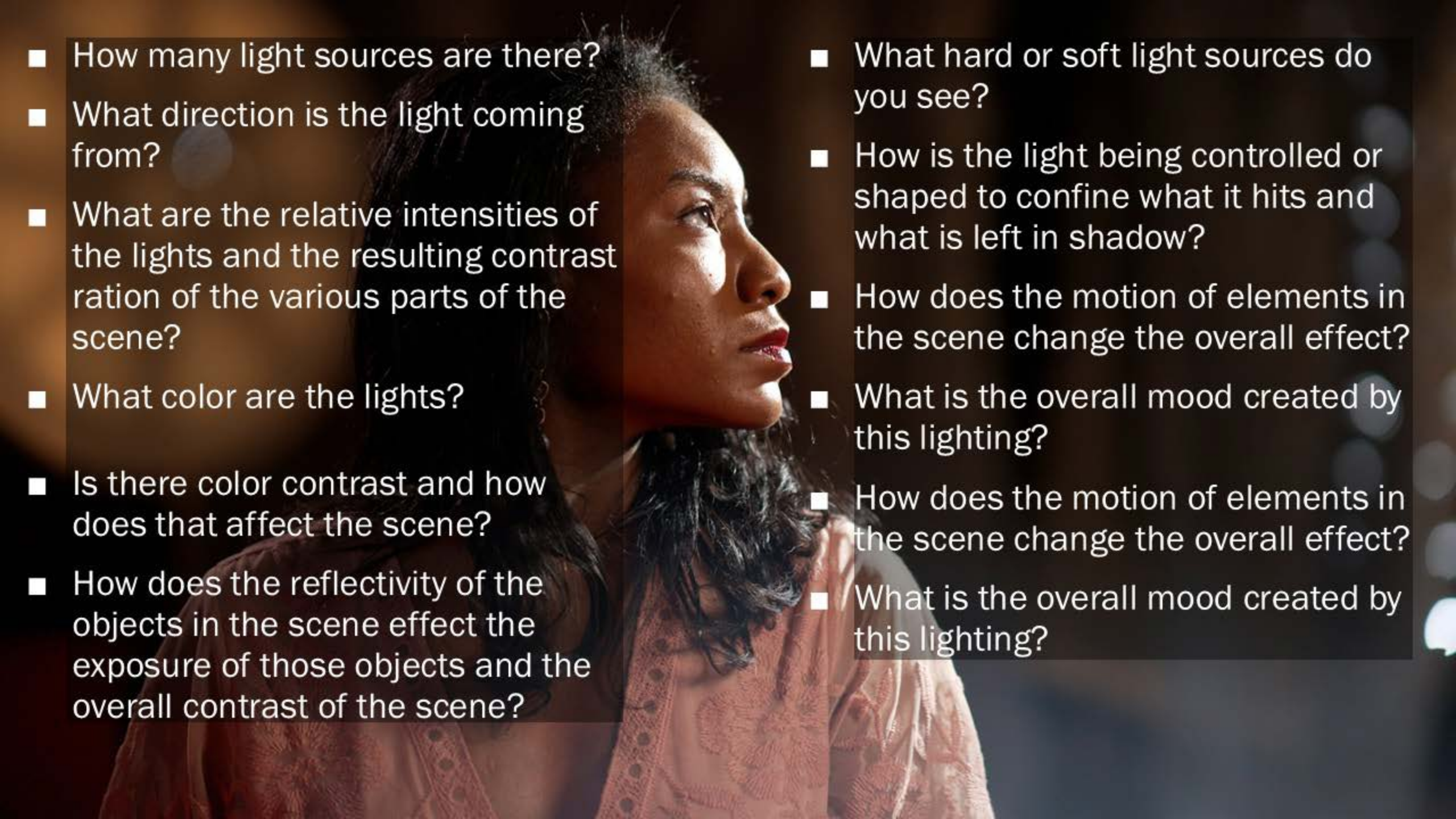


- 
- A woman with dark, curly hair is shown in profile, looking upwards and to the right. She is wearing a light-colored, patterned top. The background is dark and out of focus. On the left side of the image, there is a list of seven questions related to lighting analysis, each preceded by a small square bullet point.
- How many light sources are there?
  - What direction is the light coming from?
  - What are the relative intensities of the lights and the resulting contrast ratio of the various parts of the scene?
  - What color are the lights?
  - Is there color contrast and how does that affect the scene?
  - How does the reflectivity of the objects in the scene effect the exposure of those objects and the overall contrast of the scene?

