(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 851 736 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
10.04.2024 Bulletin 2024/15

(21) Application number: **20157993.5**

(22) Date of filing: **18.02.2020**

(51) International Patent Classification (IPC):
F21S 2/00 *(2016.01)* ***F21S 4/28*** *(2016.01)*
F21V 5/00 *(2018.01)* ***F21V 13/04*** *(2006.01)*
F21V 15/015 *(2006.01)* ***F21V 23/06*** *(2006.01)*
F21Y 103/10 *(2016.01)* *F21Y 115/10* *(2016.01)*

(52) Cooperative Patent Classification (CPC):
F21S 4/28; F21S 2/005; F21V 5/007; F21V 13/04; F21V 15/015; F21V 23/06; F21Y 2103/10; F21Y 2115/10

(54) **LAMP CONVENIENT TO INSTALL AND DIVERSE APPLICATION MODULE USING SAME**

EINFACH ZU INSTALLIERENDE LAMPE UND MODUL ZUR VIELFÄLTIGEN ANWENDUNG MIT VERWENDUNG DAVON

LAMPE PRATIQUE À INSTALLER ET MODULE D'APPLICATIONS DIVERSES L'UTILISANT

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: **17.01.2020 CN 202010052397**

(43) Date of publication of application:
21.07.2021 Bulletin 2021/29

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Description

BACKGROUND OF THE INVENTION

1. Technical Field

[0001] The invention relates to the field of application modules, in particular to a lamp that is convenient to install and a diverse application module using the same.

2. Description of Related Art

[0002] ZHAGA, as an association of top LED manufacturers in the world, aims to realize the compatibility and interchangeability of optical engines through standardization and to facilitate the wide application of LED technologies hereby. The ZHAGA standard defines a stable design platform for lamp manufacturers by standardizing interfaces of the optical engines, so that a large quantity of products incompatible with optical engine products on the market are avoided, thus reducing the development cost of light source applications.

[0003] Existing application modules in the market are not in accordance with the ZHAGA standards and have non-unified sizes, which result in a severe waste of raw materials and size inconsistency in the field of application modules. Besides, the lack of standardization causes non-uniform lighting effects of lamps, and consequentially, the consumers of the application modules are greatly troubled. CN109058845A discloses a shelf lamp capable of reducing a UGR value, the shelf lamp comprises a radiator, a connecting seat is arranged in the middle of the radiator, a light source mounting groove is formed in the lower end of the connecting seat, an LED lamp belt is mounted in the light source mounting groove, a lens is further fixedly connected to the lower portion of the connecting seat, a light collecting groove is formed in the position, under the LED lamp belt, of the lens, a turn up for positioning a grating cover is arranged at the lower end of the radiator, the grating cover is further connected to the lower end of the lens, a storing groove for storing a grating plate of the grating cover is formed in the lower side of the lens, the two ends of the radiator are connected with plugs through screws, according to the shelf lamp capable of reducing the UGR value. CN201262345Y discloses a wall-washing lamp, a lamp body thereof comprises two side plates, a transverse plate and an integrated strip heat conducting section; and the transverse plate used for supporting an aluminum substrate of an LED bulb and the lamp body are integrated. US2016/053973A1 discloses a lighting system including an extrusion, a lighted strip, a control board, and a connector, the extrusion comprises a pair of side walls coupled by a connecting member, where the connecting member forms a first shelf for a lighted strip and a pair of flanges projecting from the side walls form a second shelf for a control board, the connector comprises a shell with an outer surface which is adapted to be coupled with the extrusion, and a pin which can be adapted to receive a wire adjacent a first end of the connector, the pin also including a curved contact plate which can be adapted to receive the lighted strip adjacent a second end of the connector. US2012/081899A1 discloses a method of designing a modular lighting system comprising determining a length of a lighting fixture, then selecting a plurality of LED modules from a selection of standardized sizes, and assembling the modules together with a fixture, so that the modules and the fixture combine to form the determined length, the selecting is done from a group comprising either a 10 inch, a 12 inch or a 4 inch LED module, the determining is in response to a building metric, also disclosed is a luminaire comprising a hub having a predetermined length; with LED modules, each having a different length, where the lengths of the hub and the modules combined form a standard length as generally used in the building and construction trades, by way of example, these standard lengths could be 12, 16 or 24 inches.

BRIEF SUMMARY OF THE INVENTION

[0004] The patent of invention aims to solve the following technical problems: the non-standardized sizes of application modules in the existing market cannot meet the European ZHAGA standards and lead to inconsistency of application modules of existing lamps, waste of raw materials and non-uniform lighting effects.

[0005] The technical solution of the invention to settle the above-mentioned technical problem is as follows:
A diverse application module, comprising: plugs, a profile, an anti-glare assembly, and a lamp that is convenient to install and consists of a lamp panel and a plurality of integrated LED lamps fixed to the lamp panel, wherein a distance between centers of every two adjacent said integrated LED lamps range from 24.5mm to 25.5mm to make the plurality of integrated LED lamps adaptively installed on the lamp panel, wherein the anti-glare assembly is installed on a front side of the lamp panel, the profile is installed on a back side of the lamp panel, and the plugs are installed at two ends of the lamp panel, the profile, and the anti-glare assembly to fix the profile, the anti-glare assembly, and the lamp panel; characterized in that the anti-glare assembly is formed by a plurality of independent anti-glare parts connected into a whole, and each anti-glare part is one cup; the number of the integrated LED lamps equals to the cup number of the anti-glare assembly, wherein each of the cup of the anti-glare assembly includes an anti-glare shade and a reflector, the anti-glare shade includes an installation part allowing the reflector to be detachably installed thereon, and the lamp panel and the installation part are detachably installed to make sure that the each of the centers of the integrated LED lamps corresponds to center of corresponding reflector, respectively.

[0006] Particularly, the distance between the centers of every two integrated LED lamps is set as 24.5mm, 25mm, or 25.5mm to meet the European ZHAGA stand-

ards.

[0007] Particularly, the number of the integrated LED lamps is 22, 46, 58, 70, or 94.

