

Color Temperture in Kelvin



Degrees Kelvin	Light Source
1700-1800K	Match Flame
1850-1930K	Candle Flame
2000-3000K	Sun: At Sunrise/Sunset
2500-2900K	Household Tungsten Lamp
3000K	Tungsten Lamp 500-1000W
3200-3500K	Quartz Lamp
3200-7500K	Fluorescent Lamp
3275-K	Tungsten Lamp 2K
3380K	Tungsten Lamp 5K-10K
5000-5400K	Sun: Direct Noon
5500-6500K	Daylight (Sun+Sky)
5500-6500K	Sun: Through Clouds/Haze
6000-7500K	Sky: Overcast
6500K	RGB: Monitor (White Point)
7000-8000K	Outdoor Shade Areas
8000-10000K	Sky: Partly Cloudy

So, why do we measure the hue of the light as a "temperature"? This was started in the late 1800s, when the British physicist William Kelvin heated a block of carbon. It glowed in the heat, producing a range of different colors at different temperatures. The black cube first produced a dim red light, increasing to a brighter yellow as the temperature went up, and eventually produced a bright blue-white glow at the highest temperatures. In his honor, Color Temperatures are measured in degrees Kelvin, which are a variation on Centigrade degrees. Instead of starting at the temperature water freezes, the Kelvin scale starts at "absolute zero," which is -273 Centigrade. (Subtract 273 from a Kelvin temperature, and you get the equivalent in Centigrade.) However, the color temperatures attributed to different types of lights are correlated based on visible colors matching a standard black body, and are not the actual temperature at which a filament burns.