

Title (en)
OPTICAL APPARATUS

Title (de)
OPTISCHE VORRICHTUNG

Title (fr)
APPAREIL OPTIQUE

Publication
EP 3447361 B1 20211006 (EN)

Application
EP 17187685 A 20170824

Priority
EP 17187685 A 20170824

Abstract (en)
[origin: EP3447361A1] An optical apparatus has a LED plate, a lens plate, a cup body, a driver plate and two metal pins. The lens plate has a central lens and a plurality of micro optical structures. The cup body has a dome portion, a tube portion and a bottom portion. The dome portion and the tube portion are manufactured together as a single body. A portion of light emitting from the LED plate runs through the central lens of the lens plate to form a focus light beam and another portion of light emitting from the LED modules running through the plurality of micro optical structures to form soft light. Two input terminals of the driver plate are inserted into the two metal pins.

IPC 8 full level
F21K 9/233 (2016.01); **F21K 9/69** (2016.01); **F21V 29/70** (2015.01); **F21V 5/00** (2018.01); **F21Y 115/10** (2016.01)

CPC (source: EP)
F21K 9/233 (2016.07); **F21K 9/69** (2016.07); **F21V 29/70** (2015.01); **F21V 5/002** (2013.01); **F21Y 2115/10** (2016.07)

Citation (examination)
• CN 106838650 A 20170613 - ZHANGZHOU LEEDARSON OPTOELECTRONIC TECH CO LTD
• US 2014376238 A1 20141225 - KADIJK SIMON EME [NL], et al

Cited by
CN110594604A

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)
EP 3447361 A1 20190227; **EP 3447361 B1 20211006**; ES 2902161 T3 20220325

DOCDB simple family (application)
EP 17187685 A 20170824; ES 17187685 T 20170824