



Add value.
Inspire trust.

Energy-saving lighting testing

Increase sales by demonstrating product performance and longevity with an experienced testing partner.

Your challenges

With the growing threat of global warming, consumer demand is rising for energy-saving devices such as lighting products that can reduce utility costs. Manufacturers of lamps and luminaires have to meet this new demand while remaining abreast of rapidly changing regulations and energy labelling requirements in the various target markets. In the EU, for example, the initial stages of the (EC) 244/2009 and (EC) 245/2009 regulations have led to massive changes in the market. Manufacturers of directional and LED lighting as well as lighting control gear must now comply with the new (EU) 1194/2012 regulation. New energy labels according to (EU) 874/2012 are also emerging with additional categories for A+ and A++ for lamps and luminaires.

Manufacturers need to produce and package lighting devices that can win consumer recognition, take advantage of governmental green procurement policies and conform to energy-saving standards around the world. At the same time, it is important for companies

to maintain a reputation for social and environmental responsibility. Consumers have concerns about the safety of products, how and where they are produced and what measures companies have taken to prevent inferior products from being manufactured.

Today, European and American companies are seeking partners and joint ventures in Asia to manufacture energy-saving lighting products at lower operational costs. As quality and safety interpretation varies from region to region, these companies require a certification partner with expertise in maintaining consistent product quality and gaining access to key markets.

What is energy-saving lighting testing?

TÜV SÜD provides performance testing services to ensure that high-performance lighting and luminaire products comply with all standards and legal requirements in key markets worldwide. These services help prepare manufacturers to enter lucrative international markets through compliance.



Why are these services important for your business?

The enormous range of energy-efficient luminaire products and lamps currently available can be overwhelming to manufacturers and consumers alike. The market for these products has undergone profound change in a very short space of time. In the context of this challenging environment, expertise in energy-efficient lamps and luminaires supports you in developing reliable, high-performance products for the highly competitive lighting market. We help you understand the many different technologies involved and meet the legal requirements and standards in your target markets.

At the same time, consumers today are uncertain about the performance and safety of these new lighting products. There is a high level of concern caused by myths and rumours that energy-saving bulbs cause cancer, migraines, epilepsy attacks and other threats to safety and health. With energy-saving lighting audits, you can assure consumers of the high quality and safety of your products.

How can you prepare for energy-saving lighting testing?

You will need to prepare product documentation that includes proof of product usage, design of the product and documentation of functionality. This documentation needs to clearly define how the product is intended for use by customers and how it is designed to meet regulatory and customer usability needs.



Our testing services for energy-saving lighting

TÜV SÜD provides performance testing for various types of luminaires and lamps including LED, fluorescent and halogen lighting products. Our services extend from ensuring compliance with legal requirements to quality assurance and certification. We also carry out all significant tests and provide all services needed to address consumer requirements and to make products ready for international competition.

We provide certifications that are backed by accredited bodies in the Europe, America and Asia, making them more trustworthy and credible. Our independent testing of customised processes includes customer goal-oriented testing, which increases customers' confidence in your products. You can save time and money by having all necessary tests for CE (safety, eco-design, EMC, RoHS, etc.) under one roof.

International Energy Mark



This widely recognised mark demonstrates that your company is committed to quality, safety and environmental responsibility. A visual representation of our dedication to service excellence, the mark adds value to your products and promotes trust among consumers.

