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(54) Title: LIGHTING DEVICE AND METHOD FOR ENHANCING PLANT GROWTH

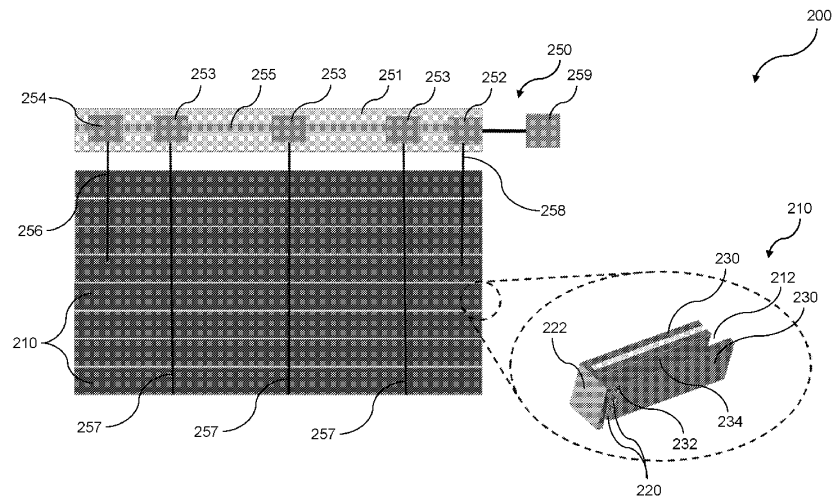


Figure 2A

(57) Abstract: The present disclosure generally relates to a lighting device (200) and method for enhancing plant growth. The lighting device (200) comprises a set of panel assemblies (210), each panel assembly (210) comprises a set of light sources (220) for emitting incident light and a plurality of lighting panels (230), each lighting panel (230) comprising a fluorescent material (240) that emits fluorescent light upon exposure to the incident light, the fluorescent light and transmitted incident light combining as plant lighting for enhancing plant growth. The lighting device (200) further comprises an actuation mechanism (250) coupled to the panel assemblies (210) for rearranging the lighting panels (230) of each panel assembly (210) to redirect the plant lighting, wherein for each panel assembly (210), the fluorescent materials (240) of the lighting panels (230) have different compositions, such that the resulting plant lighting are different for different stages of plant growth.

[Continued on next page]

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