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**KANG et al.**(10) **Pub. No.: US 2024/0215409 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **ORGANIC LIGHT-EMITTING DIODE  
DISPLAY DEVICE AND METHOD OF  
MANUFACTURING THE SAME**(71) Applicant: **LG Display Co., Ltd.**, Seoul (KR)(72) Inventors: **Yeon-Suk KANG**, Paju-si (KR);  
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(57)

**ABSTRACT**

An organic light-emitting diode display device can include a substrate providing with a plurality of sub-pixels. The device includes a light-emitting diode disposed at each of the plurality of sub-pixels over the substrate. The device includes a color filter over the light-emitting diode. The device includes a lens layer over the color filter. The device includes an overcoat layer over the lens layer. A concave portion is provided between adjacent color filters. The lens layer includes a convex lens portion over the color filter and a concave lens portion over the concave portion.

