

Zhaga Consortium Publishes Updated Editions of Books 15 and 19 for Outdoor LED Modules

The Zhaga Consortium has published updated editions of two of its specifications for outdoor LED lighting: **Book 15 Edition 1.3** and **Book 19 Edition 1.4**. Both updated editions are available to Regular and Associate Members as of 13 July 2026.

Zhaga Books are interface specifications that define the mechanical and electrical interfaces between LED components, enabling products from different manufacturers to work together. Books 15 and 19 both address rectangular LED modules used in outdoor applications such as roadway, pathway, and outdoor-area lighting, where robust performance, optical precision, and long-term serviceability are essential.

Book 15 Ed. 1.3 – Rectangular LED Modules for Use with Lens Arrays

Book 15 defines the interface between rectangular LED modules and lens plates, enabling luminaire manufacturers to combine modules and lenses from different suppliers within a stable design platform. The specification covers two lens configurations: DA (Direct Array), where a single lens plate covers the full module, and DS (Direct Single), where individual lenses are used per LED.

Edition 1.3 introduces **four new DA form factors** — 2×3, 2×6, 2×9, and 2×12 — and adds support for 5050 LED packages with a tighter LED pitch, allowing modules to deliver higher luminous flux at the same drive current or equivalent output at improved energy efficiency.

Book 19 Ed. 1.4 – Rectangular LED Modules and Lens Plates with IP Protection

Book 19 extends the Book 15 approach by incorporating IP protection directly into the module-lens interface, eliminating the need for a separate protective cover and enabling slimmer, more optically efficient luminaire designs. Edition 1.4 introduces a **new 3×8-IP category**, further expanding the range of available form factors for outdoor applications. Like Book 15 Ed. 1.3, the updated edition supports **5050 LED packages** with a tighter LED pitch, offering luminaire manufacturers the same improvements in flux output and energy efficiency.

Both specifications support the refurbishment of luminaires during their operational lifetime through the replacement of module-lens combinations, contributing to circular economy principles and reducing waste in outdoor lighting infrastructure.

"The updated editions of Books 15 and 19 reflect the industry's continued drive toward higher performance and greater design flexibility in outdoor lighting," said Heinrich Thye, Secretary General of the Zhaga Consortium. "By expanding the range of standardised form factors and aligning with widely used LED package formats, these specifications make it easier for manufacturers to develop efficient, future-ready luminaires that can be serviced and upgraded over time."

Book 15 Ed. 1.3 and Book 19 Ed. 1.4 are available to Regular and Associate Members at <https://zhagastandard.org/books/overview.html>

Zhaga Consortium

The Zhaga Consortium is a global association of lighting companies that defines interface specifications for LED light sources, LED luminaires, components, and intelligent sensor and communication systems. Zhaga specifications ensure interoperability and interchangeability of components from different manufacturers, supporting serviceability, upgradability, and circularity in lighting installations. The consortium has members worldwide, including luminaire manufacturers, component suppliers, cities, research institutes, and other stakeholders. For more information, visit www.zhagastandard.org

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