CLAIMS

What is claimed is:

1. A product comprising one or more tangible computer-readable non-transitory storage media comprising computer-executable instructions operable to, when executed by at least one computer processor, enable the at least one computer processor to cause a computing device to:

process at least one captured image of at least one reflection of a flash on a lens of eyeglasses, the captured image comprises a reference object image of a reference object captured by a camera via said lens; and

determine one or more optical parameters of said lens based at least on said at least one captured image,

wherein the instructions, when executed, cause the computing device to determine one or more estimated optical parameters of said lens based on a comparison between said reference object and said reference object image; to determine a relative angle between a plane of said lens and a plane of said camera based on said at least one reflection; and to determine the one or more optical parameters of said lens based on said relative angle and said one or more estimated optical parameters,

wherein the instructions, when executed, cause the computing device to determine an estimated spherical power of said lens based on a magnification between a reference dimension of said reference object and an imaged dimension of said reference dimension in said reference object image, and to determine a spherical power of said lens based on said relative angle and the estimated spherical power.

2. The product of claim 1, wherein the instructions, when executed, cause the computing device to trigger capturing of said at least one captured image.

3. A product comprising one or more tangible computer-readable non-transitory storage media comprising computer-executable instructions operable to, when executed by at least one computer processor, enable the at least one computer processor to cause a computing device to:

process at least one captured image of at least one reflection of a flash on a lens of eyeglasses, the captured image comprises a reference object image of a reference object captured by a camera via said lens; and

determine one or more optical parameters of said lens based at least on said at least one captured image,

wherein the instructions, when executed, cause the computing device to determine one or more estimated optical parameters of said lens based on a comparison between said reference object and said reference object image; to determine a relative angle between a plane of said lens and a plane of said camera based on said at least one reflection; and to determine the one or more optical parameters of said lens based on said relative angle and said one or more estimated optical parameters,

wherein the instructions, when executed, cause the computing device to determine at least one of an estimated cylindrical power of said lens or an estimated cylindrical axis of said lens based on a deformation between one or more reference dimensions of said reference object and one or more respective imaged dimensions of said one or more reference dimensions in said reference object image, and to determine at least one of a cylindrical power of said lens or a cylindrical axis of said lens based on said relative angle and at least one of the estimated cylindrical power or the estimated cylindrical axis.

4. The product of claim 3, wherein the instructions, when executed, cause the computing device to trigger capturing of said at least one captured image.

5. A product comprising one or more tangible computer-readable non-transitory storage media comprising computer-executable instructions operable to, when executed by at least one computer processor, enable the at least one computer processor to cause a computing device to:

capture at least one image by a camera of at least one reference object via a lens of eyeglasses;

determine a relative angle between a plane of said lens and a plane of said camera; and

determine one or more optical parameters of said lens based at least on said relative angle and said at least one image.

6. The method of claim 5 comprising determining the relative angle based on a comparison between said reference object and at least one object image of said reference object in said at least one image.

7. The product of claim 6, wherein the at least one image comprises at least one reflection of a flash on the lens, the instructions, when executed, cause the computing device to determine one or more estimated optical parameters of said lens based on said at least one reflection, and to determine the one or more optical parameters of said lens based on said relative angle and the one or more estimated optical parameters of said lens.

8. The product of claim 7 wherein the instructions, when executed, cause the computing device to determine an estimated spherical power of said lens based on a diameter size of said at least one reflection in said image.

9. The product of claim 7 wherein the instructions, when executed, cause the computing device to determine ermining at least one of an estimated cylindrical power of said lens or an estimated cylindrical axis of said lens based on a deformation of the at least one reflection in said image.

10. The product of claim 5, wherein the at least one image comprises at least one reflection of a flash on the lens, the instructions, when executed, cause the computing device to determine the relative angle based on said at least one reflection.

11. The product of claim 10, wherein said at least one reflection comprises a first reflection of said flash on a front surface of said lens and a second reflection of said flash on a back surface of said lens, the instructions, when executed, cause the computing device to determine the relative angle based on at least one displacement between said first and second reflections.

12. The product of claim 10 wherein the instructions, when executed, cause the computing device to determine one or more estimated optical parameters of said lens based on a comparison between said reference object and at least one object image of said reference object in said at least one image, and to determine the one or more optical parameters of said lens based on said relative angle and the one or more estimated optical parameters of said lens.