



EXECUTIVE REPORT

The purpose of this technical report is to collect information about the lighting design of The Woolly Mammoth Theatre in Washington DC and analyze the existing lighting conditions. The report was split up into four sections, one for each space. The four spaces to be discussed are the entrance canopy, the lobby, the theatre and the office suite. The spaces were analyzed and documented.

The first part of each section is the basic information about the architecture and lighting of the space. This includes lighting plans, drawings and sections, finishes/materials and their reflectances, glazing, controls, daylighting integration, luminaire schedule, light loss factors and power density.

Next the specific design criteria for the space were stated. This includes performance considerations such as aesthetic qualities, power allowance, illuminance values, luminance ratios and psychological aspects. Recommendations for criteria were obtained from the IESNA Handbook Ninth Edition and the ASHREA 90.1 standards

The last part of the report is the computer analysis of the existing spaces using AGI 32 version 1.9. The spaces were modeled and the luminaires photometric files were brought in. If the manufacturer of the existing luminaires does not provide photometric files, a comparable fixture was used. From this analysis illuminance values were found and renderings were taken. The results were summarized in a short conclusion.

After performing this analysis, a lot of good information about the existing conditions was found out. The canopy is much brighter than necessary. The lobby has enough light on the upper level, but needs a little more on the lower level. The theatre needs slightly more light on the balcony level. The offices need much more light to have a comfortable work environment. This information will be very helpful when redesigning the lighting systems.