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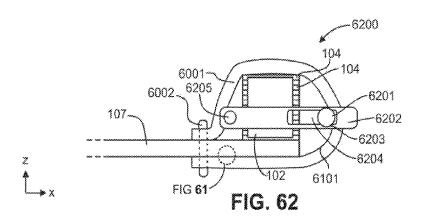
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(71) Applicant (for all designated States except US): FLEX LIGHTING II, LLC [US/US]; 208 South Jefferson Street, Suite 202, Chicago, IL 60661 (US).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): NICHOL, Anthony J. [US/US]; 208 South Jefferson Street, Suite 202, Chicago, IL 60661 (US). COLEMAN, Zane [US/US]; 1342 W. School St., Unit 3, Chicago, IL 60657 (US).
- (74) Agent: KRISCHKE, Eric, T.; Schiff Hardin LLP, 233 S. Wacker Dr., Suite 6600, Chicago, IL 60606 (US).
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[Continued on next page]

#### (54) Title: ILLUMINATION DEVICE COMPRISING A FILM-BASED LIGHTGUIDE



(57) Abstract: A light emitting device includes a film lightguide. The lightguide includes a lightguide region and an array of coupling lightguides continuous with the lightguide region, each terminating in a bounding edge and folded such that the bounding edges define a light input surface. A light source emits light into the light input surface. Light propagates within each coupling lightguide to the lightguide region, with light from each coupling lightguide combining with light from one or more other coupling lightguides and totally internally reflecting within the lightguide region. One or more light extraction features frustrate the totally internally reflected light such that light exits the lightguide in a light emitting region. Surface relief features on a surface of a low contact area cover are adjacent to a region of the lightguide with one or more of the surface relief features contacting the lightguide. A method of producing a device is disclosed.





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#### **Declarations under Rule 4.17**:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- the earlier application (Rule 4.17(iii))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
- as to the applicant's entitlement to claim the priority of (88) Date of publication of the international search report: 12 January 2012

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### INTERNATIONAL SEARCH REPORT

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B. FIELDS SEARCHED  Minimum documentation scarched (classification system followed by classification symbols)  IPC(9): P3V 27V 504, and G09F 1304 (2011.01)  USPC - 362/606, 362/625, 362/634  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  MicroPatant, Google Patents, and ACM  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Citigory*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  Y. US 2007/0031097 A1 (HEIKENFELD et al) 08 February 2007 (08.02.2007) entire document  1-22  Y. US 2004/0228104 A1 (BIRMAN) 18 November 2009 (18.11.2004) entire document  Y. US 2004/0228104 A1 (BIRMAN) 18 November 2004 (18.11.2004) entire document  Y. US 2006/061008 A1 (KARNER et al ) 23 March 2006 (23.03.2006) entire document  Y. US 2006/061008 A1 (KARNER et al ) 23 March 2006 (23.03.2006) entire document  13  Y. US 6,641,880 B1 (DEYAK et al) 04 November 2003 (18.11.2003) entire document  13  Y. US 6,644,226 B2 (WEISS et al) 15 November 2005 (15.11.2005) entire document  13  18-19  Further document published after the international filing date or priority date and not in conflict with the application but cited to understand to be of particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted to seed particular relevance, the claimed invention cannot be repeated accounted accounted to seed par	A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - F21V 7/04 (2011.01) USPC - 362/606							
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  MicroPatent, Google Patente, and ACM  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  US 2007/0031097 A1 (HEIKENFELD et al) 08 February 2007 (08.02.2007) entire document  1-22  VW 2009/048653 A1 (NICHOL) 16 April 2009 (16.04.2009) entire document  1-22  US 2004/0228104 A1 (BIRMAN) 18 November 2004 (18.11.2004) entire document  2-4, and 20-22  VUS 7, 452, 120 B2 (LEE et al) 18 November 2008 (18.11.2004) entire document  3 and 17-20  US 2006/0061008 A1 (KARNER et al) 23 March 2006 (23.03.2006) entire document  4 US 6,641,880 B1 (DEYAK et al) 04 November 2003 (04.11.2003) entire document  3 US 6,964,226 B2 (WEISS et al) 15 November 2005 (15.11.2005) entire document  4 US 6,964,226 B2 (WEISS et al) 15 November 2005 (15.11.2005) entire document  4 US 6,964,226 B2 (WEISS et al) 6 November 2005 (15.11.2005) entire document  4 US 6,964,226 B2 (WEISS et al) 6 November 2005 (15.11.2005) entire document  5 Occument which may throw doubts on priority claim(s) or which is cited to be of particular relevance, the claimed invention cannot be considered to involve an invention cannot be co	Minimum documentation searched (classification system followed by classification symbols) IPC(8) - F21V 5/02, F21V 7/04, and G09F 13/04 (2011.01)							
C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.  Y. US 2007/0031097 A1 (HEIKENFELD et al) 08 February 2007 (08.02.2007) entire document 1.22  Y. WO 2009/048863 A1 (NICHOL) 16 April 2009 (16.04.2009) entire document 1.22  Y. US 2004/0228104 A1 (BIRMAN) 18 November 2004 (18.11.2004) entire document 2.4, and 20-22  Y. US 7.452,120 B2 (LEE et al) 18 November 2008 (18.11.2008) entire document 3 and 17-20  US 2006/0061008 A1 (KARNER et al) 23 March 2006 (23.03.2006) entire document 6 and 15  Y. US 6,641,880 B1 (DEYAK et al) 04 November 2003 (04.11.2003) entire document 13  US 6,984,226 B2 (WEISS et al) 15 November 2005 (15.11.2005) entire document 13  US 6,984,226 B2 (WEISS et al) 15 November 2005 (15.11.2005) entire document 11  We document defining the general state of the art which is not considered to be of particular relevance.  "E" earlier application or patent but published on or after the international filing date or priority date and not in conflict with the application but cited to understand the priority date claimed on the priority date claimed on the priority date claimed invention cannob be considered novel or cannob be considered novel or cannob expecial reason (as specified) on the priority date claimed invention cannob be considered on involve an inventive step when the document is taken alone document referring to an oral disclosure, use, exhibition or other the priority date claimed invention cannob be considered to involve an inventive step when the document is taken alone document published prior to the international filing date but later than the priority date claimed.  Date of the actual completion of the international search 17 NOV 2011  Name and mailing address of the ISA/US Mail Stop PCT. Attr. ISA/US, Commissioner for Patents  Political Patents of the Patents of the Patents Political Patents of the Patents Political Patents Patents Patents Patents Patents Patents Patents Patents Patent	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched							
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