- What hard or soft light sources do you see?
- How is the light being controlled or shaped to confine what it hits and what is left in shadow?
- How does the motion of elements in the scene change the overall effect?
- What is the overall mood created by this lighting?
- How does the motion of elements in the scene change the overall effect?
- What is the overall mood created by this lighting?



# Lighting & Exposure Cheat Sheet



## Color temperature [Kelvin]



Candle



Incandescent



Fluorescent



Sunlight (Noon)



Cloudy



Shade



Blue Sky

1,900 K

3,000 K

4,000 K

5,500 K

6,500 K

8,000 K

15,000 K

## Directional Light Intensities [Lux]



Dark Night



Moon



Low Sun



Cloudy



Sun (Noon)



Sun (PBS Sky)

0.001 lx

0.5 lx

5,000 lx

20,000 lx

100,000 lx

130,000 lx

## Local Light Intensities [Lumen]



Candlelight



Decorative Light



Interior Light



Exterior Light

12 lm

300 lm

1,000 lm

10,000 lm

...

## Exposure Value [EV]



Moonless



Montlit



Interior



Low Sun



Cloudy



Sunlit

-2 EV

1 EV

4 EV

7 EV

10 EV

14 EV

# Natural

Light measurements from natural sources in different conditions:

| Illuminance (lux) | Natural light level                               |
|-------------------|---|
| 120 000           | Very bright sunlight.                             |
| 110 000           | Bright sunlight.                                  |
| 20 000            | Blue sky at midday.                               |
| 1 000 - 2 000     | Overcast sky at midday.                           |
| < 1               | Moonlight with a clear night sky.                 |
| 0.002             | Starry night without moonlight. Includes airglow. |

# Artificial

Approximate light measurements from artificial sources:

| Luminous flux (lumen) | Source   |
|-----------------------|--|
| 12.57                 | Candle light.  |
| < 100                 | Small decorative light, such as a small LED lamp.  |
| 200 - 300             | Decorative lamp, such as a lamp that does not provide the main lighting for a bright room. |
| 400 - 800             | Ceiling lamp for a regular room.   |
| 800 - 1 200           | Ceiling lamp for a large brightly lit room.  |
| 1 000 - 40 000        | Bright street light.   |

