

WEEKLY NEWSLETTER

Samsung LED Horticultural Lighting Solutions



A Variety of LED Packages and Modules for White and Red Light

Welcome to the *LEDs Magazine* weekly newsletter for June 13, 2018. We have the content from our May/June issue live on the website in HTML format. And of course <u>you can always view the issues on our digital magazine platform</u> including archives.

One article from the issue that is especially topical covers a major home lighting retrofit to a tunable system intended to <u>enhance the health and wellbeing of the homeowner</u>. The lighting adapts in intensity and spectral power distribution (SPD) throughout the day automatically. The article is the second in a two-part series and details how the solid-state lighting (SSL) technology works and the experience of the homeowner living with the new lighting.

We also have a news article that covers some recent happenings in the human-centric lighting or lighting for health and wellbeing sector. Vital Vio has <u>extended its continuous disinfection business into the European market</u>. In the same article, we cover research results presented by Mariana Figueiro of the Lighting Research Center, on using lighting intervention to improve the wellbeing of Alzheimer's patients.

And speaking of Figueiro, she will deliver the <u>keynote address at our Lighting for Health and Wellbeing Conference</u> that will take place July 18 in Newport Beach, CA. We have an <u>outstanding program planned</u>. Reserve your spot now.

Moving on, we of course can't go a week without a smart lighting or Internet of Things (IoT) story. Our latest case study is relatively unique in that a Claire's retail warehouse in the UK is using a <u>powerline communications scheme to</u> <u>network SSL luminaires</u>. The connectivity technology came from enModus.

The other SSL application that remains hot is horticultural lighting. We just posted a mashup story covering four recent projects. The news in this case is the scale of some of the projects. For example, a new indoor vertical farm intends to <u>produce 420 metric tonnes of leafy greens each year</u>. And an outdoor tomato greenhouse with supplemental LED lighting will cover a space equivalent to 100 soccer pitches.

We are also moving forward with the planning of our <u>Horticultural Lighting Conference</u> that will take place in Portland this fall. We will be announcing some speakers shortly.

On the webcast front, we have an outdoor lighting presentation coming your way. Join us June 28 for a presentation on the "<u>Challenges of outdoor lighting and solution pathways</u>."



SunLight2 Introducing SunLight2, the Museum-Grade MR16 LED bulb and light engine from LTF. SunLight2

features superior color rendering (CRI

96+, R9 90+), 450 lumen output, dim-towarm (3000K dims to 1800K) and Title 24 compliant flicker free operation.

Learn more

Headline News



Lighting drives new technology and possible medical treatment

Vital Vio expands its reach with continuous disinfection technology into Europe, while the Lighting Research Center has presented some research data on the impact of tailored lighting on Alzheimer's patients, and both organizations will present at the Lighting for Health and Wellbeing Conference.



Horticultural lighting installations continue to grow

The scale of LED-based horticultural lighting projects continues to expand as growers find success in boosting yield and extending the growing cycle with crops ranging from leafy greens to tomatoes and cucumbers.



Retailer Claire's finds a new accessory in wired smart lighting

The latest powerline-communication-based lighting deployment by enModus at a retail warehouse looks like a small one but shows that wireless is not the only way to avoid expensive retrofit costs.



Fagerhult brings IoT-experienced executive onboard as CEO

Bodil Sonesson is steeped in connected security cameras and data analytics for video surveillance stalwart Axis, and is well clued in on sensors. She joins later this year.



Articles

Lighting and controls put WELL concepts to work

Lutron's Eric Lind sheds light on the ways in which lighting designers and specifiers can leverage SSL and controls to achieve WELL Building objectives.

Lighting as a service poised to deliver the circular economy

If vendors retain luminaire ownership, they will have the incentive to look after longevity. Modular, replaceable components will also help. But will the industry move fast enough for EU regulations? Mark Halper reports.

Multi-channel SSL system enhances health and wellbeing in residential retrofit

Tunable lighting and programmatic controls can deliver a natural-light experience in a residential setting that enhances human wellbeing. In Part 2 of a series, Maury Wright describes the experience of the homeowner in a major lighting for health and wellbeing project.

Reconsider UV-C LED lifetime for disinfection based on development decisions

Eoin Connolly explains how application usage scenarios impact the specification and design of UV-C-based sterilization and disinfection products and that common measures of LED lifetime can be misleading.



Resources

Three takeaways on human-centric lighting from LightFair 2018

In a recent blog, Strategies Unlimited junior analyst Jared Saunders noted a few standout topics that companies brought up that should have an impact on the products coming out next and ultimately the market as whole.

A master of light manipulates SSL for museum lighting design

Designer Suzan Tillotson knows how to factor in the unique needs of museums and galleries when envisioning a lighting concept. Today she will present case studies that represent how LED technology can enhance and preserve the aesthetics of the exhibit space and the artwork. You can register and view the webcast on-demand.

LED-based horticultural lighting plants the seeds for successful grow operations

SSL technology delivers control and tunable spectrum benefits that can enhance and improve plant growing operations, especially in new operations outside of the typical farming community. This editorial digest combines the latest information on science-backed horticultural studies, a close look at photometrics and energy-efficiency criteria for horticultural lighting, and a detailed insider's guide to comparing and selecting appropriate fixtures for project specification.

Using spectroradiometers to measure blue light in displays and lighting

In natural outdoor sunshine, blue light peaks at 480 nm. Displays, such as laptops, monitors, and cell phones, typically emit with a peak blue wavelength of 435 nm. Read how spectroradiometers are used to measure blue light.

Industry News & Products

Find out what companies are doing in the LED & lighting industry

Luminus' spectrally tuned LED light sources create new market opportunities LEDiL Oy introduces a primer to understanding horticultural lighting design GlacialPower launches low-noise, IP67-rated GP-CVM400P LED driver series LIA and BSI partner to support commercial lighting industry on standards and certifications PixelFLEX and Reflect open the windows for Levi's store with transparent LED video displays Toughened two-part epoxy from Master Bond withstands repeated thermal cycling Fargo startup to donate and deliver 2000 solar lanterns to Ugandan villages LFE Solutions and EMC Holding Group partner to support ESCOs on lighting projects

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