


# KING CONVERSION LED “RETROFIT” COMPARISON



The number of market-ready LED products grows daily. Some perform very well and provide more than a 50% energy savings, but the quality and energy efficiency vary widely. It is important to ensure you choose an LED system that meets the industry standards. King Luminaire is committed to continue the tradition of producing high performance and quality light systems that was started over 60 years ago.

| KING LUMINAIRE<br>CONVERSION SYSTEMS   | LED “RETROFITS”  | WHY IT MATTERS....  |
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| <p>King LED fixtures are tested and certified as a “whole system”. A “whole system” includes the globe, LED light engine and capital. Certification for outdoor lighting is through CSA (UL), IES and DLC.</p>  | <p>Retrofit tested on its own as a component and not tested as a “whole system”. Not always tested with CSA (UL), IES and DLC.</p>   | <p>It is important to test a system as a whole in order to accurately report on photometrics, lumen output and thermals. Certification through CSA (UL), IES and DLC is very important, since it means the system has all the above information available and it meets the industry standard.</p> |
| <p>King can provide absolute photometry and accurate lighting layouts.</p>   | <p>Cannot provide absolute photometry or do accurate lighting layouts.</p>   | <p>The light levels required may not be met, which may cause safety issues and require additional lights to be installed.</p>   |
| <p>King reports the fixture efficacy and delivered lumens as a whole system.</p>   | <p>Retrofits report the efficacy and delivered lumens as a component.</p>  | <p>In order to accurately determine how an LED system will perform as a whole, the LED engine must be tested and installed in the intended fixture.</p>   |
| <p>King will provide Lumen Depreciation data, such as L70 as per TM-21, for our system as a whole.</p>   | <p>Retrofits do not report thermal information as a whole system only as a component.</p>  | <p>In order to accurately calculate the Lumen Depreciation, and thereby the useful operating life of the fixture, it must be thermally tested as a whole system, not as a stand-alone component.</p>  |
| <p>King incorporates dynamic thermal management for venting and sinking all our LED products.</p>  | <p>May have sinks, but typically fails to offer proper heat venting with airflow over heat sinks within the fixture.</p>   | <p>If LED systems do not have proper venting and sinking there is risk of premature failure. Think of proper heat management as an insurance policy to protect your investment.</p>   |
| <p>King conversion systems are easy to install with just 5 simple steps.</p>   | <p>Retrofits can be quite complicated to install. This can result in an increase in labor cost.</p>  | <p>Due to the increased difficulty to install a retrofit, it can take much more time and also may result in an installation error which could result in reduce system performance or premature failure.</p>   |
| <p>King Luminaires are IP66 certified as a whole system. This means the optical chamber is sealed, so moisture, dirt, bugs or any other small objects will not be able to penetrate.</p>   | <p>The retrofit as a component may be IP66 certified, but the system as a whole is not. This means dirt, bugs or other small objects may get into the optical chamber.</p> | <p>If foreign materials enter the optical chamber it can cause greatly reduced lumen output. Dirt build-up can cause increase heat which will reduce performance or create failure. Moisture can be very adverse and also cause failure.</p>  |
| <p>King has a standard 7 year warranty on our LED systems and will be available to provide support on our products long into the future.</p>   | <p>Retrofit companies will warranty the component, but not the system as a whole.</p>  | <p>It is important to warranty the full system with a company who has been in the business of manufacturing outdoor lighting for over 20+ years.</p>  |