

Title (en)  
VEHICLE LAMP OPTICAL ELEMENT

Title (de)  
OPTISCHES ELEMENT FÜR FAHRZEUGLAMPEN

Title (fr)  
ÉLÉMENT OPTIQUE DE PHARE DE VÉHICULE

Publication  
**EP 4001743 A4 20220720 (EN)**

Application  
**EP 20878582 A 20201020**

Priority  
• CN 201921809909 U 20191025  
• CN 2020122163 W 20201020

Abstract (en)  
[origin: EP4001743A1] A vehicle lamp optical element. One end of the vehicle lamp optical element is provided with a plurality of light-condensing structures, and the other end is provided with a light exit surface, and the light exit surface is an arc-shaped surface that protrudes outwards. The vehicle lamp optical element has the following advantages: 1, the primary optical element and the secondary optical element of the prior art are integrated into one piece, and the relative position accuracy of the two no longer needs to be ensured during installation, which may better ensure the stability of the light shape of a vehicle lamp while also reducing the size of a vehicle lamp module; 2, a partition slot is provided to achieve secondary light distribution; 3, a pointed slot is provided to replace existing light-shielding plates, so that the structure of the vehicle lamp module is simplified and the overall size is reduced; and 4, a low beam part and a high beam part are provided, and a partition slot is provided on the bottom surface of the high beam part, or a wedge-shaped gap is provided between the two, so that high beam and low beam functions are simultaneously achieved in the integrated vehicle lamp optical element, which diversifies the functions of the vehicle lamp optical element.

IPC 8 full level  
**F21S 41/27** (2018.01); **F21S 41/151** (2018.01)

CPC (source: EP)  
**F21S 41/143** (2018.01); **F21S 41/147** (2018.01); **F21S 41/151** (2018.01); **F21S 41/24** (2018.01); **F21S 41/255** (2018.01); **F21S 41/27** (2018.01); **F21S 41/43** (2018.01); **F21W 2102/13** (2018.01); **F21W 2102/155** (2018.01)

Citation (search report)  
• [X] US 2018087745 A1 20180329 - GROMFELD YVES [FR]  
• [X] CN 109268774 A 20190125 - HUAYU VISION TECH SHANGHAI CO LTD  
• [E] EP 3861243 A1 20210811 - VALEO VISION [FR]  
• See also references of WO 2021078114A1

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 4001743 A1 20220525; EP 4001743 A4 20220720**; CN 210601445 U 20200522; JP 2022547012 A 20221110; WO 2021078114 A1 20210429

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**EP 20878582 A 20201020**; CN 201921809909 U 20191025; CN 2020122163 W 20201020; JP 2022513958 A 20201020