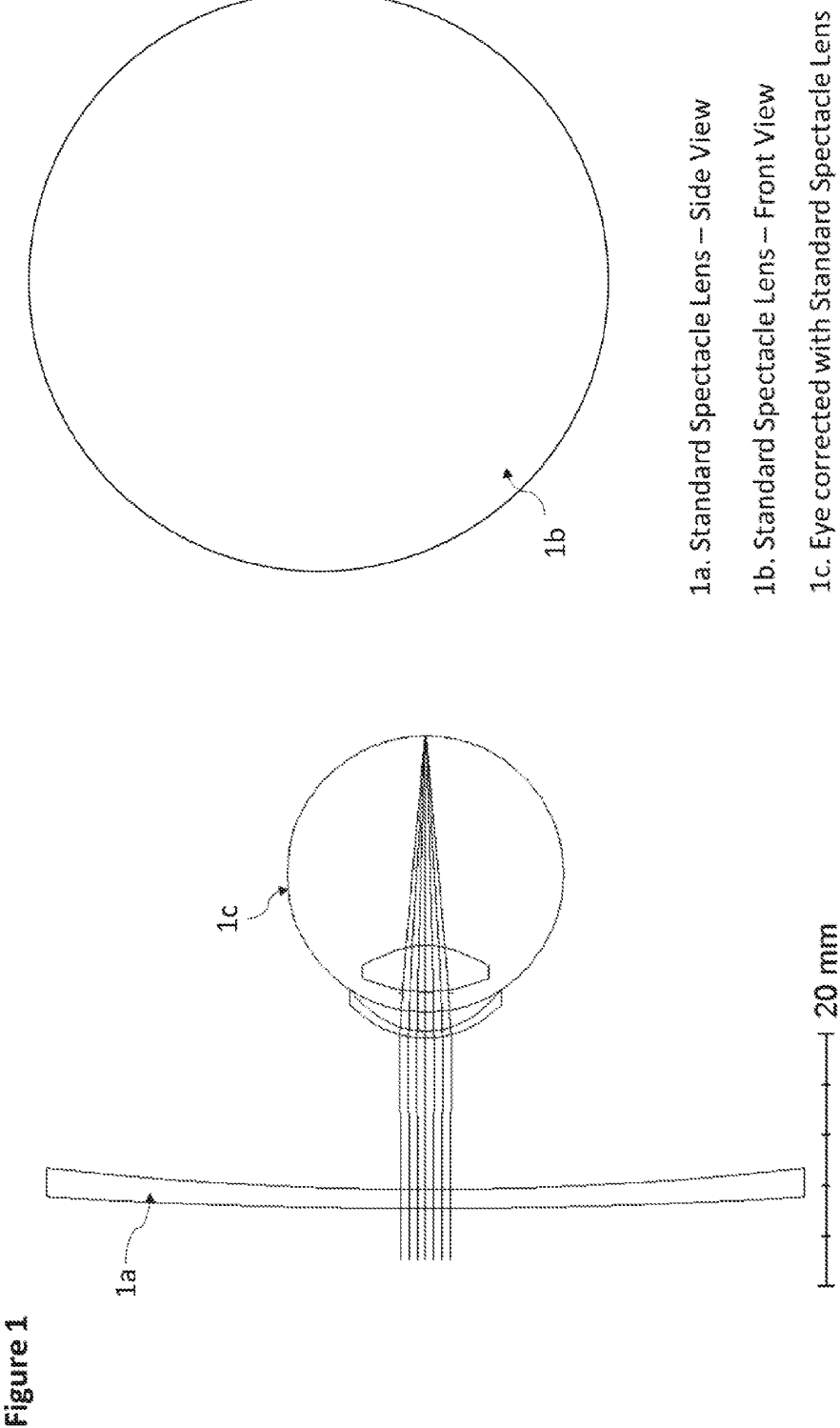




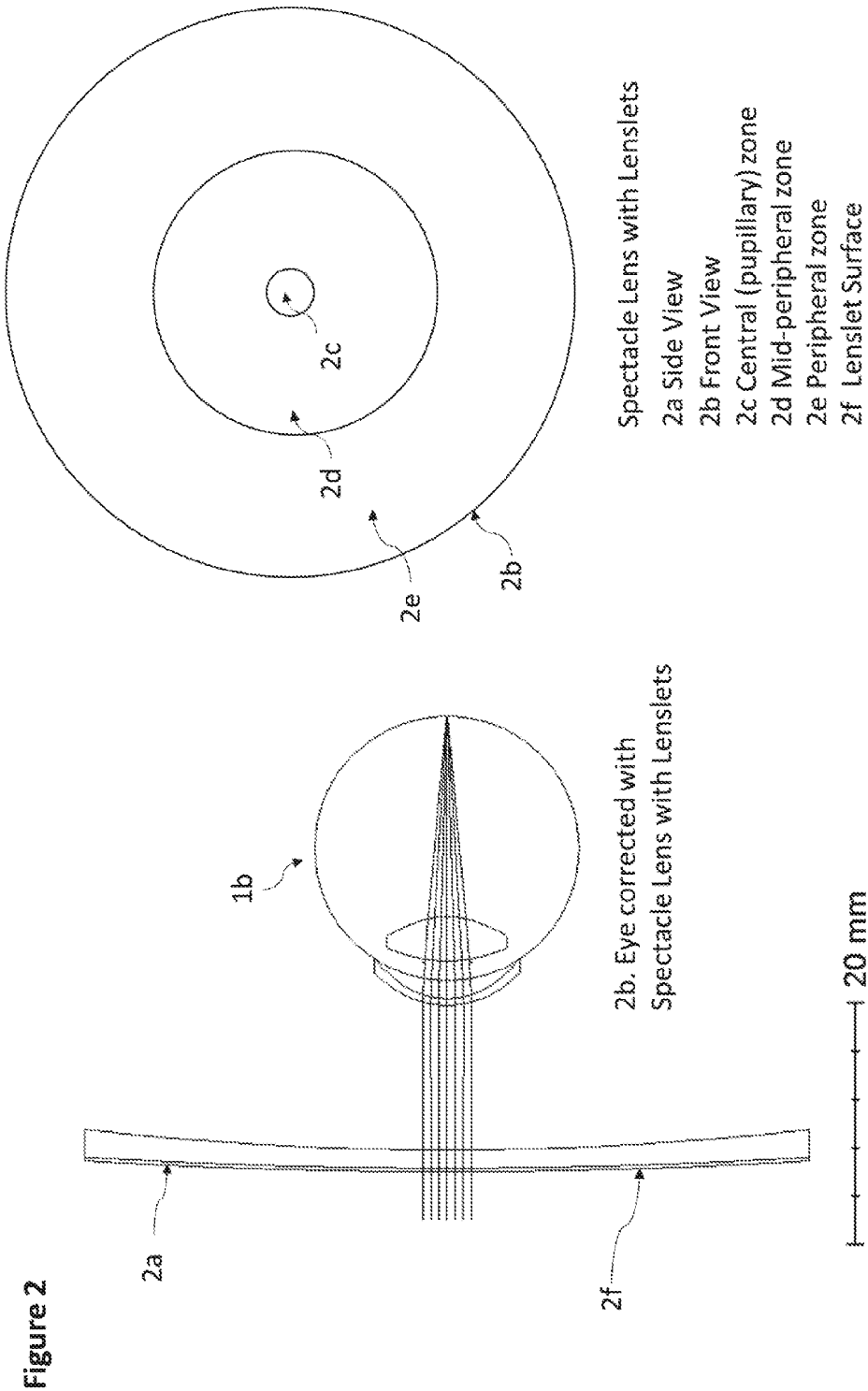


Figure 3- power profile of a light modulated cell

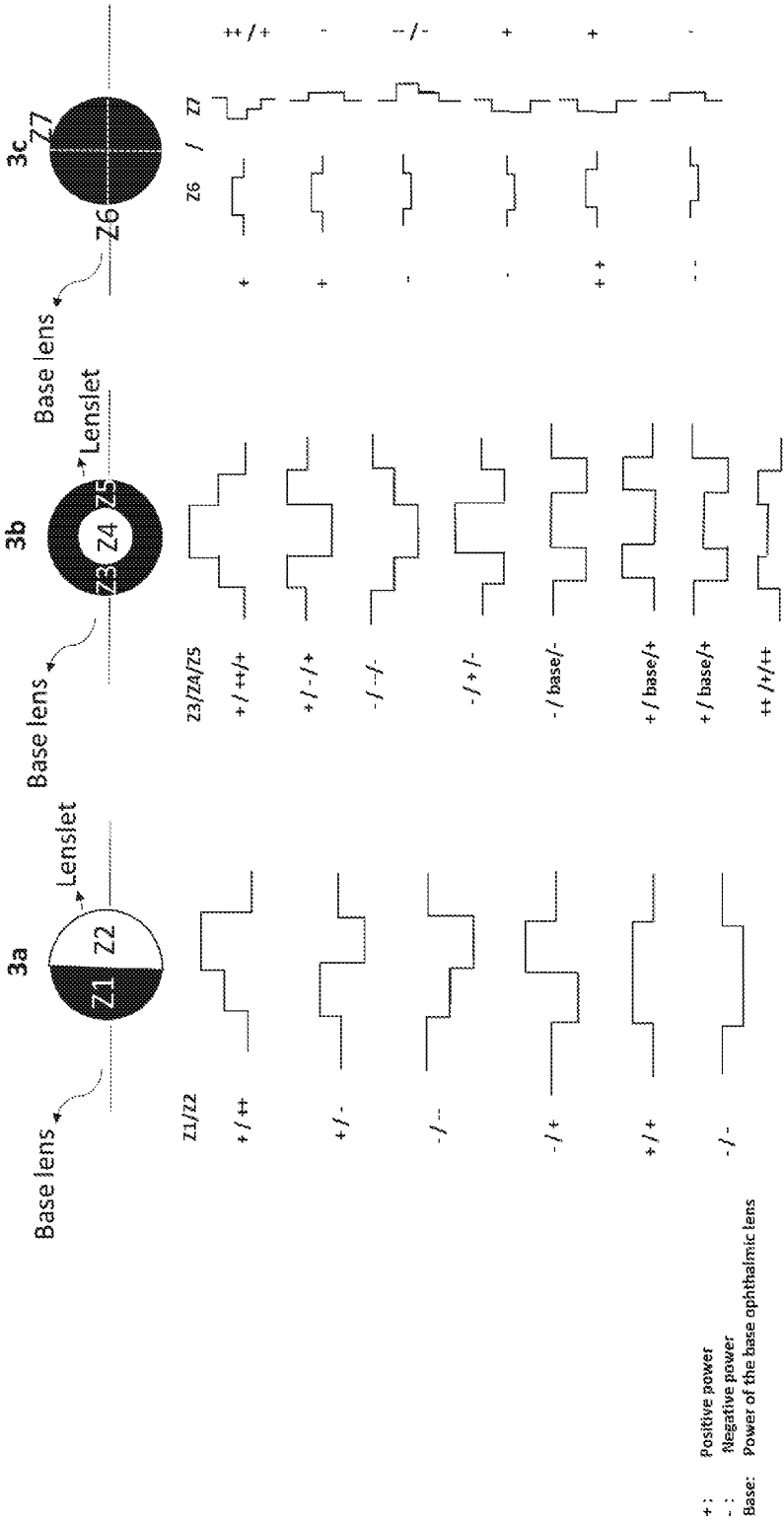


Figure 4- surface profile of a light modulated cell

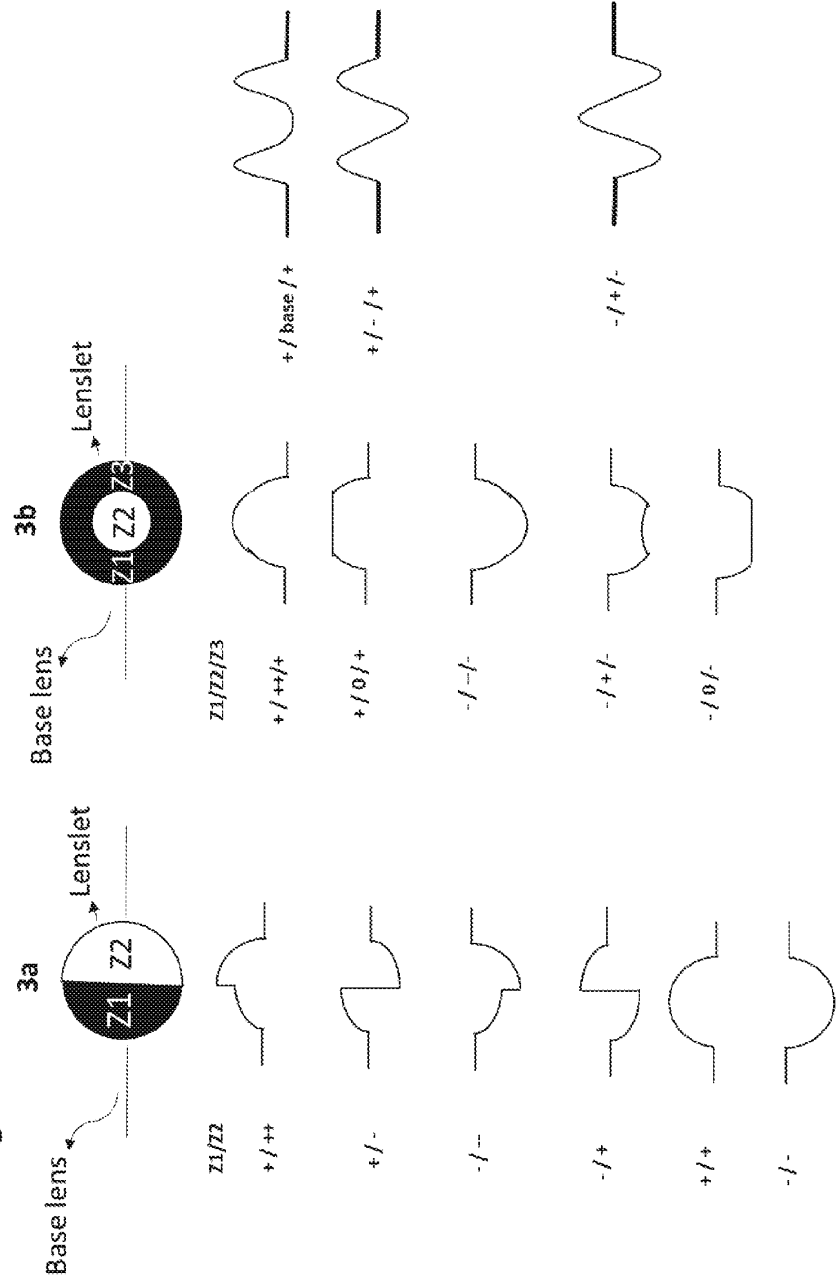


Figure 5

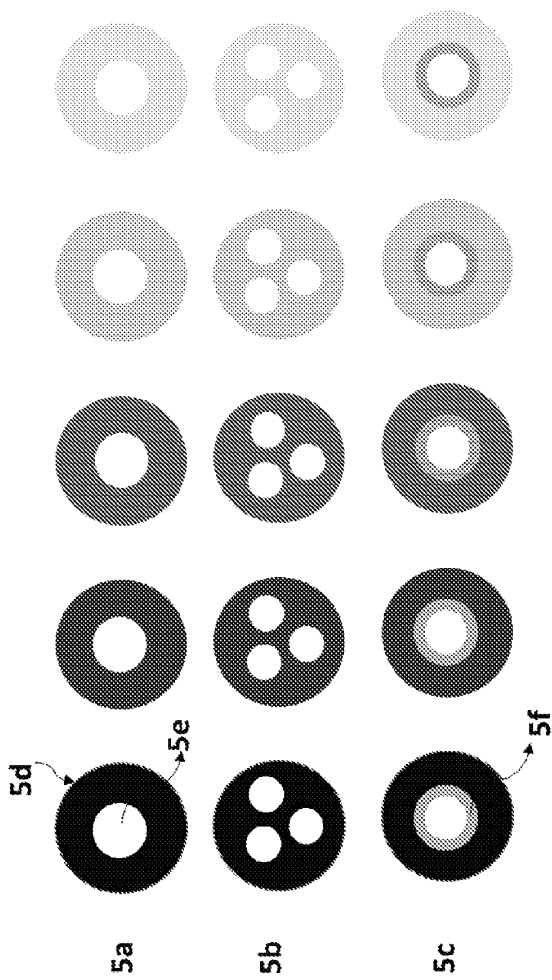


Figure 6- Distribution of lenslets across the lens zones

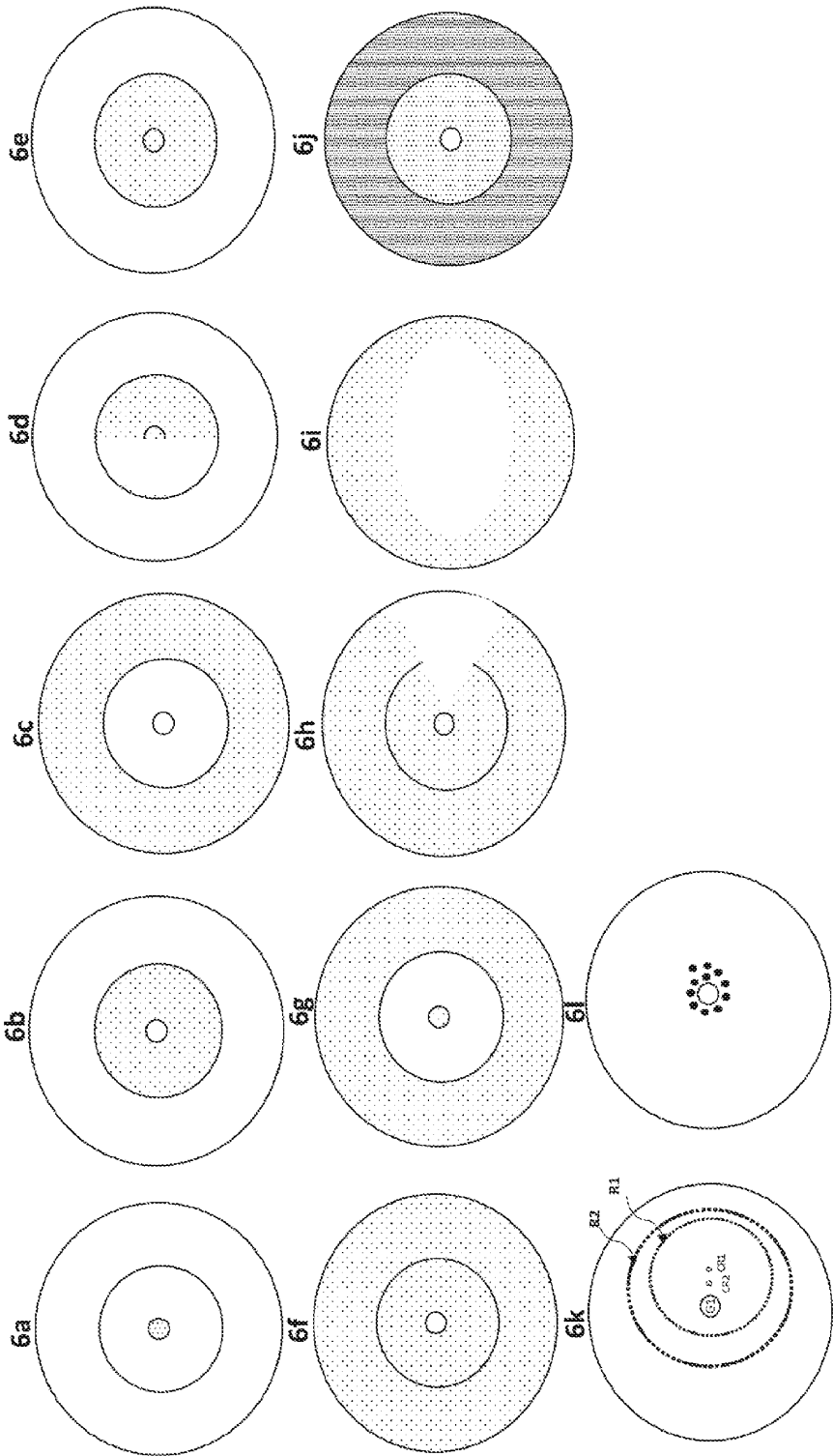


Figure 7

Lens	Base lens Power (D)	Central zone diameter (mm)	Peripheral zone width (mm)	Light modulating cell diameter (mm)	Light modulating cell power (D)	Light modulating cell spacing – edge to edge (mm)	Geometrical fill factor excluding central zone (% light modulating cell coverage of peripheral zone i.e. % myopically defocused: % hyperopically defocused)	Through focus light distribution (% light myopically defocused: % hyperopically defocused)
1	Plano	9.2	30.8	1.00	+3.50	1.50	58%: 0%	23.8%: 34.7%
2	Plano	0	7	0.20	+7.50	0.49	25%: 0%	10.7%: 15.0%
3	Plano	0	30	0.20	+1.30	0.49	21%: 0%	9.0%: 11.87%
4	Plano	9.2	20.8	1.00	-3.50	1.50	0%: 58%	34.7%: 23.8%

