

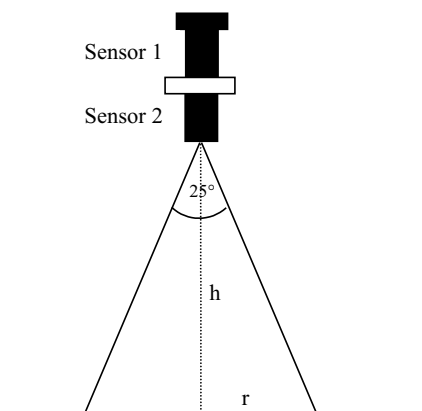
LIGHT

Area of Measurement by Reflected Light Sensors

Skye 2 and 4 channel light sensors are fitted with a removable cosine correcting light acceptance head. When taking incident or down-welling light measurements, the head is left in place so that the sensor is fully cosine corrected (accepts light in accordance with Lambert's Cosine Law).

For the measurement of reflected or up-welling light, the cosine head is removed converting the sensor into a narrow angle acceptance instrument. The sensor has a smaller, defined field of view and can accurately measure from a defined ground area.

Without the cosine head, both 2 and 4 channel sensors have a 25° cone field of view (12.5° off perpendicular). The area of ground in view to the sensor is then defined by the height above the ground, as shown below:



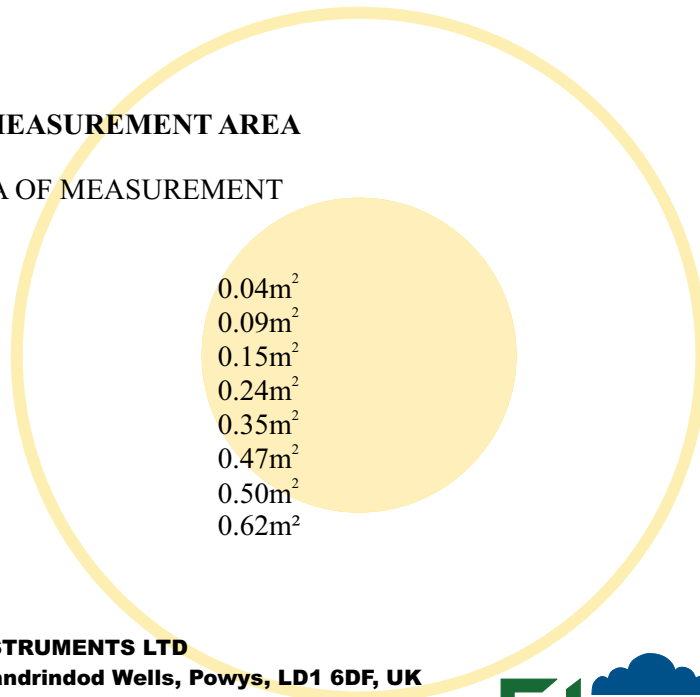
Sensor 1 is fitted with the cosine correcting head and is measuring incident light.

Sensor 2 is narrow angle and is measuring reflected light.

Both incident and reflected light is measured simultaneously by 2 identical sensors, to eliminate fluctuations in solar radiation

EXAMPLES OF MEASUREMENT AREA

HEIGHT OF SENSOR h	RADIUS OF CIRCLE r	AREA OF MEASUREMENT
0.5m	0.11m	0.04m ²
0.75m	0.17m	0.09m ²
1m	0.22m	0.15m ²
1.25m	0.28m	0.24m ²
1.5m	0.33m	0.35m ²
1.75m	0.39m	0.47m ²
1.8m	0.40m	0.50m ²
2m	0.44m	0.62m ²



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