

United States Patent

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[54] SUSPENDED OUTDOOR LIGHTING FIXTURE

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LD, 81 BS, 81 BA, 81 BC, 81 BD, 81 BE, 84,
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134, 145 R

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Primary Examiner—Richard C. Queisser

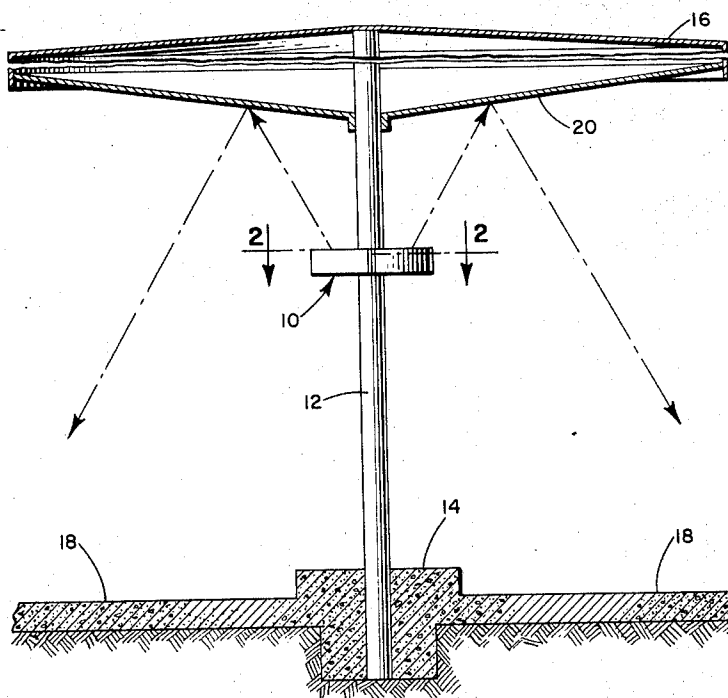
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[57] ABSTRACT

A lighting fixture for illuminating an outdoor area such as a gasoline service station island, comprising a vertical center post, an annular housing supported on said post and spaced concentrically around and away from said post, a plurality of lights enclosed on the bottom and on the sides by said annular housing and positioned to cast their rays upwardly, and a canopy positioned on said center post above said annular housing and having a lower reflective surface to reflect the light rays onto the outdoor area to be illuminated.

