

Magnaray[®] Lighting Education Report

#2 117

What Is the Best LED Color Temperature ?

LED light sources come in a variety of Color (Kelvin) Temperatures, such as 3000K (warm/pinkish), 4000K (produces the most natural light color), and 5000K (lots of blue/cool spectrum), and even higher.

The warmer (3000K temperatures) are great for most any interior residential lighting applications, but some people prefer the slightly higher (4000K) temperature for both interior and exterior lighting applications because it produces the most accurate color rendering of all objects viewed by color cameras and our own eyes.

The higher color temperatures (5000K and above) contain lots of “blue” spectrum. The bluer spectrum produces more visual brightness sensation (glare) to our eyes, especially at night (dusk to dawn) because our eyes shift in sensitivity toward the bluer spectrum then.

The brighter “sensation” can also create more “glare” making it more difficult to see and which our eyes do not like to process,. This includes “direct” (from the light source and luminaire) and “reflected” (from shiny surfaces which include wet streets and roadways, glass, chrome, etc). This can be called nuisance glare, discomfort glare, and disability glare which relate to the “intensity” of the source or reflection.

We use light to light things up (illuminate objects/people) in order to identify them, not to look at the sources. When the higher spectrum sources are used, object colors do not appear as they should. Colors are distorted under too high or even to low of color temperature, no matter what the source of light used (metal halide, high pressure sodium, fluorescent or LED). Linear lighting systems such as Magnaray[®] offers helps reduce glare and provides higher “see-ability” (visual acuity). We offer linear LED and linear fluorescent sources at this time.

We normally recommend using the middle color temperature (4000K) for any interior or exterior lighting application.

You or your contractor / handyman can contact us for design assistance. If you need an installation contractor, we can help you find qualified companies to assist with installation.

Just give us a call – 941 755-2111

Or email: sales@magnaray.com

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