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Title: LED SPHERICAL LIGHT FIXTURES WITH ENHANCED HEAT DISSIPATION

Abstract: A deep submersible light fixture (100) includes a substantially spherical exterior housing (110,120) made of metal. The housing (110,120) has a hollow interior and a first aperture extending through a front side of the housing. The first aperture communicates with the hollow interior of the housing. At least one LED is mounted inside the first aperture adjacent to the hollow interior of the housing. A transparent window (112) extends across the first aperture. A seal is situated between a periphery of the window (112) and the housing (110) adjacent the first aperture for providing resistance to the entry of water into the hollow interior of the housing. An electrical connector (130) extends through a second aperture in a rear side of the housing.
— 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))

— with information concerning authorization of rectification of an obvious mistake under Rule 91.3 (b) (Rule 48.2(f))

(88) Date of publication of the international search report: 1 November 2012

(15) Information about Correction:

Previous Correction: see Notice of 9 August 2012
# INTERNATIONAL SEARCH REPORT

**International application No**
PCT/US2011/052213

## A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC.

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

| F21V | F21W | B63B |

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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Further documents are listed in the continuation of Box C. 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 document 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

**Date of the actual completion of the international search**

14 May 2012

**Date of mailing of the international search report**

12/09/2012

Name and mailing address of the ISA/
European Patent Office, P. O. 5619 Patentieren 2
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**INTERNATIONAL SEARCH REPORT**

**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 64(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.:

   1-14

**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

### Information on patent Family members

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Form PCT/ISA/210 (patent family annex) (April 2005)
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14
   submersible light fixture with LED mounted inside a cavity formed by an exterior surface of a metal housing and a rear side of a transparent window

2. claims: 15-21
   light fixture with housing including front and rear partially hemispherical bodies mated together