Types of Light –

A. There are two "types" of light categories to understand and use, Directional and Diffused

1. Directional: the beam of light is precise. It can cause harsh shadows. The sun, a flashlight, car light, will produce directional light. There is little spill over onto other areas.

2. Diffused: a more general illumination. It's diffused beam spreads out quickly and illuminates a large area. There are no clearly defined shadows. It appears to come from all directions. This is referred to as omnidirectional (all directions). Examples of diffused light occurs on foggy days when the fog diffuses the sunlight. Fluorescent lights in department stores and classrooms use diffused light. Use diffused light to illuminate large areas, not defined areas such as a book or face.

B. Light Characteristics - Light has properties that can be manipulated to give a scene the look you want, Intensity, Contrast and Shadows

1. Intensity
Light Intensity refers to how much light falls on any one area. Intensity of light is measured in foot-candles (ft-c) or lux. Studio lights are rated in foot candles. If there is insufficient lighting cameras have to up the gain. Most digital cameras will do this automatically. Increasing the gain will boost a weak video signal but it will also make the picture "noisier" - you can see the image losing its crispness.

The closer a camera is to a subject the more intense the illumination. Using a dimmer will you can reduce light intensity.

Baselight is a term used to refer to the overall light intensity.

2. Contrast
Contrast refers to difference between the brightest and the darkest spots in a video picture. If there is too much contrast between the dark and light areas the white areas will look overexposed and shadows in the dark areas will look uniformly black.

3. Shadows
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**Attached** - Attached shadows seem affixed on the subject. Hold an object like a soda can next to a window or lamp. The shadow opposite the light source (window or lamp) on the can is the attached shadow. No matter where you move the can, the attached shadow remains part of the can. Attached shadows give depth to an object. Without them the object would appear one-dimensional. Attached shadows also give an object texture. Attached shadows are very important when filming a face.

**Cast** - Cast shadows can be seen independently of the object. Cast shadows are what we see on bright sunny days. Shadows of street lights, people, cars and trees are examples. Making shadow puppets on a screen from a projector light are a good example of cast shadows. Cast shadows help us to see where the object is located relative to its surroundings and they help use sometimes to relate to time - the longer the shadow the earlier or later in the day it will be.

**C. Lighting Techniques by Location** - There are two "types" of basic lighting locations to understand and use, Studio Lighting and Field (outdoor) Lighting

**Studio Lighting** :

- Three Point (triangle) - Key light, fill light and back light Key (spotlight); fill (flood); back (spotlight)
- Three Point plus background light (background light will illuminate the area behind the scene)

**Field (outdoor) Lighting** :

- Outdoor lighting usually will be dependent on the available light.
- You can apply the principles of studio lighting to outdoor lighting.
- Bright sunlight will create high contrast and deep shadows. Reflectors may be needed to fill in the dark shadow areas.
- Avoid shooting against any bright background. Anything in front of it will be nothing more than a dark silhouette.