

industrial case study: Carlsberg



Background

Carlsberg is one of the leading brewery groups in the world, with over 40,000 employees and products sold in over 150 markets. Its flagship brand, Carlsberg, is one of the fastest growing and best-known beer brands in the world. In 2007, Carlsberg sold 2.5 billion gallons of beer – 95 million bottles a day.

Original Situation

- 135,000 ft² (12,600 m²) production floor equipped with the latest technologies
- Several hundred lamps using 400W magnetic ballasts
- Over \$125,000 in annual maintenance and electricity costs
- Lighting consumed nearly 1 million kWh per annum

Snapshot

Energy Savings
51%

Lamp Power

Reduced from 400w to 320w
(Set to 240w)

Lumen Maintenance

No significant depreciation after
20,000 hours

Lamp Life

Achieved X 2 lamp life

Annual CO² Saved

6,380 tons

ROI

99 %

Simple Payback Period

1.01 years

Total Annual Saving

\$64,421

The Result

- Realized energy savings of approximately 50%
- Lamp power reduced from 400w to 320w and set to 240w
- Metrolight's superior technology resulted in significant increases in light levels
- Lighting installation integrated with other building automation systems

“In the three years that we have been using the system (24/7), we experienced 51% savings in electricity use, over 50% reduction in maintenance costs and very rapid payback. Most importantly, we have not seen an appreciable reduction in light levels over the 21,000 hours that we have been using the lamps.

Over 90% of the initially installed lamps are still operational and are running past the published life of 20,000 hours. In comparison to magnetic HID systems, this is a significant improvement.

As a company, we have found Metrolight responsive to our needs during initial discussions, certainly during installation and thereafter as well. I would recommend working with them and using the technology.”

Nissim Barda, Electrical Engineer
Carlsberg Breweries



Features	Before Installation	After Installation	Savings
Fixture Power Consumption	485 Watts	255 Watts	230 Watts
Operating Hours/Days	24/365	24/365	-
Annual Lighting-Related Energy Cost	\$135,531	\$71,110	\$64,421
Total Annual Savings	\$64,421		
Simple Payback/ROI	1.01 Years/99%		

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