

A common example of a baffle being used to hide the light source is the diffusely reflecting louvre. This louvre can take a wide variety of forms, lamellae, eggcrate, concentric rings and honeycomb depending on the shape and size of the luminaire and is usually made of a white diffusely reflecting material. If the purpose is primarily to reduce spill light, the material used for the louvre will be of low reflectance, i.e. black. In addition to louvres, spill light can be controlled by the use of low reflectance baffles, called barn doors, mounted on the luminaire (Figure 4.6).

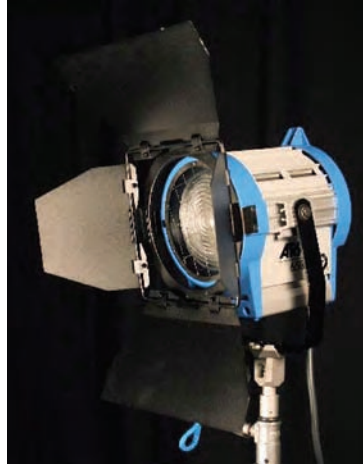


Figure 4.6
Barn door baffles
mounted on a
spotlight

If the purpose is to hide the light source and also to control light distribution, the louvre is made from a specularly reflecting material and shaped so as to direct light downwards and hence increase the shielding angle (Figure 4.7). As a general rule, the finer the louvre and hence the more the light source is hidden, the lower will be the light output ratio of the luminaire (see Section 4.1.4).

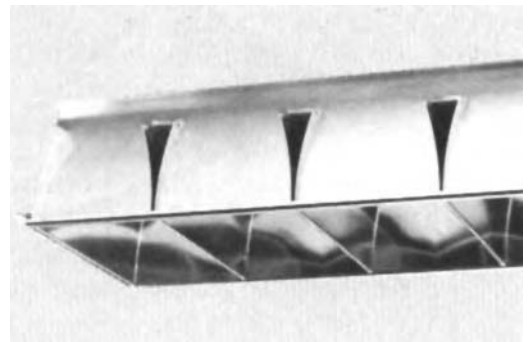
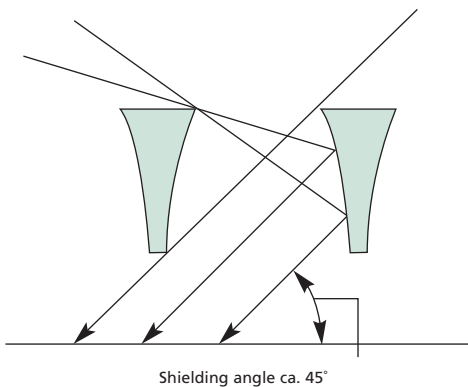


Figure 4.7 A section through and an example of a louvre designed to hide the light source and control the light distribution

Filters

For display and decorative lighting it is sometimes required to change the colour of light emitted by a luminaire. This can be done by the use of filters, either absorption or interference.