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WORK INSTRUCTION FOR AVERAGE ILLUMINATION TESTS AND TESTS FOR UNIFORMITY OF ILLUMINATION FOR LHB EOG COACHES			

WORK INSTRUCTIONS

(ISO 9001 – 2015)

Verified By : SEE/VD	Signature:
Approved By : DY.CEE/D&D	Signature:

Amendment Record Sheet

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WORK INSTRUCTION FOR AVERAGE ILLUMINATION TESTS AND TESTS FOR UNIFORMITY OF ILLUMINATION FOR LHB EOG COACHES

1.0 FORWARD

This work instruction is issued for average illumination tests and tests for uniformity of illumination for LHB EOG AC 2T and 3T Coaches as per Clause no. 12.5.7 of ELPS/SPEC/EOG/01 & RDSO/PE/SPEC/TL/0091-2016, Rev-1.

2.0 TYPES OF COACHES APPLICABLE:

2.1 All LHB EOG Coaches.

3.0 ESSENTIAL MEASURING INSTRUMENTS FOR TESTING

- Measuring tape
- Variable regulated DC supply at least up to 300 volts
- Digital Multi-meter
- Tongue Tester
- Lux meter
- Chroma meter

4.0 REFERENCE:

a) Clause No 12.5.7 of ELPS/SPEC/EOG/01
b) RDSO/PE/SPEC/TL/0091-2016 (REV-1)

5.0 FREQUENCY OF TEST:

On an average, every 10th coach manufactured and subject to final commissioning test shall undergo illumination Test. While maintaining this average, it may be ensured that all variants of coaches under production are covered at least once during a year.

5.1 TEST PROCEDURE:

5.1.1 *These tests shall be carried out as described below. The voltage at the time of these tests shall* be maintained at 110V + 0V or -3V.

5.1.2 The level of illumination shall be measured on a horizontal plane 840 mm above floor level and 500 mm from the back of every seat.

5.1.3 In the corridors the illumination readings shall be taken on a vertical plane along the center of the corridor at a point 840 mm above the floor level and between each compartment door with lights inside the compartment switched ON and the compartment door and windows on the corridor side as well as compartment side shall be closed.

5.1.4 In doorways and vestibule, the readings shall be taken adjacent to the door or vestibule at a height of 840 mm from floor level.

5.1.5 In lavatories and toilets, readings shall be taken in the center of the compartment at a height of 1500 mm above the floor level.

5.1.6 In case of Sleeper variants, measurement methodology as described at illustration Page 16 (Clause 13.3) and 18 (Annexure-1) of RDSO/SPEC/TL/0091-2016 Rev 1.0 (copy attached) shall be followed.

5.1.7 The Illumination level at each seat shall be measured with a good quality photometer as indicated in clause 5.1.2. The average illumination shall be obtained by dividing the sum of illumination at each seat by the number of seats. The windows and doors shall be closed to avoid outside lights influencing the readings. During the test only the ceiling lights shall be kept on and the windows shall be closed. Folding berths shall be in closed position. During these tests, the voltage shall be maintained at 110 V +0 or -3 V.

5.1.8 Degree of uniformity of illumination which is the ratio of level of illumination in the least favorable seat to the average level of illumination shall not be less than 1: 1.3. i.e. value shall not be below 0.7 than the Average value

5.2 TEST RESULTS

From the readings obtained in the average illumination test, the ratio of the level of illumination in the least favorable seat to the average illumination level shall be computed and shall not be less than as indicated in clause 5.1.8.

5.3 VALUES OF ILLUMINATION:

Values of illumination shall be as described for applicable type of LED Luminaire as described in clause 6.12 of RDSO Spec RDSO/SPEC/TL/0091-2016 Rev 1.0 (applicable Table Placed at Annexure-A below).