

PRESS RELEASE

New LED modules for greater concentration

Special colour spectrum for better performance at work

Dornbirn, March 22, 2022. **In many workplaces, lighting that has an energising effect is not just good for employees' well-being, it is also a factor in safe work practices. The new linear LED modules from Tridonic's Activating Light family support both well-being and concentration at work thanks to their special colour spectrum.**

Tridonic's human centric lighting solutions perform two important roles: they improve comfort in the workplace and boost concentration and efficiency. The new linear [LLE 842 AL HV EXC1](#) LED modules from Tridonic's Activating Light series produce a special spectrum that transfers the stimulating effect of cool light to a neutral colour temperature around 4,200 Kelvin.

Optimised colour spectrum for a pleasant colour temperature

For the LED modules in the Activating Light family Tridonic has combined a cyan chip with a blue chip to increase the activating blue content in the spectrum. This innovative approach means that the colour temperature of 4,200 Kelvin is easy on the eye. At the same time, there is a benefit from the melanopic effect of light (MEER value: 0.91).

Light with a high degree of homogeneity is ideal for a wide variety of visual tasks, and this homogeneity is maintained when multiple LED modules are combined in arrays. The new [Activating Light modules](#) are available in two lengths:

- LLE 24x280mm 1100lm 842 AL HV EXC1 // 28004202 (280 mm) and
- LLE 24x560mm 2200lm 842 AL HV EXC1 // 28004203 (560 mm).

The LED modules are particularly suitable for linear and area luminaires. They are mechanically compatible with Tridonic's proven driver portfolio so they are easy to install as replacements. An extensive range of extruded lenses and covers is available to suit different visual tasks and scenarios. Thanks to user-

friendly plug-in terminals, the LED modules are quick and easy to connect. The LED modules have excellent lumen maintenance over their entire current and temperature ranges. They have a life of up to 60,000 hours and are guaranteed for five years.

Background: colour temperature and the circadian rhythm

A pleasant working environment is not only good for performance and health but also an effective way to make workplaces more attractive. Tridonic therefore uses human centric lighting for offices and other workplaces. The fact that certain spectrums affect people in certain ways is exploited here to boost concentration and performance at the workplace – and therefore improve safety at work. Certain light spectrums affect melatonin production and consequently have an effect on biorhythms. The colder the colour temperature of the light, in other words the higher the blue content in the colour spectrum, the greater the inhibiting effect on melatonin production. This phenomenon is expressed by the MEER value (Melanopic Equal-Energy Efficiency Ratio), according to which cold light has an activating effect but is quickly perceived as an unpleasant light in which to work. A colour temperature of around 4,000 Kelvin is recommended for screen-based workstations and 3,000 Kelvin for general lighting of entire rooms.

Caption

The LED modules from Tridonic's Activating Light family support well-being and concentration at work thanks to their special colour spectrum.

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About Tridonic

Tridonic is a world-leading supplier of lighting technology, supporting its customers with intelligent hardware and software and offering the highest level of quality, reliability and energy savings. As a global driver of innovation in the field of lighting-based network technology, Tridonic develops scalable, future-oriented solutions that enable new business models for lighting manufacturers, building managers, systems integrators, planners and many other types of customer.

To promote the vision of the "Internet of Light", Tridonic relies on partnerships with other specialists. The goal is the joint development of innovative technological solutions that convert lighting systems into

intelligent networks and thereby enable associated services. Tridonic's in-depth industry expertise makes it an ideal driver for partnerships with other visionaries.

Tridonic is the technology company of the Zumtobel Group and is headquartered in Dornbirn, Austria. In the 2020/21 fiscal year, Tridonic achieved sales of 302.8 million euros. 1,808 highly skilled employees and a worldwide sales presence in over 70 countries provide the basis for developing and launching new, smart and connected lighting systems.

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