

EXTERNAL SAFETY EMERGENCY LIGHT UNIT FOR AMRIT BHARAT COACHES**1. FOREWARD**

- 1.1. The External Emergency light has been developed to provide adequate illumination outside the coaches in case of extreme emergencies like derailments, accidents etc, to facilitate the easy exit & rescue of the passengers and to avoid total darkness when all the supply systems fail. These external Emergency lights provided outside the coach will switch on automatically in the event of failure of normal supply system and can be manually switched on in case of emergency where it is dark outside but the supply system is still intact.
2. **SCOPE OF SUPPLY:** - The quantity shall be supplied as per coach units as under

Sno	Description	Qty /coach
1	External Emergency light units	04
2	common control/battery unit	02
3	Accessories for interconnection (wago connectors), etc.	Lot

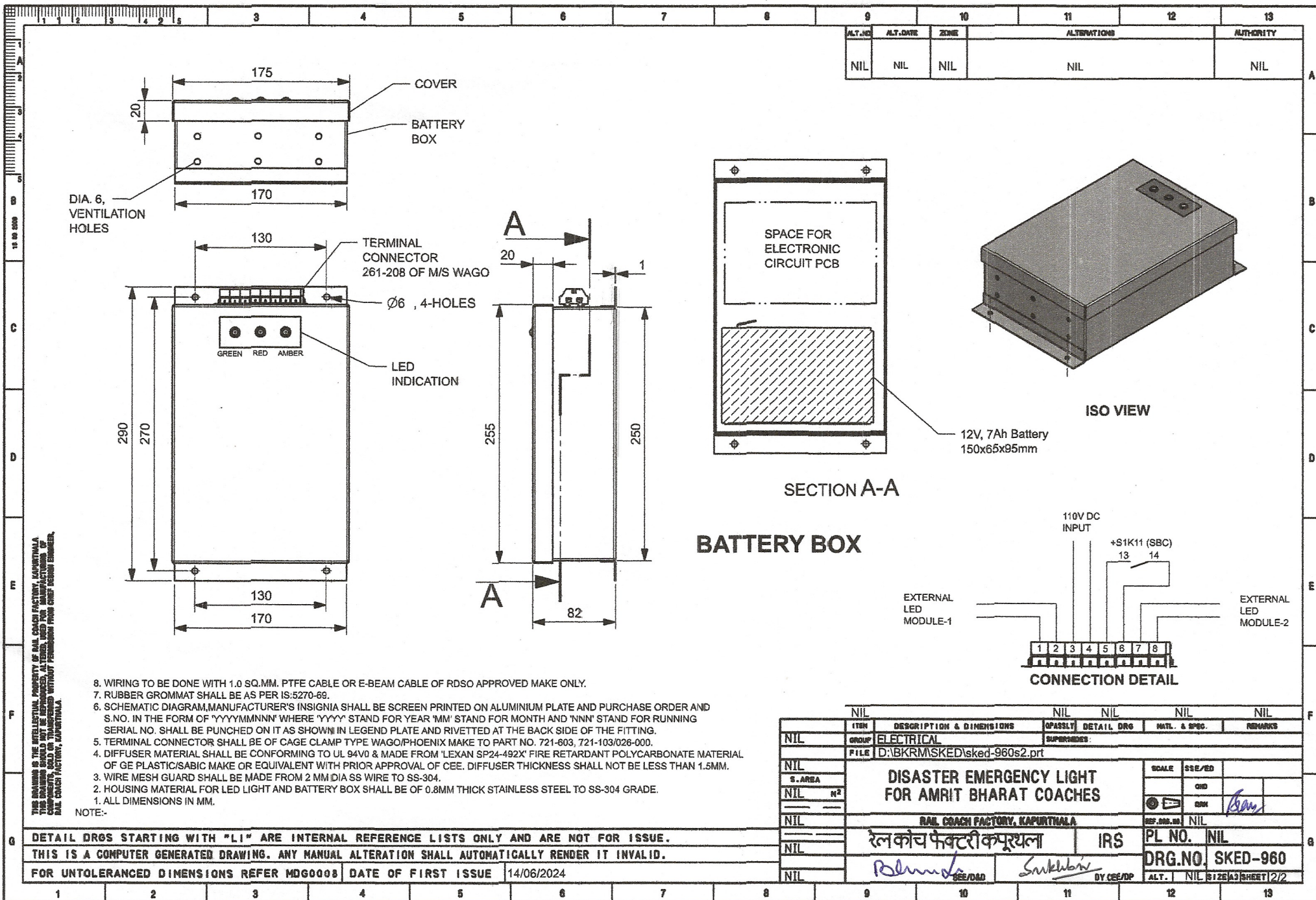
3. FEATURES

- 3.1. External Emergency light unit shall generally conform to RDSO specification no. RDSO/PE/SPEC/AC/0180-2016 with the following deviations.
- 3.2. The emergency light unit shall consist of two sub-assemblies with the LED module fitted on the outside side wall of the coach and the control PCB / Battery module provided in the area behind the attachment wall, as per RCF drawing no SKED960
- 3.3. There shall be one common control/battery unit for 2 no External LED unit. The control unit shall consist of circuit for charging the battery, sensing the battery charging current, voltage etc., and trip or cut off circuit for the unit to avoid over charging/deep discharge and give a visual indication.
