

Title (en)  
Optical element for elongate LED lamps

Title (de)  
Optisches Element für längliche LED-Leuchten

Title (fr)  
Élément optique pour lampes à DEL oblongs

Publication  
**EP 2226551 A3 20131204 (DE)**

Application  
**EP 10155451 A 20100304**

Priority  
DE 202009002978 U 20090304

Abstract (en)  
[origin: EP2226551A2] The optical element (2) has two longitudinal side reflectors (4) and transverse reflectors (5) arranged between the side reflectors. The distance of the transverse reflectors corresponds to the distance of two neighboring light emitting diodes (3) or light emitting diode cluster. The transverse reflectors are formed in V-shape. An independent claim is also included for a light delivery arrangement.

IPC 8 full level  
**F21S 4/00** (2006.01); **F21V 7/00** (2006.01); **F21V 11/06** (2006.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)  
**F21V 7/0083** (2013.01 - EP US); **F21V 7/005** (2013.01 - EP); **F21V 11/06** (2013.01 - EP); **F21Y 2103/10** (2016.07 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (search report)

- [X1] WO 2008023797 A1 20080228 - FURUKAWA ELECTRIC CO LTD [JP], et al
- [X1] US 2007195535 A1 20070823 - ARTWOHL PAUL J [US], et al
- [X1] CN 101240879 A 20080813 - UNIV SHANGHAI SCIENCE & TECH [CN]
- [XP] EP 2051001 A2 20090422 - LSI INDUSTRIES INC [US]

Cited by  
WO2014153578A1; US9798067B2

Designated contracting state (EPC)  
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 SE SI SK SM TR

Designated extension state (EPC)  
AL BA ME RS

DOCDB simple family (publication)  
**DE 202009002978 U1 20100722**; EP 2226551 A2 20100908; EP 2226551 A3 20131204

DOCDB simple family (application)  
**DE 202009002978 U 20090304**; EP 10155451 A 20100304