Reflectors in Cafeteria and Kitchen improve light quality and reduce operating costs by $2,100 per year.

The Challenge
The cafeteria and kitchen area of one of our campuses required a lighting improvement to provide a bright and warm environment.

Our Solution
The solution was to convert the existing T12 lighting to T8 technology with reflectors added that improve light output enough to result in using fewer lamps for the same lighting levels. The change improved light quality (T8’s are generally better colour rendering index than T12’s), while lowering energy and maintenance costs due to fewer lamps and ballasts.

The proposed project was forwarded to BCHydro for approval from their Epoints (Electric Conservation Program) funding. Once approval was granted, the project was implemented and entirely paid for by BCHydro.

Project Cost, Annual Savings and Other Benefits

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<tbody>
<tr>
<td><strong>Project Cost</strong></td>
<td>$6,400</td>
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<tr>
<td><strong>Project Savings</strong></td>
<td>$1,600 per year (Electrical costs)</td>
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<td><strong>Electricity Savings</strong></td>
<td>32,000 kWh (about 1/2% of our total consumption)</td>
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<td><strong>Simple Payback (years) / Return on Investment (ROI )</strong></td>
<td>3.0 Years / A Return on Investment of 33%</td>
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<tr>
<td><strong>Reduced Maintenance Costs</strong></td>
<td>Annual maintenance costs will be reduced by $500</td>
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<td><strong>Environmental Improvement - Greenhouse Gas Reduction</strong></td>
<td>Reduced emissions of 11 Tonnes of GHG</td>
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<td><strong>Other Benefits</strong></td>
<td>81 fewer ballasts for future replacement. Colour rendering was improved significantly as a bonus and was important in this environment (Food Sales).</td>
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