

CTL DECISION SHEET

Standard: <u>IEC/EN 60598-1</u> <u>IEC 60825-1/1993 (*)</u> <u>EN 60825-1/1994 (#)</u>	Sub clause: General	Sheet N°: 003/06.m CTL-ETF5 CIG-OSM/LUM Page: 1(1)
Subject: LEDs used as a light source in luminaires	Key words: - LEDs - Harmful radiation - Light intensity	Meeting: Decision confirmed at CTL 45th meeting
<p>Question: Due to possible harmful radiation, what requirements are to be applied to LEDs?</p> <p>Decision: In principle, apply the requirements given in IEC/EN 60825-1 <u>(*)-(#)</u>. However in order to avoid expensive measurements, luminaires provided with LEDs should be treated as follows:</p> <ul style="list-style-type: none"> - If the light intensity is low, i.e. from a conventional LED for indication or signalling purposes, the LED is most likely comparable with a laser of Class 1 according to IEC/EN 60825-1 <u>(*)-(#)</u> and consequently there is no need for measurements. During the judgement, the covers, optics and similar parts that can be removed by hand, shall be removed. In the TRF, it is indicated that the light intensity has been judged to comply with the limits given for Class 1 lasers in IEC/EN 60825-1 <u>(*)-(#)</u> and that no measurement is made. - In all other cases the luminaire manufacturer shall be asked to provide a declaration based on relevant tests (e.g. from the LEDs manufacturer) showing that the radiation from the LED module does not exceed the values given in IEC/EN 60825-1 <u>(*)-(#)</u> for Class 1 or 1M lasers with or without optics. In the TRF, it is indicated that judgement is based on manufacturer's declaration. - If such a declaration is not provided or if judgement not possible, the measurements given in IEC/EN 60825-1 <u>(*)-(#)</u> shall be performed. In the TRF, it is indicated that measurements have been performed. For luminaires containing light sources providing radiation according to Class 2 lasers, the luminaire shall be treated as a laser source according to IEC/EN 60825-1 <u>(*)-(#)</u> and comply with the requirements given in that standard. <p>Information about the action taken in relation to the LED radiation should be provided in the square "Summary of testing" on page 2 of the relevant TRF.</p> <p><u>(*) + A1/1997 + A2/2001</u> <u>(#) + A1/2002 + A2/2001</u></p> <p>Explanatory notes: This Decision Sheet shall apply until relevant requirements are introduced in IEC/EN 60598-1.</p>		