

CLAIMS

[Claim 1] A spectacle lens comprising:

5 a base area that causes a beam that enters through an object-side surface to exit through an eye-side surface and converge on a retina via the eye; and

a plurality of defocus areas that each contact the base area and have a characteristic whereby a beam that passes through at least a portion of the defocus area is incident on the retina as a diverging ray,

10 wherein, in not less than half of the plurality of defocus areas, at least one of a defocus power and a size of each defocus area is set, so as to compensate for a change in retinal spot size due to relative peripheral refraction (RPR) that depends on an eccentricity angle of the eye of a wearer.

[Claim 2] The spectacle lens according to claim 1,

15 wherein, in not less than 80 % of the plurality of defocus areas, the size of each defocus area is equal, and the defocus power of each defocus area is set so as to compensate for the change in retinal spot size due to the RPR.

[Claim 3] The spectacle lens according to claim 1,

20 wherein, in not less than 80 % of the plurality of defocus areas, the defocus power of each defocus area is equal, and the size of each defocus area is set so as to compensate for the change in retinal spot size due to the RPR.

[Claim 4] The spectacle lens according to any one of claims 1 to 3,

25 wherein not less than 80 % of the plurality of defocus areas have a cylinder shape that cancels an astigmatism component caused by the RPR that depends on the eccentricity angle corresponding to a position of each defocus area.

[Claim 5] The spectacle lens according to claim 4,

30 wherein, in each cylinder-shaped defocus area, an amount of residual

astigmatism after canceling the astigmatic component of the RPR is not more than one third of an actual defocus power of the defocus area after subtracting a spherical equivalent of the RPR that depends on the eccentricity angle corresponding to the position of the defocus area from the defocus power of the defocus area.

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[Claim 6] The spectacle lens according to any one of claims 1 to 5,

wherein, in not less than 80 % of the plurality of defocus areas, the actual defocus power of each defocus area after subtracting the spherical equivalent of the RPR that depends on the eccentricity angle corresponding to the position of the

10 defocus area from the defocus power of the defocus area is in a range of 1.0 - 4.5 D.

[Claim 7] The spectacle lens according to any one of claims 1 to 6,

wherein the spectacle lens is a myopia progression inhibition lens.

15 [Claim 8] A design method for a spectacle lens that includes a base area that causes a beam that enters through an object-side surface to exit through an eye-side surface and converge on a retina via the eye and a plurality of defocus areas that each contact the base area and have a characteristic whereby a beam that passes through at least a portion of the defocus area is incident on the retina as a diverging ray, the

20 method comprising:

a setting step of setting, in not less than half of the plurality of defocus areas, at least one of a defocus power and a size of each defocus area, so as to compensate for a change in retinal spot size due to relative peripheral refraction (RPR) that depends on an eccentricity angle of the eye of a wearer.

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[Claim 9] The design method for a spectacle lens according to claim 8,

wherein the spot size is obtained based on retina shape data constructed using data on a plurality of the RPR that depend on mutually different eccentricity angles and data on an axial length of the wearer.

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[Claim 10] The design method for a spectacle lens according to claim 8 or 9, comprising:

a position conversion step of calculating a position on the lens corresponding to an eccentricity angle or calculating an eccentricity angle corresponding to a position on the lens; and

the setting step of setting at least one of the defocus power and the size of each defocus area, so as to compensate for the change in retinal spot size due to the RPR at the eccentricity angle corresponding to the position,

wherein, in the position conversion step, where an area whose center is a lens optical center and whose radius is one value within a range of 2 - 6 mm is set as a range covered by rotation, and the eccentricity angle corresponding to a position within the range is set to zero, the eccentricity angle corresponding to a predetermined position on the lens outside the range covered by rotation is an angle formed by the optical axis of the eye and a straight line connecting the predetermined position and an entrance pupil of the eye, after having performed eye rotation such that a line of sight passes through a point on a boundary of the range covered by rotation that is on a straight line formed by the predetermined position and the lens optical center.

[Claim 11] A design system for a spectacle lens that includes a base area that causes a beam that enters through an object-side surface to exit through an eye-side surface and converge on a retina via the eye and a plurality of defocus areas that each contact the base area and have a characteristic whereby a beam that passes through at least a portion of the defocus area is incident on the retina as a diverging ray, the system comprising:

a first selection unit that selects an individual design mode of setting, in not less than half of the plurality of defocus areas, at least one of a defocus power and a size of each defocus area, so as to compensate for a change in retinal spot size due to relative peripheral refraction (RPR) that depends on an eccentricity angle of the eye of a wearer, or selects an existing design mode of employing one from a plurality

of pre-prepared design data that includes the base area and the plurality of defocus areas and whose patterns of the defocus areas are mutually different.

[Claim 12] The design system for a spectacle lens according to claim 11,

5 wherein, in the existing design mode, design data with which the change in retinal spot size due to the RPR of the wearer in each defocus area is smallest is employed, from the plurality of design data.

[Claim 13] The design system for a spectacle lens according to claim 11 or 12,

10 wherein the spot size is obtained based on retina shape data constructed using data on a plurality of the RPR that depend on mutually different eccentricity angles and data on an axial length of the wearer.