

Remote Driver Systems Reduce Cost Of Industrial And Horticultural LED Lighting

[Advanced Energy Industries'](#) LumaDrive Pre-wired Systems series of high-efficiency remote centralized drivers is optimized for large-scale horticultural, greenhouse and industrial LED lighting applications. These platforms combine multiple 4-kW modules into a cost-effective pre-wired cabinet that simplifies installation, enables simple "hot swap" repairs, eliminates extra dimming control connections and reduces the overall cost of any large-scale lighting installation (see the figure).

Designed for challenging environments such as horticulture, warehouses, factories and parking garages, the LumaDrive family offers configurations of 144 kW, 72 kW, 36 kW and 24 kW by combining up to 36 units of the 4-kW power modules in a pre-wired cabinet. The 24-kW option comes in a NEMA 3R-rated enclosure that is well suited for high-moisture atmospheres such as greenhouses.

The platform enables fast deployment of scalable, efficient centralized power solutions that provide greater flexibility in designing and optimizing lighting layouts, improve energy efficiency, reduce overall operational costs and simplify ongoing maintenance. The LumaDrive family can operate with any manufacturer's luminaire, thanks to its highly programmable output parametrics and loop compensation.

"Large-scale industrial lighting systems require fast and easy installation, reliable LED control and low energy and maintenance costs," said Joe Voyles, vice president of Industrial Power Conversion Products at Advanced Energy. "The pre-wired LumaDrive system meets these requirements by eliminating the need to assemble individual modules, providing user-friendly interfaces and controls and ensuring high-efficiency, high-power-density operation in a scalable design that can grow with the user's needs."

The LumaDrive system speeds up installation by eliminating the need to assemble individual modules. The system reduces fixture weight, simplifies maintenance and enhances energy efficiency by using native three-phase power with a centralized architecture to power large-scale LED lighting installations. It also eliminates the need for dimming controls on each light and allows control of up to six zones per enclosure, giving lighting installers significant design flexibility.

Advanced Energy partners with LED light fixture manufacturers to provide a complete LED lighting solution and LumaDrive Pre-wired Systems come with standard commissioning, service plans and extended warranties. For a backgrounder on the benefits of a centralized power architecture in these lighting applications, see Frank Cirolia's article "[Extending The Benefits Of Remote Centralized LED Drivers From Indoor Horticulture To Commercial And Industrial Lighting](#)". For more information on the LumaDrive Systems, see the product [page](#).



Figure. The LumaDrive Pre-wired Systems series of high-efficiency remote centralized drivers is designed for large-scale horticultural, greenhouse and industrial LED lighting applications. These platforms combine multiple 4-kW modules into a cost-effective pre-wired cabinet that delivers high-density power from 24 kW to 144 kW, while simplifying installation, enabling simple "hot swap" repairs, eliminating extra dimming control connections and reducing the overall cost of any large-scale lighting installation.