

# Testing of Lamps, Luminaires and Lighting Components

Overview of the key directives and standards for manufacturers, distributors and retailers

## European Directives

STANDARD	DIRECTIVE
(EU) 2019/2020	Ecodesign requirements for light sources and separate control gears (required since 2021)
(EU) 2019/2015	Energy labelling of light sources (required since 2021)
(EU) 2019/1782	Ecodesign requirements for external power supplies
2014/35/EU	Low Voltage Directive
2014/30/EU	Electromagnetic Compatibility (EMC) Directive
2014/53/EU	Radio Equipment Directive (RED)
2011/65/EU	RoHS Directive
2012/19/EU	Waste Electrical and Electronic Equipment (WEEE) Directive

## Electromagnetic Compatibility

STANDARD	PRODUCT TYPE
IEC/EN 62493	Assessment of lighting equipment related to human exposure to electromagnetic fields (EMF)
IEC/EN 61547	Electromagnetic immunity requirements
IEC/EN 61000-3-2	EMC limits: Limits for harmonic current emissions
IEC/EN 61000-3-3	EMC limits: Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems
CISPR 15/EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar electrical equipment

## Environmental Simulation Tests

STANDARD	PRODUCT TYPE
IEC/EN 60529	Ingress Protection (IP) ratings certification IP20-IP69
IEC/EN 62262	IK ratings testing IK01-IK10
DIN 18032-3	Ball impact resistance testing of luminaires

## Standards for Lighting Products (ENEC, GS, Type, CB)

STANDARD	PRODUCT TYPE
IEC/EN 60598-1	Luminaires: General requirements and tests (safety)
IEC/EN 60598-2 et seq.	Luminaires: Particular requirements (safety)
IEC/EN 60570	Electrical supply track systems for luminaires (safety)
IEC/EN 62722	LED luminaires (performance)
IEC/EN 62471; IEC/TR 62778	Photobiological safety
IEC/EN 61347-1	Lamp control gear: General requirements (safety)
IEC/EN 61347-2 et seq.	Lamp control gear: Particular requirements (safety)
IEC/EN 62384	Electronic control gear for LED modules (performance requirements)
IEC/EN 62031	LED modules (safety specifications)
IEC/EN 62717	LED modules (performance requirements)
IEC/EN 62560	LED lamps (>50 V AC / >120 V DC)
IEC/EN 62838	LED lamps (<50 V AC / <120 V DC)
EN 50171	Central safety power supply systems for emergency lighting
EN 62034	Automatic test systems for battery powered emergency escape lighting

### BAUART GEPRÜFT (TYPE TESTED)



### GEPRÜFTE SICHERHEIT (GS)



### ENEC 24 & ENEC+



## Standards for Lighting Products NRTL (cTUVus)

STANDARD	PRODUCT TYPE
UL 48	Luminaires for Electric Signs
UL 153	Portable Electric Luminaires
UL 962	Household and Commercial Furnishings
UL 924	Emergency Lighting and Emergency Power Equipment
UL 1573	Stage and Studio Luminaires and Connector Strips
UL 1598	Luminaires Intended for Installation
UL 8750	LED Equipment for Use in Lighting Products
CSA 250.0	Luminaires Intended for Installation
CSA 250.4	Portable Luminaires
CSA 250.13	LED Equipment for Lighting Applications (Control Gear, LED Modules)



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