CLAIMS

1. A contact lens comprising:

   a first surface; and

   a second surface disposed opposite the first surface and defining a volume of lens material therebetween,

   wherein a thickness profile of the volume of lens material is derived from one or more eyelid profiles;

   wherein the thickness profile includes a thickness gradient of at least a portion of the volume of lens material;

   wherein the thickness gradient is oriented to be +/- 20 degrees from orthogonal to a target eyelid margin shape; and

   wherein the target eyelid margin shape includes at least one of:

   a single upper target eyelid margin shape; and

   a single lower target eyelid margin shape.

2. A computer implemented method for the purpose of manufacturing a contact lens comprising:

   determining one or more eyelid profiles associated with one or more eyelids;

   determining, based on the one or more eyelid profiles, a target eyelid margin shape, wherein the target eyelid margin shape includes at least one of:

   a single upper target eyelid margin shape; and

   a single lower target eyelid margin shape;

   designing or forming, based on at least the target eyelid margin shape, a contact lens comprising a first surface and a second surface disposed opposite the first surface and defining a volume of lens material therebetween,

   wherein a thickness profile of at least a portion the volume of lens material is derived from the one or more eyelid profiles such that a thickness gradient of the at least a portion of the volume of lens material is oriented to be +/- 20 degrees from orthogonal to the target eyelid margin shape.

3. The contact lens of claim 1 or the method of claim 2, wherein the one or more eyelid profiles comprise biometric data associated with one or more of the position or shape of one or more of upper or lower eyelid margins for a population of eyes.

4. The contact lens of claim 1 or claim 3, or the method of claim 2 or claim 3, wherein the one or more eyelid profiles comprise biometric data associated with a population of eyes in a target position of gaze.

5. The contact lens of any one of claims 1 and 3 to 4 or the method of any one of claims 2 to 4, wherein the one or more eyelid profiles comprise biometric data associated with a population of eyes in a plurality of positions of gaze.

6. The contact lens of any one of claims 1 and 3 to 5 or the method of any one of claims 2 to 5, wherein the one or more eyelid profiles comprise biometric data associated with a population of eyes in one or more stages of blink.

7. The contact lens of any one of claims 1 and 3 to 6 or the method of any one of claims 2 to 6, wherein the one or more eyelid profiles comprise biometric data associated with one or more of the position or shape of one or more of upper or lower eyelid margins for at least one eye.

8. The contact lens of any one of claims 1 and 3 to 7 or the method of any one of claims 2 to 7, wherein the one or more eyelid profiles comprise biometric data associated with at least one eye in a target position of gaze.

9. The contact lens of any one of claims 1 and 3 to 8 or the method of any one of claims 2 to 8, wherein the one or more eyelid profiles comprise biometric data associated with at least one eye in a plurality of positions of gaze.

10. The contact lens of any one of claims 1 and 3 to 9 or the method of any one of claims 2 to 9, further comprising a stabilization zone defined in or on the volume of material, wherein the thickness profile is associated with the stabilization zone.

11. The contact lens of any one of claims 1 and 3 to 10 or the method of any one of claims 2 to 10, wherein the portion of the volume of lens material comprises an annulus volume disposed between an edge of the contact lens and an optical zone radius.

12. The contact lens or the method of claim 11, wherein the optical zone radius is between 3 and 5mm from the center of the contact lens.

13. The contact lens of any one of claims 1 and 3 to 12 or the method of any one of claims 2 to 12, wherein the portion of the volume of lens material comprises an annulus volume excluding a radial region between an edge of the contact lens and a radius between 1-300 microns from the edge of the contact lens.