



PMC LIGHTING IS ILLUMINATED BY BIOS®

PROVIDING HEALTHY, LOW ENERGY LIGHTING THAT PROMOTES IMPROVED SLEEP, BETTER HEALTH AND WELL-BEING.

BIOS® and PMC Lighting are excited to partner to provide biologically optimized solutions in a variety of color temperatures and form factors, enabling the light fixtures to maintain the visual appearance specifiers and end-users want, with the biological stimulus our bodies need. BIOS® SkyBlue® technology can be integrated into virtually any architectural light fixture and is intended for use in a variety of daytime environments, such as offices, classrooms, hospitals, etc.

Spectrum	BIOS LED	Healthe Good Day*	Sunlike LED	Typical LED
CCT	4000K	*5000K	4000K	4000K
M/P > 0.9 @ 4000K	✓ 0.92	✗ 0.92	✗ 0.75	✗ 0.57
Endless Design Options	✓	✗	✓	✓
Multiple CCT Options	✓	✗	✓	✓
Medical Evaluation Compliant	✓	✗	✓	✗
R9 > 90	✓	✗	✓	✗
Peak blue emission at 490nm	✓	✗	✗	✗
Ideal Application	Offices, Education, Healthcare, Shiftwork, Places where people promote health and Wellness	Places where people prefer 5000K	Museums and Retail	Places where energy efficiency is the only consideration





BIOS® SkyBlue® lighting solutions is designed to provide the specific circadian stimulus required to improve overall sleep quality, allowing our bodies to better recover during the night. Having an improved circadian rhythm can positively impact daytime productivity and overall feelings of well-being.

Our understanding of the eye and its various functions has grown significantly since the discovery of a new photoreceptor in the eye in 2001. Since this discovery we have learned the eye is responsible for more than just vision, it actually serves multiple purposes: Our visual photoreceptors (rods and cones) allow us to see color, contrast, motion, and detail in our surroundings, while this new non-visual photoreceptor (ipRGCs) assists in driving our core biological functions. This new photoreceptor is most sensitive to wavelengths of light in the “sky blue” region and is solely responsible for sending signals to our bodies’ internal clock.

BIOS® LIGHTING BENEFITS



Regulate Healthy
Sleep Patterns



Improve Sleep
Quality



Increase
Productivity



Improve Physical,
Mental and
Emotional Well-
Being



Improve Short and
Long-Term Health



Better Focus,
Fewer Accidents

These signals help our bodies delineate between day and night, allowing it to organize a myriad of biological processes while also reinforcing larger behaviors such as sleep and alertness. Interestingly, this non-visual photoreceptor’s contribution to vision is minimal, and consequently, all standard electric lighting to-date has ignored this “sky blue” wavelength, eliminating the valuable biological signal our bodies evolved around.

Compounding this is the fact we spend more than 90% our time indoors under standard electric lighting, creating an environment in which our bodies are in a state of constant “twilight”, where they do not receive sufficient biological stimulus during the day and too much at night, essentially confusing our day/night cycles. Symptoms of this include, but are not limited to: an inability to go to sleep in the late evening hours or an unwanted burst of energy in the early morning hours waking you sooner than you would like.

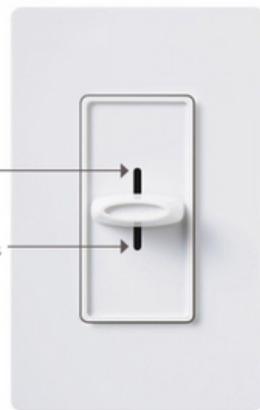
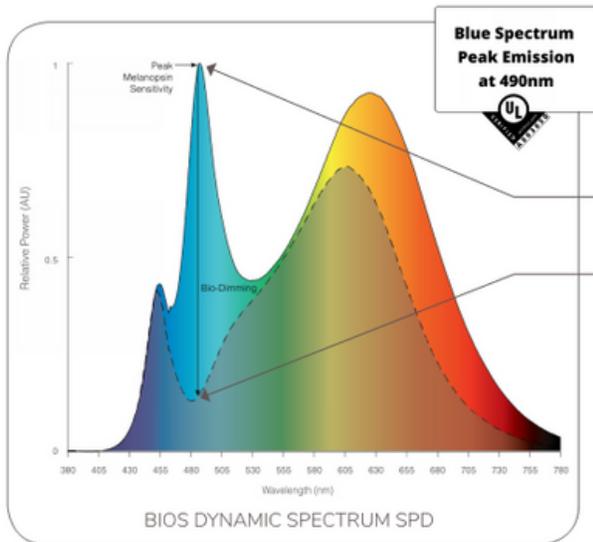


PMC LIGHTING IS ILLUMINATED BY BIOS®



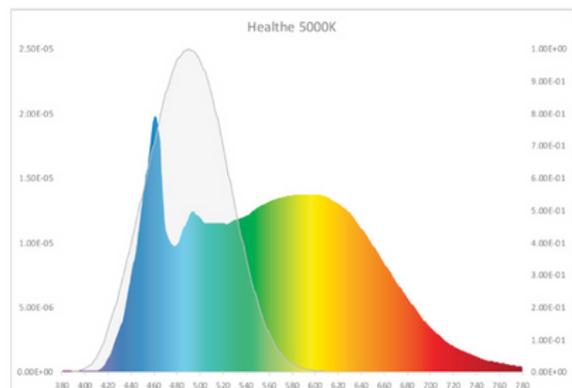
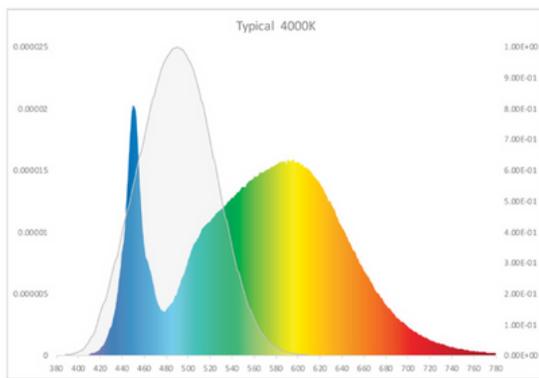
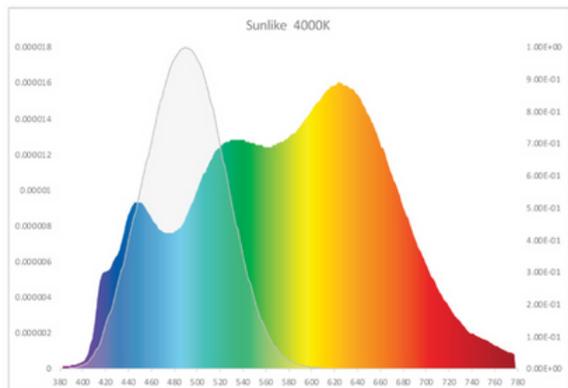
BIOS® is the only company that has designed a light source which provides the natural blue sky signal our bodies and internal clocks are seeking during the daytime. This BIOS® SkyBlue® technology addresses and helps remedy the perpetual “twilight” our bodies currently exist in, mitigating the drowsiness during the day and the restlessness at night.

SIMPLE SINGLE-CHANNEL CONTROL



Day ☀️
Night 🌙

Daytime LED Spectrum (3500K)
Nighttime LED Spectrum (3000K)



NO COMPLICATED CONTROLS

•

NO SYSTEM OVERHAUL

•

JUST HEALTHY LIGHTING