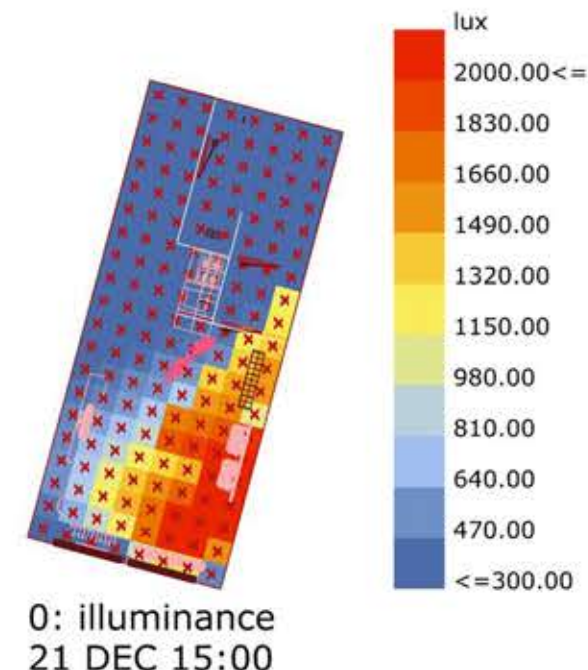
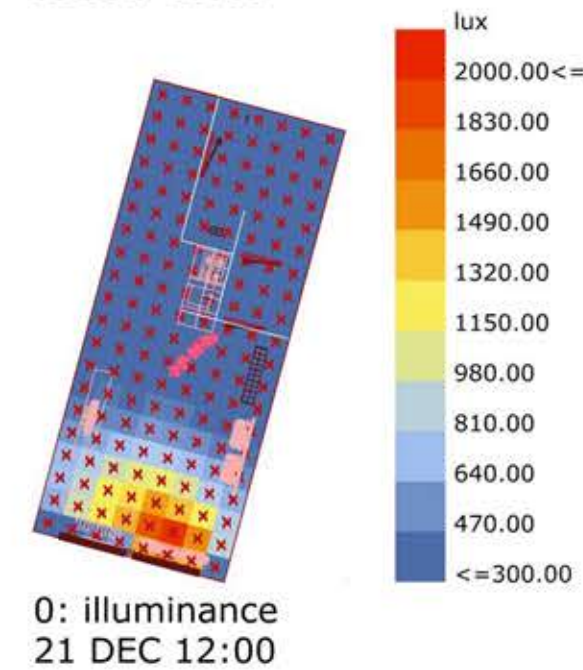
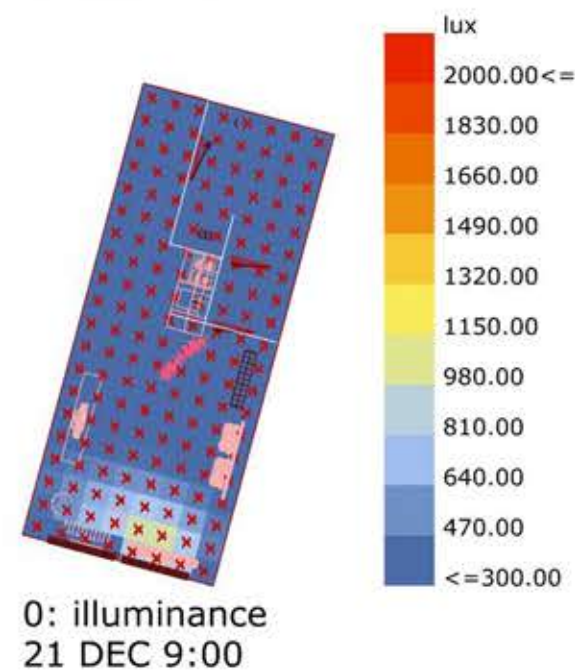
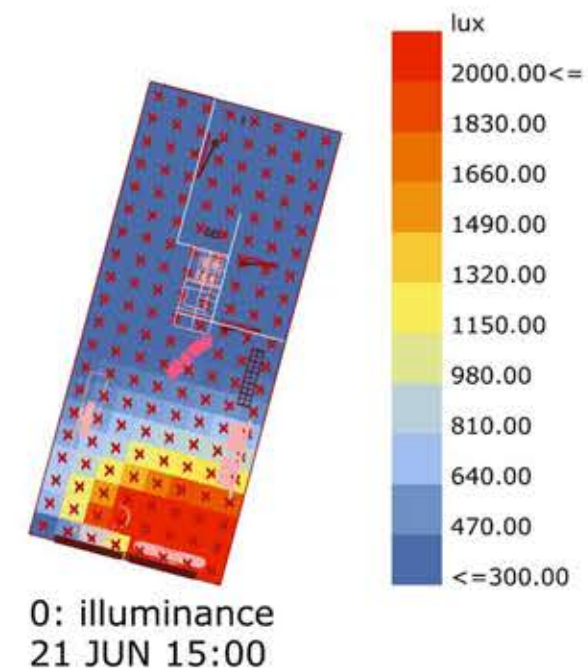
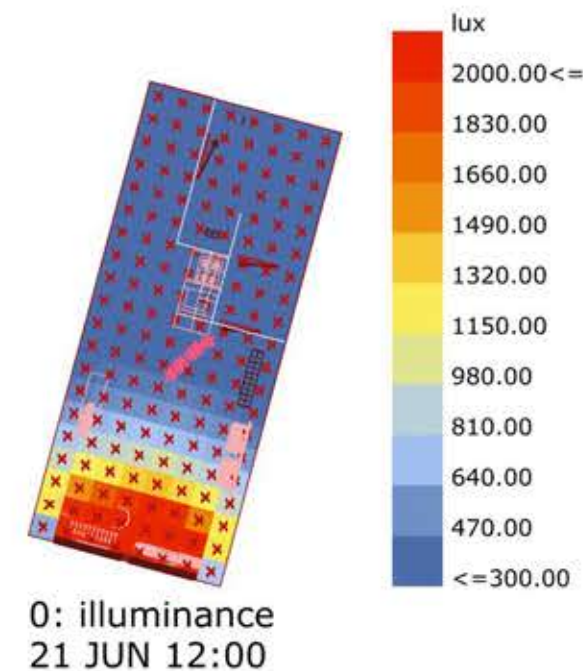
