ephesus

INTEGRATED POWER SUPPLY

HOW AND WHY YOUR POWER SOURCE MAKES A REAL DIFFERENCE IN LED PERFORMANCE

EATON

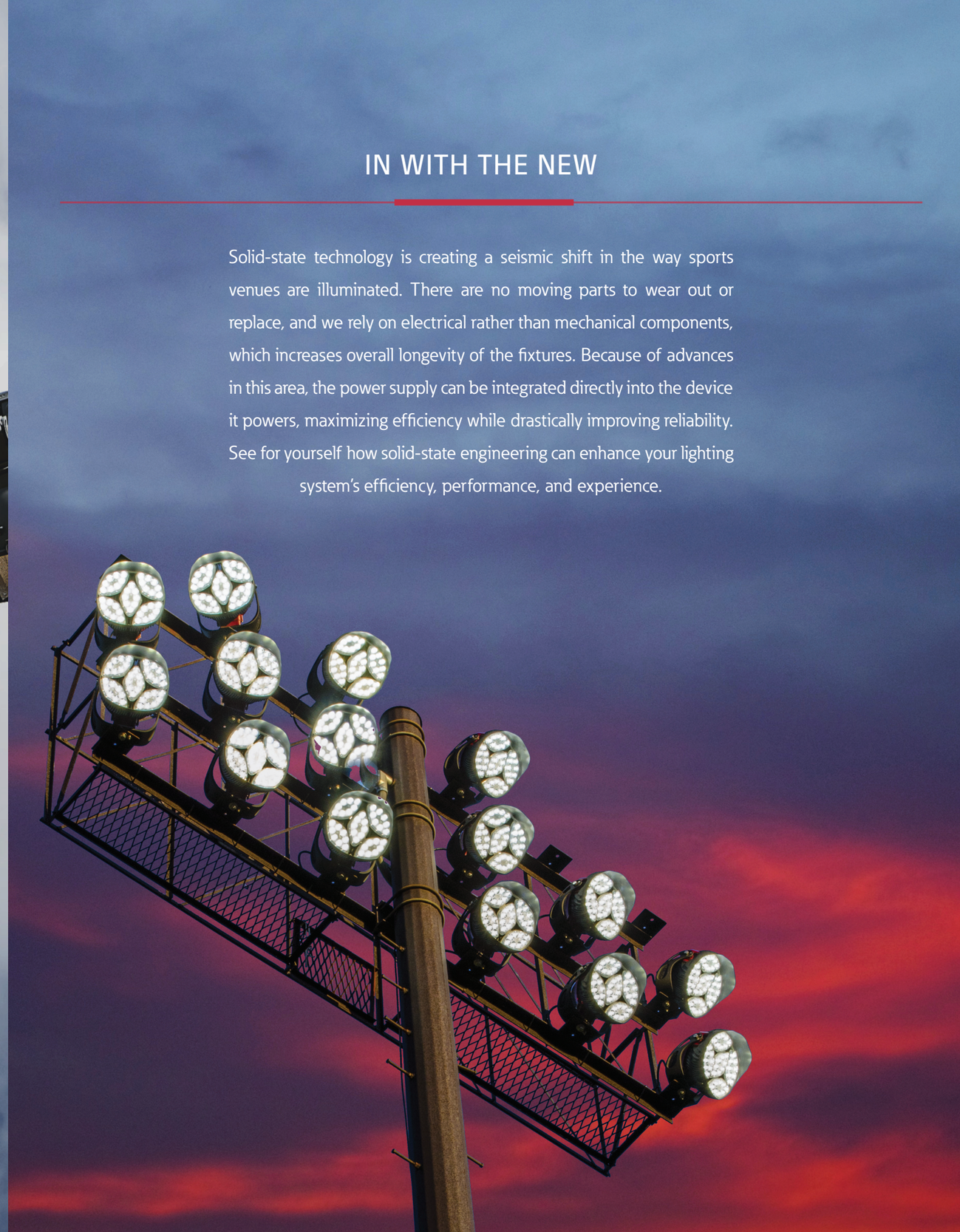
Powering Business Worldwide

OUT WITH THE OLD

Remote power supplies are based on old and obsolete designs, and traditional power supplies (AKA ballasts) hum, leak, overheat, and then break. Even when paired with new light sources, like LED, the use of remote power supplies remains rooted in outdated design. Choosing a system-based, solid-state design means trading certain failure for the ability to have brighter, controllable, and more efficient light that lasts practically forever. The smarter choice couldn't be more clear.

IN WITH THE NEW

Solid-state technology is creating a seismic shift in the way sports venues are illuminated. There are no moving parts to wear out or replace, and we rely on electrical rather than mechanical components, which increases overall longevity of the fixtures. Because of advances in this area, the power supply can be integrated directly into the device it powers, maximizing efficiency while drastically improving reliability. See for yourself how solid-state engineering can enhance your lighting system's efficiency, performance, and experience.



