



**BRINGING LIGHT TO THE
WORLD OF COMPLIANCE**

SGS

WHO IS SGS?

SGS is the world's leading inspection, verification, testing and certification company and is recognized as the global benchmark for quality and integrity.

Conveniently located in the Atlanta suburb of Suwanee, SGS has a new lab exclusively dedicated to testing and certifying electrical and electronic (E&E) products and components. We specialize in evaluating electromagnetic capability, battery, energy efficiency and safety compliance of products in dozens of categories — lighting products, medical devices, home electronics, office equipment and more. Plus, we can help you develop a strategic testing program to minimize turnaround time and keep production on schedule.

As an independent third party testing and certification body, SGS can certify the safety, quality and performance of your lighting products helping to set you apart from the rest in today's competitive world. With our rapid turnaround time, SGS will get you to market faster so that you can take advantage of those short windows of opportunity.

As your safety and quality assurance partner, SGS can determine which services best meet your needs. We will identify the applicable regulations and standards based on your current programs and shed light on the complex world of certification. With a strong portfolio of certifications and accreditations, including the Standards Council of Canada (SCC), being an OSHA Nationally Recognized Testing Laboratory (NRTL) and a Certification Body Testing Laboratory (CBTL), SGS is backed by the largest global network of laboratories and can test your lighting products to world-wide requirements.

We provide competitive advantage, drive sustainability and deliver trust. At SGS, we are continually pushing ourselves to deliver innovative services and solutions that help our customers move their business forward.



SGS LIGHTING PROGRAM



SGS operates one of the largest safety networks in the world. We understand the complexities of the global markets that you're trying to reach so SGS stays abreast of all emerging standards and regulations.

We can test to UL, CSA, IEC, EN, NFPA and other international standards for specific lighting programs. SGS also provides onsite testing for customized lighting products that require product safety listings and certification to UL and CSA standards. We offer Limited Production Certification for batch labeling purposes and Field Labeling services.

SAFETY



PRODUCT SAFETY CERTIFICATION

Product Safety Certification ensures that your entire production process complies with relevant product or market regulations and standards through testing and factory assessments. The resulting safety Certification mark is a crucial selling prerequisite.

The SGS Product Certification Marks for the US and Canada are a symbol of commitment to quality and safety. They allow you to demonstrate to your clients that your product complies with the applicable North American safety regulations.



SGS operates one of the largest safety networks in the world with the capability to grant certification to a full range of international schemes and help you apply for local country approval.



Key Standards for Product Safety Certification of Luminaires in the U.S. and Canada

Item	UL Standard	CSA C22.2 No.	Description
ELECTRIC SIGNS	48	207	Specifies the minimum safety requirements for Electric Signs
HAZARDOUS LOCATION LUMINAIRES	844	137	Specifies the minimum safety requirements for Luminaires used in Hazardous Locations (as defined in NFPA 70)
INFORMATION TECHNOLOGY EQUIPMENT – SAFETY – PART 1: GENERAL REQUIREMENTS	60950-1	60950-1	Specifies the minimum safety requirements for electronic hardware.
LOW VOLTAGE LANDSCAPE LIGHTING	1838	250.7	Specifies the minimum safety requirements for low-voltage landscape lighting systems and components
LOW VOLTAGE LIGHTING SYSTEMS	2108	9.0	Specifies the minimum safety requirements for low-voltage lighting systems and components
LIGHT-EMITTING DIODE (LED) EQUIPMENT	8750	250.13	Specifies the minimum safety requirements for LED equipment including drivers, arrays, modules, packages and control circuitry
LUMINAIRES	1598	250.0	Specifies the minimum safety requirements for luminaires
PORTABLE LUMINAIRES	153	12	Specifies the minimum safety requirements for portable luminaires and sub-assemblies
POWER UNITS - CLASS 2	1310	223	Specifies the minimum safety requirements for Class 2 power supplies (as defined in NFPA 70)
POWER UNITS OTHER THAN CLASS 2	1012	107.2	Specifies the minimum safety requirements for power supplies other than Class 2 (as defined in NFPA 70)
SELF-BALLASTED LAMPS	1993	1993	Specifies the minimum safety requirements for self-ballasted lamps and self-ballasted lamp adapters
TRACK LIGHTING SYSTEMS	1574	9.0	Specifies the minimum safety requirements for track lighting systems



