What is claimed is:

[Claim 1]

A light radiation system comprising:

one or two or more light sources that radiate light having a wavelength in a wavelength region overlapping a peak wavelength of an OPN5 absorption spectrum,

one or two or more conditions selected from an installation position, a radiation direction of the light, a wavelength range of the light, an irradiance of the light, a radiation time frame of the light, and a radiation duration of the light of each of the one or two or more light sources being regulated.

[Claim 2]

A light radiation system comprising:

one or two or more light sources that radiate light having a wavelength in a wavelength region overlapping a peak wavelength of an OPN5 absorption spectrum,

a spectrum of the light received by an irradiated subject being regulated so that a received effective spectral irradiance ($W/m^2/nm$) calculated as a product of a spectral irradiance ($W/m^2/nm$) of each wavelength in a wavelength region of 280 nm to 500 nm of the light and a relative absorbance of data of the OPN5 absorption spectrum, on a per wavelength basis, is 0.2% or more of a reference effective spectral irradiance ($W/m^2/nm$) calculated as a product of a spectral irradiance ($W/m^2/nm$) of a sunlight spectrum defined by AM1.5G and a relative absorbance of the OPN5 absorption spectrum, on a per wavelength basis.

[Claim 3]

A light radiation system comprising:

a light radiating means including one or two or more light sources that radiate light having a wavelength in a wavelength region overlapping a peak wavelength of an OPN5 absorption spectrum; and

a light measuring means for measuring spectral data of the light and comparing the spectral data of the light and data of the OPN5 absorption spectrum,

one or two or more conditions selected from an installation position, a radiation direction of the light, a wavelength range of the light, an irradiance of the light, a radiation time frame of the light, and a radiation duration of the light of each of the one or two or more light sources being regulated on the basis of results obtained by the comparison.

[Claim 4]

The light radiation system according to any one of claims 1 to 3, wherein

the light is light including 380 nm that is the peak wavelength of the OPN5 absorption spectrum.

[Claim 5]

The light radiation system according to claim 4, wherein

the light has a wavelength of 400 nm or less or 410 nm or less.

[Claim 6]

The light radiation system according to claim 1, wherein

the one or two or more light sources are disposed at one or two or more positions selected from a position where the light is radiated toward an irradiated subject who is a radiation target, a position in a field of view of the irradiated subject, a position along the subject's visual line, a position where the light is radiated to the irradiated subject as diffused light diffused by a diffusing material, and a position where the light is radiated to the irradiated subject as reflected light reflected by a reflecting material.

[Claim 7]

The light radiation system according to claim 6, wherein,

for each of the one or two or more light sources,

(i) in a case in which the light source is provided at a position where the light is radiated toward the irradiated subject, the irradiance of the light is regulated in accordance with a distance and/or an angle from the light source to the irradiated subject,

(ii) in a case in which the light source is provided at a position in the field of view of the irradiated subject or a position in the visual line direction from the irradiated subject side, the irradiance of the light is regulated in accordance with the distance and/or the angle from the light source to the irradiated subject,

(iii) in a case in which the light source is provided at a position where the light is radiated to the irradiated subject as the diffused light diffused by the diffusing material, the irradiance of the light is regulated in accordance with a distance and/or an angle from the light source and the diffusing material to the irradiated subject, or a diffusion angle and/or a transmittance of the diffusing material, and

(iv) in a case in which the light source is provided at a position where the light is radiated to the irradiated subject as the reflected light reflected by the reflecting material, the irradiance of the light is regulated in accordance with a distance and/or an angle from the light source and the reflecting material to the irradiated subject, or a reflection angle and/or a reflectance of the reflecting material.

[Claim 8]

The light radiation system according to claim 1, wherein

each of the one or two or more light sources is selected from a structure-attached light source attached to a floor (including underfoot), a wall, a ceiling (including a suspended ceiling), or other structure; an installation-attached light source attached to a desk, a table, a partition (divider, screen), a shelf, a desktop member, a personal computer (PC), a display, a PC keyboard, a television, an audio device, or other equipment or installation; a built-in or attached light source of a portable PC, a tablet, a smartphone, or other mobile terminal; a body-accessory-attached light source detachably mounted or attached to a vision correcting aid, eye protective equipment, face protective equipment, neck hanging accessory, ear hooking accessory, head-attached equipment, or other body accessory; and a functional device-attached light source attached to a functional device for augmented reality (AR), virtual reality (VR), or mixed reality (MR) (including goggles, a headset, and other functional devices).

[Claim 9]

The light radiation system according to claim 1, wherein

the one or two or more light sources are regulated in orientation or position manually or automatically.

[Claim 10]

The light radiation system according to claim 2 or 3, wherein

a received effective spectral irradiance ($W/m^2/nm$) found from a product of the spectral data ($W/m^2/nm$) of the light and the data of the OPN5 absorption spectrum, on a per wavelength basis, is calculated.

[Claim 11]

The light radiation system according to claim 10, wherein

a reference effective spectral irradiance ($W/m^2/nm$) found from a product of a spectral irradiance ($W/m^2/nm$) of a sunlight spectrum defined by AM1.5G and the OPN5 absorption spectrum, on a per wavelength basis, is calculated and compared with the received effective spectral irradiance ($W/m^2/nm$).

[Claim 12]

The light radiation system according to claim 2 or 3, wherein

the spectral data of the light is calculated by comparison in all or part of a wavelength region of the OPN5 absorption spectrum.

[Claim 13]

The light radiation system according to claim 12, wherein,

during comparison in the wavelength region, the received effective spectral irradiance ($W/m^2/nm$) is integrated in the wavelength region to obtain a received effective irradiance (W/m^2), the reference effective spectral irradiance ($W/m^2/nm$) is similarly integrated in the same wavelength region to obtain a reference effective irradiance (W/m^2), and the received effective irradiance and the reference effective irradiance thus obtained are compared.

[Claim 14]

The light radiation system according to claim 13, wherein

a received effective dose (J/m^2) obtained by multiplying the received effective irradiance (W/m^2) by the radiation duration (seconds) and a received reference effective dose (J/m^2) obtained by multiplying the reference effective irradiance (W/m^2) by the radiation duration (seconds) are compared.

[Claim 15]

The light radiation system according to claim 3, wherein

the measurement is performed by a measurement unit, and the measurement unit is provided to eyeglasses, an earphone, a wristwatch, a chest badge, or other article worn on a body, worn on the body itself, or attached to an installation near or around the body, on the basis of a form of each of the one or two or more light sources that radiate the light.