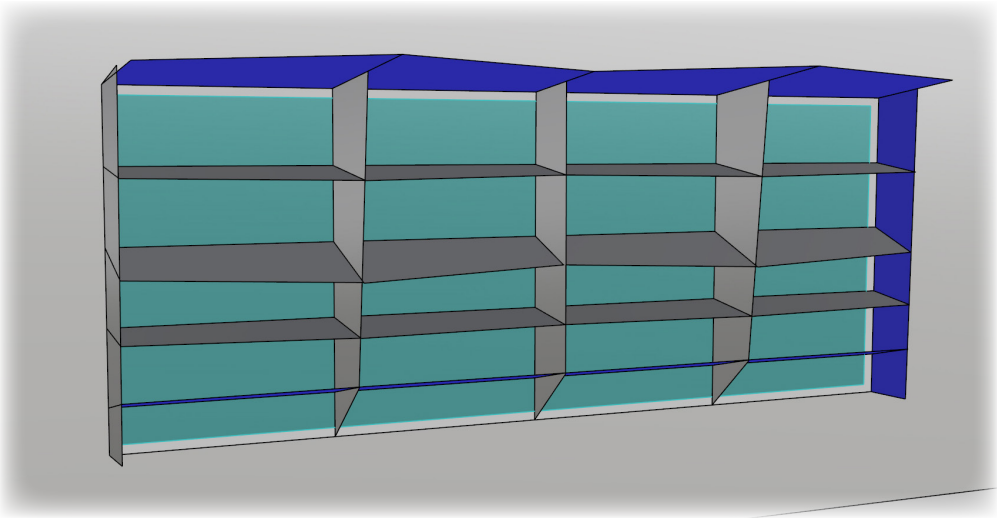


Total Lighting Energy = 1151.07 KWH  
Total Heating Energy = 847.59 KWH  
Total Cooling Energy = 1155.53 KWH  
Total Energy= 3153 KWH

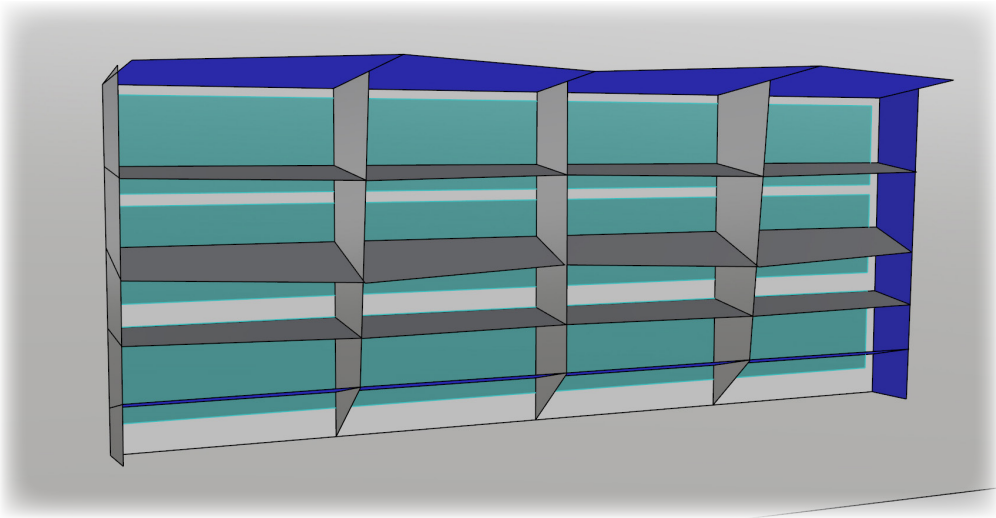
From those energy amount of usage, this report tries to find out which part of window is concerning about which energy usages.  
To find out those elements, window is divided to three parts and figure out best decision.

