

Report on the Test of One Photoluminescent Sample Set by Visual Assessment

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Description

A sample set consisting of three photoluminescent path marker strips was provided for test. They were identified as Tredsafe Glow Concept, a blend of PP/POE and luminous glo-pigment co-extrusion. Each strip had 305 mm length and 13 mm width.

Client

Tredsafe, 25 Akatea Road, Glendene, Auckland.

Dates of Test

24 - 26 January 2017.

Objective

To determine whether observers could correctly identify the pattern of the photoluminescent path markers.

Technical Procedure

MSLT.O.051.001.

Method of Test

The visibility test was performed in accordance with 'Section 34 Visibility Test' of the standard 'UL1994 STANDARD FOR SAFETY Luminous Egress Path Marking System', Fourth Edition. Conditioning was performed in accordance with clauses 33.1.3, 33.1.13, 33.2.3.

The sample set consisted of three path marker strips positioned to form a letter of the alphabet. Prior to conditioning and assessment, the samples were left to discharge in the dark for a duration of at least 24 hours.

The sample set was then exposed at normal incidence to light from a 4000 K T8 fluorescent tube for a duration of 1 hour. The illuminance on the surface of the sample was 10.8 lux.

Three groups of three observers, who have minimum eyesight requirements of 20:40 visual acuity, were selected to perform the visual assessment of the sample sets. Prior to their assessment observers first conditioned their eyes in a room with illuminance level between 323 lux to 538 lux for a duration of 5 minutes. They were then taken into the dark room for 5 minutes immediately prior to the assessment. Observers were required to identify the letter of the alphabet within 10 seconds of the sample set being displayed to them and from a minimum distance of 7.62 m.

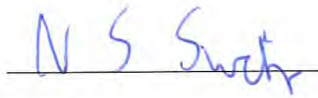
The observation was made at 90 minutes after the fluorescent tube was switched off.

Conditions

The test was carried out at a room temperature of $21\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$.

Results

All three observers correctly identified the letter.



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