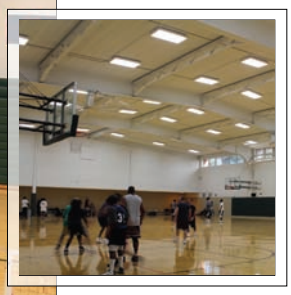
BEST LIGHTS, INC.
Brilliant Energy Saving Technology™

Manufacturing Lighting Solutions that **SAVE** Energy!

CASE STUDY

1st attempt: 250 watt Induction 34FC



2nd attempt: 196 watts T8 Fluorescent 54 FC

Michigan State University

Lansing, Michigan

IM SPORTS WEST FACILITY

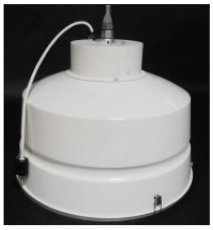
PROJECT STATISTICS	
Scope:	■ Replace 76 existing 400 Watt HID with 210 Watt Best Lights Direct T9.
Benefits:	■ Increase light 40% to 112 foot candles
	■ Improve light 90+ CRI and 4200 Kelvin.
	■ Energy reduction of 48% = $9,300 savings per yr.
	■ Maintenance reduced by 67%.
Features:	■ Super Reflector Technology= (LER) 96%.
	■ Lamp 30,000 Hr. @ 115 LPW.
	■ Dimmable 0-10 low voltage electronic ballast.
	■ Super Reflector Technology = (LER) 96%.

The Project

Michigan State University, a leader in energy conservation and Sport facility improvements, was challenged with reducing energy and maintenance frequency without compromising current light levels of 80 Foot Candles. They attempted to achieve these goals by replacing 400 Watt HID's inside three identical gymnasiums at their IM West Sports facility.

The Solution

In the Basketball/Volleyball Gym the best solution was the 210 watt BEST Light with T9 Super Reflector Technology. They achieved a **48% energy savings** with light levels reaching 110 Foot-candles. In addition, the lamps last 30,000 hours with an electronic dimmable ballast reducing maintenance by two thirds. LED technology was not selected due to lighting requirements and cost effectiveness.



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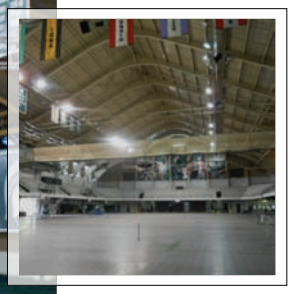

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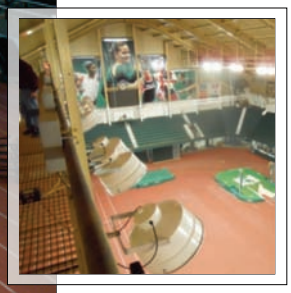

Fixtures mounted off catwalk

Michigan State University

Lansing, Michigan

JENISON FIELD HOUSE

PROJECT STATISTICS	
Scope:	■ Replace 74 1000 Watt HID lights with 630 Watt Best Lights Direct T9.
Benefits:	■ Increase light 25% to 110 foot candles.
	■ Improve light 90+ CRI and 4200 Kelvin.
	■ Energy reduction of 37% = $10,600 savings per yr.
	■ Maintenance reduction by 67%.
Features:	■ Super Reflector Technology = (LER) 96%.
	■ Lamp 30,000 Hr. @ 115 LPW.
	■ Dimmable 0-10 low voltage electronic ballast.

The Project

Michigan State University was under a mandate to improve the light quality and reduce electrical consumption and maintenance frequency for all sporting events at the historic Jenison Field House, built in 1940. The existing 1000 watt HIDs, mounted at 55' lit the playing surface to 88 Foot-candles with new lamps.

The Solution

Michigan State selected Best Lights T9 CRM with Direct Super Reflector Technology. Using 630 watts for a **37% energy savings** they increased light levels to 110 Foot-candles. The combination of our Super Reflector and the 115 lumen per watt MasterColor Elite lamps sustains these high light levels. In addition, the lamps last 30,000 hours with an electronic dimmable ballast reducing maintenance by two thirds. LED technology was not selected due to lighting requirements and cost effectiveness.

