



(51) International Patent Classification:

F21S 8/08 (2006.01) F21Y 101/02 (2006.01)  
E01F 9/016 (2006.01) F21Y 111/00 (2006.01)  
F21V 19/00 (2006.01)

(21) International Application Number:

PCT/US2012/033910

(22) International Filing Date:

17 April 2012 (17.04.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/107,164 13 May 2011 (13.05.2011) US

(71) Applicant (for all designated States except US): LSI INDUSTRIES, INC. [US/US]; 10000 Alliance Road, Cincinnati, Ohio 45242 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KROGMAN, Mark James [US/US]; 1337 Meadow Glen, Southlake, Texas 76092-5846 (US).

(74) Agent: LENO, Matthew; McDermott Will & Emery LLP, 28 State Street, Boston, Massachusetts 02109 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: DUAL ZONE LIGHTING APPARATUS

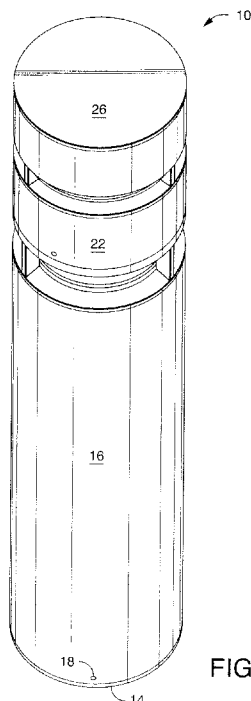


FIG. 1

(57) Abstract: A lighting apparatus comprising a first lighting assembly comprising at least one lower light source configured to cast light over at least a near field and a second lighting assembly comprising at least one upper light source configured to cast light over at least a far field, the second lighting assembly mounted above the first lighting assembly.





**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of 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))*

**(88) Date of publication of the international search report:**  
4 April 2013

**Published:**

- *with international search report (Art. 21(3))*

# INTERNATIONAL SEARCH REPORT

International application No <b>PCT/US2012/033910</b>
--

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> INV. F21S8/08 E01F9/016 F21V19/00 ADD. F21Y101/02 F21Y111/00  According to International Patent Classification (IPC) or to both national classification and IPC
--

<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) <b>F21S E01F</b>
--

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)  <b>EPO-Internal, WPI Data</b>
---

<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>
---

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 855 065 C (WAECHTER & CO) 10 November 1952 (1952-11-10) the whole document  -----	1, 10
X	CN 101 105 277 A (YAPING LI [CN]) 16 January 2008 (2008-01-16) abstract figure 1  -----	1-18
X	EP 1 431 653 A2 (TOSHIJI KISHIMURA [JP]; SHOO IWASAKI [JP]) 23 June 2004 (2004-06-23) paragraph [0001] paragraph [0022] - paragraph [0023] paragraph [0037] figure 6  -----	1-9
----- -/--		

<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.
--	--

* Special categories of cited documents :  "A" 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 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  "&" document member of the same patent family
---	--

Date of the actual completion of the international search  <b>7 February 2013</b>	Date of mailing of the international search report  <b>14/02/2013</b>
---	---

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  <b>Schulz, Andreas</b>
--	--

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2012/033910

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/033910

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 298 07 052 U1 (HESS FORM & LICHT GMBH & CO [DE]) 2 July 1998 (1998-07-02) page 1, line 8 - line 14 page 2, line 7 - line 14 page 8, line 12 - page 9, line 13 figure 1	1,3-8, 10-17
A	----- WO 2005/078336 A1 (SHARP KK [JP]; NAKANISHI SHIGEHIRO [JP]; KIMURA FUMIYA [JP]) 25 August 2005 (2005-08-25) abstract figures 3,4	1-9
X	----- WO 2010/146534 A1 (KONINKL PHILIPS ELECTRONICS NV [NL]; ALBANO CARLO [IT]; SPACCASASSI CL) 23 December 2010 (2010-12-23) page 3, paragraph 3 - page 4, paragraph 1 figure 5	19-23
X	----- US 2011/019401 A1 (CHEN CHIN-CHUNG [TW] ET AL) 27 January 2011 (2011-01-27) paragraph [0002] paragraph [0018] figures 2,3	19-23
X	----- US 2010/157595 A1 (LIN JIAN-SHIAN [TW] ET AL) 24 June 2010 (2010-06-24) paragraph [0001] paragraph [0048] figure 8 -----	19,20

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/033910

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 855065	C	10-11-1952	NONE	
-----				
CN 101105277	A	16-01-2008	NONE	
-----				
EP 1431653	A2	23-06-2004	CN 1508470 A	30-06-2004
			EP 1431653 A2	23-06-2004
			JP 3498290 B1	16-02-2004
			JP 2004200134 A	15-07-2004
			KR 20040054469 A	25-06-2004
			US 6942361 B1	13-09-2005
-----				
DE 29807052	U1	02-07-1998	NONE	
-----				
WO 2005078336	A1	25-08-2005	JP 2005235513 A	02-09-2005
			WO 2005078336 A1	25-08-2005
-----				
WO 2010146534	A1	23-12-2010	CN 102803844 A	28-11-2012
			EP 2443386 A1	25-04-2012
			US 2012155088 A1	21-06-2012
			WO 2010146534 A1	23-12-2010
-----				
US 2011019401	A1	27-01-2011	CN 101963291 A	02-02-2011
			US 2011019401 A1	27-01-2011
-----				
US 2010157595	A1	24-06-2010	JP 5058237 B2	24-10-2012
			JP 2010153800 A	08-07-2010
			KR 20100075375 A	02-07-2010
			TW 201025559 A	01-07-2010
			US 2010157595 A1	24-06-2010
			US 2013005055 A1	03-01-2013
-----				

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-18

A lighting apparatus comprising: a) a first lighting assembly comprising at least one lower light source configured to cast light over at least a near field; and b) a second lighting assembly comprising at least one upper light source configured to cast light over at least a far field, the second lighting assembly mounted above the first lighting assembly.

---

2. claims: 19-23

A light source mount for a lighting assembly, the light source mount comprising: a) a base defining a plane; b) a plurality of tongues extending from the base at an angle to said plane; and c) each tongue configured to receive one or more light sources.

---