Figure 8

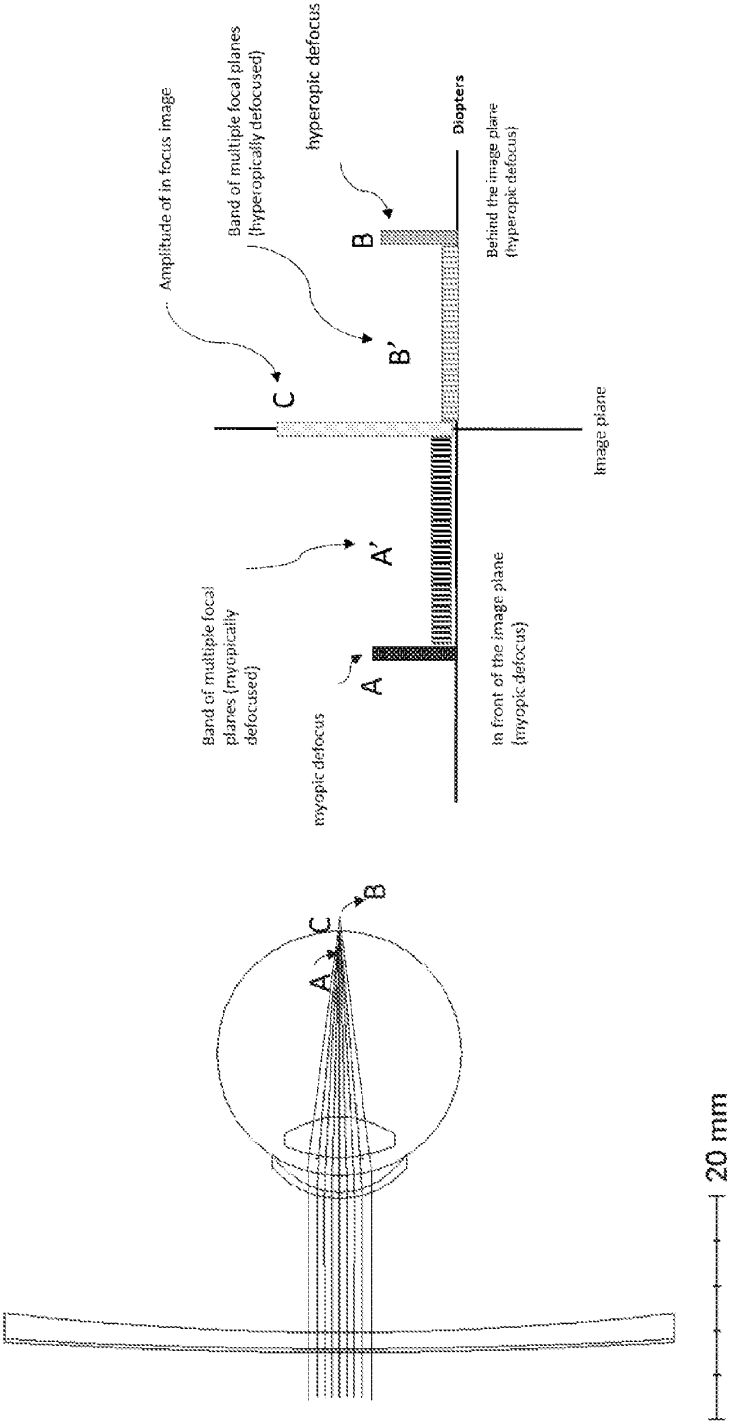
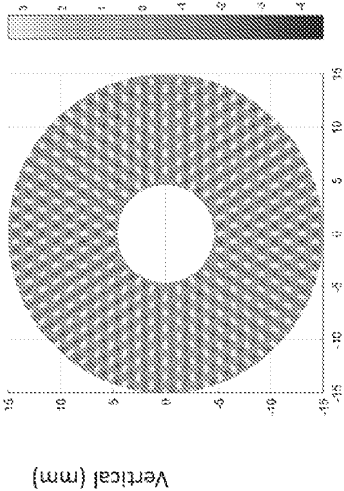


Figure 9: Lens 1 of Fig 7

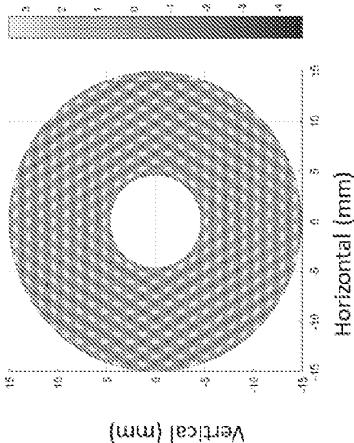
Power Map- Sagittal meridian

9a



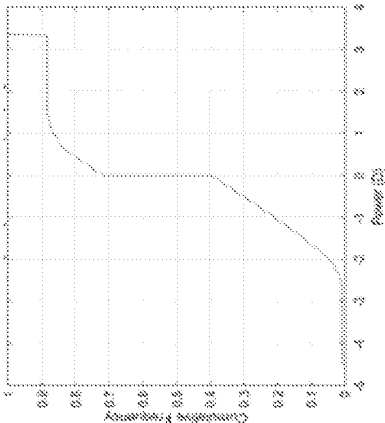
9b

Power Map- tangential meridian



Cumulative frequency distribution plot

9c



Through Focus Light Distribution

9d

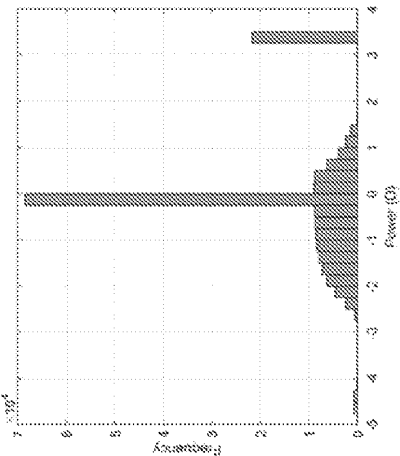


Figure 10

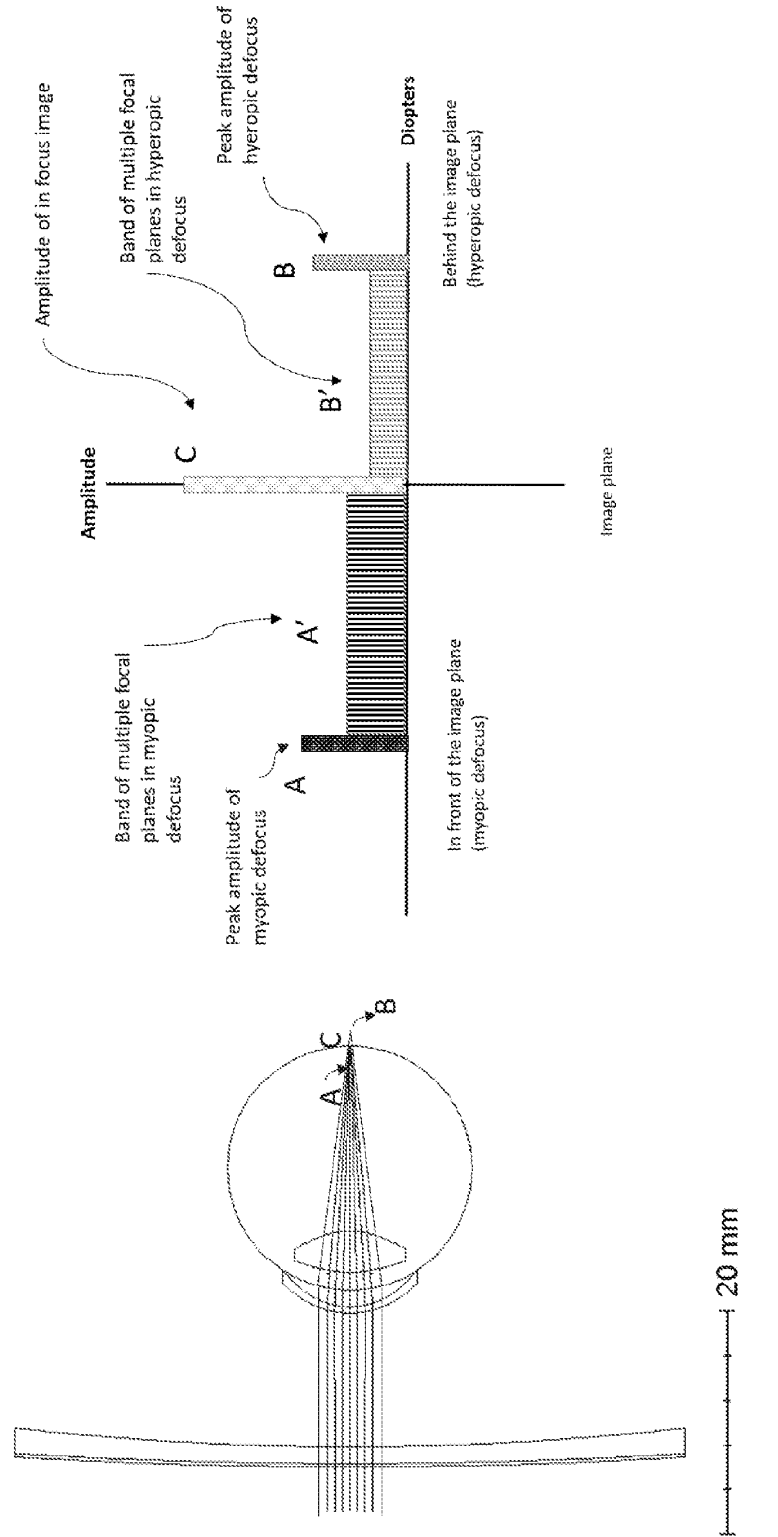


Figure 11

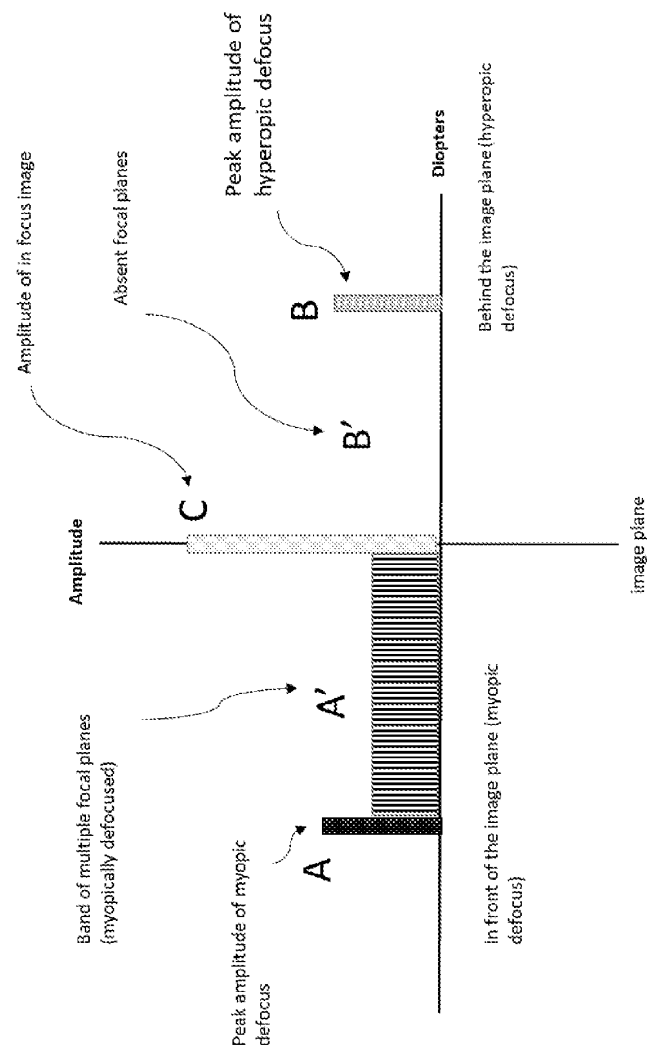


Figure 12

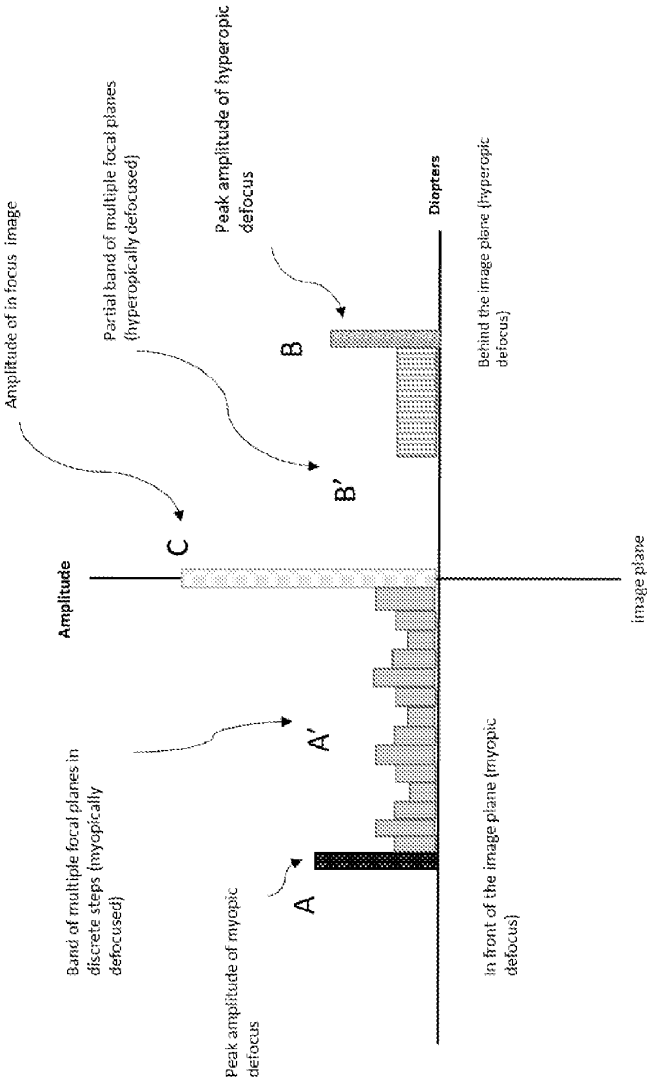
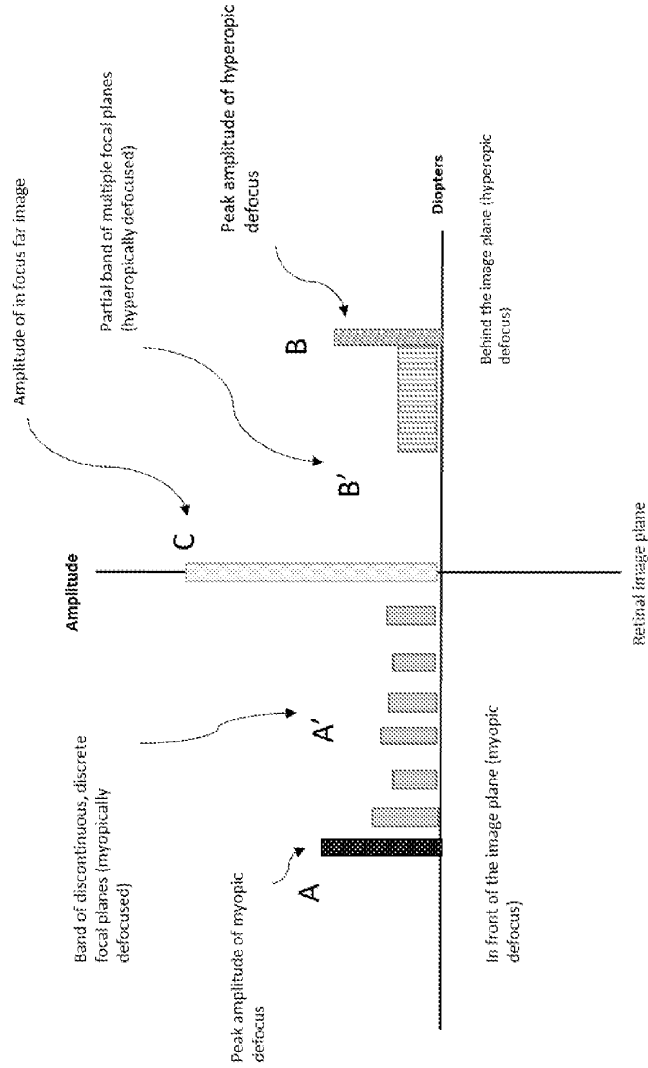