7 Claims, 5 Drawing Figures



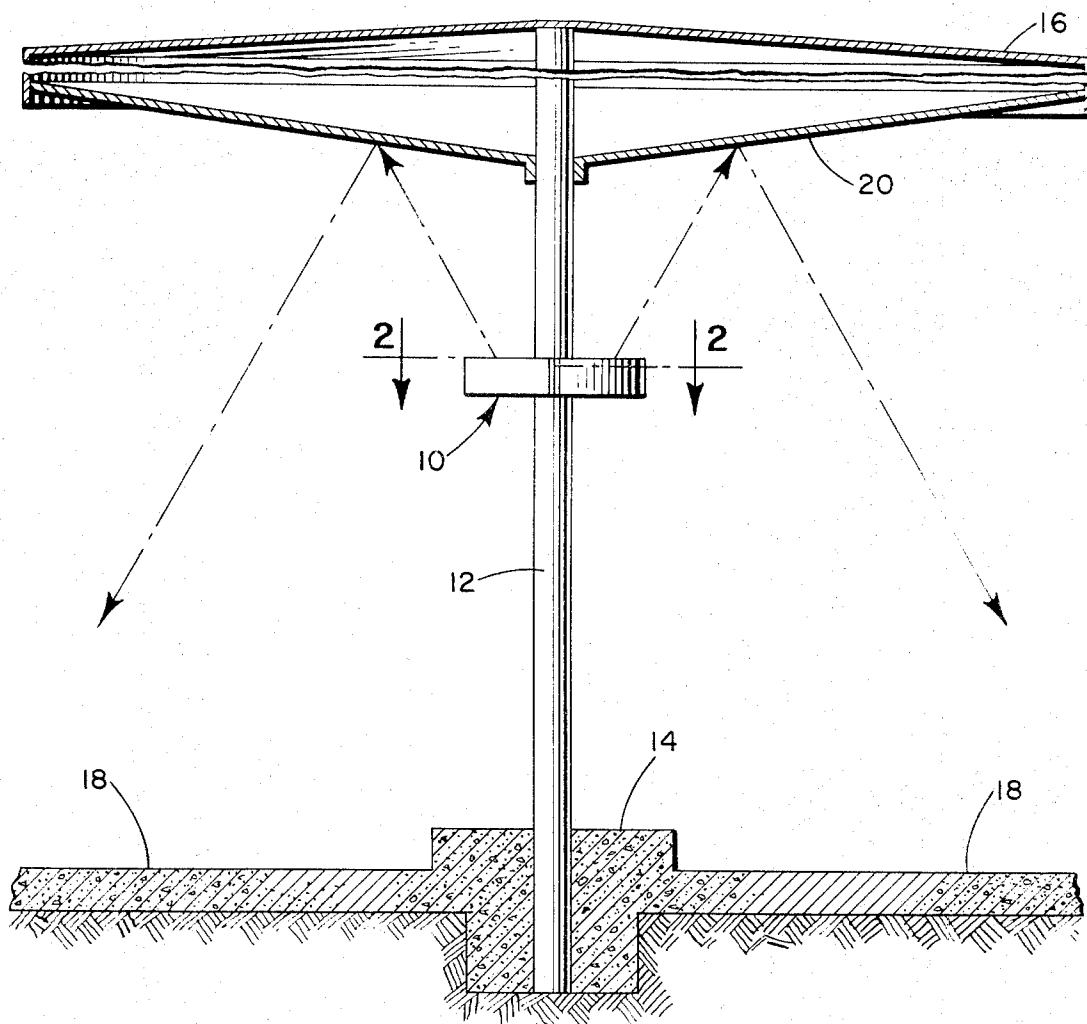