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CASE STUDY

Before

Michigan State University

Lansing, Michigan

PAVILLION AREA

PROJECT STATISTICS	
Scope:	■ Replace 21-1000 and 46-400 Watt HID lights with 630, 315 and 210 Watt Best Lights Direct T9.
Benefits:	■ Increase light 80% to 63 foot candles.
	■ Improve light 90+ CRI and 4200 Kelvin.
	■ Energy reduction of 37% = $6,050 savings per yr.
	■ Maintenance reduction by 67%.
Features:	■ Super Reflector Technology = (LER) 96%.
	■ Lamp 30,000 Hr. @ 115 LPW.

The Project

Michigan State University was challenged with improving the quality of light and reduce electrical consumption and maintenance for all livestock and agricultural events at the Pavilion arena. The legacy 1000 and 400 watt HIDs, mounted at 38' lit the arena to only 35 foot-candles.

The Solution

Michigan State selected Best Lights T9 CRM with Super Reflector Technology. They increased light levels 80% to 63 Foot Candles. They used the 630 watt replacing 1000 watt for a **37% energy savings**, 315 watt replacing 400 watt around the perimeter of the arena yielding a **28% energy savings** and 210 watt replacing 400 watt in the stands for a **49% energy savings**. The combination of our Super Reflector and the 115 lumen per watt MasterColor Elite lamps sustains these high light levels. In addition, the lamps last 30,000 hours with an electronic dimmable ballast reducing maintenance by two thirds.

LED technology was not selected due to lighting requirements and cost effectiveness.

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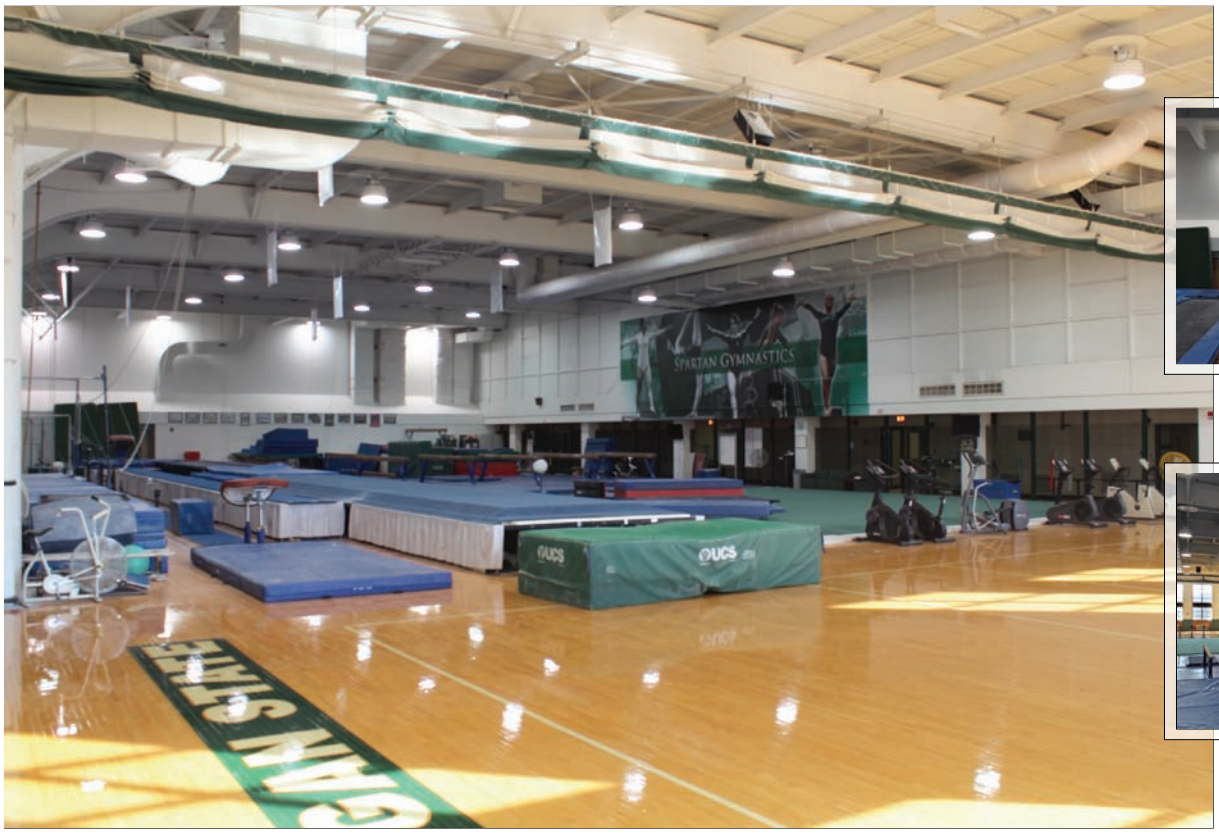
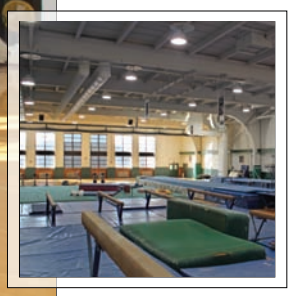




