

# Using the Suunto Optical Reading Clinometer

*Figure 1: Suunto Clinometer.*



To calculate the height of the tree or part of the building:

$$\text{Height} = (\text{tangent of its angle from horizontal}) \times (\text{its distance in plan}).$$

The Suunto clinometer is used to measure a point's degrees from horizontal and a surface's slope in percent or slope angle.

## Take an Optical Reading

1. **Keep both eyes open and align clinometer cross hairs with distant object.** Use one eye to view the distant object and the other to see numbers through clinometer lens.

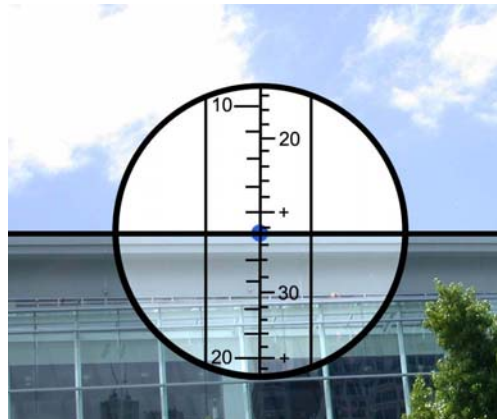


*Figure 2: Both eyes open and clinometer vertical*



*Figure 3: Sighting a point along top of building*

2. **Take a reading.** Two scales appear through the clinometer lens. The scale on the left indicates angle from horizontal in degrees. The scale on the right indicates percent slope (rise/run x 100). *Figure 4* shows that a point on the building edge has a slope of 15 degrees from horizontal and the line connecting the clinometer to that point has a slope of 26.5 percent.



*Figure 4: Composite view*