

Title (en)

Flexible rod light device formed of chip on board based LED lamps and manufacturing method thereof

Title (de)

Biegsame Lichtleiste mit LED-Lampen des Chip-auf-LPL-Types und deren Herstellungsverfahren

Title (fr)

Band lumineuse flexible comprenant des lampes-diodes du type puce-sur-panneau et procédé de fabrication d'une telle bande

Publication

EP 1357331 A3 20060426 (EN)

Application

EP 03252581 A 20030424

Priority

CN 02117197 A 20020425

Abstract (en)

[origin: EP1357331A2] Flexible rod light device containing a string of chip on board (C.O.B.) based LED lamps (20) and manufacturing method thereof are disclosed. The device comprises an inner layer (10) including two parallel upward flanges (12,13) on sides and a lengthwise top groove (11) between the flanges; a string of C.O.B. based LED lamps (20) comprising a plurality of series connected units each including a C.O.B. based LED lamp (21) secured on the groove (11) and between the flanges (12,13), one or more conductor means (23), and a resistor (22); a pair of main wires (31,32) parallel disposed within the flanges (12,13); and a jacket (40) wrapped up the inner layer (10) and the string of lamps (20). All lamps are secured and have the same orientation for achieving an increased illumination.

IPC 8 full level

F21S 4/00 (2006.01); **H01L 33/00** (2010.01); **H05B 44/00** (2022.01); **F21Y 101/02** (2006.01)

CPC (source: EP KR US)

F21S 4/22 (2016.01 - EP KR); **F21S 4/24** (2016.01 - EP); **F21S 4/26** (2016.01 - EP US); **F21V 17/101** (2013.01 - KR);
F21Y 2103/10 (2016.07 - EP KR US); **F21Y 2115/10** (2016.07 - EP KR US)

Citation (search report)

- [A] WO 0125682 A1 20010412 - HUTCHINS J MARC [CA], et al
- [A] US 6074074 A 20000613 - MARCUS ARMIN [DE]
- [A] US 5934792 A 19990810 - CAMAROTA RICHARD J [US]

Cited by

WO2011110217A1; DE102008009808A1; CN102644875A; CN102588782A; ITUB20153160A1; EP1583147A3; CN104934515A;
DE102009035369A1; DE102009035369B4; ES2315036A1; US7340830B2; DE102010013286A1; DE102010013286B4; EP1862726A4;
US9109765B2; US8496351B2; US10408391B2; US8789971B2; US8651698B2; EP3392559A4; WO2012034820A3; WO2017080705A1;
US9945532B2; US8807796B2; US10598314B2; DE102009032984B3; DE102007017604B4; EP3188264A1; EP3493259A1; WO2006099773A1;
US9188289B2; US10822001B2; US8427048B2; US8841838B2; US9478716B2; US9484502B2; US9755115B2; US9966504B2; EP3413361B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1357331 A2 20031029; EP 1357331 A3 20060426; EP 1357331 B1 20080806; AT E403827 T1 20080815; CA 2426500 A1 20031025;
CA 2426500 C 20110405; CN 100547282 C 20091007; CN 1453498 A 20031105; DE 60322619 D1 20080918; JP 2003347593 A 20031205;
JP 3970800 B2 20070905; KR 100967192 B1 20100705; KR 20030084759 A 20031101

DOCDB simple family (application)

EP 03252581 A 20030424; AT 03252581 T 20030424; CA 2426500 A 20030424; CN 02117197 A 20020425; DE 60322619 T 20030424;
JP 2003115889 A 20030421; KR 20030026305 A 20030425