Occasionally, ceiling recessed luminaires in which the vast majority of the light from the light source is reflected from the interior of the luminaire before exiting the luminaire are described as indirect luminaires. This is misleading. Such luminaires should be treated as direct lighting luminaires.

9.4.3 Direct/indirect lighting

Direct/indirect lighting uses a luminaire or a combination of luminaires that provides some lighting on the working plane directly and some after reflection from a surface, usually the ceiling. Direct/indirect lighting can be very effective because the two components are complementary. By using direct/indirect lighting the office will have not only well-lit walls and ceiling but also some modelling (Figure 9.7).

The exact proportion of direct and indirect lighting is not critical in most circumstances although the appearance of the office will change with a change in proportions. As a rule of thumb, if the lighting is to be considered direct/indirect lighting, the minimum percentage for either component is 20 percent. The recommendations and limitations given above for direct lighting and indirect lighting should be applied to each component separately.

Direct/indirect lighting luminaires come in several different forms. One form uses the same light source or sources to provide the two components. Another uses different light sources for the two components. In this case, an option is often available to switch or dim the two components independently. This option may be used to allow occupants to adjust the direct lighting in their local area to match their own preferences but the extent of interaction between adjacent areas needs to be considered. Some direct/indirect lighting luminaires come with a canopy attached to provide a close-up reflector for the indirect component. This is useful in spaces with very high ceilings. Yet another form of direct/indirect lighting uses two entirely different luminaires for the two components, usually direct lighting luminaires and free standing or wall mounted uplighters.

Figure 9.7
Direct/indirect lighting in an office

9.4.4 Localised lighting

Unlike direct lighting, indirect lighting and direct/indirect lighting, which are most frequently used to provide a uniform illuminance across the whole working plane, localised lighting deliberately sets out to provide non-uniform lighting, with a higher illuminance around the workstations and a lower illuminance elsewhere. Workstations typically occupy about 25 to 30 percent of office floor area so this approach offers the potential for energy savings but with reduced flexibility unless care is taken to ensure easy movement and reconnection when workstations are relocated.