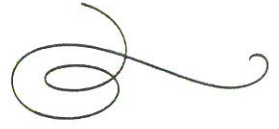
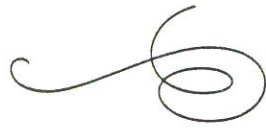


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*of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.*

*Therefore, this United States*

**Patent**

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*Ander Lane*

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE



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(12) **United States Patent**  
**Chung et al.**

(10) **Patent No.:** **US 10,066,821 B1**

(45) **Date of Patent:** **Sep. 4, 2018**

(54) **LIGHT-EMITTING DEVICE HAVING AN AMBIENT LIGHT SENSING FUNCTION**

F21Y 2115/10; F21Y 2113/005; F21Y 2105/003; Y02B 20/46; Y02B 20/48; Y02B 20/343; F21V 23/0464; F21V 23/06; F21V 19/003

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See application file for complete search history.

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(Continued)

(21) Appl. No.: **15/712,825**

*Primary Examiner* — Vibol Tan

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(22) Filed: **Sep. 22, 2017**

(57) **ABSTRACT**

(30) **Foreign Application Priority Data**

Mar. 1, 2017 (TW) ..... 106202868 U

The present disclosure provides a light-emitting device having an ambient light sensing function, including a light-emitting module, a rectification module, a switch module, a control module, and an ambient light sensing module. The light-emitting module includes a circuit substrate and a plurality of light-emitting elements. The rectification module is electrically connected to the light-emitting module. The switch module includes a semiconductor switch element electrically connected to the light-emitting module. The control module is electrically connected to the rectification module and the switch module. The ambient light sensing module is electrically connected to the control module for receiving an ambient light source. The ambient light sensing module provides a light intensity signal to the control module according to a light intensity provided by the ambient light source, and the light-emitting elements are turned on or turned off by the semiconductor switch element according to the light intensity signal.

(51) **Int. Cl.**  
**H05B 37/02** (2006.01)  
**F21V 23/06** (2006.01)  
**F21V 23/04** (2006.01)  
**H05B 33/08** (2006.01)  
**F21V 19/00** (2006.01)

(52) **U.S. Cl.**  
CPC ..... **F21V 23/0464** (2013.01); **F21V 19/003** (2013.01); **F21V 23/06** (2013.01); **H05B 33/0845** (2013.01); **H05B 37/0218** (2013.01)

(58) **Field of Classification Search**  
CPC ..... H05B 37/0272; H05B 37/0218; H05B 33/0842; H05B 37/0227; H05B 33/0845; H05B 37/0254; H05B 37/02; H05B 33/0815; H05B 33/0803; H05B 33/0812;

**9 Claims, 5 Drawing Sheets**

