US 20240179823A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2024/0179823 A1**

(43) **Pub. Date: May 30, 2024**

VAN DE SLUIS et al.

(54) **LIGHTING CONTROL BASED ON A CO-LOCATED ACTIVE ANTENNA ARRAY**

(71) Applicant: **SIGNIFY HOLDING B.V.**, EINDHOVEN (NL)

(72) Inventors: **BARTEL MARINUS VAN DE SLUIS**, EINDHOVEN (NL); **MATTHIAS WENDT**, WÜRSELEN (DE); **MAURICE HERMAN JOHAN DRAAIJER**, ITTERVOORT (NL)

(21) Appl. No.: **18/284,724**

(22) PCT Filed: **Mar. 29, 2022**

(86) PCT No.: **PCT/EP2022/058271**

§ 371 (c)(1),
(2) Date: **Sep. 28, 2023**

(30) **Foreign Application Priority Data**

Apr. 2, 2021 (EP) 21166833.0

Publication Classification

(51) **Int. Cl.**

H05B 47/175	(2006.01)
H01Q 1/24	(2006.01)
H05B 47/11	(2006.01)
H05B 47/14	(2006.01)
H05B 47/17	(2006.01)

(52) **U.S. Cl.**

CPC ***H05B 47/1965*** (2024.01); ***H01Q 1/24*** (2013.01); ***H05B 47/11*** (2020.01); ***H05B 47/14*** (2020.01); ***H05B 47/17*** (2020.01); ***H05B 47/1985*** (2024.01)

(57) **ABSTRACT**

A system (**100**) comprising one or more light sources (**110**) for illumination; an array of active antennas (**120**) configured to detect contextual information; and a controller (**130**) configured to obtain the contextual information from the array of active antenna; and control the one or more light sources based on the contextual information; wherein the array of active antennas (**120**) is shared with a co-located MIMO communication system, and the contextual information is related to one or more objects in an illumination area covered by the one or more light sources (**110**).