PERFORMANCE

PERFORMANCE TESTING

The SGS Lighting Performance Testing team will work closely with you to create a program suitable to your needs or test to specific standards from around the world. Our extensive testing capabilities include:

- In-situ Temperature Measurement Test (ISTMT)
- Electrical and Mechanical testing
- Claims Verification to support your marketing and performance campaigns
- Comparison Analysis to evaluate and set your product above the competition
- R&D testing to evaluate new designs


Our Lighting Program also covers Ingress Protection (IPxx) Testing of Enclosures per IEC 60529 to ensure that your product is protected against intrusion when exposed to various degrees of Moisture and Dust Ingress.

SGS can also evaluate your product's performance by subjecting them to a variety of Environmental Stresses such as:

- Temperatures and Humidity fluctuations
- Vibration
- UV Radiation
- Salt Water Exposure

SGS has the technical expertise to get your products to market faster and leading industry experts to address all your electrical and lighting product testing and certification needs. We average a two week turnaround time on lighting projects from start to finish.

We focus on the challenges that manufacturers face every day and provide a single consolidated source to reduce risk, improve efficiency and quality and ensure compliance.



IPxx Testing to measure protection provided by enclosures with respect to

PHOTOMETRY TESTING

When laying out lighting plans for specific rooms or spaces engineers and architects need to be aware of the particular features of their lighting options. With photometric measurements, SGS evaluates the characteristics of light sources and lighting installations, such as performance and ergonomic aspects.

The variables measured by SGS include:

- Luminous Intensity Distribution
- Luminance Distribution of Lamps
- Luminaires, Displays, Background-Lit Symbols (cd/m²)
- Luminous Flux (lm = lumen)
- Utilization Factor (h)
- Illuminance (lx = lux)
- Radiant Power (W = watt)
- Color Rendering Index (Ra-index)
- color temperature (K = Kelvin)
- chromatic coordinates (x and y)
- spectral power distribution curve

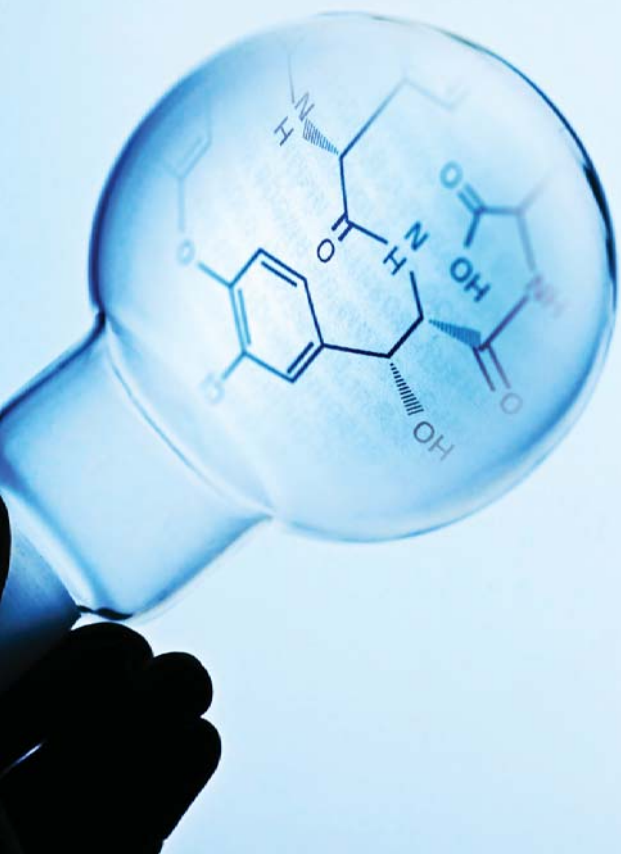
SGS measures these variables on various types of luminaires under normal use, including:

