Figure 4.20 Examples of floodlights

Wallpacks

As their name suggests, wall packs are designed to be mounted on walls so as to provide a low level of illumination in the nearby area. They are widely used for security and amenity lighting. The light distribution is usually wide and is achieved by a combination of reflecting and refracting elements. The light sources used in wall packs are usually low wattage low pressure sodium, high pressure sodium and compact fluorescent. Wallpacks need protection against dust and moisture and so are classified according to the IP system (see Section 4.3.2, Table 4.10). Because of their relatively low mounting heights, wallpacks should be solidly constructed of materials that resist attacks by vandals. The most common problem experienced with wallpacks is glare. This problem is much reduced if there is no direct view of the light source. Figure 4.21 shows a selection of wallpacks.

Figure 4.21 Three examples of wallpacks

4.3 Certification and classification

4.3.1 Certification

The principal EU Directives for electrical products are the Electro-Magnetic Compatibility (EMC) Directive and the Low Voltage (LV) Directive, summarised for lighting products in Table 4.3. The LV Directive and the EMC Directive both require products put on the EU market to be safe: Compatibility being designated by the CE mark. Products complying with specified Euronorm (EN) safety standards are presumed to comply. EN standards are based upon existing international standards, e.g. an IEC standard. For a list of current EN standards relevant to lighting products see Tables 4.4 and 4.5 (EMC and Safety), and Table 4.6 (Performance). In most instances, there is an equivalent British Standard (BS), known as a BS EN. (For established products a compatible BS may still be used, but preference should be given to the EN.)

Electrical EN standards are issued by the EU sponsored organisation, CENELEC. They are type tests, and manufacturers are required to associate them with controls for conformity of production.