order to extract the appropriate information from the numerical database. The usability of CBS and the impact of building occupation on the performance is a significant research question and will be addressed in future work. A future study could also be based on physical experimentation with and without human subjects to validate the quantification of lighting performance when using the proposed EC control strategy.

NOMENCLATURE

AL	Artificial light
BS	Basic scenario
E	Energy consumption (J)
EC	Electrochromic glass
I, I_h	Horizontal illuminance (Lux) at hour h
ILL	Illuminance-based strategy
ISR	Incident solar radiation rate (W/m^2)
ITH1	Lower illuminance threshold (Lux)
ITH2	Upper illuminance threshold (Lux)
CBS	Comparison-based control strategy
SHGC	Solar heat gain coefficient
SS	Solar strategy
TH1	Lower solar radiation threshold (W/m^2)
TH2	Upper solar radiation threshold (W/m^2)
VT	Visible transmittance

REFERENCES

Assimakopoulos, M. N., Tsangrassoulis, A., Santamouris, & M. Guarracino, G. (2007). Comparing the energy performance of an electrochromic window under various control strategies. *Journal of Building and Environment*, 42, 2829–2834.

Burpee, H. Hatten, M., Loveland, J., & Price, S. (2009). High performance hospital partnerships: reaching the 2030 challenge and improving the health and healing environment. *American Society for Healthcare Engineering (ASHE) Conference on Health Facility Planning, Design and Construction*. Phoenix, AZ.

Department of Energy (DOE) & National Renewable Energy Laboratory (NREL). (2016). EnergyPlus (version 8.5.0) [computer software]. Available from https://energyplus.net.

DiLaura D., Houser, K., Mistrick, R., & Steffy, G. (2011). *Lighting Handbook*. Illuminating Engineering Society of North America, New York.

Fernandes, L.L., Lee, E.S., & Ward, G. (2013). Lighting energy saving potential of split-pane electrochromic windows controlled for daylighting with visual comfort. *Journal of Energy and Buildings*, 61, 80-20.

Grondzik, W. T., & Kwok, A. (2015). *Mechanical and electrical equipment for buildings*. Hoboken, NJ: Wiley.

Gugliermetti, F. & Bisegna, F. (2003). Visual and energy management of electrochromic windows in Mediterranean climate. *Journal of Building and Environment*, 38, 479-492.

Jonsson, A. & Roos, A. (2010a). Visual and energy performance of switchable windows with antireflection coatings. *Journal of Solar Energy*, 84, 1370-1375.

Jonsson, A. & Roos, A. (2010b). Evaluation of control strategies for different smart window combinations using computer simulations. *Journal of Solar Energy*, 84, 1-9.

Karlsson, J. (2001). Control system and energy saving potential for switchable windows. *Building Simulation 2001*, Rio de Janeiro, Brazil.

Karlsson, J., Karlsson, B., & Roos, A. (2000). Control Strategies and Energy Saving Potentials for variable transmittance windows versus static windows. *Proceedings of Eurosun, 2000*. Copenhagen, Denmark.

Lee, E. S., Yazdanian, M., & Selkowitz, S. (2004). The energy-savings potential of electrochromic windows in the US commercial buildings sector. *Lawrence Berkeley National Laboratory*. Retrieved from: http://escholarship.org/uc/item/7mk6k50s.

Lee, E.S. & Tavil, A. (2007). Energy and visual comfort performance of electrochromic windows with overhangs. *Journal of Building and Environment*, 42, 2439-2449.

Mathworks, Inc. (2015). MATLAB (version 8.5). Available from https://www.mathworks.com.

Platzer, W. J. (2003). Switchable facade technology – energy efficient office buildings with smart facades, *Proceedings of The Solar World Congress 2003*, Göteborg, Sweden.

Sbar, N. L., Podbelski L., Yang, H. M., & Pease, B. (2012). Electrochromic dynamic windows for office buildings. *Journal of Sustainable Built Environment*, 1, 125-139.

Solemma, LLC. (2017). DIVA-for-Rhino (version 4.0) [computer software]. Available from: http://diva4rhino.com.

Warner, J. L., Reilly, M. S., Selkowitz, S. E., & Arasteh, D. K. (1992). Utility and economic benefits of electrochromic smart windows. *Proceedings of ACEEE 1992 Summer Study on Energy Efficiency in Buildings*. Pacific Grove, CA.