Figure 13



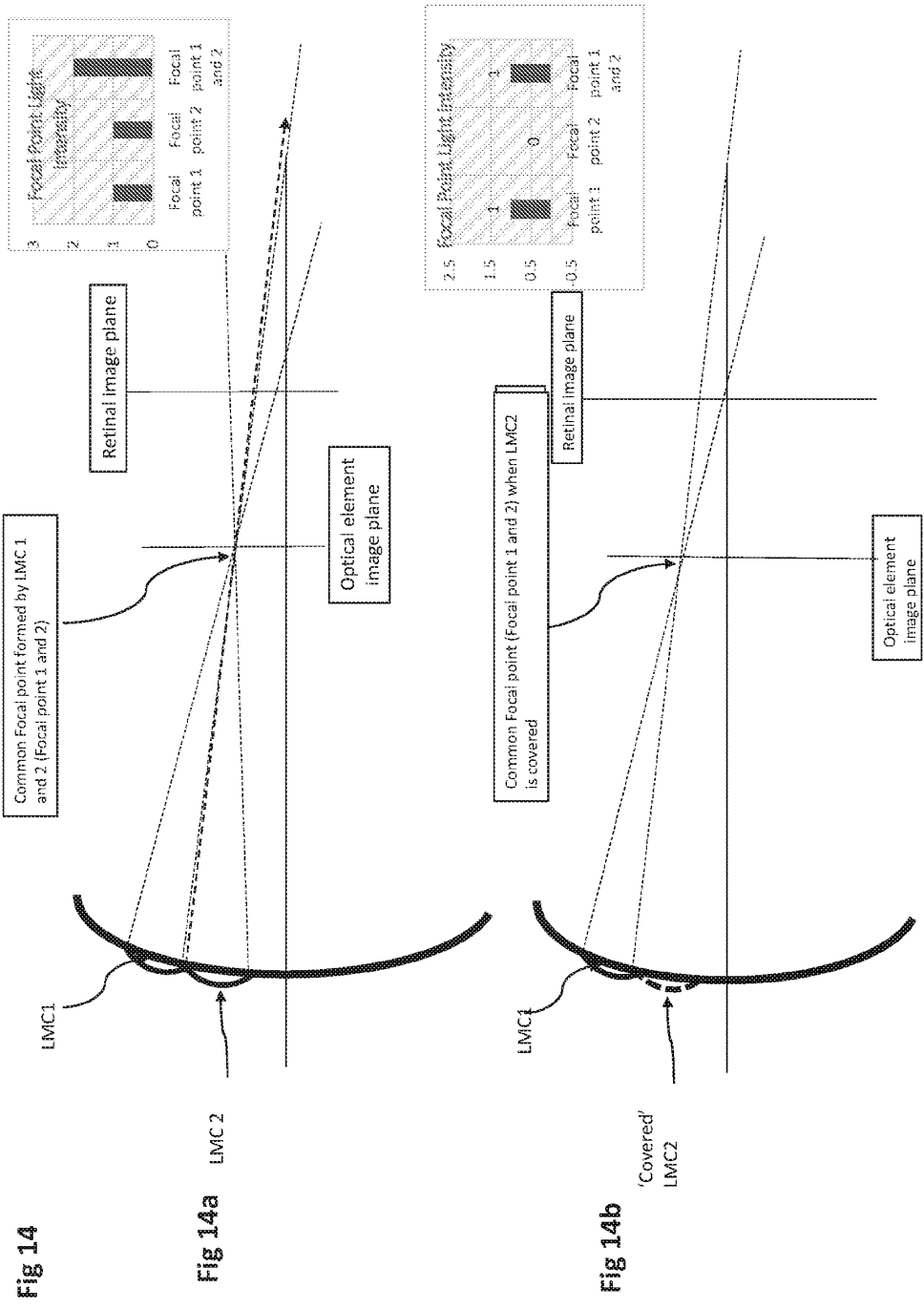


Figure 15
Table 1:
 Light modulating cells
 specifications for Examples 1 -
 13

Examples 1 – 13 show the power maps (in Diopters) of a spectacle lens with light modulating cells.

The spectacle lens has a power of $-2.00D$ (i.e. in the area with no light modulating cells) and it comprises of positive (except for Examples 5 and 6) and negative light modulating cells. The examples show lenslets that feature different powers, sizes, fill ratios and distribution (i.e. number of positive/negative light modulating cells for three different optic zones, i.e. central, mid-peripheral and peripheral zones).

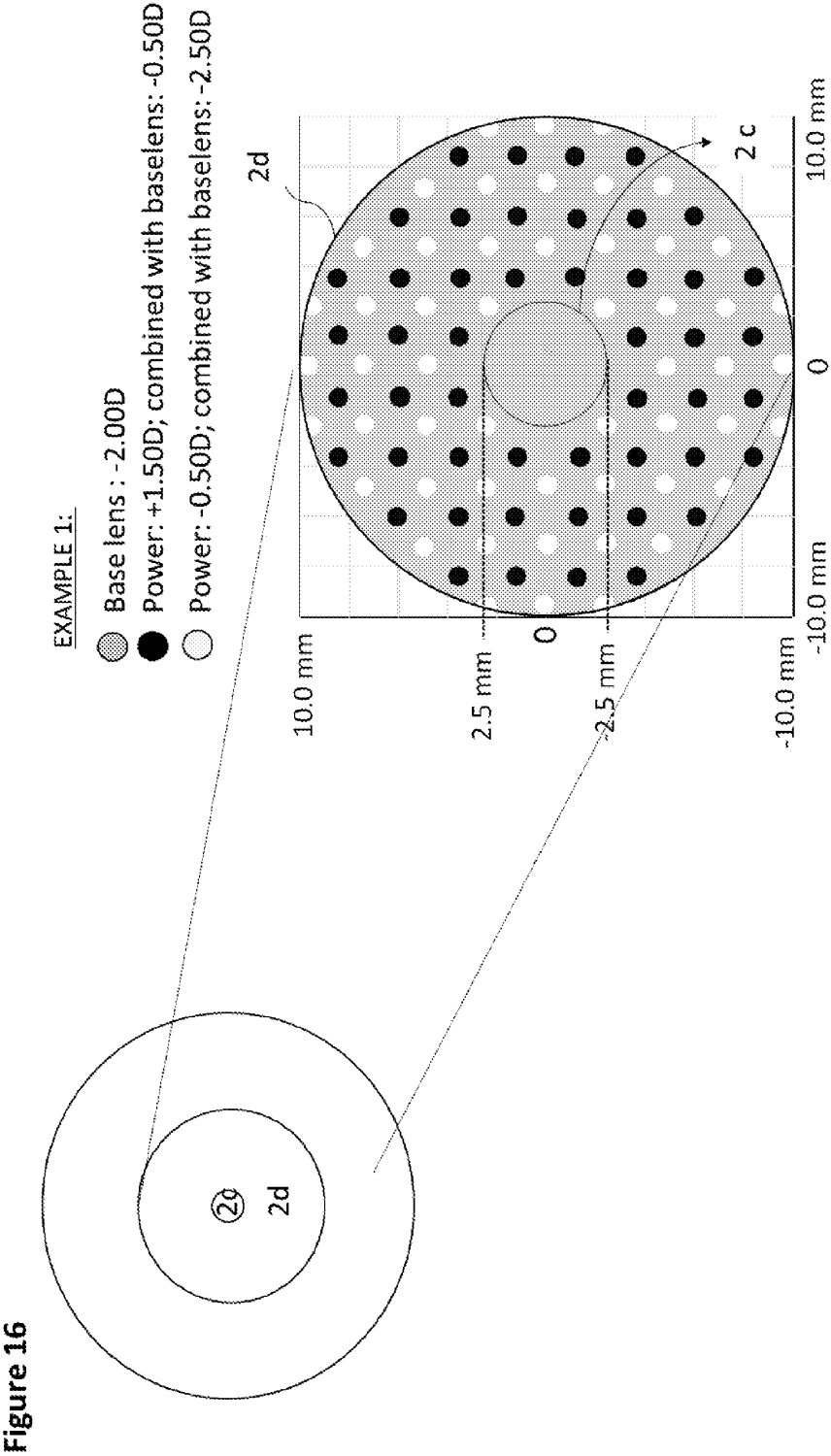
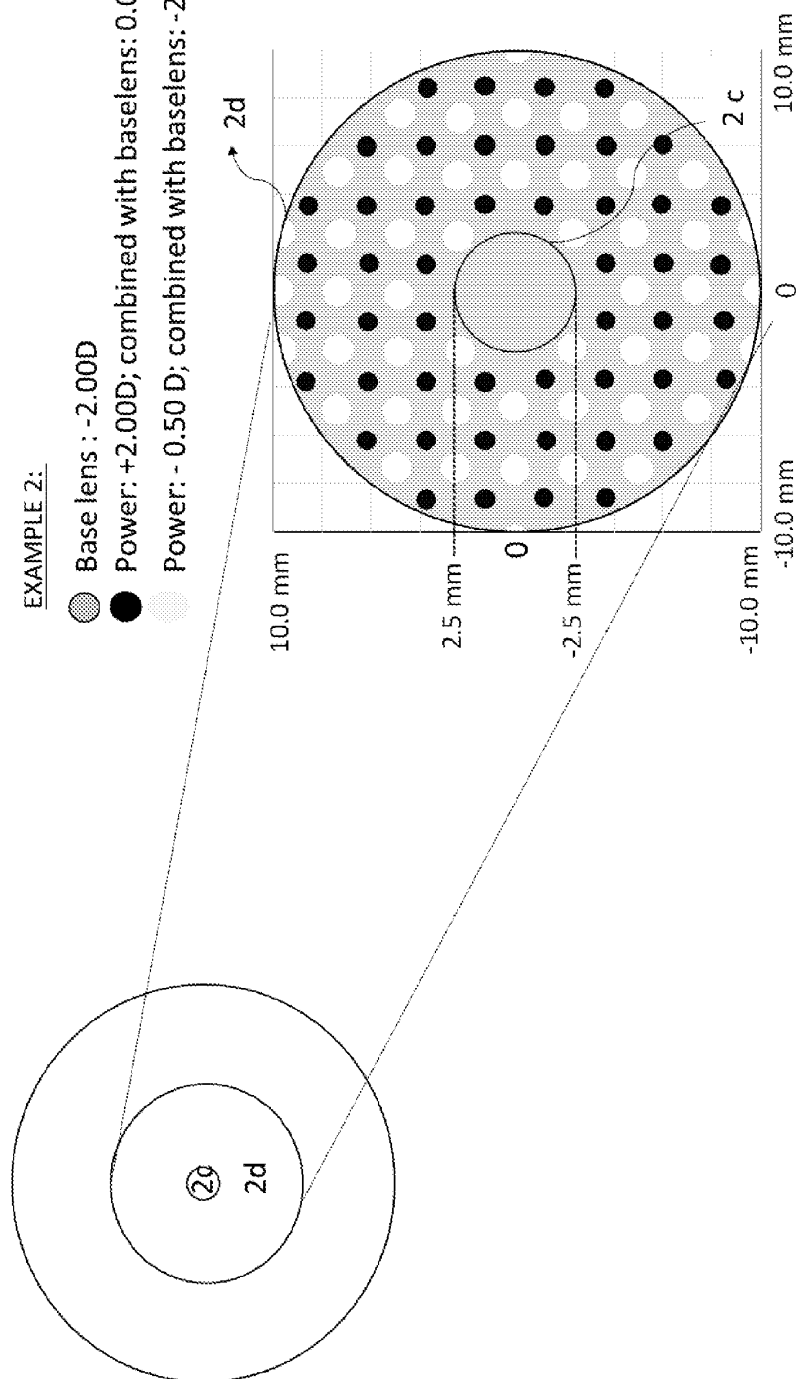


Figure 17

EXAMPLE 2:

- Base lens : -2.00D
● Power: +2.00D; combined with baselens: 0.00D
● Power: - 0.50 D; combined with baselens: -2.50D



