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## Executive Summary

This report is an analysis of the existing lighting conditions for the Computer Labs, Pechter Family Music Room, Lecture Hall/Video Conferencing Room, and Main Corridor of the Hawthorn Building at Penn State Altoona's campus. I started my analysis by using the IES Handbook for general design criteria, and then ran calculations with AGI32 Lighting Calculation computer software. Power density calculations were also taken into consideration and compared to ASHRAE Standard 90.1.

Each area of my analysis had different issues that needed to be researched and addressed. For example, one of the main focuses in the computer lab area was that there couldn't be much glare, but in the video conference area facial rendering was very important. Every area of the building is controlled with dimmable lighting systems, as well as "scene selection" capabilities. Each room has around 6 scenes to choose from, and this allows for the teachers and students to use the lighting system that best suits their needs.

Through my analysis, I got a good idea of what I liked about each room, and what I didn't, and also built an idea on what I might do in the future when I redesign the spaces. I also have a feel for what is needed in each space, and possibly what can be taken away to save energy.