

## LEDs AND HUMAN CENTRIC LIGHTING

The evolution of LED lighting has given rise to an area of study known as “human centric lighting” (HCL), which in general terms is the investigation of the human effects of color temperature and color rendering of light source on human behavior. To be sure, the science is new and there is much to be learned, but there are demonstrated effects that light has on circadian rhythms, mood, visual acuity and performance. Click [HERE](#) for an article that appeared in Architectural SSL magazine.

In terms of architectural lighting, the effects on circadian rhythm are an area that has received a lot of study which points toward using lower CCTs or even amber light for exterior lighting, and which has been shown to be better for humans and animals.

**2500 CCT:** While with amber light you sacrifice color rendering, there are those who advocate for warmer CCTs for outdoor lighting. We are now offering a 2500K warm white array for our 923 fixture. This array is one of Bridgelux’s Decor Food series, designed for the food industry. The array delivers 3300 rated lumens, using 31 watts and CRI of 80+. This compares to our standard 3000K, 32W array that delivers 3550 rated lumens.



**AMBER LED:** We are now offering amber LEDs in our 719, 720 and 721 series wedges for exterior lighting, with the 719 shown above in amber. The board we are using has CCT of 1850 and has 1350 rated lumens using 19W. For the 721, 2 of these boards will be used, for 2700 rated lumens. It is a bit ironic that we find ourselves returning to the orange glow of HPS, but we do so with a CRI of 54, not 22, like HPS. Please call your rep or the factory if you have an application for this.

**WARM DIM:** Another area of HCL that has more to do with personal preferences than circadian rhythms, is the warming of LEDs as they dim. Incandescent sources get warmer as they dim, but standard white LEDs don’t. For our vanity fixtures we are now offering LEDs that have 2160 rated lumens, using 24W. These boards are 3000K at full brightness, dimming to 2200K and have a CRI of 90 and are 120V only. Obviously this technology gives up efficacy, so the best application is residential and hospitality. Initially Warm Dim will be available for our 25” vanity fixtures and if you have an application call your rep or the factory.



922



570

