



深圳北极之光科技有限公司知识产权清单

I类发明专利清单

序号	发明名称	专利类型	法律状态	专利号	公开(公告)日期
1	一种远近光一体灯及车辆	发明授权	授权	ZL202511928041.1	2026-03-27
2	可调节光斑的装置、方法及应用	发明授权	授权	ZL202511308817.X	2025-11-25
3	一种智能终端的运行模式切换方法及其系统	发明授权	授权	ZL202510187636.X	2025-05-30
4	用于机器人的用户行为获取及处理方法、系统及机器人	发明授权	授权	ZL202411441370.9	2025-04-25
5	基于虚拟机器人的工作角色模拟方法、系统及虚拟机器人	发明授权	授权	ZL202411132402.7	2024-11-19
6	一种多功能LED灯珠模组	发明授权	授权	ZL202410387367.7	2024-06-07
7	一种智能调控LED灯珠的方法和装置	发明授权	授权	ZL202311461367.9	2024-03-12
8	一种具有自散热功能的LED灯珠及灯具	发明授权	授权	ZL202311373673.7	2024-01-19
9	一种基于尾灯投影的通信系统、方法及车辆	发明授权	授权	ZL202410920480.7	2025-03-25
10	基于机动车尾灯的智能预警方法、系统及智能尾灯设备	发明授权	授权	ZL202410751892.2	2025-02-14
11	一种LED车灯总成及实现方法	发明授权	授权	ZL202410348734.2	2024-09-27
12	一种节能散热式汽车大灯散热方法	发明授权	授权	ZL202311518201.6	2024-06-07
13	一种多功能LED灯具及打光方法	发明授权	授权	ZL202410404576.8	2024-06-07
14	一种密闭性型防起雾车灯	发明授权	授权	ZL202410027282.8	2024-03-29

序号	发明名称	专利类型	法律状态	专利号	公开(公告)日期
15	一种 LED 车灯控制方法及系统	发明授权	授权	ZL202311527392.2	2024-02-02
16	一种灯具电路	发明授权	授权	ZL202310029868.3	2023-06-27
17	车辆 LED 前照灯以及散热方法	发明授权	授权	ZL202211363250.2	2023-04-07
18	LED 投射灯	发明授权	授权	ZL202211400657.8	2023-03-14

PCT 专利清单

序号	发明名称	专利类型	法律状态	专利号	公开(公告)日期
1	G10	美国发明专利	授权	15/745,116	2017/9/28
2	灯具	美国发明专利	授权	16584526	2019/09/26
3	一种灯具 (LAMP)	美国发明专利	授权	US10883711B1	2019/07/15
4	LAMP (一种灯具)	印度发明	授权	IN202024016963A	2020/04/20
5	一种电子护眼镜结构	美国发明专利	授权	16932865	2020/07/20
6	一种主动净化防护服	美国发明专利	授权	16894926	2020/09/24
7	一种汽车 LED 大灯的散热结构	美国发明专利	授权	17509055	2021/10/24
8	一种汽车 LED 大灯及制作工艺	美国发明专利	授权	17401363	2021/08/13
9	一种环形 LED 植物灯	美国发明专利	授权	17485428	2021/09/26

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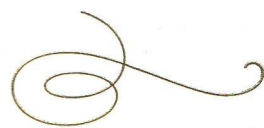
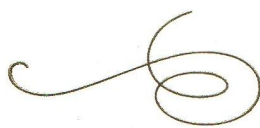
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If this application was filed prior to June 8, 1995, the term of this patent begins on the date on which this patent issues and ends on the later of seventeen years from the date of the grant of this patent or the twenty-year term set forth above for patents resulting from applications filed on or after June 8, 1995, subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b) and any extension as provided by 35 U.S.C. 156 or any disclaimer under 35 U.S.C. 253.

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Patent Certificate

(पेटेंट नियमावली का नियम 74)

(Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No.

493945

आवेदन सं. / Application No.

202024016963

फाइल करने की तारीख / Date of Filing

20/04/2020

पेटेंटी / Patentee

SHENZHEN AURORA TECHNOLOGY CO., LTD.

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकरित LAMP नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अप्रैल 2020 के बीसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled LAMP as disclosed in the above mentioned application for the term of 20 years from the 20th day of April 2020 in accordance with the provisions of the Patents Act, 1970.



[Signature]

Controller of Patents

अनुदान की तारीख : 03/01/2024
Date of Grant :

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, अप्रैल 2022 के बीसवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।
Note. - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 20th day of April 2022 and on the same day in every year thereafter.



