

Lumecon's 40kV Extreme Rated Surge Protection can handle up to 15 times the number of surge events compared to other conventional, single-strike 20kV surge technologies.



## **Protecting Your Investment**

Electrical surges are spikes of current, voltage or power in an electric circuit. These brief over-voltage disturbances on the power infrastructure can damage, degrade, or catastrophically destroy lighting fixtures within any commercial, industrial or manufacturing facility.

Lightning is the most recognizable external source of surge, but it can also be triggered by internal devices such as HVAC systems and industrial machinery.



Other causes may include: faulty wiring, failing transformers, and downed power lines. Dirty power, which is caused by complex power grids within aged infrastructures, cam also increase the potential for inconsistent electrical currents.

The MOV suppressor will divert voltage spikes away from a fixture by forming a connection with the grounding line. This connection minimizes the overall rate of catastrophic failures when these instances occur. As with all electronic components, MOVs do have a finite life expectancy,

which is dependent on the frequency and intensity of the electrical surge episode. Lumecon's MOV fails "open", so the luminaire will cease to function and remain protected until the MOV is replaces, which will re-establish fixture functionality.



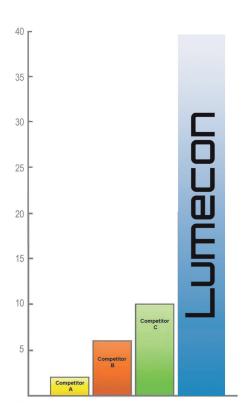
The Lumecon Difference



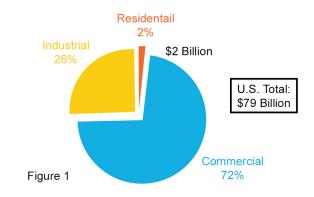
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## **Know The Facts**

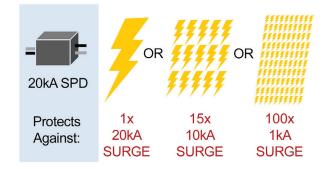
Lumecon installs a 40kV Metal Oxide Varistor (v) Surge Suppressor standard into every fixture to help protect against these brief overvoltage disturbances. Industry competitors offer 2kV - 10kV protection options, if at all. That's nearly half the protection compared to Lumecon's standard build.



- **2** "Our base-case estimate of the national cost of power interruptions is approximately \$80 billion annually as shown in Figure 1, broken down by customer class."
- Kristina Hamachi LaCommare and Joseph H. Eto Ernest Orlando Lawrence Berkeley National Laboratory



3 Surge Impact is not linear





A 40kV Extreme Surge Suppressor is included in every fixture to provide an additional level of protection against power line disturbances in industrial and commercial applications.

Thermally protected 40kV varistor type extreme surge suppressor is included and meets ANSI C136.2-2015: Extreme Level. Also meets IEC61643-11 Class II / EN61643-11 Type 2, and US Dept of Energy MSSLC Model Spec for surge protection. The device is wired in series with the luminaire input power in order to interrupt power to the luminaire when consumed, protecting the LED power supply and circuit boards from additional electrical surges.