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NOMENCLATURES

ACH - Air Changes per Hour

ACH_Lookup_Table – See subsection: “Control Strategy for classrooms”, 3rd item on numbered list

ACH_cross_vent - ACH through cross ventilation

ACH_forced_vent - ACH through forced ventilation

DBT - Dry Bulb Temperature

MRT - Mean Radiant Temperature

OT - Operative temperature

RH - Relative Humidity

T_in – Temperature inside

T_out – temperature outside

T_setpoint – Thermostat setpoint. This will change every day on the comfort thermostat

UHM - University of Hawaii, Manoa

REFERENCES

ASHRAE (2007). ANSI/ASHRAE Standard 90.1-2007 - Energy Standards for Buildings Except Low-Rise Residential Buildings. Atlanta, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

ASHRAE (2010). ANSI/ASHRAE Standard 55-2010 - Thermal Environmental Conditions for Human Occupancy. Atlanta, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

de Dear, R. J. and G. Brager (1998). "Developing an adaptive model of thermal comfort and preference." ASHRAE Transactions 104(1A): 145- 167.

Fountain, M.E. and C. Huizenga (1996). “WinComf : A Windows 3.1 Thermal Sensation Model - User’s Manual.” (Berkeley: Environmental Analytics).

Philip, S., Tran, T., Tanjuatco, L. (2011). eppy: scripting language for E+, EnergyPlus (version 0.46) [Software - GNU AFFERO GENERAL PUBLIC LICENSE] Available from <<https://pypi.python.org/pypi/eppy/0.4.6>>, <https://github.com/santoshphilip/eppy/tree/r0.46>

Philip, S., Shameson, A., Brown, N., Loisos, G., Ubbelohde, S. (2014) “Design and Modeling Strategies for Retrofit to Natural Ventilation”