

Title (en)

Improved LED arrangement and lamp assemblies

Title (de)

Verbesserte LED-Anordnung und Lampenanordnungen

Title (fr)

Agencement de DEL amélioré et ensembles de lampes

Publication

**EP 2180235 A1 20100428 (EN)**

Application

**EP 09173914 A 20091023**

Priority

NL 2002139 A 20081024

Abstract (en)

LED arrangement for use in a lamp assembly comprising: - a light emitting diode for emitting an amount of light; - a metal guide structure arranged above the light emitting diode, the guide structure having an input section directed towards the light emitting diode and an output section, wherein the guide structure is designed for grouping substantially the complete amount of light within a certain radiation angle.

IPC 8 full level

**F21K 99/00** (2010.01); **F21S 4/00** (2006.01)

CPC (source: EP US)

**F21K 9/00** (2013.01 - EP US); **F21K 9/27** (2016.07 - EP US); **F21K 9/68** (2016.07 - EP US); **F21S 4/28** (2016.01 - EP); **F21V 7/00** (2013.01 - EP); **F21V 29/70** (2015.01 - EP US); **F21Y 2103/00** (2013.01 - EP US); **F21Y 2103/10** (2016.07 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (search report)

- [X] EP 1357335 A2 20031029 - NICHIA CORP [JP]
- [X] WO 2007030542 A2 20070315 - LSI INDUSTRIES INC [US], et al

Cited by

CN102853307A

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 MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**EP 2180235 A1 20100428**; NL 2003481 A1 20100215; NL 2003481 G2 20101123

DOCDB simple family (application)

**EP 09173914 A 20091023**; NL 2003481 A 20090914