Initial Simulation Result from Previous Design



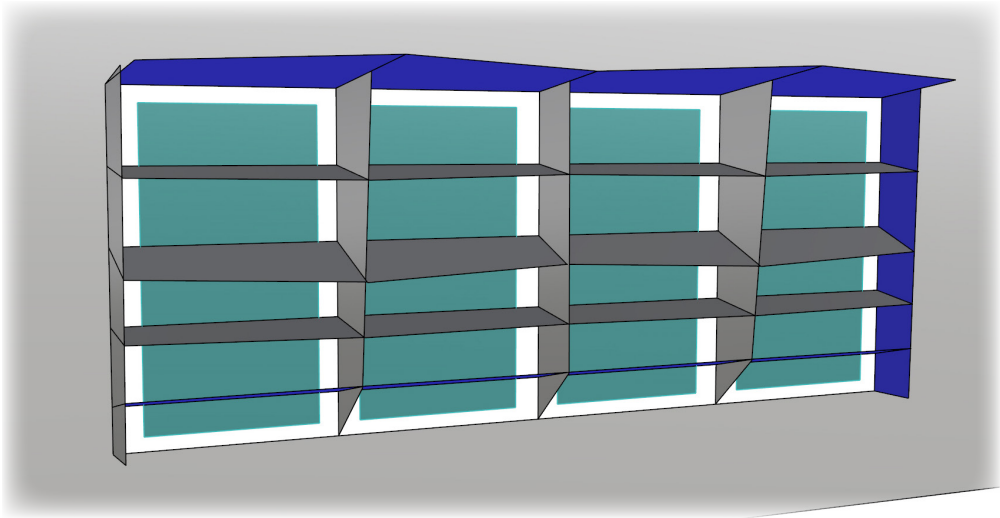
Previous Glass Design

Total Lighting Energy = 1151.07 KHW  
Total Heating Energy = 847.59 KWH  
Total Cooling Energy = 1155.53 KWH  
Total Energy= 3153 KWH



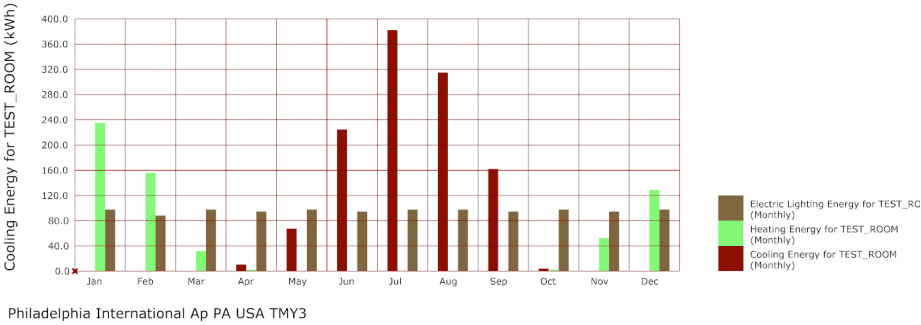
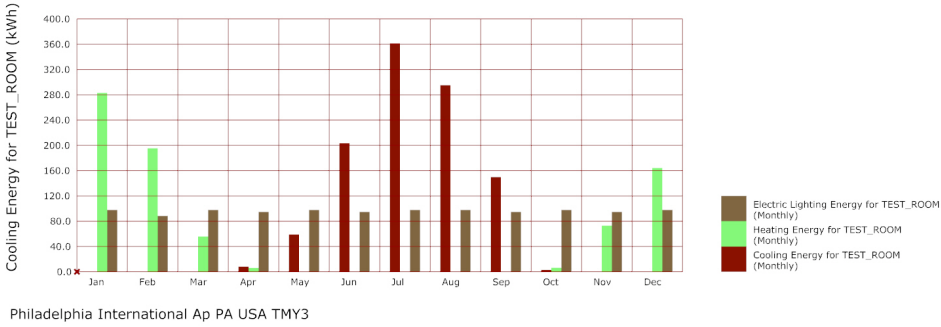
Reformed Glass Design

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 783.43 KWH  
Total Cooling Energy = 1079.22 KWH  
Total Energy= 3013 KWH

