Title (en)

BULB - SHAPED LED LIGHT SOURCE

Title (de)

GLÜHLAMPENFÖRMIGE LED-LICHTQUELLE

Title (fr)

SOURCE DE LUMIÈRE À LED EN FORME D'AMPOULE

Publication

EP 2649364 A1 20131016 (EN)

Application

EP 11790589 A 20111123

Priority

- JP 2010276083 A 20101210
- EP 2011070826 W 20111123

Abstract (en)

[origin: WO2012076339A1] [Problem] To provide a bulb-shaped LED light source with which the luminance uniformity ratio on an outer tube globe is improved, in other words with which the occurrence of light non-uniformities can be reduced, without reducing efficiency. [Means of overcoming the problem] The bulb-shaped LED light source according to the present invention is characterized in that at least n (a natural number of 4 or more) LED elements (4) are arranged within an outer tube globe (5) in a substantially planar fashion; each LED element (4) has a light distribution angle of at least 60° and 120° or less; the light distribution areas inside a light distribution angle within which each LED element (4) illuminates light onto the inner surface of the outer tube globe (5) are made to overlap; and a part of the overlap comprises n overlapping light distribution areas, and the n overlapping light distribution areas comprise at least 10% and no more than 80% of the inner surface of the outer tube globe (5).

IPC 8 full level

F21K 99/00 (2010.01); **F21V 3/00** (2015.01); **F21V 3/04** (2006.01); F21V 29/77 (2015.01); F21Y 101/02 (2006.01); F21Y 105/00 (2006.01)

CPC (source: EP US)

F21K 9/232 (2016.07 - EP US); **F21V 3/00** (2013.01 - EP US); **F21V 3/0625** (2018.01 - EP); F21V 29/773 (2015.01 - EP); F21Y 2105/00 (2013.01 - EP US); F21Y 2115/10 (2016.07 - EP US)

Citation (search report)

See references of WO 2012076339A1

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

DOCDB simple family (publication)

WO 2012076339 A1 20120614; CN 103261778 A 20130821; CN 103261778 B 20160413; EP 2649364 A1 20131016; EP 2649364 B1 20150715; JP 2012124124 A 20120628; JP 5628017 B2 20141119

DOCDB simple family (application)

EP 2011070826 W 20111123; CN 201180060008 A 20111123; EP 11790589 A 20111123; JP 2010276083 A 20101210