THE IN-LINE ADVANTAGE

ephesus INTEGRATED POWER SUPPLY

INSTALLATION

When choosing an Ephesus system with integrated power, installation savings are based on two elements: fixtures and components. Because it delivers more light using fewer fixtures, there are fewer lights to buy and install in the first place. And by not using remote power supplies, the number of components to be installed is reduced and the need for foot upon foot of wire to connect the components is removed, saving time, labor, and money. The availability of wireless control systems enabled by integrated power also provides easy installation, especially in new venues or those without control cabling already installed.

ephesus INTEGRATED POWER APPROACH

EFFICIENCY

With our design, there's zero distance between the power source and light source, erasing power loss through wires. And since Ephesus fixtures run at greater than 95% efficiency, more light is delivered by fewer fixtures. This reduces demand surcharges from utilities when powering on the lighting. Ephesus fixtures consume practically no power when off, drawing only enough for their control and telemetry capabilities to give you system status updates as needed.

CONTROLLABILITY

Ephesus' integrated power approach delivers an unbelievable amount of control. You can program individual fixtures, or even sections of fixtures, to flash, twirl, or dim completely, creating thrilling fan experience effects.

Two-way communications offer real time status and monitoring of each light so operators can take preventative action as well as monitor parameters like energy use and operating temperature. The integrated design enables color temperature tuning capabilities to make the tone of the light ideal for any event that may be held in the facility.

ephesus INTERGRATED POWER EFFECT

PERFORMANCE

Not only do Ephesus fixtures reduce Electromagnetic Interference (EMI) and Total Harmonic Distortion (THD), the integrated power supply is like a future-proof and upgradeable mini-computer. Just like today's smartphones and other electronics, software and firmware can be updated, giving you new capabilities and control.

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Our advanced design allows for proper heat dissipation, so our power supply operates at a lower temperature, maximizes the overall performance, and provides a long system life. Plus, there are no moving parts to replace and no need for a high-priced maintenance contract locking you into old technology.

Ephesus lights are guaranteed for ten years of operation, and are designed to last much longer. Around the world, our lighting systems have already logged over 250,000,000 cumulative hours of operation without a single system failure.

REMOTE POWER SUPPLY

Systems using remote power need both ballasts and light sources installed, in addition to wires running up the poles or in the catwalk to connect the components. The extra pieces and wiring cost much more when installing a new system with this design.

REMOTE POWER APPROACH

Remote power negatively impacts efficiency in several ways: any time electricity needs to travel (such as between a remote power supply and its light source), there is energy loss. When lights are turned on simultaneously, the reduced efficiency can introduce a very short but very high spike in power. This can result in costly demand surcharges from your power provider. Some systems even consume as much as 15% power when the lights aren't on. Given that installations may consist of hundreds of lights, there's a vast waste of energy and money over time.

A remote design can only provide basic lighting control, such as on/off and limited dimming. And when one power supply controls two light sources, as is often the case with our remote-powered competitors, those light sources cannot be independently controlled. The fan experience is lackluster and limited as dimming is only possible down to 15%, and color temperature tuning simply isn't an option. Lights using remote power do not have two-way communications, so operators find themselves in a bind when they realize they have a light out.

REMOTE POWER EFFECT

The further the power supply is from the light source, the greater the negative impacts:

1. EMI: The length of wire between the remote power supply and light source acts like an antenna, and the longer or bigger the antenna, the worse the potential interference can be. Remote power systems can wreak havoc on Wi-Fi, broadcasting, closed-circuit TVs, and other electronic equipment in the venue.
2. THD: Remote design can introduce more THD into the system, corrupting the electrical signal, and generating more heat while decreasing the system's efficiency.
3. Zero Upgrades: Remote power supplies are not "smart" and their mechanical components do not allow for upgradeability. You will be stuck forever with the same functionality you have from day one.

LONGEVITY AND MAINTENANCE

Our competitors will often bring up how easy remote power supplies are to repair, while they avoid mentioning just how often those power supplies break down in the first place. In a remote design, the components are stored in a weather-tight box that generates incredible amounts of heat with no means of dissipation. In many ways, this inability to efficiently manage heat is why the power supply must be separate from the light source in the first place. This intense heat leads to frequent component failure, resulting in numerous repairs.

Don't be fooled – although other manufacturers include a maintenance contract with their lighting installations, the cost of that maintenance is built heavily into the price of their system, greatly inflating its cost. Not only do these maintenance contracts not save you money, they lock you into a long contract with inferior, failure-prone lights.

Certain functionality may vary by product/model and options ordered.

FOCUSED ON A BRIGHTER FUTURE

Ephesus was founded on the belief that we can make the world happier and healthier with lighting solutions that contribute to brighter, more vibrant, and more sustainable environments. Through our uncompromising commitment to innovative, insight-driven engineering, we provide the solutions and support to help people confidently create more positive and productive experiences in the places they live, work, and play.

KEEPING IT GLOBAL, SAFE AND SUSTAINABLE

Eaton provides energy-efficient solutions that help our customers effectively manage electrical, hydraulic, and mechanical power more efficiently, safely, and sustainably. Eaton has approximately 96,000 employees and sells products to customers in more than 175 countries. Eaton is committed to creating and maintaining powerful customer relationships built on a foundation of excellence. From the products we manufacture to our dedicated customer service and support, we know what's important to you.

To learn more, visit **ephesuslighting.com** or call 800-573-3600

Powering Business Worldwide

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Specifications and dimensions subject to change without notice.

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