



INNOVATIVE PARKING GARAGE LIGHTING SOLUTIONS



Leading Today > Lighting Tomorrow

Delivering the Ultimate in Parking Garage Lighting Solutions – Built on a Heritage of Leadership, Strength and Innovation.

For more than 35 years, LSI has been leading the way in lighting innovation. With a razor sharp niche market focus, LSI has honed its expertise in fixture design, engineering, and lighting technologies to deliver some of the most progressive and impressive high-performance, energy-efficient lighting solutions to the world.

From pioneering the most advanced solid-state LED lighting technology platform in the world, Crossover LED, to creating industry-leading fluorescent lighting solutions, LSI is dedicated to providing the best parking garage lighting solutions and overall value available today. Possessing more than 1.4 million square feet of manufacturing capacity, every LSI garage fixture is **100% American made**. Whether retrofitting an existing garage or building a new one, choose LSI and improve the way you see the world.



A Company with a *Smart Vision*

The Power of Choice – More Performance With Less Energy



Regardless of your technology preference, LSI has the right solution for your garage application. Gone are the days of simply flooding an area with light and considering it done. Today, through our market-leading Crossover LED technology platform we create extraordinary value by providing reliable products expertly designed to deliver the best possible illumination for the application in terms of see-ability, visual comfort, aesthetics and minimum energy consumption.

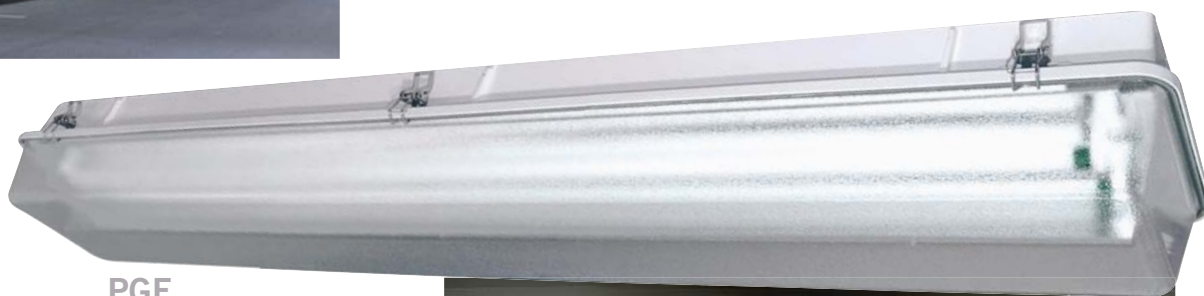
LSI's Crossover LED platform is how LSI creates LED solutions. Uniquely built on more than 35 years of lighting fixture design and innovation, LSI opens up a whole new world of possibilities through Crossover LED technology. Loaded with performance and energy-saving features, LSI's LED garage fixtures have SmartTec™ intelligence, numerous optics choices and drive currents to deliver *exceptional lighting uniformity while using 60%–70% less energy than traditional HID light sources.*



XPG



XPG3



PGF

LSI's expertly designed fluorescent fixtures feature a minimum profile design while providing maximum lighting efficiency for garage environments. Available with 1, 2 or 3 lamps to achieve the lighting levels required, you'll *enjoy optimum performance while using 40%–50% less energy than traditional HID light sources.*



American Innovation



American Made

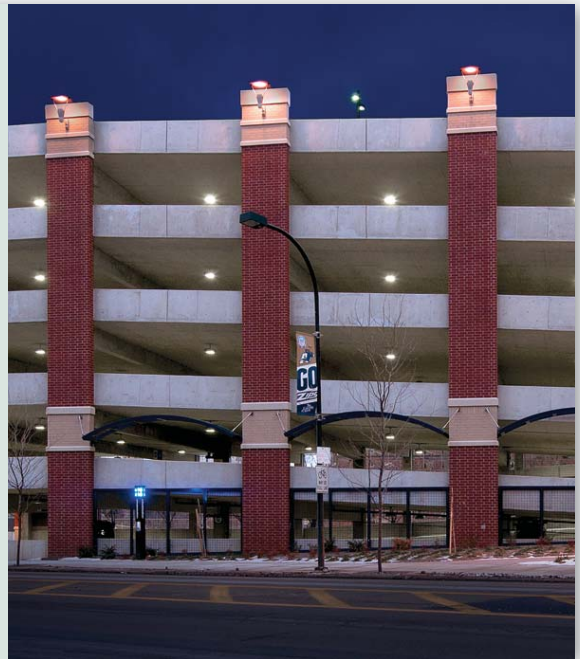
Garage Lighting Specialists – Focused On Meeting Your Needs

Two Great Choices

Both with Great Performance and
Easy Installation

- ✓ Fluorescent Offers Best Initial Cost
- ✓ LED Offers Best Total Cost of Ownership

In order to balance costs and lighting performance, designers need to determine how much light is actually needed, what technology is best for the application, and how to drive the performance with an affordable solution. LSI can provide expert guidance and solutions for these challenges.