FIG. 1

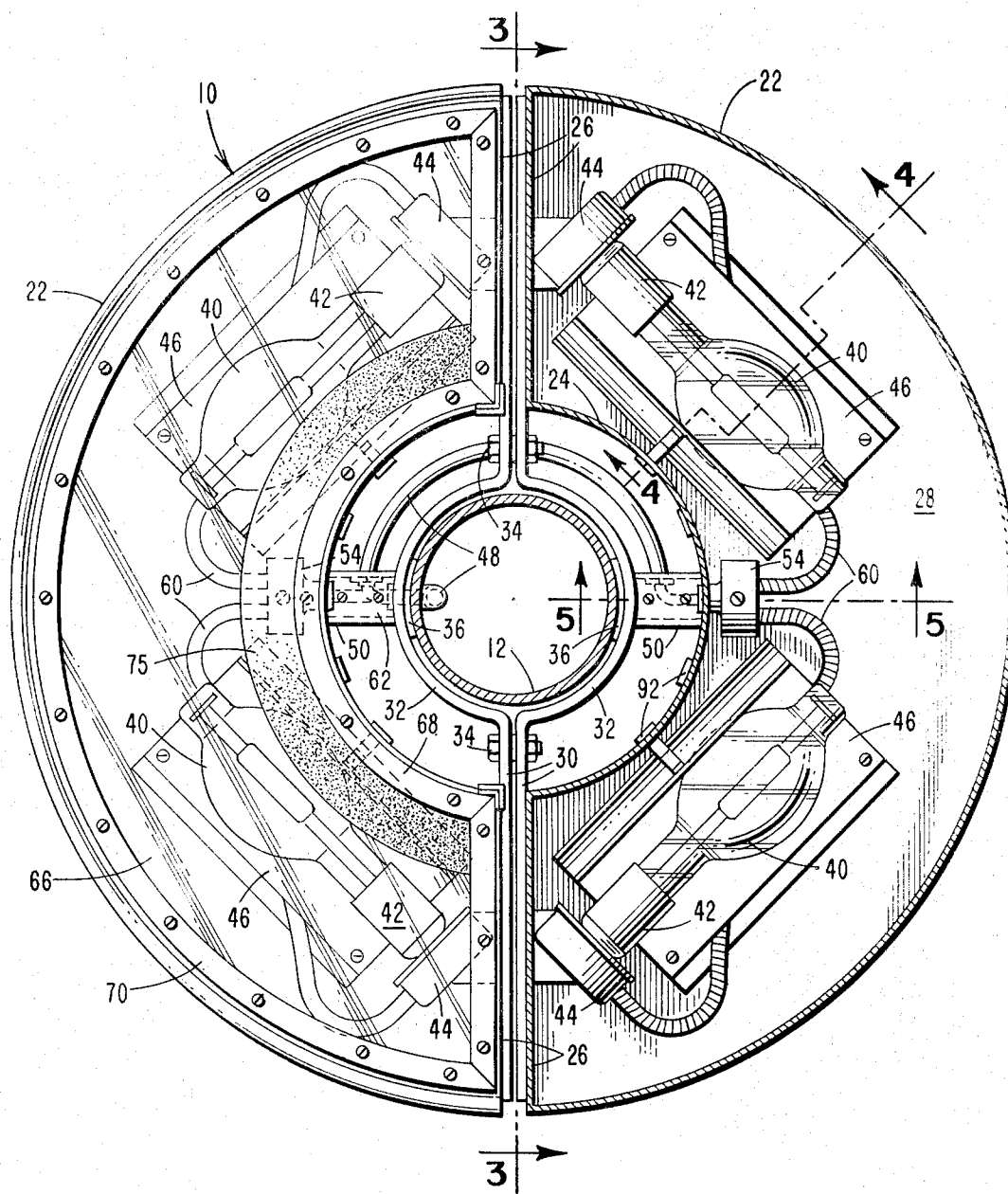


FIG. 2

