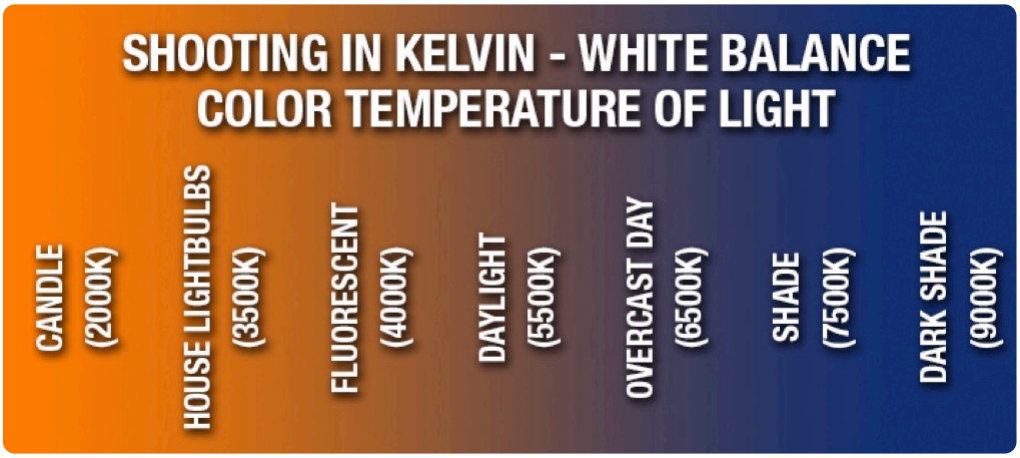
Kelvin Light Temperature

Kelvin is a unit of measurement for temperature, in **photography** we use it to measure **the colour temperature of light sources.**

The Kelvin temperature scale was derived from the British Physicist Lord Kelvin (William Thomson). He discovered when heating carbon at lower temperatures, the black carbon first glowed red, orange and yellow. As it was heated further, the carbon turned white, and then blue.

The **Kelvin temperature scale** normally used **in photography**, ranges from about 2000K (K=Kelvin) to 9000K. Most photographs are shot between 5000K-7500K.

- When you are in a place that has **orange/yellow light**, think of it as being a **low** temperature heat (2000K-4500K).
- If you are in the mid-day sun, consider this to be a **mid** temperature with **white light** (5400K-5800K).
- When under shade or cloud, you can regard this **blue light** to having a **high** temperature (6000K-9000K).



Graphics courtesy of "fstoppers" website.

Depending on the conditions prevailing when pictures are taken, the pictures may take on a reddish or bluish tinge. Furthermore, when a multiple number of light sources are being used or there is nothing with a colour close to white, Auto White Balance may not function properly. In a case like this, set the White Balance to a mode other than [AWB].

1 Auto White Balance will work within this range.
2 Blue sky
3 Cloudy sky (Rain)
4 Shade
5 Sunlight
6 White fluorescent light
7 Incandescent light bulb
8 Sunrise and sunset
9 Candlelight
K=Kelvin Colour Temperature

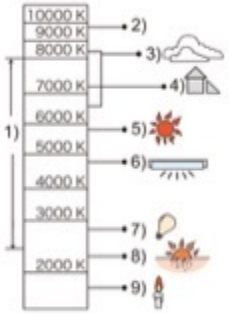


Chart taken from the Panasonic Lumix FZ1000 Advanced User Manual

Image colour temperature can be adjusted in the camera prior to capturing the image, or when an image is in the post-processing stage.

The main thing to keep in mind is ;

- **if your photos are coming out yellow, then turn the temperature down,**
- **if your images are blue, turn the temperature up.**

When adjusting the Kelvin white balance camera dial, move it a minimum of 500 degrees at a time to notice any visual difference.

Note: Different camera brands have differing styles of colour temperature controls and menus.

Video/uTube links;

Color Temperature - YouTube
https://www.youtube.com/watch?v=mauhPAGw7Ss

Shoot in Kelvin - Save Time Editing - YouTube
https://www.youtube.com/watch?v=e54KXy3QQr8

White Balance & Kelvin Color temp explained 💡 - YouTube
https://www.youtube.com/watch?v=48c02L_nHZc