CLAIMS

1. An contact lens to be worn on an eye of a patient, comprising a main body having a toric surface and a spherical surface opposite the toric surface, the main body comprising an eyelid stabilization design structure having a thickness of less than 200μm,

wherein the spherical surface is configured to exhibit a lens spherical power;

wherein the toric surface is configured to exhibit a lens cylindrical power that is less than a target cylindrical power that would result in substantially full cylindrical correction for said patient; and

wherein the lens spherical power is configured to minimize spherical aberration at a target angle of alignment measured from an axis parallel to a direction of astigmatism of the eye of the patient.

2. The contact lens of claim 1, wherein the toric surface is a back surface of the main body configured to be disposed on the eye of the patient.

3. The contact lens of claim 1, wherein the spherical surface is a back surface of the main body configured to be disposed on the eye of the patient.

4. The contact lens of claim 1, wherein the target angle of alignment is between 0 and 30 degrees.

5. The contact lens of claim 1, wherein the target angle of alignment is between 10 and 30 degrees.

6. The contact lens of claim 1, wherein the target angle of alignment is between 20 and 30 degrees.

7. The contact lens of claim 1, wherein the target angle of alignment is at least 20 degrees.

8. An contact lens to be worn on an eye of a patient, comprising a main body having a toric surface and a spherical surface opposite the toric surface,

wherein the spherical surface is configured to exhibit a lens spherical power;

wherein the toric surface is configured to exhibit a lens cylindrical power based on at least a direction of astigmatism of the eye of the patient and that is less than a target cylindrical power that would result in substantially full cylindrical correction for said patient; and

wherein the lens spherical power is configured to minimize spherical aberration at a target angle of alignment measured from an axis parallel to a direction of astigmatism of the eye of the patient.

9. The contact lens of claim 8, wherein the toric surface is a back surface of the main body configured to be disposed on the eye of the patient.

10. The contact lens of claim 8, wherein the spherical surface is a back surface of the main body configured to be disposed on the eye of the patient.

11. The contact lens of claim 8, wherein the target angle of alignment is between 0 and 30 degrees.

12. The contact lens of claim 8, wherein the target angle of alignment is between 10 and 30 degrees.

13. The contact lens of claim 8, wherein the target angle of alignment is between 20 and 30 degrees.

14. The contact lens of claim 8, wherein the target angle of alignment is at least 20 degrees.

15. The contact lens of claim 8, wherein the main body further comprises an eyelid stabilization design structure having a thickness of less than 200μm.

16. An contact lens to be worn on an eye of a patient, comprising a main body having a toric surface and a spherical surface opposite the toric surface,

wherein the spherical surface is configured to exhibit a lens spherical power;

wherein the toric surface is configured to exhibit a lens cylindrical power that is different from a target cylindrical power that would result in substantially full cylindrical correction for said patient; and

wherein the lens spherical power is configured to minimize spherical aberration at a target angle of alignment measured from an axis parallel to a direction of astigmatism of the eye of the patient.

17. The contact lens of claim 16, wherein the toric surface is a back surface of the main body configured to be disposed on the eye of the patient.

18. The contact lens of claim 16, wherein the spherical surface is a back surface of the main body configured to be disposed on the eye of the patient.

19. The contact lens of claim 16, wherein the target angle of alignment is between 0 and 30 degrees.

20. The contact lens of claim 16, wherein the target angle of alignment is between 10 and 30 degrees.

21. The contact lens of claim 16, wherein the target angle of alignment is between 20 and 30 degrees.

22. The contact lens of claim 16, wherein the target angle of alignment is at least 20 degrees.