

Title (en)  
LED LIGHTING DEVICES

Title (de)  
LED-BELEUCHTUNGSVORRICHTUNGEN

Title (fr)  
DISPOSITIFS D'ÉCLAIRAGE À DEL

Publication  
**EP 2973699 A1 20160120 (EN)**

Application  
**EP 14721609 A 20140313**

Priority  
• US 201313828297 A 20130314  
• US 2014025418 W 20140313

Abstract (en)  
[origin: WO2014159894A1] Packaged chip-on-board (COB) LED arrays are provided where a color conversion medium is distributed within a glass containment plate, rather than silicone, to reduce the operating temperature of the color conversion medium and avoid damage while increasing light output. A lighting device is provided comprising a chip-on-board (COB) light emitting diode (LED) light source, a light source encapsulant, a distributed color conversion medium, and a glass containment plate. The COB LED light source comprises a thermal heat sink framework and at least one LED and defines a light source encapsulant cavity in which the light source encapsulant is distributed over the LED. The glass containment plate is positioned over the light source encapsulant cavity and contains the distributed color conversion medium. The light source encapsulant is distributed over the LED at a thickness that is sufficient to encapsulate the LED and define encapsulant thermal conduction paths.

IPC 8 full level  
**H01L 25/075** (2006.01); **H01L 33/50** (2010.01); **H01L 33/64** (2010.01)

CPC (source: EP)  
**H01L 25/0753** (2013.01); **H01L 33/505** (2013.01); **H01L 33/644** (2013.01); **H01L 2224/48091** (2013.01); **H01L 2924/181** (2013.01)

Citation (search report)  
See references of WO 2014159894A1

Designated contracting state (EPC)  
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Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2014159894 A1 20141002**; CN 105453262 A 20160330; EP 2973699 A1 20160120; JP 2016511556 A 20160414; KR 20150132354 A 20151125

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**US 2014025418 W 20140313**; CN 201480014703 A 20140313; EP 14721609 A 20140313; JP 2016501845 A 20140313; KR 20157028982 A 20140313