- 3.4. Each control/battery unit of External Emergency light contains 12V 7Ah Sealed Lead Acid maintenance free (SMF) battery providing adequate illumination for minimum 3 hours.
- 3.5. Maximum wattage of the External Emergency light unit is 10 watts.
- 3.6. The LED housing of the External Emergency light unit is IP65 rated.
- 3.7. External Emergency light unit shall be made of stainless-steel housing powder coated to match the coach exterior and to have a durable & rust-free life.
- 3.8. Super bright high intensity white LED's with following features are used
- Luminous Efficiency-150 lm/watt
 - Burning Hours-50,000 Hrs.
 - Viewing angle-120°
 - Color temperature-6000K to 7000K
- 3.9. External emergency light shall switch ON in case of
- Total cut off mode
 - Normal Emergency light mode and
 - Manual Override mode to turn on LED's by a switch provided on the battery/control box.
 - Auto mode by Guard/Driver (via train line cable as indicated in SKED963)
- 3.10. Photometric sensor shall be provided in external emergency light unit which helps in saving the life of battery and LED's as it does not allow the LED's to glow during day light.
- 3.11. Indication LED's in different colors shall be provided to show the status of battery charging, Discharging etc.as defined in RDSO specification.

4. ENCLOSURES:

- 4.1 RDSO Specification no. RDSO/PE/SPEC/AC/0180-2016.
- 4.2 SKED -960 (2 sheets)
- 4.3 SKED-963 (for reference only)

EDML-233	Nil	20.06.2024	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	1 of 1
Spec	Rev.	Date	SSE/Design	SEE/D&D	Dy. CEE/DP	Page



