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(54) **Tubular skylight lamp**

(57) An adjustable lamp assembly for a tubular skylight wherein the lamp support is adjustable and has two

configurations adapted to fit two different sizes of tubular skylights.

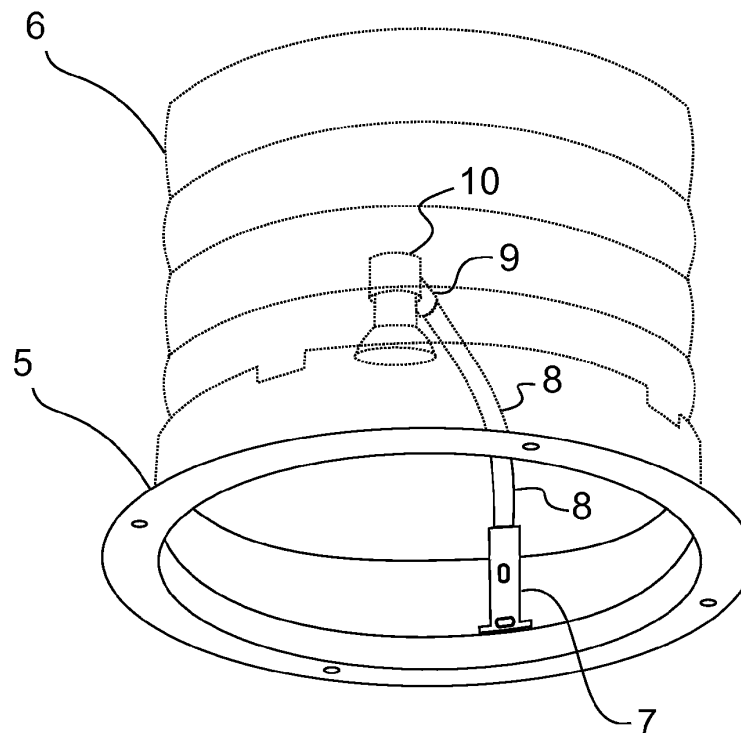


Fig. 2

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Description

Field

[0001] The exemplary and non-limiting embodiments of this invention relate generally to lamps for tubular skylights and more particularly to an adjustable lamp for a tubular skylight.

Background

[0002] Tubular skylights are used for transmission of outdoor, natural lighting to building interiors. Energy free and aesthetically pleasing, such devices enjoy great popularity. Tubular skylights may be equipped with a lamp device for example a lamp powered by a battery or powered by mains.

[0003] For example US5546712 (fig. 8) and W09406979 show a tubular skylight with a lamp device.

Summary

[0004] It would be desirable to provide a lamp device which enhances the assembly of the tubular skylight and further provides easy, fast and user friendly adjustment.

[0005] Further is would be desirable to provide a lamp device which can be fitted to various sizes of tubular skylights. Further is would be desirable to reduce the number of parts due to manufacture and logistics.

[0006] Further is would be desirable to provide a lamp device which may easily be retrofitted and adjusted.

[0007] Further is would be desirable to provide lamp device which may be adjusted and appear aesthetically pleasing. In particular it would be desirable to provide a lamp where adjustment enables the light to appear centred.

[0008] These enhancements and advantages are provided by a first exemplary embodiment comprising a tubular skylight lamp device comprising: a light source;

a light source support;
the light source support provides a radius for the light source;
the light source support has at least two configurations:
a first configuration providing a first radius;
and a second configuration providing a second radius.

[0009] Other features and advantages of the disclosed embodiments will appear from the following detailed disclosure, from the attached dependent claims as well as from the drawings. Generally, all terms used in the claims are to be interpreted according to their ordinary meaning in the technical field, unless explicitly defined otherwise herein. All references to "a/an/the [element, device, component, etc]" are to be interpreted openly as referring to at least one instance of the element, device, component,

etc., unless explicitly stated otherwise.

Brief description of the drawings

[0010] The foregoing and other aspects of the teachings of this invention are made more evident in the following description, when read in conjunction with the attached figures, wherein:

- Fig. 1 shows an example of a tubular skylight.
- Fig. 2 shows an example of a tubular skylight ceiling mount.
- Fig. 3a shows an example of adjustment of lamp position.
- Fig. 3b shows an example of a lamp support.
- Fig. 4-5 show examples of the lamp assembly.
- Fig. 6 shows an example of another lamp assembly.