- safety luminaires
- incandescent bulbs
- fluorescent and discharge lamps
- control gear for lighting fittings (i.e. electronic terminals)
- integral LED lamps

For photometric measurements we use an integrated sphere and a goniophotometer which is based on state-of-the-art CCC-camera technique.



RESTRICTED SUBSTANCES



ROHS, REACH, PROP 65 – NEW TRENDS TO MANAGE THE RESTRICTED SUBSTANCES



As the global chemical requirements such as RoHS, REACH, California Prop 65 evolve and become more complicated, SGS is supporting lighting companies to develop “Smart” compliance strategies that are cost effective and prevent unnecessary testing of materials and components. “Smart” Compliance Strategies include:

- Continuous supplier training programs
- Conducting risk assessments on suppliers and materials
- Implementation of a data monitoring programs
- RoHS, REACH, and Proposition 65 testing in 25 ISO 17025 accredited labs worldwide





ECO DESIGN & SUSTAINABILITY

As an EPA-recognized testing service provider, SGS is authorized to measure the energy efficiency of products seeking ENERGY STAR® qualification based on EPA specifications and test methods. As an EPA-recognized certification body, SGS is empowered to certify a product's ENERGY STAR® eligibility and submit the relevant documentation to the EPA on behalf of the manufacturer or another EPA-recognized testing lab that lacks certification privileges.

ERP DIRECTIVE – ECODESIGN REQUIREMENTS FOR LIGHTING PRODUCTS IN THE DOMESTIC AND TERTIARY SECTORS

The purpose of the ErP Directive is to decrease environmental impact with the longer term aim of benefiting both businesses and consumers with better, more efficient products.

Requirements are specific to the product groups and usually include:

- Minimum energy efficiency and energy management requirements
- Product information requirements
- Prepare the technical documentation file that may be required in case of control in the context of the CE marking

The following regulations are implemented in the Directive 2005/32/EC (ErP):

- No 1194/2012 (Dec. 12, 2012): ecodesign requirements for directional lamps, for light emitting diode lamps and related equipment
- No 347/2010 (Apr. 21 2010): amending Commission Regulation (EC) No 245/2009
- No 859/2009 (Sep. 18, 2009): amending Regulation (EC) No 244/2009
- No 244/2009 (Mar. 18, 2009): ecodesign requirements for non-directional household lamps
- No 245/2009 (Mar. 18, 2009): ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps

ENVIRONMENTAL PRODUCT DECLARATIONS

Environmental Product Declaration, or EPD, is a standardized document that describes the environmental impacts of a product such as the raw material depletion, water footprint, water toxicity, carbon footprint, ozone layer depletion as well as other relevant environmental information such as the recycling potential or the energy consumption of the product. The impact categories are based on a life cycle assessment (LCA).

EPDs are primarily intended for use in business-to-business communication. Among various existing EPD programs, the PEP EcoPassport program is probably the fastest growing initiative. This marketing document provides competitive advantage in specific markets including Construction (LEED initiatives) and public buildings.

SGS RELATED SUSTAINABILITY SERVICES:

- Restricted substances testing, risk management and compliance consulting
- Energy efficiency testing for ErP and Energy Star compliance
- ErP technical file documentation preparation
- Ecodesign and performance benchmark
- Life Cycle Assessment including carbon footprinting
- Recyclability calculation according to the IEC 62635 standard
- Environmental product declarations

CONTACT US

For more information about lighting testing and how SGS can meet all of your Safety, Performance, EMC and Sustainability needs with fast project turn-around-time and international market access contact us:

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WHEN YOU NEED TO BE SURE

SGS