

Title (en)

Lighting system based on light-emitting diodes with mobile optics for control of the exit light beam

Title (de)

Beleuchtungssystem basierend auf lichtemittierenden Dioden mit bewegbaren Optiken zur Steuerung des Ausgangslichtstrahls

Title (fr)

Système d'éclairage basé sur diodes électroluminescentes avec optiques mobiles pour piloter le rayon de sortie

Publication

**EP 2503231 A3 20141126 (EN)**

Application

**EP 12159123 A 20120312**

Priority

ES 201130408 A 20110322

Abstract (en)

[origin: EP2503231A2] The LED lighting system (1), with mobile optics for control of the exit light beam, is made up of a an LED panel (2) and a mobile optical device (4) with individual optics forming groups with different patterns for different light distributions which are repeated sequentially in each group. The individual LEDs (3) occupy circumferences which are concentric to the centre of the LED panel (2), and the individual optical structures (5) of each group occupy circumferences which are concentric to the centre of the optical device (4); these positions match the positions occupied by the individual LEDs (3). The optical device (4) is designed as a disc which rotates around axis E and may include the help of driving means (9) in order to turn between a plurality of operating positions, so that at least one of the optical structures (5) of a group is completely or partially situated over one of the individual LEDs (3) when the optical device (4) turns.

IPC 8 full level

**F21V 14/06** (2006.01); **F21V 5/00** (2006.01); **F21V 7/00** (2006.01); **F21V 13/04** (2006.01); **F21Y 101/02** (2006.01); **F21Y 105/00** (2006.01)

CPC (source: EP ES US)

**F21V 5/004** (2013.01 - EP US); **F21V 5/007** (2013.01 - EP US); **F21V 14/06** (2013.01 - EP ES US); **F21S 8/038** (2013.01 - EP); **F21V 7/0066** (2013.01 - EP); **F21V 13/04** (2013.01 - EP); **F21V 17/02** (2013.01 - EP); **F21Y 2105/10** (2016.07 - EP US); **F21Y 2105/12** (2016.07 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (search report)

- [X] US 6474837 B1 20021105 - BELLIVEAU RICHARD S [US]
- [X] US 2008273324 A1 20081106 - BECKER AARON JAMES [US], et al
- [X] CN 101793349 A 20100804 - OCEANS KING LIGHTING SCIENCE, et al
- [X] US 2003147237 A1 20030807 - HALASZ CHRISTOPHER LEE [US]
- [A] JP 2007149552 A 20070614 - HARISON TOSHIBA LIGHTING CORP
- [A] EP 1904875 A2 20080402 - KONINKL PHILIPS ELECTRONICS NV [NL]

Cited by

ES2637804A1; US2022299191A1; EP2876364A1; CN104748021A; EP3366987A1; DE102014011169A1; US11680697B2; US9303846B2; US10323829B1; US11036036B2; EP2886944A1; AT14644U1; DE202016100958U1; WO2014193560A1; WO2017072406A1; EP3788416B1

Designated contracting state (EPC)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2503231 A2 20120926; EP 2503231 A3 20141126;** ES 2399156 A1 20130326; ES 2399156 B1 20140128

DOCDB simple family (application)

**EP 12159123 A 20120312;** ES 201130408 A 20110322