

After these steps of exploration, the adaptive thermal comfort raised to 45.24. The reason why it cannot go further are as follows:

The house has context boundary in the south and north, so the side walls are adiobatic which reduce the possible heat transfer during summer,

From the climate report, we find that during winter, the weather is so cold that the solar radiation itself cannot provide enough heat to indoor and keep cold weather keeps the heat loss during winter pretty high.