[0008] Particularly, the lamp panel is thin and rectangular on the whole, and the integrated LED lamps are uniformly distributed in the length direction of the lamp panel.

[0009] Particularly, the lamp panel is provided with a circuit to supply a current to the integrated LED lamps fixed to the lamp panel by means of tin soldering or bonding.

[0010] Each plug includes a plug body and a conductive elastic sheet, wherein the plug body includes a connection protrusion and a first lug boss and is formed with grooves to make the two ends of the anti-glare assembly fixed to the two ends of the lamp panel.

[0011] Particularly, the grooves are located at the two ends of the anti-glare assembly and the two ends of the profile, and the anti-glare assembly is clamped in the grooves, so that a combination of the grooves, the anti-glare assembly, and the profile meets the ZHAGA standards.

[0012] Furthermore, the length of the combination of the grooves, the anti-glare assembly, and the profile meets the ZHAGA standard, and the number of the integrated LED lamps and the cup number of the anti-glare assembly meet the ZHAGA standard.

[0013] Particularly, the height from the first lug boss to the bottom face of the plug ranges from 25.8mm to 26.2mm, the width of the plug ranges from 36.8mm to 37.2mm, and the conductive elastic sheet is installed in one groove and is electrically connected to the lamp panel.

[0014] Particularly, the height from the first lug boss to the bottom face of the plug is defined as the height of the diverse application module, and the width of the plug is defined as the width of the diverse application module.

[0015] Particularly, an electrical connector is arranged at each end of the lamp panel and is electrically connected to the conductive elastic sheet.

[0016] The profile is connected to the anti-glare assembly to fix the lamp panel and is provided with a cross beam to bear the weights of the lamp panel and the anti-glare assembly.

[0017] Particularly, the profile is rectangular on the whole and allows the back side of the lamp panel to be clamped therein.

[0018] Particularly, one or two reinforcing rods are arranged in the profile.

[0019] Particularly, the two ends of the profile are clamped and fixed to the plugs through screws, buckles, or hooks.

[0020] Particularly, the reflector includes a reflection cup and a lens or is a combination of the reflection cup and the lens.

[0021] Particularly, the reflector is integrally designed to be integrally installed on the anti-glare shade.

[0022] Particularly, the anti-glare assembly performs optical processing on light emitted from LED lamps in the integrated LED lamps to make a UGR of the light less than 19.

[0023] The diverse application module has a length ranging from 562mm to 566mm, from 1162mm to 1166mm, from 1462mm to 1466mm, from 1762mm to 1766mm, or from 2362mm to 2366mm according to the ZHAGA standards.

[0024] Furthermore, the overall length of a product is set to range from 562mm to 566mm, from 1162mm to 1166mm, from 1462mm to 1466mm, from 1762mm to 1766mm, or from 2362mm to 2366mm to respectively meet the length requirements of a 0.6m module, a 1.2m module, a 1.5m module, a 1.8m module, and a 2.4m module in the European ZHAGA standard.

[0025] The invention has the following beneficial effects: the sizes of lamps and application modules on the existing market are standardized to meet the European ZHAGA standards and to unify the sizes of profiles and lamp panels on the existing market, and material waste of the lamps and the application modules using the same is reduced.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0026]

Fig. 1 is a schematic diagram of a 0.6m module, a 1.2m module, a 1.5m module, a 1.8m module, and a 2.4m module in an embodiment;

Fig. 2 is a structural view of a lamp panel having two ends supplied with power in an embodiment;

Fig. 3 is a structural view of an integrated LED lamp in an embodiment;

Fig. 4 is a structural view of a plug in an embodiment;

Fig. 5 is an assembly diagram of the plug, the lamp panel, and a profile in an embodiment;

Fig. 6 is a structural view of the profile in an embodiment;

Fig. 7 is a schematic diagram of an anti-glare assembly in an embodiment;

Fig. 8 is an assembly diagram of the anti-glare assembly, the profile, plugs, and grooves in an embodiment;

Fig. 9 is an assembly diagram of the anti-glare assembly, the profile, and the plugs in an embodiment;

Fig. 10 is a sectional assembly diagram of the anti-glare assembly, the profile, and the lamp panel in an embodiment;

Fig. 11 is an assembly diagram of the profile and the plug in an embodiment;

Fig. 12 is a schematic diagram of an anti-glare assembly having adjacent integrated LED lamps spaced by a distance of 24.5mm in the 0.6m module in an embodiment;

Fig. 13 is a schematic diagram of a diverse application module having adjacent integrated LED lamps

spaced by a distance of 24.5mm in the 0.6mr module in an embodiment;

Fig. 14 is a schematic diagram of the anti-glare assembly having adjacent integrated LED lamps spaced by a distance of 25mm in the 0.6m module in an embodiment;

Fig. 15 is a schematic diagram of the diverse application module having adjacent integrated LED lamps adjacently spaced by a distance of 25mm in the 0.6m module in an embodiment;

Fig. 16 is a schematic diagram of the anti-glare assembly having adjacent integrated LED lamps spaced by a distance of 25.5mm in the 0.6m module in an embodiment;

Fig. 17 is a schematic diagram of the diverse application module having adjacent integrated LED lamps spaced by a distance of 25.5mm in the 0.6m module in an embodiment;

Fig. 18 is an exploded view of a lamp convenient to install and the diverse application module using the same.

DETAILED DESCRIPTION OF THE INVENTION

[0027] For a better understanding of the objectives, technical solutions, and advantages of the invention, the invention is further expounded below with reference to the accompanying drawings and embodiments. It should be understood that the specific embodiments in the following description are only used to explain the invention, and are not intended to limit the invention.

[0028] It should be noted that the directional or positional relations indicated by terms such as "center", "upper", "lower", "left", "right", "vertical", "horizontal", "internal", and "external" are based on directional or positional relations shown in the accompanying drawings, these terms are only used to facilitate and simplify the description of the invention, and do not indicate or imply that devices or elements referred to must have specific directions or must be formed and operated in specific directions, and these terms should not to be understood as limitations of the invention.

