

Koopman International BV, dep. QC
Attn. Mr Quinten Harten
Distelweg 88
1031 HH Amsterdam

Date Amsterdam, 01 october 2018
Subject IEC 60529
Our reference LQ – LVD 171114-1RE-1
Pages 3
Attachments 1

Dear Mr Harten,

Our Luminaires Expert-group studied your case regarding the applicability of the standard IEC 60529 for chain-lights.

Legislative framework

The conformity of the electrical equipment by means of compliance to the standards is explained in the articles 12, 13 and 14 of EC Directive 2014/35/EU, regulating the safety of electrical equipment designed for use within certain voltage limits. Please note that the articles are mentioned in hierarchical order. Further more, a product-specific standard prevails over a general standard, as the objectives referred to in Article 3 and set out in Annex I must be covered by the standard(s) or parts thereof in order to reach the so called presumption of conformity. For chain-lights the applicable standard is the EN-IEC 60598-2-20 in conjunction with the EN-IEC 60598-1.

Applicability of IEC 60529

The standard EN-IEC 60598-1 has an Annex ZA, containing *normative references to international publications with their corresponding European publications*. At this moment the standard refers to 58 different other standards. The IEC 60529 is one of them, mentioned in Annex ZA (see attachment). It must be a misconception that the compliance of a luminaire is substantiated by 58 other test reports.

One must understand that the compliance with the IEC 60529 is nothing more or less than *Resistance to dust, solid objects and moisture*, as set out in Section 9 of the EN-IEC 60598-1.

Compliance with this Section includes compliance with IEC 60529, more specific:

Clause 9.2: Compliance is checked by the appropriate tests specified in 9.2.0 to 9.2.9, and for other IP ratings by the appropriate tests specified in IEC 60529.

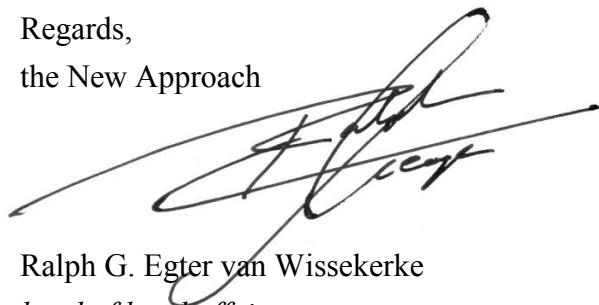
It is even hazardous to replace Section 9 by IEC 60529, see note 1:

NOTE 1: The tests for the ingress of dust, solid objects and moisture specified in this standard are not all identical to the tests in IEC 60529 because of the technical characteristics of luminaires. An explanation of the IP numbering system is given in Annex J.

In other words; the EN-IEC 60598-1 incorporates the IEC 60529 on the highest level of protection, taken the technical characteristics of luminaires into account and the IEC 60529 may not be applied as a single standard, as it infringes the product specific standard.

Referring to the legislative framework: the compliance with the EN 60598-series (which incorporates the IEC 60529 automatically) leads to the highest level of compliance and presumption of conformity.

Regards,
the New Approach



Ralph G. Egter van Wissekerke
head of legal affairs

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60238	2004	Edison screw lampholders	EN 60238 + corr. January	2004 2005
IEC 60245	Series	Rubber insulated cables - Rated voltages up to and including 450/750 V	EN 50525 ²⁾	Series
IEC 60269	Series	Low-voltage fuses	EN/HD 60269	Series
IEC 60320	Series	Appliance couplers for household and similar general purposes	EN 60320	Series
IEC 60357	2002	Tungsten halogen lamps (non-vehicle) - Performance specifications	EN 60357 + corr. July	2003 2003
IEC 60360	1998	Standard method of measurement of lamp cap temperature rise	EN 60360	1998
IEC 60364-4-41 (mod)	2005	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41 + corr. July	2007 2007
IEC 60384-14	2005	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 60384-14	2005 ³⁾
IEC 60400	2008	Lampholders for tubular fluorescent lamps and starterholders	EN 60400	2008
IEC 60417	data-base	Graphical symbols for use on equipment	-	-
IEC 60432-1 (mod) A1	1999 2005	Incandescent lamps - Safety specifications - Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	EN 60432-1 A1	2000 2005
IEC 60432-2 (mod) A1 (mod)	1999 2005	Incandescent lamps - Safety specifications - Part 2: Tungsten halogen lamps for domestic and similar general lighting purposes	EN 60432-2 A1	2000 2005
IEC 60432-3	2002	Incandescent lamps - Safety specifications - Part 3: Tungsten-halogen lamps (non-vehicle)	EN 60432-3	2003 ⁴⁾
IEC 60449 + A1	1973 1979	Voltage bands for electrical installations of buildings	HD 193 S2	1982
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993

²⁾ EN 50525 Series, which is related to, but not directly equivalent with IEC 60245 Series, applies instead.

³⁾ Superseded by EN 60384-14:2013 (DOW = 2016-07-10).

⁴⁾ Superseded by EN 60432-3:2013 (DOW = 2015-08-08).