THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF BUILDING SERVICES ENGINEERING
屋宇設備工程學系

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62-70 Texaco Road, Tsuen Wan
N.T.

Our reference: LT-13-R1745

Date issued: 16-Oct-13

The self-contained emergency luminaire supplied by you was tested in our laboratory on 25 July 2013 and the results were presented as follows;

Description of Luminaire :	"New Lighting" maintained, self contained emergency twin spot using LED light
Complete set and inverter model :	NL-21, 2x1W LED
A.C. input :	220V +/- 10%, 50Hz
Battery :	Rechargeable Ni-cd/ Ni-MH battery 3.6V,1.0Ah
Full Charge period :	12 hours
Duration :	3 hours
Lamp type:	2x1W LED LIGHT
Test button and charging LED:	Incorporated
Low voltage cut off:	Incorporated
Power cables:	No power cables extended outside the enclosure of the self-contained emergency luminaire
Case:	The case is made of metal housing and there are no exposed inflammable parts

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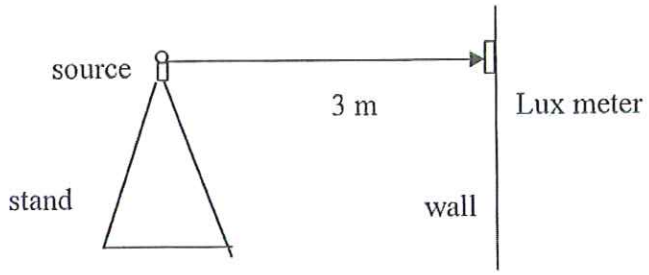
Test procedures;

1. After 12 hours of charging at 220V 50 Hz AC supply, the emergency luminaire has attained 100% of its rated battery capacity.

2. The luminaire is positioned on a stand at 3 meters from a wall as shown below(not to scale);



3. The room light is switched off. The normal supply is terminated by pulling the plug and the emergency light is automatically turned on.

4. The illuminance at a point on the wall which lies on the central axis of the emergency luminaire is measured at 5 sec, 1 minute, 30 minutes and then at 30 minute intervals after the emergency light is turned on. The maximum duration of emergency light is noted.

5. Results;

    1. The emergency luminaire produced more than 90% of the stipulated illumination level within 5 seconds and maintained throughout the discharging time.

    2. The total discharge time is 229 minutes at which the batteries were disconnected by the incorporated low voltage cut out device.

6. The emergency luminaire passed the resistance to flame and ignition as stipulated in BSEN 60598-2-22:2008 and the external parts passed the 850°C glow wire test detailed in IEC60695-2-10: 2000.

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Summary of compliance with PPA/104(A)(4th Revision)

Item	Test Requirement of PPA/104(A) (4th Revision)	Result-Remark	Verdict
B.3	Emergency lighting luminaires shall comply with the non-flammability (resistance to flame and ignition) provisions specified in BS EN 60598-2-22:2008 and external parts shall also be subjected to the 850°C glowing/hot wire test; any burning parts should self-extinguish within 30 seconds.		pass
B.4	All power cables extended outside the enclosure of a self-contained emergency lighting luminaire, other than the wiring connecting the luminaire to normal supply, shall conform to BS EN 60702-1:2002, BS EN 60702-2:2002 and BS 6207-3:2001 as appropriate or to BS 6387:1994 Cat. CWZ or other international standards acceptable to the Director of Fire Services.		pass
B.5	An automatic trickle charger with a 220-volt input and suitable output and fitted with pilot lights or other indicating device shall be provided for the batteries. The charger shall be capable or re-charging the battery to 100% of the rated capacity in not more than 12 hours.		pass
B.6	The self-contained luminaires emergency lighting systems shall be capable of maintaining the stipulated lighting levels for a period of not less than one hour (rated duration).		pass
B.7	Upon failure of the main lighting system or in the event of power failure, the emergency lighting shall automatically light up to at least 90% of the stipulated illumination level within 5 seconds.		pass
B.8	Each unit shall be provided with a properly labeled 'TEST' switch and charge monitor light. A low voltage cut out shall also be provided to disconnect the batteries when fully discharged.		pass

Our measurement complied with relevant sections of BS 5266 part 1:2012. The test results complied with relevant parts of BS EN 60598-2-22:2008 and Regulation PPA / 104 (A) (4th Revision) of Fire Services Department specifications.

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