

SUNDAY FIELD CRAFT

Is that window eating your signal?

Hold a flame to the glass. Count the reflections.



WHAT YOU SEE

Four flames, one odd one out

All four orange: plain glass

One violet, blue, green or pink: low-E



different color
= coated glass

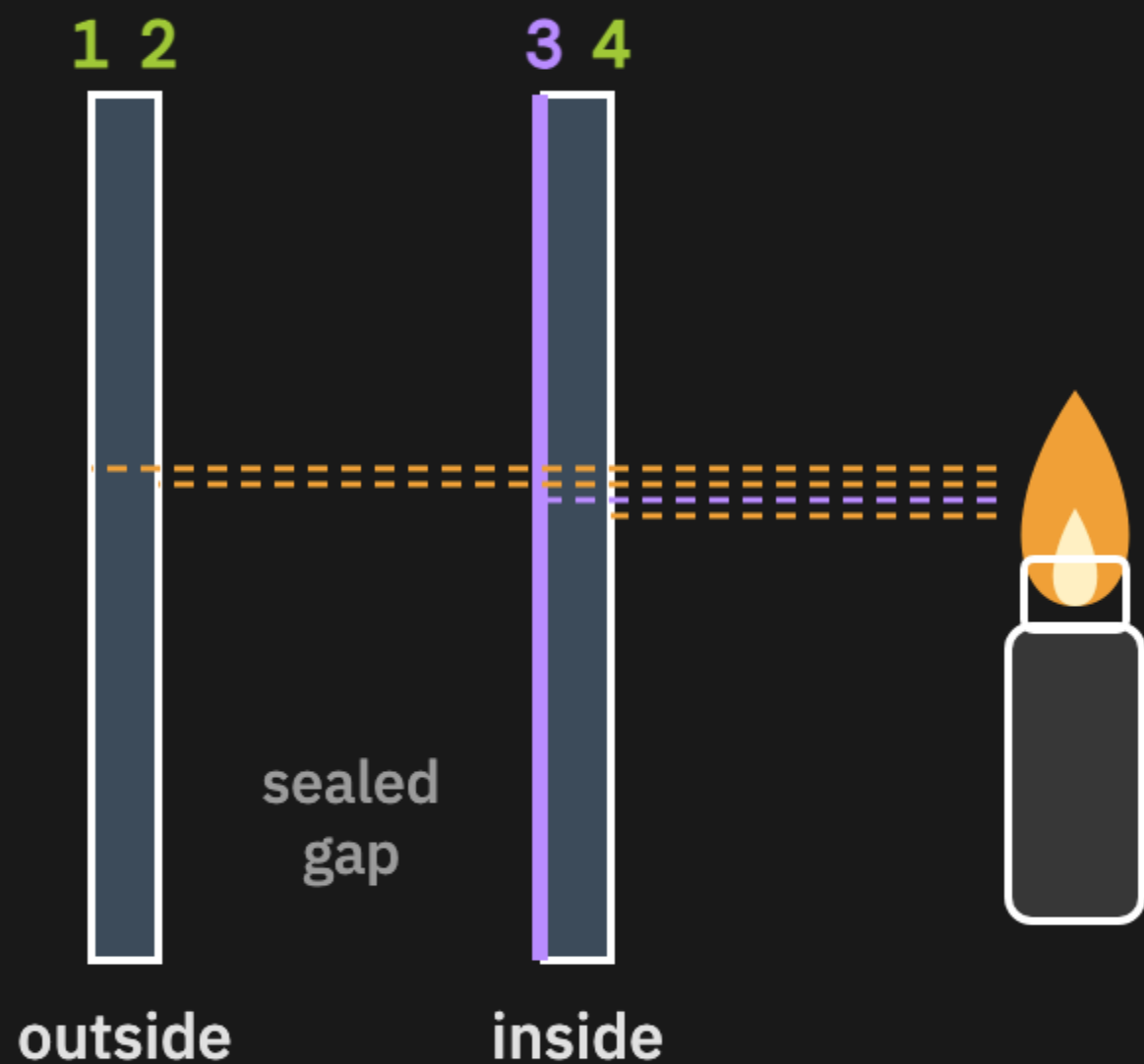
It can be any of the four

Look at the glass at a slight angle. A double-glazed window shows four reflections of the flame. Dim the room and they are easier to see.

