



Performance and safety testing services to world's leading bike lighting companies

Are your bike lights compliant?

There are specific standards relating to bicycle lights in the UK and Europe. If you're manufacturing, importing or selling bike lights, you have a responsibility to ensure your product is 'safe and compliant'. Are you sure you are? LUX-TSI can help.

It is illegal to cycle on a public road after dark without lights and reflectors. Exactly which lights and reflectors, where to fit them and when to light up, is defined by a plethora of differing standards underpinned by the UK Road Vehicles Lighting Regulations and UN ECE regulation 48. So it can be a bit of a puzzle to work out exactly what applies here and now!

The UK bike market growth is attracting new competitors

The UK's bike market is one of the most attractive in Europe and growing fast, seeing unit sales of bicycles rise 11% in 2015, with the premium bike segment growing by a staggering 25%. Today in the UK, more than two million people cycle at least once a week. Unbelievably, the associated market of parts, accessories and clothing (PAC) outstrips the sales of bikes themselves with premium LED lights accounting for 27% of total accessories market. The number of new competitors to fill this demand is also growing.

Powerful lighting is sought after - but it has to be right

Sadly, one of the darker bike-related statistics is the significant rise of serious injuries to cyclists in recent years with over 3,400 incidents in 2014. Cyclists are increasingly looking to safety equipment to help protect them so the right type of lights are high on the purchase list.

For this reason, highly powerful, low wattage LEDs are in high demand, but if the design is incorrect – it adds to the problem not solves it. In every case of fatality, lighting is reviewed by the authorities to determine any contributory factor. For this reason, ensuring product conformance is critical.

Do you know whether your LED light meets the legal requirements and standards?

To sell into the UK, appropriate CE marking is needed - a declaration of conformity with all legal requirements, relevant directives and standards.

As indicated earlier, no single directive or standard applies in the UK. It all depends on the feature and characteristics of the light themselves.

- For all types of light, there are specific standards for the basic functionality and safety of the light;
- For LEDs in particular, blue light eye safety hazard has to be proven as safe;
- If the LED incorporates Bluetooth or GPS capability, then RED (Radio Equipment Directive)

Testing and Consultancy to ensure product compliance to the latest regulations, standards and certifications



applies. This directive cross-references two others– the Low Voltage Directive (LVD), irrespective of the bike light voltage, and Electromagnetic Compatibility (EMC) directive;

- If the LED does not emit or receive radio waves, then the General Product Safety Directive (GPSD) and the EMC directives apply;
- For every type of light, the Restriction of the use of certain Hazardous Substances (RoHS) applies.

Behind these specific light requirements, there are a number of other standards and potential requirements, such as a full risk assessment, which may be applicable. The application of the CE mark cannot, therefore, be treated lightly.

So how can LUX-TSI help ?

LUX-TSI can help, by ensuring you have the necessary evidence in place to give you and your customers assurance that your product is safe and compliant. We do so in way which is as painless and cost-effective as possible.

LUX-TSI test only what's needed

At LUX-TSI, we have developed a modular, scalable approach, allowing customers to de-risk every aspect of the product testing process.

Our safety and performance engineers are here to support our customers through this process, ensuring the right elements of test are performed at the right time. We ensure no test is ever unnecessarily duplicated. Our tests are designed to help customers direct testing back down the supply chain where appropriate.

Key Testing Competencies within our lab and partner network are:

- Electrical and Mechanical Safety;
- Product Optical Performance (making sure the light goes where it needs to);
- Product Endurance (Temperature, Humidity, Vibration, Drop, Impact (IK) and Ingress (IP) testing);
- Product Lifetesting (Long-term product performance capability verification);
- Electro-Magnetic Compatibility (EMC) including emissions and immunity.

We are happy to help with expert knowledge and capabilities and that's why our customers return time and time again

Our Services

- Consultancy
- Laboratory Testing
- Market Access and Certification
- Design Verification Services

Key Directives and Regulations

- CE Marking
- Low Voltage Directive (LVD)
- EMC Directive (EMC)
- Radio Equipment Directive (RED)
- Restriction of Hazardous Substances (RoHS and REACH)
- Waste Electrical and Electronic Equipment (WEEE)

Applicable Standards

- BS 6102/3
- EN 301-489-1
- ISO 6742-1
- EN 55015:2013 A1:2015
- ISO 6742-4
- EN 61547:2009
- ISO 6742-5
- EN 61000-3-2:2014
- EN 61000-3-3:2013

Why Choose Us

- LUX-TSI has the fastest turn arounds in the industry - meeting our clients tight time schedules.
- We are known for our great customer service. Always ready to listen to your problems and develop solutions tailored to your needs.
- We are easy to work with; our small company non-bureaucratic approach is focussed on 'making it happen'.

About LUX-TSI

We understand that each customer has individual needs and individual concerns. That's why we tailor our support to meet the needs of manufacturers, importers, distributors and retailers in locations which span the world. With over 150 years of experience in the performance testing of products, LUX-TSI has a deep-seated understanding of the regulatory requirements across multiple territories, enabling us to identify the most cost-effective, low-risk path to market access.

Our Services

Consulting, Testing, Certification, Systems

Our Markets

LED, Lighting, Electrical, Electronics and Medical Devices

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