy-efficient solutions. When choosing Thorlux for architectural, commercial, floodlighting, industrial and hazardous area applications, you can be confident of receiving:

- **Professional, competent advice from a long-established UK company**
- **A choice of lighting and control systems subject to stringent quality control (BS EN ISO 9001:2008)**
- **Excellent customer service and a 5-year warranty**

Thorlux, for over 80 years, has manufactured increasingly sophisticated luminaires in the Birmingham area. Over the last 20 years, the company has focused on high technology products, including the development of its first electronic energy-saving lighting control system in the mid-1990s. Huge investment in design and testing facilities in Worcestershire has now put Thorlux at the forefront of its market sector.

Thorlux luminaires are subject to stringent quality control, as demonstrated by the company's **BS EN ISO 9001:2008** (*Quality management systems*) accreditation. Additionally, accreditation of Thorlux to **BS EN ISO 14001:2004** (*Environmental management systems*) gives the customer assurance that the company manufactures its products in the most environmentally friendly manner.



Thorlux Headquarters, Redditch



Thorlux Lighting, the largest company in the FW Thorpe Plc group, is proud that around **97%** of its products are manufactured in the UK.

The FW Thorpe Plc group employs over 700 people. In 2016/17, the group paid over **£15 million** in tax to the UK government - an amount which supports UK local authorities and jobs within them.

By manufacturing in the UK, Thorlux can meet urgent customer demands without the need to transport products by air to the UK, which would involve additional financial and environmental costs.

Thorlux designs and manufactures its luminaires to the highest standards, ensuring optimal performance and reliability. All Thorlux LED and conventional luminaires are covered by a 5 year warranty (excluding lamps and batteries unless otherwise stated). Customers can therefore purchase Thorlux luminaires with even more confidence.

A long and stable history reassures Thorlux customers that its warranty is meaningful. Many companies offer a pre-sale warranty, but post-sale claims require that the company is still trading.

See terms and conditions for full details.



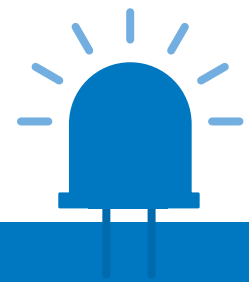
Carbon Offsetting

Thorlux 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 customers' use of luminaires.

In 2009, Thorlux established an ambitious carbon-offsetting scheme to help compensate for these emissions. The company has chosen to plant trees. Why trees? Trees and other plants absorb CO₂ during photosynthesis. One tree grown to maturity in open space can absorb approximately 1 tonne of CO₂ over its lifetime. A forest covering many acres can effectively lock up CO₂, creating a 'carbon sink'.

The scheme is now accredited under the Woodland Carbon Code. On its own land in Monmouthshire, Wales, Thorlux has to date planted 149,849 trees (*Spring 2018*).

Latest LED Technology



In-house LED Printed Circuit Board Production

Thorlux is able to exploit recent advances in LED technology to help meet customer demand for energy-efficient solutions. The company's considerable technical expertise and its ability to invest position it to maximise the opportunities offered by LED technology.

Backed by the group's modern facilities, Thorlux designers and developers have worked over recent years to create LED luminaires to meet customers' operational and aesthetic requirements. Thorlux has made a huge investment in LED technology, including in circuit-board design, software development, thermal modelling and optical lens design.

To increase the range and performance of its LED luminaires, Thorlux both designs dedicated LED luminaires from scratch, to optimise optical and thermal performance, and adapts existing conventional products to offer an LED option.



Unlike a traditional light source, a bare LED is a very intense point-source of light which has high glare and emits light in one direction only; therefore optical design is very important. Thorlux takes different approaches to optical design, according to the desired outcome:

- **LEDs, as with lamps, can sit behind a controller or diffuser which will help to spread the light over a wider area, providing a uniform light (Viva).**
- **Having multiple LEDs on a luminaire provides the option of having individual optics for each LED (Comboseal Plus).**

Almost all Thorlux LED products benefit from bespoke LED printed circuit boards (PCBs) designed by the Thorlux electronics team. These PCBs ensure that Thorlux luminaires deliver maximum performance.

Thorlux Product Testing



In-house Goniophotometer

Rigorous product testing is essential in maintaining a reputation for reliability and quality.

The Thorlux third-party accredited photometric laboratory enables the company to obtain the best optical performance from its luminaires. In addition, customers can be sure that photometric data provided by Thorlux is accurate.

In the photometric test laboratory, a sophisticated goniophotometer gives fast and reliable measurements of the light distribution from luminaires. An integrating sphere equipped with spectral analyser accurately measures light quality, efficiency and colour temperature.

Other in-house testing covers environmental and electrical parameters including extreme ambient temperatures, dust/water ingress, electromagnetic compatibility and current harmonics, in accordance with relevant European standards.

All test equipment is subject to regular in-house maintenance and calibration, with external third party calibration at regular intervals to ensure accuracy of data.





Investing for the Future

VNA Fork Lift Trucks

Thorlux has recently opened a new 2400m² warehouse and distribution centre at its headquarters in Redditch, UK.

