Localised lighting can take various forms such as luminaires in or suspended from the ceiling above each work station, or free standing direct/indirect lighting adjacent to a work station, or indirect lighting located in the centre of a cluster of workstations (Figure 9.8).

Luminaires recessed into or surface mounted on the ceiling are usually part of a re-locatable ceiling tile system. Suspended luminaires can be connected to a ceiling mounted track system. The direct component of free standing direct/indirect lighting adjacent to the work station should ideally be positioned to throw light from either left or right side of the work surface and should cover the task area with a uniformity ratio of 0.8 or better. Lighting placed in front of the task area is likely to produce veiling reflections.

Figure 9.8
Localised lighting

9.4.5 Supplementary task lighting

Supplementary task lighting consists of a task light attached to each desk or workstation. Supplementary task lighting is usually designed so that the ratio of task area illuminance to the ambient illuminance is 2:1 as this gives a reasonable balance between visual comfort and energy savings.

Supplementary task lighting luminaires should allow the occupant some degree of control, both of light output and position. Control of light output can be provided either by switching or dimming. The position of the luminaire should be limited so as to ensure that it cannot become a source of discomfort to others. To avoid discomfort to those sitting at the desk, the supplementary task lighting should not be above sitting eye height. Further, the luminaire should not be positioned so low that deep shadows are cast across the work area. As a rule of thumb, the minimum height for the luminaire above the task area should not be less than 0.5 of the width of the task area. Task lighting luminaires need to be mechanically and electrically safe and not too hot to touch or work close to.

9.4.6 Cove lighting

Cove lighting aims to produce indirect lighting by throwing light across the ceiling from a ledge or recess high up on a wall. This approach has three limitations. First, great care has to be taken to avoid the wall immediately above the cove and the adjacent ceiling having a luminance higher than the maximum luminance limits given in Table 9.7. Second, depending on the cove's distance below the ceiling it may be difficult to light the ceiling more than 2 to 3 m from the wall. Third, the energy efficiency is low. Apart from in corridors, this method is rarely used in offices today.