US010935230B2

(12) **United States Patent**
Xie

(10) **Patent No.:** **US 10,935,230 B2**
(45) **Date of Patent:** **Mar. 2, 2021**

(54) **LUMINAIRE**

(71) Applicant: **SHENZHEN AURORA TECHNOLOGY CO., LTD**, Shenzhen (CN)

(72) Inventor: **Qingbo Xie**, Shenzhen (CN)

(73) Assignee: **SHENZHEN AURORA TECHNOLOGY CO., LTD**, Shenzhen (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.: **16/584,526**

(22) Filed: **Sep. 26, 2019**

(65) **Prior Publication Data**

US 2020/0072455 A1 Mar. 5, 2020

Related U.S. Application Data

(63) Continuation of application No. PCT/CN2018/123777, filed on Dec. 26, 2018.

(30) **Foreign Application Priority Data**

Sep. 5, 2018 (CN) 201811029428.3

(51) **Int. Cl.**

F21V 31/00 (2006.01)

F21V 29/74 (2015.01)

H05B 33/04 (2006.01)

(52) **U.S. Cl.**

CPC **F21V 31/005** (2013.01); **F21V 29/74** (2015.01); **H05B 33/04** (2013.01)

(58) **Field of Classification Search**

CPC F21V 17/108; F21V 17/14; F21V 7/0083; F21V 31/005; F21V 19/003

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2009/0262542 A1* 10/2009 Li F21V 3/00 362/373
2015/0266408 A1* 9/2015 Leang B60Q 1/2611 362/516

(Continued)

FOREIGN PATENT DOCUMENTS

CN 201651911 U 11/2010
CN 103851601 A 6/2014

(Continued)

OTHER PUBLICATIONS

International Search Report for International Patent Application No. PCT/CN2018/123777, dated Sep. 5, 2018, 4 pages.

Primary Examiner — Eric T Eide

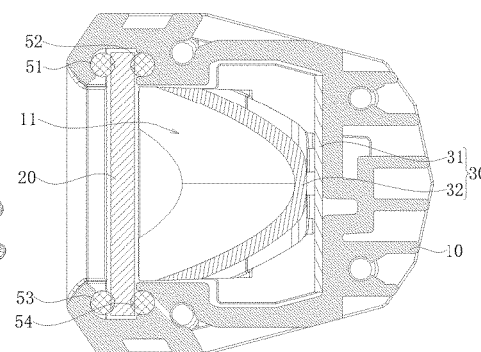
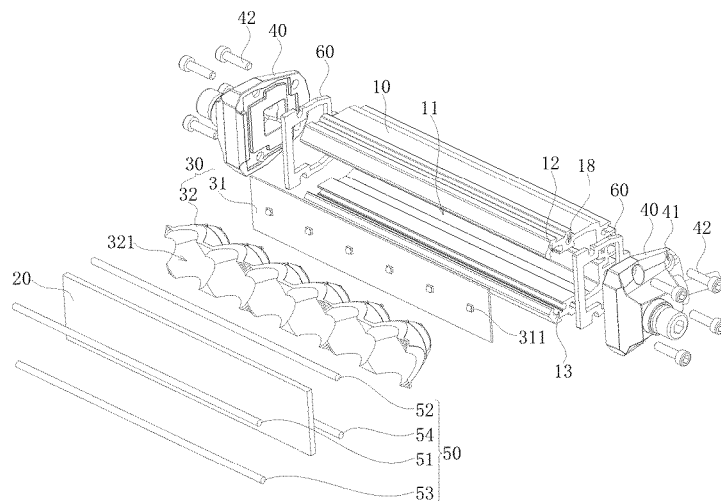
(74) *Attorney, Agent, or Firm* — Jordan IP Law, LLC; Todd A. Vaughn

(57)

ABSTRACT

A luminaire that includes a lamp shell, a sealing strip assembly, a light-transmitting panel, a light source assembly, and a pair of end covers respectively fixed to the lamp shell to restrict the light source assembly, the light-transmitting panel, and the sealing strip assembly from protruding from the lamp shell. The lamp shell includes an installation cavity having an opening formed at a front side, an inner wall of the installation cavity being provided with an upper embedding groove and a lower embedding groove corresponding to each other at a position adjacent to the opening. The light-transmitting panel includes an upper end and a lower end respectively embedded in the upper embedding groove and the lower embedding groove, and which are abutted against an inner wall of the upper embedding groove and an inner wall of the lower embedding groove by the sealing strip assembly.

10 Claims, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2016/0201891 A1* 7/2016 Wandrey F21V 13/04
362/294
2017/0101046 A1* 4/2017 Beiwen F21S 41/143
2018/0058679 A1* 3/2018 Majerczyk F21V 3/00
2019/0323688 A1* 10/2019 Ko F21V 31/00

FOREIGN PATENT DOCUMENTS

CN 204328898 U 5/2015
CN 204372584 U 6/2015
CN 109000178 A 12/2018
KR 101228926 B1 2/2013

* cited by examiner