SPECTRA



CONVERTS BLUE LIGHT TO SAVE YOUR PRODUCTS





FEATURES & BENEFITS

- Prevents photo-oxidation in brewery, dairy, pharmaceutical and semiconductor production
- Converts blue light below 500 nm to nondestructive wavelengths
- Energy efficient HPS, MH and Fluorescent replacement
- LED light engine eliminates risk of glass breakage in food production areas
- CRI of 75 to allow vision of safety/warning signs

APPLICATIONS

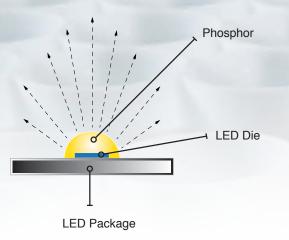


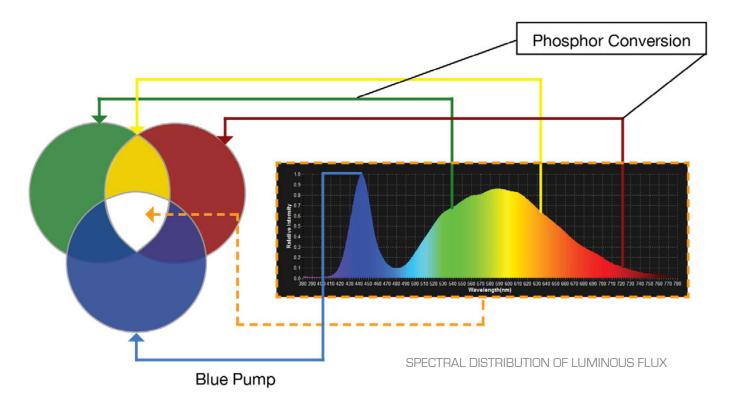






CONVENTIONAL LED OPTICAL SYSTEMS HOW IT WORKS





Short wavelengths (blue) of light are emitted from the LED die, which will be converted to longer wavelengths through the phosphor layer

Longer wavelengths of light are produced in the phosphor layer of LED by down-converting the blue-rich spectral output of the LED die (Stokes Shift), giving the appearance of white light

____ The total spectral power distribution produced by "white" phosphor-converted LEDs

WHAT HAPPENS WITH TRADITIONAL BLUE IN LIGHT?

- · High Pressure Sodium, Metal Halide & Fluorescent produce UV and other wavelengths of light below 500 nm.
- Wavelengths of light below 500 nm are absorbed by the food and other sensitive products causing adverse chemical reactions leading to deterioration of ingredients.
- · Some producers have attempted to mitigate through the use of colored packaging (yellow and/or UV coated).
- Owners/operators of milk/dairy farms and other food processing facilities have had to compromise their sustainability programs to reduce their energy consumption associated with electrical lighting and related HVAC costs.



WHY IS THERE A NEED FOR AN LED FIXTURE THAT CONVERTS BLUE LIGHT?

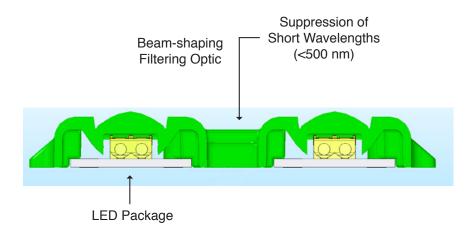
Converting blue light prevents photo-oxidation and ecological disruption while maintaining the efficiency and money savings of an LED fixture.

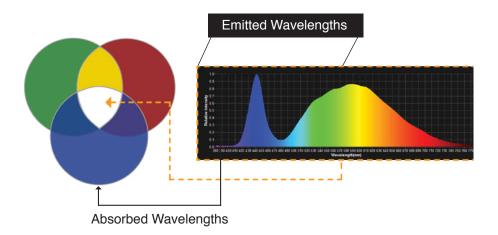


WHAT ARE WE DOING TO SOLVE THE ISSUE?

PROTECTION TECHNOLOGY

How it works - The optic, when combined with the LED package, absorbs wavelengths of light below 500 nm and retransmits at longer wavelengths (Stokes Shift). The material technology can be applied to various beam shaping optical systems with multiple distributions.





SPECTRAL DISTRIBUTION OF LUMINOUS FLUX WITH SHORT WAVELENGTH SUPPRESSION (SWS)









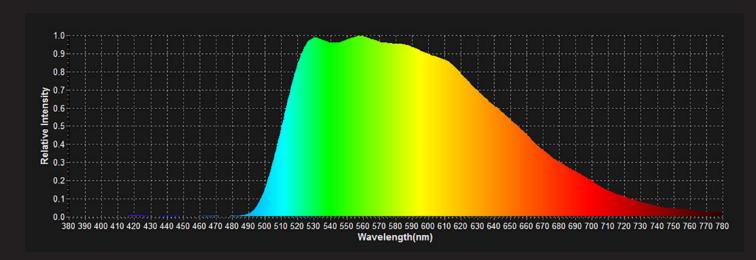




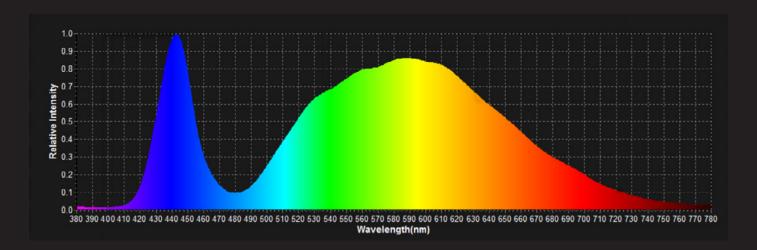


THE RESULT

SPECTRALOC™ OPTICS



STANDARD OPTICS





ALERA LIGHTING

ARCHITECTURAL AREA LIGHTING

BEACON PRODUCTS

COLUMBIA LIGHTING

COMPASS

DUAL-LITE

HUBBELL CONTROL SOLUTIONS

HUBBELL INDUSTRIAL LIGHTING

HUBBELL OUTDOOR LIGHTING

KIM LIGHTING

KURT VERSEN

LITECONTROL

PRESCOLITE

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