Press Release

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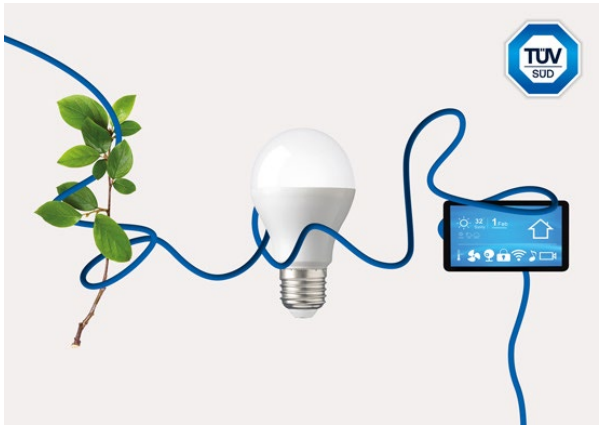
light+building 2024 trade fair

14 February 2024

TÜV SÜD presents comprehensive certification services for sustainable and connected lighting solutions

Munich. At the light+building trade fair from 3 to 8 March 2024 in Frankfurt/Main, TÜV SÜD will present its testing and certification solutions in the field of sustainable, connective and safe lighting with a focus on people at work and at home. At the world's leading trade fair for lighting technologies, lighting and connectivity, TÜV SÜD will present its wide range of innovative services for the industry in Hall 8.0 at Stand F87. The team on site is looking forward to contributing to shaping the future of the lighting industry together with visitors to the stand.

Mere brightness is a thing of the past - today, energy efficiency and smart lighting concepts take centre stage. A separate regulation with ecodesign requirements for light sources and separate control gear, which regulates the minimum efficiency and thus also the maximum permissible energy consumption, is just as much a standard as cybersecurity and data protection through networking via radio or the Internet.



The current regulations and rapid developments in the fields of lighting and connectivity technologies are correspondingly complex - the increasing regulatory requirements for manufacturers and importers require a reliable partner like TÜV SÜD. The company provides technical expertise throughout the product development process to promote innovative solutions. By testing and certifying prototypes and products, TÜV SÜD ensures that all standards and regulations are met to ensure smooth market access worldwide.

The advantages for manufacturers are manifold: conformity and certifications facilitate market access, strengthen customer confidence in product quality and safety, reduce costs in the long term and offer a competitive advantage.

Solutions for the testing and certification of light and lighting fixtures

Whether street or shop lighting, complex lighting scenarios in department stores, illuminated advertising systems or vehicle interior lighting – TÜV SÜD has many years of expertise and the necessary technical facilities in the field of lighting testing and offers a comprehensive range of testing and certification services to ensure that products meet the highest quality standards. TÜV SÜD is also very familiar with supposedly niche topics, such as horticultural lighting or human-centric lighting products.

The services offered in the area of product testing include in overview:

- Light measurements, including spatial distribution, photometric quantities and spectral information.
- Endurance tests to verify compliance with ecodesign requirements (ErP).
- Photobiological safety: Measurement and assessment of the hazards of blue light, IR and UV for humans.
- Electrical measurements: Measurement and evaluation of all electrical quantities.
- Laser measurements: Measurement and classification of lasers and laser systems.
- Testing of special lights, such as operating theatre lights and horticultural lighting.
- Uniformity measurements on displays and plant lighting.
- Usability testing.

The following services are offered in the area of standards testing:

- CE labelling: Product Safety Directive 2001/95/EC.
- Measurement of photometric data according to EN 13032-ff.
- Photobiological safety & laser according to EN 62471 & EN 60825.
- Lighting fixture testing according to EN 60598-ff.
- Testing and certification of the safety of intelligent devices in the field of information technology according to EN 62368.
- Tests for other lighting topics, such as TM-30, TM-21, LM-79-08, LM-80.

Focus on sustainability

Sustainability is a key concern for TÜV SÜD, also in connection with integral components such as lighting and light sources. Sustainable lighting technology is an important issue that affects both the environment and quality of life. In terms of a holistic approach, sustainable lighting

design takes into account the entire life cycle of a lighting system – from component and product selection to maintenance and disposal. Issues such as the interchangeability of components, availability of spare parts and compliance with standards and regulations all play a role. Aspects such as energy efficiency, durability testing, recycled materials and CO2 footprint are given special consideration. The testing services offered therefore include product sustainability:

- CO2 footprint: Critical review of life cycle assessments according to ISO 14040 / 44 and verification of product carbon footprints according to ISO 14067.
- Recycled content: Certification according to ISO 14021 / EN 15343 for plastic products.
- Durability of products/components: Verification of the durability and resistance of products and their individual parts.
- Biogenic carbon content: Testing for bio-based content in products.
- Energy efficiency according to the Ecodesign Directive 2009/125/EC.
- Testing/certification of the Waste Electrical and Electronic Equipment (WEEE) Directive 2012/19/EU.
- Services in connection with the new EU Battery Regulation.

Work and life - Human-Centric Lighting

Human-Centric Lighting (HCL) is also a central trade fair topic for TÜV SÜD, because as a lighting concept it places people at the centre of attention. In addition to the visual aspects, the emotional effect of light is also taken into account, i.e. how this light affects the body. In a world where people spend up to 90% of their time indoors, artificial light is omnipresent. TÜV SÜD offers specialised tests for HCL in accordance with various standards/guidelines:

- Measurements of light colour, colour rendering, flicker values and energy efficiency parameters – (EU) 2029/2020 and (EU) 2019/2015.
- Photobiological safety: Measurement and assessment of the hazards of blue light, IR and UV for humans and the human eye (EN 62471).
- Measurement of the UV-C content in the disinfection area.
- Tests for usability and ergonomic performance according to ISO 9241.
- Lighting in horticulture: Photosynthetically active radiation (PAR), photosynthetic photon flux (PPF) or photosynthetic photon flux density (PPFD).

Connectivity in the age of wireless

Wireless technology plays a crucial role in today's communication, has long since reached the lighting industry and is considered a key concept for the future. Connectivity refers to the intelligent networking of lighting systems in order to improve energy efficiency and comfort by

means of intelligent control and is used, for example, in building management. TÜV SÜD also offers comprehensive product connectivity testing services in this area, including:

- Integration testing and full testing for all relevant wireless technologies.
- Interference emission and immunity testing.
- Wireless coexistence testing.
- Radio spectrum requirements.

The following tests are carried out with regard to the standards: EMC – Electromagnetic Compatibility (Directive 2014/30/EU), Low Voltage Directive (2014/35/EU) and RED – Radio Equipment Directive (2014/53/EU) with a special focus on cybersecurity.

More information can be found HERE.

Note: TÜV SÜD will be presenting a solution for optimising the energy efficiency of buildings through technical monitoring at the BACnet® joint stand at light+building (Hall 9.0, Stand E11B).

Note for editorial teams: This press release and high-resolution photo can be downloaded from www.tuvsud.com/newsroom.

Media Relations:

TÜV SÜD AG Corporate Communications Westendstr. 199 80686 Munich, Germany	Dirk Moser-Delarami Phone +49 89 5791-1592 E-Mail dirk.moser-delarami@tuvsud.com Internet tuvsud.com/newsroom

Founded in 1866 as a steam boiler inspection association, the TÜV SÜD Group has evolved into a global enterprise. More than 26,000 employees work at over 1.000 locations in about 50 countries to continually improve technology, systems and expertise. They contribute significantly to making technical innovations such as Industry 4.0, autonomous driving and renewable energy safe and reliable. tuvsud.com