Existing light emitting devices suffer from efficiency problems, such as incomplete light extraction from active layers. This inability to direct light from the diode results in an 180° active range of light emission and power losses.

The OLED with Resonant Structure utilizes two mirrors to increase the radiative efficiency of OLEDs by 80-100 percent. The first mirror is a partially reflective, metallic patch grating resonator that reduces lateral propagation of radiative emissions’ diffusion. The second mirror is a transparent electrode of the OLED, which communicates with the optically active material. Together, these mirrors almost double the output power of the LED.

- Focuses light emissions to increase radiative efficiency by 80-100 percent.
- Increases power output of the LED by 2x.
- Improves directionality of emitted light.
- Applicable to flexible displays.


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