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Subject to change.  
DEKRA. Boosting Future Safety.



# Supporting your Innovations in Lighting

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Which certificates do your lighting products need to enter the market? How can you ensure your products are sustainable? And how do you get access to global markets? At DEKRA, we support your innovations in lighting. Our goal is to make the world of lighting as safe and sustainable as possible. We help you with challenges of strict safety, EMC, regulatory and wireless approvals. Together with us, your innovations can shed light on the future. Whether in public places, at the office or at home. Read more about our testing and certification services in this brochure.



## Prepare for a bright future with DEKRA

### Safety first

Ensure all of your luminaires are safe. Rapid regulatory and market changes have significantly altered the testing landscape. Everything is becoming wireless and Li-Fi is upcoming. At DEKRA, we are ready for the new challenges presented by safety and performance testing. Our broad service portfolio and global presence make us the perfect partner for all your testing and certification needs.

We can test all light sources, including LED, the most widely used light source in the world. We are familiar with luminaires for public lighting, professional and domestic applications. As well as retrofit products and complex systems like Central Power Supplies (CPS) systems for emergency lighting.

### Located near you

Find rapid service wherever you're located. We have our own laboratories close to you. Find us in Europe, Asia, and North America.

### Our service areas

Discover our testing and certification services. Our services cover the following areas:

- product safety
- environmental and performance testing (ENEC+)
- ZD4i interchangeability testing
- materials testing
- retail services
- DALI protocol testing
- cyber security
- functional safety testing



## Reduce your time to market with the right approval marks and certifications

### CE

The CE mark demonstrates compliance with European Directives for a wide range of products. We cover all relevant Directives and act as a Notified, Competent or Certification Body in relation to CE. When governments conduct random tests and requests test results, you can demonstrate your product compliance.

### CB Test Certificate

DEKRA is recognized by the IECEE as a national certification body. We issue CB Test Certificates, which are accepted in many countries. CB certification covers the stipulations of the Standards of the International Electrotechnical Commission (IEC) and takes into account the requirements of IECEE. This is the worldwide system for conformity testing and certification of electrotechnical equipment and components.

### ENEC

This European scheme gives you access to the markets in the EU, EFTA and several countries in Eastern Europe. ENEC has replaced national certification marks throughout the European Union. ENEC is a Type 5 certification. This means your product and your production environment are tested and continue to meet the same quality and safety standards.

### ENEC+

The ENEC+ mark embodies the choice of the manufacturer to welcome independent verification of the initial performance claims. It demonstrates your commitment to provide the best possible product to the European market. ENEC+ can be issued when your product has the ENEC mark.

### Zhaga-D4i

Zhaga-D4i is a joint certification program from the DALI Alliance and the Zhaga Consortium. Certified Zhaga-D4i products can carry the dual logos of Zhaga and D4i. Together, this indicates plug-and-play interoperability of sensors, communication nodes and luminaires. The Zhaga-D4i ecosystem of lighting products enables smart, future-proof LED luminaires with IoT connectivity.

### DEKRA Mark

DEKRA Mark is a safety mark for domestic components. It shows your product has been tested and meets all required safety standards. DEKRA Mark is based on internationally recognized standards. It is your product's passport for global market access. The DEKRA Mark certification scheme is an ISO Type 5 certification. It includes the following:

- a type-tested product
- a valid certificate
- an annual factory inspection
- an annual product re-inspection
- use of the DEKRA Mark logo on your product or product marketing

### cDEKRAus

DEKRA can test and certify your products for the North American market. DEKRA is recognized as a Nationally Recognized Testing Laboratory (NRTL) for the U.S., by the Occupational Safety and Health Administration (OSHA). DEKRA can now grant its own DEKRA U.S. certification mark to a broad scope of products that will be marketed in the U.S. Next to that, DEKRA is accredited by the Standards Council of Canada (SCC) as a certification body for the Canadian market.

### Zhaga Test Centre

DEKRA is a member of Zhaga and is a Zhaga Test Centre. We can therefore run all the tests you need for certification under this scheme. We are accredited for all Zhaga Specifications.

The LED lighting market has developed rapidly without standardization. The global lighting-industry organization Zhaga aims to change that. Zhaga standardizes interfaces of components of LED luminaires. This includes LED light engines, LED modules, LED arrays, holders, electronic control gear (LED drivers) and connectivity fit systems.

### Global Market Access

Enter the global market. International rules for certification and approval marks are extremely complex. We can help you adopt the smartest certification approach. This way, we ensure that your products are issued with marks to enter your target markets as quickly and efficiently as possible.

Through our global market access we help you get access to international markets. Enter markets in Australia and New Zealand, China (CCC), the U.S. and Canada (cDEKRAus) and Brazil (INMETRO), and many more, including those in the Middle East.



## We test whether your products meet the legislative requirements to ensure global market access

### LVD

The Low Voltage Directive (2014/35/EU) ensures electrical equipment is safe for use. It requires testing against various standards, for example:

- EN 60598
- EN 62471/IEC/TR 62778
- EN 60529
- EN 62493
- EN 62560
- EN 62776
- EN 62031
- EN 62031
- EN 61347
- EN 60968
- EN 60969
- EN 60400
- EN 60238

### EMC

We test domestic, industrial and automotive products for electromagnetic compatibility (EMC). We do this in our laboratories and on site. We test against international standards, including European, U.S. and others. The test scope includes for example:

- EMC 2014/30/EU
- EN 55015
- EN 61547
- EN 61000-3-2
- EN 61000-3-3

### ERP/SLR/ELR

We test whether your lighting products comply with new requirements. Such as the European Union's EcoDesign Directive on Energy-Related Products (ErP 2009/125/EC). That includes Single Light Regulation (EU) 2019/2020 and Energy Labelling Regulation (EU) 2019/2015). ErP issues are covered by the following directives and regulations:

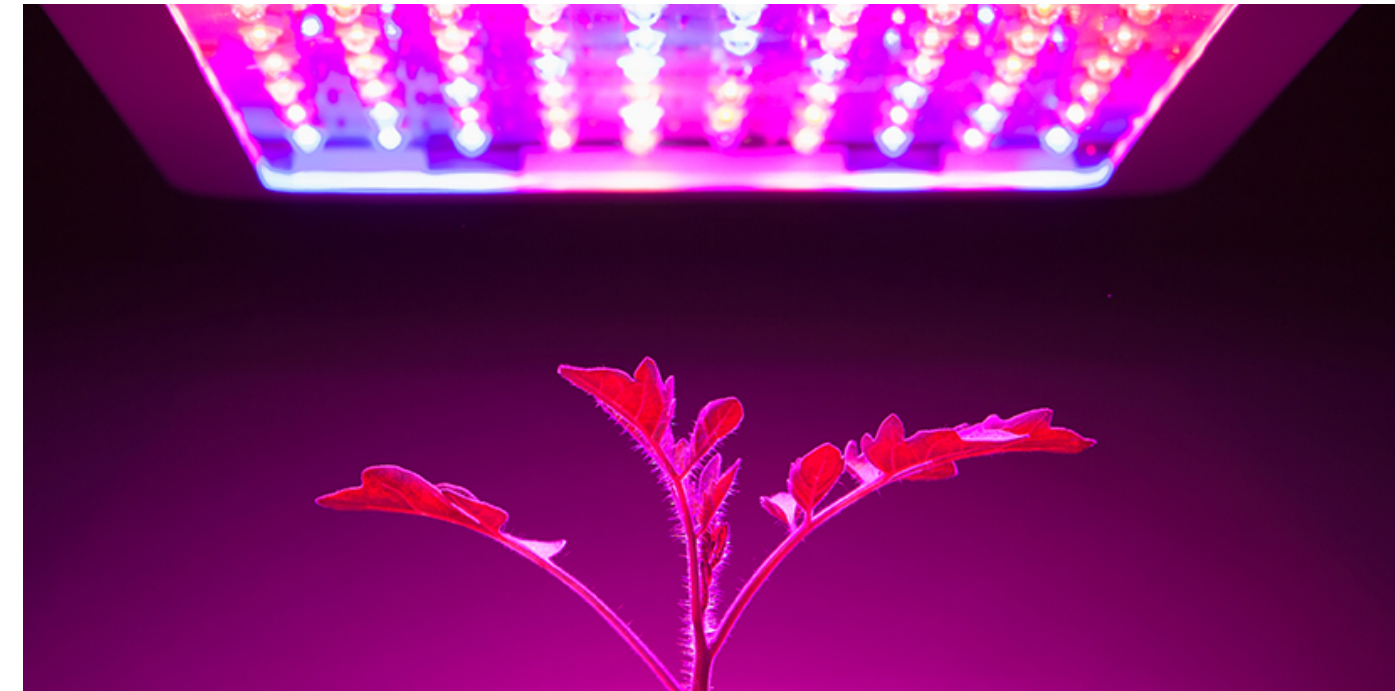
- 2009/125/EC (framework)
- ELR (Energy Labelling Regulation (EU) 2019/2015)
- SLR (Single Lighting Regulation (EU) 2019/2020)

### REACH and RoHS

Make sure the products you import into the EU comply with the regulations. We test against:

- REACH 1907/2006/EU regulation
- ROHS Directive 2015/863

A range of substances formerly used in electrical and electronic products are now banned or severely restricted in many markets.



## Discover how our testing services boost your innovations in lighting

### Functional safety testing

DEKRA's functional safety services verify that users of your products are completely safe, when using every single function of a product. Our functional safety testing also considers the safe management of any potential user or operator errors, hardware failures or environmental changes, completely verifying and validating the overall safety of our customers' machines and products.

### Cyber security

At DEKRA we ensure that your product complies with cyber security guidelines. Standards like the IEC 62443 series and ETSI EN 303 645 are considered. Cyber security has become an essential part of lighting. Keeping people safe when they use technology is one of the key challenges. Both now and in the future. In addition, numerous cyber security laws will be implemented in the near future.

### Materials testing

DEKRA also offers a range of materials testing services including:

- fire hazard testing, such as Glow-wire tests and Needle flame testing (EN/IEC 60695);
- environmental conditions, including extreme heat, moisture, IP testing (EN 60529), and NEMA Type 250 guidelines; and
- mechanical tests, such as IK test (EN 62262) or ball-proof tests (DIN 18032-3).

### DALI protocol testing

DEKRA has been recognized by the DALI Alliance (DiiA) to test products according to DALI 2 requirements. The DALI 2 certification program optimizes interoperability between products. Both from the same manufacturer and from different manufacturers. On top of that, it adds additional functionalities.

### Retail services

At DEKRA we offer retail services. This way, you ensure your retail products meet all requirements, both the initial samples you provide for testing, and the whole production run, manufactured by your suppliers. Our retail services include:

- basic safety tests (BST)
- DUPro inspections
- final random inspections
- pre-shipment inspections

### Photometric testing

At DEKRA we help you by performing a wide range of performance-related tests. Such as luminous flux, efficacy and Color Rendering Index and energy efficiency.

### About us

DEKRA is a full-service certification organization with a history going back over 95 years. Our subsidiaries and global associates have expertise in management systems, product testing, electrical safety, medical device certification and explosion & process safety.