SERVICES	DESCRIPTION
TECHNOLOGIES SERVED (FOR INDOOR, OUTDOOR, COMMERCIAL, STREET OR HOME USE)	<ul style="list-style-type: none"> ■ LED packages, LED modules, LED lamps, LED luminaries and LED light engines ■ Compact and induction fluorescent lamps, fluorescent lamps ■ Halogen lamp, HID lamps ■ Luminaries ■ Flashlights
PERFORMANCE TESTING	<ul style="list-style-type: none"> ■ LM-79 & LM-80 Report, TM-21 ■ IEC/PAS 62717, IEC/PAS 62612, IEC/PAS 62722-2-1 ■ IEC/EN 60969, IEC/EN 62639, IEC/EN 60081, IEC/EN 60901, IEC/EN 60188, IEC/EN 60357 ■ CIE 13.3, CIE 15, CIE 121, CIE 127 ■ EN 13032, IEC/EN 61341, EN 50285 ■ U.S. IES: LM-9, LM-20, LM-40, LM-41, LM-65, LM-66, ANSI C 78.5, CSA C861, CAN/CSA 862, AS/NZS 4787, AS/NZS 4934 ANSI/NEMA FL 1 flashlight performance test ■ LEDs tropical condition test, performance criteria and more
SAFETY INSPECTIONS AND ASSESSMENT OF GENERAL REQUIREMENTS FOR LAMPS AND LUMINARIES	<ul style="list-style-type: none"> ■ IEC/EN 62560, IEC 62633, IEC 62776, IEC/EC 62301 ■ IEC/EN 60968, IEC/EN 62532, IEC/EN 60432-xx, IEC/EN 62035, IEC/EN 60598-xx ■ UL8750, UL 1993, UL 153 ■ IEC/EN 62471, IEC/TR 62778, IEC/EN 62493 and more
EUROPE	<ul style="list-style-type: none"> ■ (EC)244/2009: Ecodesign requirements for non-directional household lamps ■ (EC)245/2009: Ecodesign requirements for fluorescent lamps, HID lamps, and for ballast and luminaries operating such lamps ■ (EU)1194/2012: Ecodesign requirements for directional lamps, LED and related equipment ■ (EU)874/2012: Energy labelling of electrical lamps ■ (EC)66/2010: EU Ecolabel – Light sources ■ TÜV SÜD ErP Mark, TÜV SÜD Eco-design Mark, TÜV SÜD Energy Mark ■ Lifecycle Assessment (LCA) ■ Blue Angel
NORTH AMERICA	<ul style="list-style-type: none"> ■ U.S.: 10CFR 430 , ENERGY STAR®, DLC, LightingFacts label ■ California: CEC, LED lamp program ■ Canada: NRCan, EnerGuide-Label, ENERGY STAR®
AUSTRALIA/NEW ZEALAND	<ul style="list-style-type: none"> ■ Greenhouse and Energy Minimum Standard (GEMS) ■ ENERGY STAR® ■ Energy Efficiency Label
ASIA	<ul style="list-style-type: none"> ■ Hong Kong: Mandatory & Voluntary Energy Efficiency Labelling Scheme (MEELS) ■ Singapore: Singapore Green Label Scheme (SGLS) ■ Efficient Lighting Initiative (ELI)
ADDITIONAL INDIVIDUAL TESTING SERVICES	<ul style="list-style-type: none"> ■ Electrical parameter, power factor, THD ■ Luminous flux, light distribution ■ Lamp warm-up time, starting time ■ Lumen maintenance, lamp survival factor ■ Colour temperature, colour consistency, colour rendering ■ Switching cycle ■ UV test, photobiological safety ■ IP-test, salt or sulphur mist test ■ EMC, EMF ■ RoHS, WEEE
DRIVER/BALLAST TESTING SERVICE	<ul style="list-style-type: none"> ■ IEC/EN 62384 , IEC/EN 62386-207, IEC/EN 61347-xx ■ IEC/EN 50294 and more



Your business benefits

- **Gain a competitive edge** – by providing assurance to customers with the widely recognised TÜV SÜD certification mark.
- **Save time and money** – when entering new markets with testing services designed to help you meet high standards for quality and safety in the shortest possible time.
- **Minimise risks** – by testing to ensure that your product meets all the legal requirements of your target market.
- **Benefit from global support** – with our international presence, ensuring that our experts and laboratories are available in major markets.

Why choose TÜV SÜD?

TÜV SÜD is a leading provider of comprehensive and significant performance testing for electrical and lighting products. We have a strong global network of multidisciplinary expertise and our laboratories are equipped with the latest first-class optical testing systems. This enables us to offer a personalised one-stop solution for all your requirements and market standards.

TÜV SÜD has a strong reputation for independence and impartiality. We provide customer goal-oriented testing that enhances consumer confidence in your

products. Our certifications are backed by long-standing accreditations in key markets.

Add value. Inspire trust.

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, auditing and advisory services. Through more than 24,000 employees across over 1,000 locations, the company adds value to customers and partners by enabling market access and managing risks. By anticipating technological developments and facilitating change, TÜV SÜD inspires trust in a physical and digital world to create a safer and more sustainable future.

Related services

TÜV SÜD provides the following related services:

- Energy efficiency for LED and lighting products
- ENERGY STAR® programme
- Photo-biological hazard testing
- Photo-metric test
- Failure analyses
- Customised performance testing
- Blue Angel
- EU Eco Label