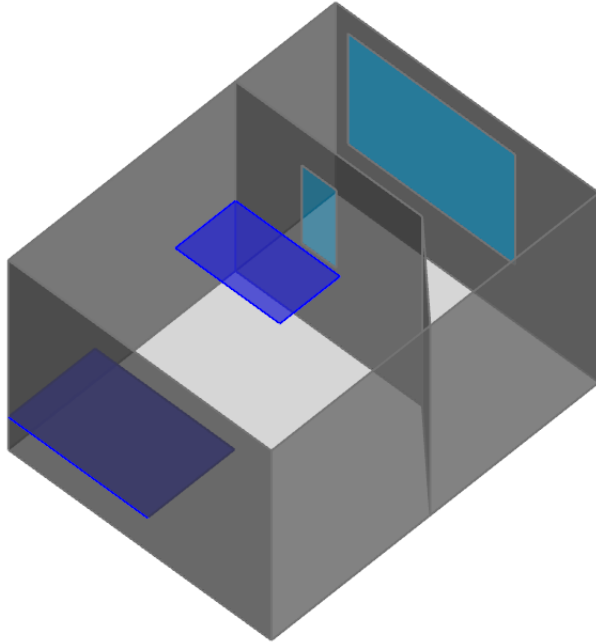
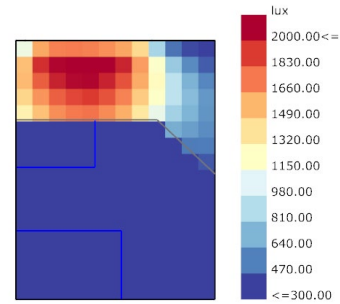


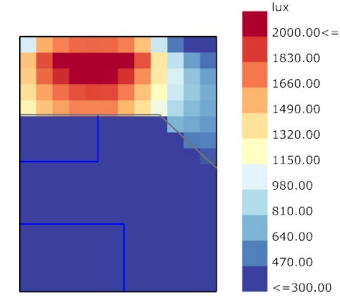
Base Model



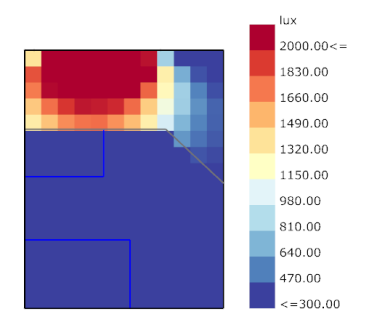
For the Base Model, since the room has no window directly facing outside, there is almost no direct sunlight during the year. The main goal is to bring daylight into the bedroom.