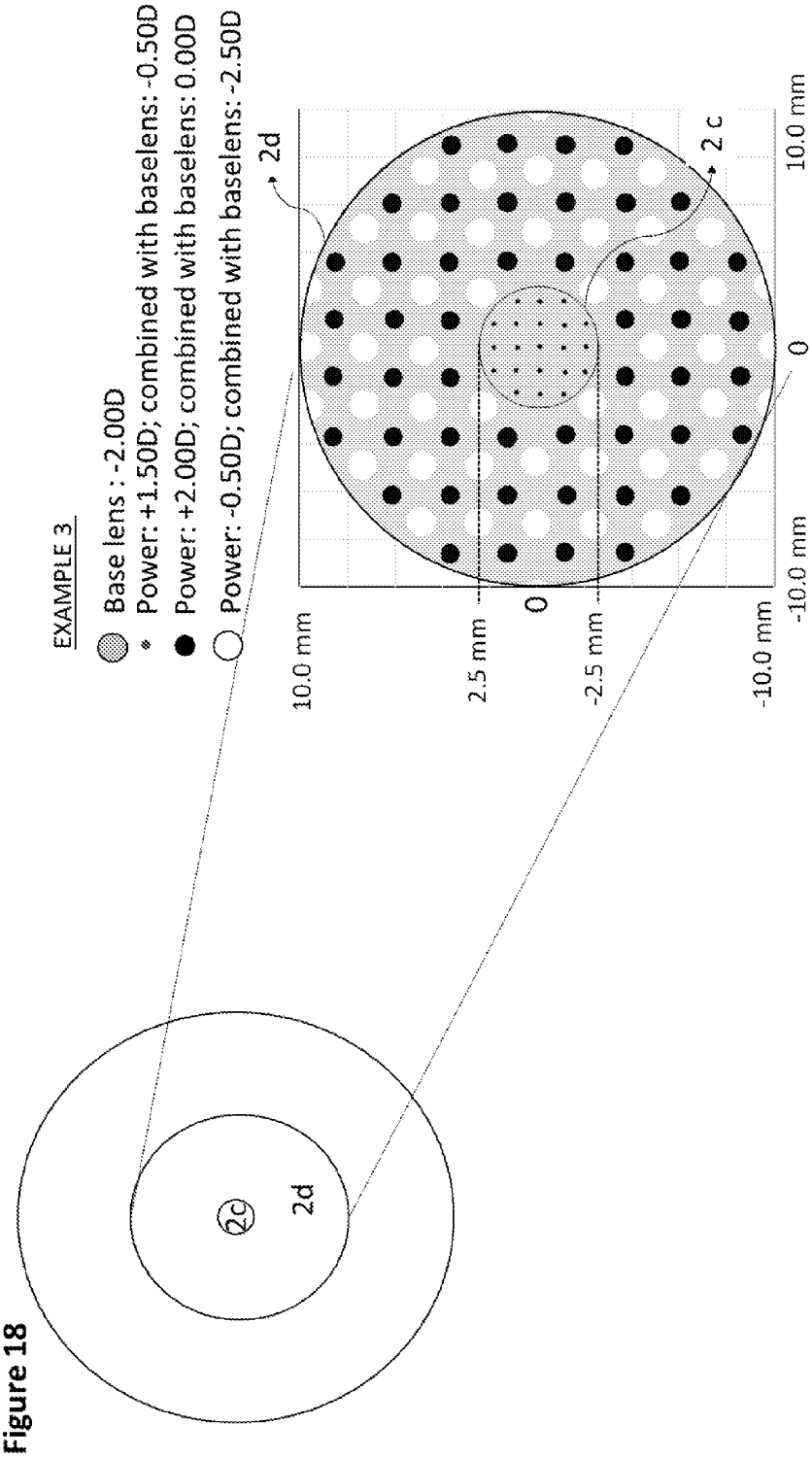


Figure 19

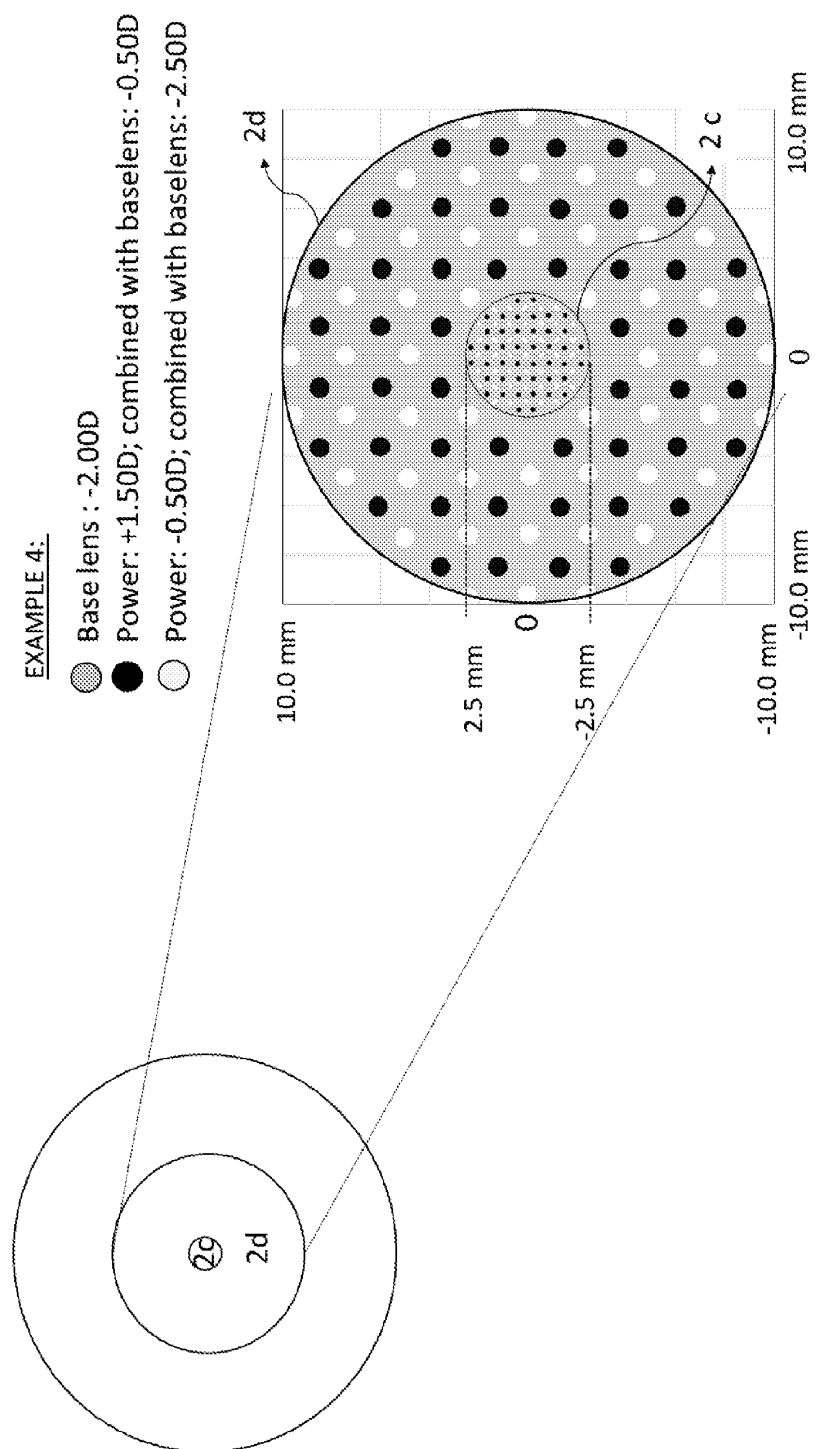


Figure 20

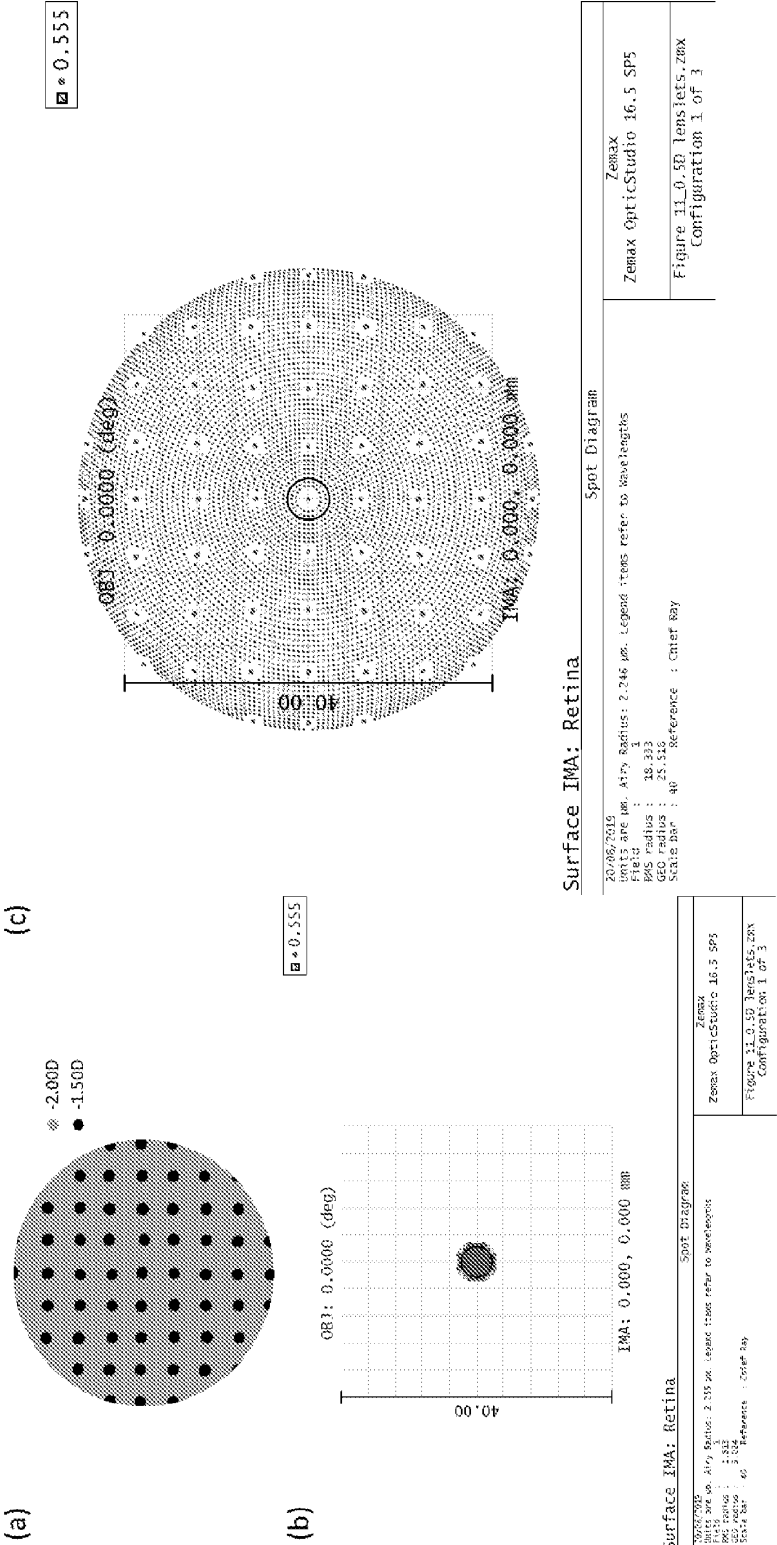
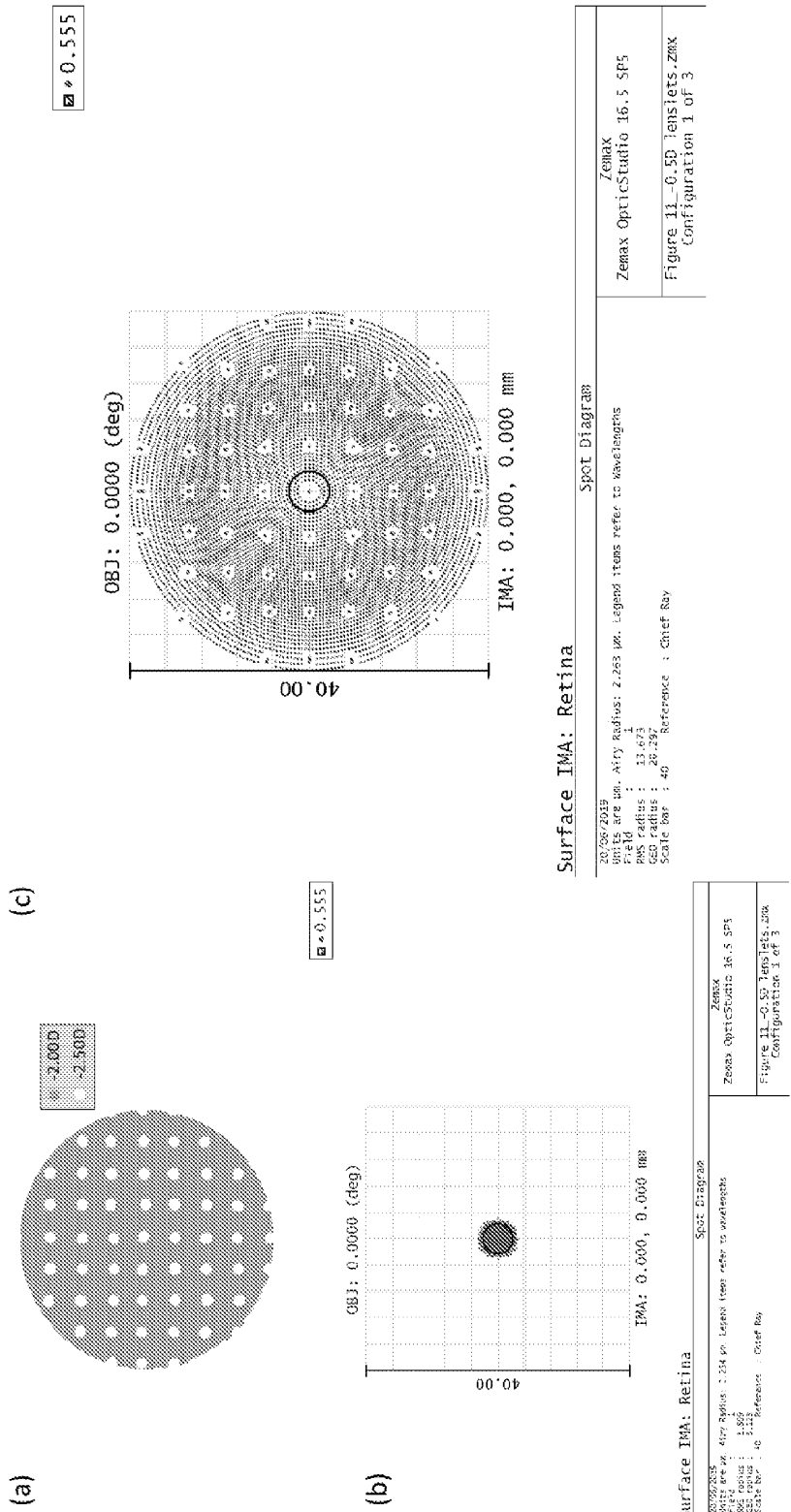
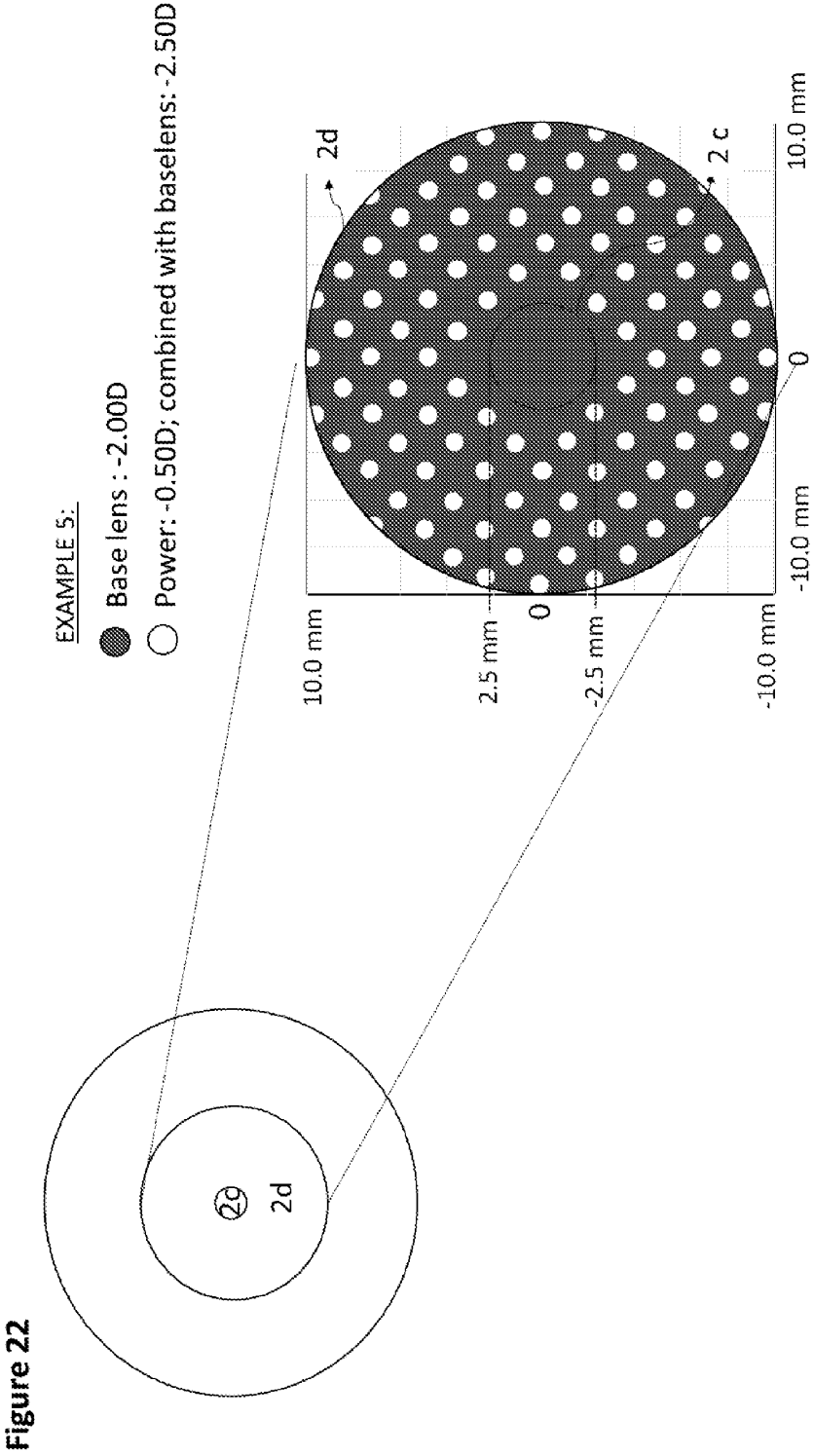


