

Title (en)
Lamp

Title (de)
Leuchte

Title (fr)
Lampe

Publication
EP 2204604 B1 20150211 (DE)

Application
EP 09015635 A 20091217

Priority
DE 102008063369 A 20081230

Abstract (en)

[origin: EP2204604A1] The fixture (10) has a circuit board (11) on which multiple LEDs (12a-12c) are mounted. A secondary optics (14) bundles the light emitted by the LEDs, and tertiary optics (16) is formed by a planar, translucent element having light-directing microstructures, where the microstructures are facets having concave surface. The shape of the surface is spherically curved or rotationally parabolic. The microstructures are provided on a face of the element toward the secondary optics.

IPC 8 full level

F21S 8/00 (2006.01); **F21V 5/00** (2015.01); **F21Y 101/00** (2016.01)

CPC (source: EP US)

F21V 5/002 (2013.01 - EP US); **F21V 5/007** (2013.01 - EP US); **F21V 5/008** (2013.01 - EP US); **F21V 13/04** (2013.01 - EP US);
F21V 17/002 (2013.01 - EP US); **F21W 2131/10** (2013.01 - EP US); **F21W 2131/107** (2013.01 - EP US); **F21Y 2105/10** (2016.07 - EP US);
F21Y 2115/10 (2016.07 - EP US)

Citation (examination)

- JP 2007149552 A 20070614 - HARISSON TOSHIBA LIGHTING CORP
- US 2007263388 A1 20071115 - LAI CHIEH-LUNG [TW], et al
- US 2008174224 A1 20080724 - LIAO JUI-TSUNG [TW], et al

Cited by

NL2019706B1; EP2587128A1; EP4160085A1; EP3438524A1; DE102017122956A1; EP3671026A1; DE102018133386A1; US9500340B2;
US9833133B2; US10070779B2; US10390690B2; US11092310B2; US11725799B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 2204604 A1 20100707; EP 2204604 B1 20150211; AU 2009251062 A1 20100715; CN 101806411 A 20100818; CN 101806411 B 20141126;
DE 102008063369 A1 20100708; DE 102008063369 B4 20161215; ES 2535636 T3 20150513; SG 162712 A1 20100729;
US 2010165623 A1 20100701; US 9494292 B2 20161115

DOCDB simple family (application)

EP 09015635 A 20091217; AU 2009251062 A 20091221; CN 200910262504 A 20091229; DE 102008063369 A 20081230;
ES 09015635 T 20091217; SG 2009086000 A 20091222; US 63919809 A 20091216