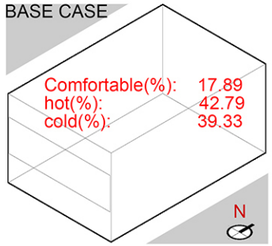
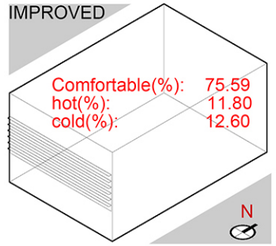
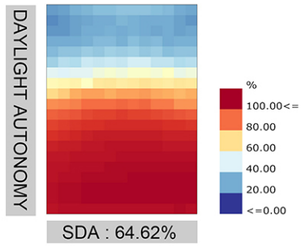
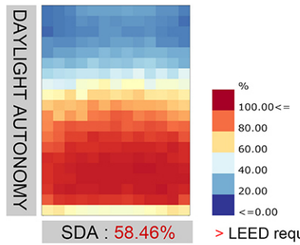
Simple Smart Shading



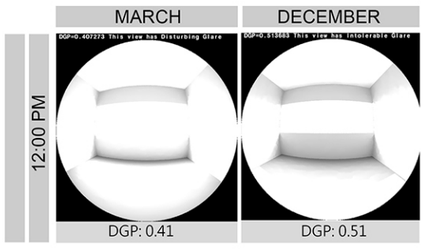


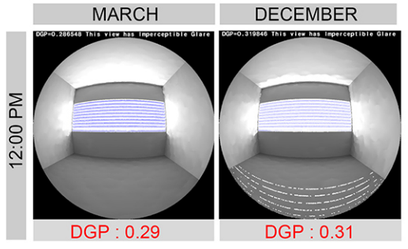




75% comfort time
58% SDA

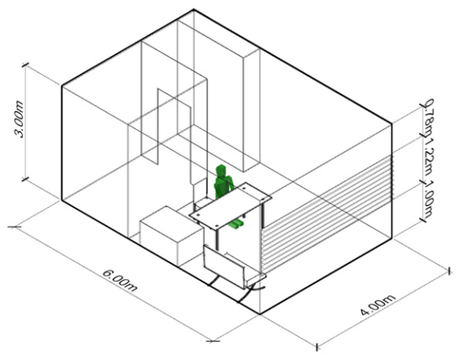
> LEED requirement: 50%

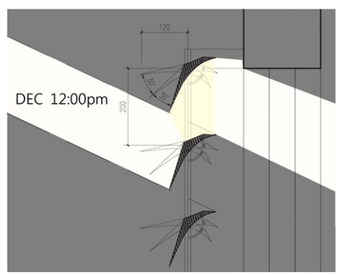




< Imperceptible glare: 35%

Installing the rotatable blinds can efficiently reduce the DGP (Daylight Glare Probability) · this shading device can also hold the SDA (Spatial Daylight Autonomy) exceeding the LEED standard which requires the DLA Ilum Thresholds value (300lux)for at least 50%.

