NXT Level Training

October 25, 2020

**The physiological and psychological benefits of advanced lighting design**

While the aesthetic and energy-saving benefits of advanced commercial-building lighting design are broadly understood, there are deeper occupant health benefits that only the latest advanced lighting techniques and technologies can uncover. When creating lighting designs for commercial spaces, building designers can make decisions that not only increase occupant productivity, but improve their physical and emotional health as well.

“Healthy lighting is dynamic lighting,” said Christopher Meek, University of Washington Associate Professor and Director of the university’s Integrated Design Lab. “With daylight and advanced lighting controls, we have the opportunity to fundamentally rethink the nature of light in our buildings. Physiological responses to the cycle of light and dark are the cornerstone of regulating the human circadian rhythm.”

The circadian rhythm is the internal clock that guides humans and animals across a 24-hour cycle. This powerful system ensures that our crucial physiological functions—including sleep patterns, feeding behavior, blood pressure and body temperature—operate with optimal balance to strengthen our immune system, maximize our energy and increase our metabolism. Our circadian rhythms maintain synchronization by responding to external signals, the most important of which is lighting—both sunlight and electric light.

When lighting is poorly designed with insufficient illumination for certain tasks, or with a lack of exposure to daylight, the circadian rhythms of building occupants can become disrupted and desynchronized. The adverse effects of this desynchronization can be dire, with disrupted circadian rhythms being linked to diabetes, depression, obesity and a variety of metabolic disorders.

On the other hand, well-designed lighting has been shown to increase occupant productivity, positively impact mood, and reduce symptoms of mental illness. And the effects can be profound. For example, [multiple studies have shown](https://v2.wellcertified.com/wellv2/en/light/feature/5) that rooms designed with plenty of sun-facing windows effectively reduced the recovery time for patients with severe depression and patients convalescing from heart attacks.

**Advanced technology for advanced wellness**

The latest lighting techniques and technologies are tailormade to support the circadian health of commercial building occupants. When integrated by leading lighting experts, technologies including wireless controls, task tuning, tunable LEDS and acoustical sensors can connect with other areas of building design, such as windows and HVAC, to provide building occupants with healthy indoor environments and that would have been unthinkable only a few years ago.

“The most advanced lighting technologies, like tunable LED systems, provide health impacts that extend beyond the workplace,” said Meek. “These technologies can provide better quality lighting during the day and help occupants transition to healthy darkness at night.”

To support this healthy transition to darkness, tunable LED systems provide building occupants with control over their exposure to the correlated color temperature (CCT) as a way of optimizing their lighting experience—from warm-white to cool-white. This flexibility and control empowers building occupants to adjust their lighting environment to maintain productivity and focus, and to support their health through well-calibrated circadian rhythms.

“Current advances in lighting technology allow for carefully applied adjustable color temperature systems and controls,” said Jennifer Blake, Lighting Specialist and NXT Level Designee at Columbia Pacific Sales in Vancouver, Wash. “These advances help us empower our clients to make technologically advanced choices that enhance the occupant experience within a space.”

As the general public becomes more familiar with the many health benefits connected to lighting exposure throughout the day, occupants will increasingly expect advanced lighting design. To meet this need in the Northwest, the nonprofit-backed NXT Level training curriculum was created to help Northwest lighting experts stay on top of the latest lighting approaches that foster circadian health in building occupants. In addition to providing lighting solutions that save energy and operating costs, NXT Level designees are specially trained to integrate these techniques and technologies to ensure that Northwest commercial-building occupants can spend their working lives in indoor environments that support the most important aspects of their physiological and psychological health.

Visit the NXT Level Designation List to find an industry-leading advanced lighting professional in your area [nxtleveltraining.com/experts](http://nxtleveltraining.com/experts).

**About NXT Level Training**

NXT Level training is a nonprofit-backed training curriculum supported by Northwest utilities. This specialized coursework equips lighting professionals with the latest advanced techniques and technologies to provide energy savings and advanced lighting solutions for Northwest commercial buildings. To learn more, visit [nxtleveltraining.com](http://nxtleveltraining.com/).

[SHORT BLURB VERSION]

**Regulating occupant health through advanced lighting design**While the aesthetic and energy-saving benefits of advanced commercial-building lighting design are broadly understood, there are deeper occupant health benefits that only the latest advanced lighting techniques and technologies can uncover. When creating lighting designs for commercial spaces, building designers can make decisions that not only increase occupant productivity, but improve their physical and emotional health as well.

[*Learn more >*](https://betterbricks.com/resources/the-physiological-and-psychological-benefits-of-advanced-lighting-design)

[SOCIAL MEDIA POST – ARTICLE VERSION]

When creating lighting designs for commercial spaces, building designers can make decisions that significantly enhance aesthetics, energy use and occupant productivity. Even beyond these powerful benefits, recent studies show that lighting design decisions can also improve the physical and emotional health of building occupants on a fundamental level.

<https://betterbricks.com/resources/the-physiological-and-psychological-benefits-of-advanced-lighting-design>

[SOCIAL MEDIA POST – INFOGRAPHIC]

The decisions made by lighting designers go well beyond aesthetics and energy savings. These decisions can also have a profound impact on the physical and emotional health of occupants. Take a look at this infographic to learn more about the deep-seated health benefits provided by the most advanced lighting techniques and technologies.

<https://betterbricks.com/resources/the-physiological-and-psychological-benefits-of-advanced-lighting-design>