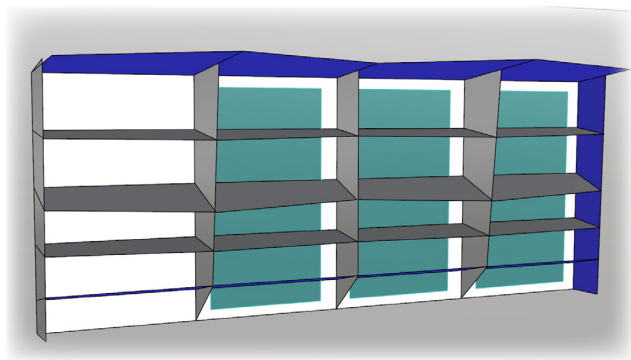
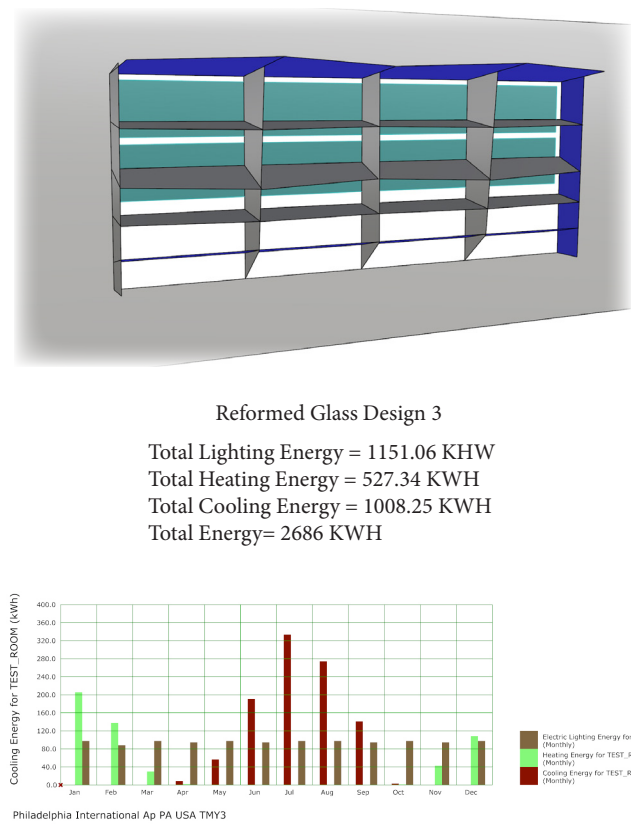
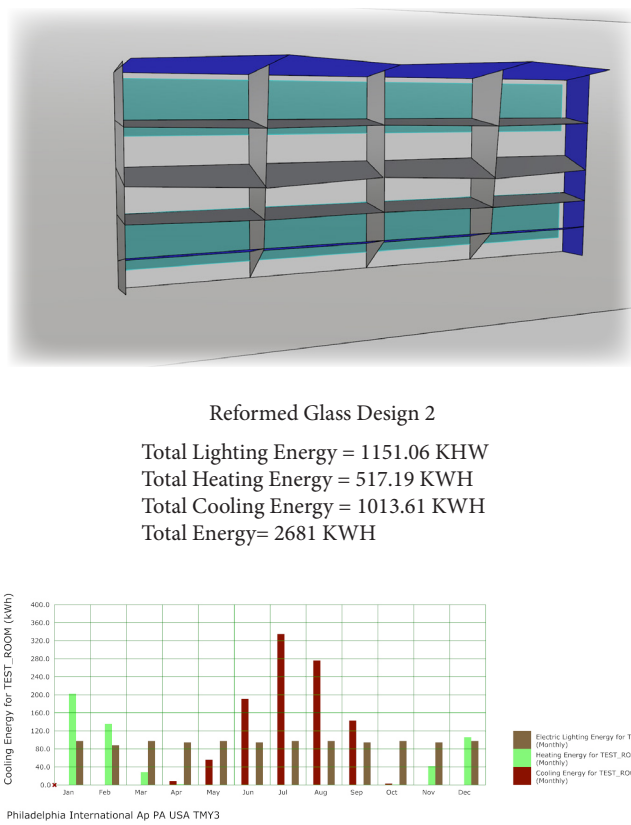
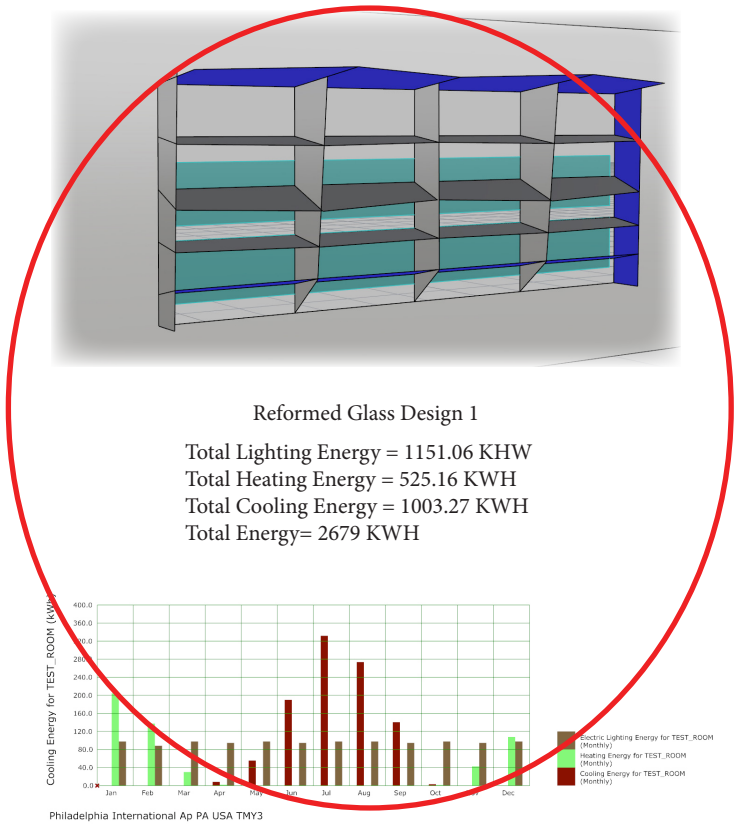


