

## Topic 042

### What are the functions, or purposes, of light?

- **Composition:** The creation of a series of inter-related *images* which assists the director in presenting his interpretation of the play.
- **Visibility:** The responsibility of the designer to provide enough light for the audience *to see* the performer.
- **Modeling:** The use of high light and shadow *to reveal* the three dimensional form of the performer.
- **Focus:** The designer's use of contrast *to focus* the audience's attention.
- **Information:** The use of light *to establish* the time of day, the season, and the location of the play's action.
- **Mood:** The reflection of the ever changing *emotional content* of the play. It is, in a way, very close to the style of production.

### What are the controllable properties, or qualities, of light?

**Intensity:** The amount of light reflected by the performer and the background.

*Factors determining the intensity of the light:*

- Type of instrument
- Wattage of the lamp
- Length of throw
- Size of the pool of light
- Color of the gel
- Amount of electricity reaching the lamp (dimmer level)
- Reflective quality of the make-up, costume and setting

INTENSITY typically refers to the 'strength' of a light source. Intensity of a source exists independent of its distance. Intensity is measured in candela (The old term was candlepower).

ILLUMINATION refers to amount of light falling on a surface. The old term for illuminance was 'illumination'. Illuminance is measured by a light meter (corrected for the curve of the human eye) in footcandles or lux (metric). Typical stage lighting illuminance levels may range from 25 to 200 footcandles or more. The eye has an incredible power of accommodation and can comfortably adjust to illuminance levels in nature from 1 to 10,000 footcandles, or more.