

Exhibit A



(12) **United States Patent**
Maxik et al.

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(45) **Date of Patent:** **Jun. 19, 2012**

(54) **LOW PROFILE LIGHT**

(56) **References Cited**

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(73) Assignee: **Lighting Science Group Corporation**,
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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 98 days.

OTHER PUBLICATIONS
EP International Search Report for Application No. 10174449.8;
Dated Dec. 14, 2010.

(21) Appl. No.: **12/775,310**

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(22) Filed: **May 6, 2010**

Primary Examiner — Ali Alavi
(74) *Attorney, Agent, or Firm* — Cantor Colburn LLP

(65) **Prior Publication Data**
US 2011/0080727 A1 Apr. 7, 2011

(57) **ABSTRACT**

Related U.S. Application Data

(60) Provisional application No. 61/248,665, filed on Oct.
5, 2009.

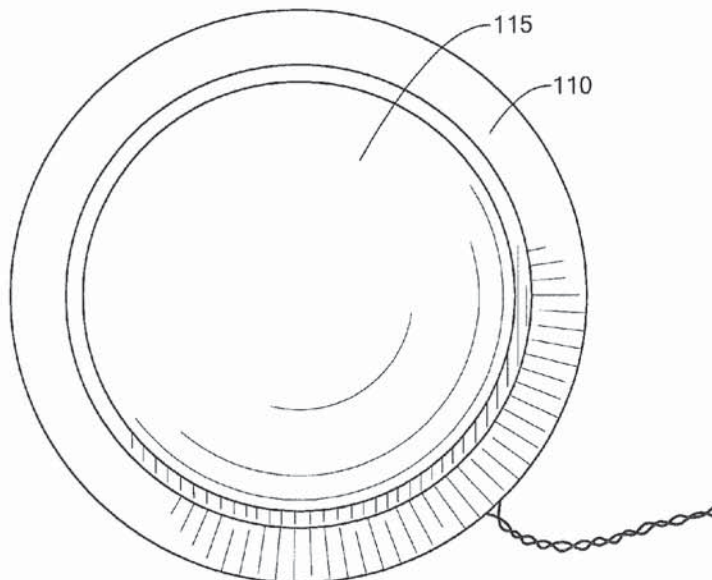
A luminaire includes a heat spreader and a heat sink thermally
coupled to and disposed diametrically outboard of the heat
spreader, an outer optic securely retained relative to at least
one of the heat spreader and the heat sink, and a light source
disposed in thermal communication with the heat spreader,
the light source having a plurality of light emitting diodes
(LEDs). The heat spreader, the heat sink and the outer optic,
in combination, have an overall height H and an overall out-
side dimension D such that the ratio of H/D is equal to or less
than 0.25. The combination defined by the heat spreader, the
heat sink and the outer optic, is so dimensioned as to: cover an
opening defined by a nominally sized four-inch can light
fixture; and, cover an opening defined by a nominally sized
four-inch electrical junction box.

(51) **Int. Cl.**
F21V 1/00 (2006.01)
F21V 29/00 (2006.01)

(52) **U.S. Cl.** **362/235; 362/294; 362/147; 362/373**

(58) **Field of Classification Search** 362/147,
362/148, 149, 150, 404, 294, 373, 547, 365
See application file for complete search history.

