

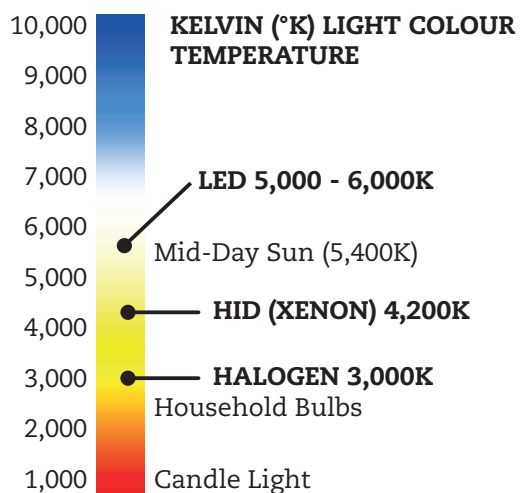


COLOUR TEMPERATURE & COLOUR RENDERING INDEX

Light can be produced in an array of temperatures, even a white LED light can have different colour properties, from a warmer yellow to a bright blue hue. In contrast, light colour quality is measured as a value on the Colour Rendering Index (CRI), depicting how well colours are seen by the eye.

COLOUR TEMPERATURE

Colour temperature measures one characteristic of visible light and is rated against a Kelvin scale (°K). Generally, the human eye functions more effectively when objects are illuminated by a light source that is closest to the mid-day sun, which is around 5400°K. From a health and safety perspective, this translates to a safer, more productive work environment.



Giving colour temperature real meaning and providing the most effective light for the machine operators can be a challenge. The temptation is to have a bright light to match that of the mid-day sun; however, this can have a detrimental effect for both the operator and those working around the machine. Increasing the Kelvin temperature to 6000°K also increases the blue hue of the LED, which can potentially cause irritation to the eye and lead to fatigue for the operator and glare to those around the machine. It is a fine balance between having a clean white light and having enough light for a safe working environment.

In some applications where other conditions such as dust or snow effect vision, a lower temperature light may be

more suitable as it delivers less glare.

TYRI is happy to talk through your options for the best possible solution for your unique application.

COLOUR RENDERING INDEX

While the colour temperature gives an indication of what colour tone the light source will appear to our eyes, if different light sources are used to illuminate coloured objects, the colours of these objects appear differently. These differences in quality are indicated by the Colour Rendering Index (CRI) with the 'ideal' CRI rating being 100. Sun light provides a CRI of 100 as the normative standard for lighting and colour perception. A light with a lower CRI value will make objects appear unnatural.

The common CRI output for LED light sources is typically 70-75, however, with advancements being made in lighting, it may not be too long before higher CRI outputs can be achieved through LED technology.

A combination of colour temperature and CRI measurements will help to ensure you are selecting the correct light for your application. Giving your operator a clear view with minimal irritation to the eye.

Typically, TYRI LED's supply a colour temperature of 5700 and a CRI rating of 70. Our popular 1010 range offers a flexible array of options with varying eLumen values as well as colour temperature choices.

TYRI HAS ONE OF THE BROADEST RANGES OF WORK LIGHTS AVAILABLE. MANUFACTURED IN ISO ACCREDITED FACILITIES, THEY ARE TESTED TO ACHIEVE IP69K AND CISPR25/EN55025. THEY ALSO UNDERGO NUMEROUS ENVIRONMENTAL TESTS FOR TEMPERATURE, VIBRATION AND SALT SPRAY RESISTANCE.