Michigan State University

Lansing, Michigan

GYMNASTIC CENTER

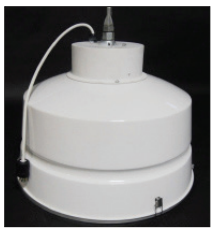
PROJECT STATISTICS	
Scope:	■ Replace 32- 400 Watt HID lights with 210 Watt Best Lights Direct T9.
Benefits:	■ Increase light 80% to 55 foot candles.
	■ Improve light 90+ CRI and 4200 Kelvin.
	■ Energy reduction of 37% = $2,600 per yr.
	■ Maintenance reduction by 67%.
Features:	■ Super Reflector Technology = (LER) 96%.
	■ Lamp 30,000 Hr. @ 115 LPW.
	■ Dimmable 0-10 low voltage electronic ballast.

The Project

Michigan State University was challenged with improving the quality of light and reduce electrical consumption and maintenance frequency in the dedicated Gymnastics training facility. The existing 400 watt HIDs produced only 30 foot-candles.

The Solution

Michigan State selected Best Lights T9 CRM with Super Reflector Technology. Using 210 watts for a **49% energy savings** they increased light levels to 55 Foot-candles. The combination of our Super Reflector and the 115 lumen per watt MasterColor Elite lamps sustains these high light levels. In addition, the lamps last 30,000 hours with an electronic dimmable ballast reducing maintenance by two thirds.



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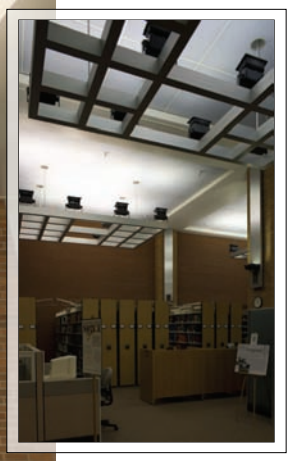
CASE STUDY



Before

Michigan State University

Lansing, Michigan

ENGINEERING LIBRARY

PROJECT STATISTICS	
Scope:	▪ Replace 120 Indirect 400 Watt HID with 60-420 Watt Best Lights Low Profile Indirect T9.
Benefits:	▪ Increase light 120% to 86 foot candles.
	▪ Improve light 90+ CRI and 4200 Kelvin.
	▪ Energy reduction of 69% = $ 28,575 per yr. (Includes daylight and motion controls.)
	▪ Maintenance reduction by 67%.
Features:	▪ Super Reflector Technology = (LER) 96%.
	▪ Lamp 30,000 Hr. @ 115 LPW.
	▪ Dimmable 0-10 low voltage electronic ballast.

The Project

Michigan State University needed to improve the light quality and reduce electrical consumption and maintenance frequency for the Engineering Library. The 120 existing 400 watt Indirect HIDs mounted at 18′ lit the area to 38 Foot-candles and produced a lot of heat.

The Solution

Michigan State selected Best Lights Low Profile Indirect T9 CRM with Super Reflector Technology. Using only 60-420 watt fixtures for a **50% energy savings** they increased light levels to 86 Foot-candles. The combination of our Super Reflector and the 115 lumen per watt MasterColor Elite lamps sustains these high light levels along with reducing the cooling load. In addition, the lamps last 30,000 hours with an electronic dimmable ballast reducing maintenance by two thirds. LED technology was not selected due to lighting requirements and cost effectiveness.

