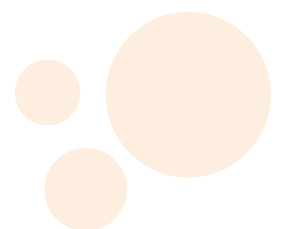
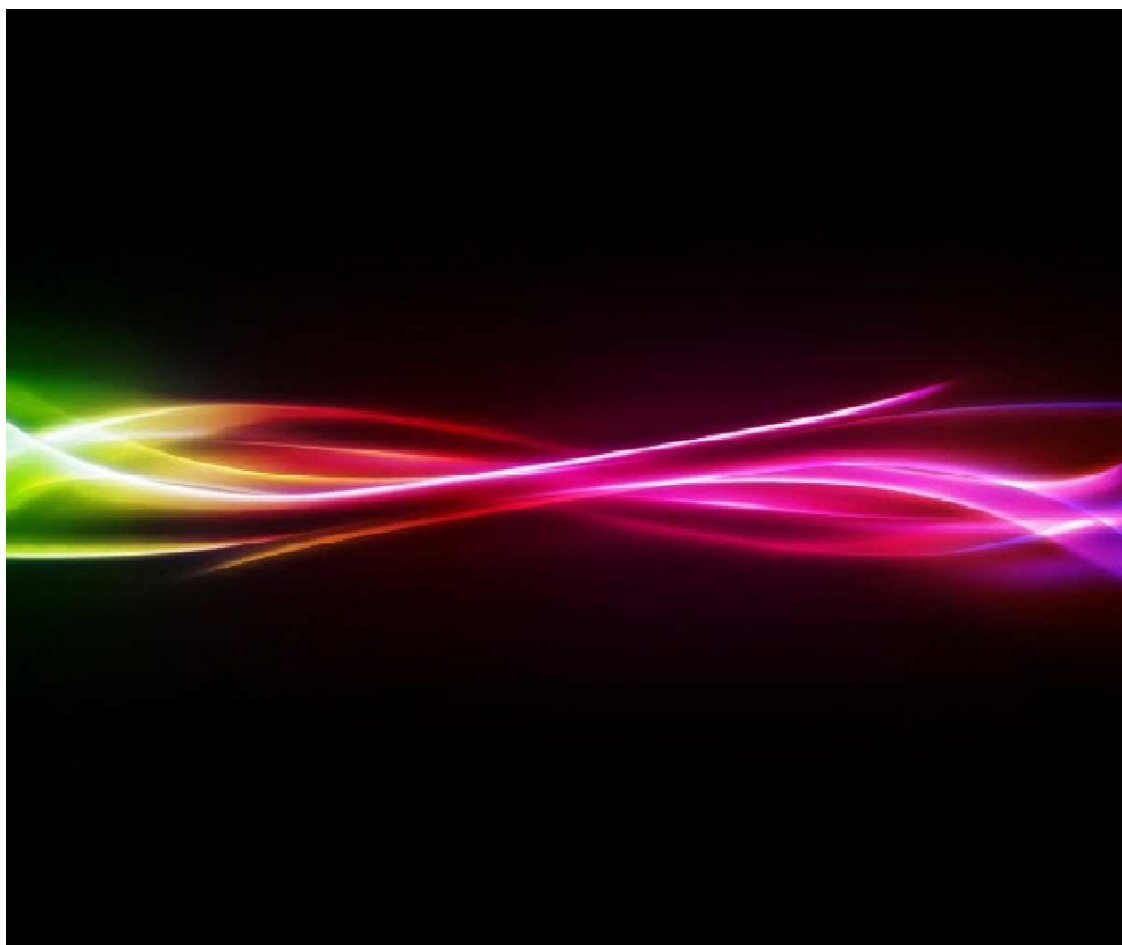




The power of Electromagnetic Induction in LED technology...
By: Gilles Leclerc



Virgolite™

The first Contactless LED System powered by electromagnetic induction

At HEICO Lighting™, we have explored LED in a totally different perspective and have created the **FIRST** and **ONLY** Contactless LED system in the world - Virgolite™, an **electromagnetic induction** powered LED lighting system.

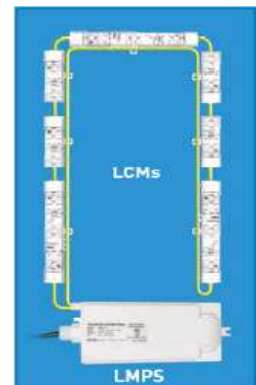
With Virgolite™, HEICO Lighting™ sets a new industry standard for energy efficient LED systems that keep pace with technological advancements. Our unwavering commitment to quality and efficiency ensures that you always benefit from the latest and greatest innovations in LED lighting.