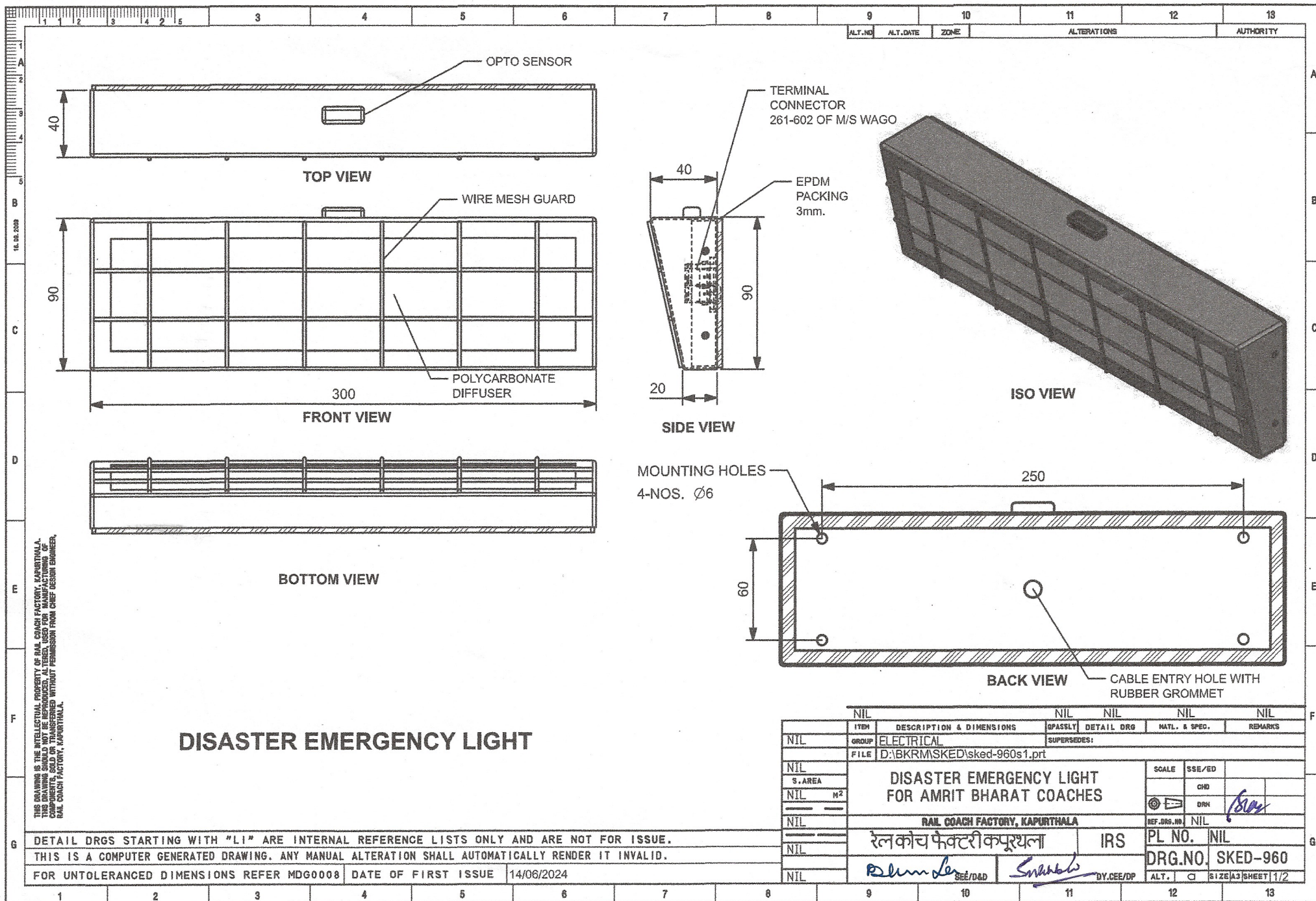
Amendment-1 to EDML-233

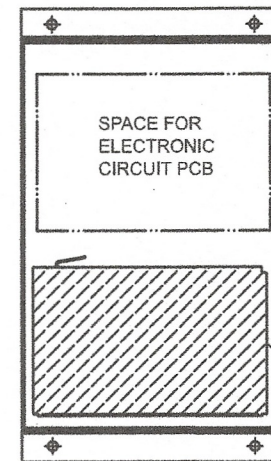
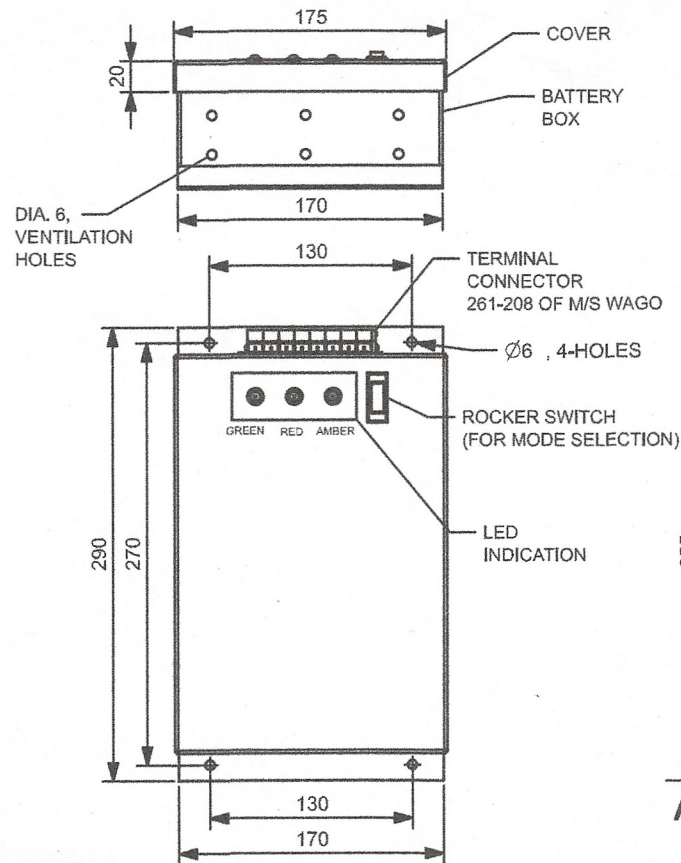
This Amendment is issued to EDML-233, Rev-Nil, to specify the material for housing of Disaster emergency Light as deep drawn and provision of rocker switch in Battery Box.