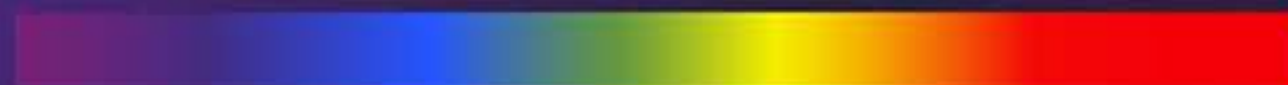
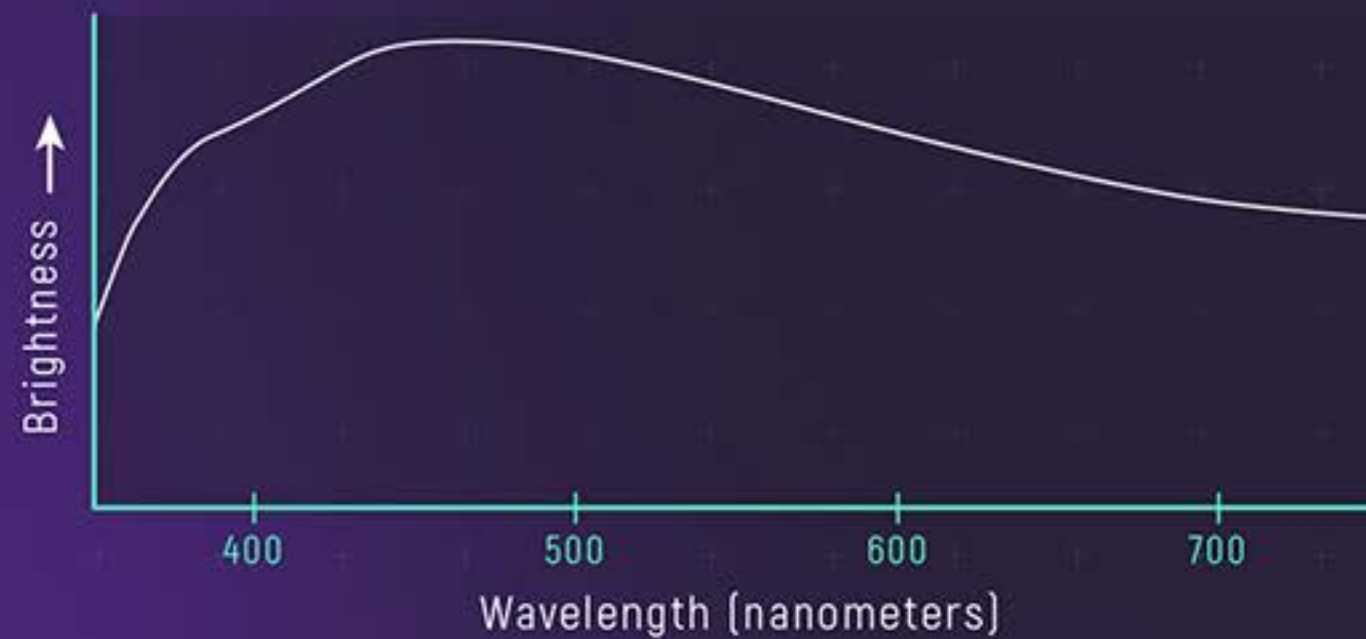
# LUX RATING CHART

|            | Condition      | Light Level (LUX) | Foot Candles (FC) |
|------------|----------------|-------------------|-------------------|
| Day Time   | Sunlight       | 107,527           | 10,000            |
|            | Daylight       | 10,752.70         | 1,000             |
|            | Overcast Day   | 1,075.30          | 100               |
|            | Very Dark Day  | 107.53            | 10                |
|            | Twilight       | 10.75             | 1                 |
| Night Time | Deep Twilight  | 1.08              | 0.1               |
|            | Full Moon      | 0.108             | 0.01              |
|            | Quarter Moon   | 0.0108            | 0.001             |
|            | Starlight      | 0.0011            | 0.0001            |
|            | Overcast Night | 0.0001            | 0.00001           |

