US 20240215136A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0215136 A1**

Gerges et al. (43) **Pub. Date: Jun. 27, 2024**

(54) **ADAPTIVE ILLUMINANCE CONTROL**

(71) Applicant: **University of Washington**, Seattle, WA (US)

(72) Inventors: **Mark Gerges**, Seattle, WA (US); **Xu Chen**, Seattle, WA (US)

(21) Appl. No.: **18/557,128**

(22) PCT Filed: **Apr. 25, 2022**

(86) PCT No.: **PCT/US2022/026232**

§ 371 (c)(1),
(2) Date: **Oct. 25, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/180,631, filed on Apr. 27, 2021.

Publication Classification

(51) **Int. Cl.**
H05B 47/175 (2006.01)
G06F 3/0484 (2006.01)
H05B 47/105 (2006.01)

(52) **U.S. Cl.**
CPC ***H05B 47/196*** (2024.01); ***H05B 47/105*** (2020.01); *G06F 3/0484* (2013.01)

(57) **ABSTRACT**

A method includes receiving, via. a. user interface of a computing device, input indicating target illuminances that correspond to surfaces of an object, determining, via the computing device, power levels for compensatory light sources based on the target illuminances and positions and orientations of the surfaces with respect to the compensatory light sources, and causing, via. the computing device, the compensatory light sources to operate according to the power levels.