assigned November 2, 2006 due November 14, 2006

HOMEWORK #5
Daylight as a design factor

Studying existing spaces

Choose a space within a public building in the Boston area where the contribution of daylight to the inside illumination is preponderant. Supporting your analysis with pictures and drawings, and presenting it on a two to three pages leaflet-style document, summarize and illustrate:

- the type of building, function, architect & building year, situation in the Boston area and urban environment
- the moments of the year where sunlight penetration is expected, based on the orientation of the openings and the masking of the surrounding buildings / natural obstacles,; specify the portions of the space that will be sunlit
- the types of openings, the types of glazing, the types of shading system and the performance of their combination as far as glare and contrast prevention as well as heat gains and losses issues are concerned; always specify the portions of the space where your analysis is applicable
- what delimits the portions of the space mainly relying on daylighting from those essentially or only relying on electric lighting and to what extent the scission between the two is recognizable
- how reflection on inside walls is used to illuminate the space and what kind of surfaces we have on the floor, side walls, ceiling
- the arguments during the design process that led the architect to this particular choice of opening size, position, type, shading and orientation for the building
- what your opinion as an architect and/or daylighting expert is on this choice

To strengthen your analysis, coming more than one time to appreciate the variation in natural illumination conditions is recommended (overcast day, two times of the day during a sunny day, etc.).
We can arrange for you to borrow luxmeters for this study, if you think it might be useful.