Reformed Glass Design 4

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 608.87 KWH  
Total Cooling Energy = 1166.69 KWH  
Total Energy= 2926 KWH

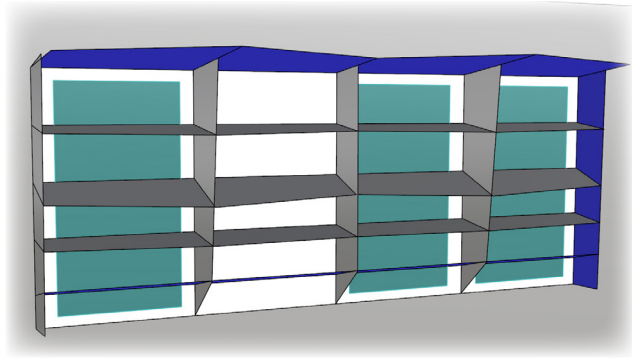
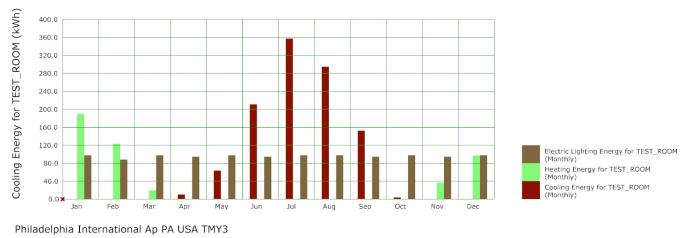


From the reformed glass designs, around 100 KWH energy consumption was decreased.  
B



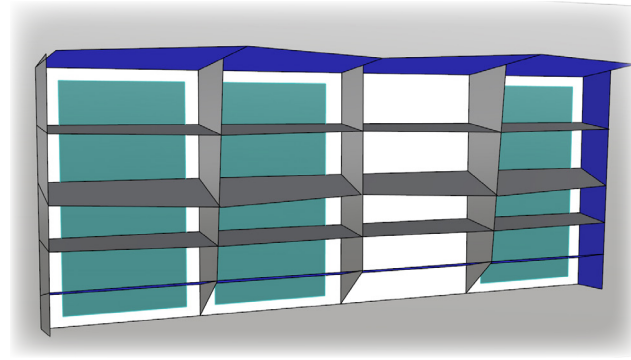
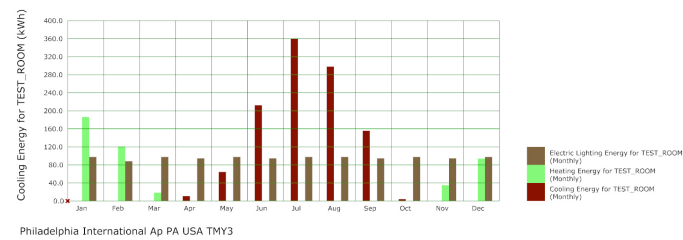
Reformed Glass Design 5

