



BIOS LIGHTING FOR HEALTHCARE

- Reduce energy costs
- Improve medical evaluation and diagnosis
- Increase staff output
- Improve patient outcomes



HEALTHY LIGHT

With the 24-hour nature of healthcare environments, both staff and patients spend an inordinate amount of time indoors under unhealthy electric lighting that can lead to a variety of health issues — including social jet lag. BIOS® SkyBlue® lighting solutions deliver biologically-optimized lighting that provides essential wavelengths of light that are crucial for circadian rhythm regulation and overall health, leading to better health outcomes for patients and a more focused and productive workforce.

MORE ACCURATE DIAGNOSIS

BIOS SkyBlue delivers far-red light wavelengths (near 660 nanometers) that penetrate the skin’s “optic window” to enhance the caregiver’s ability to visually diagnose a host of medical ailments. These far-red wavelengths also help caregivers provide better visual treatment, including more accurate vein delineation which is essential for detecting cyanosis and administering medication. BIOS SkyBlue meets the Cyanosis Observation Index (COI) requirements for visual assessment of cyanosis, providing a COI of 3.1 at 3500K and 4000K and a COI of 3.3 at 3000K.

BETTER SLEEP AND BIOLOGICAL FUNCTIONALITY

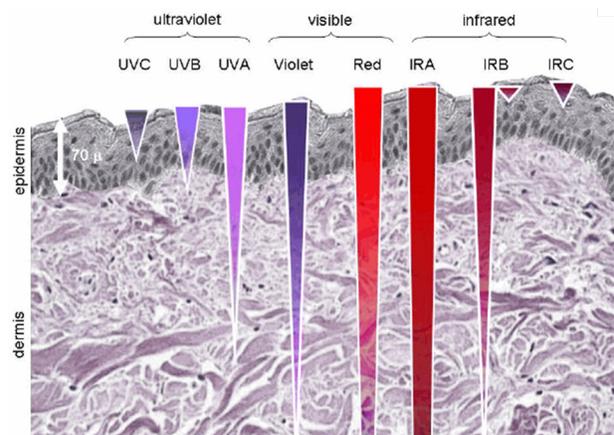
BIOS SkyBlue lighting solutions help regulate circadian rhythms and other associated biological processes by providing key wavelengths of light which target a newly discovered, non-visual photoreceptor in the human eye. A study by the Cleveland Clinic concluded that higher amounts of this particular light wavelength corresponded to better sleep, better moods and increased pain tolerance.¹

WELL BUILDING STANDARD

BIOS lighting provides industry leading LED solutions that gives designers the tools they need, contributing toward satisfying Circadian Lighting Design Feature 54 under the WELL Building Standard® v1 and Feature L03 under the WELL Building Standard v2.

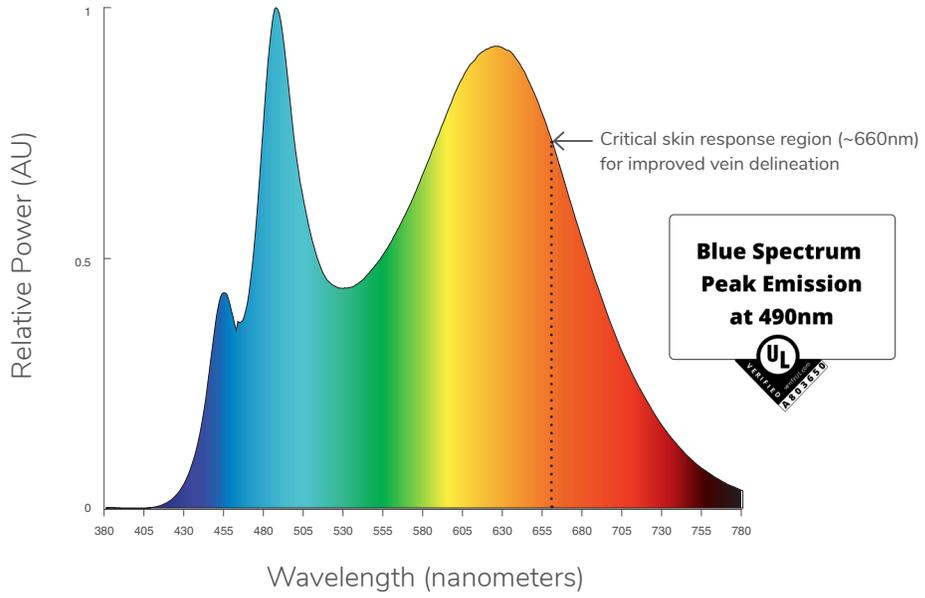
¹ Office of Research and Innovation, Nursing Institute, Cleveland Clinic, Cleveland, Ohio.

Bernhofer EI, Higgins PA, Daly BJ, Burant CJ, Hornick TR. "Hospital lighting and its association with sleep, mood and pain in medical inpatients." *Journal of Advanced Nursing*. 2014 May; 70(5):1164-73

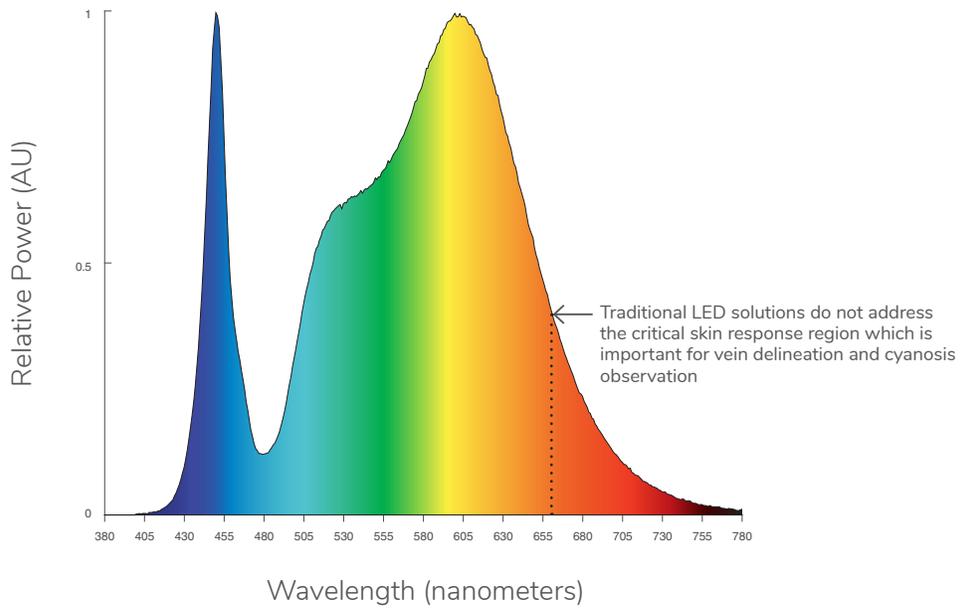


Source: SCENIHR, Health effects of artificial light, 19 March 2012, 3.4.1 Optical radiation and 3.4.2 Radiant energy absorption, pp. 22-31.

BIOS 3500K LED SPECTRAL POWER DISTRIBUTION



TRADITIONAL 3500K LED SPECTRAL POWER DISTRIBUTION





No complicated controls. No system overhaul. Just healthy lighting.

BIOS partners with lighting industry manufacturers and lighting designers to provide healthy, low energy lighting to everyone. Contact your lighting manufacturer to get lighting Illuminated by BIOS®

BIOS Lighting

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* For details related to statements in this document, please go to <https://bioslighting.com/hu-white-paper-case-studies-access/>