Detailed description

[0011] The disclosed embodiments will now be described more fully hereinafter with reference to the accompanying drawings, in which certain examples are shown. These disclosed examples may, however, be embodied in many different forms and should not be construed as limited; rather, these examples are provided by way of example so that this disclosure will be thorough and complete, and will fully convey the scope of the disclosed embodiments to those skilled in the art. Like numbers refer to like elements throughout.

[0012] A tubular skylight lamp may be sold as an accessory or sold in a separate box. It is advantageous to reduce the room for error, by providing an adjustable tubular skylight lamp, so one solution may be used for several tubular skylights.

Fig. 1 illustrates an example of a tubular skylight installation 1 in a building with a roof 2 and a ceiling 3. The tubular skylight comprises a transparent top cover 4 and ceiling mount 5. The top cover 4 and ceiling mount 5 communicate by a light transmitting tube 6a-6d. The ceiling mount 5 may typically include common elements (not shown) like a light diffuser, clamp or fastening means for mounting the ceiling mount 5 to the ceiling, a trim ring etc.

Fig. 2 illustrates the ceiling mount 5 with an attached lamp device. The lamp device comprises a base 7 which may be secured to the ceiling mount 5 by securing means like fasteners, snap clips, clamps, adhesive tape, magnets etc. The base 7 may also be secured by a ring (not shown) which fits inside the ceiling mount 5 or a support which fits the diameter in the ceiling mount 5. The base 7 supports an arm 8. The arm 8 is detachably secured to the base 7. The opposite end of the arm 8 detachably engages a fitting 9 associated with the lamp light source 10. Fig. 3a illustrates the ceiling mount 5 which has a centre line C1. The arm 8 has at least two configu-

rations, a first configuration 8a and second configuration 8b. The two configurations may be shifted by the user for example by removing a first end of the arm 8 from the base 7 and inserting a second end of the arm in the base 7. By shifting the arm from the position 8a to the position 8b the centre line changes from C1 to C2. Hereby the arm 8 may be used in tubular skylights of two different sizes and yet provide a centred light source 10 in both sizes.

The first centre line C1 illustrates the radius of a first tubular skylight. The second centre line C2 illustrates the radius of a second diameter tubular skylight. The centre line substantially corresponds to the radius of the tubular skylight and/or the radius ceiling mount 5. Fig. 3b illustrates the arm 8 which is asymmetric. The arm 8 extends in two directions and has a first length L1 in a first direction and a second length L2 in a second direction. One direction L1 of the arm 8 is longer than a second direction L2. The arm 8 has unequal leg length. The two ends of the arm 8 are substantially orthogonal and one direction L1 of the arm 8 is longer than a second direction L2.

The centre line C1 (which corresponds to a first radius) and the centre line C2 (which corresponds to a second radius) illustrate the configurations of the lamp. The arm length L1 provides a first configuration of the light source 10 and the arm length L2 provides a second configuration of the light source 10. This enables a simple and durable product and provides a user friendly adjustment.

The centre line C (which corresponds to a radius) defines the distance from the circumference of the tubular skylight and/or ceiling mount 5 to the center thereof where the light source 10 is positioned.

Fig. 4 illustrate that the arm 8 has ends which fit into the base 7 and fit into the fitting 9 associated with the lamp light source 10. The two ends of the arm 8 are compatible so they may be interchanged. The two ends of the arm 8 have the same design so they may be shifted. The two ends of the arm 8 have a similar profile which fits a corresponding profile in the base 7 and fitting 9 associated with the lamp light source 10.

Fig. 5 illustrates that the arm 8 may be integral or joined to modules 11a and 11b. These modules 11a, 11b may comprise means which enable the arm 8 to be secured to the ceiling mount 5 and lamp light source 10.

In one example the arm 8 is at least in part hollow and may guide a power supply cable. The power supply cable may be attached to the fitting 9 associated with the lamp light source 10 and the power cable may be guided through the hollow arm 8 to the edge of the tubular skylight. At the edge of the tubular skylight the power cable may be connected to a power source like power mains etc.

Fig. 6 illustrates how the base 7 and fitting 9 associated with the lamp light source 10 may provide at

least two configurations. The base 7 and fitting 9 associated with the lamp light source 10 each have more than one socket 12a, 12b where the sockets have different orientation and/or angle. Hereby different configurations of the light source 10 position may be provided.

[0013] The two configurations providing adjustment of the light source centre C alternatively may be provided by a rotary joint (not shown). For example a rotary joint at the base 7 and at the light source 10.

