THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF BUILDING ENVIRONMENT AND ENERGY ENGINEERING
建築環境及能源工程學系

Auto-Source Company Ltd.
Room 1405A, 14/F Chung Kiu Commercial Building
47-51 Shan Tung Street, Mongkok
Kowloon
Hong Kong

Our reference: AUT-23-R100

Issue date: 24 November 2023

The self-contained emergency luminaire supplied by you was tested in our laboratory on 16 July 2013 and 15 September 2014 and the results were presented as follows.

Description of luminaire:	"Auto-Source" maintained, self-contained emergency fitting using LED lamp
Complete set model:	AMLED-PLH
Input:	AC 220V +/-10% 50Hz
Battery:	Sealed Ni-Cd / Ni-MH rechargeable battery pack (12V 2.0Ah)
Full charge period / Duration:	12 hours / 2 hours
Lamp type:	LED lamp
Test button and charging LED:	Incorporated
Low voltage cut off:	Incorporated
Case:	The case is made of metal housing and polycarbonate diffuser

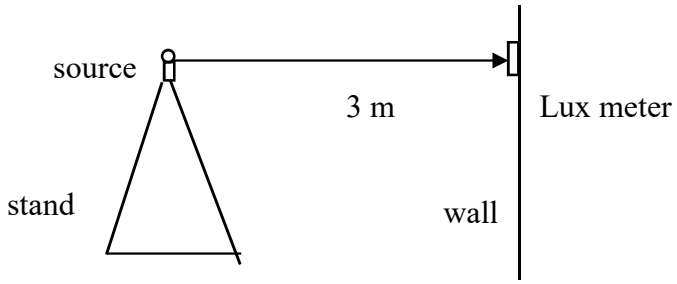
The Hong Kong Polytechnic University
Hung Hom Kowloon Hong Kong
香港九龍紅磡香港理工大學
E beenquiry@polyu.edu.hk T (852) 2766 5847 F (852) 2766 7198
www.polyu.edu.hk/beee

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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 s, 1 min, 30 min and then at 30 min intervals after the emergency light is turned on. The maximum duration of emergency light is noted.

The results are as follows;

1. The emergency luminaire produced more than 90% of the stipulated illumination level within 5 seconds.

2. The total discharge time is 153 minutes at which the batteries were disconnected by the incorporated low voltage cut out device.

3. The emergency luminaire passed the resistance to flame and ignition at a temperature of 850ºC as stipulated in clause 13.3.2 of IEC 60598-1:2020, clause 22.16 of BS EN 60598-2-22:2014+A1:2020 and IEC 60695-2-10:2021.

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Summary of compliance with PPA/104(A)(5th Revision)

Item	Test Requirement of PPA/104(A) (5th Revision)	Verdict
B.3	Emergency lighting luminaires shall be compliant with the glow wire test as stated in sub-clause 13.3.2 of IEC 60598-1:2020 but at temperature of 850°C.	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: (a) BS EN 50200: 2015 (PH60) and Annex E of BS EN 50200: 2015 (a duration of survival time of 30 minutes) and one of the following standards: (i) BS EN 60702-1: 2002 +Al: 2015 & BS EN 60702-2: 2002 +Al: 2015 (ii) BS 7629-1: 2015 (Cat. Standard 60) (iii) BS 7846: 2015 (Cat. F2 for cables of overall diameter not exceeding 20mm); or (b) BS 6387: 2013 Cat. CWZ.	Must be complied with
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 of 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 minimum period of 2 hours (rated duration).	pass
B.7	Upon failure of the normal 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

The test results from our measurement complied with the relevant sections of BS 5266-1:2016, BS EN 1838:2013 and relevant parts of BS EN 60598-2-22:2014+A1:2020 and regulation PPA / 104 (A) (5th Revision) of Fire Services Department specifications.



Dr Hilda Cheung Hiu Dan
Instructor
Department of Building Environment and Energy Engineering

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