

UK-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

- 3 UK-Type Examination Certificate Number: **SGS24UKEX0152X**
- 4 Product: **RND-XX-100-240 Series; RND-XX-24 Series and RND-XX-100-240-EM Series LED Explosion Proof Luminaires**
- 5 Held by: **Red Sky Lighting LLC**
- 6 Address: **Room 516, No.8 Hengfei Road, Nanjing Economic and Technological Development Zone, Nanjing, 210046 China**
- 7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 SGS United Kingdom Ltd. (formerly SGS Baseefa Ltd.), Approved Body number 1180, in accordance with Regulations 42 and 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.
- The examination and test results are recorded in a confidential report identified in the revision table at item 20.
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0: 2018 IEC 60079-31: 2022
- except in respect of those requirements listed at item 18 of the Schedule.
- 10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- 11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- 12 The marking of the product shall include the following:

 **See Certificate Schedule**

SGS Customer Reference No. **8330**

Project File No. **24/0478**

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D BREARLEY
LEAD CERTIFICATION ENGINEER
On behalf of SGS United Kingdom Limited



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Schedule

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Certificate Number SGS24UKEX0152X Issue 0

15 Description of Product

The model RND series luminaires are suitable for use in Zone 2 (EPL Gc) and Zone 21 (EPL Db) explosive atmospheres. The luminaires consist of interconnecting “nR/tb” chambers. One chamber is identified as the wiring chamber (LED Driver Cavity) for the connection of field wiring to the equipment and the other chamber contains the LED array (Light Cavity).

The equipment also contains an emergency junction for the installation of an emergency driver for the models containing an emergency type designation (EM Model – See Nomenclature Breakdown). The devices may be installed with or without a bracket.

The light transmitting cover is made from a polycarbonate material with an outer glass case over it.

The equipment is wired by means of a glanded entry that utilises a suitable Ex Certified gland based on the specification provided in the manufacturer’s instructions. The manufacturer does not provide the cable glands to the end-user.

Marking

The relationship between the models and the Ex marking is as follows:

Series Identifier	Model	Marking String	Ambient Temperature Range
RND-XX-100-240 Series	RND-75-100-240; RND-65-100-240	Ⓔ II 2 D Ex tb IIIC T110 °C Db	-40 °C ≤ Tamb ≤ +55 °C
	RND-45-100-240; RND-25-100-240	Ⓔ II 2 D Ex tb IIIC T85 °C Db	
RND-XX-24 Series	RND-65-24	Ⓔ II 2 D Ex tb IIIC T110 °C Db	-40 °C ≤ Tamb ≤ +55 °C
	RND-45-24; RND-25-24	Ⓔ II 2 D Ex tb IIIC T85 °C Db	
RND-XX-100-240-EM Series	RND-75-100-240-EM; RND-65-100-240-EM	Ⓔ II 2 D Ex tb IIIC T110 °C Db	0 °C ≤ Tamb ≤ +50 °C
	RND-45-100-240-EM; RND-25-100-240-EM	Ⓔ II 2 D Ex tb IIIC T85 °C Db	

Nomenclature Breakdown

The nomenclature for the model considered for each of the series is described as follows:

RND-XX-100-240 Series

<u>RND</u>	-	<u>XX</u>	-	<u>100 - 240</u>	-	<u>XX</u>	-	<u>XXX</u>	-	<u>X2</u>	-	<u>XXX</u>	-	<u>XXX</u>	-	<u>XXXX</u>
<u>I</u>		<u>II</u>		<u>III</u>		<u>IV</u>		<u>V</u>		<u>VI</u>		<u>VII</u>		<u>VIII</u>		<u>IX</u>

- I Model/Series Identifier
- II Power (W), Where;
25 = 25 W
45 = 45 W
65 = 65 W
75 = 75 W
- III Supply Voltage (V), Where;
100 – 240 = 100 Vac – 240 Vac
- IV Circuit Fitted, Where:
57 = 5700K
5K = 5000K
4K = 4000K
3K = 3000K
- V Beam Angle (Degrees), Where:
110 = 110 °
180 = > 180 °
60 = 60 °
- VI Hazardous Locations (Zone 2 and Zone 21)
- VII Lens Type. Where:
CG = Clear Glass
DG = Diffused Glass
DLG = Diffused Drop Lens Glass
- VIII Colour (Body);Where;
GRY = Grey (Standard)
BLK = Black
WHT = White
BRZ = Bronze
- IX Mounting Option. Where;
PDCG = Pendant and Ceiling
YKE = Yoke