Figure 21





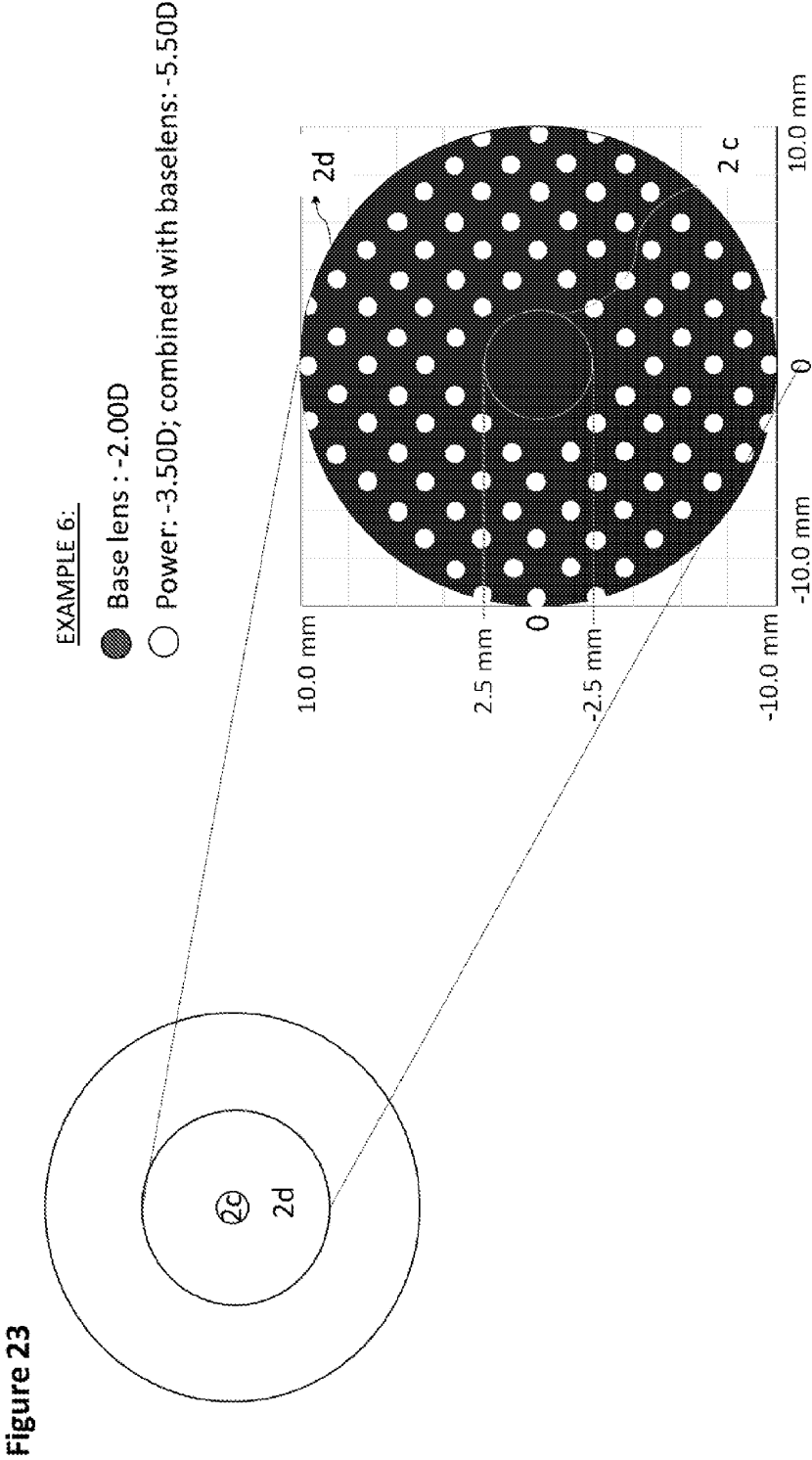


Figure 24

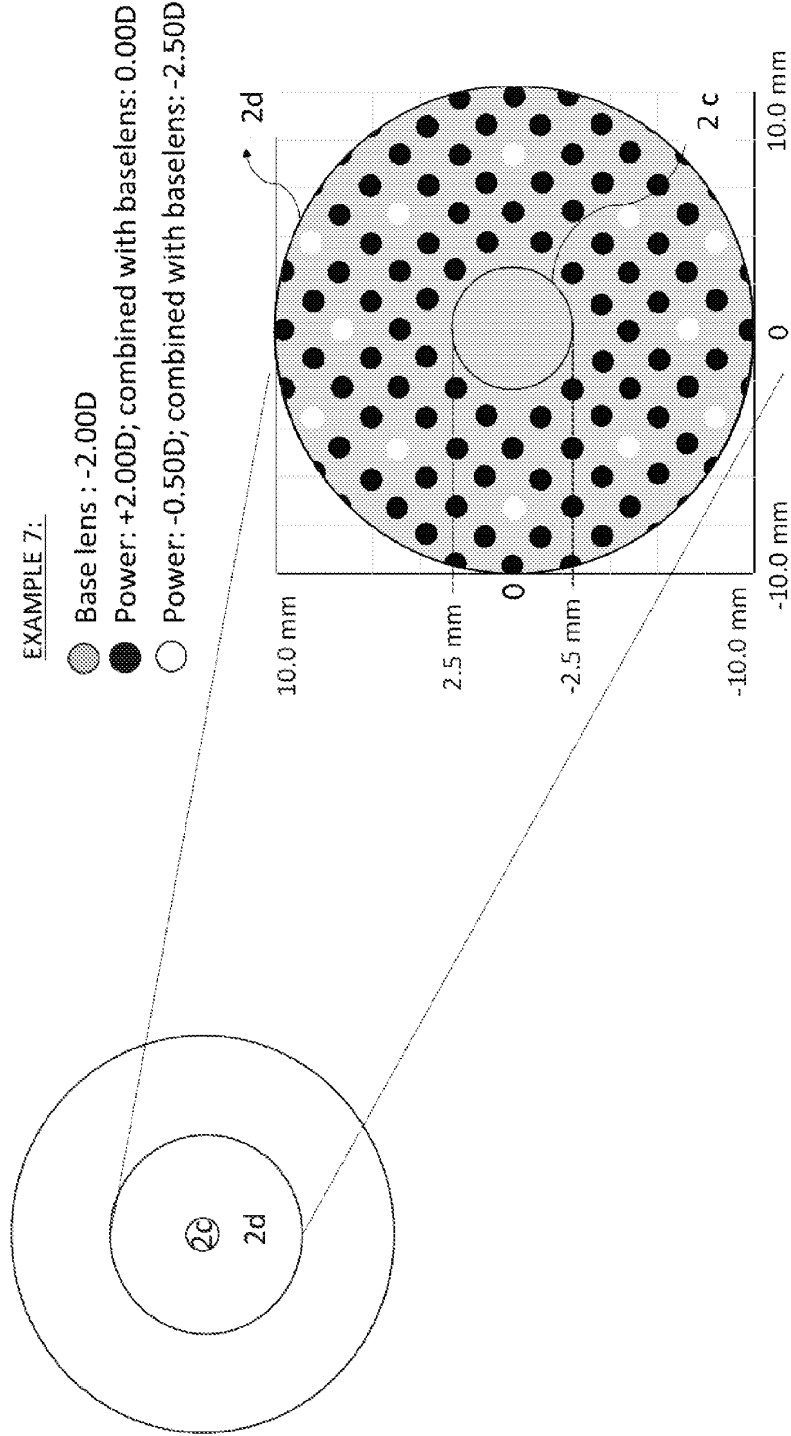
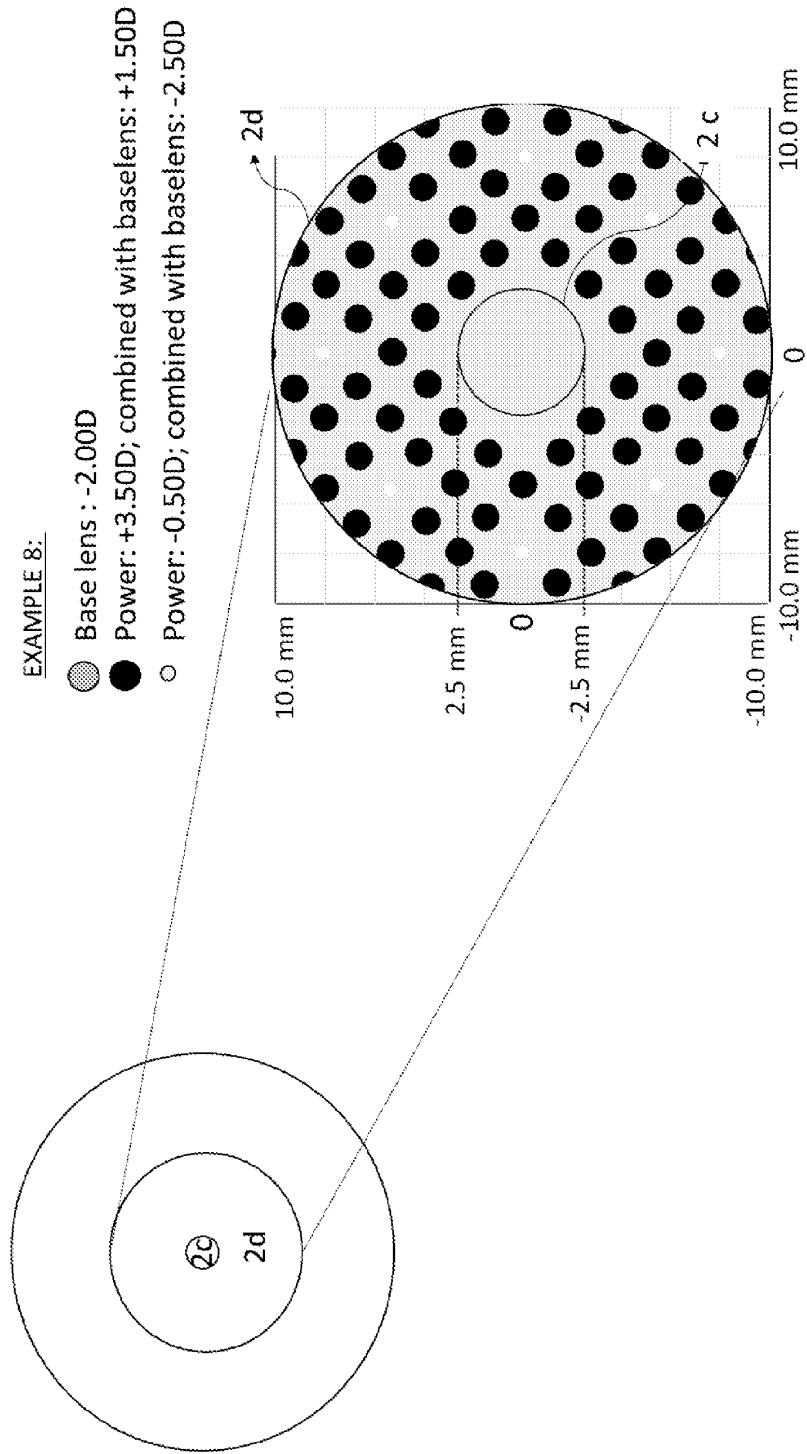


Figure 25



File 26

EXAMPLE 9:

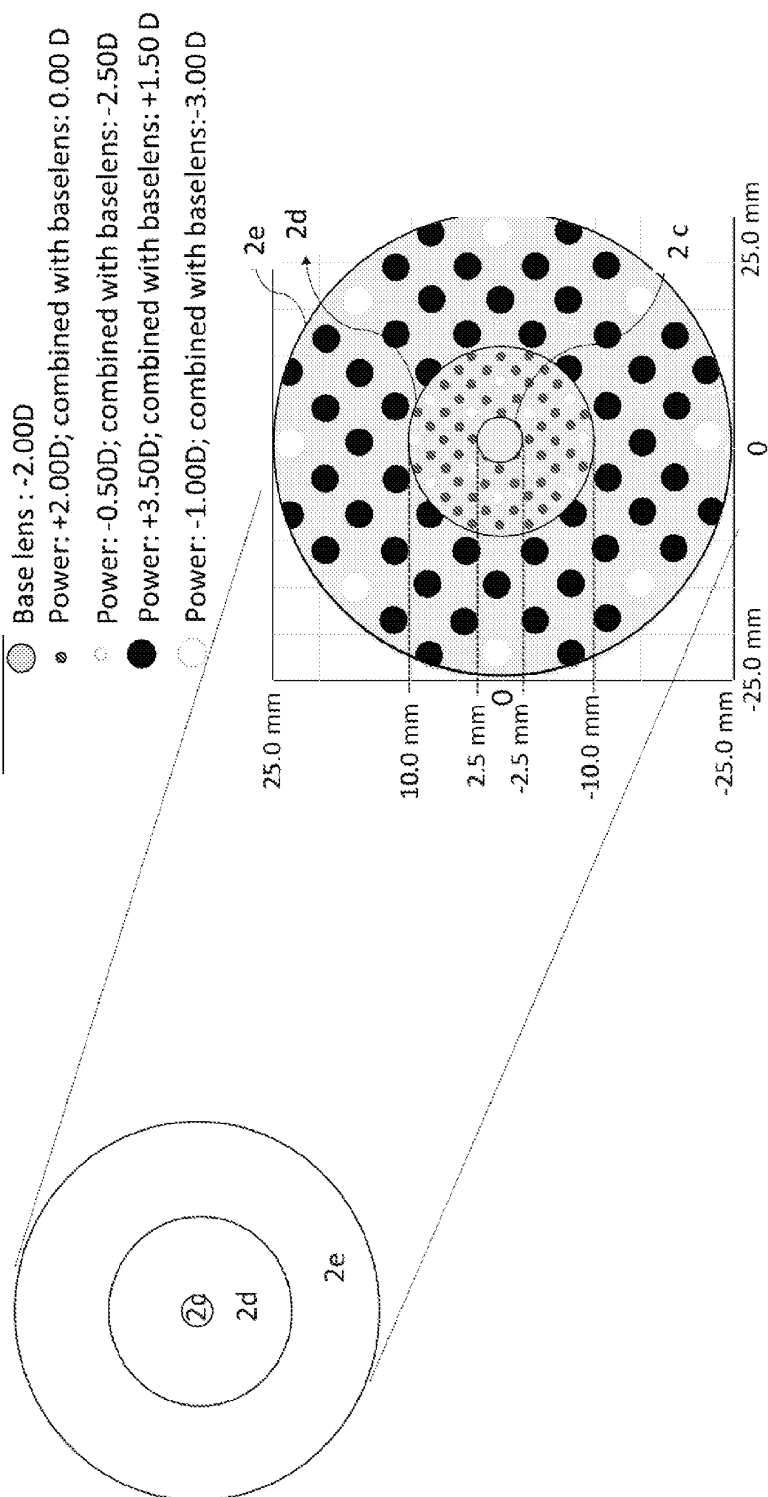


Figure 27

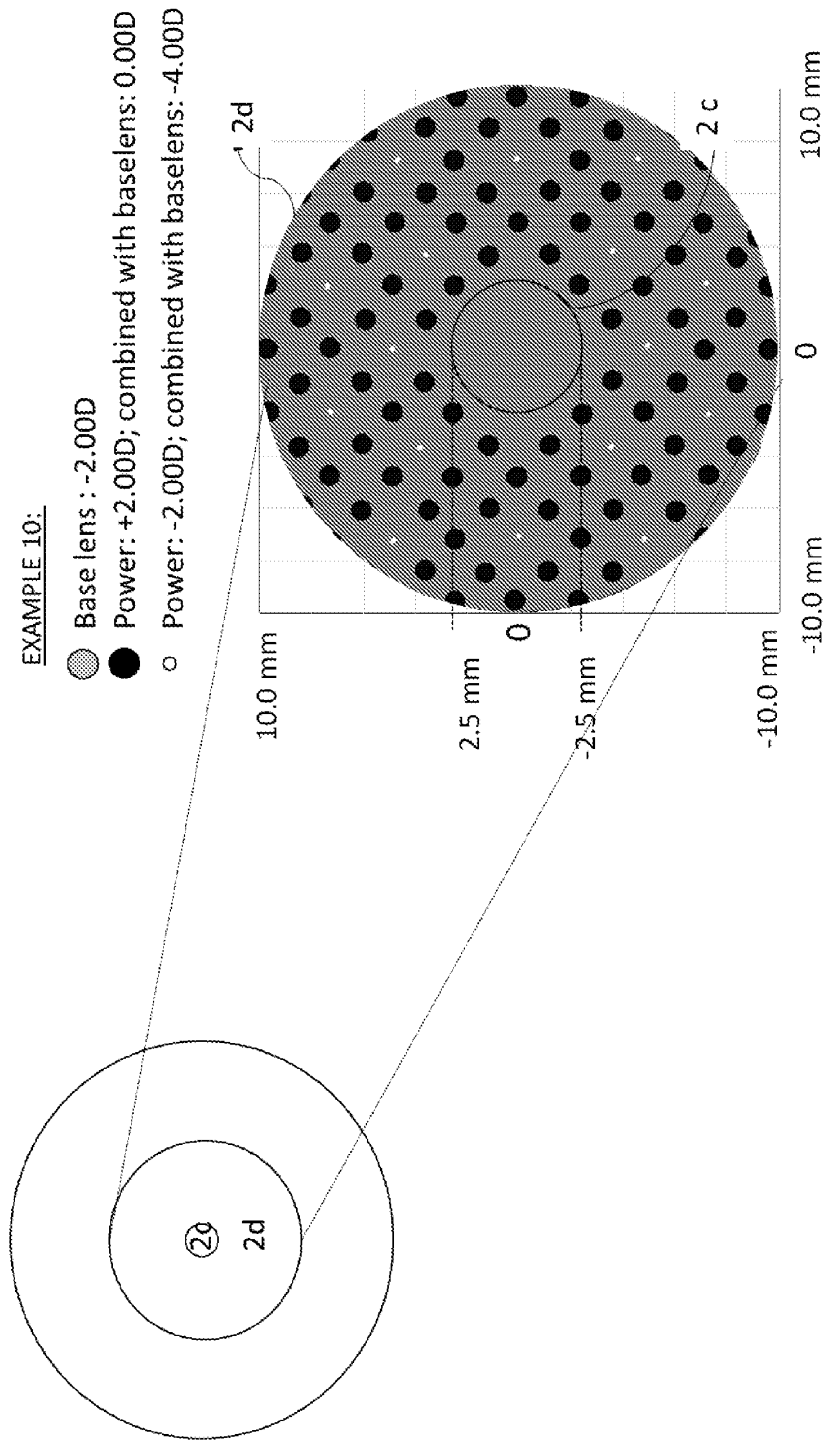
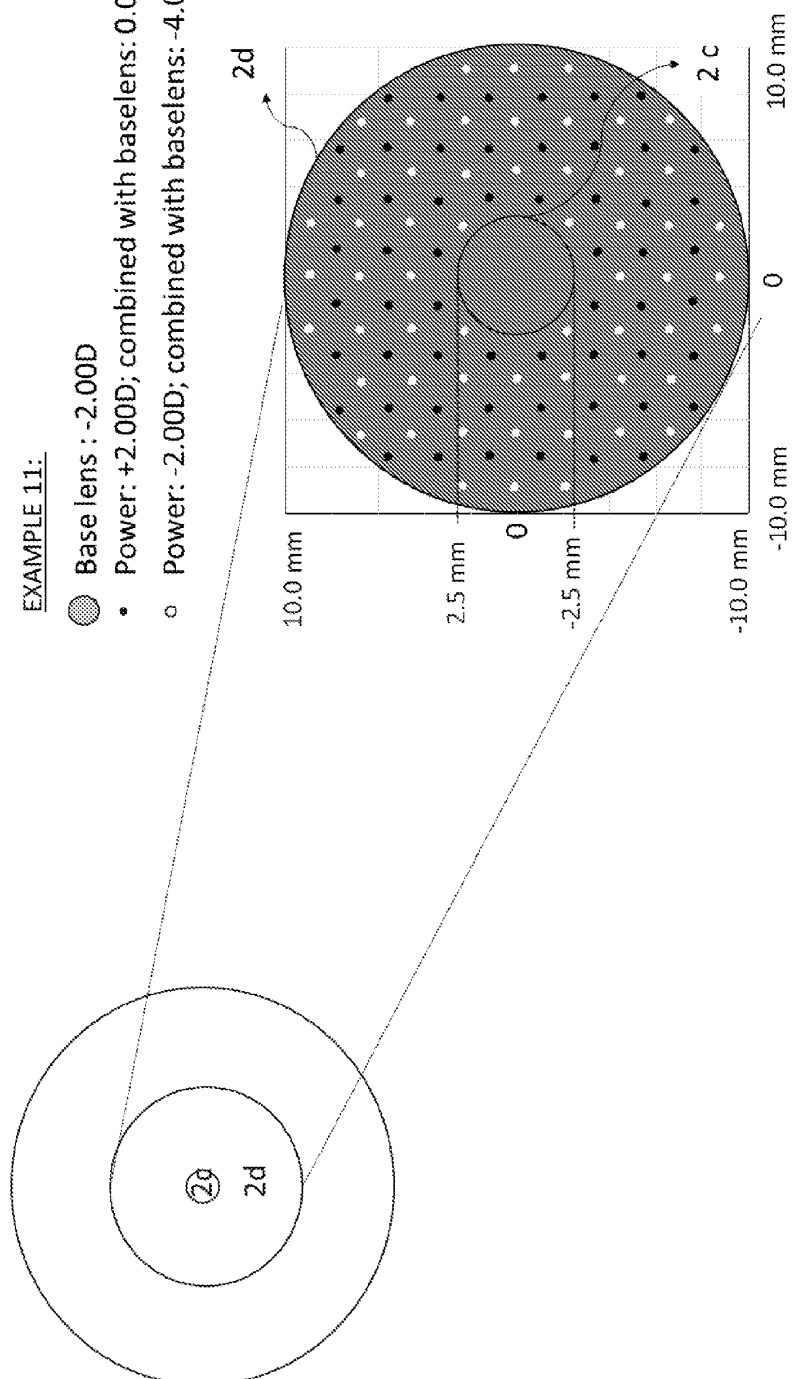


Figure 28

EXAMPLE 11:

- Base lens : -2.00D
- Power: +2.00D; combined with baselens: 0.00D
- Power: -2.00D; combined with baselens: -4.00D



