CLAIMS:

1. An optical body comprising:

a substrate having a concave-convex surface;

a reflecting layer formed on the concave-convex surface; and

an optical layer formed on the reflecting layer to embed the concave-convex surface,

wherein the reflecting layer directionally reflects all of the incident light regardless of the wavelength band and has a reflectance of 30% or more at a wavelength of 1500 nm,

the concave-convex surface is made up of a plurality of triangular pillars arrayed in a one-dimensional pattern at a pitch of 5 μm or larger and 5 mm or smaller, and

the triangular pillar has an apex angle α and a slope angle β, the apex angle α and the slope angle β satisfying a formula (1) or (2) given below:

$$30 \leq \beta \leq 4.5\alpha - 285 \quad (70 \leq \alpha \leq 80) \qquad \ldots(1)$$

$$30 \leq \beta \leq -1.5\alpha + 195 \quad (80 \leq \alpha \leq 100) \qquad \ldots(2)$$

2. An optical body comprising:

a substrate having a concave-convex surface; and

a reflecting layer formed on the concave-convex surface,

wherein the reflecting layer directionally reflects at

a pitch of 5 μm or larger and 5 mm or smaller light regardless of the wavelength band and has a reflectance of 30% or more at a wavelength of 1500 nm,

the concave-convex surface is made up of a plurality of triangular pillars arrayed in a one-dimensional pattern at a pitch of 5 μm or larger and 5 mm or smaller, and

the triangular pillar has an apex angle α and a slope angle β, the apex angle α and the slope angle β satisfying a formula (1) or (2) given below:

$$30 \leq \beta \leq 4.5\alpha - 285 \quad (70 \leq \alpha \leq 80) \qquad \ldots(1)$$

$$30 \leq \beta \leq -1.5\alpha + 195 \quad (80 \leq \alpha \leq 100) \qquad \ldots(2)$$

3. The optical body according to Claim 1 or 2, wherein the apex angle α and the slope angle β satisfy a formula (3) or (4) given below:

$$30 \leq \beta \leq \alpha - 40 \quad (70 \leq \alpha \leq 80) \qquad \ldots(3)$$

$$30 \leq \beta \leq -\alpha + 150 \quad (80 \leq \alpha \leq 100) \qquad \ldots(4)$$

4. The optical body according to Claim 1, 2 or 3, wherein the triangular pillar has a first sloped surface and a second sloped surface on each of which the reflecting layer is formed, and

film thicknesses of the reflecting layers formed on the first sloped surface and the second sloped surface differ from each other.

5. The optical body according to any one of the preceding Claims, wherein the triangular pillar has a first sloped surface and a second sloped surface on each of which the reflecting layer is formed, and

film thicknesses of the reflecting layers formed on the first sloped surface and the second sloped surface are substantially equal to each other.

~~6. The optical body according to any one of the preceding Claims, wherein the triangular pillars are arrayed at a pitch of 5 μm or larger and 5 mm or smaller.~~

~~7~~6. The optical body according to any one of the preceding Claims, wherein the reflecting layer is a metal layer.

~~8. The optical body according to any one of the preceding Claims, wherein the reflecting layer has a reflectance of 30% or more at a wavelength of 1500 nm.~~

~~9~~7. The optical body according to any one of the preceding Claims, further comprising a water-repellent or hydrophilic layer on an incident surface of the optical body.

~~10~~8. The optical body according to any one of the preceding Claims, further comprising a protective layer formed on the reflecting layer to follow the concave-convex surface.

~~11~~9. The optical body according to any one of the preceding Claims, wherein the optical body has a belt-like or rectangular shape, and

a lengthwise direction of the optical body is orthogonal to a ridgeline direction of the triangular pillar.

~~12~~10. A wall member including the optical body according to any one of the preceding Claims.

~~13~~11. The wall member according to Claim ~~12~~10, wherein the optical body is arranged such that a ridgeline direction of the triangular pillar is substantially orthogonal to a direction of height of a building.

~~14~~12. The wall member according to Claim ~~12~~10 or ~~13~~11, wherein the optical body is arranged such that, in each of the triangular pillars, the slope angle β is positioned above the apex angle α.

~~15~~13. A fitting including a shading portion provided with the optical body according to any one of Claims 1 to ~~11~~9.

~~16~~14. A solar shading device comprising one or more solar shading members to cut off sunlight,

wherein the solar shading member includes the optical body according to any one of Claims 1 to ~~11~~9.

~~17~~15. A building including the optical body according to any one of Claims 1 to ~~11~~9,

wherein the optical body is arranged such that, in each of the triangular pillars, the slope angle β is positioned above the apex angle α.