SOTR FOR LED BASED AUTOMATIC EMERGENCY LANTERN (AEL)

1. LED Based Automatic Emergency Lantern

(a) LED Based Automatic Emergency Lantern (AEL) operating on 115/127/230V, 50/60 Hz, Single phase (both phases) with insulated neutral i.e.no neutral available on board. AEL should have LED array of 0.8 W to 1.8 W with maintenance free, leak proof, sealed Ni-mH (Nickel metal Hydride) Battery of 6V, 4.5AH.

(b) LED Based Automatic Emergency Lantern has to be designed, manufactured and tested as Naval SOTR EED-50-28 issue-1, dated February 2011 issued by IHQ MoD(Navy)/DEE for Naval ships. All clauses of SOTR are applicable and are to be strictly followed, no deviation in this regard is not acceptable.

2. Construction

(a) The AEL casing should be made of cast aluminium alloy with suitable glass covering. The enclosure of AEL of splash proof(IP65) construction providing adequate protection against ingress of water and dust as indicated at clause 3 of SOTR.
(b) Shock standard as per clause 4 of SOTR.
(c) Dimension as per clause 9.aa of SOTR.

3. Environmental Tests (SOTR clause 14)

LED based AEL has to be type tested recommended for ship born items in JSS-55555 listed in clause 14(a to h) of SOTR. One of the LED based AEL have to complete these Type Tests successfully. The AELs are to be supplied duly incorporating type test observations, if any.

4. EMI/EMC Specification (SOTR clause 14.j)

LED based AEL should conform to EMI/EMC specification MIL-STD-461E. The applicable EMI/EMC tests are to be carried on one of the AEL in order to conform the same. The AELs are to be supplied duly incorporating EMI/EMC test observations, if any.

5. Environmental Stress Screen Tests (SOTR clause 15)

Type approved components only shall be used in AEL. All PCBs/driver circuits will be subjected to ESS tests as specified by DQAN, refer clause 15 of SOTR.