The Real Cost of Lighting

Sundown Lighting & Electrical

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Clients often focus on the cost of lamps assuming that if they can control lamp cost they have effectively controlled the cost of lighting. The truth is that lamps are the least expensive component of a lighting system. Lamps typically represent only 3% of the total cost of operating a lighting system. Labor will typically account for about 6% of the lighting costs. Ballasts also account for roughly 6% of the total lighting cost. The real expense is the energy to power the system, which can account for as much as 85% of the total lighting cost.

Since energy accounts for the bulk of the total lighting cost, a professional lighting audit will determine if newer, energy saving retrofits can be implemented. The goal is to select technologies that will deliver the proper maintained lighting levels, while at the same time reducing as much energy as possible. Before implementing any lighting retrofit, a controlled test will validate projected energy savings and maintained light levels. The retrofit should also incorporate an ongoing group relamp and a planned lighting maintenance program. This will maintain both light levels and ensure proper energy savings by maintaining the correct lamp type.

Group – vs. – Spot Relamping.

The cornerstone of any planned lighting maintenance program is planned group relamping. Group relamping is the process of replacing all lamps at a pre-determined time based on total hours of operation rather than changing lamps individually only as they fail. By replacing all of the lights in a fixture at one time, the labor cost can be reduced by as much as 80%!

Over time, light output will naturally diminish as lamps age. In fluorescent lighting, the typical lumen depreciation can be 15% or higher. This combined with the accumulation of dirt and dust on reflective surface can reduce the effective light reaching the work surface by as much as 40%. Therefore, an effective group relamping program will include cleaning of all fixture reflective surfaces at the same time.