

## CASE STUDY - RPM

### Background

The Detroit based RPM (Recycled Polymeric Materials) is a major supplier of the polyurethane sealing and proofing components for the automotive industry worldwide. The plant, built in 2002, has a 55,625 sq. ft. production floor operating two shifts, 5 days a week.

RPM's plant lighting system consisted of 106, 400W magnetic ballasts. Lumentek, Metrolight's full turn-key system integrator partner that provides cost saving solutions for High Intensity Discharge (HID) lighting, approached RPM with a solution to dramatically reduce energy costs and provide RPM with the control over their lighting system that they were seeking.

Lumentek provided a complete solution for RPM's lighting application, including Metrolight Smart Electronic Ballasts for HID™, central monitoring and a control system based on Metrolight Control™ and remote access via the Web. The central monitoring and control system enables RPM to automatically operate lights according to human activity in the factory.

Metrolight Smart Electronic Ballast for HID™ 320W MH with 320W MH lamps replaced the old 400W magnetic ballasts. The Smart Electronic Ballast was divided into two categories and their output power set according to the ballast location: production floor set at 220W and warehouse set at 160W.

With Metrolight Smart Electronic Ballasts for HID™ system, RPM realized a significant reduction in the consumption of energy as compared to their previous system which translated to significant cost savings. The Lumentek lighting solution provided maintenance savings, superior technical performance and digital communication and control capabilities.

### Summary of Results

	Magnetic	SuperHID
<b>Lamp Power W<sup>1</sup></b>	400	198
<b>Power consumption W</b>	485	211
<b>Lumens measured</b>	164	160
<b>Operating hours</b>	17	17
<b>Electricity cost \$</b>	0.09	0.09
<b>Total installation cost \$</b>	-	30,740
<b>Total annual electricity cost \$</b>	26,586	11,547
<b>Avg. annual maintenance costs<sup>2</sup> \$</b>	1,296	600
<b>Total annual savings \$</b>	15,736	
<b>ROI (Payback period in years)</b>	1.95	

#### Notes:

1. Lamps were dimmed from 320W to an average of 198W
2. Relamping every 2 years with magnetic ballast and 5 years with Metrolight Smart Electronic Ballast for HID™