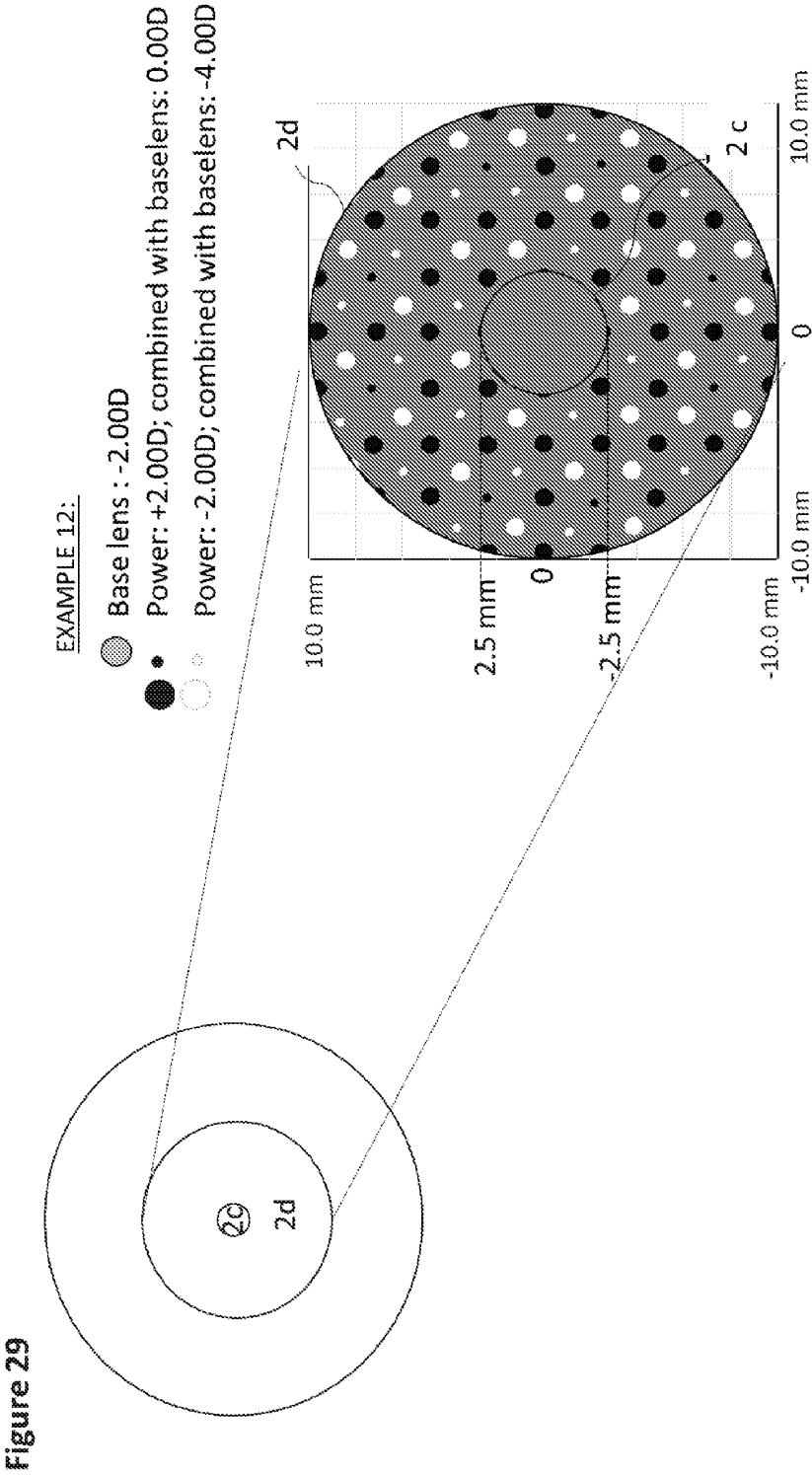


Figure 30

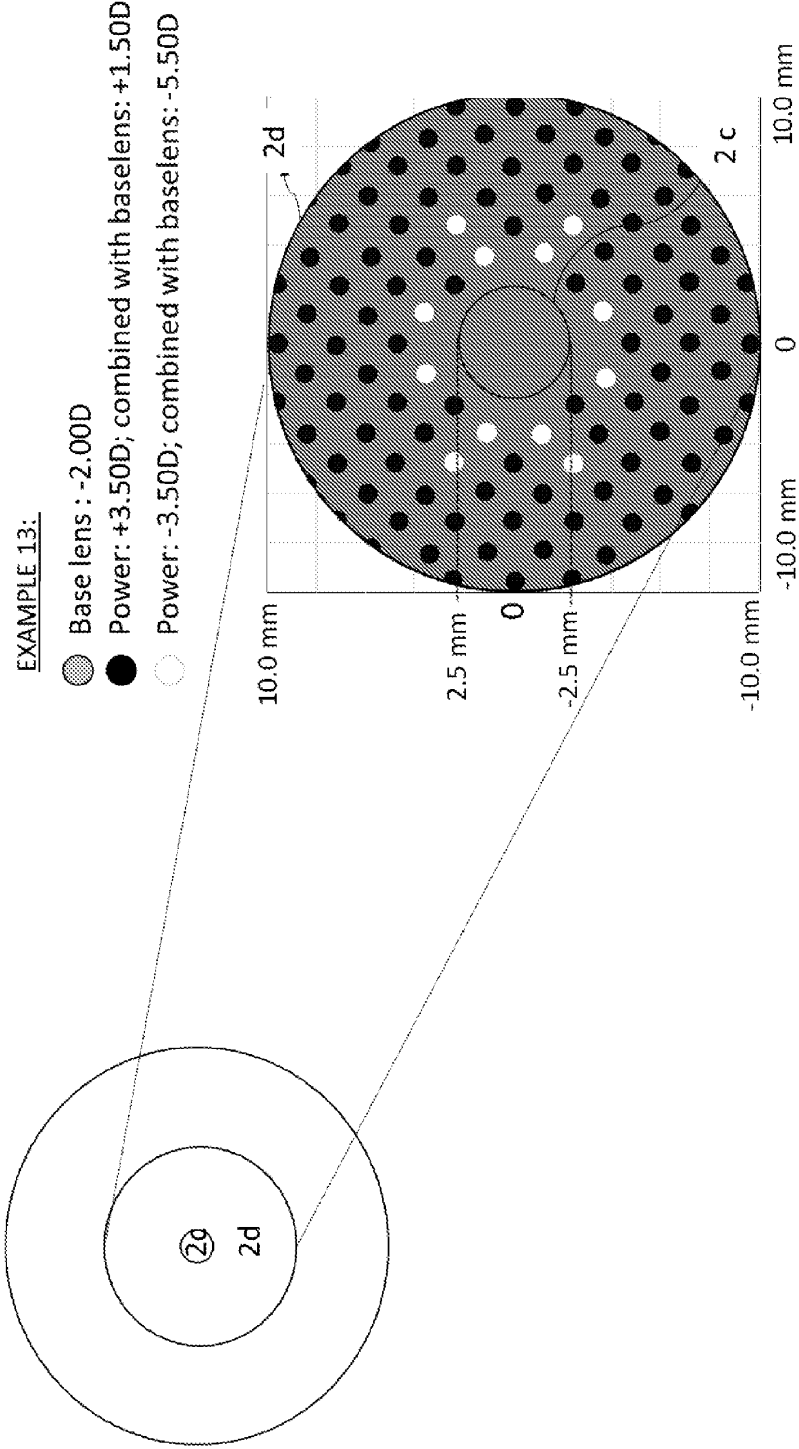


Figure 31

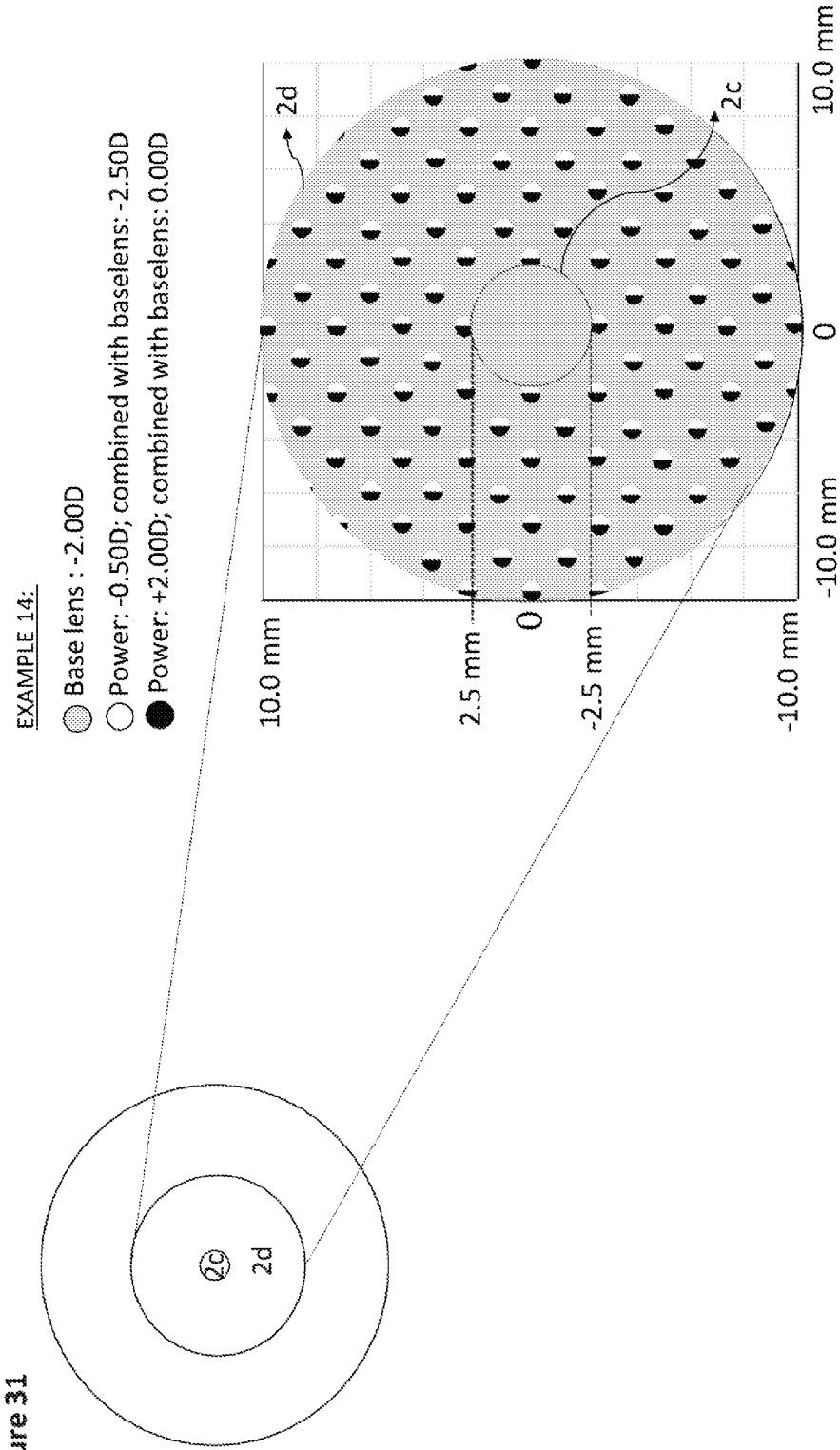


Figure 32

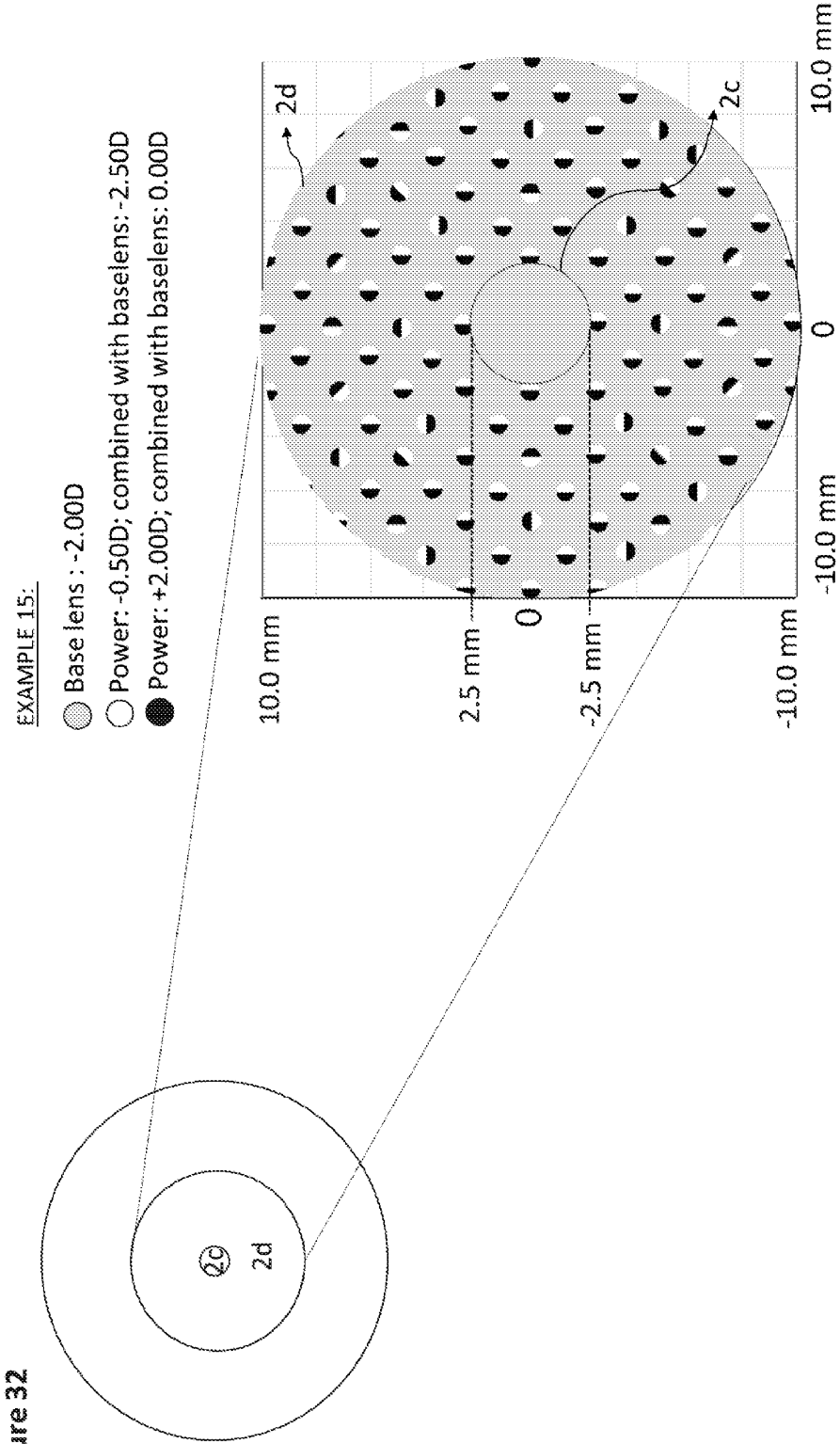


Figure 33

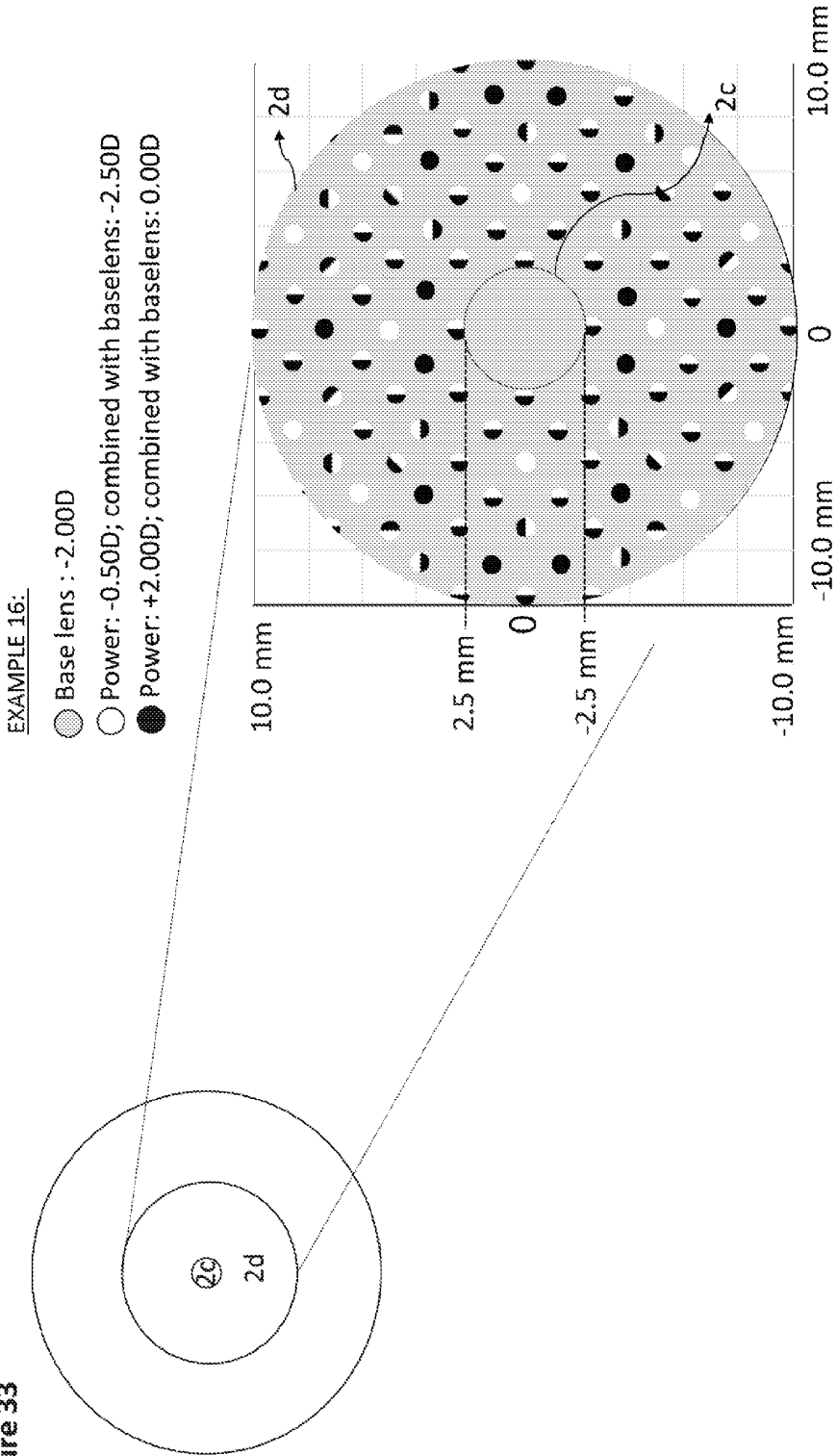
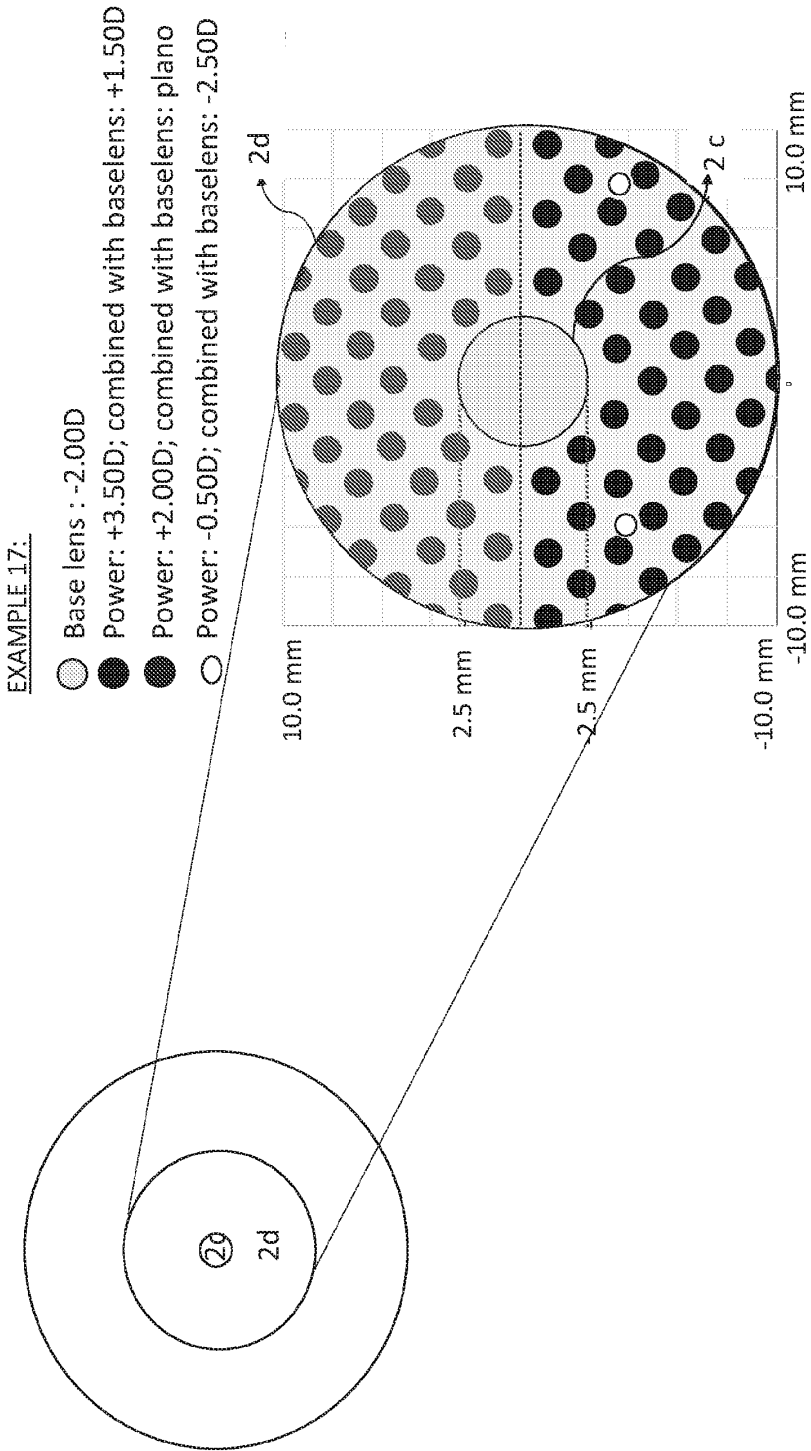