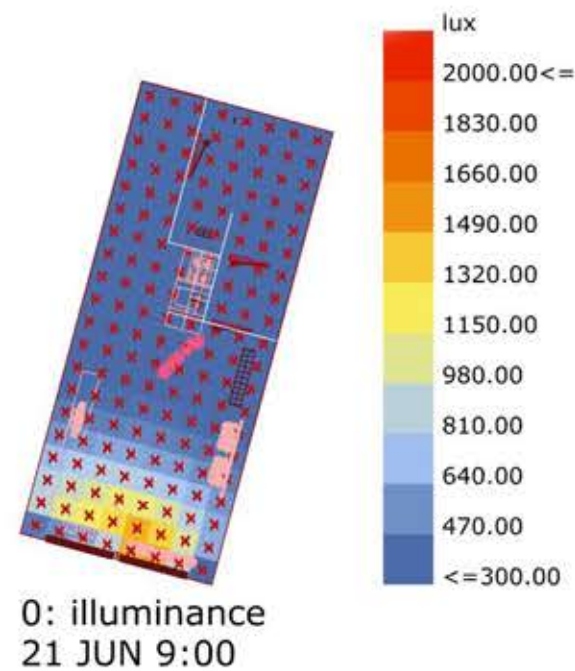
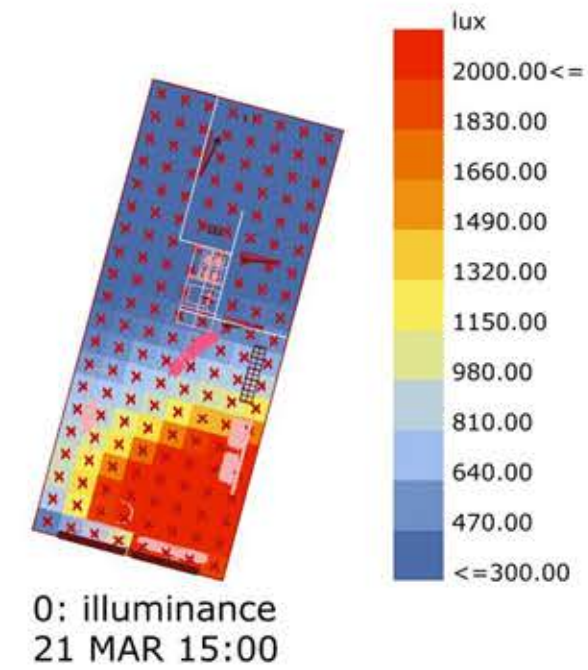
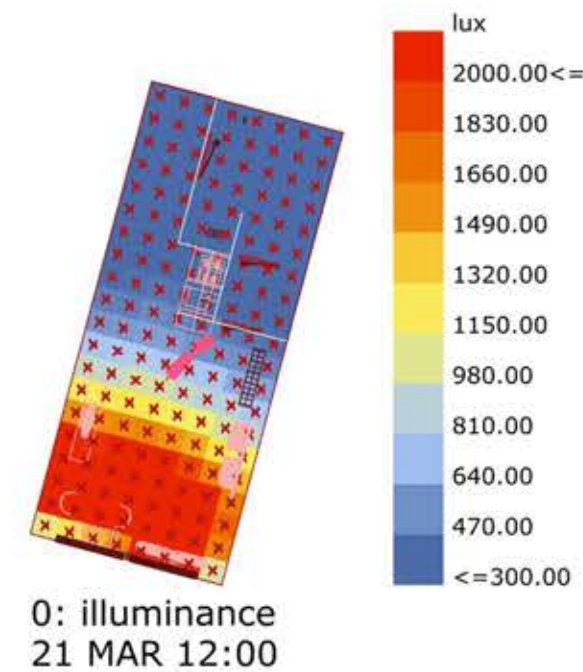
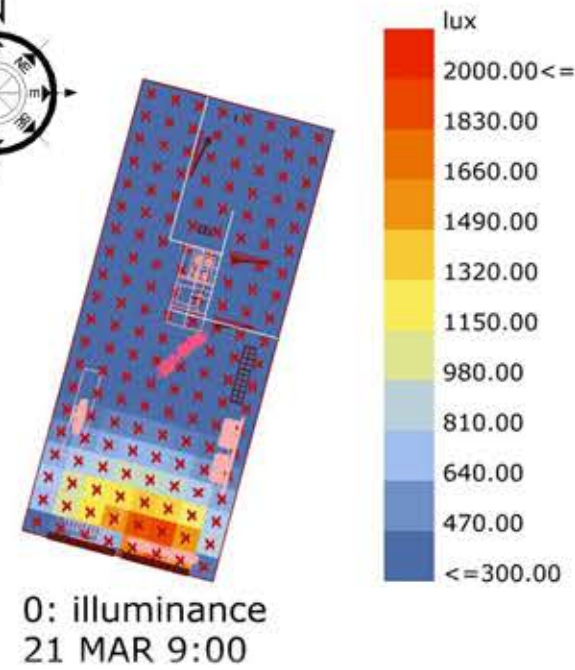


