

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualification:–

M.Sc.

Lighting: Applied Calculations

COURSE CODE : BENVLL06

DATE : 15-MAY-06

TIME : 14.30

TIME ALLOWED : 2 Hours

UNIVERSITY OF LONDON

MSc DEGREE IN BUILT ENVIRONMENT 2006
for Internal Students of University College London

BENVLL06: Lighting: applied calculations

Answer **TWO** questions.

All questions carry equal marks. Use annotated sketches.

1. Describe the division of Emergency Lighting into its component areas of consideration and outline the principal lighting requirements and methods of controlling glare.

2.
 - a) Explain the principles underlying the function of the diffraction grating when used for the measurement of the spectral output of a test lamp.

 - b) Outline the stages involved in the calculation of CIE chromaticity coordinates x , y and hence Correlated Colour Temperature (CCT) from the true spectral output data of a lamp.

3. With reference to BS 5489 - 1:2003 and BS EN 13201 - 2, describe the principal measures for major and minor road lighting.

4.
 - a) Define *disability* glare and *discomfort* glare by making reference to the commonly accepted factors that contribute to the sensation of glare.

 - b) Explain how the factors that contribute to the sensation of glare are treated in the CIE Unified Glare Rating (UGR) system for the evaluation of discomfort glare?

END OF PAPER