FIG. 3

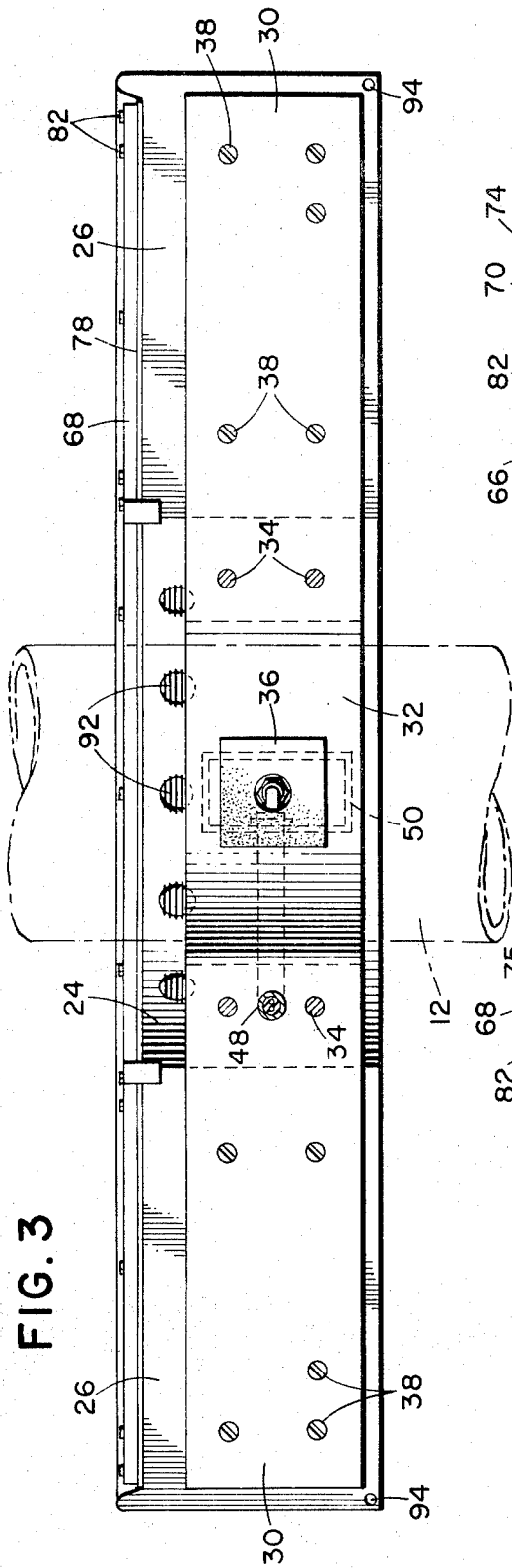
