

parking lot case study Knudtsen Chevrolet



Main Achievement/s:

- Reduced lamp power from 1000w to 450w without compromising light levels
- Metrolight's EcoBOX retrofit solution enabled existing solution to remain intact

Background

Knudtsen Chevrolet is a family owned car dealership that was founded in 1939 by the Knudtsen brothers, Clifford and Wayne. The company's success has been built on a commitment to customer service excellence, striving to meet the needs of clients both in the showroom and in the service area.

Knudtsen Chevrolet needed to repair several fixtures in their parking lot and were consequently introduced to Metrolight's retrofit solution by North Coast Electric and contractor, Electric 1. They decided on this option when they realized the potential energy and maintenance savings that the solution offered.

Original Situation

The parking lot lights consisted of 118 1000w LSI fixtures that were approximately 8 years old. The canopy lights were 400w MH Hubbell fixtures.

The Result

The Metrolight EcoBOX retrofit solution was installed once the customer was assured that the same light levels could be achieved when lamp power was reduced from 1000w to 450w. In addition, the retrofit solution enabled the existing infrastructure to remain intact while delivering significant energy savings.

Snapshot

Energy Savings
65%

Lamp Power

Parking Lot

Reduced from 1000w to 450w

Canopy

Reduced from 400w to 200w

Annual kWh Saved

336,187

Annual CO² Saved

241.38 metric tons

Simple Payback Period

1.7 years (After Incentive)

Total Annual Saving

\$34,946

Initial analysis proved that lighting levels would not be adversely affected when lamp power was reduced from 1000w to 450w. The analysis showed that 11.3 FC were achieved with Metrolight's 450w SmartHID™ electronic ballasts as compared to 11.9 FC with the original 1000w lamp.

- Achieved an average of 65% energy savings for both the parking lot and the canopy lighting
- Lamp power in the parking lot was reduced from 1000w to 450w without compromising light levels
- Achieved simple payback period (including incentive) of 1.7 years
- Significantly reduced carbon footprint

“We are very pleased with results. It is incredible that we were able to swap out 1000w lamps with 450w lamps without compromising on our light levels. While it is too soon to provide calculated dollar savings, there is no doubt that we have reduced our carbon footprint and will be seeing some significant savings, both in terms of energy and the bottom line.”

Knudtsen Chevrolet Management



Before Metrolight 1000w LSI fixtures



After Metrolight 450w EcoBOX Retrofit solution - matching light levels!



After Metrolight Metrolight's 200w EcoBOX for the Canopy Lights



After Metrolight Metrolight's 450w EcoBOX Retrofit solution for pole lighting

| Features | Before Installation | After Installation | Savings |
|---|--|--------------------|----------|
| Fixture Power Consumption (Parking Lot/ Canopy) W | 1000/400 | 450/200 | 550/200 |
| Operating Hours/Days | 11.25/365 | 11.25/365 | - |
| Annual lighting-related energy cost | \$51,005 | \$16,059 | \$34,946 |
| Total annual savings | | \$34,946 | |
| Simple Payback | 1.7 Years (Including Incentive) | | |

Note: Fully compatible with 480v/230w (280v - simple step-down transformer)

Integration Partner

CONNECTIONS FOR CONSERVATION

Connections for Conservation is a certified lighting management consultant and specializes in energy conservation. We work with Utility Companies, Manufacturers and Contractors in the designing, distribution and promotion of energy efficient technology. We are a member of the Northwest Trade Ally Network and serve over 325 counties in WA, OR, ID, MT and CA. For more information please visit www.connectionsforconservation.net



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Installation Partner

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