

UDOM JONGSAKSWAT : AN OPTIMUM DESIGN OF AREA LIGHTING.

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At present, an area lighting design requires designer's experiences in the selection of flood lightings and aiming points. The result may not be the most suitable one.

This thesis proposes the application of an optimization technique in the area lighting design and calculation. A computer program for use with the 16 bit PC, was developed and usable to calculate the average illuminance, the uniformity on the lighting area. Moreover the designer can use for the selection of floodlights and also to determine the aiming points by the Rosenbrock optimization technique for the highest value of average illuminance and a better uniformity. The designer can get an optimal design very quick with very accurate results.