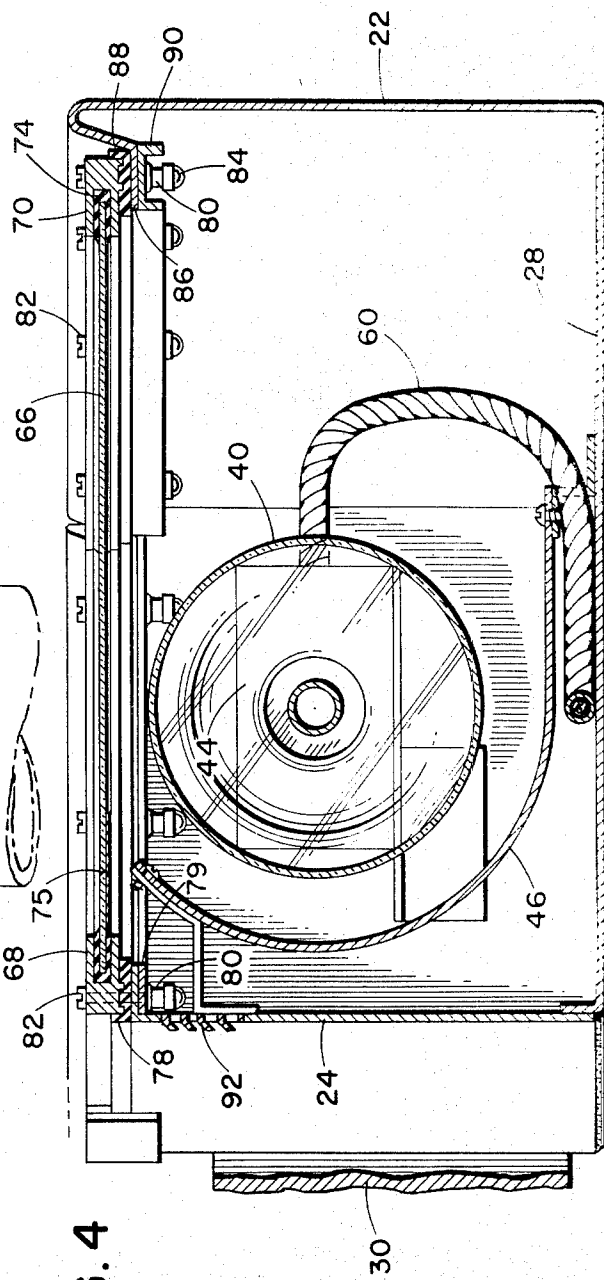
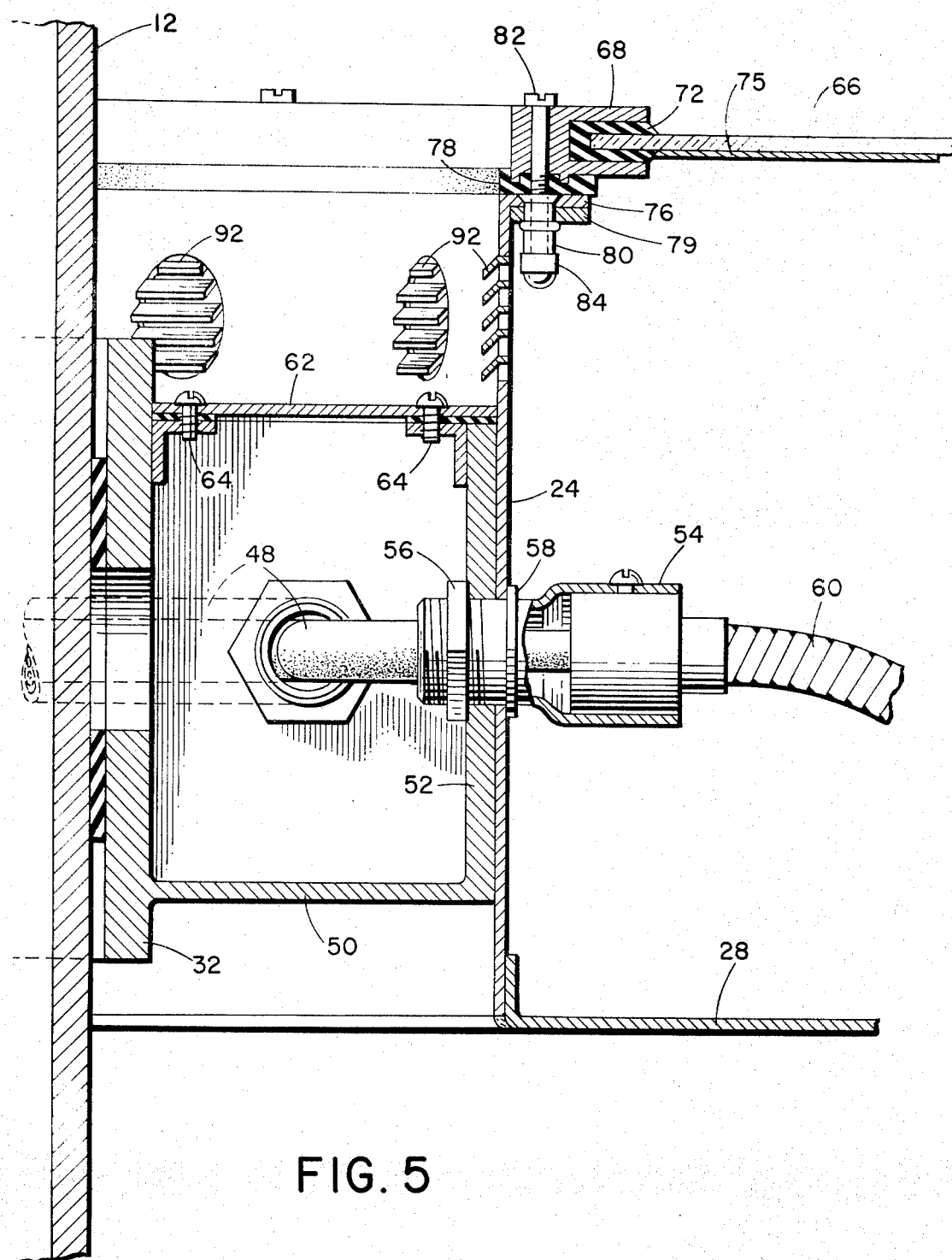