[0014] The two configurations providing adjustment of the light source centre C alternatively may be provided by a sliding light source (not shown). I.e. a fitting 9 which may slide on the arm 8 in order to be placed at the centre.

[0015] The two configurations providing adjustment of the light source centre C alternatively may be provided by a light source support with two attachment points (not shown) for the light source 10. I.e. one attachment point corresponding to a first centre C1 and a second attachment point corresponding to a second centre C2.

[0016] It will be understood that the embodiments described herein are merely exemplary and that variations and modifications of the teachings will still fall within the scope of this disclosure. For example it may be possible to provide electrical conductors by means of the arm 8. For example the arm 8 may comprise several parts which may be joined. For example the arm 8 may comprise several parts which may be joined in plural configurations. For example the arm 8 may include an extension part. For example the base 7 and/or fitting 9 may have plural configurations which control the radius of the lamp support.

Furthermore, some of the features of the examples of this disclosure may be used to advantage without the corresponding use of other features. As such, the foregoing description should be considered as merely illustrative of the principles, teachings, examples and exemplary embodiments of this disclosure, and not in limitation thereof.

Claims

1. A tubular skylight lamp device comprising:

a light source 10;
a light source support 7,8,9;
the light source support 7,8,9 provides a radius C1,C2 for the light source 10;

characterised in that:

the light source support 7,8,9 has at least two configurations:
a first configuration providing a first radius C1;
and a second configuration providing a second radius C2.

2. A tubular skylight lamp device according to claim 1,
wherein
the light source support 7,8,9 comprises an arm 8.

3. A tubular skylight lamp device according to any pre-
vious claims, wherein the light source 10 support
7,8,9 is configured to be mounted on a ceiling mount
5.

4. A tubular skylight lamp device according to claim 2,
wherein
the arm 8 has a first length L1 corresponding to a
first radius and a second length L2 corresponding to
a second radius.

5. A tubular skylight lamp device according to any pre-
vious claims, wherein an arm 8 has two ends and
the two ends are compatible and interchangeable.

6. A tubular skylight lamp device according to any pre-
vious claims, wherein the first radius C1 substantially
fits the center of a first size tubular skylight and the
second radius C2 substantially fits the centre of a
second size tubular skylight.

7. A tubular skylight lamp device according to claim 6,
wherein first size tubular skylight is substantially 10
inch diameter and the second size tubular skylight
is substantially 14 inch diameter.

8. A tubular skylight lamp device according to any pre-
vious claims, wherein the light source support 7,8,9
and/or tubular skylight lamp is consisting of substan-
tially rigid components.

9. A tubular skylight lamp device according to any pre-
vious claims, wherein the two configurations may be
shifted by shifting the arm from the position 8a to the
position 8b whereby the centre line changes from
C1 to C2.

10. A tubular skylight lamp device according to any pre-
vious claims, wherein a tubular skylight comprises a
transparent cover configured to be above the ceiling,
a tube assembly 6 configured for depending down-
wardly from the transparent cover, a ceiling mount
5 engageable with the ceiling, the ceiling mount 5
receiving the tube assembly 6 therein.

11. Use of a tubular skylight lamp device according to
any of claims 1-10 for a tubular skylight to provide
center light source 10 position.

