

Title (en)

LED headlamp and illumination system with such a headlamp

Title (de)

LED-Scheinwerfer und Beleuchtungssystem mit einem solchen Scheinwerfer

Title (fr)

Phares DEL et système d'éclairage doté de tels phares

Publication

**EP 2264362 B1 20200729 (DE)**

Application

**EP 10182275 A 20070321**

Priority

- EP 07005834 A 20070321
- DE 202006004481 U 20060321

Abstract (en)

[origin: EP1837590A1] The head light has one or more light source, which has one or more light emitting diodes (LEDs), whereby a lens (24) is arranged to one or more LEDs (22), which bundles the light of the LEDs. The centerline of two radiation beam is not parallel, which are emitted by the lens arranged in the LEDs. An independent claim is also included for lighting system.

IPC 8 full level

**F21V 14/02** (2006.01); **F21K 99/00** (2010.01); **F21S 6/00** (2006.01); **F21S 8/08** (2006.01); **F21V 5/04** (2006.01); **F21V 7/00** (2006.01); **F21V 14/04** (2006.01); **F21V 14/06** (2006.01); **F21W 131/10** (2006.01); **F21W 131/103** (2006.01); **F21Y 115/10** (2016.01)

CPC (source: EP US)

**F21S 6/005** (2013.01 - EP); **F21S 8/086** (2013.01 - EP); **F21V 5/04** (2013.01 - EP US); **F21V 7/0008** (2013.01 - EP); **F21V 14/02** (2013.01 - EP US); **F21V 14/04** (2013.01 - EP); **F21V 14/06** (2013.01 - EP); **F21W 2131/10** (2013.01 - EP); **F21W 2131/103** (2013.01 - EP); **F21Y 2115/10** (2016.07 - EP US)

Citation (examination)

- EP 1568935 A1 20050831 - TRUMPF KREUZER MED SYS GMBH [DE]
- US 2005047153 A1 20050303 - RAVIER JEAN-PAUL [FR]

Citation (opposition)

Opponent : Patrick Schöpf

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- US 2005018434 A1 20050127 - GIULIANO RONALD [US]
- US 4712167 A 19871208 - GORDIN MYRON K [US], et al
- DE 20212282 U1 20021010 - AUTOMOTIVE LIGHTING REUTLINGEN [DE]
- DE 19600382 A1 19970717 - KOTOWSKI KONRAD [DE]
- US 2005047153 A1 20050303 - RAVIER JEAN-PAUL [FR]
- EP 1568935 A1 20050831 - TRUMPF KREUZER MED SYS GMBH [DE]
- WO 2006005303 A1 20060119 - TEN FORSCHUNG EV FRAUNHOFER [DE], et al
- US 6430521 B1 20020806 - TODA ATSUSHI [JP]
- WO 0169130 A1 20010920 - MEDINNOVA SF [NO], et al
- US 4811181 A 19890307 - JONES ROBERT D [US]
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- US 2005122737 A1 20050609 - WATANABE SHIGEYUKI [JP], et al
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EP3745020A1; DE102019114526A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**DE 202006004481 U1 20060524**; AT E523733 T1 20110915; EP 1837590 A1 20070926; EP 1837590 B1 20110907; EP 2264362 A1 20101222; EP 2264362 B1 20200729

DOCDB simple family (application)

**DE 202006004481 U 20060321**; AT 07005834 T 20070321; EP 07005834 A 20070321; EP 10182275 A 20070321