

ISE: Keeping up with Tech

ISE has been in business since 1992 and in that time, the company has focused on staying on the leading edge of how technology is affecting the workplace.



3200K, Dimmed to 80%



4000K, Dimmed to 90%



5500K, Full On 100%

USAI Lighting's Color Select

Darcy Vines

Color Select seeks to provide the best type of lighting for any environment, from office to residential to hospitality.

In a world controlled by the harsh lighting of laptops, tablets and smartphones from the moment we wake up until we finally turn off for the night, USAI Lighting's Color Select technology is looking to change the way we perceive the lighting around us, with the final goal being happier, healthier people.

It's become the norm to feel unrested each morning because of insufficient or unsubstantial sleep at night, and it's no surprise that this fatigue contributes to a lack of productivity in the workplace. USAI contends, after studying sleep patterns and circadian rhythms, that the lighting of our environments has a huge impact on how we rest and how we work.

Color Select seeks to provide the best type of lighting for any environment, from office to residential to hospitality. Color Select lights are small and recessed, and "deliver between 1,000 and 5,000 lumens, 20 watts to 80 watts. They are all LED, can last for 5,000 hours and emit no UV light," said vice president of USAI Ann Schiffrers.

Operating on a slide dimmer system, Color Select light engines range in size from three to six inches, and can be adjusted between cool, blue hues of light to warmer, more yellow settings. According to Schiffrers, the first piece of the idea for Color Select came about in 2012, when designers contacted USAI for systems of bluer, cooler lighting for a university.



2200K, Dimmed to 50%



3450K, Dimmed to 75%



5000K, Dimmed to 75%

The idea interested USAI because they had never used light so blue in interior settings, and the designers explained that studies showed that students fared better on math exams in classrooms with blue light. This prompted more research into the lighting used not only in education settings, but offices and residential areas as well. It was discovered that in order to reset the body's circadian rhythms each morning, we need light that registers between 5,000 and 6,000K (Kelvin temperature), which is a blue light that mimics daylight. With that light in the morning, the body is fully awake, and as the day goes on or becomes more casual, the light should become warmer and closer to 2,700K.

Color Select offers this capability. The lights can change temperature throughout the day, so as to not strain the eyes or disrupt the body's natural rhythms. "It's really about educating people about the neurological science of light," said Schiffers. "We have to think out the box. Light isn't all about turning on a switch, it's about impacting health."

Beyond decreasing productivity and stealing a restful night's sleep, the consequences of improper lighting can be felt in the long-term as well.

"We're realizing now that should you stay up late, time and time again," said Schiffers, "and not get proper sleep over time,

you're degrading your body and it starts to produce cancer cells."

Schiffers is hopeful that this knowledge and technology will overtake the lighting industry as a whole, but right now, Color Select is the first option on the market. "I'm sure that's where the industry is going," she said. "It's more than just a trend right now."

Color Select and the idea of having a light prescription, where each environment in which a person has to live or work has the exact proper warmth of light, could go hand-in-hand with the sit/stand ergonomic concept that is taking over offices. Both maintain that there is no fixed, constant, best work environment. If a person remains seated at a workstation for an entire eight hour day, lit by both the harsh light of their laptop and the blue overhead fluorescent lights, they're doing more damage to their bodies than good for the company. Now that we're becoming properly aware of these ideas, the hope is to build workplaces where employees and corporations benefit equally.

"Color Select is really supporting wellness living," said Schiffers. "It doesn't just provide light, doesn't just help you see, but it really helps you perform as a human being." 