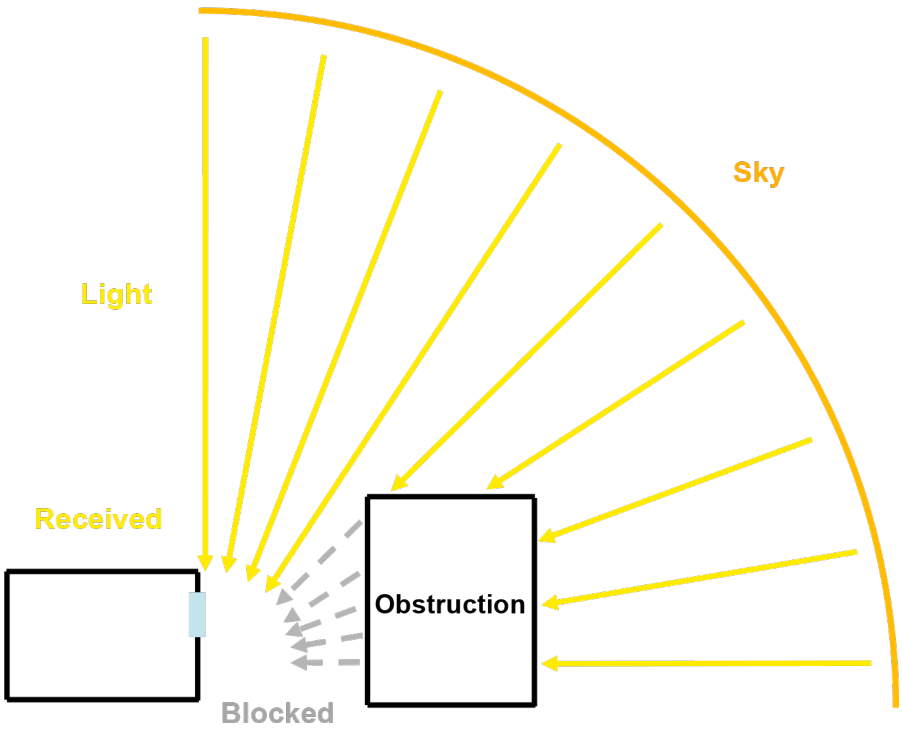
DAYLIGHT FACTOR

Task 3 – Why it's dark even with big windows

Daylight from the sky is partially blocked by obstructions outside the window.



The larger proportion of sky view from the window being blocked, the less light can enter the room.

Low obstruction

Brighter

Medium obstruction

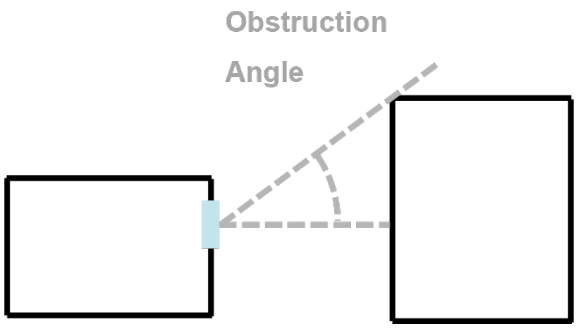
Medium

High obstruction

Darker

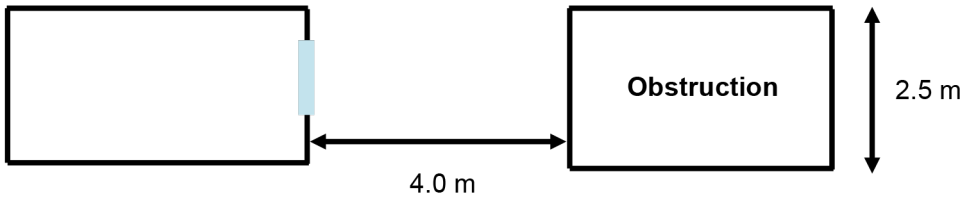
Working Plane

The level of obstruction can be quantified by an obstruction angle.

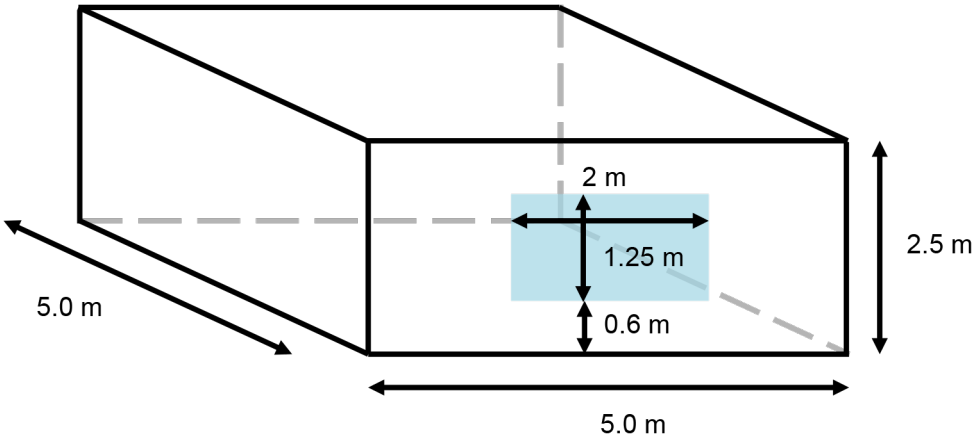


Surrounding obstruction is therefore a major factor influencing the available daylight.

