The most important quality marks for **street lighting**

In the highly competitive European street lighting market, ensuring product quality and differentiation is crucial. While CE marking is mandatory for all electrical products sold in Europe, it often involves self-declaration by manufacturers, which may not sufficiently demonstrate a product's quality and performance. Independent quality marks from reputable testing bodies, such as DEKRA, provide third-party validation of safety, reliability, and performance, enhancing a product's credibility. This leaflet outlines the key quality marks essential for street lighting and explains how they can serve as unique selling points, helping your products stand out in a crowded marketplace.

ENEC

Be assured of safety

The ENEC Mark is a European certification that signifies that electrical products comply with stringent European safety standards (ENs). As an ISO Type 5 certification scheme, it encompasses third-party testing, annual factory inspections, and ongoing product and production monitoring to ensure continuous compliance. Only accredited certification bodies are authorized to award the ENEC Mark, which is recognized throughout Europe and in several countries outside the continent, thereby enhancing market access.

Zhaga-D4i

Future-proof lighting

Zhaga-D4i is a certification based on the Zhaga Book standard. Products that comply with this standard feature a smart interface between outdoor luminaires and sensors or communication nodes. This compatibility enables any certified node to seamlessly integrate with any certified fixture, offering two significant benefits:

- Plug-and-Play convenience: No need for reinstalling when connecting new components.
- Future-proof products: The product is part of an ecosystem of interchangeable parts, allowing for individual replacement to accommodate advancements in technology.

ENEC+

Proven performance

The ENEC+ quality mark serves as an extension of the ENEC certification, focusing specifically on the performance of lighting products. It signifies that a product has undergone rigorous independent assessments to verify key performance aspects such as light output (lumens), color temperature, energy efficiency, and light distribution. ENEC+ demonstrates a strong commitment to delivering high-quality products that perform as promised over time:

- **Quality assurance:** Maximum permissible LED performance degradation of less than 10% over time.
- **Verified performance metrics:** Correlated color temperature (CCT), energy efficiency, and light distribution, providing objective validation of product claims.

Cybersecurity

Prepared for cyber attacks

As digital connectivity becomes increasingly integral to lighting systems through technologies such as Bluetooth, Wi-Fi, LPWAN and 5G, robust cybersecurity has become a regulatory and market requirement. Since 1 August 2025, the cybersecurity provisions under the Radio Equipment Directive (RED) Delegated Regulation (EU) 2022/30 are fully applicable, mandating compliance with harmonised standards such as EN 18031-1, -2 and -3 for connected lighting products. In addition, the Cyber Resilience Act (CRA), adopted at EU level, introduces horizontal cybersecurity requirements for products with digital elements and will apply from 2027, with certain obligations taking effect earlier.
DEKRA supports manufacturers with comprehensive cybersecurity testing, conformity assessment, and certification services, including RED cybersecurity evaluations, CRA readiness assessments, and penetration testing for connected lighting systems.

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