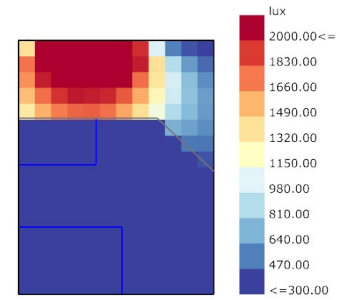
9AM, MAR 21



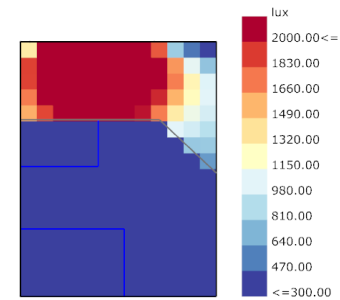
12PM, MAR 21



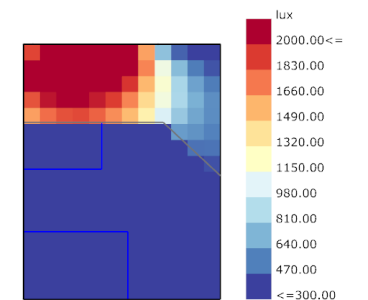
15PM, MAR 21



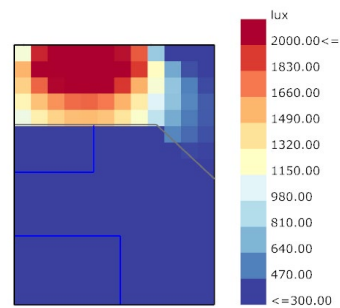
9AM, JUN 21



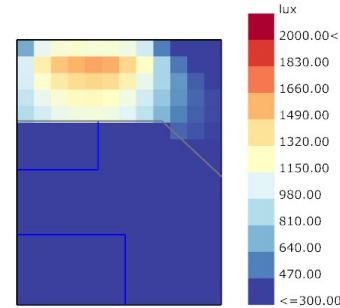
12PM, JUN 21



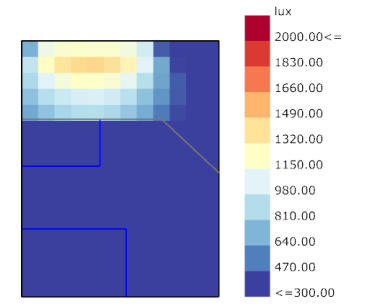
15PM, JUN 21



9AM, DEC 21

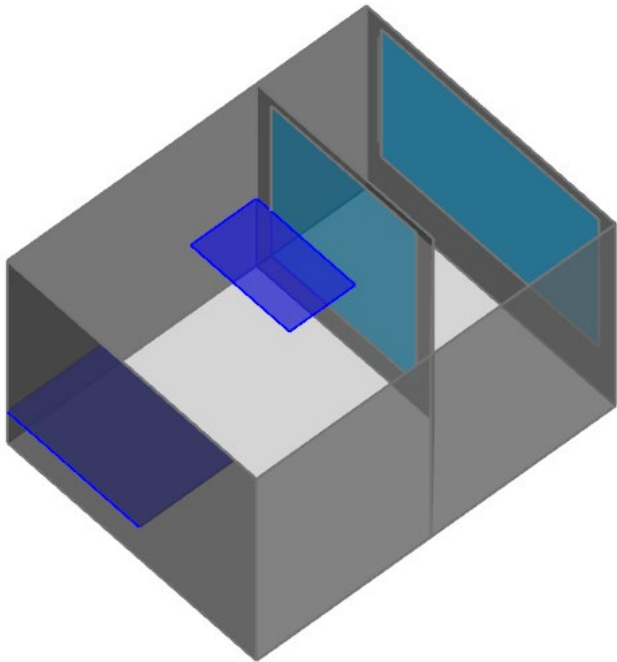


12PM, DEC 21



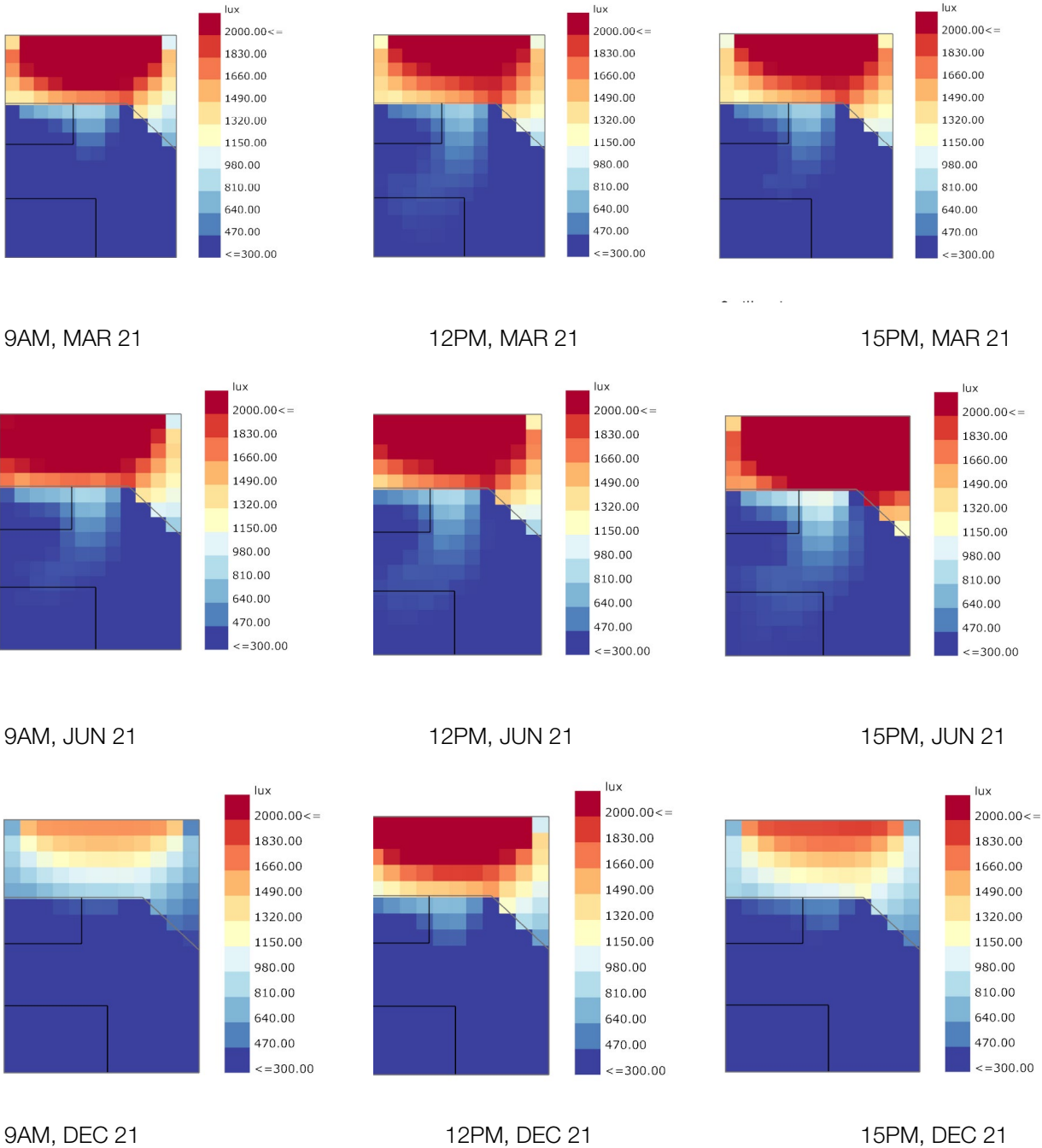
15PM, DEC 21

1ST Modified Model

