ABSTRACT

Outside lighting installations in mosques use NYFGbY 4x2.5 mm2 cables for garden lighting. The distribution system of the external lighting load uses a radial system through distribution panels, the source of electricity is the external lighting panel in the LVMDP panel. Where the total power in lighting outside the mosque amounted to 128.35 A consisting of 11 panel units. The total outdoor lighting panels have a loss of 432,613 watts. The rating on the input MCB distribution panel uses MCB 25-40 A, whereas after calculating the MCB it must not be installed until 25-40 A. The intensity of the lighting on street lights, parking lots, and garden lights, using poles with LED lamp types with estimated distance of 40 meters. From the results of the calculation of lighting intensity using the point method (point by point), the street lighting (PJU) in obtaining the intensity of lighting 60.72 lux from the actual distance of 20 meters, while the intensity of the lighting of garden lights is 29.74 lux from the actual distance of 15 meters . Outdoor lighting in mosques still does not meet SNI standards for lighting techniques 15-20 lux for street lights and 10-15 lux for garden lights.

Keywords: lighting intensity, losses, power, and MCB rating