HEALTHY LIGHT BLUB,

LEDs and FAR UVC for lighting and disinfection

DESCRIPTION

A kind of healthy sterilization light fixture

TECHNICAL FIELD

The invention belongs to lighting technical field. Be particularly related to a kind of healthy sterilization light fixture.

BACKGROUND TECHNOLOGY

A kind of healthy sterilization light fixture is provided, and this light fixture integrates advantages such as illumination and sterilization, and function is strong, and practicality is good.

The sensitivity of the coronaviruses to far-UVC light suggests that it may be feasible and safe to use overhead far-UVC lamps in occupied indoor public places to markedly reduce the risk of person-to-person transmission of coronaviruses, as well as other viruses such as influenza.

A direct approach to limit airborne viral transmissions is to inactivate them within a short time of their production. Germicidal ultraviolet light, typically at 254 nm, is effective in this context but, used directly, can be a health hazard to skin and eyes. By contrast, far-UVC light (207–222 nm) efficiently kills pathogens potentially without harm to expose human tissues. The present invention are used for normal lighting with a toggle provision for user to choose the desire mode.

Useful UV light for disinfecting air and surfaces is generally considered to be in the range between 400 nm and 100 nm. Such UV may break down molecular bonds within DNA, which kills or inactivates microorganisms. The specific bands of UV wavelengths for effectively killing various types of organisms have been

extensively studies and are known. The most commonly employed type of UV light for germicidal applications is a low pressure mercury-vapor arc lamp, emitting around 254 nm. However, while these lamps can be used to disinfect unoccupied spaces, direct exposure to conventional germicidal UV lamps in occupied public spaces is not possible since direct exposure to these germicidal lamp wavelengths can be a health hazard, both to the skin and eye.

By contrast far-UVC light (207 to 222 nm) has been shown to be as efficient as conventional germicidal UV light in killing microorganisms, but studies to date suggest that these wavelengths do not cause the human health issues associated with direct exposure to conventional germicidal UV light. In short the reason is that far-UVC light has a range in biological materials of less than a few micrometers, and thus it cannot reach living human cells in the skin or eyes, being absorbed in the skin stratum corneum or the ocular tear layer. But because viruses (and bacteria) are extremely small, far-UVC light can still penetrate and kill them. Thus far-UVC light potentially has about the same highly effective germicidal properties of UV light, but without the associated human health risks. Several groups have thus proposed that far-UVC light (207 or 222 nm), which can be generated using inexpensive excimer lamps, is a potential safe and efficient anti-microbial technology which can be deployed in occupied public locations.

In summary far-UVC light is anticipated to have about the same anti-microbial properties as conventional germicidal UV light, but without producing the corresponding health effects. Should this be the case, far-UVC light has the potential to be used in occupied public settings to prevent the airborne person-to-person transmission of pathogens such as coronaviruses.

FIELD OF INVENTION

The present invention relates to various lighting applications with a FAR UVC for disinfecting air and surfaces. The present invention is for usage socket as an lighting bulb with the disinfection ability.

BRIEF DESCRIPTION OF DRAWINGS

Fig 1, 1003 is an commercial UV disinfection fixtures contain Ushio Inc.'s patented Care222 lamps that emit far-UVC 222nm light that's shown to significantly reduce surface pathogens in occupied and unoccupied indoor spaces. It's the only far-UVC germicidal technology that may also be used around people, and the only with a proprietary filter that prevents longer UVC wavelengths from being emitted.

[0001] FIG 1.1000, the housing view of the bulb
[0002] FIG 2. 2000, the isometric view
[0003] FIG 3. 3000. the side view and the plan view of the bulb

Claims

1. healthy sterilization light fixture; Comprise FIG 1,1000 lamp body and FIG 1, 1001 lamp socket; It is characterized in that: said illuminating source in LED light arranged on the FIG 1, 1002, lamp body for the light source that combines with, FIG1,1003 a FAR UV-C light.
2. healthy sterilization light fixture according to claim 1, it is characterized in that: said illuminating source is made up of LED lamp.
3. healthy sterilization light fixture according to claim 1 is characterized in that: the wave band that said FAR UV-C lamp is selected for use is the UVC wave band: its wavelength is 222 nm;
4. according to each described healthy sterilization light fixture of claim 1 to 3, it is characterized in that: FIG 1. 1002, light fixture is LED bulb lamp and FAR UV-C light.
5. FIG 2,2001 is a exhaust louvre or opening to allow heat to escape to prevent overheating.