Chapter 18: Security lighting

18.1   Functions of security lighting

Security lighting is installed to help protect people and property from criminal acts. Other forms of lighting, such as outdoor display lighting, decorative floodlighting, shop window lighting and park lighting, can contribute to this goal, but they are designed with additional criteria in mind (see CIBSE Lighting Guide 6: *The outdoor environment*).

Lighting can help to protect people and property from criminal activities because of its effect on vision (Boyce 2003). In public spaces, good security lighting is designed to help everyone see clearly all around. This means that people approaching can be easily identified and that other people's activities can be seen from a distance. This has the effect of shifting the odds in favour of the law-abiding and against the criminal. The law-abiding are unlikely to be taken by surprise, while criminals are more uncertain about whether their activities have been witnessed or they have been recognised. In secure spaces to which the public does not have access, it is possible to use lighting to enhance the vision of guards while hindering the vision of potential intruders.

Lighting is only one part of a security system. The complete system usually includes a physical element, such as fences, gates and locks; a detection element, involving guards patrolling or remote surveillance; and a response element, which determines what is to be done after detection occurs. Unless security lighting is integrated into the complete system, it is unlikely to be successful. For example, good lighting in a storage area that nobody is watching, and hence in which there is no possibility of a response, will simply help intruders do what they want to do, more quickly.

18.2   Factors to be considered

The characteristics of the lighting to be used as part of the security system will be determined by various features of the site. The factors that always need to be considered are the following.

18.2.1   Type of site
Sites can be conveniently classified by the extent to which people have access to the site and the presence or absence of physical defences such as fences. Broadly, there are three types of site.

- secure areas, where there are physical defences and to which access is controlled, such as a fenced storage yard (Figure 18.1)

- public areas, where people may be present at any time and which have no physical defences, such as a shopping centre car park (Figure 18.2)

- private areas, where there are no physical defences but where the general public is not expected to be present, such as a house (Figure 18.3).