

Title (en)

Modular reflective optical lighting system and lighting device equipped therewith, in particular for vehicles

Title (de)

Modulares reflektierendes optisches Beleuchtungssystem und Beleuchtungsvorrichtung, insbesondere für Fahrzeuge

Title (fr)

Système d'éclairage optique réflectif modulaire et dispositif d'éclairage équipé de celui-ci, en particulier pour véhicules

Publication

EP 2045514 B1 20151209 (EN)

Application

EP 07425625 A 20071005

Priority

EP 07425625 A 20071005

Abstract (en)

[origin: EP2045514A1] Reflective optical lighting system (1;100;200) comprising at least one light source (2) having a first optical axis (A) defining a main direction of radiation of light rays emitted by said source and at least a first and a second reflecting surface (3,4) operationally associated with the light source to intercept said light rays and arranged so as to form between them a first preset angle of a size other than 180°, wherein the first and second reflecting surfaces (3,4) between them delimit a concavity (5) oriented towards the light source and are shaped so that, when in use, said concavity receives a substantial portion of said light rays to reflect them in a direction forming with the first optical axis a second angle of a preset size, so that the reflected rays present a main direction of radiation defined by a second optical axis (B) approximately perpendicular to the first.

IPC 8 full level

F21S 8/10 (2006.01); **F21V 7/00** (2006.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)

F21S 41/148 (2017.12 - EP US); **F21S 41/24** (2017.12 - EP); **F21S 41/336** (2017.12 - EP); **F21S 43/14** (2017.12 - EP); **F21S 43/251** (2017.12 - EP); **F21S 43/30** (2017.12 - EP); **F21S 43/31** (2017.12 - EP); **F21V 7/0025** (2013.01 - EP US); **F21S 41/153** (2017.12 - EP US); **F21S 43/235** (2017.12 - EP); **F21Y 2115/10** (2016.07 - EP US)

Citation (examination)

US 2005088758 A1 20050428 - MINANO JUAN C [ES], et al

Citation (opposition)

Opponent : VALEO VISION

- DE 102004025699 A1 20050105 - ZIZALA LICHTSYSTEME GMBH WIESE [AT]
- US 5396407 A 19950307 - TANIUCHI HITOSHI [JP]
- US 2005088758 A1 20050428 - MINANO JUAN C [ES], et al
- EP 1912018 A1 20080416 - HELLA KGAA HUECK & CO [DE]
- EP 1388707 A2 20040211 - HELLA KG HUECK & CO [DE]

Cited by

DE102011006073A1; IT201600124320A1; CN107076381A; CN105473934A; EP2503225A3; FR3032516A1; EP2863108A3; US11193644B2; US10386032B2; WO2020192858A1; WO2016124664A1; WO2016008897A1; WO2016041675A1; EP2503225A2; US10060593B2; US10473287B2; US11566770B2; EP3044499B1

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

EP 2045514 A1 20090408; EP 2045514 B1 20151209; EP 2045514 B2 20220216

DOCDB simple family (application)

EP 07425625 A 20071005