

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For the following qualifications:-

M.Sc.

ESGL5: Lighting Practice

COURSE CODE : ENVSGLO5

DATE : 29-AUG-03

TIME : 10.00

TIME ALLOWED : 2 hours

02-N45-4-20

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TURN OVER

UNIVERSITY OF LONDON

MSc DEGREE IN BUILT ENVIRONMENT 2003
for Internal Students of University College London

L05: Lighting practice (*retake*)

Answer **TWO** questions.

All questions carry equal marks. Use annotated sketches.

1. The European Standard for the lighting of indoor work places cites the following parameters that contribute to a satisfactory luminous environment: luminance distribution, illuminance, glare, directionality of light, colour aspect of the light and surfaces, flicker, daylight and maintenance. In which of these is there agreement on methods of quantification and how is this incorporated into design guidance?
2. Lighting design is often application-specific. Discuss the following issues, specific to the application, that need to be considered in the design process:
 - a) Offices: static and dynamic imbalance in the design of workstations
 - b) Industrial environment: visual inspection tasks for quality control
 - c) Hospitals and health-care: the lighting modes required in hospital wards.
3. The RIBA Plan of Work divides the process of creating a building into a number of defined stages from sketch design to construction on site (stages A to M). At each stage a different level of lighting design input is needed. Describe the input you would make as a lighting designer to the design of an international bank hq building with a central atrium at the following scheme stages: Stage C (Outline Proposals); Stage D (Scheme Design) and Stage E (Detail Design).
4. Describe the main steps to be undertaken in deriving the utilisation factor for a linear fluorescent luminaire from its intensity distribution data.

END OF PAPER