

Title (en)

LIGHT MODULE COMPRISING AN ARRAY OF LIGHT SOURCES AND A BIFOCAL OPTICAL SYSTEM

Title (de)

LICHTMODUL, DAS EINE MATRIX VON LICHTQUELLEN UND EIN BIFOKALES OPTISCHES SYSTEM UMFASST

Title (fr)

MODULE LUMINEUX COMPORTANT UNE MATRICE DE SOURCES LUMINEUSES ET UN SYSTÈME OPTIQUE BIFOCAL

Publication

**EP 3604904 A1 20200205 (FR)**

Application

**EP 19186425 A 20190716**

Priority

FR 1857186 A 20180731

Abstract (en)

[origin: US2020041093A1] A luminous motor-vehicle module, comprising an array of light sources and a bifocal imaging device that is designed to project an image of each light source, wherein the luminous module comprises at least one primary optical element, which at its exit does not modify in a vertical direction V the angle of the incident rays, and which allows secondary sources to be formed the lateral dimension of which is larger than a lateral dimension of the light sources and the angular aperture of the emitted secondary light beams of which is smaller than an angular aperture of the light beams emitted by the light sources.

Abstract (fr)

L'invention concerne un module lumineux (10) de véhicule automobile, comprenant :- un réseau (12) de sources lumineuses (14) ;- un dispositif (30) bifocal d'imagerie qui est conçu pour projeter une image de chaque source lumineuse (14); caractérisé en ce que le module lumineux (10) comporte au moins un élément optique primaire (40), qui ne modifie pas en sortie selon une direction verticale V l'angle des rayons incidents, et qui permet de former des sources secondaires (62) dont la dimension latérale est plus grande qu'une dimension latérale des sources lumineuses (14) et dont l'ouverture angulaire ( $\beta$ ) des faisceaux secondaires de lumière (18) émis est inférieure à une ouverture angulaire ( $\alpha$ ) des faisceaux de lumière (16) émis par les dites sources lumineuses (14).

IPC 8 full level

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CPC (source: CN EP US)

**F21S 41/143** (2017.12 - CN); **F21S 41/153** (2017.12 - EP US); **F21S 41/20** (2017.12 - CN); **F21S 41/24** (2017.12 - CN US); **F21S 41/255** (2017.12 - EP US); **F21S 41/26** (2017.12 - EP US); **F21S 41/285** (2017.12 - EP US); **F21V 19/001** (2013.01 - CN); **F21S 41/141** (2017.12 - US); **F21W 2107/10** (2017.12 - CN); **F21Y 2115/10** (2016.07 - CN)

Citation (applicant)

- US 2014307459 A1 20141016 - BRENDLE MATTHIAS [DE], et al
- DE 102008013603 A1 20090917 - AUTOMOTIVE LIGHTING REUTLINGEN [DE], et al
- US 2015131305 A1 20150514 - COURCIER MARINE [FR], et al

Citation (search report)

- [A] EP 2840298 A1 20150225 - AUTOMOTIVE LIGHTING REUTLINGEN [DE]
- [A] EP 2789900 A2 20141015 - AUTOMOTIVE LIGHTING REUTLINGEN [DE]
- [A] EP 1965126 A1 20080903 - VALEO VISION [FR]
- [A] US 2007183164 A1 20070809 - NAGANAWA MASAHITO [JP], et al
- [A] EP 2532950 A1 20121212 - KOITO MFG CO LTD [JP]

Cited by

CN115218157A

Designated contracting state (EPC)

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BA ME

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**EP 3604904 A1 20200205**; **EP 3604904 B1 20210310**; CN 110778977 A 20200211; CN 110778977 B 20231103; FR 3084723 A1 20200207; FR 3084723 B1 20200828; US 10731817 B2 20200804; US 2020041093 A1 20200206

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