

## Press release

### Maximum efficiency and light quality for sophisticated lighting - Lumitronix presents LED modules with TriGain phosphor technology

The new Ecodesign Directive entails high technical requirements for efficiency. Many existing LED solutions that previously had a good energy efficiency class (EEC) will only receive a classification in the lower range of the scale from A to G according to the new directives.

Since many users are increasingly demanding sustainable lighting solutions and the EEC has a significant influence on a purchase decision, it is the task of the lighting industry to design environmentally compatible and efficient products that enable higher energy savings and thus contribute to climate protection.

Therefore, the Swabian LED specialist Lumitronix has developed three new LED modules of the LinearZ family, which besides their dimensions based on the industry standard can also convince with the extremely efficient LEDs of the H6 series from Nichia. Thanks to the patented TriGain phosphor technology, the LEDs of the Japanese LED world market leader enable excellent colour rendering (min. CRI 90) without compromising the efficiency of the LED modules.

Previously, the focus for the light source had to be placed on either efficiency or colour rendering index, but with the new versions of the LinearZ LED modules, both parameters can now convince with top values and ensure excellent light quality for a wide range of applications.

#### **Highly efficient LED modules with CRI > 90 and Zhaga compatibility**

LinearZ modules from Lumitronix are suitable for linear luminaires of all types due to their slim design and can be used in many existing linear luminaires due to their standard dimensions. They do not require a heat sink and are connected without soldering.

The LinearZ 280-26 TriGain LED module is 280 mm long, fitted with 26 neutral white (4000 K) Nichia LEDs of the H6 series and is operated with 160 mA constant current. It achieves an EEC of A according to the new Ecodesign Directive. The light value 4000 K is considered the classic working light and can be used, for example, for hall lighting in logistics centres or production facilities. With an Ra value of greater than 90, the extremely efficient modules achieve a very good quality of light. The colours of objects are reproduced authentically and can help to improve work processes and increase well-being in the workplace.

The second LinearZ 280-40 module enables Tunable White in the range from 2700 to 5000 K. The LED strip has 40 LEDs of the H6 series over a length of 280 mm, which due to TriGain technology enable a CRI of over 90 and at the same time an EEC of A. The module is operated with a constant current of 340 mA.

Tunable White allows individual adjustment of the colour temperature according to need. This makes it possible to adapt the light to the different requirements over the course of a day. Therefore, the modules are very suitable for office lighting or the hotel industry, to be able to adapt the light to well-being. When using the LinearZ module in shop lighting, different areas can be illuminated in different light colours for the presentation of goods. With the high colour rendering index, the goods are always presented in true colours and with the optimal light colour to create a pleasant atmosphere.

With the third module called LinearZ 280-112 Circadian TW, the natural light pattern of the sun can be realistically imitated thanks to three different colour temperatures (2000, 4000 and 6500 K). In addition, the LEDs of the H6 series ensure a true-to-nature colour gradient very close to Planck's curve thanks to TriGain. The three-channel Circadian TW module is operated with 24 V constant voltage.

The new LinearZ modules in Tunable White and Circadian TW versions can offer special added value wherever sophisticated lighting is required in areas with people being exposed to artificial light for a longer period of time.

Specifically designed lighting systems that enable dynamic colour temperatures or circadian lighting can positively influence health, alertness, concentration and even productivity. To meet the circadian rhythm, the biological inner clock, in terms of promoting health, the LinearZ 280-112 Circadian TW LED module can be used for general lighting in the medical sector, e.g., in hospital patient rooms or care facilities. However, schools and educational institutions also benefit from carefully designed lighting systems that closely resemble light in the natural course of the day.

### **Individual control options**

For all modules presented, Lumitronix additionally offers the matching control units from its own product portfolio, if required. With these, the light can be flexibly adjusted and configured according to the respective requirements. With the Casambi extension, for example, the light can be conveniently controlled by the user with an app and provides a pleasant lighting atmosphere. Expandable with sensors, the control system can also ensure that the light is only switched on as required when a person enters the room.

The licensed modules are manufactured at the Hechingen site and are specified exclusively for use in luminaires in the commercial sector and general lighting in the medical sector. Should you wish to use the modules in other areas, you can contact the LED experts at Lumitronix under [b2b@leds.de](mailto:b2b@leds.de). Customised LED solutions with this new phosphor technology are equally possible according to individual requirements.

## **About Lumitronix**

Lumitronix has been one of the leading specialists for LEDs and LED products for many years. As a competent partner for the industry, Lumitronix possesses broad application knowledge from numerous sectors. The Swabian company, based in Hechingen, Germany, has ISO 9001 certification and is also the official distributor of market-leading manufacturers of LED technology. Lumitronix is not only involved in the distribution of LED products, but also develops and manufactures LED modules and matching control units in-house according to customer-specific requirements. Two ultra-modern production lines with the latest machine technology allow the assembly of both rigid and flexible PCBs. A special feature of the flex production is the reel-to-reel processing, with which almost endless lengths can be realised. The production site in Hechingen furthermore provides the benefit of being able to respond quickly and reliably to individual customer wishes and requirements. Quality Made in Germany.

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