Title: REPLACEABLE VEHICLE LAMP WITH LED LIGHT SOURCES

Abstract: An LED light source (10) has a substantially planar housing (12) transversely arrayed about a longitudinal axis (14) and including a through-hole (16) in a first surface (17) thereof. A planar, heat conductive support (18) is positioned with the housing, the planar heat conductive support (18) having a front side (20), a back side (22) and a center point (24) coaxial with said longitudinal axis (14). LEDs (26) are mounted on the front side (20) and are arrayed about the center point (24). A base (28) supports the planar, heat conductive support (18) and is fixed to the housing (12). A heat sink (30) is in thermal contact with the base (28) and extends outwardly of the housing (12). A connector (32) is formed with the housing (12) for receiving electrical input to the LEDs.
AMENDED CLAIMS
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1. In a vehicle having taillight lamps operative without a reflector and a power supply for said lamps, the improvement comprising:
   a replacement for said lamps, said replacement comprising:
   an LED light source comprising:
   a substantially planar housing transversely arrayed about a longitudinal axis and including a through-hole in a first surface thereof;
   a planar, heat conductive support positioned with said housing, said planar heat conductive support having a front side, a back side and a center point coaxial with said longitudinal axis;
   a plurality of LEDs mounted on said front side and arrayed about said center point;
   a base supporting said planar, heat conductive support and fixed to said housing;
   a heat sink in thermal contact with said base and extending outwardly of said housing;
   and
   a connector formed with said housing for receiving electrical input to said LEDs from said power supply.

2. The LED light source of Claim 1 wherein said plurality of LEDs is circularly arrayed.

3. The LED light source of Claim 1 wherein said plurality of LEDs is linearly arrayed.

4. The LED light source of Claim 1 wherein said connector extends transversely away from said longitudinal axis.
5. The LED light source of Claim 1 wherein said housing includes couplers for mounting said light source.

6. The LED light source of Claim 5 wherein said couplers enable rotational mounting.

7. The LED light source of Claim 1 wherein said housing includes circuitry for regulating an output of said LEDs.

8. The LED light source of Claim 7 wherein said circuitry is associated with said planar, heat conductive support.

9. The LED light source of Claim 1 wherein a primary optic covers said plurality of LEDs.

10. The LED light source of Claim 1 wherein multiple optics are associated with said LEDs.

11. In a vehicle having taillight lamps operative without a reflector and a power supply for said lamps, the improvement comprising:

   a replacement for said lamps, said replacement comprising:

   an LED light source comprising:

   a substantially planar, circular housing having a given diameter transversely arrayed about a longitudinal axis and including a through-hole in a first surface thereof, said housing have thickness that is less than said given diameter;
a planar, heat conductive support positioned with said housing, said planar heat conductive support having a front side, a back side and a center point coaxial with said longitudinal axis;

a plurality of LEDs mounted on said front side and arrayed about said center point;

a base supporting said planar, heat conductive support and fixed to said housing;

a heat sink in thermal contact with said base and extending outwardly of said housing;

a connector formed with said housing for receiving electrical input to said LEDs, said connector extending transversely of said housing;

a primary optic fitted to said plurality of LEDs; and

a secondary optic spaced from said primary optic for modifying the light output of said plurality of LEDs to provide a desired pattern.

12. The LED light source of Claim 1 or 11 wherein said heat sink comprises a plurality of metal fingers extending away from said base.