

**HIGHER TECHNICAL INSTITUTE**

**DIPLOMA PROJECT**

**DESIGN OF THE ELECTRICAL SERVICES OF A  
LUXURY HOUSE**

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# CHAPTER 1

## GENERALLY ABOUT LIGHTING

### 1.1 THE VISUAL EFFECTS OF LIGHTING

The lighting of an interior should fulfill three functions. It should: (a) ensure the safety of people in the interior; (b) facilitate the performance of the visual tasks; (c) aid the creation of an appropriate visual environment.

Safety is always important but the emphasis given to task performance and the appearance of the interior will depend on the nature of the interior. For example, the lighting considered suitable for a factory tool-room will place much more emphasis on lighting the task than on the appearance of the room, but in a hotel lounge the priorities will be reversed. This variation in emphasis should not be taken to imply that either task performance or visual appearance could be completely neglected. In almost all situations the designer should give consideration to both these aspects of lighting.

Lighting affects safety, task performance and the visual environment by changing the extent to, and the manner in which different elements of the interior are revealed. Making any hazard visible ensures safety. Making the relevant details of the task easy to see facilitates task performance. Different visual environments can be created by changing the relative emphasis given to the various objects and surfaces in the interior. Different aspects of lighting influence the appearance of the elements in an interior in different ways. However, it should always be remembered that lighting design involves integrating the various aspects of lighting into a unity appropriate to the design objectives.

### 1.2 LIGHT SOURCES

#### 1.2.1 TYPES OF LIGHT SOURCES

The main types of light sources used are:

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