## Building Performance Simulation

Analysis of Daylighting for our Apartment  
& Design a Shading for Glare Points

# Existing Model

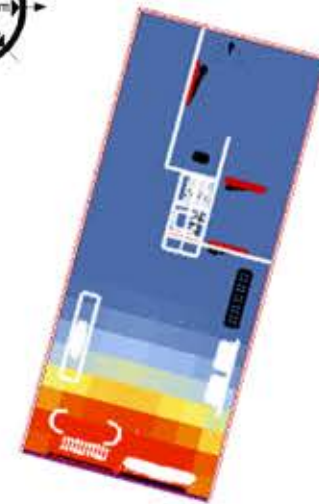
According to the illuminance levels  
Much of the glare is for afternoon,  
and then noon. Also, the most  
problematic month is March. In the  
morning there is not much glare in  
all three month.



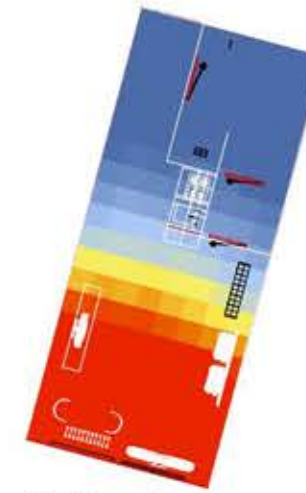
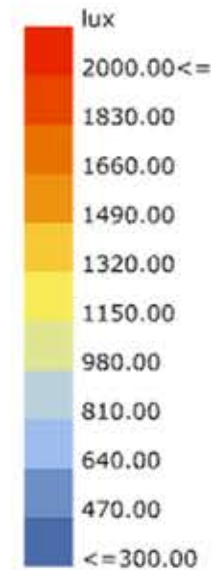


