

Exhibit A



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

(10) **Patent No.:** **US 8,201,968 B2**
(45) **Date of Patent:** **Jun. 19, 2012**

- (54) **LOW PROFILE LIGHT**
- (75) Inventors: **Fredric S. Maxik**, Indialantic, FL (US); **Raymond A. Reynolds**, Satellite Beach, FL (US); **Addy S. Widjaja**, Palm Bay, FL (US); **Mark Penley Boomgaarden**, Indian Harbour Beach, FL (US); **Robert Rafael Soler**, Cocoa Beach, FL (US); **James L. Schellack**, Cocoa Beach, FL (US)
- (73) Assignee: **Lighting Science Group Corporation**, Satellite Beach, FL (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 98 days.
- (21) Appl. No.: **12/775,310**
- (22) Filed: **May 6, 2010**
- (65) **Prior Publication Data**
US 2011/0080727 A1 Apr. 7, 2011
- Related U.S. Application Data**
- (60) Provisional application No. 61/248,665, filed on Oct. 5, 2009.
- (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.

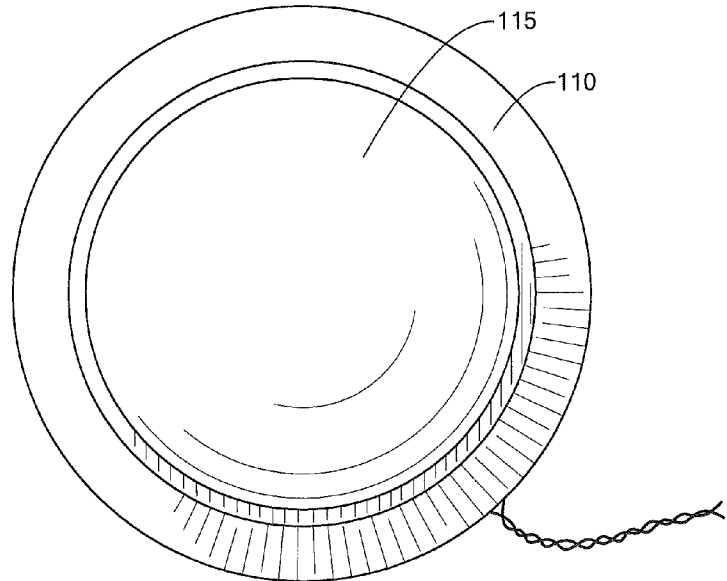
- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- 2009/0086474 A1* 4/2009 Chou 362/230
- 2009/0141506 A1* 6/2009 Lan et al. 362/351
- FOREIGN PATENT DOCUMENTS
- EP 1950491 A1 7/2008
- WO 2008137732 A1 11/2008
- OTHER PUBLICATIONS
- EP International Search Report for Application No. 10174449.8; Dated Dec. 14, 2010.
- * cited by examiner

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

(57) **ABSTRACT**

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 outside 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.

