

Title (en)

ILLUMINATION DEVICE FOR SIMULATING NEON OR SIMILAR LIGHTING USING PHOSPHORESCENT DYE

Title (de)

BELEUCHTUNGSVORRICHTUNG ZUR SIMULATION VON NEON- ODER ÄHNLICHEM LICHT UNTER VERWENDUNG VON PHOSPHORESZIERENDEN FARBSTOFFEN

Title (fr)

DISPOSITIF D'ECLAIRAGE PERMETTANT DE SIMULER UN ECLAIRAGE AU NEON OU SIMILAIRE A L'AIDE D'UN COLORANT PHOSPHORESCENT

Publication

EP 1706665 A4 20070321 (EN)

Application

EP 04815860 A 20041229

Priority

- US 2004043867 W 20041229
- US 53358103 P 20031231

Abstract (en)

[origin: WO2005065356A2] An illumination device simulates neon lighting using a light source for emitting light of a predetermined first hue and a light-transmitting medium having a predetermined density of phosphorescent dye positioned adjacent to the light source. The phosphorescent dye will absorb light emitted by the light source and emit light of a second hue. An observer of the device perceives light that is of a hue that is different from the predetermined first hue. A means for varying the intensity of the light emitted by the light source creates color changing effects in the illumination device. Light-emitting diodes (LEDs) are a suitable light source. A waveguide having both optical waveguide and light scattering properties is used to diffuse the combined light and simulate the uniform appearance of a neon tube. Alternatively, the waveguide itself can be doped with phosphorescent dye to emit light having the perceived hue.

IPC 8 full level

F21K 99/00 (2010.01); **F21S 4/00** (2006.01); **F21V 8/00** (2006.01); **F21V 9/16** (2006.01); **G02B 6/00** (2006.01)

CPC (source: EP US)

F21K 9/00 (2013.01 - EP US); **F21K 9/64** (2016.07 - EP US); **F21S 4/20** (2016.01 - EP); **F21V 9/38** (2018.01 - EP US); **G02B 6/0023** (2013.01 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (search report)

- [XY] WO 02070948 A1 20020912 - WAVELIGHT LASER TECHNOLOGIE AG [DE], et al
- [X] EP 0982924 A2 20000301 - HEWLETT PACKARD CO [US]
- [X] US 2003085642 A1 20030508 - PELKA DAVID G [US], et al
- [Y] US 2002043938 A1 20020418 - LYS IHOR A [US]
- [Y] US 5810463 A 19980922 - KAWAHARA ATSUSHI [JP]
- See references of WO 2005065356A2

Citation (examination)

- US 2560117 A 19510710 - MALLARY ROBERT W
- DE 828629 C 19520121 - ALEXANDER RINGLEB DR

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 MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005065356 A2 20050721; **WO 2005065356 A3 20060105**; CN 1902434 A 20070124; EP 1706665 A2 20061004; EP 1706665 A4 20070321

DOCDB simple family (application)

US 2004043867 W 20041229; CN 200480039579 A 20041229; EP 04815860 A 20041229