Figure 34



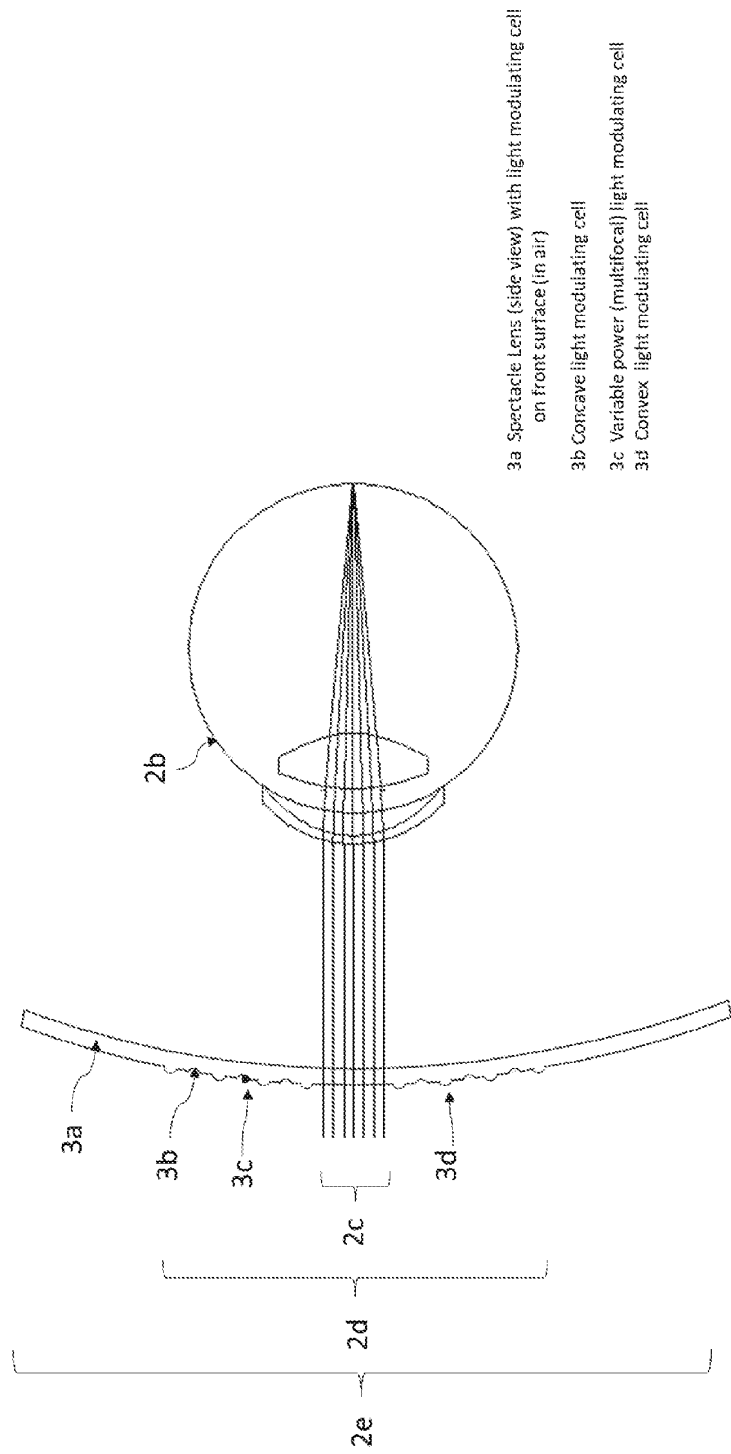
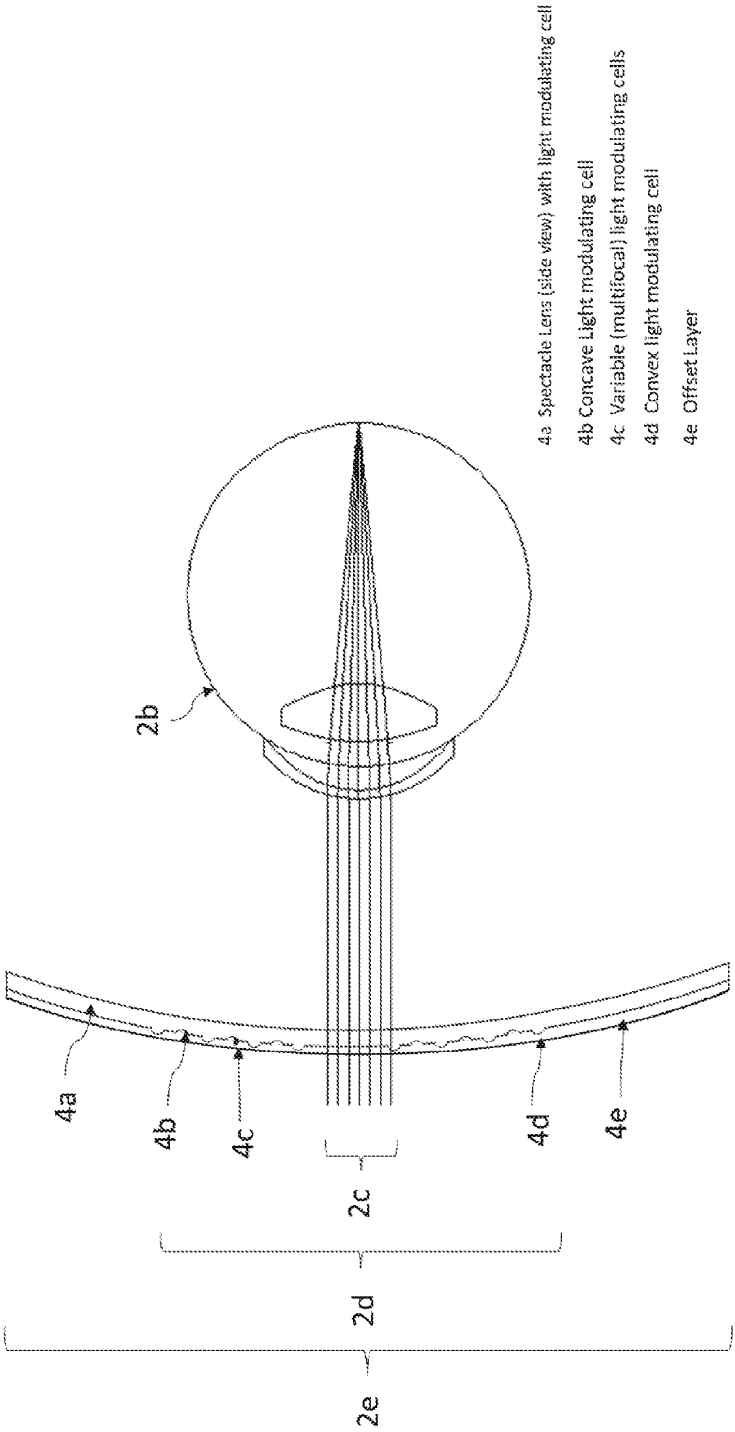


Figure 35



- 4a Spectacle Lens (side view) with light modulating cell
- 4b Concave Light modulating cell
- 4c Variable (multifocal) light modulating cells
- 4d Convex light modulating cell
- 4e Offset Layer

Figure 36

Figure 37

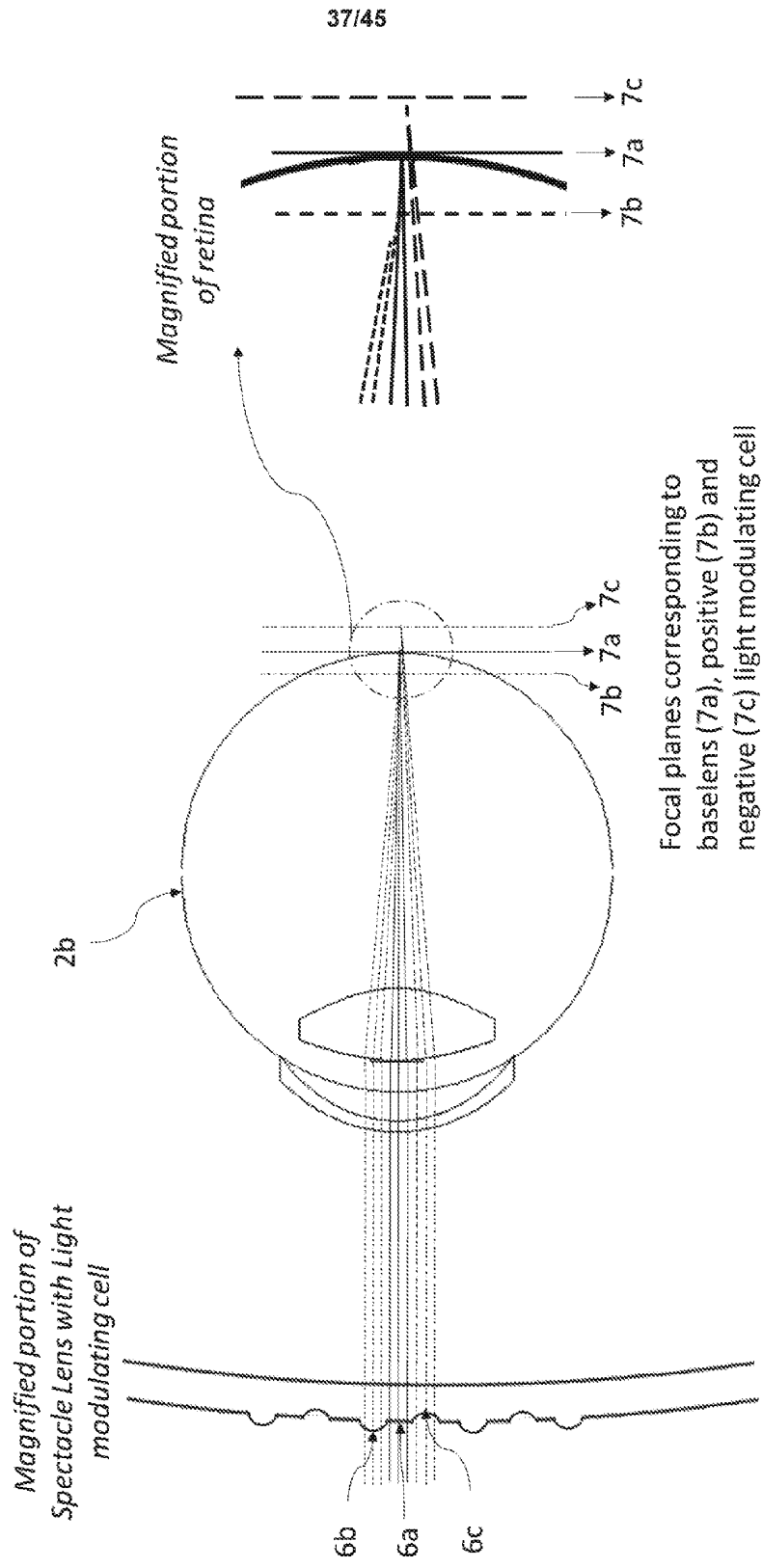
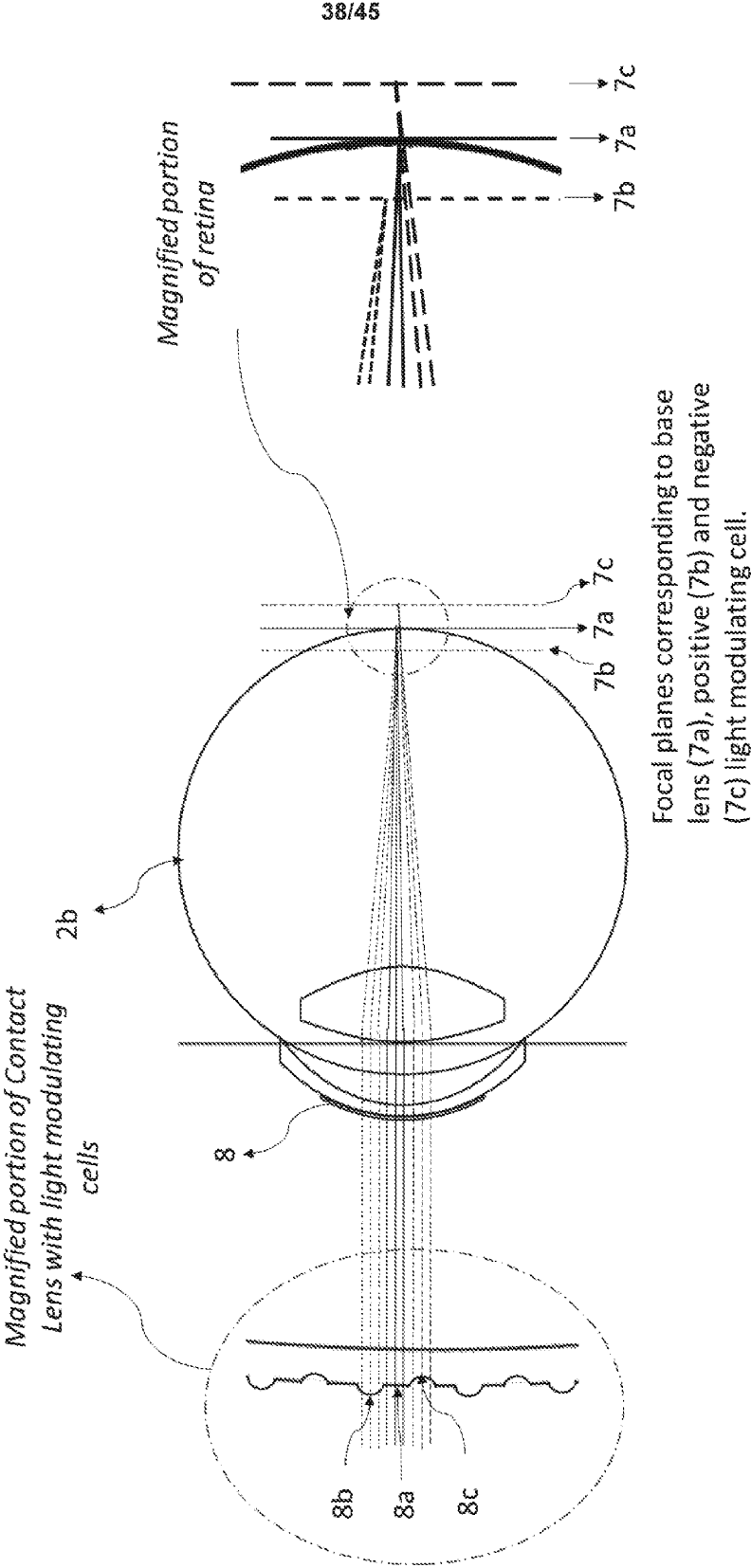