Following clause has been changed:

Clause 4.2: SKED-960, Alt-a (2 sheets)

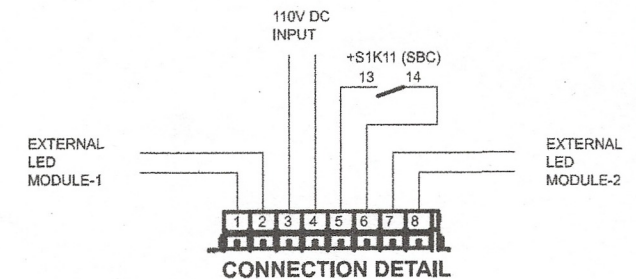
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Spec. No.	Amnd.	Date	Prepared By	SEE/D&D	Dy.CEE/DP	Page





ISO VIEW

SECTION A-A



EXTERNAL
LED
MODULE-2

10. ALL STEEL ITEMS EXCLUDING HARDWARE SHALL BE GIVEN REQUISITE SURFACE TREATMENT FOR ANTI-RUST & ANTI-CORROSION BEFORE FINISHING WITH POWDER COATING OF THICKNESS NOT LESS THAN 100-125MICRON TO SIEMENS GREY SHADE NO. 6102/08038 OF M/S NEROLAC PAINTS OR 877 OF M/S BERGER PAINTS.
9. THE HOUSING OF DISASTER LIGHT FITTING SHALL BE DEEP DRAWN AND NOT FABRICATED.
8. WIRING TO BE DONE WITH 1.0 SQ.MM. PTFE CABLE OR E-BEAM CABLE OF RD50 APPROVED MAKE ONLY.
7. RUBBER GROMMET SHALL BE AS PER IS:6270-69.
6. SCHEMATIC DIAGRAM, MANUFACTURER'S INSIGNIA SHALL BE SCREEN PRINTED ON ALUMINIUM PLATE AND PURCHASE ORDER AND S.NO. IN THE FORM OF 'YYYYMMNNN' WHERE 'YYYY' STAND FOR YEAR 'MM' STAND FOR MONTH AND 'NNN' STAND FOR RUNNING SERIAL NO. SHALL BE PUNCHED ON IT AS SHOWN IN LEGEND PLATE AND RIVETTED AT THE BACK SIDE OF THE FITTING.
5. TERMINAL CONNECTOR SHALL BE OF CAGE CLAMP TYPE WAGO/PHOENIX MAKE TO PART NO. 261-208.
4. DIFFUSER MATERIAL SHALL BE CONFORMING TO UL 94V0 & MADE FROM 'LEXAN SP24-492X' FIRE RETARDANT POLYCARBONATE MATERIAL OF GE PLASTIC/SABIC MAKE OR EQUIVALENT WITH PRIOR APPROVAL OF CEE. DIFFUSER THICKNESS SHALL NOT BE LESS THAN 1.5MM.
3. WIRE MESH GUARD SHALL BE MADE FROM 2 MM DIA SS WIRE TO SS-304.
2. HOUSING MATERIAL FOR LED LIGHT AND BATTERY BOX SHALL BE OF 0.8MM THICK STAINLESS STEEL TO SS-304 GRADE.
1. ALL DIMENSIONS IN MM.

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FOR UNTOLERANCED DIMENSIONS REFER MDG0008	DATE OF FIRST ISSUE	14/06/2024
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NIL		NIL		NIL		NIL	
ITEM		DESCRIPTION & DIMENSIONS		APASSLY		DETAIL DRG	
NIL		ELECTRICAL		SUPERSEDES:		MATL. & SPEC.	
GROUP		FILE D:\BKRM\SKED\sked-960s2.prt					
NIL		DISASTER EMERGENCY LIGHT FOR AMRIT BHARAT COACHES RAIL COACH FACTORY, KAPURTHALA रेल कोच फैक्टरी कपूरथला				SCALE	
S.AREA						SSE/ED	
NIL M2						CHD	
						DRN	
NIL		REF.DWG.NO				NIL	
NIL		IRS		PL NO. NIL			
NIL		SEE/D&D		DRG.NO. SKED-960			
NIL		SSE/D&D		ALT. 1			
		SSE/D&D		SHEET 2/2			

This Corrigendum is issued to EDML-233, Rev-Nil, and Am-1 to specify the size of wire mesh guard and Diffuser type / thickness of polycarbonate sheet in External emergency light.

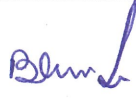
Following clause has been changed:

Clause 4.2: SKED-960, Alt-b (2 sheets)

Following clause has been changed:

Clause 3.9 a) may be read as:

a) Total cut off mode (stand alone mode).

EDML-233 Rev-Nil Am-1	1	16.12.2024				1 of 1
Document No.	Corr.	Date	SSE/CAD	SEE/VD	DY.CEE/DP	PAGE

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