

PRESS RELEASE

QuarkStar

QuarkStar's Innovation Engine Reinvents the Downlight

The release of the Equinox downlight, in partnership with Sylvania, is the most recent demonstration of QuarkStar's innovative efforts to redefine the conventional

Las Vegas, Nevada, November 14th, 2022 – As part of a collaboration between architectural lighting solutions provider Sylvania and solid-state lighting's first deep-tech skunk works QuarkStar, the two innovation-leaders have unveiled Equinox – a revolutionary new downlight in Sylvania's high-end Concord family of lighting solutions.

Based on QuarkStar's all-in-one optical engine, Edge-X™, Equinox is the first circular implementation of a QuarkStar technology that has already won much critical acclaim in linear applications. Equinox is available for order in Europe and the Middle East.

Equinox offers not just a radically new design and functionality but is a completely new platform for the conventional downlight. It provides both directional downlight and indirect uplight on the ceiling. QuarkStar's advanced optics use refraction instead of reflection to split light from a single row of LEDs into highly targeted directional and ambient illumination from a single luminaire. This mitigates glare, provides more of an open-sky feel than directional-only distributions, and creates an aesthetically pleasing halo effect.

The promise of this indirect lighting contribution to a downlight has already won QuarkStar an innovation award at Light + Building for its first demonstrated prototypes.

By placing the light-emitting elements only on the perimeter of the luminaire, the downlight's central real estate can be utilized by other electronics such as sensors. This is unlike conventional SSL downlights that use a solid disc of LEDs, which leaves no room for extended functions. This revolutionary optical design can now provide both beautiful light and advanced IoT capabilities with a simple retrofit of existing downlights. This multipurpose blend of lighting functions is not only a breakthrough in luminaire design but a platform with robust opportunities for development into new forms of luminaires.

The Equinox is the most recent highlight in a long history of innovation from QuarkStar. Earlier this year, the company's winning entry in the US Department of Energy's L-Prize® (Phase 1) competition integrated several different QuarkStar technologies, including Edge-X. Edge-X was highlighted by the DOE judges for its unprecedented control of light and its efficacy.

QuarkStar was also recently selected by FAST Company/Accenture as one of the 2022 Best Workplaces for Innovators in the US, particularly for its ability to continue innovating at a rate that outpaces companies many times its size despite the challenges posed by the Covid-19 pandemic.

The Equinox is just one example of how QuarkStar's fresh and imaginative thinking results in never-before-seen capabilities. This is the first revolution in the ubiquitous downlight since its invention in 1938. With the US Dept of Energy estimate of approximately 700 million downlights in the US alone, downlights and troffers are the most common type of fixtures in commercial and retail environments. By revolutionizing how such spaces are lit, QuarkStar technologies re-invent how downlights can be used by architects and lighting designers.

With nearly 300 granted patents, QuarkStar has pursued a mission of “no compromises” between quality of light and efficacy with a focus on “do more with less”. This has allowed them to continue pushing solid-state lighting’s boundaries beyond the role of simple light source replacement to enabling brand new capabilities that only LEDs can fulfill.

QuarkStar is actively seeking lighting industry partners to help bring this and other QuarkStar technologies to the North American market.

About QuarkStar

As solid-state lighting’s first deep-tech skunk works, QuarkStar seeks to develop real-world solutions that overcome current compromises on light quality, size, efficiency, and controls.

With inventors who include many well-known pioneers of solid-state lighting, QuarkStar has consistently won industry and government awards for groundbreaking innovations in optics, LED packaging, and integrated systems. In 2022 alone QuarkStar (with its competition partner Nichia) was a winner of the 2022 US Department of Energy L-Prize® (Phase 1) and was also recognized by FAST Company/Accenture as a 2022 Best Workplace for Innovators in the US.

For an inside look at QuarkStar’s pursuit of a new ecosystem of light and lighting, see LEDs Magazine’s June 2022 issue for an in-depth profile of QuarkStar as an engine for innovation in solid-state lighting: <https://www.ledsmagazine.com/architectural-lighting/article/14276077/profiles-in-lighting-quarkstar>

For more information, visit www.quarkstar.com

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About Sylvania

Sylvania is a leading provider of consumer, professional and architectural lighting solutions. The company is part of Feilo Sylvania Group and is headquartered in Budapest, Hungary with innovation and solution centres in 25 countries worldwide. The Feilo Sylvania Group is owned by Shanghai Feilo Acoustics Co. Ltd., which was founded in 1984 and is China’s first joint-stock company (SH 600651).

Concord by Sylvania is renowned for its strong design ethos, high technical performance and aesthetic form. Concord focuses on bringing lighting solutions to meet the needs of architects, interior and lighting designers.

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