



US010788181B1

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

(10) **Patent No.:** **US 10,788,181 B1**
(45) **Date of Patent:** **Sep. 29, 2020**

(54) **LED AUTOMOBILE LAMP**

(71) Applicant: **Jiaying Guangtai Lighting Co., Ltd.**,
Jiaying (CN)

(72) Inventors: **Hui Gao**, Jiaying (CN); **Haifeng Wan**,
Jiaying (CN); **Heming Liu**, Jiaying
(CN); **Huihui Guan**, Jiaying (CN);
Kangkang Li, Jiaying (CN); **Cheng
Yang**, Jiaying (CN)

(73) Assignee: **JIAYING GUANGTAI LIGHTING
CO., LTD.**, Jiaying (CN)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **16/735,731**

(22) Filed: **Jan. 7, 2020**

(30) **Foreign Application Priority Data**

Sep. 20, 2019 (CN) 2019 1 0892093

(51) **Int. Cl.**
F21S 41/148 (2018.01)
F21V 29/71 (2015.01)

(52) **U.S. Cl.**
CPC **F21S 41/148** (2018.01); **F21V 29/713**
(2015.01)

(58) **Field of Classification Search**
* CPC F21S 41/148; F21S 29/713
USPC 362/516
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2003/0063476 A1* 4/2003 English F21S 45/48
362/545
2003/0227774 A1* 12/2003 Martin F21S 41/147
362/240

2005/0083686 A1* 4/2005 Yatsuda F21S 41/148
362/230
2009/0080211 A1* 3/2009 Yasuda F21S 45/435
362/547
2009/0097247 A1* 4/2009 Tseng F21S 41/148
362/241
2010/0208480 A1* 8/2010 Matsunaga F21V 29/71
362/509
2011/0280030 A1* 11/2011 Iwasaki F21S 41/336
362/519
2012/0086322 A1* 4/2012 Lan F21V 29/777
313/46
2012/0120652 A1* 5/2012 Bolander, Jr. G02B 19/0023
362/235
2012/0201043 A1* 8/2012 DiPenti F21S 41/39
362/545

(Continued)

Primary Examiner — Bryon T Gyllstrom

(74) Attorney, Agent, or Firm — Bayramoglu Law Offices
LLC

(57) **ABSTRACT**

An LED automobile lamp includes a lens, a heat dissipation shell, a light source pillar, and a rear cover. The heat dissipation shell is mounted with a light-reflecting surface, the light source pillar is mounted at the bottom of the heat dissipation shell, the lens is arranged at the top of the heat dissipation shell, and the rear cover is arranged at the bottom of the light source pillar. A first light source plate and a second light source plate are symmetrically arranged on two sides of the light source pillar. Both the first light source plate and the second light source plate extend into a light-reflecting region surrounded by the light-reflecting surface and the lens. The top of the light source pillar is provided with a light-shielding sheet, and a bottom of the light source pillar is provided with a stepped plane coupling with the heat dissipation shell.

9 Claims, 4 Drawing Sheets