[0029] Furthermore, unless otherwise clearly specified or defined, terms such as "mounting", "connected" and "connection" in the description of the invention ought to be broadly interpreted. For instance, "connection" may refer to fixed connection, detachable connection, integral connection, mechanical connection, electrical connection, direct connection, indirect connection via a medium, internal communication of two elements, wireless connection, or wired connection. Those ordinarily skilled in the art can comprehend the specific meanings of the above terms in the invention as the case may be.

[0030] Besides, the technical features involved in the following embodiments of the invention can be combined without conflicting with each other.

[0031] The solution adopted by the invention to fulfill the above objective is as follows:

[0032] Fig. 1 and Fig. 2 show a lamp convenient to install and a diverse application module using the same. The diverse application module comprises plugs 1, a profile 2, an anti-glare assembly, and a lamp panel 27, wherein the anti-glare assembly is installed on the front side of the lamp panel 27, the profile 2 is installed on the back side of the lamp panel 27, and the plugs 1 are installed at two ends of the lamp panel, the profile 2, and the anti-glare assembly to fix the profile 2, the anti-glare assembly, and the lamp panel.

[0033] Wherein, there are five diverse application modules which are respectively a 0.6m module, a 1.2m module, a 1.5m module, a 1.8m module, and a 2.4m module.

[0034] Wherein, the lamp comprises the lamp panel 27 and a plurality of integrated LED lamps 3 fixed to the lamp panel 27, wherein each integrated LED lamp 3 is formed by four LED lamps 30, and the distance between centers of every two adjacent integrated LED lamps 3 is designed as 24.5mm, 24.8mm, 25mm, 25.2mm, 25.5mm, or the like to meet the European ZHAGA standard.

[0035] The distance between every two adjacent anti-glare shades 23 and the distance between every two adjacent reflectors are designed as 24.5mm, 24.8mm, 25mm, 25.2mm, 25.5mm, or the like.

[0036] Wherein, the number of the integrated LED lamps 3 and the cup number of cups of the anti-glare assembly are respectively set as 22, 46, 58, 70, and 94 according to the 0.6m module, the 1.2m module, the 1.5m module, the 1.8m module, and the 2.4m module.

[0037] Wherein, the height from a first lug boss 8 to the bottom face of one plug 1 is defined as the height of the diverse application module, and the width of the plug 1 is defined as the width of the diverse application module.

[0038] Wherein, the height of the diverse application module is 25.8mm, 25.9mm, 26mm, 26.1mm, 26.2mm, or the like.

[0039] Wherein, the width of the diverse application module is 36.8mm, 36.9mm, 37mm, 37.1mm, 37.2mm, or the like.

[0040] The diverse application module is, by length, the 0.6m module, the 1.2m module, the 1.5m module, the 1.8m module, or the 2.4m module as specified by the ZHAGA standard.

[0041] Wherein, the length of the 0.6m module is 562mm, 563mm, 563.5mm, 564mm, 565mm, 565.5mm, 566mm, or the like.

[0042] Wherein, the length of the 1.2m module is 1162mm, 1163mm, 1163.5mm, 1164mm, 1165mm, 1165.5mm, 1166mm, or the like.

[0043] Wherein, the length of the 1.5m module is 1462mm, 1463mm, 1463.5mm, 1464mm, 1465mm, 1465.5mm, 1466mm, or the like.

[0044] Wherein, the length of the 1.8m module is 1762mm, 1763mm, 1763.5mm, 1764mm, 1765mm, 1765.5mm, 1766mm, or the like.

[0045] Wherein, the length of the 2.4m module is

2362mm, 2363mm, 2363.5mm, 2364mm, 2365mm, 2365.5mm, 2366mm, or the like.

[0046] Wherein, in an embodiment of the invention, the diverse application module has two ends supplied with power.

[0047] Wherein, in an embodiment of the invention, each reflector is formed by a reflection cup 24 and a lens 25.

[0048] Wherein, the glare rating of light processed by the anti-glare assembly is 19, 18, 17, 16, 13, 10, 9, 4, or the like.

[0049] Wherein, in an embodiment of the invention, electrical connectors are SMD terminals 4.

[0050] Wherein, in an embodiment of the invention, two ends of the profile 2 are fixedly connected to the plugs through bolts 28.

Embodiment 1

[0051] A lamp convenient to install and a diverse application module using the same are provided in this embodiment. The diverse application module comprises plugs 1, a profile 2, an anti-glare shade 23, reflection cups 24, lenses 25, and a lamp panel 27, wherein the anti-glare shade 23, the reflection cups 24, and the lenses 25 are installed on the front side of the lamp panel 27 and have two ends clamped in grooves 12 in the plugs 1; the profile 2 is installed on the back side of the lamp panel 27 and has two ends clamped with the plugs 1; and two ends of the lamp panel 27 are inserted into the plugs 1 installed at the two ends of the lamp panel 27, the profile 2, the anti-glare shade 23, the reflection cups 24, and the lenses 25 to fix the profile 2, the anti-glare shade 23, the reflection cups 24, the lenses 25, and the lamp panel 27.

[0052] As shown in Fig. 2, Fig. 3 , and Fig. 18 , a plurality of integrated LED lamps 3 are fixed to the lamp panel 27 by means of tin soldering and are linearly arrayed all over the lamp panel 27 which supplies power to the integrated LED lamps 3 through a printed circuit located on the lamp panel 27, each integrated LED lamp 3 includes four square LED lamps 30, and the two ends of the lamp panel 27 are narrowed to form connection ends respectively provided with a SMD terminal 4.

[0053] As shown in Fig. 4, Fig. 5 , Fig. 8 , and Fig. 18 , the plugs 1 are blocky on the whole. Each plug 1 includes a plug body 6 and conductive elastic sheets 5, wherein the conductive elastic sheets 5 penetrate through the plug body 6 to be connected to an electrical protrusion 7, the grooves 12 are formed in the side faces of the plug body 6, have the two ends of the anti-glare shade 23, the reflection cups 24, the lenses 25, and the lamp panel 27 fixed therein, and are located in the two ends of the anti-glare shade 23 and the two ends of the profile 2, the anti-glare shade 23 is clamped in the grooves 12, and the profile 2 abuts against the plug 1 to make the grooves 12 combined with the anti-glare shade 23 and the profile 2 to form an overall length; the number of the integrated LED lamps and the cup number of the anti-glare shade 23, the reflection cups 24, and the lenses 25 meet the ZHAGA standard; each conductive elastic sheet 5 includes an upper insertion part 9 and a lower elastic sheet 13, wherein the insertion part 9 is typically electrically connected to a power supply and is provided with a limit buckle 11 for fixing the conductive elastic sheet 5 in the plug body 6; and the conductive elastic sheets 5 are electrically connected and clamped with SMD terminals 4 on the lamp panel 27.

