Individual Case Study

ABS 443

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JMB Lumber is a construction company that has been in the business for 7 years. Their primary business is selling lumber to residential areas all over the Las Vegas region. They have one minor office in North Las Vegas that stores all of the lumber and is where most business is done and one major office in downtown Las Vegas. Their minor office holds 7 offices, 2 bathrooms and 1 kitchen. Every office is set up exactly the same with one or two minor differences.

The only lighting that is in every office is fluorescent lighting. What is stated in our book is since productivity and efficiency are high priority goals, lighting design are expected to support them. In this case, I believe that the lighting design does not support the goals and tasks for employee satisfaction.
What should be noted first and foremost is that most office lighting design is often a compromise between ideal practice and the practice limitations of budget, the lay-in ceiling system, and effective standards of the marketplace.

This type of design is standard and widely accepted by most work offices. With most private offices, there is a freestanding desk that is the primary focus of task lighting with the north wall credenza, requiring adequate task lighting. As we can see here, fluorescent lighting is being used but rather than providing shadowless light and avoiding veiling reflections, it is providing the opposite.
The existing lighting techniques that we see here are two rows of 3 wraparound surface fluorescents being used in this small space. This is the only source of lighting that is in this office as well as the others.

Wraparound surface fluorescents is a lighting system that is low-cost and can be used in a variety of applications and ceiling systems. These tend to have a utilitarian appearance and are unsuitable for computer workspaces.
EXISTING LIGHTING TECHNIQUES

- Usually with office and corporate lighting design, task lighting and focal lighting should be considered and incorporated into the design. With this office, both lighting tasks were not considered and for that, the employees are suffering.

- Luminaire design characteristics and style should not only be considered but they should always be consistent with the architectural and interior design qualities of the room which includes materials, color, furniture, and detailing.
RE-DESIGN LIGHTING

- After careful examination on the preexisting lighting, I would recommend changing the 2 rows of fluorescent lighting to two single 1’ x 4’ fluorescent and four indirect pendant 1’ x 4’ fluorescents. They should be suspended at 7’ 0” AFF and contain two 48” fluorescent lamps.
RE-DESIGN LIGHTING

- Usually when material is placed on the walls, some sort of focal light is required. As we see here, there is no focal light. Since there are many visual tasks being served, additional light specifically for these should be accommodated.

- To achieve the desired light, wallwashers should be focused on both walls. Wallwashers would be suitable for this space because the reflected light add desirable ambient light to the edges of the room and since wallwashers are recessed, spread of light adjusted to materials to be illuminated, this would be suited perfectly.
CONCLUSION

In conclusion, I learned quite a bit about office lighting and planning. I realized that in order for people to be comfortable at work especially since they are there for quite a few hours a day, lighting is incredibly important and should always be considered. Visual tasks should be easy and comfortable to perform at all times throughout the day. This will help employee productivity, which is what every office aims for. It is important to keep employees happy and healthy!