

## ABSTRAK

Ruang kelas berfungsi sebagai tempat proses belajar mengajar. Untuk mendukung fungsinya, ruang kelas harus memiliki kualitas pencahayaan yang optimal sesuai standar pencahayaan agar memenuhi kebutuhan pengguna. Hasil pengukuran awal intensitas pencahayaan pada ruang kelas di SMK Taruna Andigha Kota Bogor menunjukkan bahwa beberapa ruang kelas belum memenuhi standar intensitas pencahayaan yang sesuai dengan SNI 16-7062-2004. Penelitian dilakukan dengan menggunakan program *Software Dialux evo 8.0* bertujuan untuk melakukan simulasi optimasi terhadap ruang kelas yang menjadi objek penelitian guna mencapai hasil pencahayaan yang sesuai standar. Hasil penelitian menunjukkan bahwa tata letak penyesuaian intensitas cahaya matahari pada bangunan sangat berpengaruh pada kondisi cahaya ruang kelas. Perubahan elemen interior, material perabot seperti penggunaan kaca dan roster berpengaruh pada penyebaran cahaya dimana penyebaran cahaya tersebut menghasilkan pantulan cahaya yang berhubungan langsung terhadap kenyamanan pengguna ruang.

**Kata kunci:** Desain pencahayaan, ruang kelas, SMK Taruna Andigha Kota Bogor



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Classrooms function as a place for teaching and learning process. To support its function, classrooms must have optimal lighting quality according to lighting standards to meet user needs. The results of initial measurements of lighting intensity in classrooms at Taruna Andigha Vocational School in Bogor showed that some classrooms did not meet the lighting intensity standards in accordance with SNI 16-7062-2004. The study was conducted using the Dialux EVO 8.0 Software program aimed at conducting optimization simulations of classrooms which were the object of research in order to achieve lighting results that were according to standards. The results showed that the layout of the adjustment of sunlight intensity in buildings greatly affected the classroom light conditions. Changes in interior elements, furniture materials such as the use of glass and roster affect the spread of light where the spread of light produces reflected light that is directly related to the comfort of the user of space.

**Keywords:** Lighting design, classrooms, Taruna Andigha Vocational School, Bogor City