[0054] As shown in Fig. 5 , Fig. 9 , and Fig. 10 , the profile 2 includes side walls 14, a first cross beam 16, and a second cross beam 15, wherein first projections 15 and second projections 17 are horizontally symmetrically distributed on the side walls 14, and the first projections 15 are clamped with the anti-glare shade 23 to position and fix the anti-glare shade 23; the first cross beam 16 includes a support platform 18 having a width consistent with the width of the lamp panel 27, and a first protrusion point 19 and a second protrusion point 20 are arranged at two ends of the support platform 18 to jointly support the lamp panel 27; and two reinforcing rods 21 are arranged between the second cross beam 15 and the first cross beam 16 to reinforce the profile 2. Each plug 1 is formed with two bolt holes 29, the profile is formed with two ear holes 22, and bolts 28 penetrate through the bolt holes 29 and the ear holes 22 to fix the profile 2 and the plugs 1 together.

[0055] As shown in Fig. 7, Fig. 9, Fig. 10, and Fig. 11, the anti-glare assembly includes the anti-glare shade 23, the reflection cups 24, and the lenses 25, wherein the lenses 25 are installed on the reflection cups 24 which are installed on an installation part of the anti-glare shade 23, and the reflection cups 24 and the lenses 25 are respectively integrally designed. The reflection cups 24 are connected to form a single-row integral strip, and the lenses 25 are connected to form a single-row integral strip; and the reflection cups 24 and the lenses 25 are both clamped on the strip-shaped anti-glare shade 23. The anti-glare shade 23, the reflection cups 24, and the lenses 25 refract and reflect light emitted from the LED lamps 30, so that the UGR of the light is 18.

[0056] The anti-glare shade 23 has the two ends clamped in the grooves 12 in the plugs 1, and is clamped by means of the first projections 15 and the second projections 7 on the profile 2.

[0057] As shown in Fig. 12 and Fig. 13, the distance between centers of every two adjacent integrated LED lamps is 24.5mm, the application module has a length of 564mm, a width of 37mm, and a height of 26mm, and the number of the integrated LED lamps 3 is 22.

Embodiment 2

[0058] On this basis of Embodiment 1, only the size of the diverse application module is changed as follows in this embodiment: as shown in Fig. 14 and Fig. 15, the distance between the centers of every two adjacent in-

tegrated LED lamps 3 is 25mm, the application module has a length of 564mm, a width of 37mm, and a height of 26mm, and the number of the integrated LED lamps 3 is 22.

Embodiment 3

[0059] On this basis of Embodiment 2, only the size of the diverse application module is changed as follows in this embodiment: as shown in Fig. 16 and Fig. 17, the distance between the centers of every two adjacent integrated LED lamps 3 is 25.5mm, the application module has a length of 564mm, a width of 37mm, and a height of 26mm, and the number of the integrated LED lamps 3 is 22.

[0060] In Embodiment 1, Embodiment 2, and Embodiment 3, the influence of changes to the distance between the integrated LED lamps 3 on the technical effect of a 0.6m module is the same as that of the changes to the distance between the integrated LED lamps 3 on the technical effect of a 1.2m module, a 1.5m module, a 1.8m module, and a 2.4m module. Thus, specific embodiments of the 1.2m module, the 1.5m module, the 1.8m module, and the 2.4m module are no longer illustrated.

[0061] It is believed that the present embodiments and their advantages will be understood from the foregoing description, and it will be apparent that various changes may be made thereto without departing from the scope of the disclosure or sacrificing all of its material advantages, the examples hereinbefore described merely being embodiments of the present disclosure.

Claims

1. A diverse application module, comprising:

plugs (1),
a profile (2),
an anti-glare assembly, and
a lamp that is convenient to install and consists of a lamp panel (27) and a plurality of integrated LED lamps (3) fixed to the lamp panel (27), wherein a distance between centers of every two adjacent said integrated LED lamps (3) range from 24.5mm to 25.5mm to make the plurality of integrated LED lamps (3) adaptively installed on the lamp panel (27),
wherein the anti-glare assembly is installed on a front side of the lamp panel (27), the profile (2) is installed on a back side of the lamp panel (27), and the plugs (1) are installed at two ends of the lamp panel (27), the profile (2), and the anti-glare assembly to fix the profile (2), the anti-glare assembly, and the lamp panel (27); **characterized in that**
the anti-glare assembly is formed by a plurality of independent anti-glare parts connected into a whole, and each anti-glare part is one cup; the number of the integrated LED lamps (3) equals to the cup number of the anti-glare assembly, wherein each of the cup of the anti-glare assembly includes an anti-glare shade (23) and a reflector, the anti-glare shade (23) includes an installation part allowing the reflector to be detachably installed thereon, and the lamp panel (27) and the installation part are detachably installed to make sure that the each of the centers of the integrated LED lamps (3) corresponds to center of corresponding reflector, respectively.

2. The diverse application module according to Claim 1, wherein each reflector includes a reflection cup and a lens or is a combination of the reflection cup (24) and the lens (25).

3. The diverse application module according to Claim 1, wherein the distance between the centers of every two adjacent said integrated LED lamps (3) is 24.5mm, 25mm, or 25.5mm.

4. The diverse application module according to Claim 1, wherein grooves (12) are formed in plug bodies (6), and the two ends of the anti-glare assembly are fixedly connected to the two ends of the lamp panel (27) through the grooves (12).

