CLAIMS

[Claim 1]

A control device comprising:

acquisition means for acquiring an input image including an eye region that is a region of an eye part;

estimation means for estimating illuminance of the eye part from the acquired input image; and

determination means for determining a light amount of illumination of visible light with which the eye part is irradiated in such a way that a pupil size of the eye part satisfies a size condition based on an illuminance size relationship that is a relationship between the illuminance and the pupil size.

[Claim 2]

The control device according to claim 1, wherein

the estimation means detects a sclera region of the eye region from the input image, and estimates the illuminance of the eye part based on pixel information of the detected sclera region.

[Claim 3]

The control device according to claim 1, wherein

the estimation means detects a pupil region of the eye region from the input image, estimates the pupil size of the eye part based on the detected pupil region, and estimates the illuminance of the eye part based on the estimated pupil size and the illuminance size relationship.

[Claim 4]

The control device according to any one of claims 1 to 3, wherein

the determination means determines, regarding illuminance of the eye region, the light amount of the illumination in such a way that a glare index determined based on the illuminance satisfies a glare condition.

[Claim 5]

The control device according to claim 4, wherein

the estimation means estimates an iris color based on the acquired input image, and

the determination means selects the glare condition according to the estimated iris color.

[Claim 6]

The control device according to any one of claims 1 to 4, wherein

the estimation means estimates an iris color based on the acquired input image, and

the determination means selects, from a plurality of illuminance size relationships according to iris colors, the illuminance size relationship based on the estimated iris color, and determines the light amount of the illumination based on the selected illuminance size relationship.

[Claim 7]

The control device according to any one of claims 1 to 6, wherein

the determination means determines, based on the estimated illuminance and the illuminance size relationship, whether it is possible to control the light amount of the illumination in such a way that the pupil size satisfies the size condition, and

the control device includes

notification means for sending a notification in a case where it is determined that it is not possible to control the light amount of the illumination in such a way that the pupil size satisfies the size condition.

[Claim 8]

The control device according to any one of claims 1 to 7, further comprising

control means for controlling the illumination in such a way that the illumination emits the visible light having the determined light amount

of the illumination.

[Claim 9]

A control method comprising:

acquiring an input image including an eye region that is a region of an eye part;

estimating illuminance of the eye part from the acquired input image; and

determining a light amount of illumination of visible light with which the eye part is to be irradiated in such a way that a pupil size of the eye part satisfies a size condition based on an illuminance size relationship that is a relationship between the illuminance and the pupil size.

[Claim 11]

A storage medium storing a program for causing a computer to execute:

acquisition processing of acquiring an input image including an eye region that is a region of an eye part;

estimation processing of estimating illuminance of the eye part from the acquired input image; and

determination processing of determining a light amount of illumination of visible light with which the eye part is to be irradiated in such a way that a pupil size of the eye part satisfies a size condition based on an illuminance size relationship that is a relationship between the illuminance and the pupil size.