

Title (en)

LED water-proofing diffuser embedded into shell plate

Title (de)

In eine Schalenplatte eingebetteter, wasserdichter LED-Diffusor

Title (fr)

Diffuseur étanche à DEL intégré dans une boîte de virole

Publication

**EP 2363633 A2 20110907 (EN)**

Application

**EP 10015976 A 20101222**

Priority

- TW 99203772 U 20100303
- TW 99215058 U 20100806

Abstract (en)

The present invention provides an LED water-proofing diffuser embedded into the shell plate, of which said LED water-proofing diffuser comprising: an LED baseplate retaining shell, which is a 3D holding space formed by an end wall and a circumferential flange; and an LED assembly port is formed at the other end of the circumferential flange; an LED diffusing portion, which is of a hollow shape protruding from the end wall of the LED baseplate retaining shell; and the LED diffusing portion is available with light transmittance and includes a peripheral wall; an embedded positioning portion, integrally formed onto the exterior of the end wall or circumferential flange of the LED baseplate retaining shell or the exterior of the diffusing portion; said embedded positioning portion can be embedded securely into the hole of existing shell plate; with this design, said LED water-proofing diffuser can be assembled with a single or a few LED units; and waterproofing is made possible within the space of the LED water-proofing diffuser, thus reducing significantly the fabrication cost of the LED water-proofing structure and realizing excellent waterproofing effect as well as better convenience of replacement or maintenance; so the LED water-proofing diffuser of the present invention will be widely applied to LED water-proofing structures such as: traffic marking panel, advertisement, and ornament.

IPC 8 full level

**F21S 8/00** (2006.01); **F21V 17/16** (2006.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)

**F21V 3/02** (2013.01 - EP); **F21V 17/164** (2013.01 - EP US); **F21V 31/04** (2013.01 - EP); **G09F 13/00** (2013.01 - EP); **F21W 2111/00** (2013.01 - EP); **F21W 2121/00** (2013.01 - EP); **F21Y 2115/10** (2016.07 - EP US)

Cited by

CN102588831A; DE202014101310U1; NL2018757B1; WO2015140248A1; WO2018194455A1

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 2363633 A2 20110907**; AU 2010101461 A4 20110203

DOCDB simple family (application)

**EP 10015976 A 20101222**; AU 2010101461 A 20101222