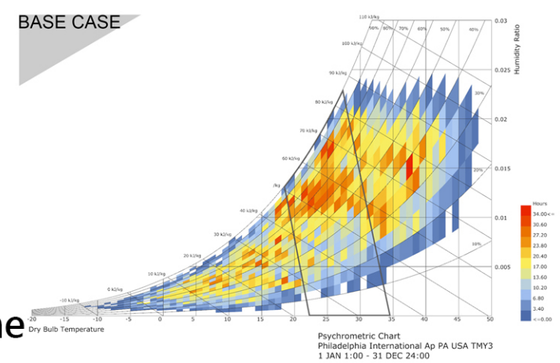


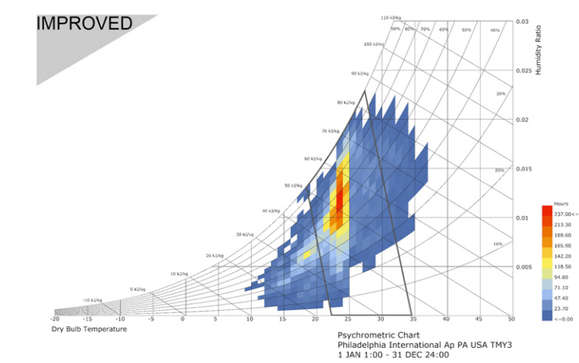


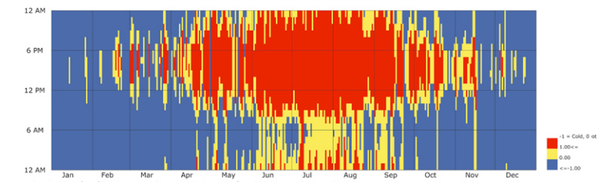
Optimizing Process

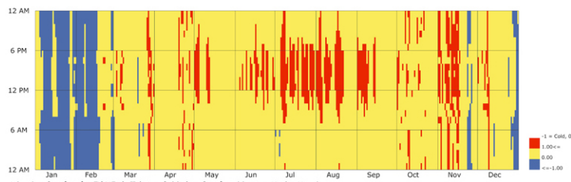
BASE CASE → OPTIMISATION

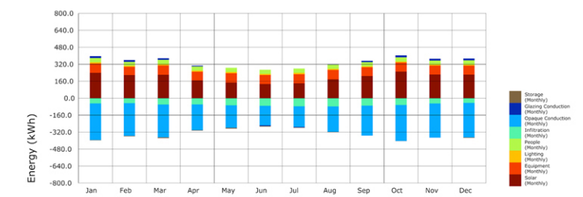
Orientation →	DAYLIGHTING →	VENTILATION →	MATERIAL →	FAN FLOW & LOAD
South	Glazing Ratio: 38% Horizontal blinds: Depth:120mm Width: 3900mm Quantity: 10	Mim Indoor Temperature : 24 ℃ Maxi Outdoor Temperature : 28℃ Equipment Load Per Area : 6 Light Density Per Area : 3 Num of People Per Area : 0.2	Exterior Wall : R 34.3 Exterior Window : R1.9 SHGC 0.39 Exterior Roof : R 34.3 Air Flow : 1 Ground floor EP Construction : 8 inch Concrete	Fan Flow Rate : 3 Fan efficiency : 1 Fan Pressure Rise : 70



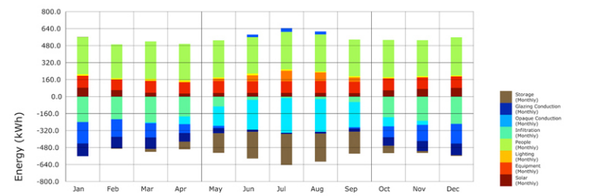




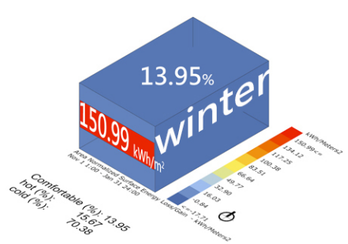


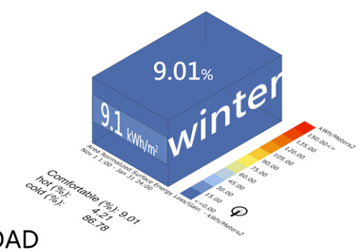


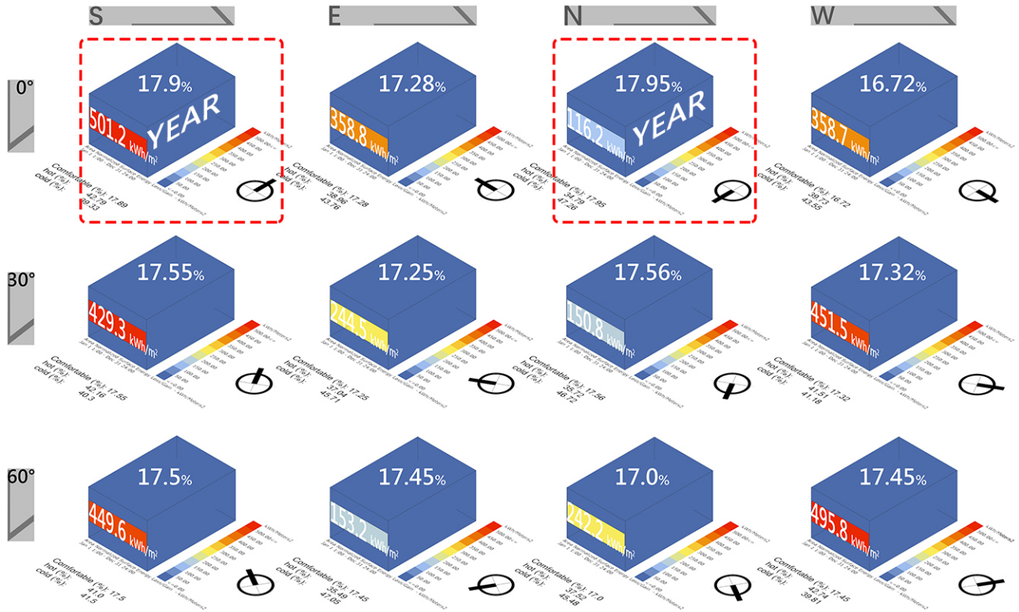
Apartment Room Energy Balance



Soho Energy Balance







Energy simulation with comfort calculation of 12 directions can screen out the best option of the orientation. Base on the charts, SOUTH & NORTH may be two of the best choice. Next sept will analvze the situation of two options in winter .