

## **FAQ's**

### **1. What are considered when designing the lighting system?**

The designer must determine desired light levels for tasks that are to be performed in a given space, then determine the light output that will be required to meet those objectives consistently, taking into account all the factors that degrade both light output and light levels over time. Equipment must then be chosen and placed in a layout to produce the desired light distribution. The designer must also consider a range of quality factors in his or her design choices and equipment selection, including color, minimizing glare, safety and if required, aesthetics.

### **2. Describe a typical lighting system.**

A typical lighting system is comprised of one or more of these light sources, called the lamps. Fluorescent, HID and low-pressure sodium lamps operate with a ballast, a device that starts the lamp and regulates its operation. Lamps and ballasts in turn are part of the luminaire, or light fixture, which houses the system and includes other components that distribute the light in a controlled pattern.

### **3. What are the different units of light measurement?**

Light measurement is done with two different set of units. These set of units are:

Radiometry Unit and Photometry Unit.

Radiometry units deal with measuring light power at all wavelengths. Photometry units deal with measurement of light wavelength. Photometry is important for measurement of illumination (lighting).

#### **4. What are the factors that determine visual comfort?**

The prerequisites that an illumination system must fulfil in order to provide the conditions necessary for visual comfort are the following:

- Uniform illumination
- Optimal luminance
- No glare
- Adequate contrast conditions
- Correct colours
- Absence of stroboscopic effect or intermittent light.

#### **5. What are the uses of electric light sources other than illumination?**

Electric lamps can be used as heat sources, for example in incubators, as heat lamps in fast food restaurants and toys such as the Easy-Bake Oven.

Tungsten filament lamps have long been used as fast-acting thermistors in electronic circuits. Popular uses have included: Stabilisation of sine wave oscillators.

Protection of tweeters in speaker enclosures (excess current that is too high for the tweeter illuminates the light rather than blowing the tweeter).

Automatic volume control in telephones