

Title (en)
LED COLLIMATION OPTICS MODULE AND LUMINAIRE USING SAME

Title (de)
OPTISCHES LED-KOLLIMATIONSMODUL UND DIESES VERWENDENDE LEUCHTE

Title (fr)
MODULE OPTIQUE DE COLLIMATION À DEL ET LUMINAIRE FAISANT INTERVENIR LEDIT MODULE

Publication
EP 2414728 A1 20120208 (EN)

Application
EP 10713003 A 20100329

Priority
• IB 2010051354 W 20100329
• US 16510209 P 20090331

Abstract (en)
[origin: WO2010113100A1] An LED collimation optics module (16) and luminaire (10) using the same, and optics device for stage lighting are disclosed. In one embodiment of the LED collimation optics module (16), an LED chip (30) provides a plurality of sources of light (G, R, B, W). An optical conductor (32) is superposed on the LED chip (30) to mix the light received from the plurality of sources of light (G, R, B, W). After passing through the optical conductor (32), the mixed light enters a compound parabolic concentrator (34) which is coupled to the optical conductor (32). The compound parabolic concentrator (34) collimates the light received from the optical conductor (32) such that a homogeneous pupil (90) is emitted.

IPC 8 full level
F21V 7/04 (2006.01); **F24S 23/70** (2018.01); **G02B 6/00** (2006.01); **G02B 6/42** (2006.01)

CPC (source: EP KR US)
G02B 6/00 (2013.01 - KR); **G02B 6/0001** (2013.01 - KR); **G02B 6/0008** (2013.01 - EP US); **G02B 6/0096** (2013.01 - EP US);
F21V 21/15 (2013.01 - EP); **F21V 21/30** (2013.01 - EP); **F21V 29/67** (2013.01 - EP US); **F21W 2131/406** (2013.01 - EP);
F21Y 2113/13 (2016.08 - EP US); **F21Y 2115/10** (2016.08 - EP US); **G02B 6/0073** (2013.01 - EP); **G02B 6/4249** (2013.01 - EP)

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

DOCDB simple family (publication)
WO 2010113100 A1 20101007; CA 2757196 A1 20101007; CN 102369391 A 20120307; EP 2414728 A1 20120208; JP 2012522349 A 20120920;
KR 20110135875 A 20111219; RU 2011143801 A 20130510

DOCDB simple family (application)
IB 2010051354 W 20100329; CA 2757196 A 20100329; CN 201080014696 A 20100329; EP 10713003 A 20100329; JP 2012502855 A 20100329;
KR 20117025894 A 20100329; RU 2011143801 A 20100329