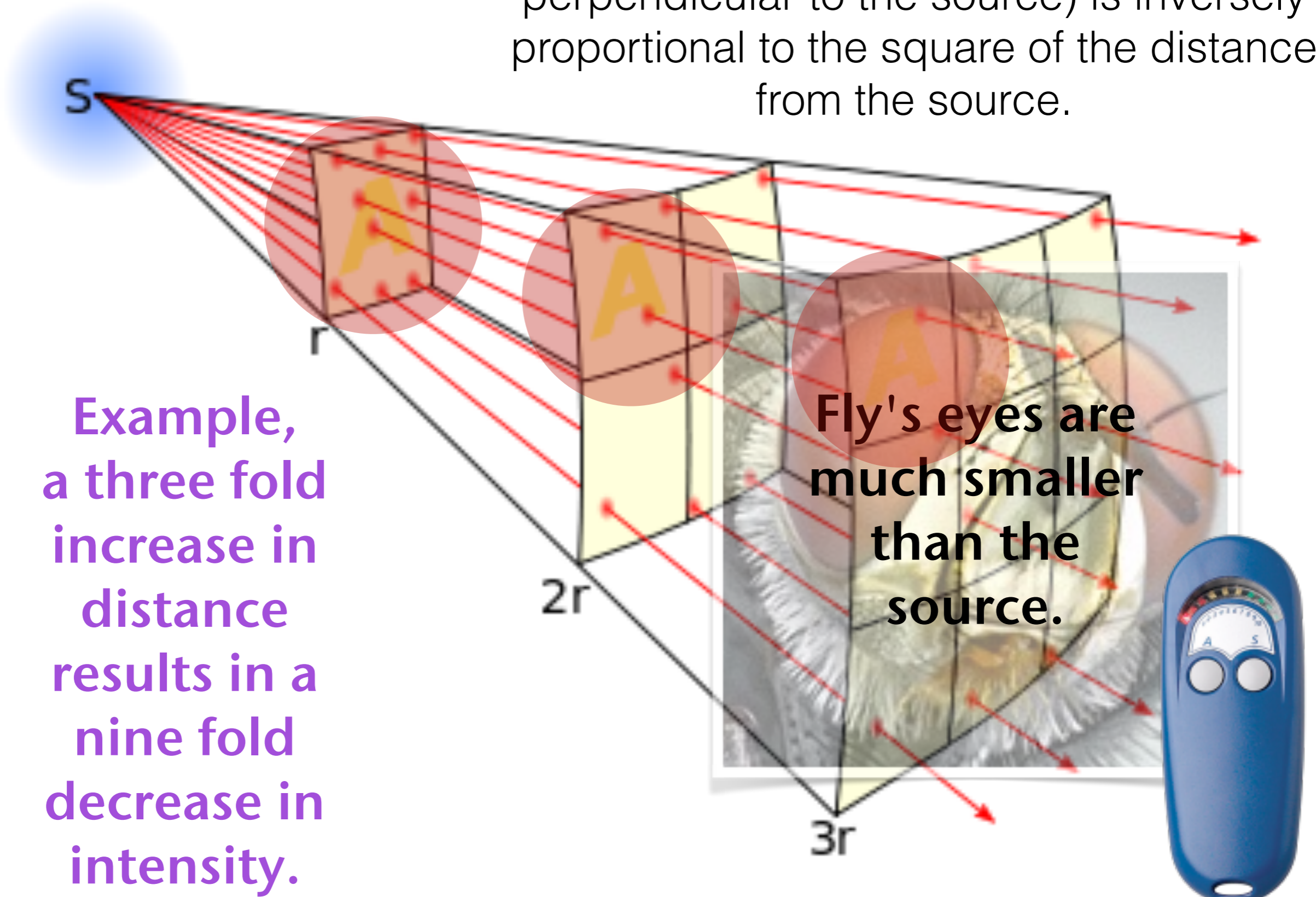


Inverse-Square Law

Intensity $\sim 1/\text{distance}^2$

The intensity (or illuminance or irradiance) of light or other linear waves radiating from a point source (energy per unit of area perpendicular to the source) is inversely proportional to the square of the distance from the source.



