THE UNIVERSITY OF ZAMBIA

SCHOOL OF ENGINEERING

Department of Electrical & Electronic Engineering

EEE 3352: Electromechanics and Electrical Machines

ASSIGNMENT 9: ILLUMINATION *(Due 9/11/2018)*

1.

A square of side 6 m is illuminated by lamps of 300 cd one at each corner and 6 m above ground level. Calculate the illuminance on the ground at a point half way along one side of the square.

3.

A 200-cd lamp emits light uniformly in all directions and is suspended 5 m above the working plane which is 7 m square. Calculate the illuminance immediately below the lamp and also at each corner of the square. If the lamp is fitted with a reflector which distributes 60% of the light emitted uniformly over a circular area 5 m in diameter, calculate the illuminance over this area

3.

A room whose floor measures 10 m by 20 m is designed to have an illuminance of 300 lx and will have 8 lamps. If the utilisation factor is 48% and the maintenace factor is 80%, calculate the mean spherical luminous intensity per lamp.

A Zulu
6/11/2018