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BSI Standards Publication

Sharp edge testing apparatus and test procedure for lighting equipment — Tests for sharpness of edge

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Sharp edge testing apparatus and test procedure for lighting equipment – Tests for sharpness of edge

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SHARP EDGE TESTING APPARATUS AND TEST PROCEDURE FOR LIGHTING EQUIPMENT – TESTS FOR SHARPNESS OF EDGE

FOREWORD

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IEC/TR 62854, which is a technical report, has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
34D/1088/DTR	34D/1101A/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

SHARP EDGE TESTING APPARATUS AND TEST PROCEDURE FOR LIGHTING EQUIPMENT – TESTS FOR SHARPNESS OF EDGE

1 Scope

This technical report details a test procedure and test equipment that may be used to assist the assessment of the risk of hazardous sharp edges that may be exposed to the user or installer of lighting equipment.

2 Test equipment

Sharp-edge tester – The instrument consists essentially of a handle with a pivoted arm attached. A constant-tension spring secured to the handle is used to apply a steady force to the arm. The arm head is a piece of cylindrical steel, with an outside diameter of 12,7 mm and a length of 19 mm, located at the end of the adjustable arm. The arm head is to be wrapped with three layers of tape, the two outer layers act as sensing tapes, the inner layer acts as an indicating tape. Alternatively, the tapes are to be applied to a maximum 15,9 mm diameter removable sleeve (cap) that is placed onto the 12,7 mm steel head. See Figure 1 or 2.

Indicating tape (inner layer) – 19,1 mm wide, adhesive backed, single-adhesive coated, vinyl foam tape, black in colour, having the tape properties given in Table 1.

Sensing tape no. 2 (middle layer) – 19,1 mm wide, double-adhesive coated, vinyl foam tape, white in colour, having the tape properties given in Table 1.

Sensing tape no. 1 (outer layer) – 19,1 mm wide, single-adhesive coated skived tetra-fluorethylene tape – natural colour, having the tape properties given in Table 1. The skived tetrafluorethylene backing (film) is shaved in a thin layer from a cylindrical block of material.

Calibration equipment – A weight (mass) that can exert 6,672 ± 0,133 N and a length of string.

3 Calibration

The sharp edge tester shall be calibrated so that 6,7 ± 0,133 N force is present at the centre of the head when the arm is between stops. The length of the arm is to be adjustable for calibration purposes. For special evaluations, the force may be adjusted to a different value.

See Figure 3 for a typical calibration procedure were, the length of the arm is to be adjustable for calibration purposes:

The adjustment set screws that hold the pivoted arm in place in the main drum are to be loosened.

With the handle securely held in a horizontal position, the calibration weight is to be attached to the centre of the head.

The length of the arm within the main drum is to be adjusted so that the weighted arm remains in a horizontal position with the calibration weight attached.