CLUB REDUCES COSTS WHILE MAINTAINING LOOK OF LIGHTING

Relighting for Energy Conservation

THE UNION CLUB
101 East 69th at Park Ave.
New York, New York

FACILITY DESCRIPTION
Social Club

HOURS OF OPERATION
4,000-8760 per year
(Variable)

TOTAL KW Reduction
71KW

ANNUAL ENERGY SAVINGS
$53,887.00

RETROFIT DESCRIPTION
Lighting retrofit including lamps, ballasts, reflectors, occupancy sensors and exit signs.

Founded in 1836, the Union Club is the oldest of New York's social clubs. The club moved to its present location in 1933. With most of the lighting in the building utilizing incandescent lamps, the club was faced with high electricity bills and frequent maintenance. They looked to O.K. Electric for an update that would preserve the beauty of the historical lighting fixtures while providing needed energy savings.

THE AUDIT

The first step in determining the viability of an upgrade at this location was the execution of a detailed audit. The O.K. Electric survey team visited the site, and developed a comprehensive database of all of the existing light fixtures throughout the facility. Information was gathered from management on operating hours. Electric bills were used to verify energy costs. The optimum lighting design was developed, and a final proposal was presented.

MOCK UP'S

Appearance is critical at the club. Special care was taken to select retrofit solutions that had an almost identical appearance to the lamps they replaced. The first demos were installed in common areas, and after 2 weeks none of the membership had noticed any change. When notified of the installation, most members were still unable to locate the new lamps, since the appearance was almost identical to the lamps they replaced. All lamp types were tested and approved before installation proceeded.

FLUORESCENT RETROFITS

Fluorescent fixtures in back of house areas were retrofit with a combination of second generation high efficiency electronic ballasts, T8 lamps and specular reflectors. Eight foot and HO lamps were all replaced with four foot lamps, standardizing the club on one lamp type. The squash courts were upgraded from six F34T12 lamps to four Advantage high lumen T8 lamps and a silver reflector, increasing light levels. Lamp life increased from 20,000 hours to 36,000 hours.

INCANDESCENT UPGRADES

A wide variety of incandescent lamps, including A lamps, Globes, Torpedo's PAR38 and R40 Reflectors and tubular incandescents were upgraded to compact fluorescent lamps. Replacements were selected to have the same shape and appearance, to be almost indistinguishable from the lamps they replaced. They utilized instant brightness technology, and in some cases were dimmable. Lamp life increased from 750 hours to 6,000-10,000 hours, while energy consumption dropped 75%.

Cold Cathode lamps were also used where applicable. These lamps are dimmable to 5%, reduce energy consumption 75%, and have a rated life of 25,000 hours. They are even available with candelabra base and a clear outer jacket.

EXIT SIGNS

Exit signs were retrofitted from incandescent lamps to LED technology, lowering annual operating costs 94%, and virtually eliminating maintenance.

THE ENVIRONMENT

All lamps and ballasts on this project were recycled, preventing the release of mercury and PCB's. Additionally, The Kwh savings of this project annually eliminates the release of 1,136,000 pounds of CO2, the major cause of climate change, and saves 981 Barrels of oil per year, providing a benefit equivalent to removing 102 cars from the road.

WARRANTIES

Special attention was paid to maximizing warranties to reduce future maintenance risk. The combination of Westinghouse lamps with Osram Sylvania ballasts provided a 3 year extended lamp warranty, along with a five-year ballast warranty. Exit sign retrofits carried a 5 year warranty.

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