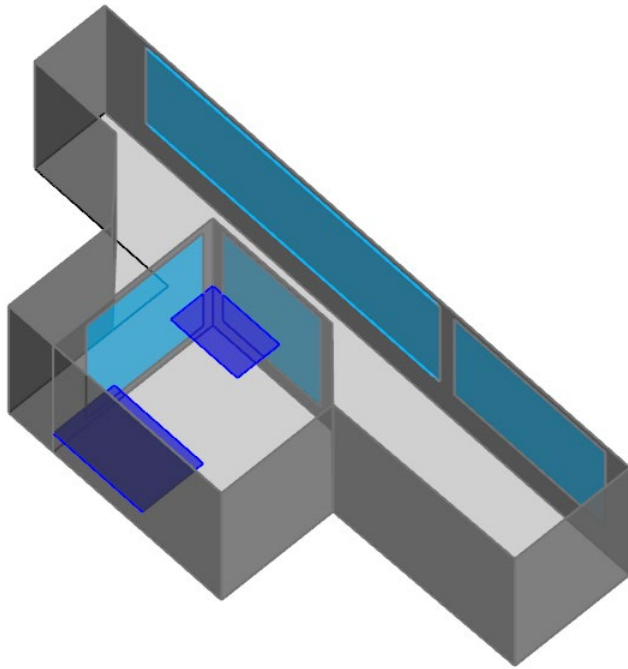


Strategy:
Enlarge the size of Window.

Result:
The indoor daylight quality is partly improved, but still most area has no sufficient illuminance.



2nd Modified Model

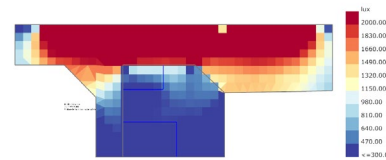


Strategy:

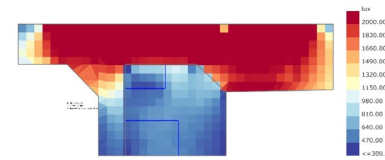
1. Using the window at northeastern side.
2. Creating window and use glass door at right side to bring the sunlight from northeastern side of the room.
3. Make room for window at westside wall.

