

Title (en)  
SYSTEM AND APPARATUS FOR CATHODOLUMINESCENT LIGHTING

Title (de)  
SYSTEM UND VERFAHREN FÜR KATHODOLUMINESZENZBELEUCHTUNG

Title (fr)  
SYSTÈME ET APPAREIL POUR ÉCLAIRAGE CATHODOLUMINESCENT

Publication  
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Application  
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Abstract (en)  
[origin: WO2010030899A1] Electron sources for a cathodoluminescent lighting system are disclosed. An electron source is a broad-beam reflecting-type electron gun having a cathode for emitting electrons and a reflector and/or secondary emitter electrode and no grids. An alternative electron gun has a cathode having a heater welded to a disk, the disk having an emissive surface on a side facing a dome-shaped defocusing grid and an anode. A lighting system incorporating the electron sources has an envelope with a transparent face, an anode with a phosphor layer to emit light through the face and a conductor layer. The system also has a power supply for providing from five to thirty thousand volts of power to the light emitting device to draw electrons from cathode to anode and excite a cathodoluminescent phosphor, and the electrons transiting from cathode to anode are essentially unfocused. A power- factor-corrected embodiment is also disclosed.

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**H01J 1/15** (2013.01); **H01J 63/06** (2013.01); **H05B 41/14** (2013.01)

Citation (search report)  

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