FIG. 4





SUSPENDED OUTDOOR LIGHTING FIXTURE

BACKGROUND OF THE INVENTION

The present invention relates to lighting fixtures and more particularly to outdoor lighting fixtures for illuminating gasoline service station areas and the like. Light fixtures of this general type are commonly used upon a gasoline service station island of known type. Such outdoor lighting fixtures, in addition to functioning to adequately light the island and surrounding area during periods of darkness, preferably should shelter the surrounding area from rain and snow.

SUMMARY OF THE INVENTION

The present invention provides an improved outdoor lighting fixture particularly adapted for use on a gasoline service station island, which lighting fixture has a pleasing and distinctive appearance for the purpose of attracting and maintaining customers, and is of sturdy construction with the lights themselves being enclosed in a protective annular housing having a solid bottom. The annular housing is disposed around a center post and appears to be suspended in space around the post without readily visible means of support. The supports for the housing are relatively narrow members which extend radially outwardly from the center post to the housing and from a distance are not readily visible because of the surrounding housing. The lighting fixture is utilized in conjunction with a large overhanging canopy which deflects light rays downwardly onto the area to be illuminated as well as functioning to shelter the area from the elements.

One of the principal objects of the present invention is to provide an improved outdoor lighting fixture having a pleasing and distinctive appearance and which is of sturdy construction and yet which may be easily installed and serviced. Another object of the invention is to provide a lighting fixture in which the lights are substantially enclosed within a protective housing. A further object is to provide a lighting fixture used in combination with an overhanging canopy which complements the configuration of the lighting fixture and deflects the light rays onto the area to be illuminated in addition to offering protection from the elements.

The above and other objects, features and advantages of this invention will become more apparent as this description proceeds.

In the drawings:

FIG. 1 is an elevational view partly in section of a presently preferred embodiment of the invention.

FIG. 2 is a view taken on line 2—2 of FIG. 1 and shows half of the lighting fixture in plan view and half in horizontal section.

FIG. 3 is a vertical cross sectional view taken on the line 3—3 of FIG. 2.

FIG. 4 is a vertical cross sectional view taken through one of the lights on the line 4—4 of FIG. 2.

FIG. 5 is a vertical cross sectional view taken on the line 5—5 of FIG. 2.

Referring now to the drawings, and more particularly to FIG. 1, reference numeral 10 generally designates the lighting fixture of the invention which is suspended concentrically around and supported on a hollow vertical center post 12. The lower end of post 12 is embedded within the concrete footing of a service station island 14. A large canopy 16 is supported upon the

upper end of post 12 and overhangs the island 14 and the adjacent paved areas 18. The underside of the canopy is an outwardly and upwardly inclined light reflective surface 20. Light rays from the lighting fixture 10 are cast upwardly and reflected downwardly off the reflective surface 20 onto the paved areas 18 as schematically illustrated in FIG. 1 by arrows.

As seen in FIG. 2, the lighting fixture 10 includes an annular sheet metal housing which is made in two halves which are fastened together. Each half of the housing includes a vertical arcuate outer wall 22, a smaller arcuate inner wall 24, a pair of straight connecting wall portions 26 which lie in a common plane, and a light impermeable bottom 28.

A pair of substantially rigid support bars 30 which each have an arcuate center portion 32 having a size slightly larger than the outside diameter of post 12 are bolted to each other by bolts 34 with gaskets 36 clamped between the outer surface of post 12 and the central sections of the center portions 32 of the support bars. The two housing halves are mounted upon the support bars 30 by passing screws 38 through the mating connecting wall sections 26 of each half and through holes in the support bars 30 as best seen in FIG. 3.

Four metal arc lamps 40 of a suitable size, e.g., 400 watts, are positioned in the housing employing sockets 42 and junction boxes 44. Aluminum reflectors 46 disposed below each lamp 40 reflect its rays upwardly.

Current is supplied to the lamps via electrical conduits 48 which pass up through the hollow post 12, outwardly through holes in post 12 and one of the gaskets 36 which as shown in FIG. 2 is the gasket at the left side of the center post into one of a pair of small duct housings 50 which may be integrally connected to the center portions 32 of the support bars. A conduit 48 then extends arcuately in the annular space within the inner housing wall 24, through holes in bars 30 to the other duct housing 50. The duct housings include outer annular walls 52 which abut against the adjacent regions of the inner housing walls 24. As best seen in FIG. 5, the electrical conduits 48 extend through the duct housings to duplex connectors 54 which are threadably disposed in apertures in the outer duct housing wall 52 and in the inner housing wall 24 by means of a complementarily threaded nut member 56 and an abutment member 58. Electrical conduits 60 extend from the duplex connectors 54 to the junction boxes 44 in the respective halves of the housing. To facilitate assembly and repair, access may be had to the duct housings 50 via removable covers 62 which are normally secured in position by screws 64 or other comparable securing means.