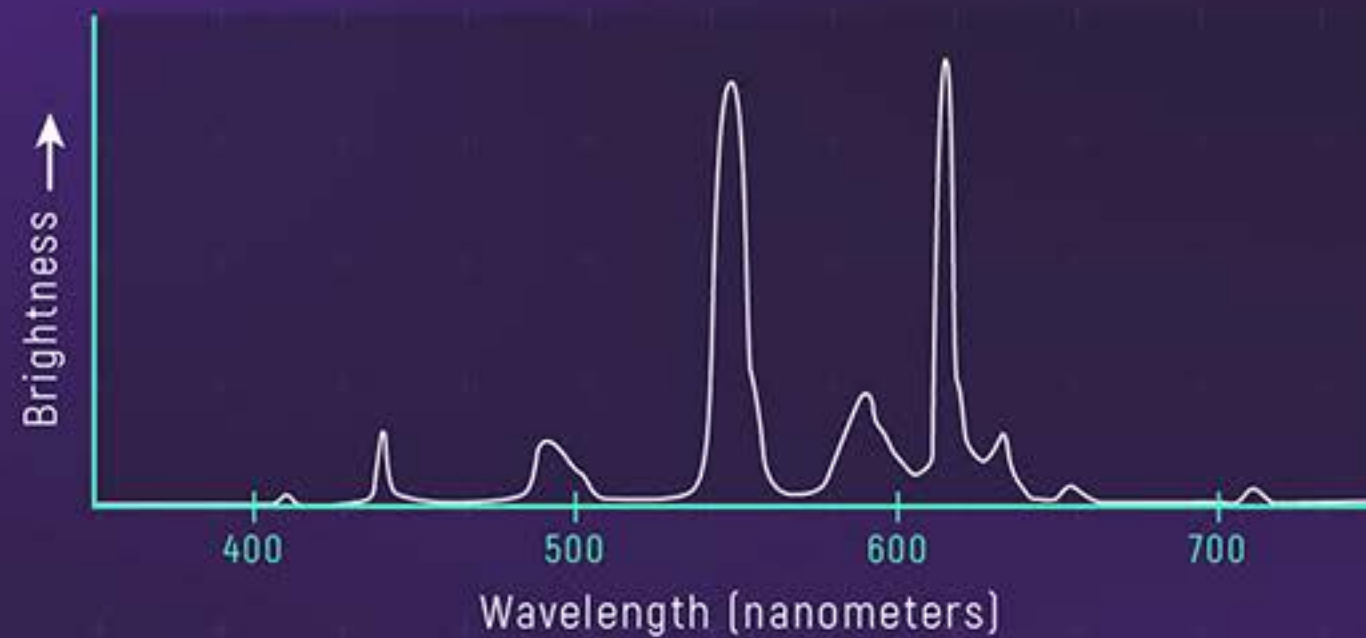
| Light Source               | Lumens  |
|----------------------------|---------|
| Birthday candle            | 1 lm    |
| C9 bulb (Christmas lights) | 7 lm    |
| Cell phone flashlight      | 80 lm   |
| Keychain flashlight        | 360 lm  |
| 40-watt Incandescent bulb  | 450 lm  |
| 70-watt incandescent bulb  | 1000 lm |
| 1x 18650 LED flashlight    | 1000 lm |
| Car headlight              | 1500 lm |



