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Nichols et al.(10) **Pub. No.: US 2022/0377865 A1**(43) **Pub. Date: Nov. 24, 2022**(54) **LIGHTING SYSTEM****Publication Classification**(71) Applicant: **Avid Labs, LLC**, Fort Wayne, IN (US)(72) Inventors: **Joel A. Nichols**, Columbia City, IN (US); **Dominic Picciuto**, Crestview Hills, KY (US)(73) Assignee: **Avid Labs, LLC**, Fort Wayne, IN (US)(21) Appl. No.: **17/818,092**(22) Filed: **Aug. 8, 2022**(51) **Int. Cl.****H05B 47/13** (2006.01)**F21L 4/02** (2006.01)**H05B 47/125** (2006.01)**H05B 47/165** (2006.01)**H05B 47/155** (2006.01)**H05B 47/195** (2006.01)(52) **U.S. Cl.**CPC **H05B 47/13** (2020.01); **F21L 4/025** (2013.01); **H05B 47/125** (2020.01); **H05B 47/165** (2020.01); **H05B 47/155** (2020.01); **H05B 47/195** (2020.01)**Related U.S. Application Data**

(63) Continuation-in-part of application No. 17/475,218, filed on Sep. 14, 2021, now Pat. No. 11,466,833, which is a continuation-in-part of application No. 17/111,605, filed on Dec. 4, 2020, now abandoned, said application No. 17/475,218 is a continuation-in-part of application No. 17/076,738, filed on Oct. 21, 2020, now Pat. No. 11,457,517, Continuation-in-part of application No. 17/076,738, filed on Oct. 21, 2020, now Pat. No. 11,457,517.

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(57)

ABSTRACT

A lighting system includes a lighting device arranged to attach to a vehicle. The lighting device includes at least two ultraviolet lights and at least one sensor. The sensor determines whether any of at least two areas or zones adjacent to the lighting device are poorly visibly illuminated and/or occupied by personnel, and illuminates these areas or zones with ultraviolet light. The lighting system is configured to operate in conjunction with existing emergency visible lighting and/or flashing visible light systems by using the sensors to sense visible illumination of each individual area or zone provided by the existing emergency visible lighting and flashing visible light systems. The lighting system may be configured to synchronize the illumination of each individual area or zone in ultraviolet light with intermittent absence of visible light illumination in each area or zone from the existing emergency visible lighting and flashing visible light systems.