The top of the annular housing is closed off by light transmitting heavy duty Pyrex glass panes 66. The glass panes are disposed within U-shaped inner and outer channel members 68 and 70 by being embedded in silicone sealant masses 72 and 74, respectively. It is presently preferred to provide a small opaque band 75 at the inner periphery of the glass panes 66, for example, by painting this portion of the underside of the panes with white paint. This causes a preferred distribution of the light rays emanating from lamps 40 upwardly to the light reflective surface 20 of the canopy.

As illustrated in FIG. 5, the inner channel member 68 is detachably connected to a horizontal lip 76

formed by bending over the upper edge of the inner housing wall 24. In the illustrated embodiment, the securing means comprise a Neoprene gasket sealing strip 78 disposed between the channel member and the lip 76, a metal strip 79 disposed beneath the lip 76, a nut member 80 which has a tapering upper portion disposed within a correspondingly tapered aperture in lip 76, a bolt 82 threadably engaging the nut member 80, and a plastic cap 84 at the lower end of the nut member 80.

The outer channel member 70 (see FIG. 4) is similarly connected to an inwardly extending horizontal lip 86 which is integrally connected to the outer housing wall 22 by means of a gasket strip 88 an inverted U-shaped channel member 90, and a bolt 82 and nut members 80 as described in connection with the securement of the inner channel member 68.

For ventilation purposes, a plurality of small louvered plugs 92 shown in FIGS. 3 and 5 are provided in the inner housing wall 24. Drain holes 94 (FIG. 3) in the bottom of the annular housing allow any water which enters the housing to drain out of the housing.

While a presently preferred embodiment of the invention has been described with particularity, it will be appreciated that various changes and modifications may readily suggest themselves to those of ordinary skill in the art on being apprised of the present invention. It is intended to cover all such changes and modifications as fall within the scope and spirit of the appended claims.

What is claimed is:

1. An outdoor lighting fixture comprising a vertical center post, an annular housing having an inner diameter substantially larger than the outer diameter of said center post suspended concentrically around and away from said center post, support means to fasten said annular housing to said center post below the upper end of said center post, said housing having light impermeable bottom and inner and outer side walls, said housing having upper light transmitting portions, a plurality of lamps positioned in said housing to cast their rays upwardly through said light transmitting portions and a canopy secured to said center post substantially above said housing, said canopy extending radially outwardly far beyond the outer periphery of said housing, said canopy having a light reflective undersurface for

reflecting light rays from said lamps downwardly onto an area to be illuminated.

2. An outdoor lighting fixture comprising a vertical center post, an annular housing having an inner diameter substantially larger than the outer diameter of said center post suspended concentrically around and away from said center post, said housing comprising a pair of substantially equal sized arcuate sections, said housing having upper light transmitting portions, means securing said arcuate sections to each other comprising a pair of support bars having arcuate center sections disposed around and supported by said center post, said support bars further having substantially straight abutting portions disposed between the facing portions of said arcuate sections, means to secure said arcuate sections to said substantially straight portions of said support bars, said housing having light impermeable bottom and inner and outer side walls, said housing having upper light transmitting portions, and a plurality of lamps positioned in said housing to cast their rays upwardly through said light transmitting portions.

3. A lighting fixture according to claim 2, further comprising a canopy secured adjacent the top end of said center post, said canopy having an upwardly and outwardly inclined light reflective lower surface to reflect light rays from the lamps in said housing downwardly onto an area to be illuminated.

4. A lighting fixture according to claim 3, further comprising a gasoline service station island, the lower end of said center post being embedded in said island, and said canopy extending over said island.

5. A lighting fixture according to claim 2, further comprising electrical conduit means disposed within said center post, and duct means extending radially outwardly from said center post to said housing for the passage of electrical conduit means from said post into said housing, said duct means including means also functioning as support means for said housing.

6. A lighting fixture according to claim 2, further comprising arcuate inner and outer channel members for detachably connecting the light transmitting portions to the remainder of said housing.

7. A lighting fixture according to claim 2, further comprising an arcuate opaque band disposed at the inner periphery of said light transmitting portions.

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