Result:

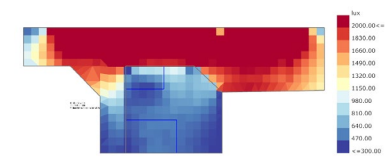
The indoor daylight quality has been improved much in March and June but no enough illuminance in December.



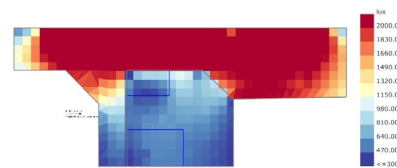
9AM, MAR 21



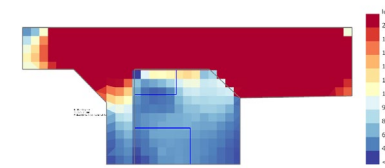
12PM, MAR 21



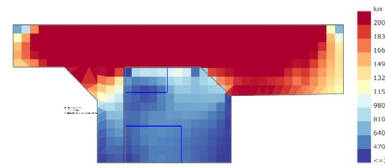
15PM, MAR 21



9AM, JUN 21



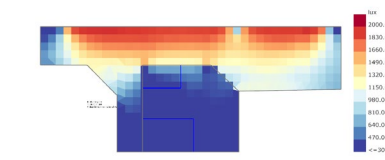
12PM, JUN 21



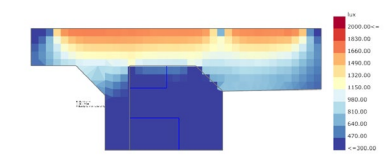
15PM, JUN 21



9AM, DEC 21



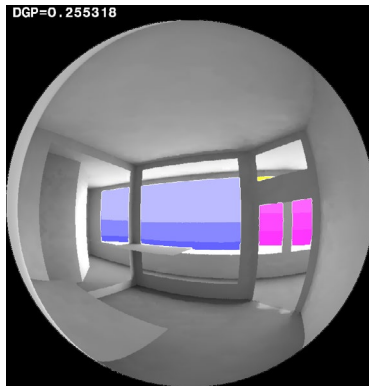
12PM, DEC 21



15PM, DEC 21

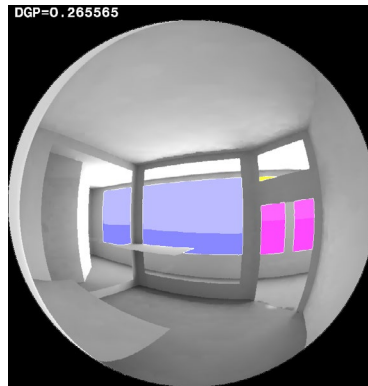
Glare Analysis

Based on the simulation result of 2nd modified model, the DGP is below 0.35, which means the glare is imperceptible.



