

Title (en)

Optical system for stepped lens projector

Title (de)

Optisches System für Stufenlinsenscheinwerfer

Title (fr)

Système optique pour projecteur avec une lentille à échelons

Publication

EP 1241399 B1 20080528 (DE)

Application

EP 02003626 A 20020216

Priority

DE 10113385 A 20010316

Abstract (en)

[origin: JP2002324410A] PROBLEM TO BE SOLVED: To provide an improved optical system for Fresnel lens light, especially for spotlight or floodlight which maintains a uniformity of the light intensity on a lighting region and simultaneously improves the light efficiency. SOLUTION: The optical system for Fresnel lens is composed of an ellipsoidal reflector (1), a light source (2) and at least one Fresnel lens (3). The distance (a) between at least one Fresnel lens (3) and the ellipsoidal reflector (1) is related to the distance (b) between the light source (2) and the ellipsoidal reflector (1), and is determined by a predetermined caliber angle for the propagating light beam of the Fresnel lens light.

IPC 8 full level

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CPC (source: EP US)

F21V 5/045 (2013.01 - EP US); **F21V 7/24** (2018.01 - EP US); **F21V 14/02** (2013.01 - EP US); **F21V 13/04** (2013.01 - EP US); **F21W 2131/406** (2013.01 - EP US)

Citation (examination)

EP 0846913 A1 19980610 - WEIGERT DEDO FILM GMBH [DE]

Cited by

DE10361121A1; US8162503B2; WO2006136378A1; DE202009011500U1; WO2011020920A1; US8931939B2; EP1548358A1; EP1548355B1

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