5. The diverse application module according to Claim 4, wherein each said plug (1) includes one said plug body (6) and a conductive elastic sheet (5), wherein the plug body (6) includes a connection protrusion (7) and a first lug boss (8), a height from the first lug boss (8) to a bottom face of the plug (1) ranges from 25.8mm to 26.2mm, a width of the plug (1) ranges from 36.8mm to 37.2mm, and the conductive elastic sheet (5) is installed in one said groove (12) and is electrically connected to the lamp panel (27).

6. The diverse application module according to Claim 4, wherein an electrical connector is arranged on the lamp panel (27) and is electrically connected to a conductive elastic sheet (5).

7. The diverse application module according to Claim 1, wherein the profile (2) is connected to the anti-glare assembly to fix the lamp panel (27) and is provided with a first cross beam (15) to bear weights of the lamp panel (27) and the anti-glare assembly.

8. The diverse application module according to Claim 1, wherein the reflector is integrally designed to be integrally installed on the anti-glare shade (23).

9. The diverse application module according to Claim 1, wherein the diverse application module has a length ranging from 562mm to 566mm, from

1162mm to 1166mm, from 1462mm to 1466mm, from 1762mm to 1766mm, or from 2362mm to 2366mm.

Patentansprüche

1. Mehrfach-Applikationsmodul, aufweisend:

Stecker (1),
ein Profil (2),
eine Blendschutzanordnung, und
eine Lampe, die einfach zu installieren ist und aus einem Lampenfeld (27) und mehreren an dem Lampenfeld (27) fixierten integrierten LED-Lampen (3) besteht, wobei ein Abstand zwischen Mitten von jeden zwei benachbarten der integrierten LED-Lampen (3) im Bereich von 24,5 mm bis 25,5 mm liegt, um die mehreren integrierten LED-Lampen (3) adaptiv an dem Lampenfeld (27) installiert zu machen,
wobei die Blendschutzanordnung an einer Vorderseite des Lampenfelds (27) installiert ist, das Profil (2) an einer Rückseite des Lampenfelds (27) installiert ist, und die Stecker (1) an zwei Enden des Lampenfelds (27), des Profils (2) und der Blendschutzanordnung installiert sind, um das Profil (2), die Blendschutzanordnung und das Lampenfeld (27) zu fixieren, **dadurch gekennzeichnet, dass**
die Blendschutzanordnung durch mehrere unabhängige Blendschutzteile ausgebildet ist, die zu einem Ganzen verbunden sind, und jedes Blendschutzteil ein Trichter ist; die Anzahl der integrierten LED-Lampen (3) gleich der Anzahl Trichter der Blendschutzanordnung ist, wobei jeder der Trichter der Blendschutzanordnung einen Blendschutzschirm (23) und einen Reflektor aufweist, der Blendschutzschirm (23) ein Installationsteil aufweist, an welchem der Reflektor lösbar installierbar ist, und das Lampenfeld (27) und das Installationsteil lösbar installiert sind, um zu gewährleisten, dass jede der Mitten der integrierten LED-Lampen (3) einer jeweiligen Mitte eines entsprechenden Reflektors entspricht.

2. Mehrfach-Applikationsmodul nach Anspruch 1, wobei jeder Reflektor einen Reflexionstrichter und eine Linse aufweist oder eine Kombination des Reflexionstrichters (24) und der Linse (25) ist.

3. Mehrfach-Applikationsmodul nach Anspruch 1, wobei der Abstand zwischen den Mitten jeder zwei benachbarten der integrierten LED-Lampen (3) 24,5 mm, 25 mm oder 25,5 mm beträgt.

4. Mehrfach-Applikationsmodul nach Anspruch 1, wobei in Steckerkörpern (6) Rillen (12) ausgebildet sind, und die beiden Enden der Blendschutzanordnung über die Rillen (12) fest mit den beiden Enden des Lampenfelds (27) verbunden sind.

5. Mehrfach-Applikationsmodul nach Anspruch 4, wobei der jeweilige Stecker (1) einen der Steckerkörper (6) und ein leitfähiges elastisches Blatt (5) aufweist, wobei der Steckerkörper (6) einen Verbindungsvorsprung (7) und eine erste Ausbuchtung (8) aufweist, eine Höhe von der ersten Ausbuchtung (8) bis zu einer Bodenfläche des Steckers (1) im Bereich von 25,8 mm bis 26,2 mm liegt, eine Breite des Steckers (1) im Bereich von 36,8 mm bis 37,2 mm liegt und das leitfähige elastische Blatt (5) in einer der Rillen (12) installiert ist und elektrisch mit dem Lampenfeld (27) verbunden ist.

6. Mehrfach-Applikationsmodul nach Anspruch 4, wobei ein elektrischer Verbinder an dem Lampenfeld (27) angebracht ist und elektrisch mit einem leitfähigen elastischen Blatt (5) verbunden ist.

7. Mehrfach-Applikationsmodul nach Anspruch 1, wobei das Profil (2) mit der Blendschutzanordnung verbunden ist, um das Lampenfeld (27) zu fixieren, und mit einer ersten Querstrebe (15) versehen ist, welche das Gewicht des Lampenfelds (27) und das Gewicht der Blendschutzanordnung trägt.

8. Mehrfach-Applikationsmodul nach Anspruch 1, wobei der Reflektor einstückig gestaltet ist, um einstückig an dem Blendschutzschirm (23) installiert zu werden.

9. Mehrfach-Applikationsmodul nach Anspruch 1, wobei das Mehrfach-Applikationsmodul eine Länge im Bereich von 562 mm bis 566 mm, von 1162 mm bis 1166 mm, von 1462 mm bis 1466 mm, von 1762 mm bis 1766 mm oder von 2362 mm bis 2366 mm aufweist.

