

Retail Case Study

Hornbach DIY Stores



Main Achievements

- Increased light levels by 15%
- Realized 50% energy savings
- Implemented control system for energy savings and increased flexibility

Background

With an average store size of more than 10,000 m², Hornbach is the market leader in the DIY megastore segment in Germany and across Europe. The company provides a comprehensive range of products at its 130 DIY megastores with garden centers across Europe.

Today, Hornbach operates in 8 countries. The company's international expansion began in Austria, with the first store outside Germany being opened in 1996. In addition to Austria, Hornbach-Baumarkt-AG now operates DIY megastores with garden centers in the Netherlands, Luxembourg, Sweden, Switzerland, Slovakia and the Czech Republic.

Hornbach wanted to upgrade the lighting in its stores in order to enhance the quality of lighting, significantly increase the energy efficiency of its lighting system and have flexible internet-based lighting control.

Original Situation

- Illuminated by conventional fixtures, equipped with 400W metal halide lamps
- Average lighting intensity showed only 60 percent of its original quality
- There were significant color variations between light fixtures
- Hornbach had limited flexibility and control over illumination levels across stores

Snapshot

50%

Energy Savings

Lamp Power

Reduced from 450W to 280W

Annual kWh Reduced

50,000,000 kWh (complete rollout)

Maintenance Costs

Reduced by 50%

Annual CO₂ Saved

31,720 metric tons (complete rollout)

Simple Payback Period

2.7 Years

Total Annual Savings

€8,000,000

The Solution

Hornbach elected to retrofit its existing lighting system with Metrolight's energy-efficient electronic ballast that also serves as an end node for the control and management system.

The Result

- ▶ Achieved 50% energy savings
- ▶ In addition to the saved energy, light levels were increased by ~15% and matched the commercial requirements of the stores
- ▶ Uniform light color throughout stores
- ▶ 50% reduction in maintenance costs
- ▶ Control and dimming capabilities



Features	Before Installation	After Installation	Savings
Fixture Power Consumption (W)	440W	218W	222W
Operating Hours	4,200	4,200	-
Annual Lighting-Related Energy Cost	€ 16,000,000	€ 8,000,000	€ 8,000,000
Total Annual Savings		€ 8,000,000	
Simple Payback/ ROI		2.7 Years	



“Novalux, Metrolight’s installation partner, did a great job. We are completely satisfied with the result.”

Andreas Grün,
Director of Facility Management at Hornbach

Integration Partner:
NOVALUX

Novalux is a young, dynamic and growing company with designated expertise in intelligent, cost saving lighting systems in the commercial sector. Situated in Leipzig, Novalux operates in Germany and Europe, with current projects in the Czech Republic, Hungary and Croatia. For more information visit www.novalux.ag



Integration Partner:
SMARTLUX

Smartlux is a leading partner in the planning, implementation and service of intelligent lighting systems for businesses, municipalities and for the fun and leisure industries. The driving ideology behind Smartlux is the control and management of area lighting while enhancing energy efficiency. Smartlux has a considerable footprint all across Europe. For more information visit www.smartlux.de



About Metrolight

Metrolight provides proven energy-efficient eHID and LED solutions for high-power lighting. Metrolight's ballasts and managed lighting solutions are used in retail, industrial, commercial and municipal installations to reduce energy consumption and carbon emission by 70%. Pioneering lighting energy solutions since 1996, Metrolight operates worldwide with over 750,000 systems deployed and over 8 billion hours in operation. For more information, please visit our website at www.metrolight.com