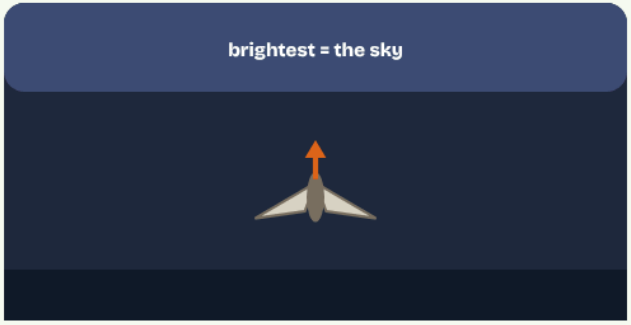
That is why

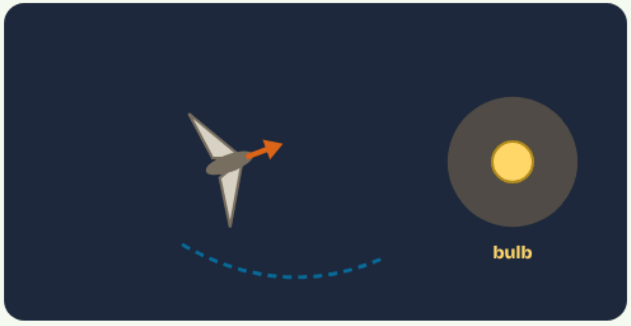
Why are moths attracted to light?

A moth keeps its back toward the brightest thing it sees. In nature that is the sky; near a bulb, it is a trap.

A The rule: back to the bright side



In nature: sky above, back up, wings level

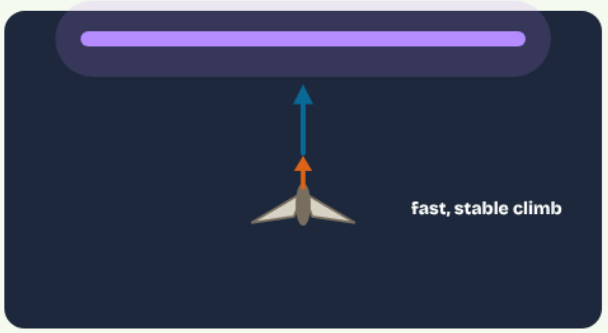


Near a bulb: bulb to the side, back tilts, moth turns

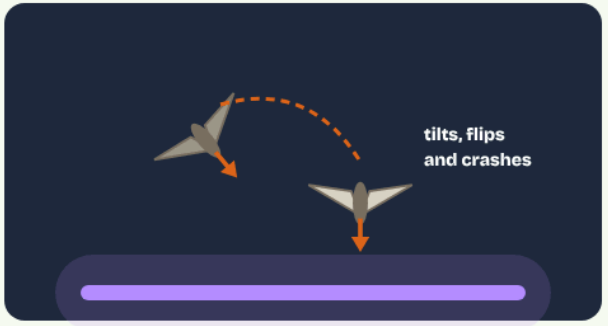
Orange arrow = the moth's back (dorsal side)

Called the dorsal light response.

B The clincher: flip the light



UV light from above, like a sky



Same UV light from the floor

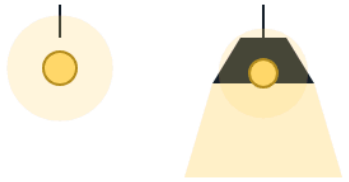
Tested on honeybees and flies: the light never changed, only its direction. Position is the trap, not the glow.

C Old guesses, and the fix

Old guesses that don't fit

- **Mistaking it for the moon** — flight tracks don't fit it
- **Coming for warmth** — cool LEDs trap insects too
- **Blinded by the glare** — the moves are predictable
- **Lured from far away** — trapped only up close

Kinder porch lights



bare bulb | shielded, downward

Worst: bare or upward-facing bulbs. Cutting unneeded ones helps most.

Like a night pilot who keeps the bright side up: perfect under the sky, lost in circles around a floodlight. Free for learning thatiswhy.com

Free for learning, teaching and research. Please credit: That Is Why, thatiswhy.com

Diagram: https://thatiswhy.com/diagrams/why-moths-circle-lights/ · Full guide: https://thatiswhy.com/why-are-moths-attracted-to-light/