A short-duration test should be performed monthly, by simulating a failure of the normal lighting power supply, to verify that all emergency luminaires are operating. This applies for both self-contained and central systems. The duration of the function test should be as brief as possible, so as not to discharge batteries unduly or damage the lamps. Generators should be checked for automatic starting and to ensure that they energise the emergency lighting system correctly.

A full duration test of all systems should be performed yearly, to verify that the emergency lighting provides its design output for the full design duration. The duration test should be arranged to occur when the time needed to recharge batteries has the least impact on the occupation of the building.

Records should be kept of all the tests made and of the results obtained. Where self-testing or remote testing features are being used, those responsible for emergency lighting systems should verify that the tests have been conducted on schedule and have given satisfactory results. Details of routine testing are given in BS EN 50172: 2004.

An increasing trend is for emergency lighting to incorporate some form of self-testing facility, or for the luminaires to incorporate a remote monitoring feature. The electrical test should verify that any self-testing system performs as intended, without impairing the integrity of the lighting design. Where self-testing or remote monitoring systems are used as the basis of compliance with BS 5266-1: Section 12, visual inspection of the installed equipment should be carried out at least annually to verify that it is in good mechanical condition. BS EN 62034: 2006 gives details of automatic test systems for battery powered emergency escape lighting.

8.6.3 Documentation

Given the extensive regulatory framework associated with emergency lighting, good documentation of the installation is essential. The documentation should include the completion certificate, an initial inspection certificate based on the model in BS 5266-1, a maintenance schedule and a logbook.

8.6.4 Commissioning and certification

Electrical testing

A full electrical test in accordance with BS 7671 is required when commissioning an emergency lighting installation.

For self-contained systems, an electrical test should be carried out to ascertain that all luminaires are working in the correct manner, i.e. maintained, non-maintained and, where appropriate, combined. It should be verified that the battery-charging supply is present and indicated, and that the luminaires operate in emergency mode on simulation of a general supply failure. After initial commissioning, and allowing for a full charge of all batteries, it is good practice to perform a duration test to confirm that the system will perform for the designed duration. It should be confirmed that all luminaires reset to normal or standby mode as appropriate after the restoration of the normal supply. Where additional controls such as switched–maintained, inhibiting or rest mode are fitted, it shall be verified that these operate in the correct manner.

For central battery or generator systems, the system should be tested in normal and emergency modes to determine the correct changeover of luminaires and full functionality in emergency mode. With central systems, it is essential that a duration test is carried out.