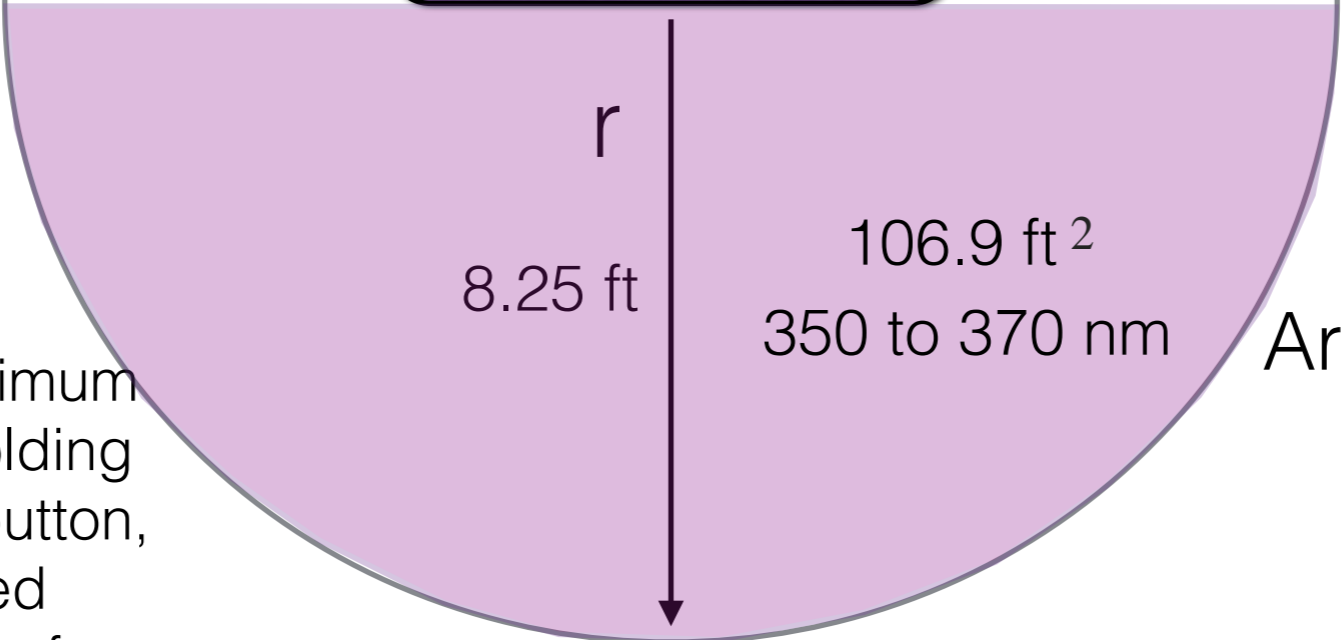
Example, a three fold increase in distance results in a nine fold decrease in intensity.

Fly's eyes are much smaller than the source.



Total lamp wattage	10 W	20 W	30 W	50 W	80 W
Metres:	1.3	1.5	2.0	2.2	2.5
Feet:	4 1/4	5.0	6 1/2	7 1/4	8 1/4
Measurements are of the total output of the trap, there is no need to measure individual bulbs.					350 to 370 nm

80 W 180° System



Anecdotal coverage calculation in ft 2 using the UV-AMeter

For an *approximate* maximum coverage calculation, holding down the UV-AMeter S button, start at the chart indicated distance, then back away from the ILT to the point the green LED indicates a minimum reading of 7, then measure the distance from the ILT to the UV-AMeter. Calculate the coverage using the equation at the right (assumes operational ambient light and line of sight).



$$A = \frac{\pi r^2}{2}$$

Area of a semi-circle

$$A = \frac{3.14 (8.25^2)}{2}$$

$$A = \frac{3.14 \times 68.06}{2}$$

$$A = \frac{213.82}{2}$$

Minimum coverage calculation based upon UV-AMeter chart.

$$A = 106.9 \text{ ft}^2$$

For a 360° system, use $A = \pi r^2$