Revendications

1. Module à applications diverses, comprenant :

des fiches (1),
un profilé (2),
un assemblage anti-éblouissement, et
une lampe qui est pratique à installer et consistant d'un panneau à lampes (27) et d'une pluralité de lampes à DEL intégrées (3) fixées au panneau à lampes (27), une distance entre des centres de chaque paire des dites lampes à DEL intégrées (3) adjacentes étant comprise entre 24,5 mm et 25,5 mm pour faire en sorte que la pluralité de lampes à DEL intégrées (3) soient

installées de manière adaptative sur le panneau à lampes (27),

l'assemblage anti-éblouissement étant installé sur une face avant du panneau à lampes (27), le profilé (2) étant installé sur un côté arrière du panneau à lampes (27) et les fiches (1) étant installées sur deux extrémités du panneau à lampes (27), du profilé (2) de l'assemblage anti-éblouissement afin de fixer le profilé (2), l'assemblage anti-éblouissement et le panneau à lampes (27), **caractérisé en ce que**

l'assemblage anti-éblouissement est formé par une pluralité de parties anti-éblouissement indépendantes connectées en un ensemble, et chaque partie anti-éblouissement est une coupelle ; le nombre de lampes à DEL intégrées (3) est égal au nombre de coupelles de l'assemblage anti-éblouissement, chacune des coupelles de l'assemblage anti-éblouissement incluant un store anti-éblouissement (23) et un réflecteur, le store anti-éblouissement (23) incluant une partie d'installation permettant au réflecteur d'être installé dessus de manière détachable, et le panneau à lampes (27) et la partie d'installation étant installés de manière détachable afin d'assurer que le chacun des centres des lampes à DEL intégrées (3) correspond au centre du réflecteur correspondant, respectivement.

2. Module à applications diverses selon la revendication 1, dans lequel chaque réflecteur inclut une coupelle de réflexion et une lentille ou est une combinaison de la coupelle de réflexion (24) et de la lentille (25).

3. Module à applications diverses selon la revendication 1, dans lequel la distance entre les centres de chaque paire des dites lampes à DEL intégrées (3) adjacentes est de 24,5 mm, 25 mm, ou 25,5 mm.

4. Module à applications diverses selon la revendication 1, dans lequel des rainures (12) sont formées dans des corps de fiche (6), et les deux extrémités de l'assemblage anti-éblouissement sont connectées de manière fixe aux deux extrémités du panneau à lampes (27) par le biais des rainures (12).

5. Module à applications diverses selon la revendication 4, dans lequel chaque dite fiche (1) inclut un dit corps de fiche (6) et une feuille élastique conductrice (5), le corps de fiche (6) incluant une saillie de connexion (7) et un premier bossage (8), une hauteur du premier bossage (8) à une face inférieure de la fiche (1) étant comprise entre 25,8 mm et 26,2 mm, une largeur de la fiche (1) étant comprise entre 36,8 mm et 37,2 mm, et la feuille élastique conductrice (5) étant installée dans une dite rainure (12) et étant connectée électriquement au panneau à lampes (27).

6. Module à applications diverses selon la revendication 4, dans lequel un connecteur électrique est disposé sur le panneau à lampes (27) et est connecté électriquement à la feuille élastique conductrice (5).

7. Module à applications diverses selon la revendication 1, dans lequel le profilé (2) est connecté à l'assemblage anti-éblouissement pour fixer le panneau à lampes (27) et est équipé d'une première traverse (15) pour soutenir des poids du panneau à lampes (27) et l'assemblage anti-éblouissement

8. Module à applications diverses selon la revendication 1, dans lequel le réflecteur est conçu pour être installé intégralement sur le store anti-éblouissement (23).

9. Module à applications diverses selon la revendication 1, dans lequel le module à applications diverses a une longueur comprise entre 562 mm et 566 mm, entre 1162 mm et 1166 mm, entre 1462 mm et 1466 mm, entre 1762 mm et 1766 mm, ou entre 2362 mm et 2366 mm.

