

ABSTRACT

The AL-Hikmah Cunda Mosque is one of the mosques that still uses natural ventilation, namely utilizing natural potential to control thermal comfort, where the majority of mosques in Lhokseumawe City already use artificial ventilation. The limitation of this research is to examine the prayer room at the Al-Hikmah Cunda Mosque regarding thermal comfort. The aspects studied are air temperature, humidity and wind speed. This research was conducted for seven days, in one day the research was carried out at each obligatory prayer time, namely Subuh, Zuhur, Asar, Maghrib and Isha. This research method uses two methods, namely quantitative and qualitative methods. The results of the study revealed that the thermal comfort of the Al-Hikmah Cunda Mosque did not meet the thermal comfort standards according to ASHRAE, this was due to the very high room temperature, especially during the Dhuhur and Asr prayers. High wind speeds were found during Dhuhur and Asr prayers, although the wind speed was high, thermal comfort remained uncomfortable. The results of this study indicate that the use of natural potential as a controller of thermal comfort in Lhoseumawe City is no longer adequate.

Keywords: Thermal comfort, ASHRAE, Mosque, artificial ventilation

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