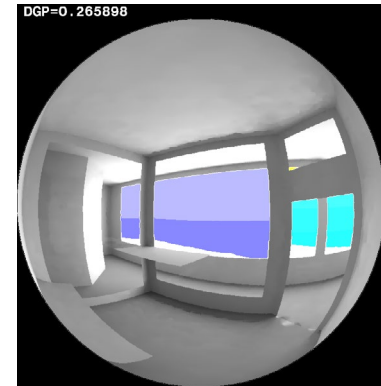
9AM, MAR 21

DGP:0.255318



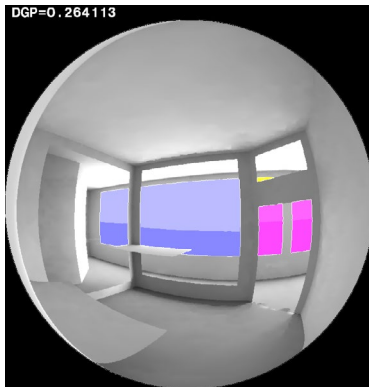
12PM, MAR 21

DGP:0.265565



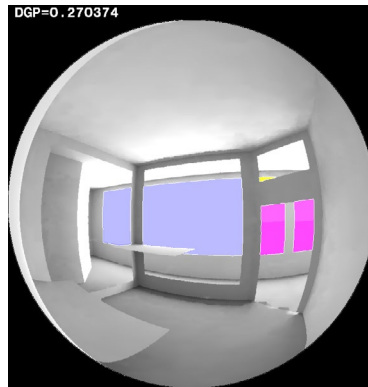
15PM, MAR 21

DGP:0.265898



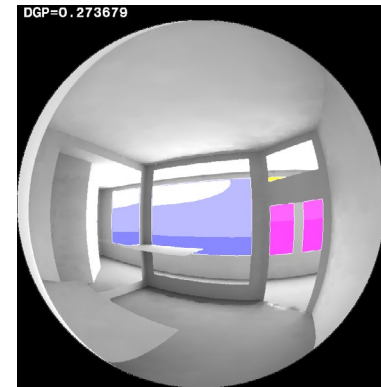
9AM, JUN 21

DGP:0.264113



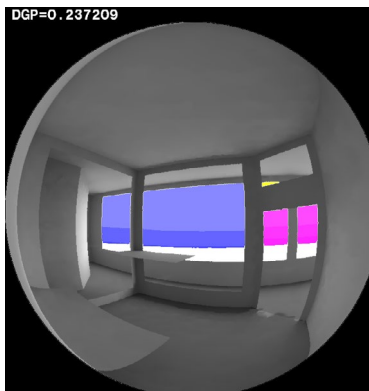
12PM, JUN 21

DGP:0.270374



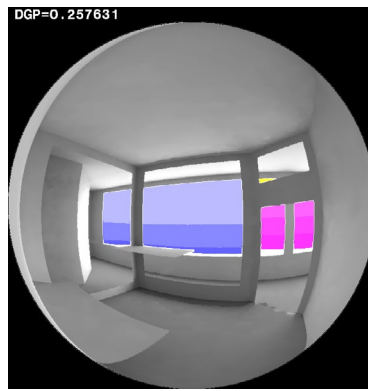
15PM, JUN 21

DGP:0.273679



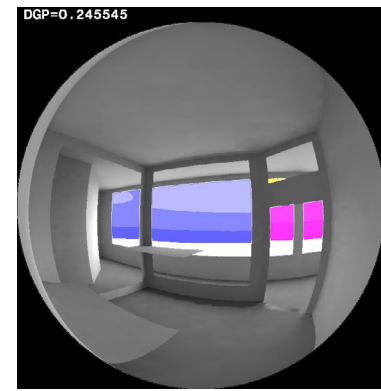
9AM, DEC 21

DGP:0.237209



12PM, DEC 21

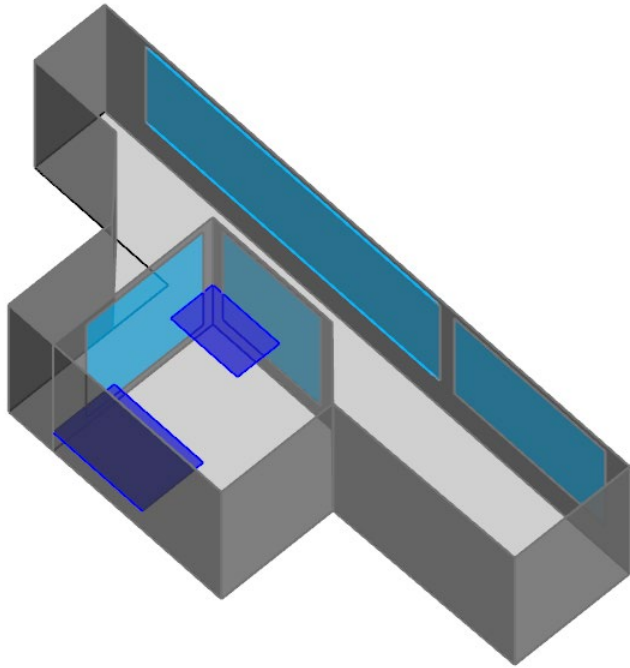
DGP:0.257631



15PM, DEC 21

DGP:0.245545

Annual daylight analysis : UDI



Use the UDLI_100_2000 to evaluate the annual daylight.

Result:
The result shows that the UDI of interior room is mostly close to 100%, which means good daylight performance.

