

Title (en)

Optical means for vehicle - preferably motor vehicle - lamps

Title (de)

Leuchtenoptik für Leuchten von Fahrzeugen, vorzugsweise von Kraftfahrzeugen

Title (fr)

Moyens optiques pour lampes de véhicules, de préférence de véhicules automobiles

Publication

EP 0999406 A3 20010725 (DE)

Application

EP 99119796 A 19991006

Priority

DE 19851374 A 19981107

Abstract (en)

[origin: EP0999406A2] The optical lens (5) has at least one refractive lens element (11) positioned in the light path of a light source, provided with at least one opening (12) for free passage of the light rays. The refractive lens element (11) is provided by a Fresnel lens, with the opening (12) in the lens element positioned at an angle to the main beam direction of the light source, provided by an incandescent bulb or a LED.

IPC 1-7

F21S 8/10; **F21W 101/12**

IPC 8 full level

F21S 8/10 (2006.01); **F21V 5/00** (2006.01)

CPC (source: EP US)

F21S 43/14 (2017.12 - EP US); **F21S 43/26** (2017.12 - EP US)

Citation (search report)

- [X] FR 2508597 A1 19821231 - CIBIE PROJECTEURS [FR]
- [X] US 4214168 A 19800722 - KULKA THOMAS S [US]
- [X] DE 3619592 A1 19871217 - ULLMANN ULO WERK [DE]
- [A] FR 2707223 A1 19950113 - VALEO VISION [FR]
- [X] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 10 31 August 1998 (1998-08-31) & US 6050706 A 20000418 - OHTUKA YASUSHI [JP], et al

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0999406 A2 20000510; **EP 0999406 A3 20010725**; DE 19851374 A1 20000525; DE 19851374 C2 20010621; US 6305830 B1 20011023

DOCDB simple family (application)

EP 99119796 A 19991006; DE 19851374 A 19981107; US 43669499 A 19991108