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 467.82 KWH  
Total Cooling Energy = 1093.97 KWH  
Total Energy= 2712 KWH



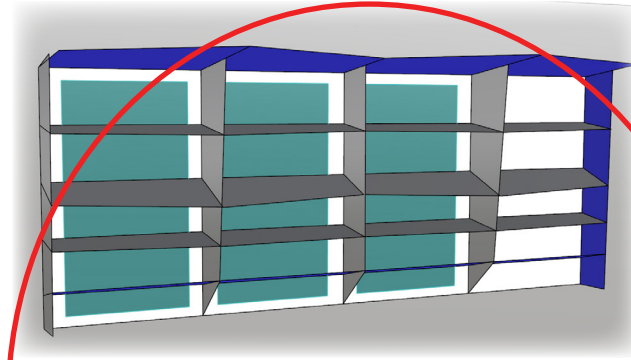
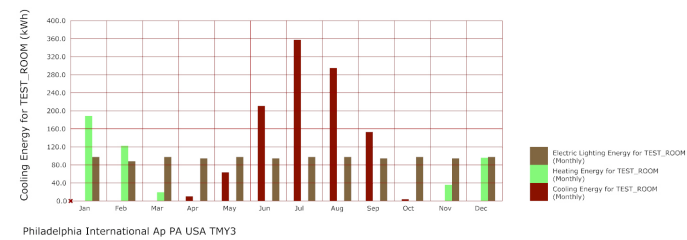
Reformed Glass Design 6

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 455.43 KWH  
Total Cooling Energy = 1105.36 KWH  
Total Energy= 2711 KWH



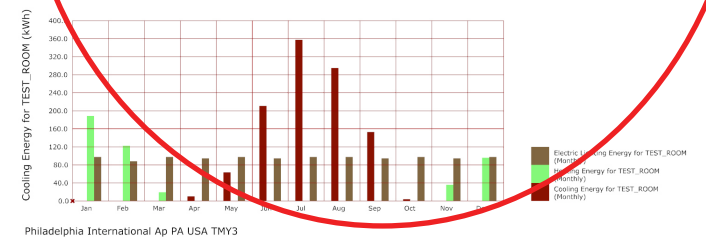
Reformed Glass Design 7

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 463.46 KWH  
Total Cooling Energy = 1094.91 KWH  
Total Energy= 2709 KWH