THE SUN



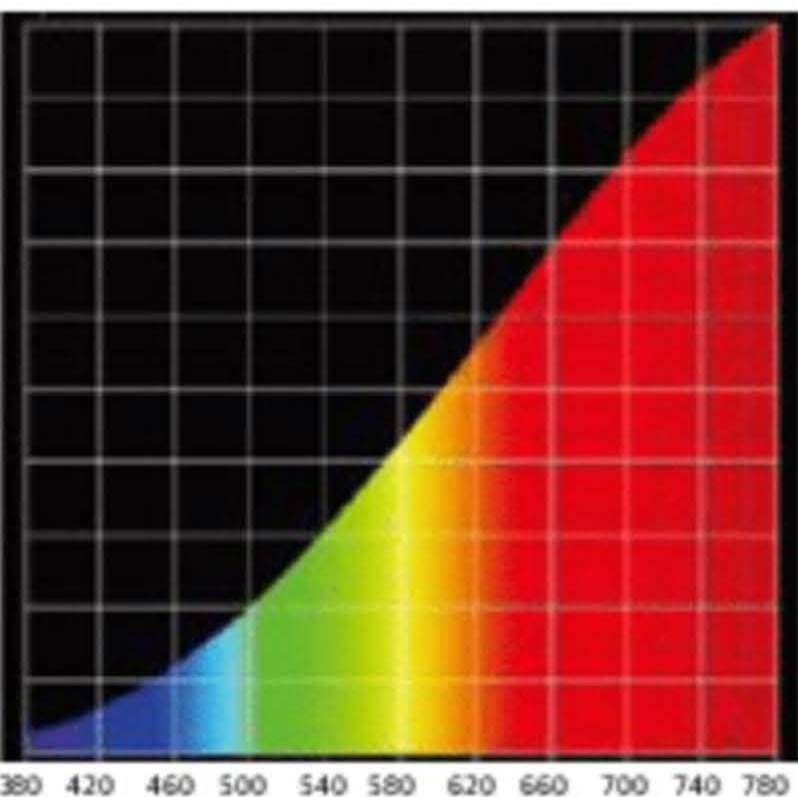
FLUORESCENT LIGHT BULB



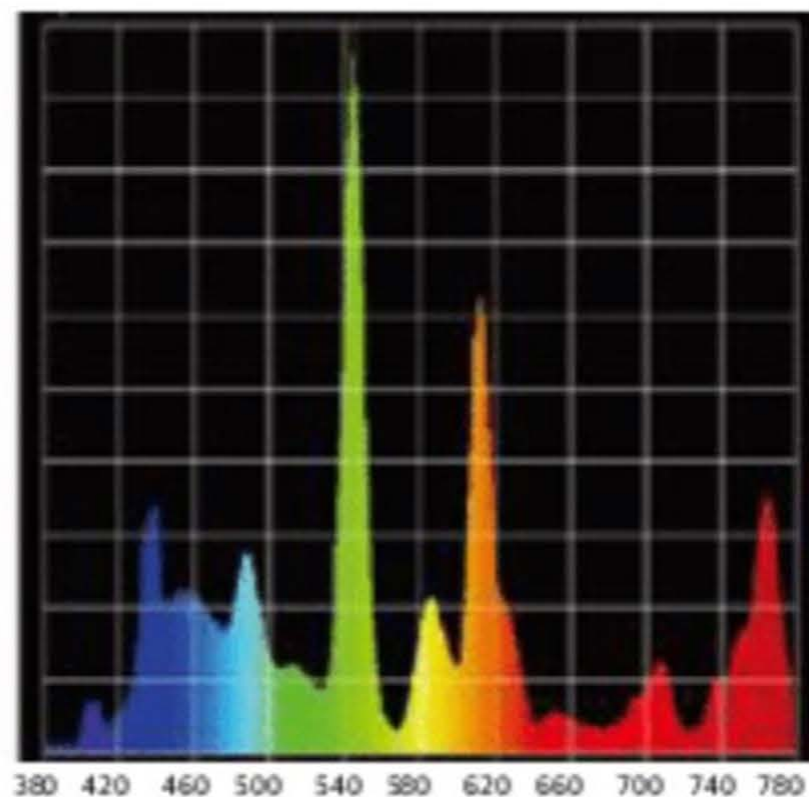




