

Title (en)  
Optical module for headlights of an automobile

Title (de)  
Optisches Modul für Kraftfahrzeugscheinwerfer

Title (fr)  
Module optique pour projecteur de véhicule automobile

Publication  
**EP 1970619 B1 20120229 (FR)**

Application  
**EP 08152540 A 20080310**

Priority  
FR 0701832 A 20070314

Abstract (en)  
[origin: EP1970619A1] The module has main optical elements provided with a main LED (LP) and a projection optical system in a form of a lens (L) or a paraboloidal type reflector, and secondary optical elements provided with a secondary LED (LS1) associated with a collimator (C1) and with a folding mirror (M). The main and secondary elements respectively emit main i.e. motorway type beam, and secondary light beams. The mirror deflects the light emitted by secondary LED, by using the collimator, in a direction of the optical system, and avoids interception of light emitted by the main LED.

IPC 8 full level  
**F21S 8/10** (2006.01); **H01L 33/00** (2010.01); **F21W 101/10** (2006.01); **F21W 107/10** (2018.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)  
**F21S 41/147** (2017.12 - EP US); **F21S 41/155** (2017.12 - EP); **F21S 41/26** (2017.12 - EP); **F21S 41/321** (2017.12 - EP); **F21S 41/322** (2017.12 - EP); **F21S 41/365** (2017.12 - EP US); **F21S 41/663** (2017.12 - EP US); **F21W 2102/18** (2017.12 - EP); **F21Y 2115/10** (2016.07 - EP US)

Cited by  
CN114877286A; EP2799763A1; FR3005342A1; WO2016050610A1; WO2014012878A1; EP2489925A1; FR2971464A1; FR2955538A1; FR3084728A1; CN112513522A; DE102016122188A1; US9989207B2; US9441805B2; US11280464B2; US11719406B2; WO2011092121A1; WO2020025171A1

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 MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1970619 A1 20080917**; **EP 1970619 B1 20120229**; AT E547665 T1 20120315; FR 2913750 A1 20080919; JP 2008293958 A 20081204; JP 5313525 B2 20131009

DOCDB simple family (application)  
**EP 08152540 A 20080310**; AT 08152540 T 20080310; FR 0701832 A 20070314; JP 2008065267 A 20080314