UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For the following qualifications :-

M.Sc.

ESGL2: Lighting Sources

COURSE CODE	:	**ENVSGL02**
DATE	:	**16-MAY-02**
TIME	:	**14.30**
TIME ALLOWED	:	**2 hours**

02-C0453-3-40

TURN OVER

UNIVERSITY OF LONDON

MSc DEGREE IN BUILT ENVIRONMENT 2002
for Internal Students of University College London

ESGL2: Lighting sources

Answer **TWO** questions.

All questions carry equal marks. Use annotated sketches.

1. Daylight is continuously variable. Under overcast sky conditions, sky luminance varies in distribution and magnitude. Under a clear sky, sun position is important. Describe the assumptions and approximations that have been adopted to enable daylighting in buildings to be quantified.

2. Describe the construction and light generation process in the tungsten filament and tungsten-halogen lamp. Outline key performance characteristics including efficacy, colour and lamp life.

3. The objectives of a daylighting design are to maximize the use of available daylight and to provide a comfortable visual environment. Review the redirecting daylighting systems available and comment on their potential for achieving these objectives.

4. Outline the applications potential of the following luminaire types:

   1. recessed luminaires
   2. surface and suspended luminaires
   3. wall-washing luminaires

   In your answer, pay particular attention to the photometric characteristics of the luminaire and the impact of an installation on room appearance and visual comfort.

END OF PAPER