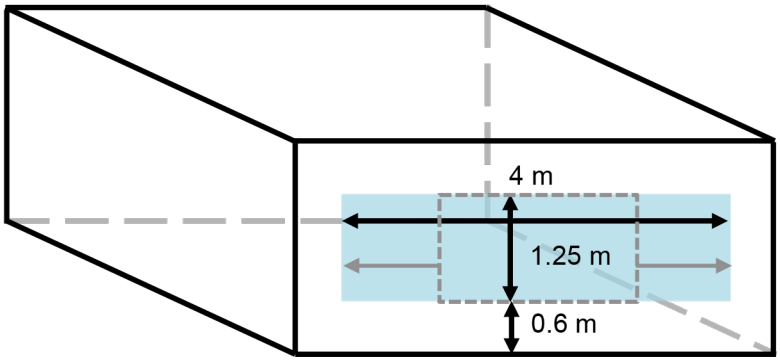
Adjust the obstruction as specified, input the following room dimensions, and observe the difference in daylight factor between the smaller and bigger window.



Smaller window

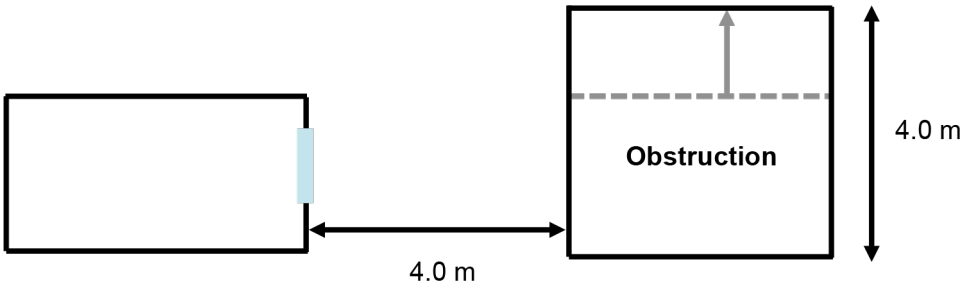


Bigger window

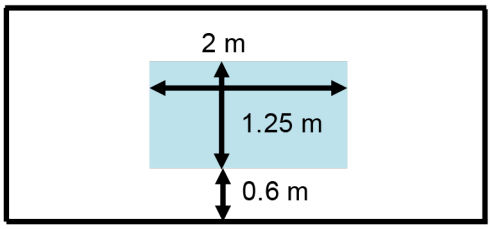


Make sure you reset the reflectance of all internal surfaces to the following values (wall: 0.5 ceiling: 0.7 floor: 0.5) after task 3. Increase the height of the obstruction, and observe how daylight factor varies with the smaller and bigger window.

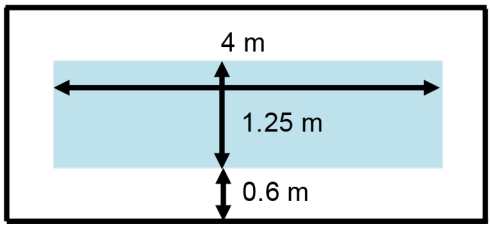
Increase obstruction height



Smaller window

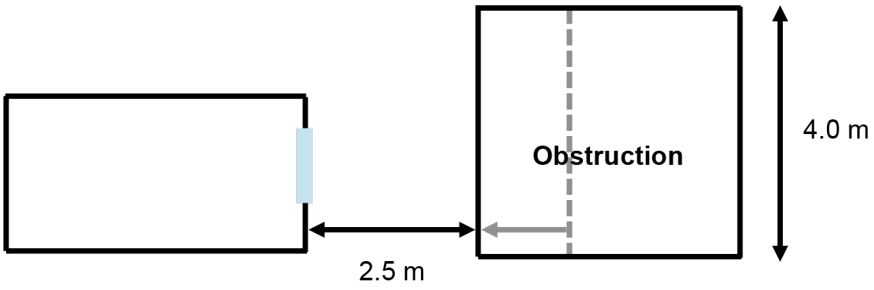


Bigger window

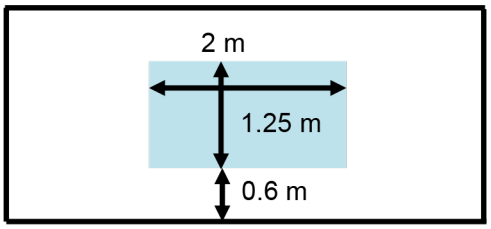


Next, reduce the distance to the obstruction, and observe how daylight factor varies with the smaller and bigger window.

Reduce distance to obstruction



Smaller window



Bigger window