23 Claims, 13 Drawing Sheets



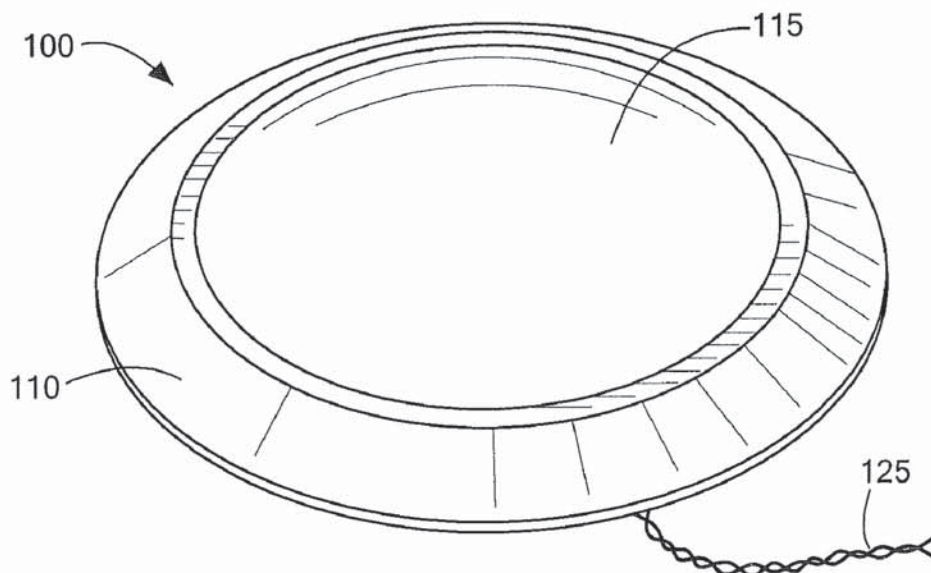


FIG. 1

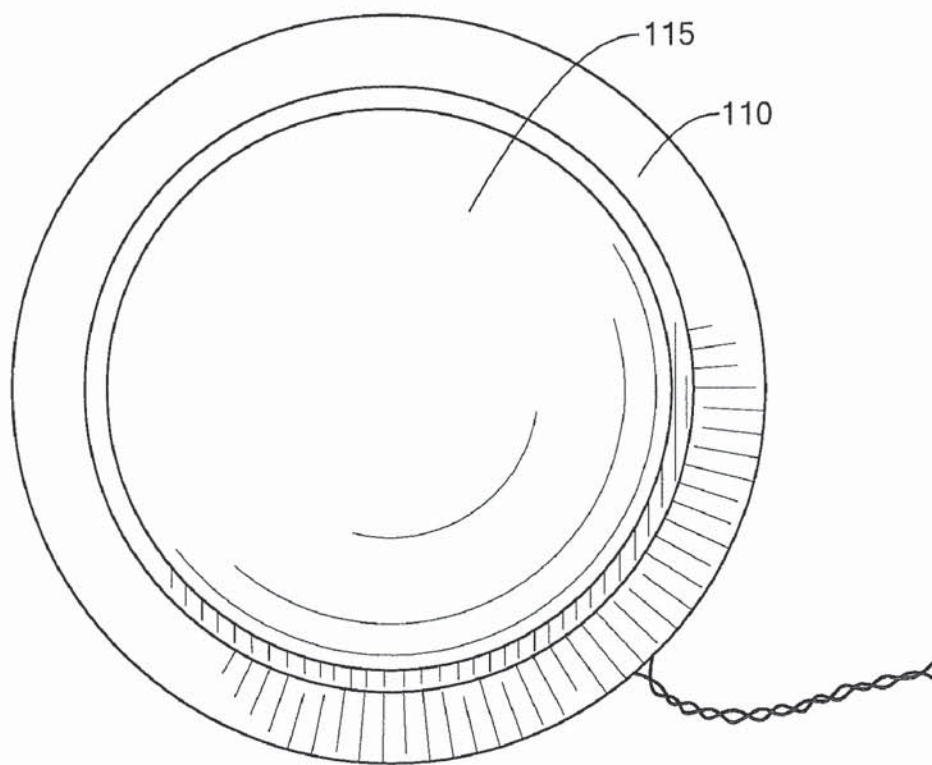


FIG. 2

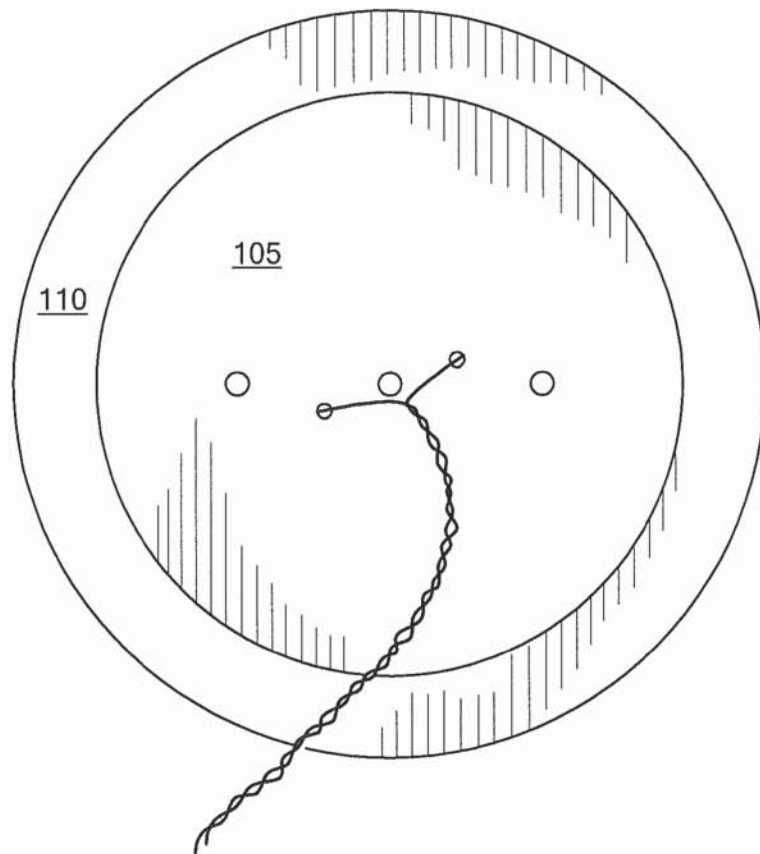


FIG. 3

