

Title (en)

HEADLAMP OPTICAL ASSEMBLY, ILLUMINATION DEVICE, HEADLAMP, AND VEHICLE

Title (de)

OPTISCHE ANORDNUNG FÜR SCHEINWERFER, BELEUCHTVORRICHTUNG, SCHEINWERFER UND FAHRZEUG

Title (fr)

ENSEMBLE OPTIQUE DE PHARE, DISPOSITIF D'ÉCLAIRAGE, PHARE ET VÉHICULE

Publication

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Application

**EP 21823130 A 20210326**

Priority

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Abstract (en)

[origin: EP4130555A1] A headlamp optical assembly, comprising a light converging element (1) and a lens mount (2). A cavity suitable for accommodating the light converging element (1) is formed on the lens mount (2), engagement structures suitable for engagement with each other are formed in the cavity and on the light converging element (1), and the light converging element (1) is embedded in the cavity by means of the engagement structures. Also disclosed are an illumination device comprising the headlamp optical assembly, a headlamp, and a vehicle comprising the headlamp. According to the headlamp optical assembly, the engagement structures capable of engagement into each other are provided on the light converging element (1) and the lens mount (2), allowing for connection between the light converging element (1) and the lens mount (2), thereby ensuring the mounting accuracy between the two, and improving the optical efficiency.

IPC 8 full level

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Citation (search report)

- [XA] US 2020072428 A1 20200305 - SIMCHAK JEFFREY [US], et al
- [X] CN 210141549 U 20200313 - HASCO VISION TECH SHANGHAI CO LTD
- [X] WO 2017157706 A1 20170921 - LUMILEDS HOLDING BV [NL]
- [X] CN 110173669 A 20190827 - HASCO VISION TECH SHANGHAI CO LTD
- See also references of WO 2021248981A1

Designated contracting state (EPC)

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BA ME

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