

Title (en)

High efficiency cathodoluminescent screen for high luminance cathode ray tube.

Title (de)

Mit hohem Wirkungsgrad kathodolumineszenter Schirm für hochleuchtende Kathodenstrahlröhre.

Title (fr)

Ecran cathodoluminescent à haute efficacité pour tubes à rayons cathodiques haute luminance.

Publication

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Application

**EP 90402235 A 19900803**

Priority

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Abstract (en)

[origin: EP0412887A1] The invention relates to a high efficiency cathodoluminescent screen for high luminance cathode ray tubes, the novel layout of which permits a significant improvement in luminance. <??>The cathodoluminescent screen of the invention comprises a glass substrate (11) carrying a luminescent screen (12) consisting of luminophore grains. According to a characteristic of the invention, an intermediate screen (15) is interposed between the luminescent screen (12) and the substrate (11), the intermediate screen (15) having a refractive index  $n_1$  markedly greater than the refractive index  $n_0$  of the substrate (11). This arrangement results in a significant part of the light which penetrates into the intermediate layer (15) being reflected towards the luminescent layer (12), in such a way that this light can later be scattered back towards the substrate (11), that is to say towards the end-use, with an emission indicatrix which is much more strongly concentrated on the axis than in the prior art. <??>The invention finds a particularly attractive application in so-called "projection" tubes. <IMAGE>

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