

**ANALYSIS OF LIGHTING IN LP3I TASIKMALAYA BUILDING
BASED ON SNI 03-6575-2001**

Adytia Nur Ikhsan¹⁾, Aripin²⁾, dan Asep Andang³⁾

^{1,2,3}Electrical Engineering, Faculty of Engineering, Siliwangi University

Siliwangi Street No. 24 Tasikmalaya, West Java, Indonesia

e-mail: adityanurikhsan@gmail.com¹

ABSTRACT

To create comfort and productivity in the work and study environment, optimal lighting is needed. This research aims to analyze the lighting system in the LP3I Tasikmalaya Building. The research method was carried out using direct measurement methods using Lux Meter and Laser Meter measuring instruments, lighting calculations in accordance with the requirements set out in SNI 03-6575-2001 and simulation using DIALux software. Measurements were carried out in various rooms in the LP3I building including work rooms and study rooms. The lighting parameter measured is lighting intensity. Based on the results of the 1st floor sample study, the average lux value for the 1st floor is the presenter room 272 lux or 9%, the Carrer Center room 131 lux or -47.6%, the Front office room 704.5 lux or 101.2%, the studio room 201.8 lux or -19.28%, marketing room 91.4 lux or -73.8%, and secretary room 25.2 lux or -89.9%. The research results show that the average room Lux value in the LP3I Tasikmalaya Building does not meet SNI with quality standard values of 250 and 350 lux. Comparative analysis of the three methods shows that direct measurements are useful for determining the lux value in a room. If a room has a less than optimal value, manual calculations are carried out according to the real data of the room so that you know the number of lights that must be used, then after knowing the number of lights it is then simulated with the DIALux software as basic lighting system design, simulation is carried out to obtain optimal calculations. The results of the DIALux software on the 1st floor of the Presenter room use Philips DN570B 1 xLED12S/840 C and TMS022 1xTL-D30W lamps with luminous lux 1300 and 2318, resulting in even light distribution of 244 lux in accordance with SNI

Keywords: *Building, lux, natural lighting, artificial lighting, lux, simulation, SNI 03-6575-2001.*