In line with the company's environmental policy, the building has clear roof lights to benefit from natural light, and insulated cladding to improve thermal efficiency. A steel-fibre-reinforced super-flat floor ensures that fork lift trucks can operate at full speed in total safety. Lighting is achieved with the latest Smart controlled Solow LED luminaires. A passive infrared sensor detection system, maintained illuminance and daylight harvesting ensure that a minimum of energy is consumed.

To allow efficient picking of finished goods, two 1.5-tonne capacity "man-up" very narrow aisle fork lift trucks will raise the warehouse order pickers to the highest pallet locations to pick individual luminaires, without the need to bring full pallets down to floor level. For safety, a personal protection system automatically stops the fork lift truck if a person or object is detected nearby.

The new Thorlux warehouse enables core product ranges to be stocked and made available for speedy delivery using Thorlux vehicles in the majority of cases.



Thorlux Company Certification



Thorlux Declarations of Conformity

Thorlux products are manufactured to the most stringent quality control standards in the most environmentally friendly manner.

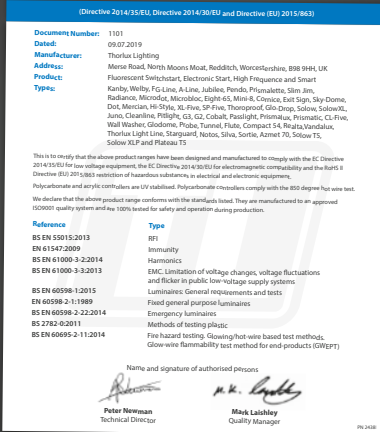
Declarations of Conformity are available stating that Thorlux luminaires have been tested to and comply with the relevant international standards for the manufacture and testing of luminaires and related products. The standards used are:

- EN 55015 Limits and measurement of radio disturbance
- EN 61547 Electromagnetic compatibility immunity requirements
- EN 61000-3-2 Limits for harmonic current emissions
- EN 60598-1 Luminaires: general requirements and tests
- EN 60598-2-1 Fixed general purpose luminaires
- EN 60598-2-2 Luminaires for emergency lighting

Each certificate also confirms that products are manufactured to an approved ISO 9001 quality system, and that products are fully tested before despatch. Tests include those for safety earth circuit continuity, high voltage electrical strength, full circuit functionality including dimming, and current drawn. Specialist in-house protection circuitry is employed to prevent damage to equipment under test conditions.

The certifications to ISO 9001 and ISO 14001, coupled with the in-house testing to BS standards, are clear statements that Thorlux cares about the quality of its products and about the environment.

Declaration of Conformity



Thorlux ISO 9001:2015 Certification



ISO 9001:2015 specifies the criteria for a company-wide quality management system. Using ISO 9001:2015 helps Thorlux ensure that its customers get consistently good quality products and services.

Thorlux has implemented procedures for designing and developing products using process control, to ensure consistency of manufacturing. All manufactured products are subject to full testing procedures covering both functional and, very importantly, electrical safety. Records of all production tests as well as all design and development tests are kept for future reference.

Internal auditing ensures that quality management procedures are appropriate and maintained. Any issues can be dealt with through continual improvement. Corrective action is also followed with preventative action to improve the process and eliminate any chance of a reoccurrence. Compliance with ISO 9001 is externally audited by a third party.

Thorlux ISO 14001:2015 Certification



ISO 14001:2015 sets out the criteria for an effective environmental management system. Being certified to ISO 14001:2015 assures customers that Thorlux measures and reduces its environmental impacts and complies with environmental legislation.

Compliance with ISO 14001 has put a focus on product design. Thorlux uses the most efficient materials and components, reducing the environmental impact through the life of each luminaire.

The manufacturing process is constantly monitored to improve resource efficiency and reduce waste. Any waste generated, including end-of-life components, is subject to ethical disposal or recycling.

Thorlux's UK operation is carbon offset via an independently endorsed, government approved, company controlled scheme.

How to specify your lighting supplier:



1. The supplier shall have ISO 9001 (Quality) independent assessment and accreditation.
2. The supplier shall be responsible for its environmental activities and demonstrate genuine concern. This shall be proven by independent assessment and accreditation to ISO 14001.
3. The supplier shall provide Certificates of Conformity demonstrating compliance with European legislation directives 2006/95/EC, 2004/108/EC and 2011/65/EU.
4. Photometric test information shall be available from equipment which is independently assessed.
5. The supplier shall offer a commissioning service, provided by its own trained technicians. A commissioning certificate shall be provided.
6. All products will be fully tested before despatch to include safety earth circuit continuity, high voltage electrical strength testing, full circuit functionality including dimming, and checks on current drawn.
7. Products and services shall be backed by a comprehensive 5-year warranty – the supplier will have an established history and track record.

Technical Support



The Thorlux Technical Services department is ready to answer all queries regarding Thorlux products and the use of these products in specific environments.

The company also offers a professional on-site commissioning service to ensure that products are configured to provide the desired performance and return on investment. For this service, Thorlux employs its own fully trained personnel.



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