



**EC TYPE EXAMINATION (MODULE B)**  
**CERTIFICATE No. MED171319WS**

*This is to certify that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Life-Saving appliances requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2018/773.*

<i>MED Item N°</i>	<b>MED/1.2b</b>
<i>USCG Category N°</i>	<b>161.110</b>
<i>Description</i>	<b>Position-indicating lights for life-saving appliances: (b) for lifebuoys</b>
<i>Type</i>	<b>SM-3</b>
<i>Applicant</i>	<b>ACR ELECTRONICS, INC.</b> 5757 RAVENSWOOD ROAD FORT LAUDERDALE 33312 U.S.A.
<i>Testing standards</i>	<b>IMO Res.MSC.81(70), as amended</b>
<i>Reference standards</i>	<b>SOLAS 74 Reg.III/7, SOLAS 74 Reg.III/22, SOLAS 74 Reg.III/32, SOLAS 74 Reg.III/34, IMO Res.MSC.36(63)-(1994 HSC Code) 8, IMO Res.MSC.48(66)-(LSA Code) I, IMO Res.MSC.48(66)-(LSA Code) II, IMO Res.MSC.97(73)-(2000 HSC Code) 8.</b>

*Issued in SHANGHAI on*  
August 26, 2019

*This Certificate is valid until*  
June 9, 2024

*This Certificate consists of this sheet plus an attachment*



**Hai Wen Zhang**  
RINA Services S.p.A.



**ATTACHMENT TO  
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*Manufacturer*

**XIAMEN LONAKO INDUSTRY & TRADE CO., LTD**

*Place of Manufacturer*

N307  
WEIYE BUILDING  
CHINA PIONEERING PARK FOR CHINESE OVERSEAS SCHOLARS  
XIAMEN  
CHINA

*Name & place of Authorised Representative*

Mr. Johannes Graf Strachwitz  
Walhallastraße 38, 80639 München, Germany  
GERMANY

**Product Description**

Model of Light: SM-3 - Lifebuoy light upright self-igniting.

The above light is manufactured with following characteristics:

- Dimensions of main body : 9.9" (56 mm) Diameter;  
2.2" (253 mm) Height.
- Color of upper shell : Transparent
- Color of Body : Orange
- Total Weight : Light excluding batteries and bracket - 0.66 lbs (300 g);  
Light including batteries (excluding bracket) - 0.71 lbs (320 g);  
Light including batteries and bracket - 0.90 lbs (406 g)
- Flash Rate : 50-70 flashes per minute
- Flash Light Intensity : Minimum of 3 candelas per flash in all directions of upper hemisphere
- Battery : 2 x 1.5 Volt, AA Lithium Batteries (L91) / User replaceable
- Bulb: Ultra-Bright LED
- Operation : Throw overboard or turn upright and strobe light will activate
- Operational Life : 40 hours over 3 cd at 30°C (86°F);  
24 hours over 3 cd at -1°C (30°F)

The light is supplied with a clamp for fastening closed to the lifebuoy.

**Tests Carried Out**

Evaluation and Test Report edit by Wuhan Testing Center of Marine Life-saving Appliances according to IMO Res. MSC.81(70) as amended by Res.MSC.200(80), MSC.226(82) and MSC.323(89) and filed by RINA with No.: SHFP-13465.

Certification Test Report (Ref No.: 21302-1), issued by IMANNA Laboratory, Inc., according to 46 CRF 161.110 and filed by RINA with No.: SHFP-13919.

**Field of Application**

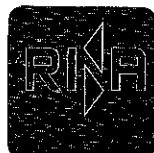
Lifebuoy self-igniting light is designed in compliance with MSC.48(66) (LSA Code) with a maximum drop height of 30 m.

**Reference Documents**

Technical drawings and manuals approved and filed by RINA listed on Approval letter No. : SHFP/2019/00360/XZO01.

**Note**

Previous MED Module B certificate No.: MED091219WS is annulled and replaced accordingly.



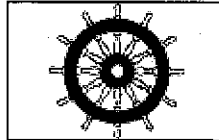
*WMS*



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*The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a Notified Body*



XXXX/YYYY

**"WHEELMARK FORMAT"**

XXXX Notified Body number undertaking surveillance module

YYYY The year in which the mark is affixed

**USCG Approval**

This product has been assigned a U.S. Coast Guard module B number (*USCG number: 161.110/EC0474*) to note type approval to Module B only as it pertains to obtaining U.S. Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27<sup>th</sup>, 2004.

The manufacturer is allowed to affix the U.S. Coast Guard approval number to the above equipment subject to the authorization of the Notified Body undertaking the surveillance module.

***General conditions for the approval***

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.



*Zhang Hai Wen*  
Hai Wen Zhang