

Chapter 9: Office lighting

9.1 Functions of lighting in offices

As the UK has moved from a manufacturing economy to a service economy, the number of people working in offices has increased. The purpose of office work is the collection, recording and distribution of information, together with the making of decisions based on that information and the direction of effort to carry out the decisions made. What has changed in offices over the last twenty years has been immense growth in the ability to collect, record and distribute information rapidly, over vast distances, electronically. This process began with the introduction of the personal computer, gained strength with the development of local networks and reached its full flowering with the arrival of e-mail and the World Wide Web.

The function of lighting in offices is primarily to make the information handled visible, without discomfort. Consequently, the change from paper-based work to screen-based work has important implications for lighting. In the paper-based office, the primary surface to be viewed is horizontal and increasing the amount of light makes any information on that surface more visible. In the computer-based office, the primary surface to be viewed is vertical and increasing the amount of light in the office makes the information displayed on the self-luminous screen less visible. But this distinction is more theoretical than actual, a survey of offices today would reveal very few that were completely screen-based or completely paper-based. The vast majority of offices use a combination of paper and screen. This means that any lighting installation designed for an office today has to be satisfactory for materials that are self-luminous, i.e. computer screens, and seen by reflected light, i.e. paper, and for lines of sight that can be both across the office and down at the desk.

9.2 Factors to be considered

Offices come in many different forms. They can be private or multi-occupied. If multi-occupied they can be open-plan or furnished with cubicles. They can have varying amounts of daylight available. They can fill complete buildings or be part of other buildings. Despite the variability faced by the designer of office lighting, the objectives are the same everywhere. They are:

- to facilitate quick and accurate work
- to contribute to the safety of those doing the work
- to create a comfortable visual environment.

To meet these objectives it is necessary to consider many aspects of the situation.

9.2.1 Legislation and guidance

There are several different pieces of legislation relevant to office lighting, ranging from statements of general principle to specific requirements.

Under the Health and Safety at Work Act 1974 the employer must, as far as reasonably practicable, provide and maintain a safe working environment with adequate lighting.

In Section 8 of the Offices, Shops and Railway Premises Act 1963, reference is made to suitable and sufficient lighting, either natural or artificial.