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(54) Title: WAVEGUIDE DESIGNS WITH LOW EYE-GLOW AND HIGH EFFICIENCY

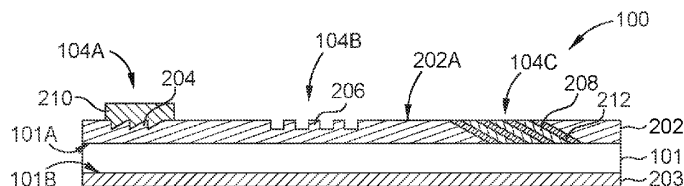


FIG. 2A

(57) Abstract: Embodiments of the present disclosure generally relate to optical devices. More specifically, embodiments described herein relate to waveguides with gratings to reduce eye-glow and increase efficiency. In an embodiment, a waveguide includes an incoupler grating and an outcoupler grating disposed over a waveguide substrate. The incoupler grating comprising a plurality of blazed structures for incoupling light into the waveguide and a metal coating disposed over the plurality of blazed structures. The outcoupler grating comprises a plurality of slant structures, wherein each of the plurality of slant structures comprises slant surfaces angled at a slant angle relative to a surface normal to the waveguide substrate.

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