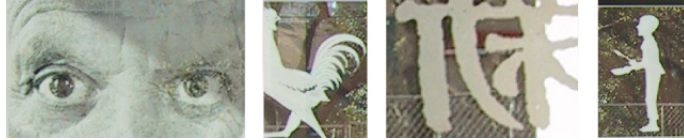


# HARRY RANSOM CENTER RENOVATION

University of Texas at Austin



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## LIGHTING EXISTING CONDITIONS AND DESIGN CRITERIA

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### Executive Summary

The following report summarizes the condition of existing lighting systems at the renovated Harry Ransom Humanities Research Center, located in Austin, Texas at the University of Texas at Austin Campus. An analysis of key spaces in the Ransom Center is provided, including: exterior site lighting and lighting of the canopy area, Spencer Lobby and entry vestibule, Prothro Family Gallery, a first floor corridor, Prothro Family Theatre, Ransom Reading Room, specialty lighting for the Gutenberg Bible display case, and specialty lighting for the First Photograph area. This report provides a detailed investigation of existing lighting hardware as well as control devices. Information on daylight levels, glass transmittance, power consumption, surface materials and reflectances are also included. A listing of assumed light loss factors, as well as their calculations, is provided in conjunction with the lighting system report for each room. Complementing the existing systems report is an assessment of key lighting design criteria. This includes recommended illuminance levels, uniformity, and specific design considerations for each space.

Successful lighting design is never an easy task. A myriad of challenges exist, and a balance must be found between aesthetic expectations, desired light levels, lighting functionality, lighting flexibility, and construction coordination issues. That said, each design space was analyzed in key areas defined by the IESNA handbook, and comments are provided in appropriate areas. During design and construction of the Ransom Center renovations, power consumption was required to conform to ASHRAE 90.1-1999 performance recommendations. Standard 90.1-2004 has since been issued, and therefore both guidelines are referenced for each space. Spaces that do not currently conform to the new guidelines will provide an interesting challenge during the redesign study; creating an equally appealing, flexible lighting system while using less energy is exceptionally idealistic. Compromises will have to be made, and the ultimate goal should be to provide a useful lighting system that is environmentally responsible and visually stimulating.