It should be confirmed that all luminaires and off-line battery units reset to normal or standby mode, as appropriate, after the restoration of the normal supply.

Where self-testing and remote testing systems are included, the system should be set up and tested for functioning in accordance with the suppliers' instructions. A copy of these instructions should be placed with the logbook.

Photometric testing

Photometric measurements to confirm that the system meets the lighting requirements are also desirable. When photometric measurements are being made, it is necessary to ensure that the correct power-supply voltages are present. On-site performance testing of emergency lighting installations can be very difficult. The testing requires good instrumentation and well laid out plans for the measurement conditions.

Any illuminance meter used should have a photocell with good cosine incident light correction. An illuminated-dial or digital-display type meter should be used so that readings may be visible at low illuminances. The light meter should have an operating range of 0.001 to 10.0 lx with a sensitivity of 0.001 lx for escape routes and areas, and a range of 10.0 to 1000.0 lx with a sensitivity of 1.0 lx for high risk areas. The accuracy of the instrument should conform to BS 667 Type F. The photocell should preferably be on a remote lead to avoid shadowing.

The illuminance measurements should be made on a horizontal plane on the escape route area or task area. In most cases it is advisable to select a number of specific areas or points for test that represent the worst conditions. See SLL Lighting Guide 12: *Emergency lighting design guide* for suggested measurement locations.

The results of these illuminance measurements can be checked against design data. Measurements should be taken during the hours of darkness. If there is steady extraneous light from street lighting or moonlight the contribution of the emergency lighting can be estimated by taking the difference between measurements of the same point, with and without emergency lighting.

The illuminances provided by the emergency lighting system will vary with time, so the tests should be completed as quickly as is possible within the rated duration. This will minimise the charge losses from the batteries. This is particularly relevant in an occupied building because, with fully discharged batteries, the building may have reduced emergency lighting cover for up to 24 hours. It is valuable to have data that relate the lumen output of the luminaire at any time to the lamp/battery life cycle.

8.6.5 Completion certificate

On completion of design, installation and commissioning of the emergency lighting system, a completion certificate should be prepared and supplied to the occupier/owner of the premises as part of the handover. An example of a completion certificate is given in SLL Lighting Guide 12: *Emergency lighting design guide*. All sections of the completion certificate should be signed by the specified competent persons.