WHY FOUR

Two panes, four surfaces

A thin metal coating on one surface changes the color of its reflection



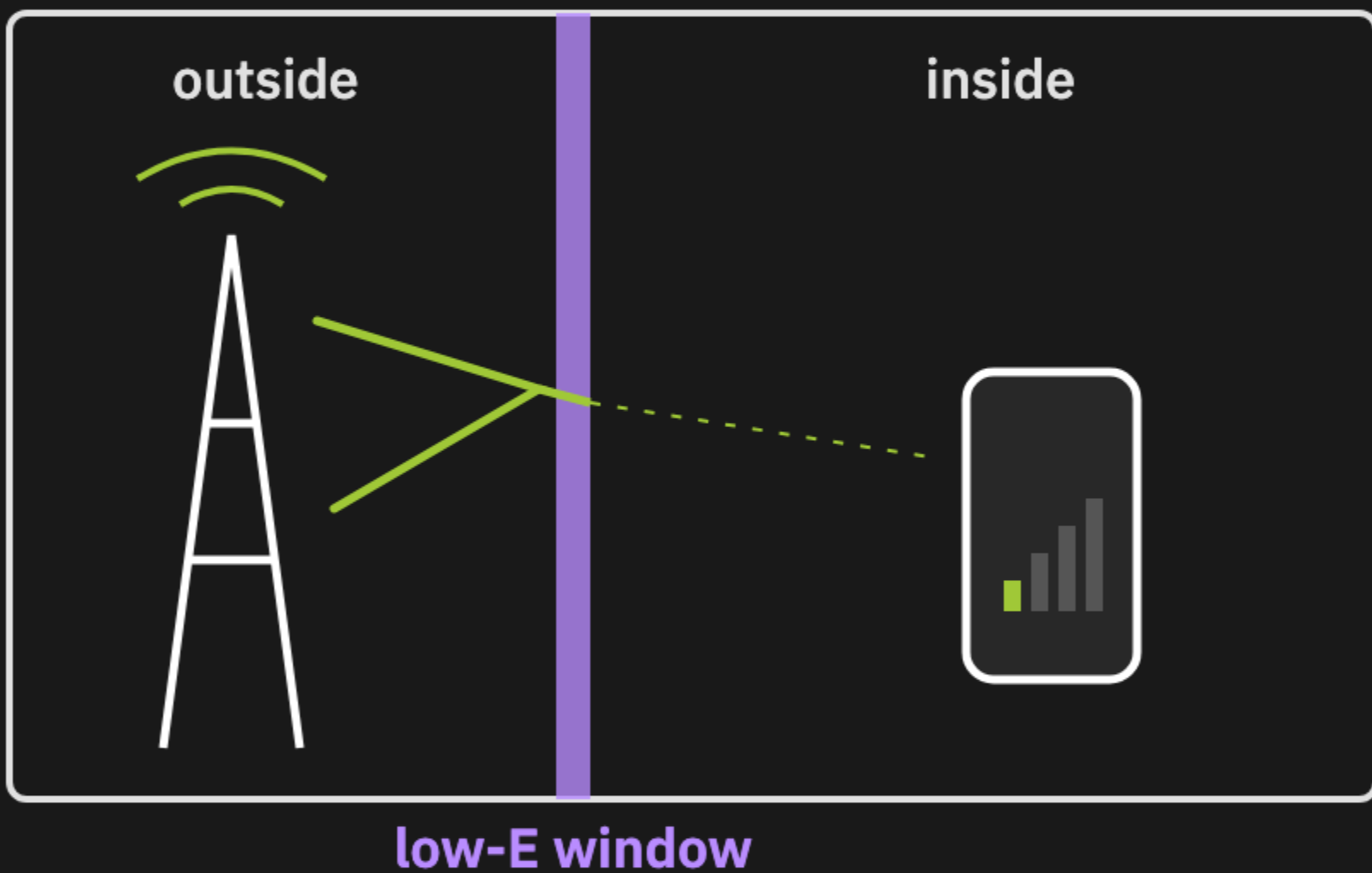
Each glass surface reflects the flame once

The coating is there on purpose. It keeps heat in and sun out. It also reflects radio.

WHAT IT COSTS

The signal stays outside

Measured through low-E glass:
10 to 45 dB, typically 30 to 40



That is the new office with no cell signal. And the outdoor AP that can't reach the room behind the window.

WHERE IT MATTERS

Test the glass first

New offices and hotels

Cell coverage indoors drops. Plan for it before move-in.

Outdoor to indoor Wi-Fi

Don't count on an AP outside to cover rooms behind coated glass.

A site survey

Test the windows before you trust a predictive model.

Tinted is not the same as low-E. The flame test is the check.

YOUR TURN

Try it tonight

A quick flick of the flame,
away from blinds and window film



How many of your windows are coated?

Have you ever traced a coverage problem to
the glass?