# Widening the Window Horizontally

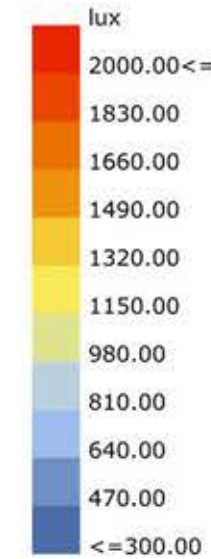
The first try was to make the window fully extended to see if we can make the light to penetrate more deep into the room and then think about shading the glare. The approach is that the light is coming deeper into the room but definitely the glare has become more.



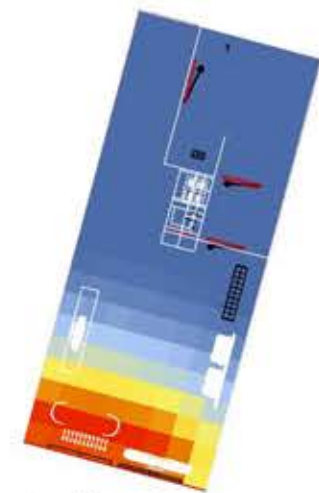
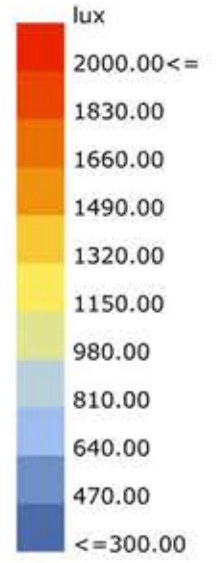
0: illuminance  
21 MAR 9:00



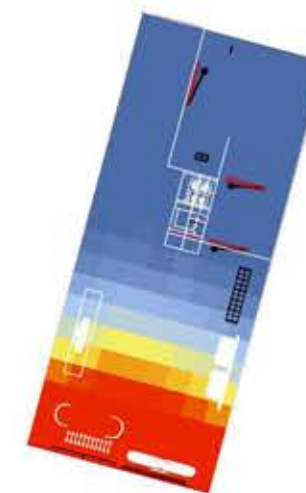
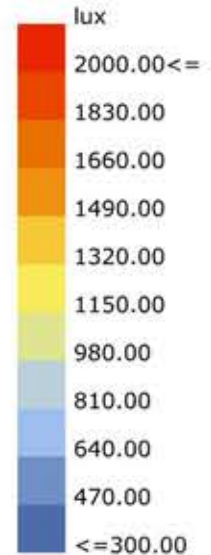
0: illuminance  
21 MAR 12:00



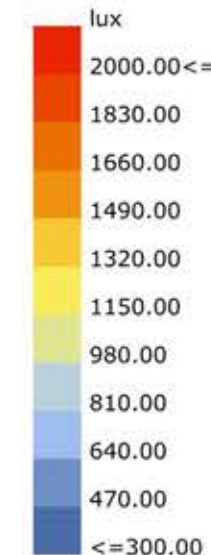
0: illuminance  
21 MAR 15:00



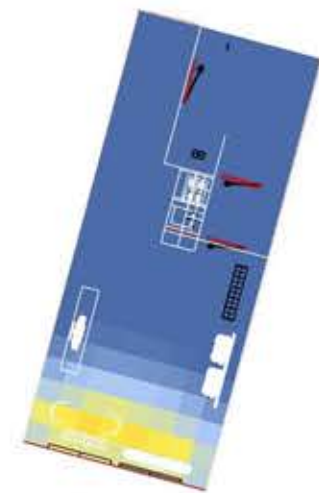
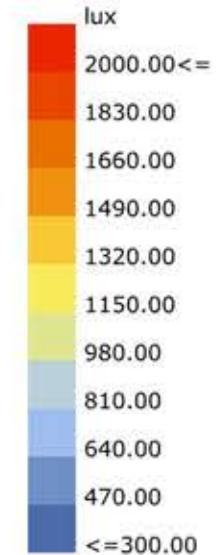
0: illuminance  
21 JUN 9:00



