(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
02 December 2021 (02.12.2021)

WIPO | PCT

(10) International Publication Number
WO 2021/240060 A1

(51) International Patent Classification:
G02B 5/18 (2006.01) *G02B 27/01* (2006.01)
G02B 27/00 (2006.01)

(21) International Application Number:
PCT/FI2021/050374

(22) International Filing Date:
25 May 2021 (25.05.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20205559 29 May 2020 (29.05.2020) FI

(71) Applicant: **DISPELIX OY** [FI/FI]; Metsänneidonkuja 10, 02130 Espoo (FI).

(72) Inventors: **LAJUNEN, Hanna**; c/o Dispelix Oy, Metsänneidonkuja 10, 02130 Espoo (FI). **SAASTAMOINEN, Toni**; c/o Dispelix Oy, Metsänneidonkuja 10, 02130 Espoo (FI).

(74) Agent: **LAINE IP OY**; Porkkalankatu 24, 00180 Helsinki (FI).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,

(54) Title: EXIT PUPIL EXPANDER

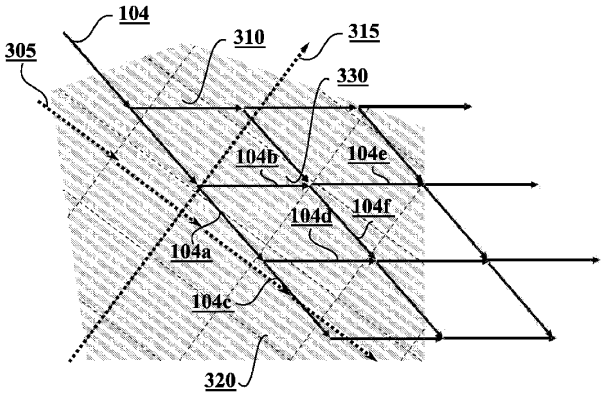


FIGURE 3

(57) Abstract: According to an example aspect of the present invention, there is provided an Exit Pupil Expander, EPE, grating which is divided into at least two segments, wherein the EPE grating comprises multiple grating bars in a first segment and multiple grating bars in a second segment, said multiple grating bars of the first segment being directed about to a same direction as said multiple grating bars of the second segment and misaligned in a direction which is perpendicular to the direction of the grating bars.

WO 2021/240060 A1

[Continued on next page]

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*