LED LIGHT FIXTURE WITH PRESS-FIT FIXTURE HOUSING HEAT SINK

Abstract: An LED light fixture having a fixture housing including a socket-receiving cutout section. A socket is held within the socket-receiving cutout section. An LED circuit board is connected to an LED circuit board holder which includes an insertion piece. The insertion piece is inserted into the socket-receiving cutout section and fits over the socket so that the connection pins from the LED circuit board are inserted into the socket. The insertion piece is press-fit into the socket-receiving cutout section and held in place by friction force. A thermally conductive pathway is established between the LEDs on the LED circuit board, the circuit board holder and the fixture housing. Heat generated by the LEDs travels through the circuit board and the fixture housing. In a preferred embodiment a T-slot is cut into the insertion piece making it more bendable and facilitating insertion and removal from the socket-receiving cutout section.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B60Q 1/06, F21V 29/00 (201 2.01 )
USPC - 362/373

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)
USPC: 362/373

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 362/362, 368, 373, 378, 382, 800; 313/1 1, 326 (text search - see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatBase: PubWEST(USPT.PGPB,EPAB,JPAB); Google, PatBase (All)
Search Terms: led, light fixture, socket, pins, heat, thermal, pathway, transfer, tongue, groove, press fit, friction

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.

X Y US 2009/0213595 A1 (ALEXANDER et al.) 27 August 2009 (27.08.2009), entire document especially Figs 1-2; paras [0014], [0034]-[0036], [0046] 1-4, 7-1 1, 14-15

X Y US 3,885,185 A (TILLEY) 20 May 1975 (20.05.1975), entire document especially Figs 1-2; col 2, Ins 45-51 5-6


A A US 2010/0002451 A1 (REYNOLDS) 07 January 2010 (07.01.2010), entire document especially Fig 1; para [0007] 1-16


A A US 201/1/0068687 A1 (TAKAHASI et al) 24 March 201 1 (24.03.201 1), entire document 1-16

Further documents are listed in the continuation of Box C.

Date of the actual completion of the international search
03 November 2012 (03.11.2012)

Date of mailing of the international search report
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