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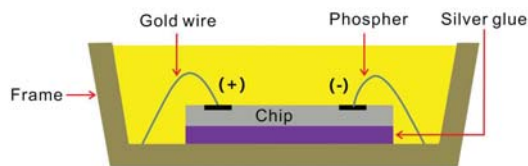
# FLED Light Source Technology

## ◆◆ Principle

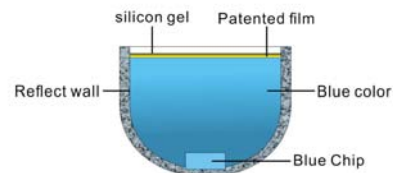
FLED is a revolution of point light source to the flat light source. Based on the remote phosphor technology plus a variety of Nano materials and rare earth materials form the unique formula of the luminous film, and make the film through the independently developed equipment and complex technology.

The thickness reach to 0.1mm, more than one hundred kinds of materials are evenly distributed on such thin film, showing the progressiveness and non-duplication of the FLED technology.

[Traditional LED]



Tradtional LED encapsulation



FLED encapsulation

### 1,Improve Light Efficiency

Compared to the point luminescence of LED, FLED is flat surface emitting, and the luminous area increased together with more chips mounted, chips activate the unique formula of the luminous film to achieve much more higher light efficiency than LED.

### 2,Reduce the Junction temperature of the chips

A. Light emitting area increased, the aluminum PCB (M -PCB) itself can be used for the heat sink.

B. Use flip chip, directly mounted to the aluminum board, so the chip's heat directly reach to the M-PCB, removed the LED packing frame and connected gold wires,and reduced the heat path,greatly increase the heat sink efficiency.reduce the chip's junction temperature.

C. The patent and unique fluorescent film also gets better heat radiation effect, help to reduce the chip's junction temperature.

### 3. Much more longer life time than LED

Gets much better life span based on the chip's low junction temperature than LED. We guarantee at least 10 years life span for the FLED light source.

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#### **4. Much more lower light decay than LED**

From the encapsulation demonstration, flat fluorescent film is far away from the Chip, because the chip's temperature is the highest of the whole light source package. Traditional LED encapsulation, phosphor is on the top of the chips with tightly touched. Phosphor under high temperature will become less light efficient when activated by blue light .

#### **5, Glare reduced:**

Compared to the point light source(LED), the FLED light source has little stimulation on the eyes caused of the even and scattered chips design.so, FLED street lights can reduce traffic accidents.

#### **6, Waterproof available:**

The FLED light source, chip circuit on the M-PCB is protected by the heat sink glue covered with first, and then protected by the patented fluorescent film as well. the whole light source can be immersed in the water while lighting.

#### **7,ultra light, ultra thin, flexible available:**

The FLED light source can be made any shape, light and thin, also flexible and curved, foldable; light source can be custom made as the customer's demand.