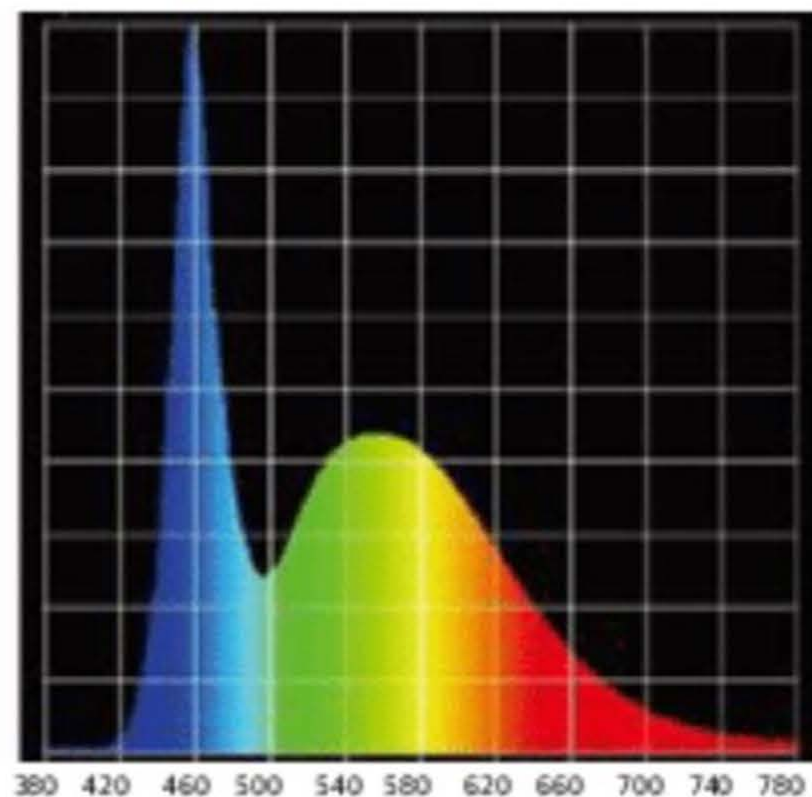
Incandescent Light

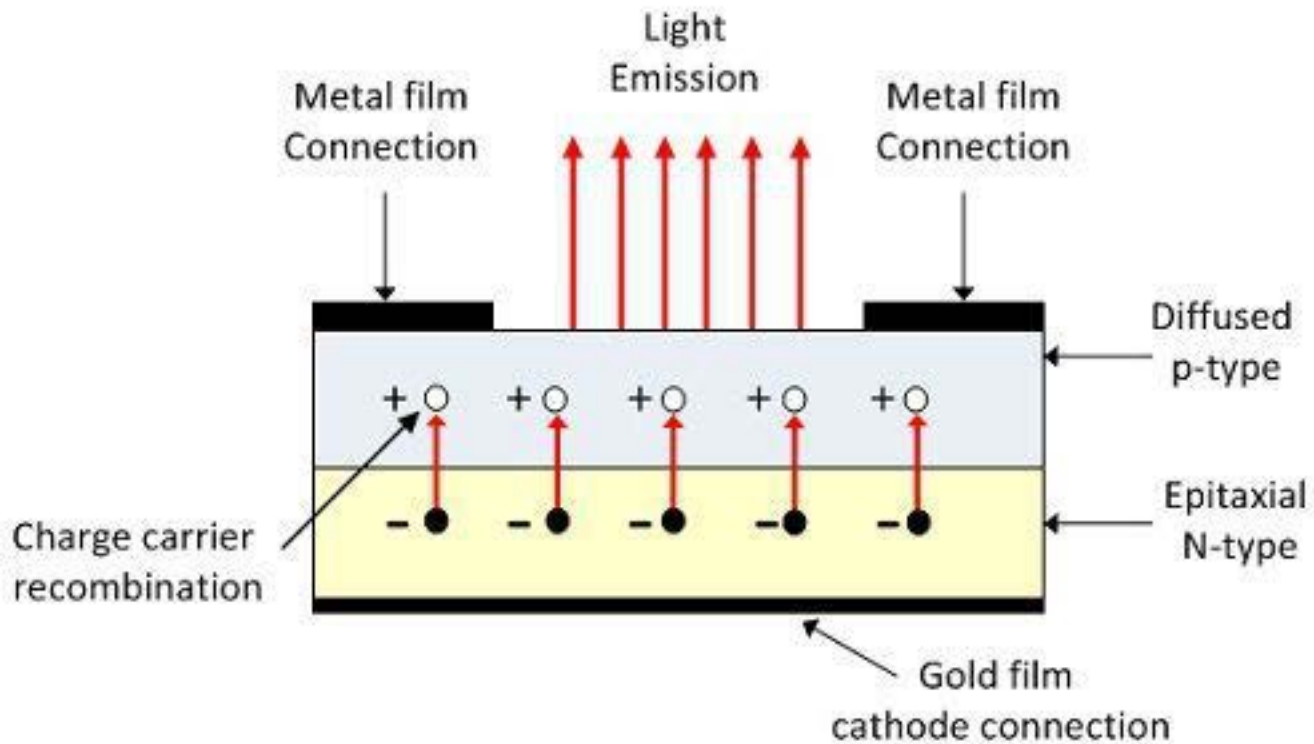


Compact Fluorescent Light (CFL)