This short paper will shortly explain the two main components of this unique LED system and describe its main benefits compare to other systems on the market.

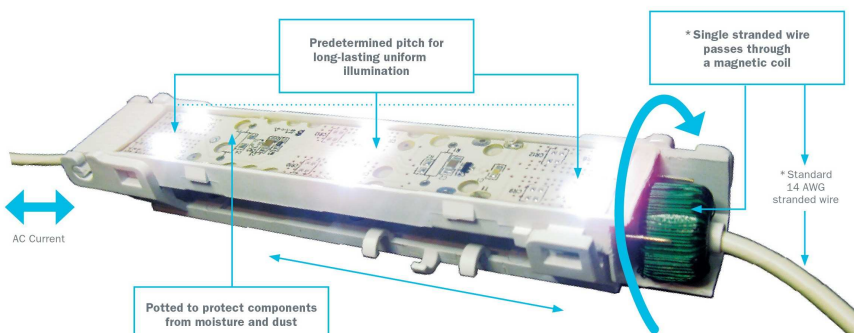
Unique AC current loop and power supply

Based upon the concept of *electromagnetic induction*, the Virgolite™ LMPS power supply distributes an electrical power AC current directly to LED modules, without any physical contact, allowing LED modules to be **Contactless and slidable**. This is achieved by threading all LED modules into a loop with one single 14 AWG stranded wire.

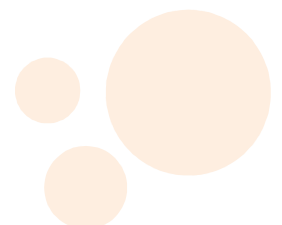
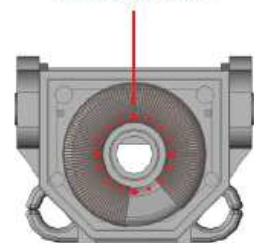
The Class-2 UL listed power supply, with its very high power factor (over 90%), ensures a constant LED forward current onto the loop, regardless of the intensity, color, number and voltage of LEDs..



CONTACTLESS ENERGY TRANSFER



Contactless from one side to the other



Unique Contactless LED modules and benefits

In the Virgolite™ system, the toroidal coil plays the vital role of controlling the forward constant current to all LEDs on the Contactless LED module. This constant-current source eliminates intensity changes due to variations in forward voltage, which translates into a constant and long lasting LED brightness, from the first to the last LED module onto the loop.

More, by powering independently each LED module with a precise current, this coupling of the coil also dramatically reduces energy losses usually generated by current limiting resistors or regulators. Consequently, the Contactless property of this LED module makes it possible to convert almost all energy into light, not generating heat. It is almost twice the performance of any other DC systems or arrays using resistors to limit current.

The advantages include better energy efficiency, superior reliability, greater luminosity and reduced maintenance costs to name a few.

Contactless System

No physical connection - No connectors - No soldering - No crimping

Slidable

LED modules smoothly glide on one single 14 AWG wire

Unmatched Energy Conversion Efficacy

Conversion of nearly 100% of energy into light

Corrosion FREE and Water Resistant

IP67 rated & potted LED module

Polarity FREE & Safe

Low AC voltage, Class 2, CUR and CUL approved. Energy transmitted by electromagnetic induction using a single stranded wire 14 AWG standard passing through the LEDs modules.

Immune against Overload

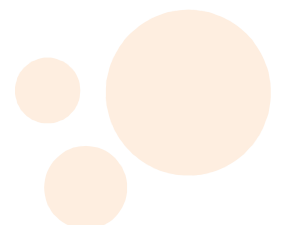
No 'shut down' condition when overloaded

Unmatched Flexibility

LED modules can be freely positioned on the loop.

Dimmable light intensity

Controller and Extender Dimmers with 3 control modes: from 0 to 100%, via a built-in rheostat into the controller or by a dedicated input (0-10V) or by using a protocol from a PWM decoder DMX512



Mixing Intensity & Colors

Possibility of mixing intensity, color, number and voltage on the same loop

Eco-friendly technology

No Mercury - No UV or IR rays emission

Sturdy and withstand vibrations

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February 1st, 2010

