Table 6.2: Specifications of Central Battery Emergency Lighting

ITEMS	REQUIREMENTS
4. SPARE CAPACITY	i. With any central battery system it is important to bear in mind that it is difficult to extend the system at a later date unless capacity has been allowed for at the design stage. ii. 5% spare capacity shall be included when selecting the central battery system rating.
5. CONTROL FEATURES	**1. GENERAL** i. The control equipment and accessories shall be tested and approved by the laboratories for Central battery system. The same shall be approved and registered by Civil Defence. ii. System shall be addressable, self diagnostic and automatic testing of luminaires. iii. Control unit operating temperature for indoor application shall be 10^0C TO 40^0C. iv. For outdoor applications, operating temperature of the control unit shall be –34^0C to 50^0C. (or the maximum forecast outdoor temperature) **2. MONITORING** i. The load source shall be monitored for undervoltage and overvoltage on all of its ungrounded input lines. ii. The ECE and the utility shall be monitored for unacceptable conditions. iii. If a condition that is out of tolerance is sensed, the transfer switch shall automatically switch to the alternate source(s) of power, provided that the alternate source(s) of power itself is within tolerance. iv. When the preferred source of power returns to levels of output within equipment tolerance in its sensed parameters, the transfer switch shall initiate an automatic retransfer to the preferred source. v. An adjustable time delay shall be allowed to ensure that the preferred source is within its steady-state specification limits before such retransfer is performed. vi. Provision for retransfer to the preferred source also shall be available under manual command, provided the preferred source is within tolerance. vii. Retransfer shall be permitted to be sequenced if desired to pick up heavy loads without introducing further disturbances. **3. INTERLOCKING** i. Interlocking shall be provided to prevent inadvertent interconnection of the preferred and alternate power sources **4. TRANSFER SWITCH** i. Automatic transfer switches shall be listed for emergency service as a completely factory-assembled and factory tested apparatus, and shall be electrically or electronically operated rated for all classes of load to be served. ii. Automatic transfer switches shall be integral part of approved ECE System. iii. Instruction and equipment shall be provided for the manual nonelectric transfer or bypass in the event the automatic transfer switch malfunctions. **5. TEST SWITCH** i. A test switch shall be provided on each automatic transfer switch that simulates failure of the preferred power source.