See-ability, Visual Comfort, Lighting Performance



SEEING IS
BELIEVING



Optimum see-ability means a safer visual environment. LSI's fluorescent and LED solutions both provide excellent overall lighting of the garage interior. The fluorescent fixture is designed for brighter appearance filling more of the space – floor, vertical surfaces and ceiling with light. With the LED luminaire a whiter

light is more precisely directed to lighting the horizontal and vertical surfaces with a longer life light source. With both, lighting uniformity without dark pockets and light trespass is achieved, all in compliance with RP 20-98 guidelines.

Reduced Energy Consumption. Reduced Installation and Maintenance Costs and Your Bottom Line

Fixture selection, placement, installation and energy consumption all impact the total cost of your investment. Whether you select an LED or a fluorescent lighting solution, LSI's fixtures are designed for efficient installation, **low energy consumption and virtually no maintenance.**

Beyond ease of installation and maintenance, the product and operational costs are critical.

For the lowest upfront fixture cost, fluorescent is your best choice. And, with the fluorescent solution, you'll enjoy a 40%-50% energy saving over traditional HID fixtures plus up to 42,000 hours of lamp life. Finally, LSI's vandal-resistant design helps to ensure that service requirements are virtually none.

If you are looking for the best long-term investment, LSI's LED solution is your answer. Although the fixture cost is higher, the

tremendous installation, energy and maintenance savings mean an extremely quick return on that investment – typically less than three years. With LSI's Crossover LED technology, you'll see between 50% – 70% (compared to HID) in energy savings alone. Further, you'll see up to 100,000 hours or 11.4 years of expected life – burning 24/7, 365 days a year. That's real savings that translates directly to your bottom line profitability.

As an added benefit when you **choose either LSI's LED or fluorescent solution you may also qualify for tax deductions and utility company rebates** – further adding to your bottom line.



Safety and Security



Well-lit environments help make customers and employees feel safe and secure and can act as a crime deterrent. The lighting system you design should address all points of the garage: walkways, car spaces, between rows, stairwells and entrance ramps. It is important to understand how light sources, light direction and fixture placement affect the vertical and horizontal areas of the space and how to use those surfaces most effectively. The goal is **even, uniform lighting with no dark pockets or glare** for the greatest visibility. Both the fluorescent and LED solutions satisfy this goal.

LSI Crossover LED lighting interacts better with security cameras, providing enhanced color and visual clarity for superior identification of people and vehicles.

SmartTec™ Intelligence. The LSI Advantage.



XPG



XPG3



XPG HL

LSI Crossover LED is the most advanced LED technology platform in the world. With more LED experience than any other fixture company and 35 years of fixture design leadership, LSI Crossover with SmartTec intelligence is value-engineered excellence designed to open a whole new world of LED lighting possibilities.

LSI SmartTec is reliability designed for the real world!



Unique Thermal Management

- No fins! Patented integral flat blade heat sink design eliminates trapped dirt and grime to ensure the coolest running performance over the life of the fixture
- Dissipates heat from the optics to extend life



Easy Installation

- Two standard mounting solutions – direct or pendant
- Universal quick mounting plate (standard on direct mount) is designed for easy and quick mounting as well as hands-free hanging during wiring. Keyhole slots ensure fixtures are aligned properly
- 48" leads on pendants and 8" leads on direct mount eliminate need to open fixture during installation
- Once installed, fixture is virtually maintenance-free

LSI SmartTec represents Intelligent Design of Intelligent Products

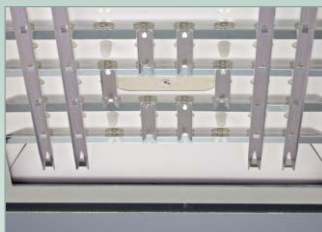
- **Aesthetics** – Low profile, polyester powder coated die-formed aluminum housing
- **Mechanical Design Excellence** – IP67 Sealed Optical Unit, IP68 Driver and unique thermal management system deliver the lowest possible operating temperatures and longest service life of any LED fixture.
- **The Industry's Only Breathable Seal** – Teflon® breather allows IP67 protection while preventing temperature cycling from building up internal pressures that can stress optical unit seals and components.
- **Exceptional Optic Performance, Uniformity & Full Cutoff** – Unique Tri-Lume™ optics consist of high-efficiency LED chips, high performance reflectors and a sealed glass lens to ensure long-term light output integrity
- Choice of reflectors and quantity of chips ensure you get the right amount of light for the job
- Tempered glass lens results in superior impact resistance and protection of electrical components

