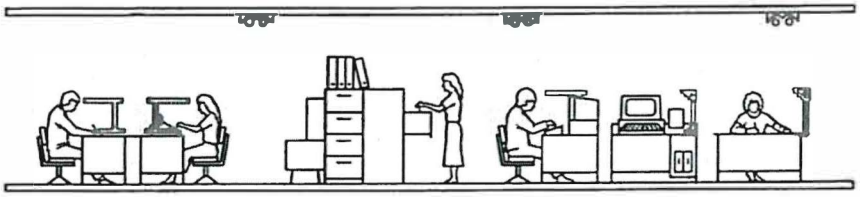
3.5.3 Local lighting

Local lighting provides illumination only over the small area occupied by the task and its immediate surroundings (see Figure 3.8). A general lighting system must be installed to provide sufficient ambient illumination for circulation and non-critical tasks. This is then supplemented by the local lighting system to achieve the necessary design maintained illuminance over the task areas. The general surround average illuminance should not be less than one-third of the average task illuminance (see sections 1.4, Variation in lighting, and 2.3.4, Luminance and illuminance ratios). Local lighting can be a very efficient method of providing adequate task illumination, particularly where high illuminances are necessary or flexible directional lighting is required. Local lighting is frequently provided by luminaires mounted at the work place in offices and factories.

Local lighting must be positioned to minimise shadows, veiling reflections and glare. Although local luminaires allow efficient utilisation of emitted light, the lower wattage lamp circuits will be less efficient and the luminaires can be expensive. Most local lighting systems are accessible and often adjustable. This increases wear and tear and hence maintenance costs, but the system provides individual control, which is often favoured by those working in the area.

Both local and localised lighting offer scope for switch control of individual luminaires that can be off when not required, but sufficient ambient illumination must be provided at all relevant times.

(a)



(b)

Figure 3.8(a) and (b) A local lighting system employs a general lighting scheme to provide the ambient illuminance for the main area, with additional luminaires located at the workstations to provide the necessary task illuminance