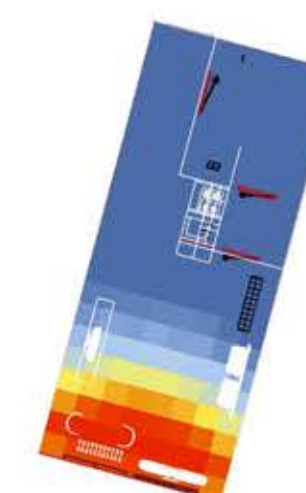
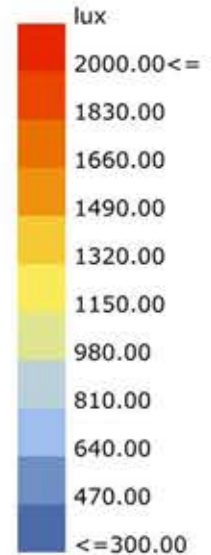
0: illuminance  
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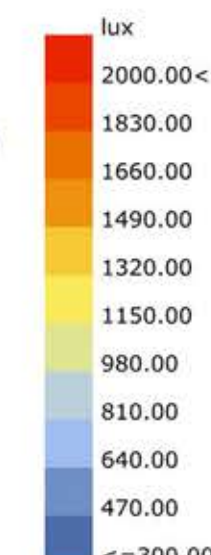
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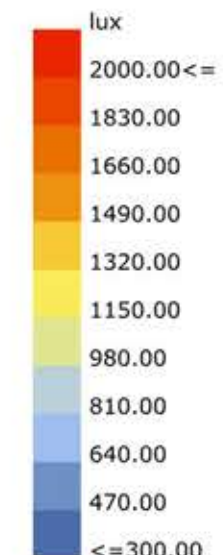
0: illuminance  
21 DEC 9:00



0: illuminance  
21 DEC 12:00



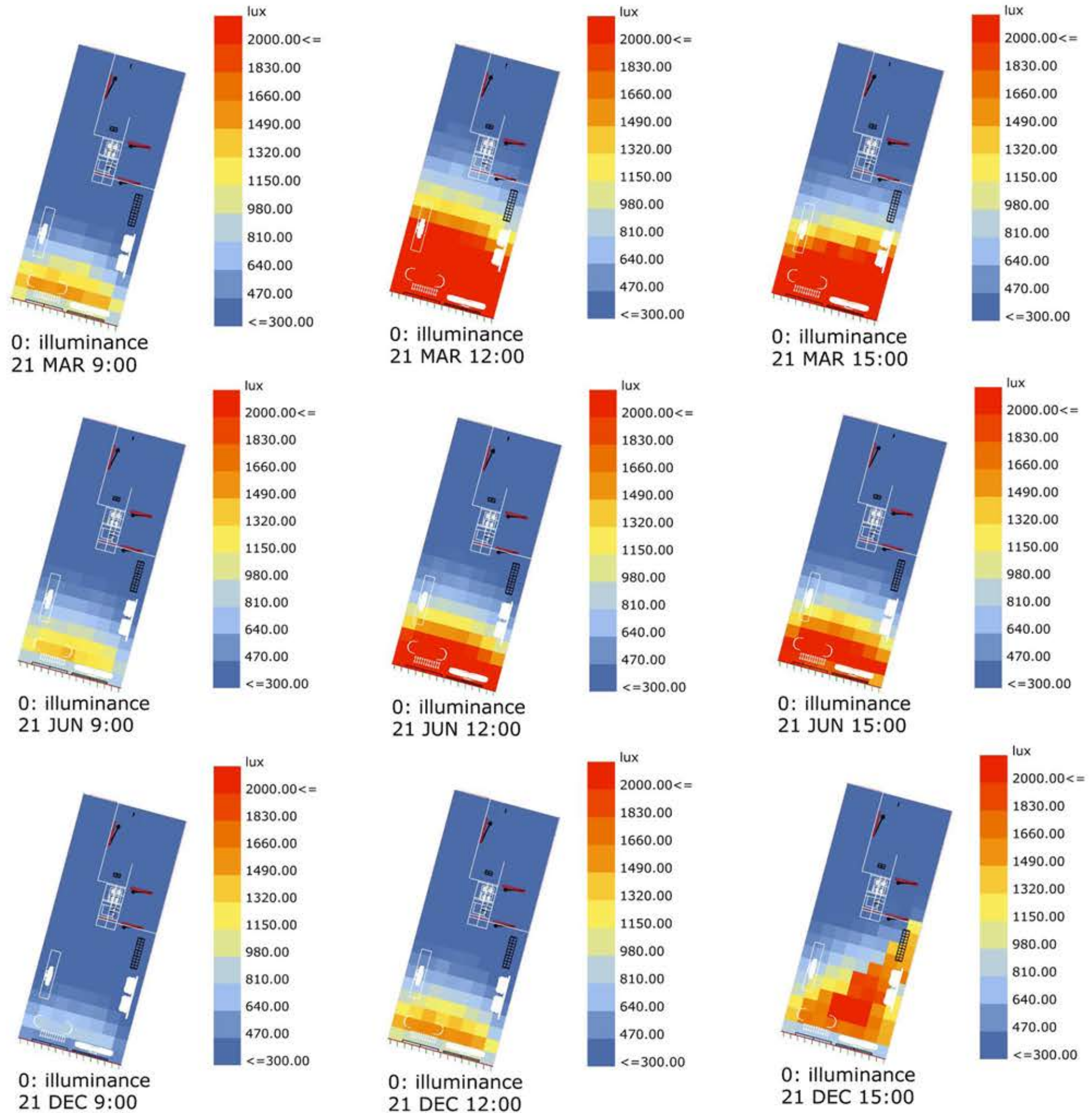
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21 DEC 15:00