Exceptional XPG3 Value-Engineered Options for Even Greater Energy Savings



Emergency Battery Backup

- Operates 10 LEDs with 15-20% of original output
- 90-minute power failure coverage



Thermal Control

- Sensors in optical unit and driver enclosure reduce drive current when ambient temperatures exceed 50°C
- Current is lowered in imperceptible 5% increments every 5 minutes until recommended operating temperature is reached



Occupancy Sensor

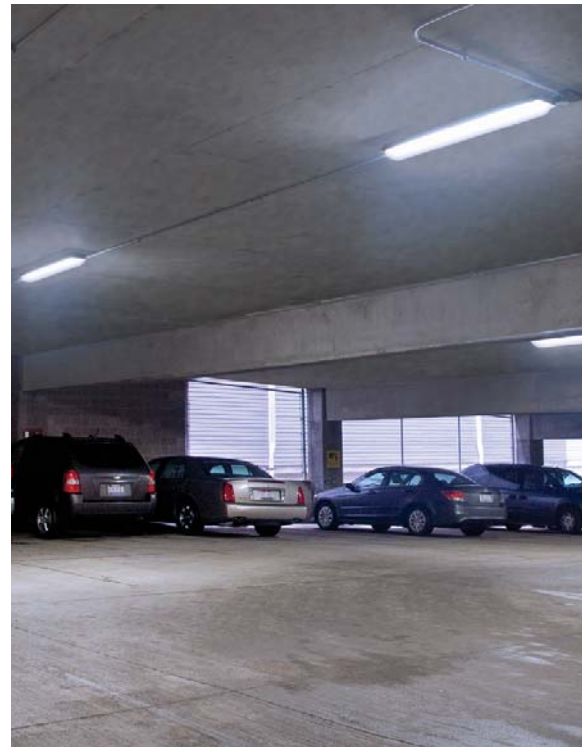
- Integral motion sensor detects movement in wide (35- to 40-ft. diameter) or narrow (15- to 20-ft. diameter) coverage, mounted at 8 – 12 ft. When presence is not detected, fixture dims to 50% of power
- Full power resumes in 3-5 seconds after motion detection. Provides full light output when needed saving energy when not required

Fluorescent Efficiency. Uncommonly Attractive.



LSI combines the advantages of fluorescent technology with exceptional fixture design and engineering to offer garage lighting solutions in a class by themselves. A sleek fixture design possessing the kind of lighting performance you need. LSI PGF parking garage luminaire offers:

- **Attractive Appearance** – Linear low profile, vapor tight design. Ideal in low-ceiling parking garages
- **Excellent Performance** – Up to 14% uplight to reduce cave effect. Choice of 1, 2 or 3-lamp configurations with high performance reflectors:
 - 2-lamp for the broadest distribution pattern
 - 3-lamp for the highest intensity distribution pattern
- **Long Performance Life** – Low maintenance and lamp replacement costs. Up to 42,000 hours of expected life
- **Multiple Mounting Options** – Several standard mounting options to meet your specific structure requirements – all exceptionally easy and fast to install, resulting in 40% installation savings when compared to HID
- **Optimum Performance** – Consumes 40%-50% less energy than traditional HID light sources

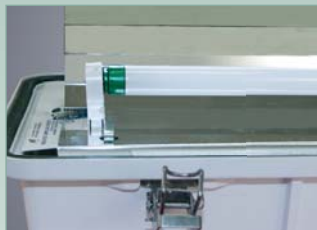


More PGF Parking Garage Fixture Features



High Performance Reflector

- Die-formed, multi-faceted specular aluminum reflector (94% reflective material)
- Good, uniform lighting with up to 14% uplight to eliminate 'cave effect'
- Choice of 1, 2 or 3 lamp assembly, T8 or T5 lamp and ballast combination



Built to Last

- Vaportight Design, IP65
- High-impact, polyester/fiberglass housing with inner lip bonded with continuous, compressible, closed-cell neoprene gasketing for continuous seal of housing and lens
- Standard diffuser formed with 15% high-impact DR crepe acrylic for strength, secured by six locking plastic latches



Extra Options

- Heavy-duty steel, slotted mounting brackets for extra stability and security against vandalism
- Prewired 6' cord or conduit eliminates need for opening fixture during installation
- Occupancy sensors available to further control energy costs

Lowest Overall Cost of Ownership. Best ROI.

Although substantial energy savings make compelling arguments for both fluorescent and LED, the real value only begins there. When you consider the total cost of ownership aspects and the green benefits, the true value of an LSI solution shines even more brightly. Multiple light distribution choices produce the highest quality illumination with the lowest possible installation, maintenance and energy requirement to translate into impressive savings. Figure in utility company rebates and EPC Act tax deductions and the financial benefits can be even more astounding.