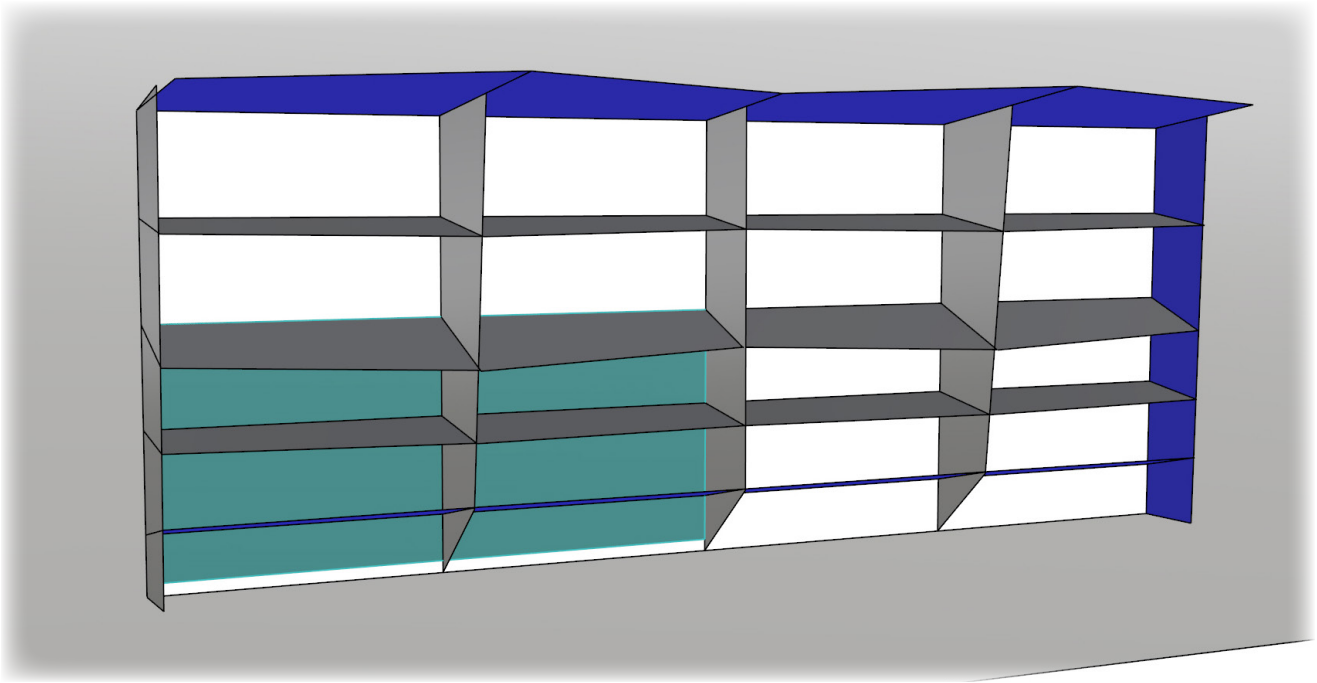


Reformed Glass Design 8

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 458.67 KWH  
Total Cooling Energy = 1094.85 KWH  
Total Energy= 2704 KWH

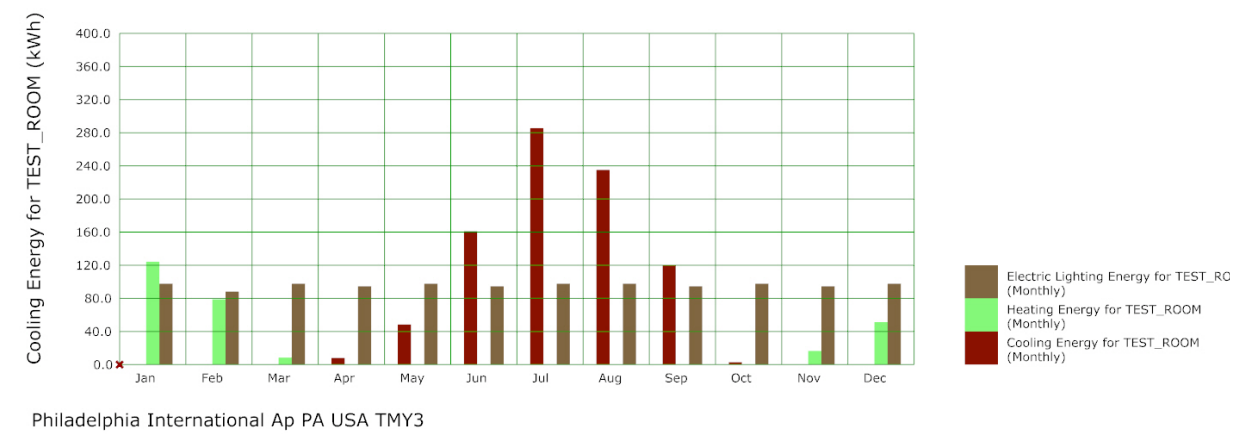


From those two different type of glass designs, I choose two basic types that help to reduce energy consumptions



Reformed Glass Design

Total Lighting Energy = 1151.06 KHW  
Total Heating Energy = 279.54 KWH  
Total Cooling Energy = 861.09 KWH  
Total Energy= 2291 KWH (28% decreased)



By overaping two types of glass size, this glass show 28 percents of decreasing in total energy consumption.