



# Light•Structure GREEN™

***For your budget,  
for the environment.***

"OFFERED WITH THE CONFIDENCE  
EARNED AND LEARNED FROM  
30 YEARS OF TECHNOLOGY INNOVATION."

*Myron Sander*      *John Rother*



# Musco's Light-Structure GREEN™

Musco's Green friendly system will reduce by half or more, the cost of operating and maintaining your ballfield lighting system.

## For Your Budget

Innovative photometric improvements of the luminaire result in substantially more efficient light control.

Musco's evolution of fundamental lamp principles creates a new operating system — Smart Lamp™.

### Savings

#### 25 Year Life Cycle Cost Savings

Prior Technology Fixture Quantity	52
Light-Structure Green™ Fixture Quantity	32
1. Energy — photometric improvement	\$23,080
2. Group Relamp	\$16,250
3. Lamp Maintenance	\$3,750
4. Energy — controls	\$5,770
5. Labor — controls	\$10,000

**Total Projected Savings \$58,850**

- |  |  |
|--|--|
| 1. 300 hours per year, 9¢ per kilowatt hour            | 4. 25% savings by switching on and off 20 minutes closer to actual usage time.   |
| 2. \$125 per luminaire for relamp labor and materials. | 5. 15 minutes labor for turning on and off at \$8 labor rate — 2,500 operations. |
| 3. Average of 7.5 repairs at \$500 each.               |  |

## Musco's journey to the Green Generation — 30 years of "good old fashioned" new technology

**1976**

Existing technology



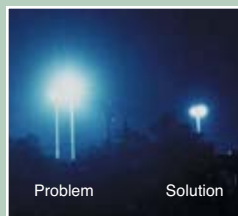
**1977**

Factory assembled and wired light cluster — SportsCluster®. Predictable results, easier installation.



**1981**

Glare control research



**1982**

Temporary lighting service and rolling lab — Mobile Lighting System



**1987**

Easier maintenance — remote ballasts



**... for a More Energy Conscious Generation.**

**Amazing new technology . . . big cost benefits.**

And best of all, it does wonderful things for the adjoining environment. It puts much less light on nearby properties. It protects the beauty of the dark night skies.

## For The Environment

Spill and glare control features are now a standard part of every luminaire at no extra cost.

This green generation luminaire system cuts spill by half or more, even when compared to Musco's prior industry-leading technology.

Less Spill		
360' x 225' Soccer Field		
30fc Average Maintained	30fc Constant Illumination	
Light-Structure with Total Light Control™ photometric option	Fixture Type	<b>Light-Structure Green™</b>
1500W MZ	Lamp Type	1500W MZ
Vertical Illumination		
0.50 fc	Average	<b>0.15 fc</b>
0.74 fc	Maximum	<b>0.26 fc</b>
52	# of Luminaires	<b>32</b>

## Now 25 years of unprecedented, trouble-free operation

Musco's *Constant 25™* product assurance and warranty program guarantees:

- Constant light levels and group lamp replacements at the end of rated lamp life
- Reduced energy consumption
- Monitoring, maintenance, and remote on/off control services
- System structural integrity

**1989**

Glare control with efficiency — SportsCluster-2®



**1991**

Complete lighting and electrical system from foundation-to-poletop, Light-Structure System™



**1997**

Facility management services — 10 Club Service® and Control-Link®



**2005**

Energy, environment . . . today's prices — Light-Structure Green™



## Light-Structure Green™ System — still Five Easy Pieces™ plus:

### Improved Luminaire Efficiency

- 1. Reflector system:** More than 2000 photometric patterns provide optimal energy efficiency and minimal spill light for each project.
- 2. Visor System:** Several visor choices provide energy efficient light on the field and minimal spill light. The aerodynamics reduce wind load on the poles.
- 3. Side Shift Beam Control:** Beams can be adjusted within the luminaire horizontally as well as vertically. We can now custom fit the light to the corners.

### Smart Lamp™ Operating System

- 1. Lamp:** 30 years of lamp experience has taught Musco how to operate the lamp with less energy and extend its life with a system of timed power adjustments.
- 2. Geared tilt adjustment:** With a geared leveling mechanism, the lamp arc tube operates in the energy advantageous horizontal position.

### Increased Durability, Assured Results

- 1. Die-Cast aluminum reflector housing:** Provides a rugged foundation for building and maintaining a sophisticated photometric unit.
- 2. Gasketing:** Improved material and gasket system design virtually eliminate “outgassing” and other contamination of the reflectors and lens.
- 3. Factory Assembled Luminaires:** The luminaire ships totally assembled: avoids contaminants, saves time, improves aiming accuracy.
- 4. Attaching Mechanism:** The factory assembled luminaire connects electrically and structurally to the crossarm with one simple attachment.
- 5. Factory Aiming:** Musco’s well established service of factory aiming is even better with Light-Structure Green™. . . field, changes can still be done.

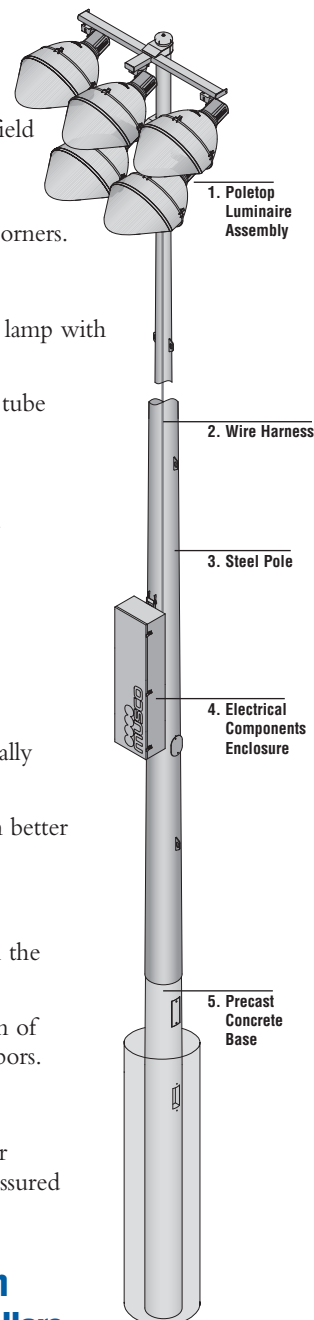
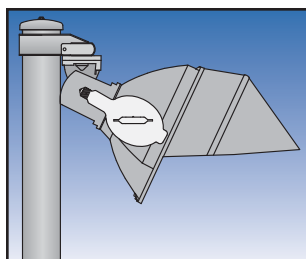
### Solid control and flexible management

- 1. Controls and monitoring:** This system, in one simple cabinet, included in the base price, saves energy and gives you a solid, flexible management tool.
- 2. Control Link Central™:** Real people at Musco, 24/7, support the operation of your lights . . . from office, field or home . . . benefits field users and neighbors.

### Ultimate guarantee

With **Green Generation Lighting**, Musco’s Constant 25™ guarantees it all for 25 years, plus free relamping at the end of the lamps’ rated life. All of this is assured by Musco’s field service department and their technicians.

**Light-Structure Green™ is the result of more than a dozen inventions and innovations from more than 10 million dollars of research and capital investment by Musco.**



**We Make It Happen.™**

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