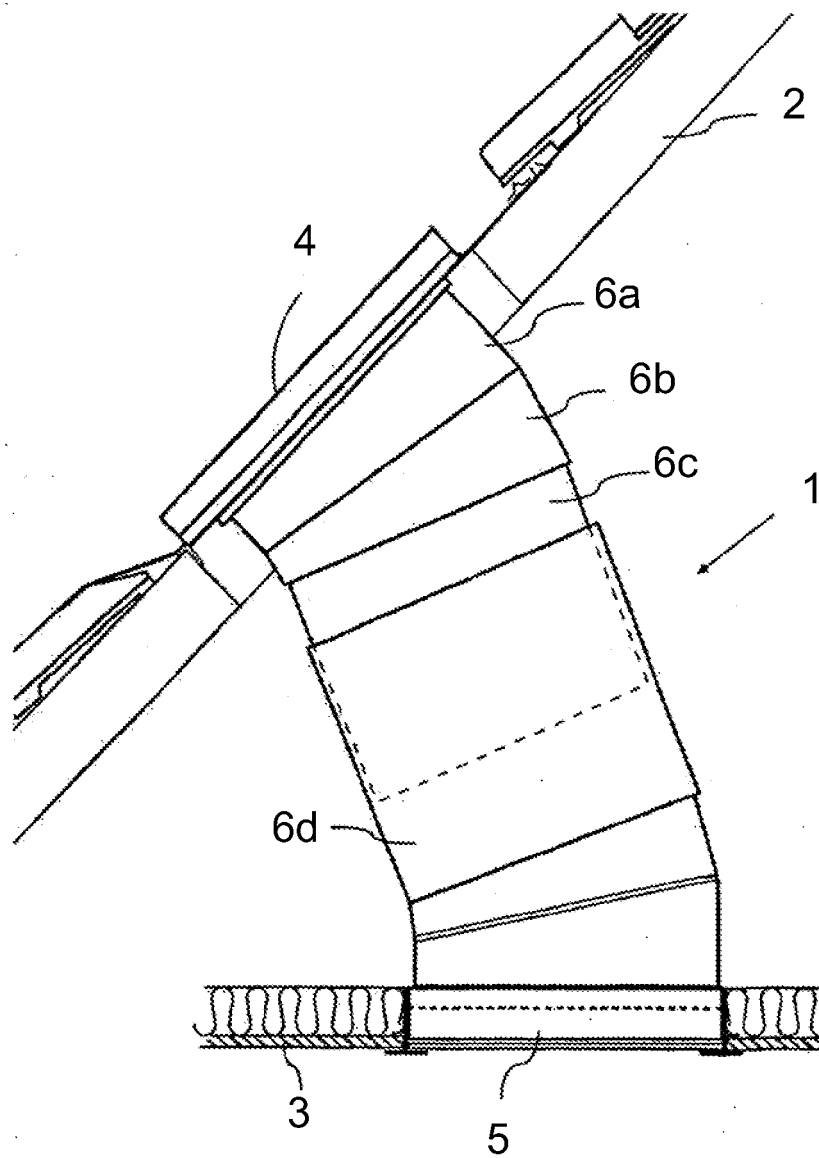


Fig. 1

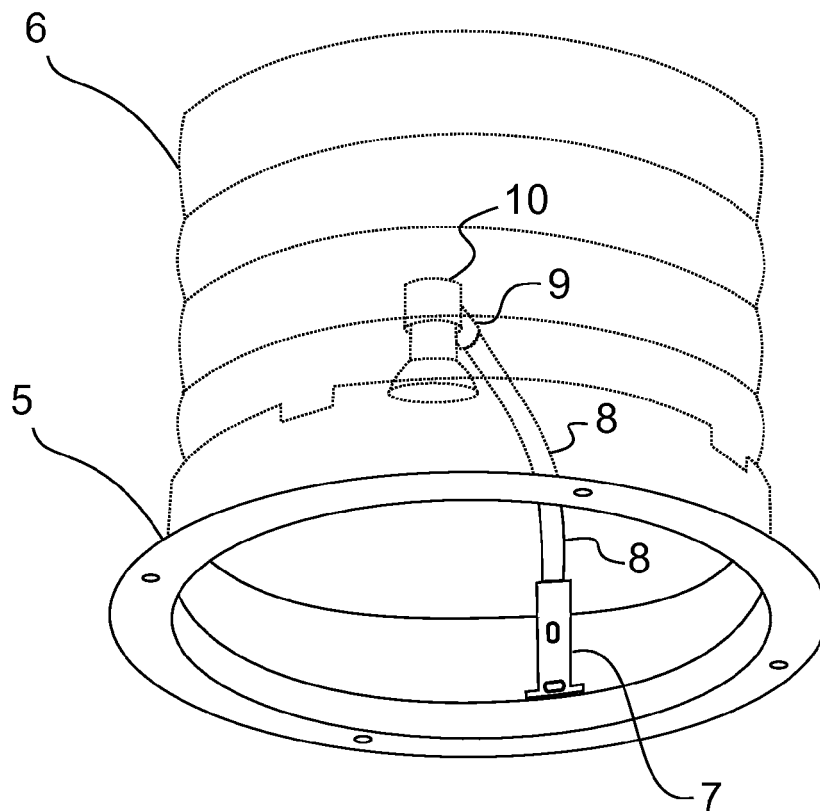


Fig. 2

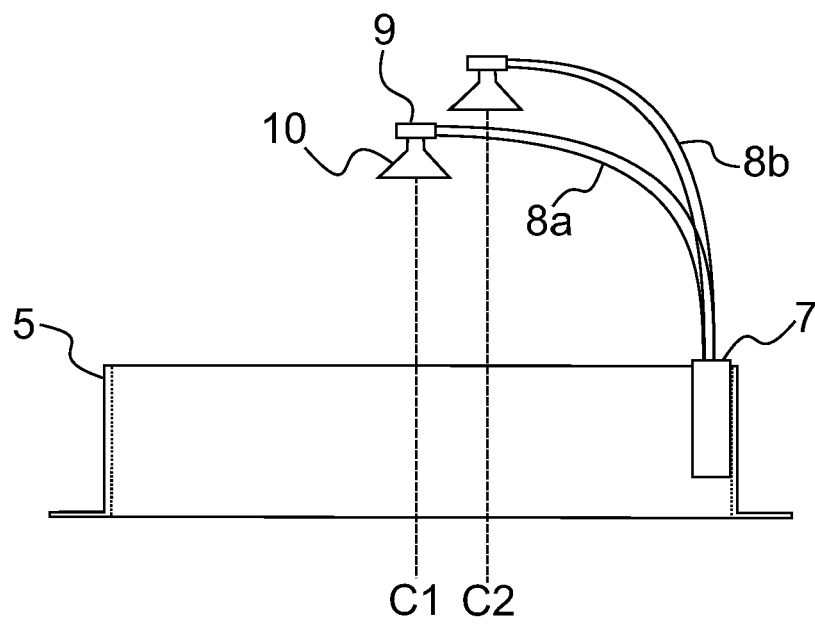


Fig. 3a

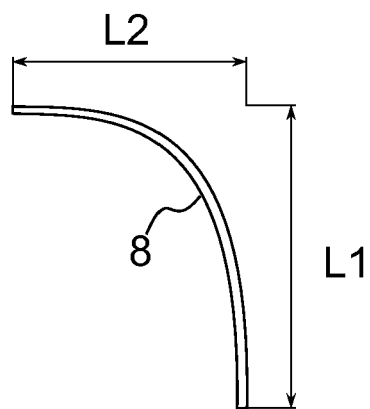


Fig. 3b

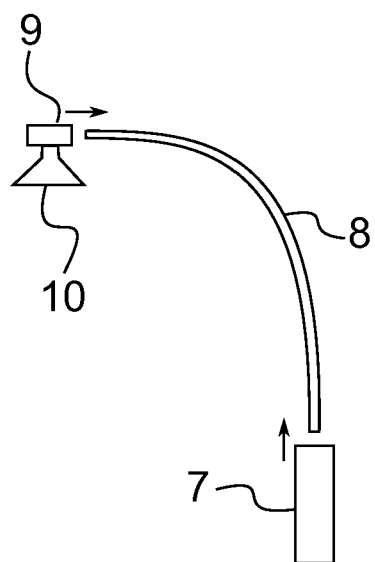


