

Title (en)

High intensity discharge light sources utilizing magnetic or electric field for control of arc position.

Title (de)

Bogenentladungslichtquellen hoher Intensität mit magnetischem oder elektrischem Feld zur Steuerung der Bogenlage.

Title (fr)

Source lumineuses de décharge à haute intensité utilisant un champ magnétique ou électrique pour la commande de la position d'arc.

Publication

EP 0324651 A1 19890719 (EN)

Application

EP 89300339 A 19890113

Priority

US 14483688 A 19880114

Abstract (en)

A high intensity arc discharge light source includes an arc lamp (20) for producing a high intensity arc (21) between a pair of electrodes, means (40) for producing a magnetic field for deflecting the arc, and means (44) for controlling the deflection of the arc by controlling the magnetic field. The deflection of the arc can be utilized to control the intensity of a light beam, the focus of a light beam or the direction of a light beam when the arc lamp is utilized in an optical system. A variable intensity projection system includes an arc lamp (20), an aperture plate (26) having an aperture (28), a lens (24) for focusing an image of the arc on the aperture and means (44,40) for applying a controlled magnetic field to the arc so as to vary the position of the arc and thereby vary the intensity of the beam passing through the aperture (28). A vehicle headlamp includes an arc lamp (80) positioned at the focal point (83) of a reflector (84) a lens (88) and a coil (92) for producing a magnetic field in the region of the arc. The magnetic field deflects the arc relative to the focal point (83) so as to change the direction of the headlamp light beam. The beam can be controlled by the magnetic field between high and low beam positions or can be varied continuously between upper and lower limits. An electric field can also be utilized for deflection of the arc.

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CPC (source: EP US)

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Citation (search report)

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