

Title (en)  
LENTICULE AND PRISM UNIT

Title (de)  
LENTIKEL-PRISMEN-EINHEIT

Title (fr)  
UNITE DE PRISMES ET DE LENTICULES

Publication  
**EP 1779151 A1 20070502 (DE)**

Application  
**EP 05742262 A 20050425**

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Abstract (en)  
[origin: WO2006021242A1] The invention relates to a lenticule and prism unit and an illumination device for an autostereoscopic display. Said display comprises, in the direction of the light, an illumination matrix (7), an imaging matrix (8), and a transmissive image matrix (5). The illumination matrix comprises a plurality of controllable illumination elements (21). The imaging matrix (8) focuses the light of said illumination elements (21) in such a way that the image matrix (5) and a preferred visibility region (6) are illuminated in an oriented manner and consist of a lenticular (LM) and a prism mask (PM) with wedge elements (K1,K2,...) and elements (P1,P2,...) parallel to the plane. Said elements (K1,K2,..., P1,P2,...) are arranged in such a way that, from the light of an illumination element (21) in the visibility region (6), a multiple number of images with an associated widened resulting light density distribution (V) from (A to C') is created. The resulting images of laterally adjacent illumination elements are respectively superimposed on the edge regions thereof, such that an approximately homogeneous light density distribution (V) is achieved. The quality of the image is visibly increased with the obtained homogeneous luminosity.

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