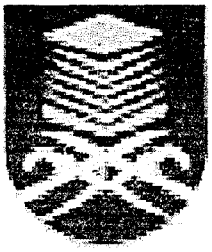

DAYLIGHTING TECHNOLOGY FOR ENERGY EFFICIENCY AND THERMAL COMFORT FOR WILAYAH MOSQUE IN KUALA LUMPUR

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ABSTRACT

In this modern era with the application of IT technology to new buildings, light planning has becomes a prime role for energy saving. Today Wilayah Mosque halls also has been grounded for intensive day light experimentation with magnificent results, where the natural light becomes one of the fundamental design components to enhance the spirituality of the space.

I'm as a final year student under Prof. Dr. Azni Zain Ahmed was to perform a field evaluation and analysis of energy efficiency by using daylighting technology as the main source of illumination and as a replacement for the usage of conventional artificial light due to energy savings at the Wilayah Mosque, Jalan Duta, Kuala Lumpur. The aim of the contemporary light project is to maximize the usage of direct and indirect daylight to elevate the standard and quality of the internal light. The efficiency of the daylight illumination and indoor thermal comfort, which spread out in the prayer hall for prayer activities, reading and gathering is the main objective of our analysis.

The evaluation and analysis was performed at the main prayer hall only. Our methodologies to measure the indoor illumination are by using lux meter for direct and global illumination, indoor thermal comfort such as relative humidity, temperature, wind speed by using RH meter, thermocouple and anemometer.

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