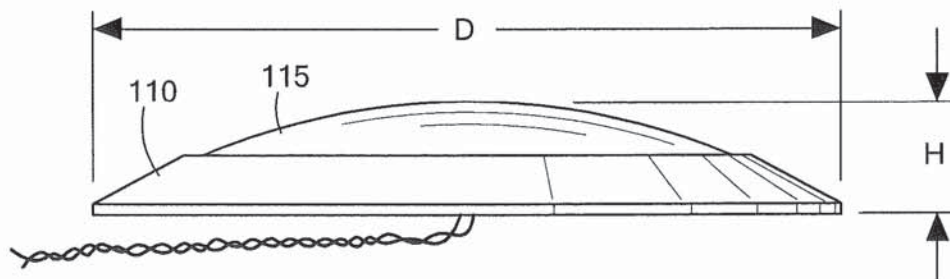


FIG. 4

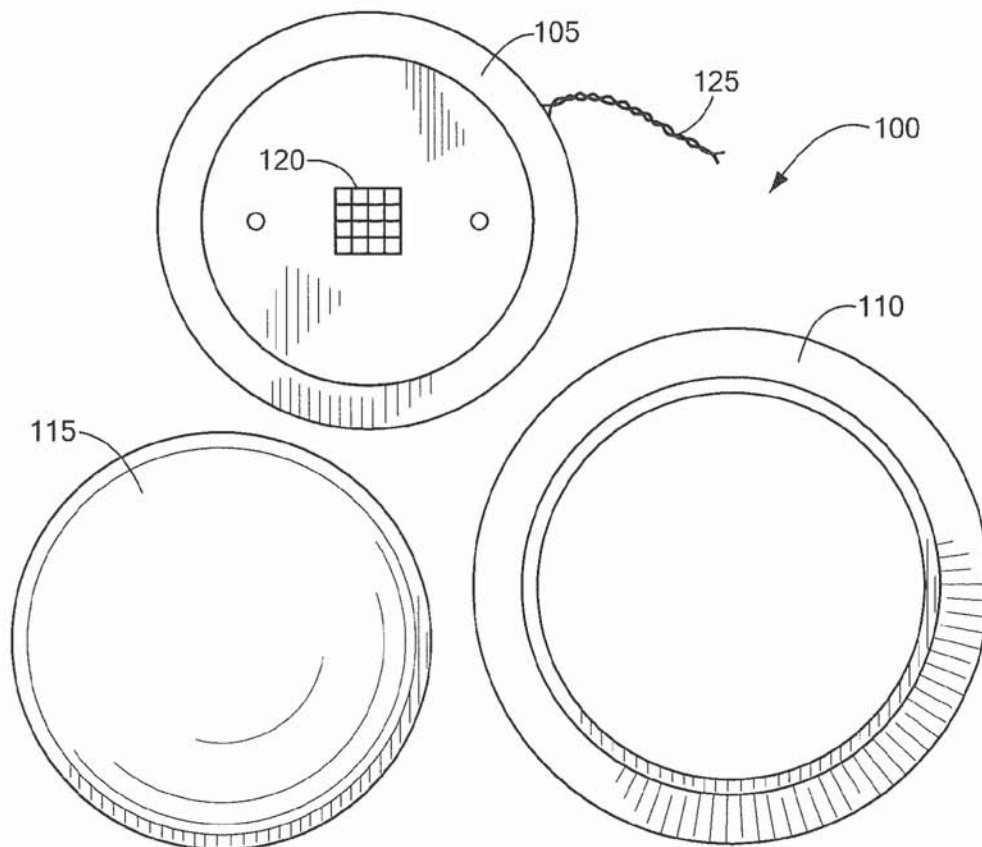


FIG. 5

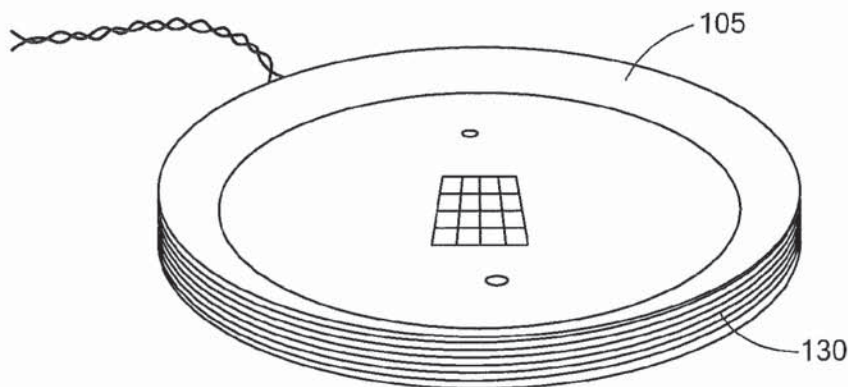


FIG. 6

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