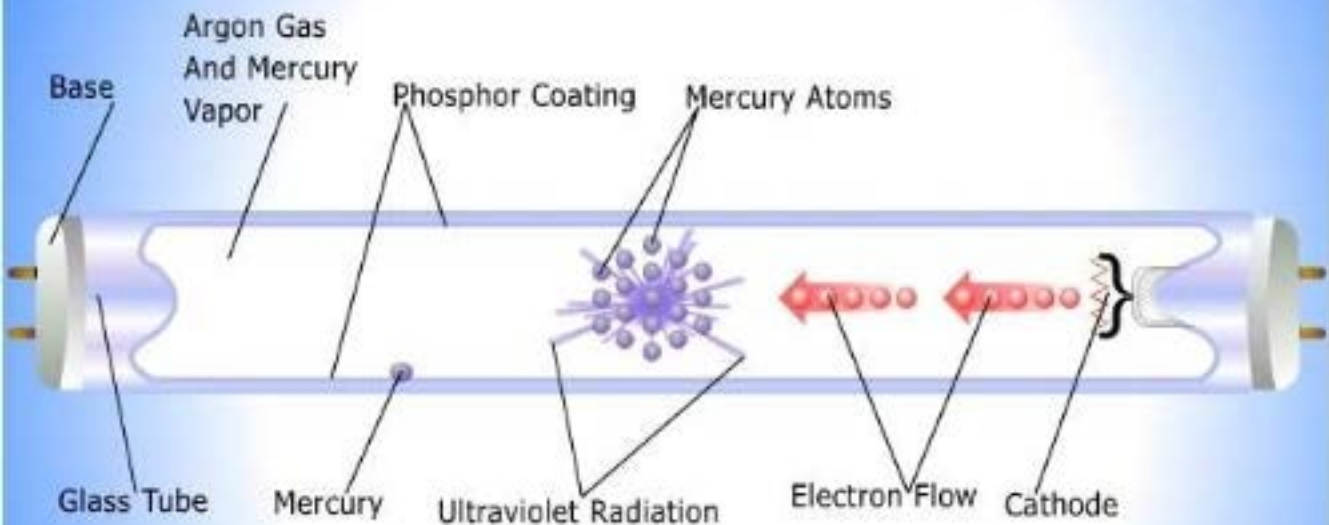
LED Light



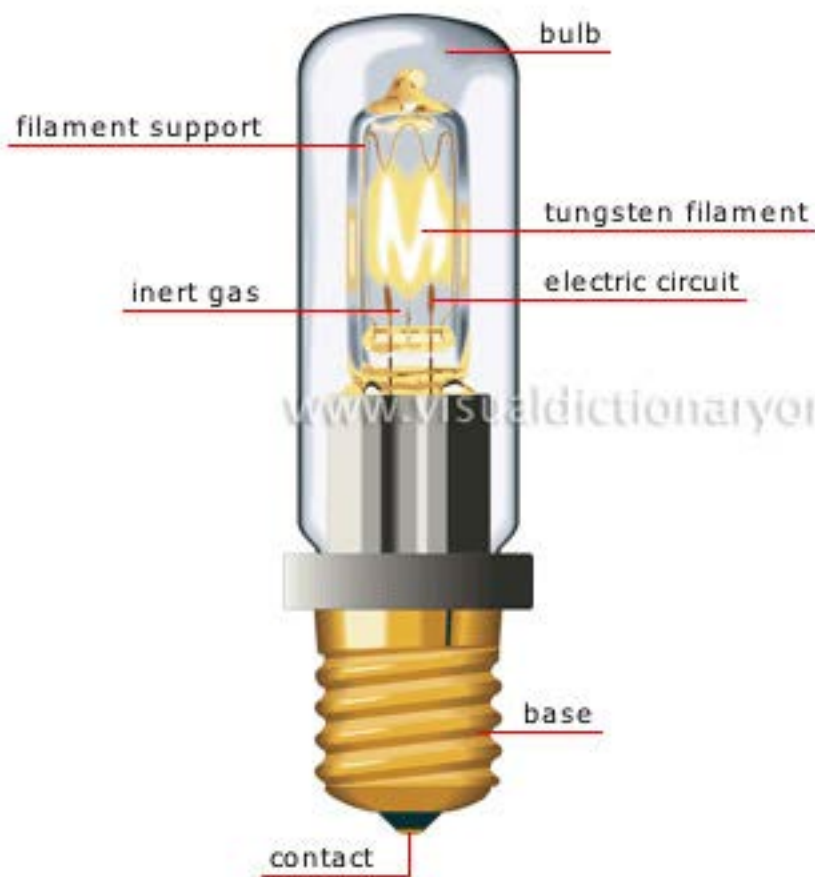




Visible Light



Visible Light



tungsten-halogen lamp

