



(12) **CORRECTED EUROPEAN PATENT APPLICATION**

(15) Correction information:
Corrected version no 1 (W1 A1)
Corrections, see
Bibliography INID code(s) 30

(51) Int Cl.:
G09G 3/34 (2006.01) **F21K 99/00** (2016.01)
G09G 5/02 (2006.01)

(48) Corrigendum issued on:
16.03.2016 Bulletin 2016/11

(43) Date of publication:
16.12.2015 Bulletin 2015/51

(21) Application number: **14172195.1**

(22) Date of filing: **12.06.2014**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(72) Inventors:
• **Ghoshal, Sajol Christopher**
78759 Austin, Texas (US)
• **Afshari, Sina**
12180 New York, New York (US)

(30) Priority: **09.05.2014 US 201461991321 P**

(74) Representative: **Epping - Hermann - Fischer**
Patentanwalts-gesellschaft mbH
Schloßschmidstraße 5
80639 München (DE)

(71) Applicant: **ams AG**
8141 Unterpremstätten (AT)

(54) **Method for calibrating a color space transformation, method for color space transformation and color control system**

(57) A method of calibrating a color space transformation accordingly comprises the driving of a light source at a first ambient temperature (T_1). The light source is tuned to emit light with a number N of combinations of at least two correlated color temperatures and at least two intensities. Furthermore, for each of the N combinations, color coordinates are received by a processing unit including first red coordinates, first green coordinates and first blue coordinates derived from measurements in the RGB color space, and first x-coordinates, first y-coordinates and first z-coordinates derived from measurements in the XYZ color space. Respective $3 \times N$ matrices RGB_1 and XYZ_1 are subsequently constructed based on the received coordinates, and a 3×3 conversion matrix C is generated to fulfil the relation $XYZ_1 = C * RGB_1$.

FIG 1

