

A look at how an engineered solution helped assure the desired end result for  
Rick Janaky – Plant Engineering Manager for Charter Dura-Bar, Woodstock, IL



“Most everyone else  
was just trying to  
peddle lights.  
Wasmer was the  
only one that **focused**  
**on engineering**  
**the optimal solution**  
for our needs.”

## SITUATION

Charter Dura-Bar is a 480,000 sq. ft. steel casting operation. Company leadership had set out to improve the environmental conditions of its facility for the employees and customers. A key component to that undertaking was lighting. Most of the lighting within the foundry had consisted of old mercury vapor and incandescent lighting. Very yellow. And most of the casting area was just too dark. Overall the facility was functioning on 200-400 lux. The goal was to double that output for the safety and wellbeing of the entire team, while improving quality for the customer.

### > High heat environment posed a concern

We wanted to go with LEDs due to the energy saving opportunity. But the Wasmer team pointed out that you need to be careful when choosing LED lights for high heat environments. Others may talk about your 10-year savings with LEDs, but you won't realize that savings if your lights only last a couple of years in those high heat environments. Nobody else pointed that out to us.

### > Looking for a lighting partner – a real pro

We wanted somebody who could come in and tell us what we needed to do. Of all the suppliers we spoke with, only Wasmer dug-in to the depth we needed. They presented us with recommended lighting levels for tasks by area. They monitored temperatures in our high heat areas everyday for months via temperature logging devices. Not just at the surface, but up in the ceiling to know precisely what the environmental implications would be for the light fixtures. They installed test lights to make sure they would hold up to the conditions, before we purchased the balance of the lights.

### > Needed to minimize facility interruption

We couldn't really do the whole plant at one time. It would just be too disruptive. So, we broke the plant up into zones. We like to take care of projects like these during our scheduled summer and winter shutdowns. We lined up as much as we could get to for the summer shutdown, which included installing some test lights in the high heat area, so we could verify how they would hold up under real-world operating conditions.

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# Only one to present us with options for dealing with high heat



“We’ve **done our due diligence** and would be **confident recommending Wasmer** to any of our Charter affiliates that might be looking at a lighting upgrade.”

## SOLUTION

Of all the companies we talked to, only Wasmer approached this lighting project from an engineering perspective, to help ensure we got the end result we wanted.

With the data they gathered up front and the fact-based recommendations they came back to us with, we were confident we had the right solutions for our needs. This was especially true when it came to the options they presented us with for dealing with high heat environments.

### > **High heat can permanently damage LEDs**

Once LEDs reach a certain heat threshold, they don't perform as well. The damage is done. They'll never be the same. But Wasmer discussed ways we could mitigate high heat challenges.

### > **Thermistors help prevent excessive heat**

As internal temperatures within the fixture rise, thermistors power down the light to help prevent overheating. This protects LEDs against irreparable damage.

### > **Remote drivers significantly reduce internal heat build-up**

Only Wasmer talked to us about using remotely located power supplies, or drivers, to minimize fixture heat loads. The drivers could be located in a cooler location, which is better for the life of the driver as well as the fixture.

### > **“Test lights” alone were a dramatic improvement**

In our high heat areas, we installed four lights as a test to see how they would hold up to the heat. To see how thermistor trips might affect the lighting, we intentionally shut off two of the lights and ran only the remaining two. The resulting light was still better than what had in place previously.

**It’s a real pleasure working with Wasmer. You rarely see such commitment and level of service anymore. Combine that with their technical expertise and the Wasmer team was just what we were looking for and needed on this project.**

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