



**CASE STUDY: Lamtec White Facings Reduce Lighting Investment Cost and Annual Electricity Costs**

**Objective:** Compare the lighting fixture requirements and energy costs using Lamtec white metal building facings versus a conventional galvanized metal roof deck.

**Project:** Two (2) industrial facilities totaling 420,000 ft<sup>2</sup>, completed in 2010  
Building 1- 260,000ft<sup>2</sup> faced with WMP-50 in the roof  
Building 2- 160,000ft<sup>2</sup> faced with WMP-UV in the roof  
Interior precast walls painted with eggshell off white finish

**Specifications:** Approximately 30 foot candles maintained illumination  
T5HO high bay 6 lamp 324 watt wide distribution fluorescent light fixtures with up-lighting  
Ceiling height varies between 25 and 32 feet  
Lighting installed at 22 ft. above finished floor

**Light Reflectance:** WMP-50 and WMP-UV light reflectance is 85%\*  
The plain galvanized metal roof deck light reflectance is 62%\*\*

**Summary:**

		<b>Fixture Count</b>	<b>Fixture Count</b>	<b>Fixture</b>	<b>kW</b>	<b>Annual</b>
		<b>Plain Galvanized</b>	<b>Lamtec White Facing</b>	<b>Reduction</b>	<b>Reduction</b>	<b>Savings</b>
Building 1:	260,000 ft <sup>2</sup>	544	434	110	42.27	\$28,994
Building 2:	160,000 ft <sup>2</sup>	322	264	58	22.27	\$15,228

Calculations based on:  
Hours of operation/year = (260 days/year)\*(24 hours/day) = 6240 hours/year  
Electricity Cost = \$.11/kW hour

\*The light reflectance of Lamtec facings is provided on the specification sheets available at [www.lamtec.com](http://www.lamtec.com)  
\*\*Light reflectance determined in testing by Atlas Services Group on May 3<sup>rd</sup>, 2011.

**Conclusions:**

- Lamtec facings reduced the number of lighting fixtures required by 20% in Building # 1 and 18% in Building # 2; reducing the total investment cost in lighting fixtures.
- Lamtec facings reduced the annual lighting cost by \$28,994/year in Building #1 and \$15,288/year in Building # 2.
- Lamtec facings offer exceptional benefits for their outstanding light reflectivity when compared to a plain galvanized metal roof deck.
- As with any project, Lamtec recommends consulting your design engineer for your specific design criteria and lighting calculations.