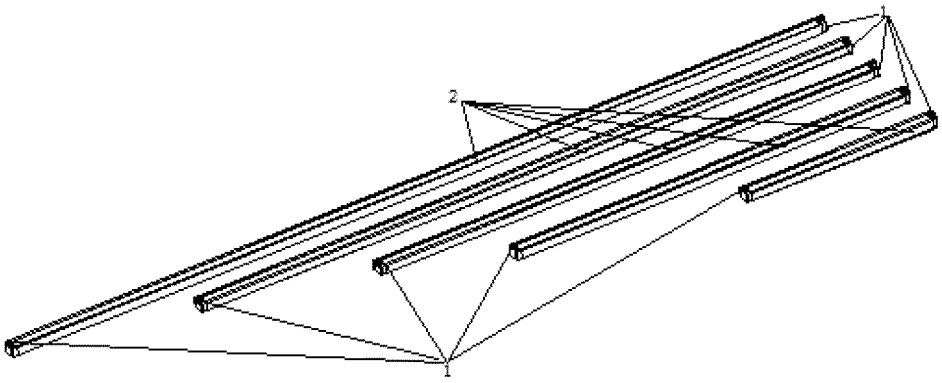


Fig.1

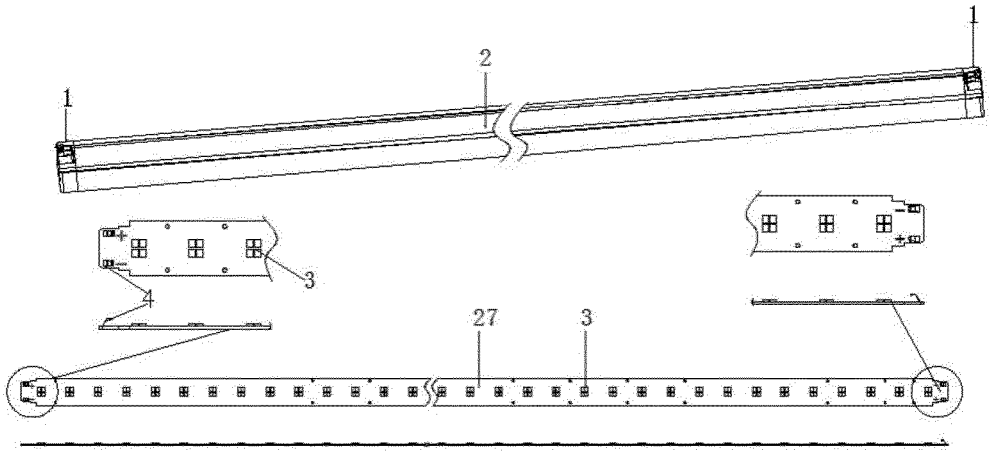


Fig.2

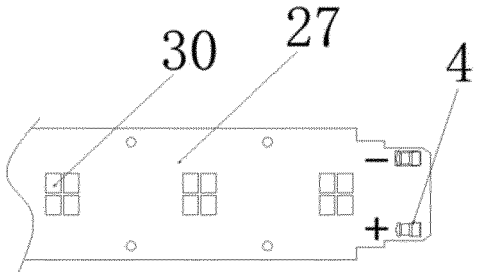


Fig.3

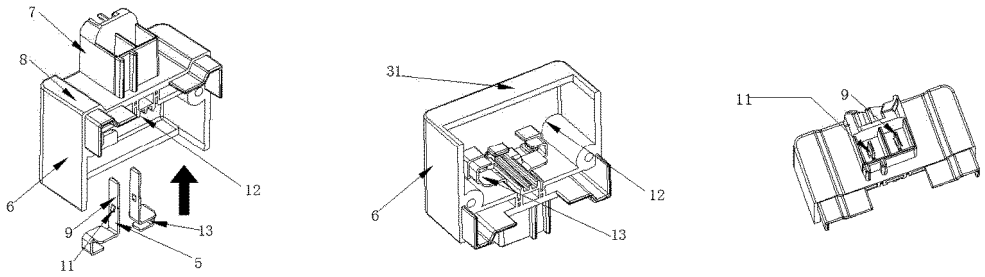


Fig.4

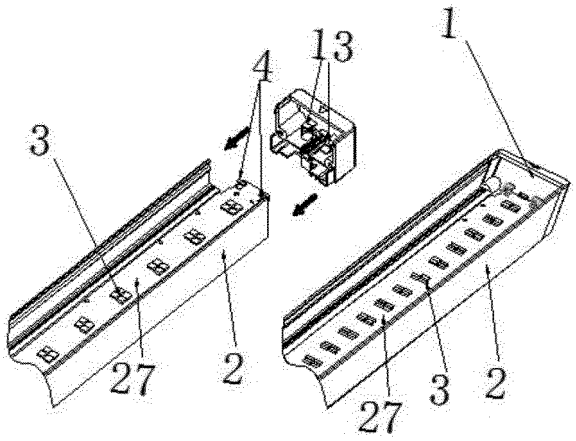


Fig.5

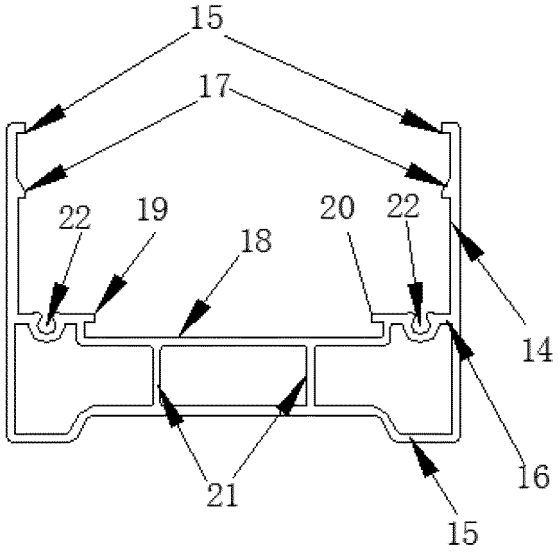


Fig.6

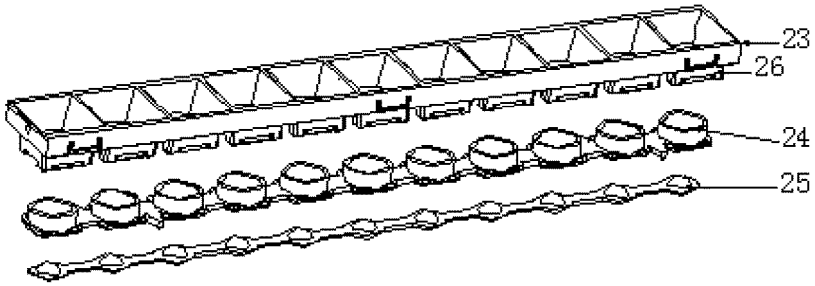


Fig.7

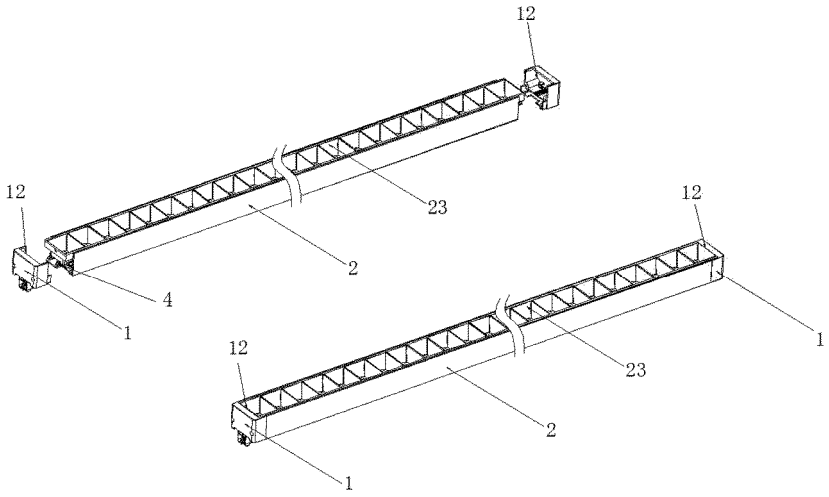


Fig.8

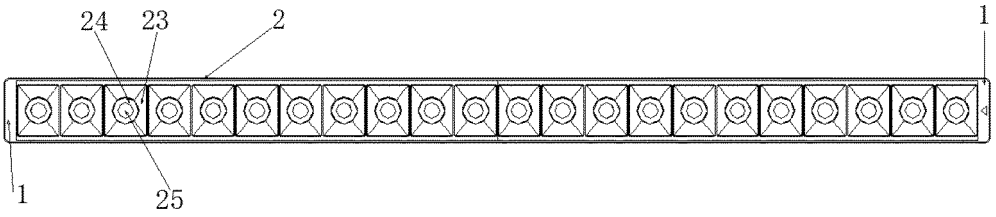


Fig.9

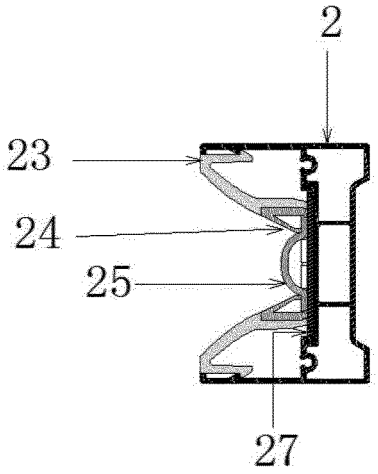


Fig.10

