

Title (en)

LASER LIGHTING DEVICE FOR VEHICLE HEADLAMPS

Title (de)

LASERBELEUCHTUNGSVORRICHTUNG FÜR FAHRZEUGSCHEINWERFER

Title (fr)

DISPOSITIF D'ÉCLAIRAGE LASER POUR PHARES DE VÉHICULE

Publication

**EP 3332168 B1 20190828 (DE)**

Application

**EP 16750360 A 20160719**

Priority

- AT 507002015 A 20150803
- AT 2016060009 W 20160719

Abstract (en)

[origin: WO2017020054A1] The invention relates to a laser lighting device for vehicles, comprising two or more laser light sources, wherein each laser light source is designed to produce a primary laser light beam, and an optical waveguide associated with each laser light source, wherein each primary laser light beam is coupled into the first end of the optical waveguide and is coupled out of the second end of the optical waveguide as a secondary laser light beam and each secondary laser light beam is directed at a light conversion means in order to produce a specified lighting image on the light conversion means, which lighting image is projected onto the roadway as a light image by means of a projection system associated with the light conversion means, wherein each primary laser light beam has a first intensity profile, each secondary laser light beam has a second intensity profile different from the first intensity profile, and each secondary laser light beam is directed at the light conversion means by means of a microscanner.

IPC 8 full level

**F21S 41/24** (2018.01); **F21S 41/176** (2018.01)

CPC (source: AT EP US)

**F21S 41/16** (2017.12 - EP US); **F21S 41/176** (2017.12 - EP US); **F21S 41/24** (2017.12 - AT EP US); **F21S 41/675** (2017.12 - AT EP US); **F21S 41/141** (2017.12 - AT); **F21Y 2115/30** (2016.07 - US)

Citation (examination)

- WO 2014121314 A1 20140814 - ZIZALA LICHTSYSTEME GMBH [AT]
- WO 2014192338 A1 20141204 - SHARP KK [JP]
- US 2012106189 A1 20120503 - TAKAHASHI KOJI [JP], et al
- WO 2014121315 A1 20140814 - ZIZALA LICHTSYSTEME GMBH [AT]
- EP 2541129 A2 20130102 - SHARP KK [JP]
- US 2013258689 A1 20131003 - TAKAHIRA YOSHIYUKI [JP], et al
- DE 102012205438 A1 20131010 - BAYERISCHE MOTOREN WERKE AG [DE]
- WO 2015111649 A1 20150730 - STANLEY ELECTRIC CO LTD [JP]
- JP 2003172900 A 20030620 - OLYMPUS OPTICAL CO

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

DOCDB simple family (publication)

**WO 2017020054 A1 20170209**; AT 517524 A1 20170215; AT 517524 B1 20171015; CN 107850281 A 20180327; CN 107850281 B 20200529; EP 3332168 A1 20180613; EP 3332168 B1 20190828; JP 2018523897 A 20180823; JP 6506881 B2 20190424; US 10288242 B2 20190514; US 2018224080 A1 20180809

DOCDB simple family (application)

**AT 2016060009 W 20160719**; AT 507002015 A 20150803; CN 201680045612 A 20160719; EP 16750360 A 20160719; JP 2018505672 A 20160719; US 201615749534 A 20160719