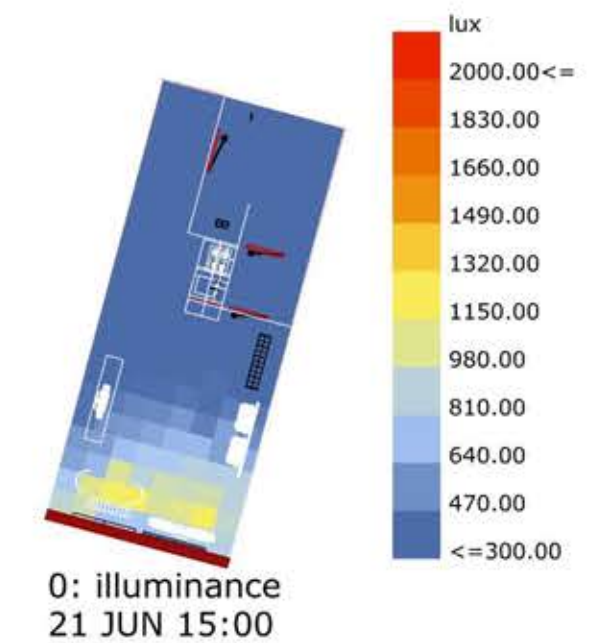
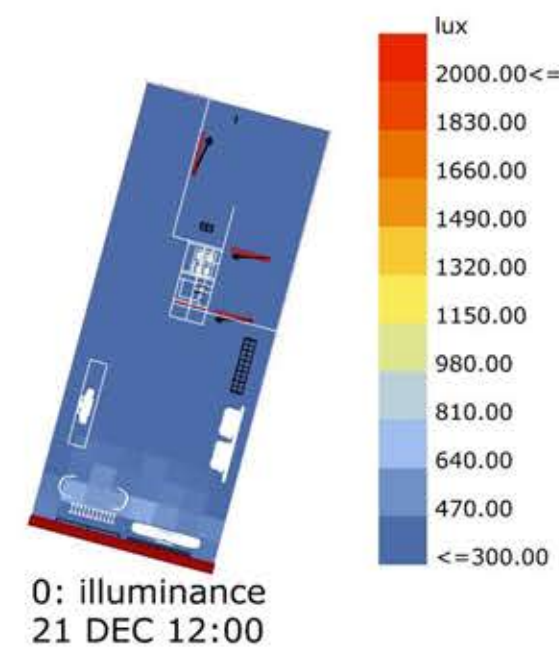
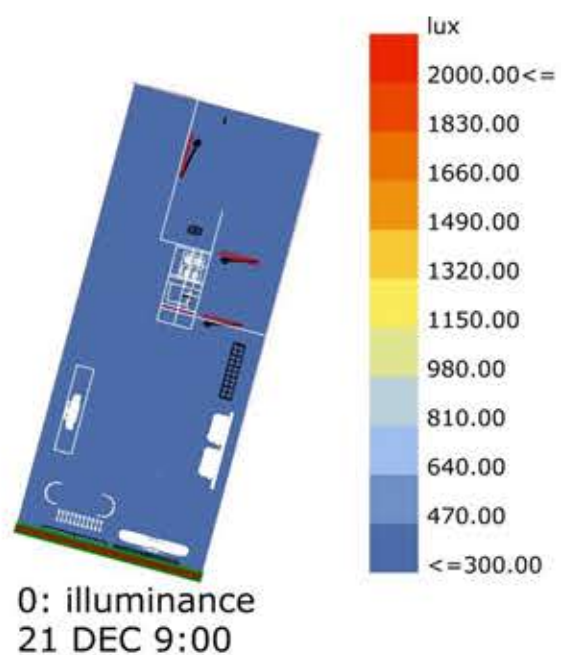
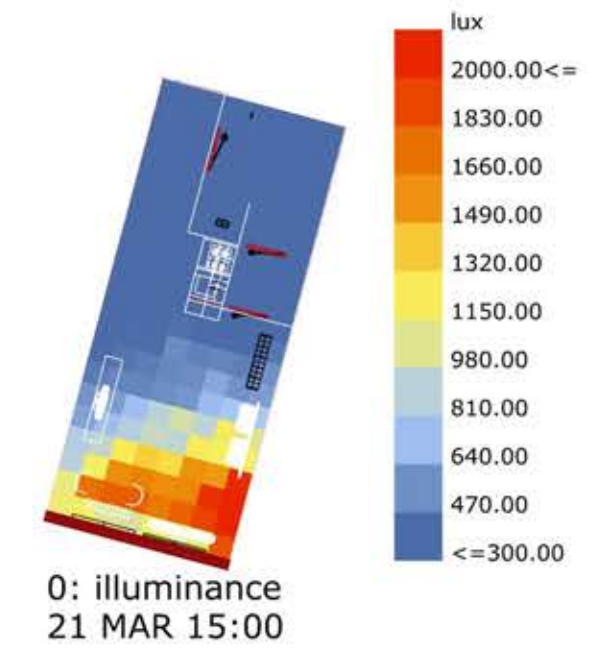
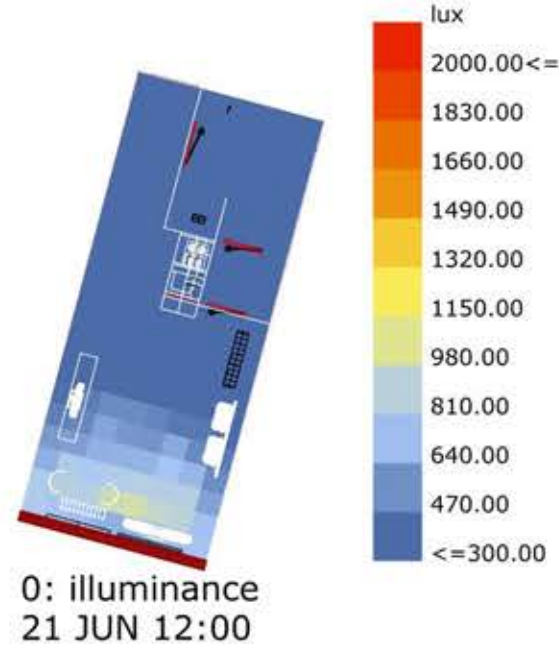
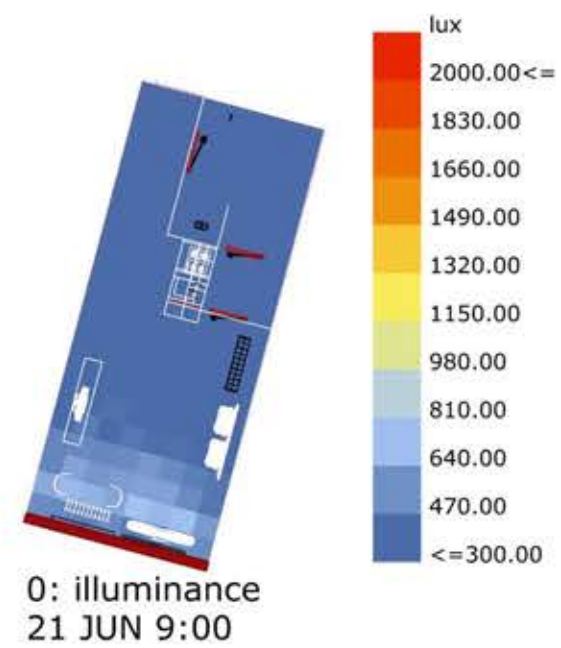
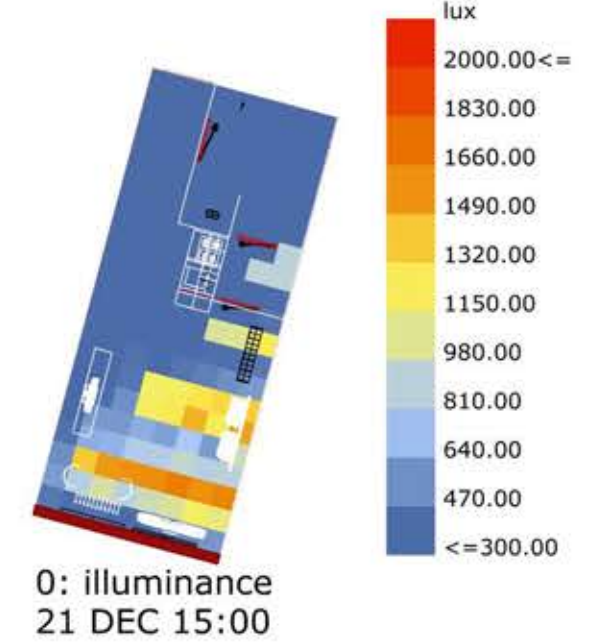
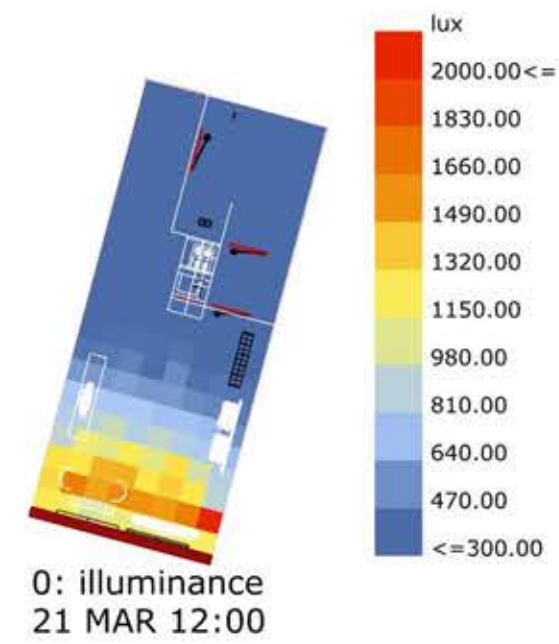
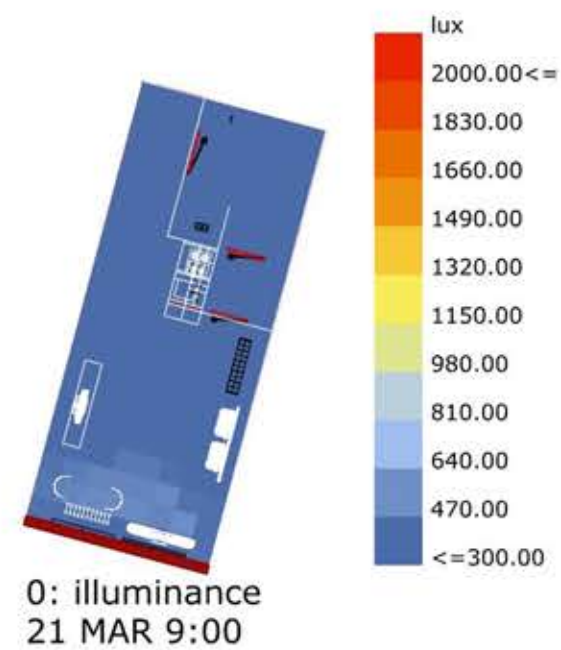
# Vertical Shading

Then the second try was to add some shading to see the effect of that on the glare. Some progress is happened but there are still so much glare in noon and afternoon overally. So an alternative shading should be considered.





# Horizontal Shading



In the next approach, I changed the vertical shading to horizontal shading , and the result is much more better and it can be seen that horizontal shading is more effective than vertical shading. But there is still glare in one time March 15:00.





# Revised Horizontal Shading

Making the horizontal shading a little denser was the final approach that in the given analyzed graphs it is shown that it has eliminated all of the glare. Ofcourse the light levels has become low but the level of light is still acceptable.

