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(71) Applicant (for all designated States except DE, US):
KONINKLUKE PHILIPS ELECTRONICS N.V.
[NLML]; Groenewoudseweg 1, NL-5621 BA Eindhoven
(NL).

(71) Applicant (for DE only): **PHILIPS INTELLECTUAL
PROPERTY & STANDARDS GMBH** [DE/DE];
Lübeckertordamm 5, 20099 Hamburg (DE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SCHULZ, Volkmar**
[DE/DE]; c/o High Tech Campus Building 44, NL-5656
AE Eindhoven (NL).

(74) Agents: **BEKKERS, Joost, J., J.** et al.; High Tech Cam-
pus Building 44, NL-5656 AE Eindhoven (NL).

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(54) Title: COLOR-CONTROLLED BACKLIT DISPLAY DEVICE

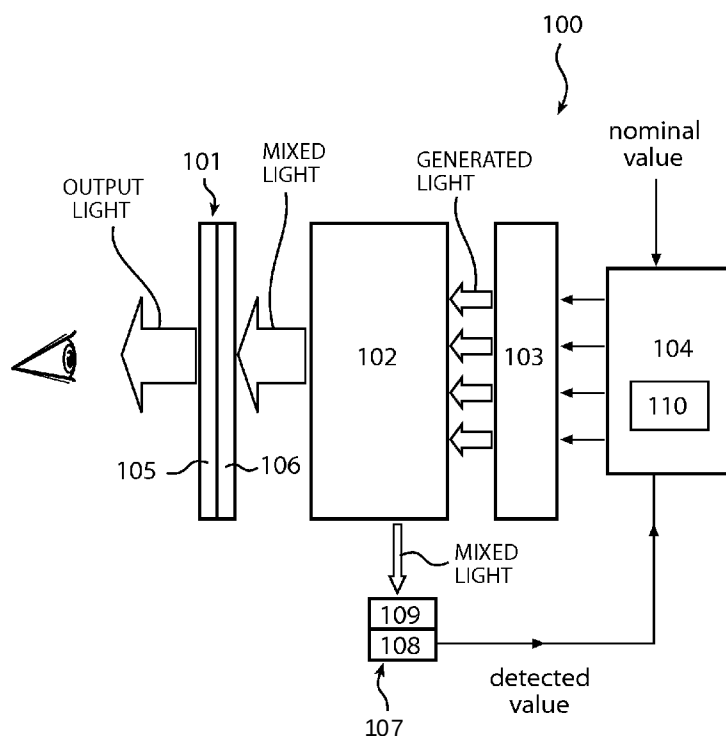


FIG. 1

(57) **Abstract:** A device and method are described for a color-controlled backlit display device (100), which device and method employ a feedback-detected color value that is processed so as to equal the output light of the display. The device comprises a plurality of light sources (103), a light output unit (101) comprising a display element (106), a first color-rendering optical element (105), a color control unit (104), a first light-mixing device (102), and a light detection unit (107) comprising a color sensor (108). The color control unit controls the light generated by means of the light sources on the basis of a nominal predefined color value and the detected color value, wherein the generated light is mixed by the first light-mixing device and passed through the light output unit. A minor part of the mixed generated light is detected by the light detection unit, which generates the detected color value that is fed back to the color control unit. The light detection unit further comprises a second color-rendering optical element (109) for processing the light entering the color sensor so as to equal the light leaving the light output unit.

WO 2008/090499 A3



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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/246435 A1 (KAMEI TATSUO [JP]) 9 December 2004 (2004-12-09)	1-4, 6-9
Y	paragraph [0022] - paragraph [0024] paragraph [0047] - paragraph [0049]	5
Y	US 6 608 614 B1 (JOHNSON RICK J [US]) 19 August 2003 (2003-08-19) paragraph [0028]	5
A	US 7 002 546 B1 (STUPPI ALBERT N [US] ET AL) 21 February 2006 (2006-02-21) cited in the application figure 4 column 4, line 36 - line 57 column 5, line 22 - line 33	1-9

D Further documents are listed in the continuation of Box C.

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hussel in, Stephane

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US 2004246435	A1	09-12-2004	CN 1573444 A 02-02-2005
			JP 2004361618 A 24-12-2004
			US 2008048967 A1 28-02-2008
US 6608614	B1	19-08-2003	NONE
US 7002546	B1	21-02-2006	NONE