23 Claims, 13 Drawing Sheets



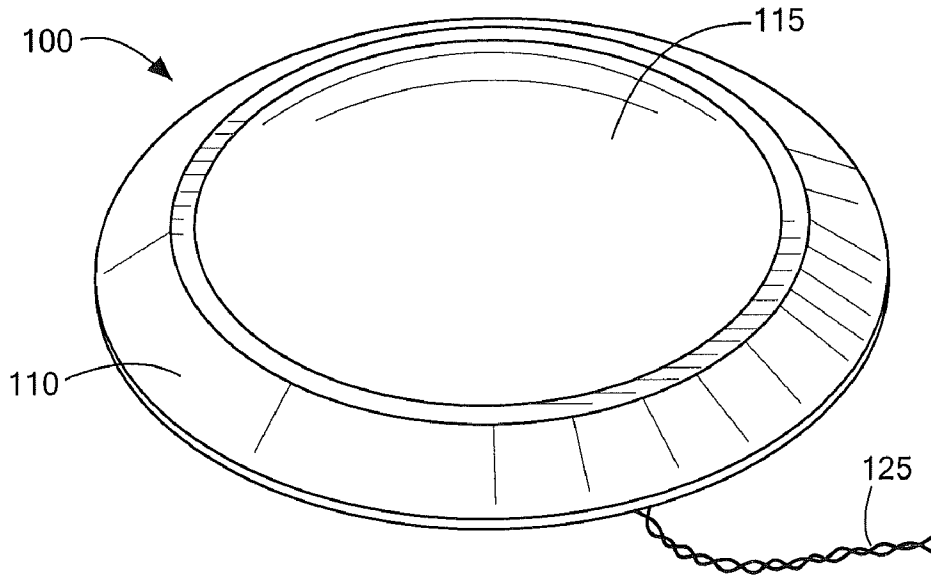


FIG. 1

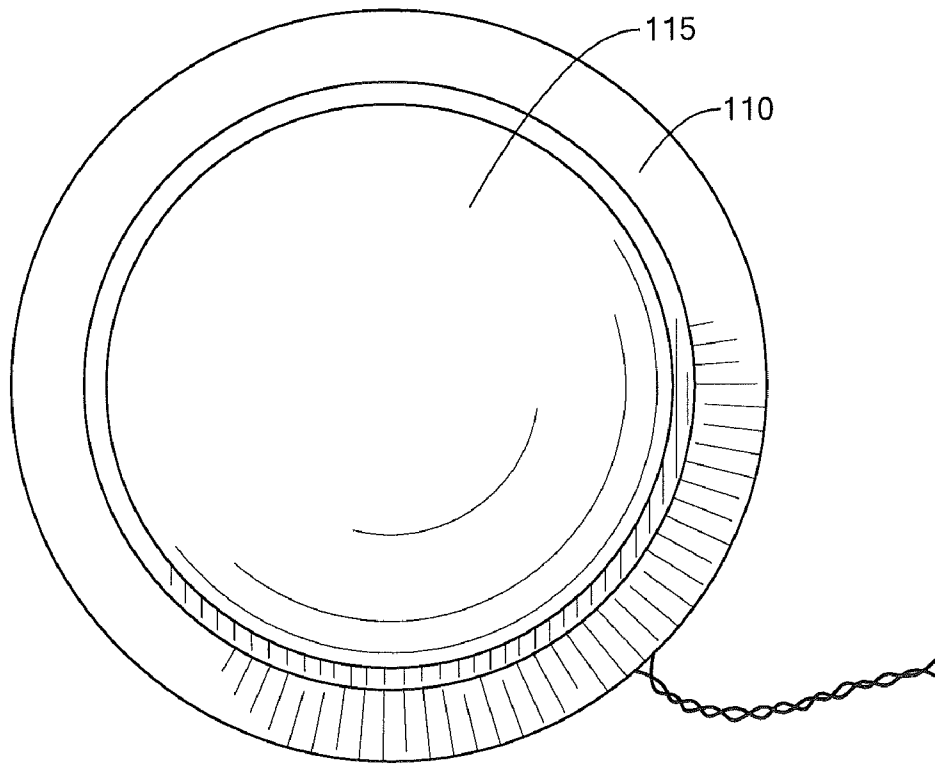


FIG. 2

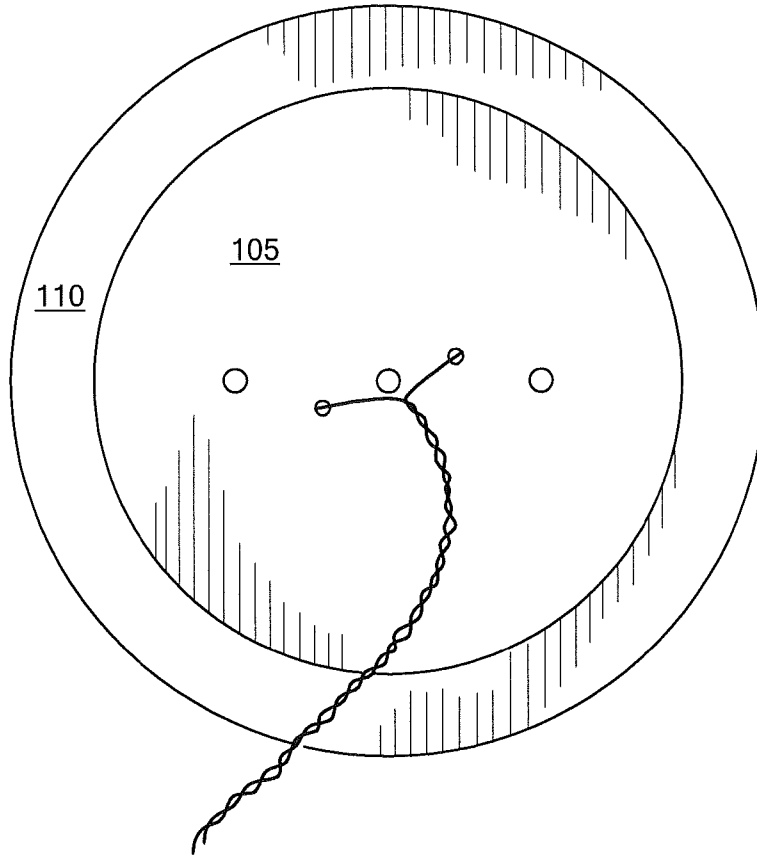


FIG. 3