Fig. 4

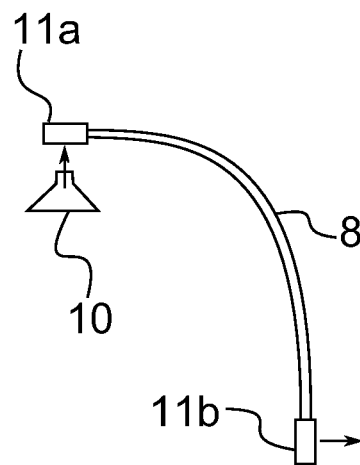


Fig. 5

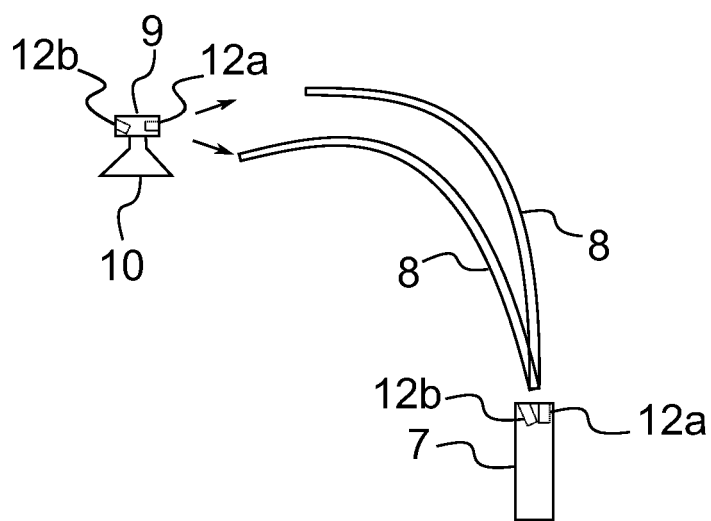


Fig. 6

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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