

Title (en)  
SPOT LIGHT APPARATUS

Title (de)  
PUNKTLICHTVORRICHTUNG

Title (fr)  
APPAREIL D'ÉCLAIRAGE SPOT

Publication  
**EP 3722654 A1 20201014 (EN)**

Application  
**EP 20168386 A 20200407**

Priority  
CN 201920492279 U 20190412

Abstract (en)  
A spot light apparatus (10) includes a light source plate (895), a driver (894), a control module (888) and a lens module (880). A color module (892) and a white light module (893) are mounted in a central area of the light source plate (895). The lens module (880) has an inner central lens (898), a surrounding lens (896), an outer central lens (881), and a main light output side (897). The inner central lens (898) refracts the mixed light to the main light output side (897). The surrounding lens (896) reflects the mixed light to the main output side (897). The outer central lens (881) mixes sub-lights from the color module (892) and the white light module (893). The inner central lens (898) is aligned with the central part of the light source plate (895) and disposed above the color module (892) and the white light module (893).

IPC 8 full level  
**F21K 9/233** (2016.01); **F21V 5/04** (2006.01); **F21V 23/00** (2015.01); **F21K 9/238** (2016.01); **F21K 9/69** (2016.01); **F21V 5/00** (2018.01); **F21V 7/00** (2006.01); **F21V 23/04** (2006.01); **F21V 29/70** (2015.01); **F21Y 105/12** (2016.01); **F21Y 107/50** (2016.01); **F21Y 113/10** (2016.01); **F21Y 113/13** (2016.01); **F21Y 115/10** (2016.01)

CPC (source: EP US)  
**F21K 9/233** (2016.08 - EP); **F21V 5/045** (2013.01 - EP); **F21V 23/006** (2013.01 - EP US); **F21V 23/009** (2013.01 - EP); **F21K 9/238** (2016.08 - EP); **F21K 9/69** (2016.08 - EP); **F21V 5/004** (2013.01 - EP); **F21V 7/0091** (2013.01 - EP); **F21V 23/0435** (2013.01 - EP); **F21V 29/70** (2015.01 - EP); **F21Y 2105/12** (2016.08 - EP); **F21Y 2107/50** (2016.08 - EP); **F21Y 2113/10** (2016.08 - EP); **F21Y 2113/13** (2016.08 - EP US); **F21Y 2115/10** (2016.08 - EP)

Citation (search report)  
• [XAYI] US 2017254525 A1 20170907 - KLAFTA THOMAS [DE], et al  
• [Y] US 2012274208 A1 20121101 - CHEN BINGZHOU [CN], et al  
• [Y] WO 2012159744 A2 20121129 - NASERI MORTEZA MOBALEGH [DE], et al

Cited by  
EP3943803A1

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3722654 A1 20201014**; **EP 3722654 B1 20211229**; CN 209991427 U 20200124

DOCDB simple family (application)  
**EP 20168386 A 20200407**; CN 201920492279 U 20190412