Lowest Initial Cost – For low upfront cost, nothing beats LSI fluorescent, and although LED does require a higher initial investment than fluorescent, it provides greater savings in overall operating costs.

Lowest Cost of Installation – Time is money. Quick and easy installation is engineered into every LSI fixture to reduce your costs.

Best-In-Class Performance – The right amount of light for the application. Optical efficiency. Directional precision. Value engineered performance with lowest overall energy consumption that all add up to tremendous economic value.

Longest Operating Life – SmartTec intelligence, including tempered sealed glass, sealed, highly-efficient LED drivers and circuitry, high-efficiency Tri-Lume reflector optics and our unique finless heat sink thermal optics system, LSI Crossover LED products ensure the coolest running, highest level of control, performance and component protection in LED technology today. And it adds up to superior operating life.

Tax Incentives – Under Section 179D of EPC Act and its building energy code, energy-efficient fluorescent or LED lighting may also qualify you for impressive tax deductions. In fact, each component can qualify for up to 60 cents per square foot in EPC Act tax deductions. IRS Notice 2008-40 Sec. 60 specifically references parking garages as eligible.

Utility Rebates – Many utilities offer rebates. Typically, these can be a per-fixture rebate or tailored based on expected energy-saved formulas. T-5 and T-8 Fluorescent and LEDs are low wattage light sources making them perfect candidates for these rebates.

Green Design – LSI LED garage fixtures reduce energy consumption, are RoHS compliant (no lead or mercury), and are over 80% recyclable by weight.

Two Compelling Reasons to Choose LSI

FEATURES	LSI CROSSOVER LED	LSI PGF FLUORESCENT
Life	LED – Up to 100,000 Hours	T8 Lamp – 20,000 to 42,000 Hours
Warranty	5 Years	2 Years (Extended warranties available on certain ballast and lamp combinations)
Maintenance	Virtually none	Little or low
Average Energy & Maintenance Savings	\$85,347 for 500 XPG3 68 LED 350mA vs. 500 175W standard metal halide	\$80,560 for 500 PGF-3-32-SSDL vs. 500 175W standard metal halide

Compare the Facts – LSI Crossover LED and Fluorescent solutions can save you money over Metal Halide-style luminaires:

Annual Savings Comparison

	\$0.10 KWH Rate		
Fixture Model	175 MH	XPG3-5-LED-68-350-CW-UE	PGF-3-32-SSOL
ROI		2.84	0.93
Total Initial Fixture & Install Cost	\$0.00	\$242,500.00	\$75,000.00
Total Annual Avg. Energy + Maint. Costs	\$119,949.43	\$34,602.00	\$39,388.71
% Energy Saved		62.0%	64.4%
% Maintenance Saved		100.0%	75.8%
% Energy & Maintenance Saved		71.2%	67.2%
Fixture Quantity	500	500	500
Fixture Wattage (Inc. Ballast Loss)	208.00	79.00	74.00
Total KW	104.00	39.50	37.00
Total Annual Average Energy Cost	\$91,104.00	\$34,602.00	\$32,412.00
Total Annual Average Maintenance Cost	\$28,845.43	\$0.00	\$6,976.71

Based upon 24/7/365 at \$.10/KW

World-Class Lighting Solutions – From Top to Bottom and Inside Out



At LSI, we take a holistic, vertically integrated approach in the development of our lighting solutions.

This vertically integrated design and manufacturing philosophy ensures quality and leading edge solutions from concept to application.

We apply a “just right light” approach that is integral to our mission of delivering the best possible lighting solutions to our customers. We will ensure that every lighting product we create conforms to the highest standards of lighting, includes high-efficiency optics, labor-saving installation and maintenance features that will result in the quickest payback possible for our customers.

- Internal design, engineering, manufacturing and testing capabilities ensure fixture performance and reliability beginning at the earliest stages of development
- Manufacturing flexibility so that we can adapt quickly and effectively to emerging technologies
- Sophisticated manufacturing processes and equipment to ensure the ultimate in performance and quality
- Highly specialized internal value-added services and certified test lab

Choose LSI brand name for performance, reliability and value. We are dedicated to investing in the right tools, processes and people so we can continue to deliver exceptional quality and value to our customers.



American Innovation



American Made

LSI Parking Garage Lighting Solutions

LSI meets your parking garage lighting demands inside and outside by providing a wide range of high-quality, energy-efficient products that fully support and enhance your entire parking environment.

Top Deck



Transitional Area



Parking Interior



Emergency/Exit



A Company with a *Smart Vision*

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