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CASE STUDY

Before

Pro Weld

Chesterfield, Michigan

FINAL ASSEMBLY and INSPECTION AREA

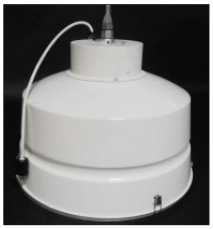
PROJECT STATISTICS	
Scope:	■ Replace 114 - 275 Watt Fluorescents and 7-400 Watt HID lights with 45-210 Watt Best Lights Direct T9.
Benefits:	■ Increase light 225% to 50 foot candles.
	■ Improve light 90+ CRI and 4200 Kelvin.
	■ Energy reduction of 70% = $16,200 per yr.
	■ 1.2 year payback with Utility rebate of $10,937.
	■ Maintenance reduction of 67%.
Features:	■ Super Reflector Technology = (LER) 96%.
	■ Lamp 30,000 Hr. @ 115 LPW.
	■ Dimmable 0-10 low voltage electronic ballast.
	■ Starphire glass lens enhances light quality.

The Project

Pro Weld, a leading Michigan manufacturer of material handling containers, was seeking to increase quality and eliminate rework in their welding and painting operations. A key improvement was to increase the level and quality of light in the factory while reducing energy consumption and lighting maintenance. In this industrial environment the existing 400 Watt HID and 275 Watt Fluorescents produced only 15 Foot Candles.

The Solution

Pro Weld installed a single Best Lights 210 Watt T9 Direct fixture for evaluation. The results were so encouraging they installed 44 additional fixtures to complete the project. Using 210 watts for a **70% energy savings** they increased light levels 225% to 50 Foot-candles. The combination of our Super Reflector and the 115 lumen per watt MasterColor Elite lamps sustains these high light levels. In addition, the lamps last 30,000 hours with an electronic dimmable ballast reducing maintenance by 67%. LED technology was not considered due to lighting requirements and cost effectiveness.



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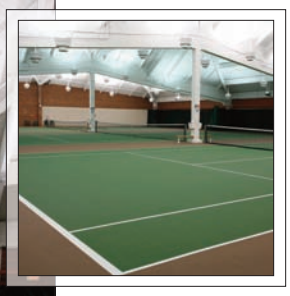

BEST Lights T9-630 watt MH-XL-ISP at Mountain Park Tennis. Center Court is Dimmed 50% using 50% Power.

Before

Mountain Park Racquet Club

Portland, Oregon

TENNIS FACILITY

PROJECT STATISTICS	
Scope:	■ Replace 105- 1000 Watt HID lights with 105- T9-630 Watt Indirect Best Lights
Benefits:	■ Payback in 2.7 years
	■ Energy reduction of 45% = $38,700 savings per yr.
	■ Increase light from 68 to 86 foot candles.
	■ Lamp Life 30,000 Hr. No Color shifting 4200 Kelvin.
	■ Maintenance reduction by 67%.
Features:	■ Motion Sensor Dimming to 50% Power
	■ Super Reflector Technology = (LER) 96%.
	■ Dimmable 0-10 low voltage electronic ballast.

The Project

Mountain Park Racquet Club in Portland Oregon took advantage of a Utility cost incentive to reduce their electrical consumption by removing their 1000 watt Lamp Indirect fixtures and installing a lower wattage fixture. The concern for their members was not to loss light levels for the sake of energy savings.

The Solution

After extensively researching Fluorescent, LEDs and Induction lighting systems, Best Lights Indirect T9-630 watt fixture with Super Reflector Technology was presented. A test fixture was installed and the results were outstanding. Best Lights only uses 630 watts and can dim to 50% power when the courts are not in use. With **energy savings of $38,700 per year** along with increased light levels from 68 Foot-candles to **86 Foot-candles** made the decision easy.

The combination of the Super Reflector Technology and the 115 lumen per watt MasterColor Elite lamps sustain these high light levels. In addition, the lamps last 30,000 hours and have silent electronic dimmable ballast reducing maintenance by two thirds. The clubs members and staff did not think it was possible but are now enjoying better indirect lighting with a **45%+ energy savings**.

LED, Induction and Fluorescent fixtures were not selected due to lighting requirements and cost effectiveness.

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