



Colour Temperature

The colour temperature of a light source equivalent to the temperature (in Kelvin, K) at which an ideal black body radiator radiates light of comparable hue. As the sun is an almost perfect black body, light emitted by a black body is perceived as “natural”.

As the colour of the sun is affected by the earth's atmosphere, daylight is defined with a correlated colour temperature of 6,500 K (D65 viewing standard) or 5,500 K (daylight-balanced photographic film standard).

The colour triangle describes the composition of white light. Light always consists of red, green and blue light, these components always add up to 100%: $1=R+G+B$

The Red component is shown on x-axis
the green component the y- axis.
Blue is defined by $B=1-R-G$

Due to the colour dependent sensitivity of the human eye, all RGB components will be <1 .

The Planckian locus describes the colours a black body radiates at certain temperatures.

Colour temperatures over 5,000K are called cool colours (blueish white), while lower colour temperatures (2,700–3,000 K) are called warm colours (yellowish white through red)

