

Title (en)
DISPLAY DEVICE WITH WAVEGUIDE-BASED TALBOT ILLUMINATOR

Title (de)
ANZEIGEVORRICHTUNG MIT WELLENLEITERBASIERTEM TALBOT-ILLUMINATOR

Title (fr)
DISPOSITIF D’AFFICHAGE À ILLUMINATEUR TALBOT À BASE DE GUIDE D’ONDES

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EP 4370827 A1 20240522 (EN)

Application
EP 22751921 A 20220713

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Abstract (en)
[origin: WO2023287897A1] A waveguide illuminator (104) for illuminating a display panel includes an input waveguide (106), a waveguide splitter (112) coupled to the input waveguide (106), and a waveguide array (116) coupled to the waveguide splitter (112). The waveguide array (116) includes an array of out-couplers (120) out-coupling portions of the split light beam to form an array of out-coupled beam portions (122) for illuminating a display panel. The out-coupled beam portions (122) undergo optical interference and form a Talbot pattern of illumination correlated with pixel array of the display panel, enabling an optical throughput increase by centering individual Talbot peaks on the display panel pixels.

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