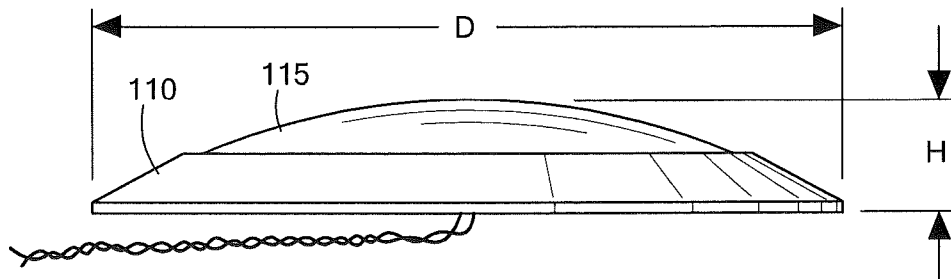


FIG. 4

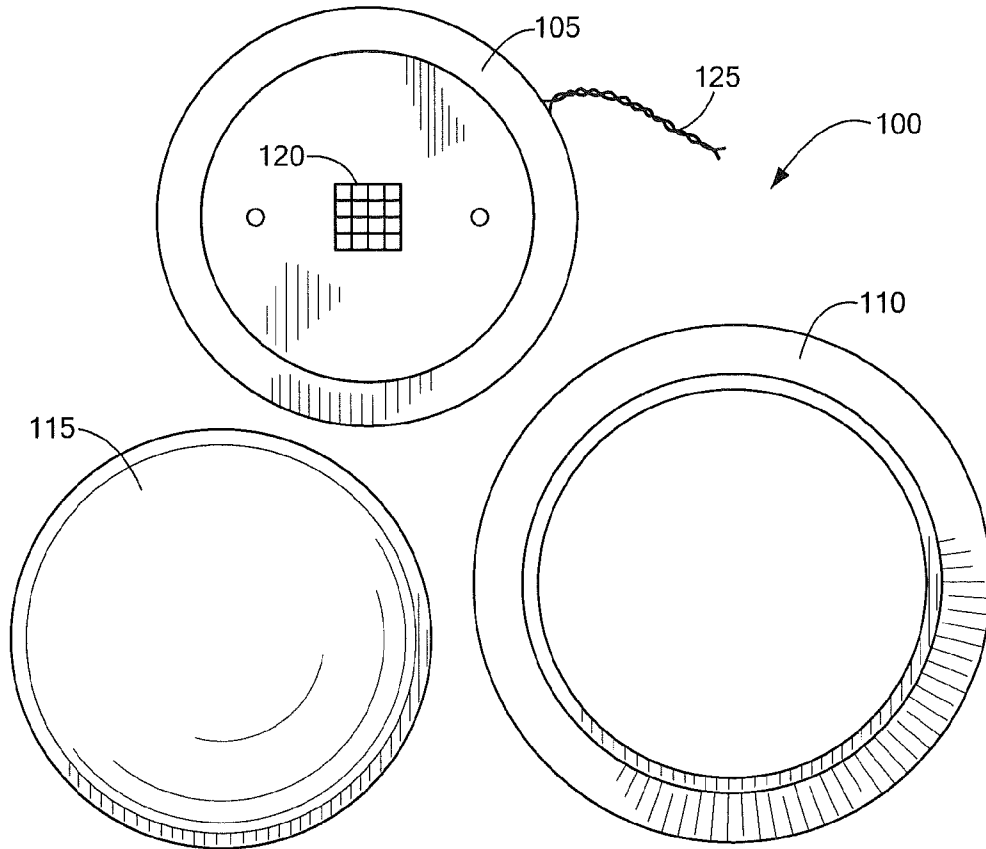


FIG. 5

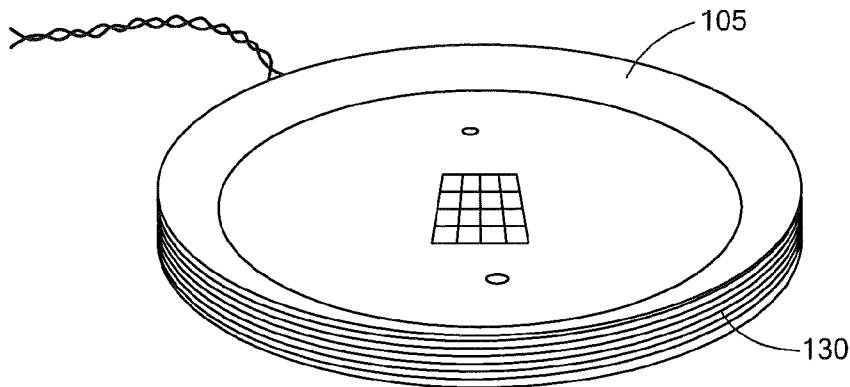


FIG. 6

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.