

# NeoLED

## COMPACT, LOW-COST & LONG-LIFESPAN, DISTRIBUTED-SWITCH LEDS

### + WHAT IS NeoLED?

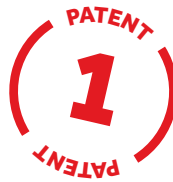
NeoLED is CEA-Leti's world-first solution that powers LEDs directly from a domestic outlet, without any adaptor. NeoLED offers a real-time update of serial/parallel configuration of LEDs. LEDs in series are continuously adjusted to make sure their supply voltage matches the outlet voltage. This technology eliminates the need for bulky AC/DC power supply adaptors.

Moreover, this technology leverages only low-voltage and low-cost transistors distributed along the light fixture, on the same PCB that supports the LEDs.

### + APPLICATIONS

NeoLED technology can be used for both high- and low-power applications. It improves several lighting applications, including:

- Industrial lighting
- Public lighting
- Shop lighting
- Agriculture
- UV treatment.



## + MAIN FEATURES

- Highly compact & low-cost
- No chemical capacity, which increases lifespan
- Integration in one single PCB, eliminating connections to external power supply units
- Continuity of service if an LED fails.

## + WHAT'S NEW?

LEDs are continuously powered—low-voltage parallel configuration—which translates into a significant reduction of the filtering capacity, and results in more chemical capacities. High-voltage transistors are no longer required, because of NeoLED's distributed and low-voltage switching modules. NeoLED helps reduce energy losses and costs.

## + WHAT'S NEXT?

In 2019, CEA-Leti researchers will work on a LED image projector based on power LEDs, with low-resolution images combined with a powerful luminous intensity and a direct 110 or 230 VAC voltage supply. This system will both light efficiently and project images without the need for a low voltage power supply unit having a very strong current, nor a driving matrix.

## KEY FACTS:

- Invited presentation at "Forum LED Europe 2015" intitled "AC LED driver based on distributed LED switching" in Lyon, France
- Invited presentation at "LED Forum 2017" intitled "AC LED driver based on distributed LED switching" in Lausanne, Suisse



## INTERESTED IN THIS TECHNOLOGY?

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