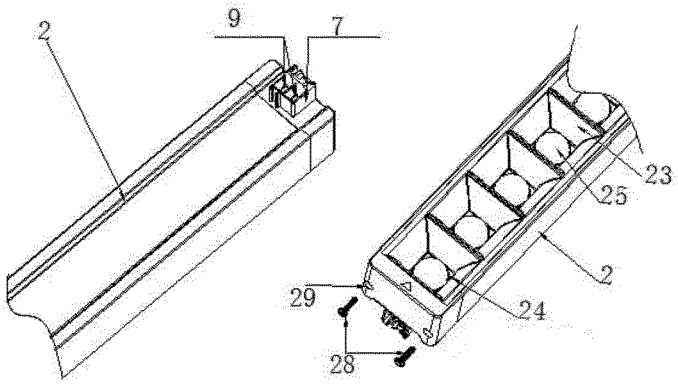


Fig.11

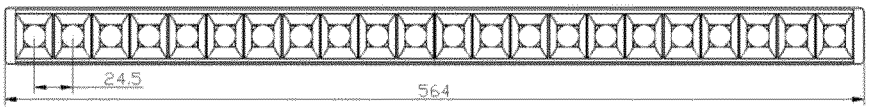


Fig.12

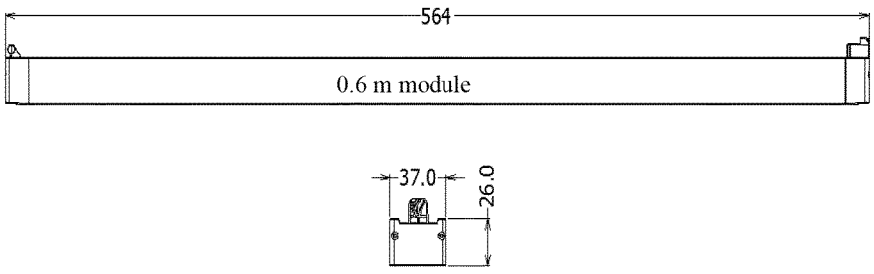


Fig.13

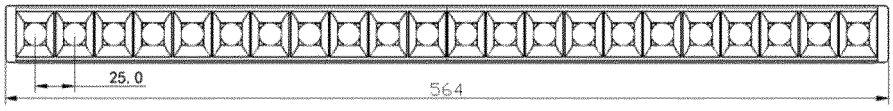


Fig.14

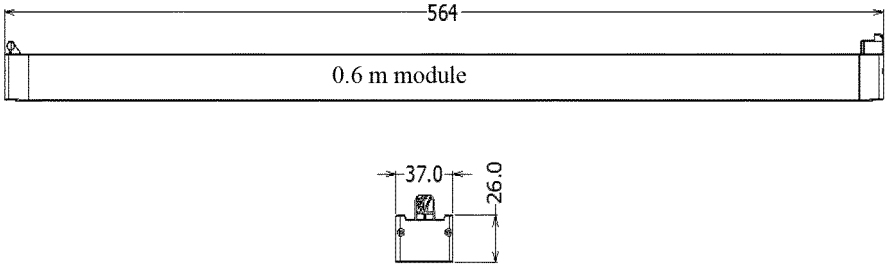


Fig.15

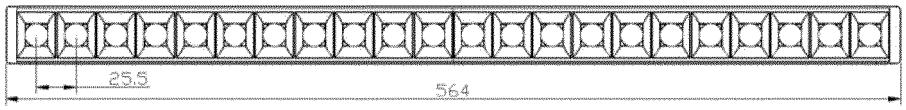


Fig.16

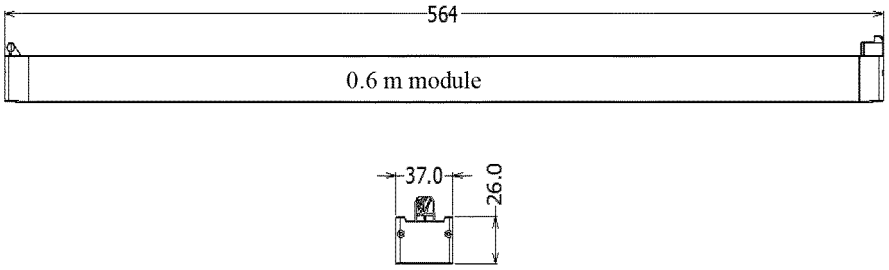


Fig.17

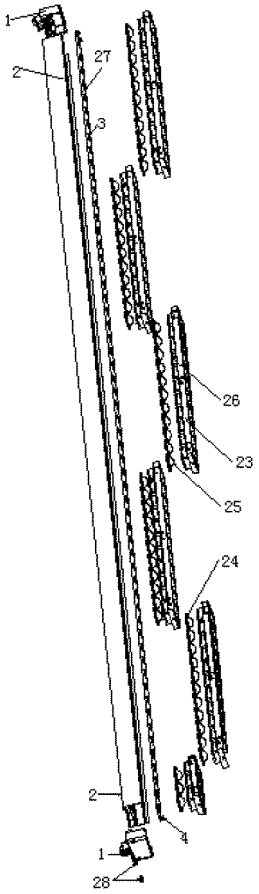


Fig.18

REFERENCES CITED IN THE DESCRIPTION

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