

Title (en)

LED lighting electric device and corresponding lamp including a plurality of such LED devices

Title (de)

Elektrische LED-Beleuchtungsvorrichtung und Lampe mit einer Vielzahl solcher LED-Vorrichtungen

Title (fr)

Dispositif d'éclairage électrique à diode électroluminescente et lampe utilisant une pluralité de tels dispositifs

Publication

EP 2202445 A1 20100630 (EN)

Application

EP 08022376 A 20081223

Priority

EP 08022376 A 20081223

Abstract (en)

The invention concerns an LED lighting electric device (1) comprising: - an LED light source (2) mounted and powered on a support card (15); - a corresponding inverted truncated cone-shaped waveguide (3) associated with the light source (2) to diffuse the light beam generated by said source; - a lens (4) supported in a predetermined spaced apart relationship with the light source (2); - transparent support legs (5) formed in one piece with the waveguide (3) and base ends (7) proximal to the light source (2) fixed to the card (15) around the light source (2). Advantageously, according to the invention, the base ends (7) of the transparent legs (5) are in contact with a resin (9) that does not absorb light radiation. In this way, a saturation effect of the light beam taken away through the support legs of the waveguide is achieved and the luminosity of the LED lighting device (1) is increased for an equal level of electrical power consumption.

IPC 8 full level

F21K 99/00 (2010.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)

F21K 9/00 (2013.01 - EP US); **F21K 9/61** (2016.07 - EP US); **F21V 5/04** (2013.01 - EP US); **F21V 17/005** (2013.01 - EP); **F21V 17/101** (2013.01 - EP US); **F21V 17/06** (2013.01 - EP); **F21Y 2107/10** (2016.07 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (search report)

- [XY] DE 10317999 A1 20041111 - SCHARF ISOLDE [DE], et al
- [YA] WO 03048637 A1 20030612 - FRAEN CORP SRL [IT], et al
- [X] JP 2007317573 A 20071206 - MATSUSHITA ELECTRIC WORKS LTD
- [X] US 5526190 A 19960611 - HUBBLE III FRED F [US], et al

Cited by

CN109386756A; CN106662702A; CN103604093A; US2016161099A1; US10006620B2; US10976046B2; WO2019032944A1; TWI787321B; US11739928B2; US12066178B2; EP2503216B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2202445 A1 20100630

DOCDB simple family (application)

EP 08022376 A 20081223