RND-XX-24 Series

<u>RND</u>	-	<u>XX</u>	-	<u>24</u>	-	<u>XX</u>	-	<u>XXX</u>	-	<u>X2</u>	-	<u>XXX</u>	-	<u>XXX</u>	-	<u>XXXX</u>
I		II		III		IV		V		VI		VII		VIII		IX

- I Model/Series Identifier
- II Power (W), Where;
 25 = 25 W
 45 = 45 W
 65 = 65 W
- III Supply Voltage (V), Where;
 24 = 24 Vdc
- IV Circuit Fitted, Where:
 57 = 5700K
 5K = 5000K
 4K = 4000K
 3K = 3000K
- V Beam Angle (Degrees), Where:
 110 = 110 °
 180 = > 180 °
 60 = 60 °
- VI Hazardous Locations (Zone 2 and Zone 21)
- VII Lens Type. Where;
 CG = Clear Glass
 DG = Diffused Glass
 DLG = Diffused Drop Lens Glass
- VIII Colour (Body);Where;
 GRY = Grey (Standard)
 BLK = Black
 WHT = White
 BRZ = Bronze
- IX Mounting Option. Where;
 PDCG = Pendant and Ceiling
 YKE = Yoke

RND-XX-100-240-EM Series

<u>RND</u>	<u>-</u>	<u>XX</u>	<u>-</u>	<u>100 - 240</u>	<u>-</u>	<u>XX</u>	<u>-</u>	<u>XXX</u>	<u>-</u>	<u>X2</u>	<u>-</u>	<u>XXX</u>	<u>-</u>	<u>XXX</u>	<u>-</u>	<u>XXXX</u>	<u>-</u>	<u>XX</u>
I		II		III		IV		V		VI		VII		VIII		IX		X

- I Model/Series Identifier
- II Power (W), Where;
25 = 25 W
45 = 45 W
65 = 65 W
75 = 75 W
- III Supply Voltage (V), Where;
100 – 240 = 100 Vac – 240 Vac
- IV Circuit Fitted, Where:
57 = 5700K
5K = 5000K
4K = 4000K
3K = 3000K
- V Beam Angle (Degrees), Where:
110 = 110 °
180 = > 180 °
60 = 60 °
- VI Hazardous Locations (Zone 2 and Zone 21)
- VII Lens Type. Where:
CG = Clear Glass
DG = Diffused Glass
DLG = Diffused Drop Lens Glass
- VIII Colour (Body);Where;
GRY = Grey (Standard)
BLK = Black
WHT = White
BRZ = Bronze
- IX Mounting Option. Where;
PDCG = Pendant and Ceiling
YKE = Yoke
- X Presence of Battery Emergency Back-up. Where;
EM = 12 W Battery (90 min duration)
[BLANK] = Non-Emergency Model

All assemblies, when configured for A.C. supplies operate at a frequency of 50/60 Hz.

16 Report Number

See Item 20 – Certificate History

17 Specific Conditions of Use

- The equipment shall be installed according to IEC 60079-14: latest version and the operating instructions.
- An external grounding or equipotential connection is required, the cross-sectional area of grounding shall be 4mm² at least.
- Potential electrostatic charging hazard is existed. Clean the surface by wet cloth.
- Three IFR26650N3000 type cells connected in series are only be used for the RND-XX-100-240-EM series emergency LED luminaires.

5. The selection and installation requirements of the cable glands should follow the requirements given in the instructions.
6. The rear cable entry at the back of the power cavity is left unused. If the side cable entry is not used, due to a user defined entry then the opening must be blanked with a suitably certified blanking element. If the end user performs any changes to the enclosure onsite, the routine restricted breathing test must be performed.
7. The cambered light cover of the equipment shall be protected from impact. The impact energy cannot exceed 2 J. It shall be protected from mechanical impact and be installed in a manner where direct impact is not possible.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
13	LVD type requirements
14	Overloading of equipment (protection relays, etc.)
21(1)	External effects
21(2)	Aggressive substances, etc.

19 Drawings and Documents

Other than for Issue 0, Drawings and Documents that are introduced at a new edition of the certificate are marked with an asterisk symbol:

Number	Sheet	Issue	Date	Description
RND-XX-Nameplate-03-2	1	--	2024-12-18	Nameplate

For full drawing see SGS23ATEX0195X.

20 Certificate History

Certificate No.	Date	Comments
SGS24UKEX0152X Issue 0	8 January 2025	Prime Certificate Report Number: 24(C)0478 Project Number: 24/0478 Original issue of the certificate

For drawings applicable to each issue, see original of that issue.