Figure 38



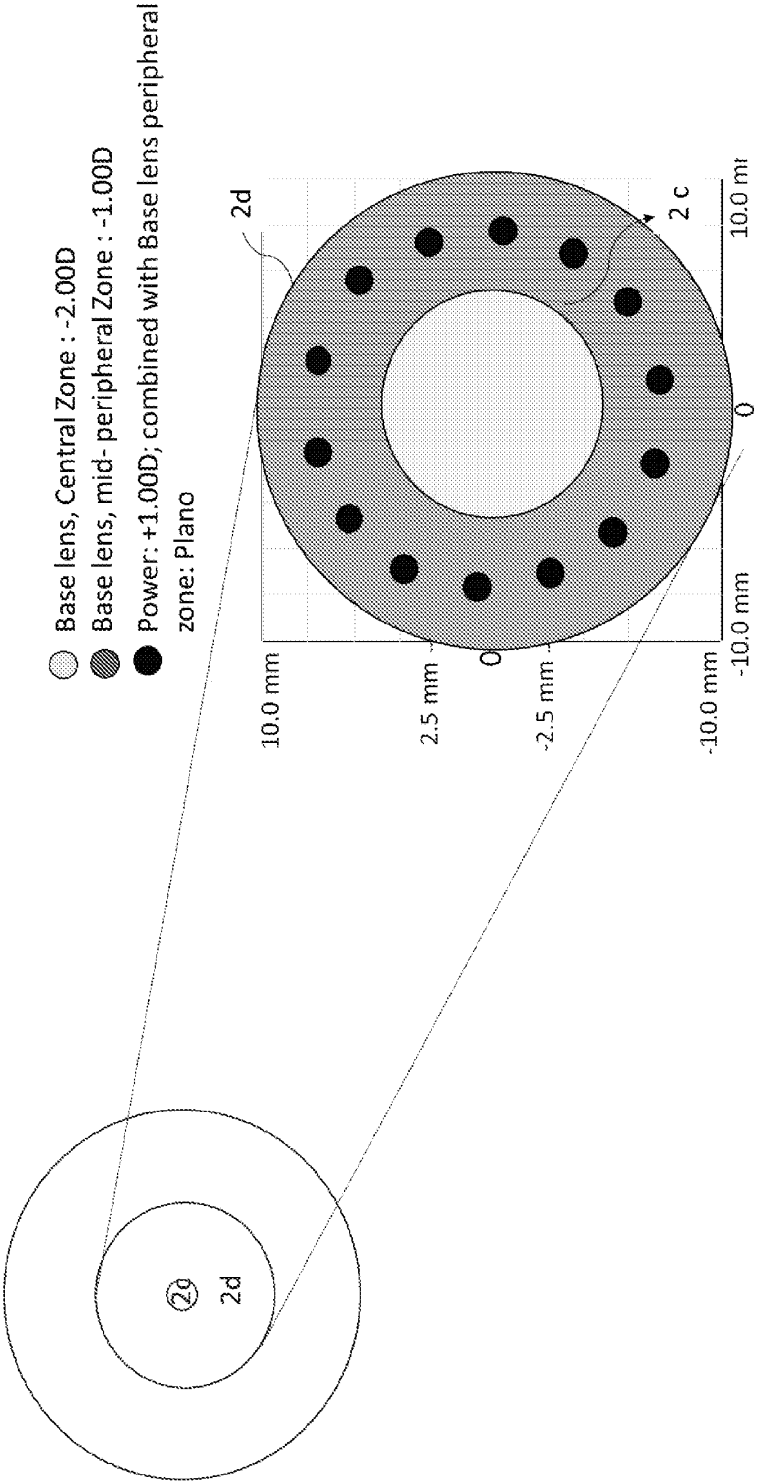


Figure 40

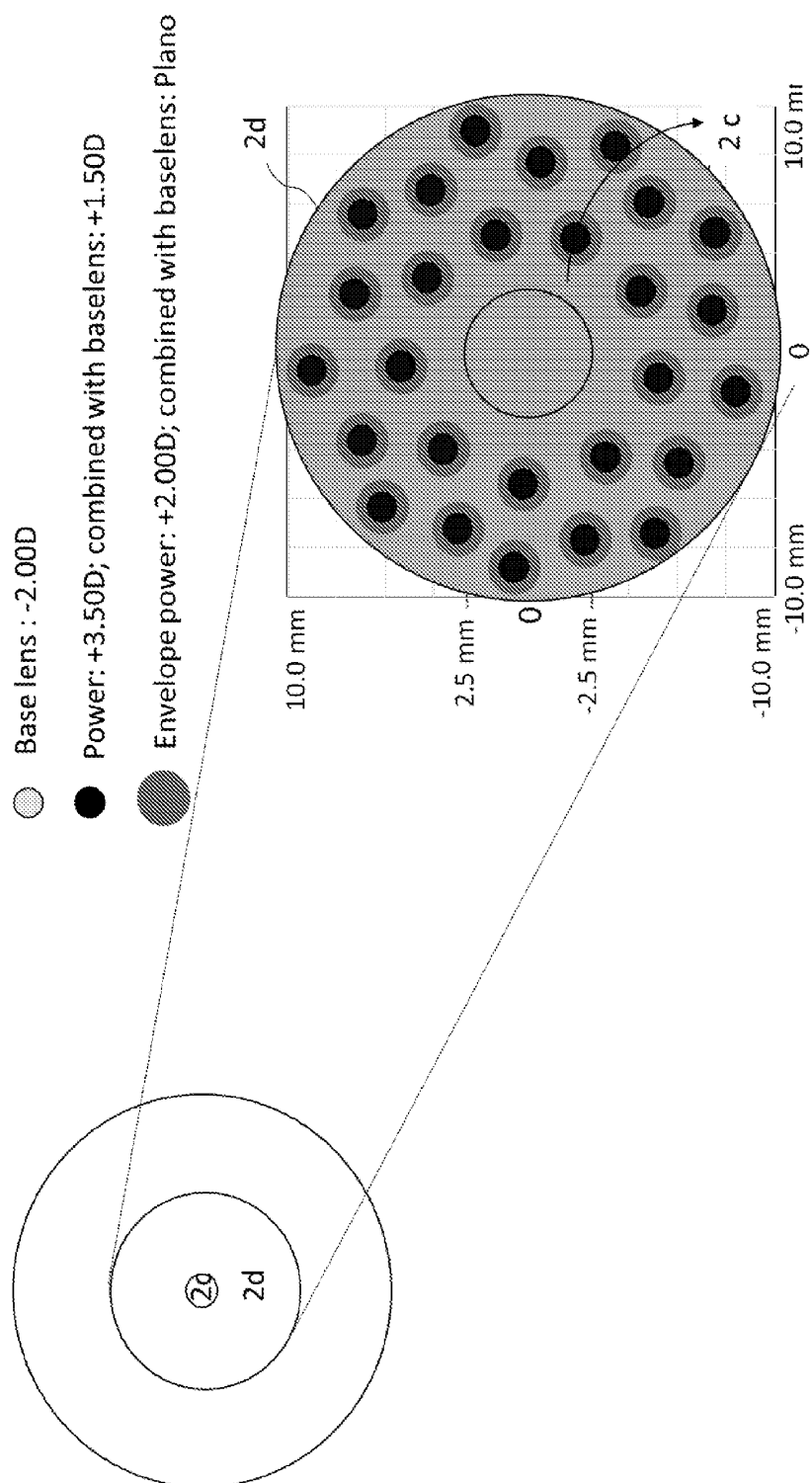
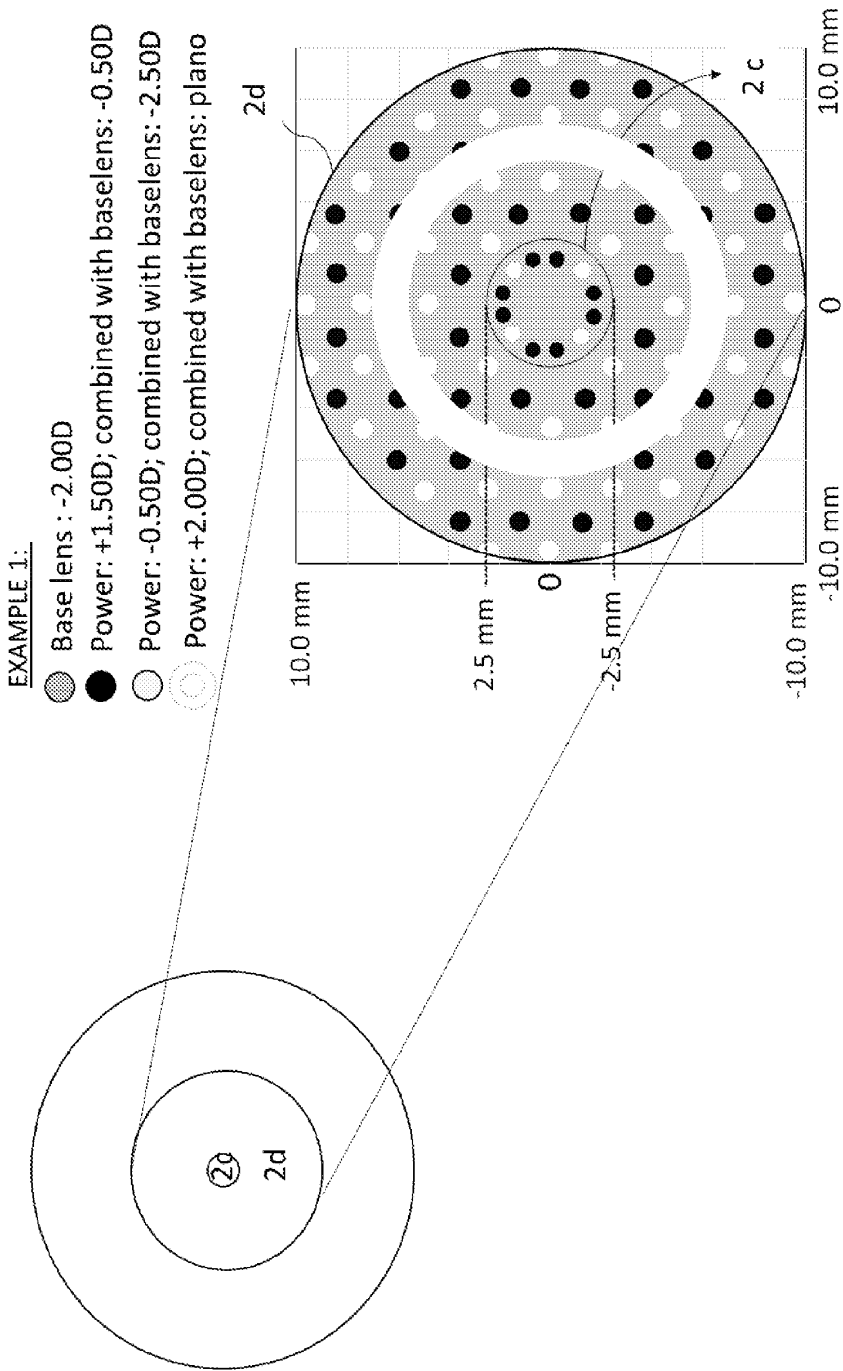


Figure 41



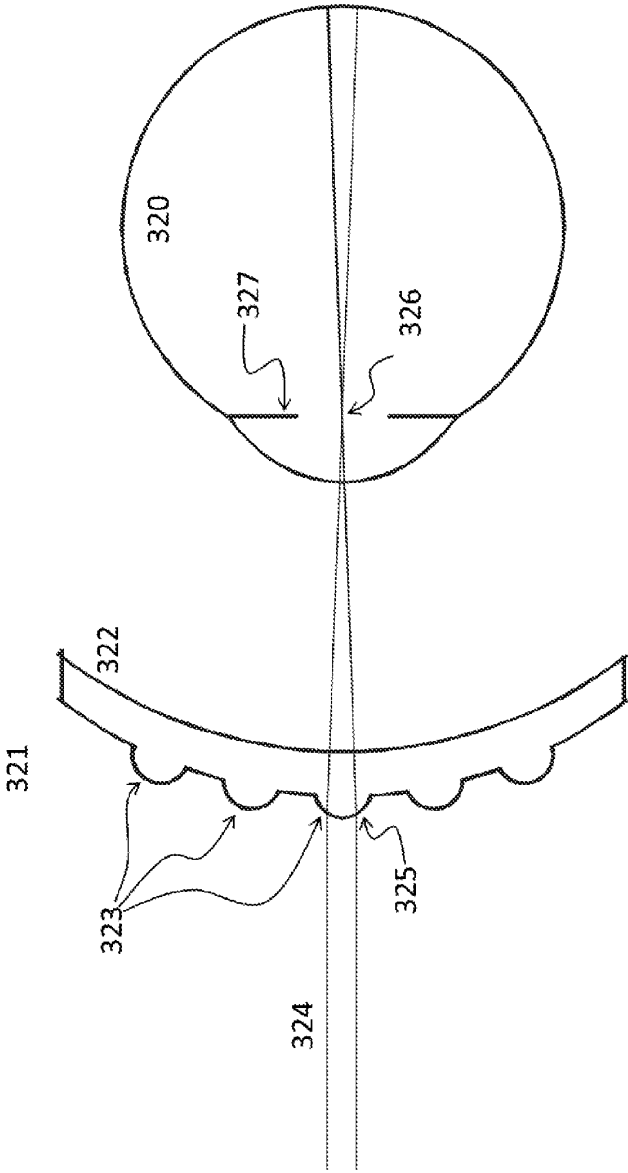
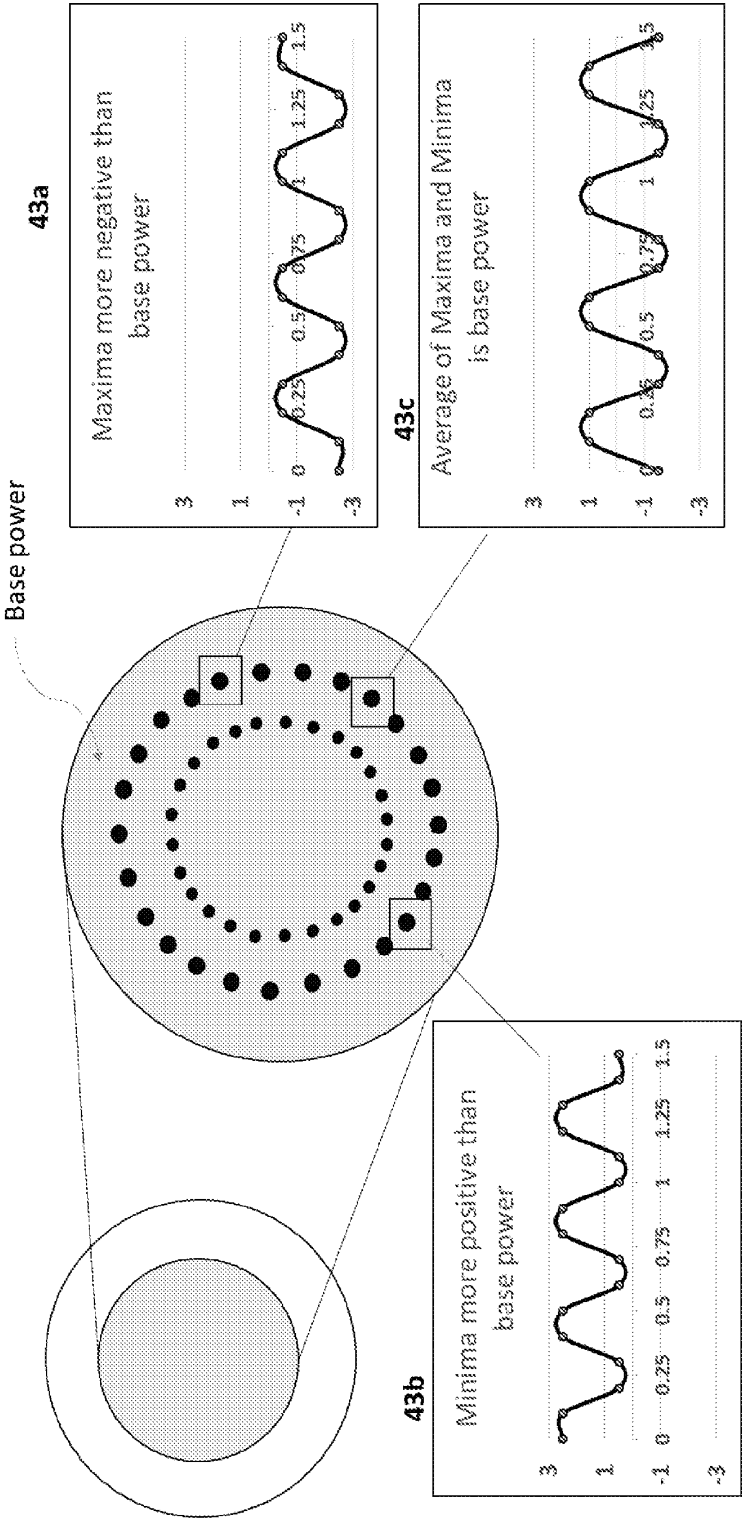


Figure 42

Figure 43



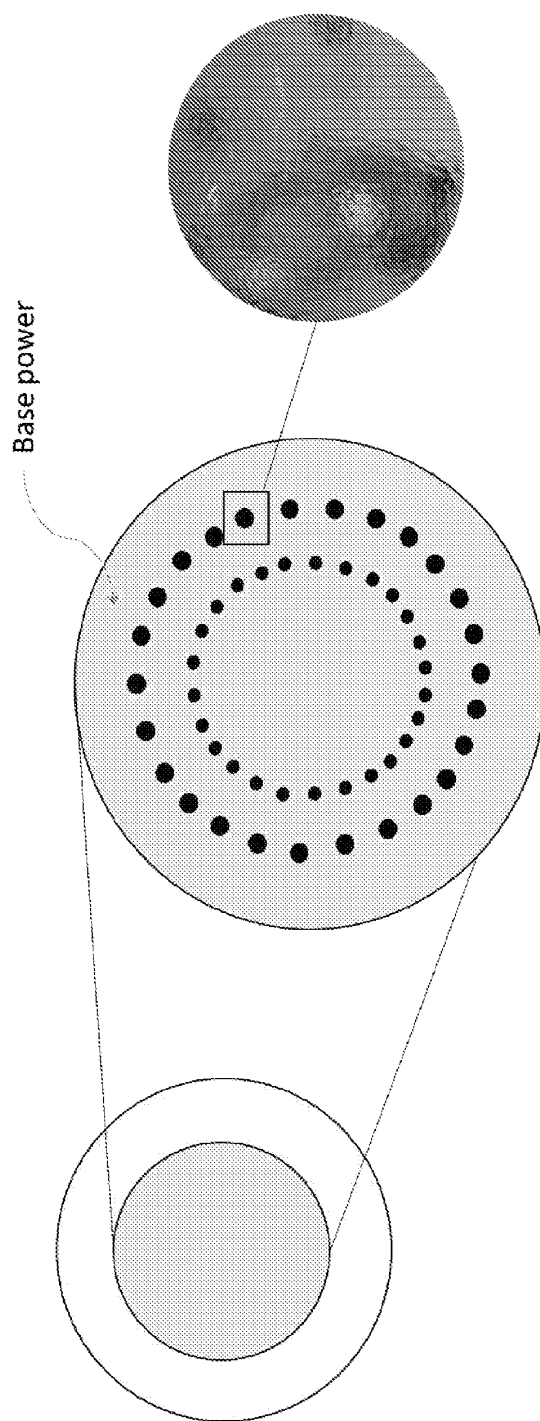


Figure 44

Figure 45

