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# Staggered 2D LEDs for Multi Purpose Lighting

**Pliable, energy-efficient 2D LED technology integrates into surfaces, providing switchable color ambient lighting and shadowless UVC surface disinfection for commercial and residential applications.**

Researchers at Purdue University have developed a 2D LED technology which can be integrated into furniture, flooring or other surfaces and can provide both surface disinfection using UVC and ambient decorative lighting with changeable color. Having a lighting source which is long-lasting, energy efficient and pliable built into parts of a room has significant promise, especially for applications such as hospitals, restaurants, commercial buildings, and homes.

**Advantages**:

-Provides shadowless disinfection

-Provides ambient lighting with switchable color built into furniture or other surfaces

Potential Applications:

-Hospitals

-Restaurants/bars

-Homes/offices

**TRL:** 3

**Intellectual Property:**

Provisional-Patent, 2019-08-21, United States | Utility Patent, 2020-05-01, United States | PCT-Patent, 2020-08-21, WO | CIP-Patent, 2023-03-09, United States

**Keywords:** 2D LED technology, UVC disinfection, ambient lighting, surface integrated lighting, changeable color lighting, energy efficient lighting,

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