

Title (en)  
LED illuminating apparatus

Title (de)  
LED-Beleuchtungsanordnung

Title (fr)  
Appareil d'éclairage avec DEL

Publication  
**EP 2390553 A2 20111130 (EN)**

Application  
**EP 11167173 A 20110523**

Priority  
• JP 2010132433 A 20100524  
• JP 2010132435 A 20100524

Abstract (en)  
There is provided an LED illuminating apparatus (10) improved in color performance and decreased in harmful effect of temperature elevation during operation even in the form of a globe-type lamp compatible to conventional screw-in type sockets. The LED illuminating apparatus including an LED light-emitting device (3a) and a base board (3b) having the LED light-emitting device (3a) mounted on one surface thereof is improved, so that main LED light-emitting elements (3A) emitting white light and additional LED light-emitting elements (3C) emitting color light are used in combination, the additional LED light-emitting elements (3C) being covered with optical regulators capable of scattering the color light, such as complex prism (11) composed of a right-angle prism (21).

IPC 8 full level  
**F21K 99/00** (2010.01)

CPC (source: EP KR US)  
**F21K 9/23** (2016.07 - EP KR US); **F21K 9/69** (2016.07 - KR); **F21V 5/00** (2013.01 - EP US); **F21V 5/02** (2013.01 - KR);  
**F21Y 2105/10** (2016.07 - EP US); **F21Y 2105/12** (2016.07 - EP KR US); **F21Y 2113/13** (2016.07 - EP); **F21Y 2115/10** (2016.07 - EP KR US)

Citation (applicant)  
• JP 2003298118 A 20031017 - TOSHIBA LIGHTING & TECHNOLOGY  
• JP 2004111357 A 20040408 - TOPCON CORP  
• JP 2009123641 A 20090604 - CHUNTLON ENTPR CO LTD  
• JP 2009135026 A 20090618 - TOSHIBA LIGHTING & TECHNOLOGY  
• JP 2009163955 A 20090723 - SHARP KK  
• JP 2009170114 A 20090730 - TOSHIBA LIGHTING & TECHNOLOGY  
• JP 2009176925 A 20090806 - NEC LIGHTING LTD

Cited by  
USD831862S; USD853603S

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 2390553 A2 20111130; EP 2390553 A3 20131023**; JP 2012009856 A 20120112; JP 5850220 B2 20160203; KR 20110128757 A 20111130

DOCDB simple family (application)  
**EP 11167173 A 20110523**; JP 2011128676 A 20110523; KR 20110049238 A 20110524