



WHY OFFER POE LED LIGHTING?

1. According to Data Bridge Market Research (<https://www.databridgemarketresearch.com/reports/global-power-over-ethernet-poe-lighting-market>) and many other research firms PoE LED Lighting is the fastest growing commercial and residential lighting technology today. Business analysts forecasts that PoE LED Lighting will outmode the majority of AC-based lighting within the next ten years.
2. According to industry expert Software Advice (<https://www.softwareadvice.com/resources/smart-lighting-control-systems/>) and Facilities.net (<https://www.facilitiesnet.com/lighting/article/Lighting-Controls-Strategies-Can-Save-Money--11916>) PoE LED tends to include advanced lighting controls. Advanced lighting controls with integrated sensors are proven to reduce wasted lighting electricity by up to 70% when properly configured and automated.
3. According to energy.gov (<https://www.energy.gov/eere/ssl/articles/poe-connected-lighting-system-energy-losses-ethernet-cables-part-2>) PoE LED lights can be up to 40% more efficient than AC-based equivalents. PoE LED lights can be up to 95% more efficient than AC-based Fluorescent and Metal Halide-based fixtures.
4. According to Cisco <https://blogs.cisco.com/networking/3-reasons-to-use-poe-lighting> the environmental benefits are far beyond what we imagined. According to Cisco the use of PoE lighting further reduces the strain on the planet by eliminating required materials required to build the product and subsequently reducing Co2 emissions.
5. PoE Lighting safety, according to the National Electric Code <https://www.electricallicenser renewal.com/Electrical-Continuing-Education-Courses/NEC-Content.php?sectionID=974.1> PoE Lighting is safe to use in all environments. Additionally, Luminetworx™ PoE lighting falls well below the NEC guidelines max criteria.
6. ASHRAE Global energy reduction requirements. World governments are requiring that building owners reduce energy consumption by as much as 50%. Requirements start as early as 2022. https://www.aceee.org/sites/default/files/pdfs/buildings_standards_6.22.2020_0.pdf

WHY OFFER LUMINETWORX™?

1. Luminetworx™ PoE LED Lighting can reduce your overall electrical expense by 35% or more with up to 50% or more in some instances. See energy.gov energy audit and our installation case study. https://www.energy.gov/sites/prod/files/2018/05/f51/lfi2018_tuenge.pdf
<https://lvenergysystems.com/case-study-downloads>
2. Luminetworx™ uses the best LED Chips on the market. Our fixtures feature two of the world's top ten best LED chips in 2021 making our lights some of the brightest. We deliver more lumens per watt than most other brands.



3. Luminetworx™ PoE LED Lighting is the world's only purely low-voltage PoE LED lighting solution. Our drivers are configured to draw 30 watts or less with less than 34 volts and less than 1 amp, a full 35% less than their rated maximum draw.
4. Luminetworx™ UPoE Switches provide a substantial amount of power. Today's Gen3 switch is a 24-Port Managed Layer 2 UPoE Gigabit Switch with a maximum PoE budget of 1KW or 1000W. That means our UPoE switches can be used to support both the power and communication needs of other IoT/PoE products like IP surveillance (both fixed and motorized cameras), IP access control terminals, network computers, IP telephones, commercial monitors, exhaust and ceiling fans, thermostats, and sensors. Tomorrow's Gen4 will have two offerings: a new 24-Port UPoE switch with an improved PoE budget of 1,200W (20% improvement); an 8-Port UPoE Switch with a 410W PoE budget; and a Multi-Port PoE Injector designed exclusively for Luminetworx™ Emergency/exit lighting series.
5. Luminetworx™ is designed to be plugged directly into a standard NEMA 15-Amp Outlet on a dedicated circuit. While we recommend including one of our power-protection options that feature full sine-wave conversion, a properly surge-protected GFCI outlet will suffice.

A COMPLETE PACKAGE

We are arguably one of the smallest OEMs out there. But despite our stature, Luminetworx™ is the most comprehensive PoE LED Lighting solution on the market today. From our process to our design, every single aspect has been thoughtfully engineered to extend lifecycle, to reduce power consumption and to provide absolute control.

