

Color Temperature and White Balance

In the late 1800s a British physicist William Kelvin created his own calibration of temperature. At this time centigrade measurements were based on water's freezing point. Kelvin started his temperature at 'Absolute Zero' which is -273 degrees centigrade.

By heating a block of carbon Kevin observed that as the temperature increased, so did the colors. His color temperatures started at the red end of the spectrum and as his carbon block got hotter, more colors were observed.

Eventually at 10,000 K all of white light's colors were present; from red to blue.

In relation to photography, one should be aware of these color temperatures. Indoor lighting can appear normal to our eyes, but a camera may give a strong color cast in the image.

For example, a regular light bulb in a bedside lamp will have a Kelvin degree of approximately 2,500(k). This will give you a yellow/orange cast in your photo if your camera is set to a daylight white balance.

Solution: Set your white balance in your camera to 'Tungsten'.

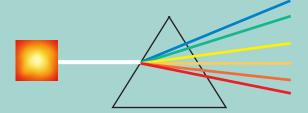
When taking photos outside on a dull cloudy day, the color cast may appear blue in your images.

Solution: Set your white balance in your camera to 'Cloudy'.

What your camera does when you set a 'White balance' is add the missing colors to correct the color cast.



Lord William Kelvin





White Balance symbols on your camera

Auto White Balance

Tungsten Bulb

Fluorescent

AWB

1000K

2000K

3000K

4000K

5000K

Daylight & Flash



6000K

Cloudy



7000K

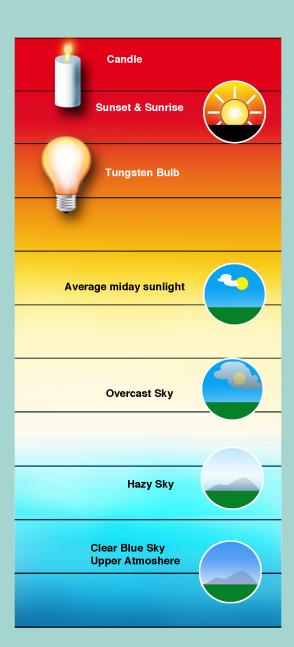
Shade



8000K

9000K

10,000K





Auto White Balance range of your camera is approximately 3000 -7000K