

Safety lighting is not necessary in all sports, only those where rapid motion is likely to be occurring at the instant of power failure, for example gymnastics, ice hockey and horse racing. The illuminance requirements for safety lighting are usually specified as a percentage of the normal illuminance recommendation for a set number of seconds. The safety lighting requirements for specific sports are given in Section 19.3.

Continuation lighting requires the provision of a secondary lighting system powered from a generator or a central battery. A typical system would consist of a number of luminaires connected to both the mains supply and to a change-over switch that can detect the power failure and connect the luminaire to the generator or battery unit. If the light source being used is not incandescent or fluorescent, it will also be necessary to use a hot-restrike system. If a generator is to power the secondary lighting system it may also be necessary to have a battery system to provide instant power to cover the run-up time of the generator which can be as long as 20 seconds. For continuation lighting to be successful, it should provide illuminances at least to the level of those provided for Class III of that sport (see Section 19.3).

19.2.6 Obtrusive light

Because of the high illuminances required, outdoor sports facilities are a common source of complaints about light pollution. Such complaints can take two forms, light trespass and skyglow.

Complaints about light trespass are usually made by the owners of adjacent properties. Criteria to determine if such complaints are justified are given in Section 6.2.9. If the complaints are justified, the source of complaint can often be removed by carefully aiming of the lighting or by bespoke shielding of the luminaires to prevent any direct light from the installation reaching the windows of the complainant (Figure 19.2). Light pollution in the form of light trespass is a recognised statutory nuisance under the Clean Neighbourhoods and Environment Act 2005.



Figure 19.2

Special shielding of floodlights on a tennis court designed to avoid light trespass on nearby properties

Complaints about sky glow are more likely to be made by pressure groups that object to the use of the facilities at night. It is not the job of lighting designers to justify the use of sports facilities at night but it is their job to minimise the amount of sky glow. This can be done by the careful selection and aiming of luminaires and the advocacy of a curfew system for the use of the lighting. Advice on designing outdoor lighting with minimum sky glow is given in the Society of Light and Lighting Factfile 7, *Environmental considerations for exterior lighting* and in the references CIE Publication 150-2003 and ILE *Guidance notes on the reduction of obtrusive light*.