1. LV Energy Systems' Luminetworx™ is a completely proprietary PoE LED Lighting system from the fixture to the outlet. Most other brands offer only one or a few components: be it a PoE Driver-ready fixture or smart bulb; the PoE Driver or node; or a lighting controls platform. Luminetworx™ offers a wide variety of fixtures for every space, inside or out for every building type and every application.
2. Luminetworx™ is the most cost effective PoE LED Lighting solution on the market. Our dealer pricing is a full 50% below our published retail price. Not only are we considerably less than other premium AC-based LED and PoE LED lighting products, but our pricing also includes advanced lighting automation controls. This allows our partners to win more PoE opportunities and convert more AC-based systems.
3. Luminetworx™ Lighting Controls reduces up to 60% of energy wasted lighting unoccupied space. Our singular intelligent sensor can be used for daylight harvesting (dimming lights adjacent to fenestrations and supplementing with natural sunlight), occupancy (automatically turn lights on when motion is detected) and vacancy (automatically turn lights off when no motion has been detected for a set period of time).

WHAT MAKES US SO DIFFERENT

There are a lot of things that make us different than your typical lighting manufacturer; that set us apart from the rest of the pack in lighting controls, and certainly the lone wolf in the network space.



1. Luminetworx™ can extend LAN cabling runs well beyond the current limits. Cat6/a network cabling is typically limited to throws of 325ft or less. Luminetworx™ communicates lighting control and product intelligence wirelessly. Luminetworx™ utilizes the full potential of PoE's power distribution capability, extending cabling 1,000ft or more.
2. Luminetworx™ lighting controls platform does not require any on-premises servers or computers. We have webservers built into every component and a cloud-based controls platform that can be managed from any computer or smart device via our mobile app.
3. Luminetworx™ can be installed in a centralized or distributive fashion. Switches need not be stacked or even connected to one another.
4. LV has partnered with some of the best technology providers in the world to provide enhancements to our solution. We offer power systems from Tripp Lite, Liebert, Vertiv and others to provide 90-minute network battery backup (UL924 compliance); network systems like access points and controllers from Engenius and Cisco; and compatible, controllable lighting components and accessories from brands like Philips.
5. LV has been developing an international sales channel program. As Luminetworx™ exposure increases, LV will cease direct to consumer sales and shift to an entirely partner-sales-driven business – offering wholesale and dealer distribution only. Partners will be able to earn from Luminetworx™ in a number of ways:
 - Direct to client opportunities – the partner manages design, estimating, sale and deployment, independent of LV with total control of their pricing and profitability.
 - Referral opportunities – LV manages design, estimating, sale and deployment and receives a fixed 5% of net profit from the closed business.
 - Channel Mastership – Select partners will be permitted to recruit 3rd party agents/agencies into the channel under their own management. The CM is responsible for training sub-agents/agencies (to the certification-level) and has a sales quota. The CM is given distributor pricing and is allowed to sell to partners, subs and direct to clients. The CM can also offer professional services like design, estimating and deployment and charge accordingly – as they see fit, with no involvement from LV beyond the dealer-pricing restriction.
6. Our Channel is like no other. Once your application has been approved:
 - You/your business will automatically be enrolled in the Channel program and your company profile will be added to **LV Partner CRM**. Partner CRM is managed and administered by LV and is a crucial part of your partner experience. When you have new qualified opportunities, you can register them with us. While all partners are privy to the same partner cost, registering opportunities helps prevent disputes in competitive situations, and is required for referred opportunities and projects involving OEM professional services like design consulting, installation, and project management.
 - You/your business will be added to **LV Partner Connect**, our inner circle email list where you'll only receive important updates and pre-release announcements (we promise not to flood your inbox with ads and promos)
 - You will be granted access to the **Luminetworx Reseller Portal**. Our reseller portal has a wealth of invaluable sales tools and marketing collateral. There's even an estimator, power calculator – and it even provides accurate costing for an equivalent AC-based system, based



on the same lighting counts as in your estimate. There are also links to LV commercial and consumer finance programs for you and your clients.

7. Teamwork makes the dream work. If doing it all isn't your thing, you can rely on us for assistance from us and other LV Channel partners to co-deliver solutions. Within our Channel Partner organization, partners take on several forms: new entrepreneurs, established firms looking for a new revenue stream; general contractors and developers; electrical and/or low voltage contractors; full-service dealerships that design, sell, deploy and support everything; technology integrators that offer only factory-certified integration and support but seldom sell the system; and sales agents and agencies that don't offer the actual installation services or the support; even specifying engineers, architects and lighting designers that don't actually sell or install anything that specify Luminetworx™ for a project, that only certified partners can bid for. We encourage our partners to work together in creating wealth: whether by prospecting in an expanded service area and subcontracting to local certified partners – or vice versa and subcontracting their own certified services to remote partners with projects in their vicinity.