

# Solutions for Lighting

## LED Lighting Discussion

Prepared for:

Palm Springs Unified School District



## Discussion Topics- Lighting Design / Pole Height

- LED Fixture Technology
- Pole Location / Illumination Levels
- Proximity to Homes, and other Environmental Concerns

# Light Control Matters

**1977**

Musco Metal  
Halide System

40 years of research, increasing efficiency and decreasing environmental impact.

**Today**

Musco LED  
System



# Total Light Control for LED



**BETTER FOR PLAYERS...**

**BETTER FOR NEIGHBORS...**

**BETTER FOR NIGHT SKY...**

**BETTER FOR YOUR BUDGET...**

# What Matters in Lighting Technology

**Musco: what can be  
TOTAL LIGHT CONTROL — TLC FOR LED™**

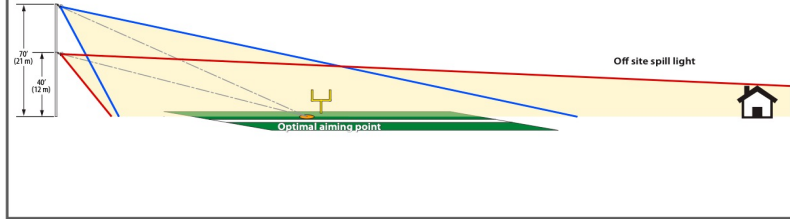
**What often is  
OLDER TECHNOLOGY**



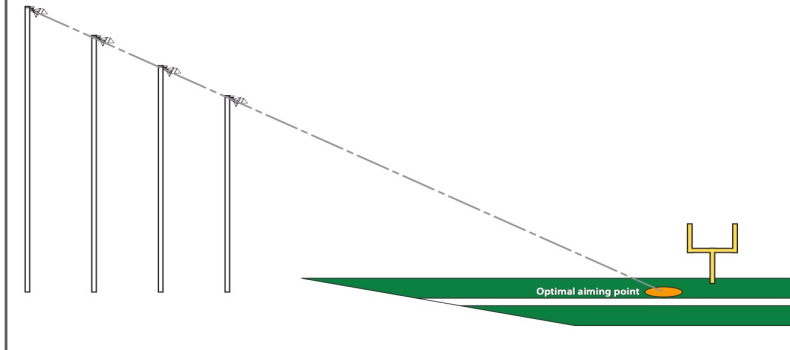
Figure #1- Same Light Pole Setback from the field.  
40' Pole (in Red)- Shallow Aiming Angle. Glare to home.  
70' Pole (in Blue). Minimized glare to home.

Figure #2- Pole Height is determined by the setback of the pole from the field, the optimal fixture aiming point on the field, and the light fixture optic capabilities

Pole height impacts aiming angles and the amount of spill light



Distance from the aiming point determines optimal pole height



# Pole Height, and Optimal Pole Locations will provide a safe, well lit field for High School Athletes



## WILDWOOD PARK

Sheboygan, Wisconsin, U.S.A.



Infield: 70 horizontal footcandles (700 lux), 2:1 uniformity;  
Field: 50 horizontal footcandles (50 lux), 2.5:1 uniformity;

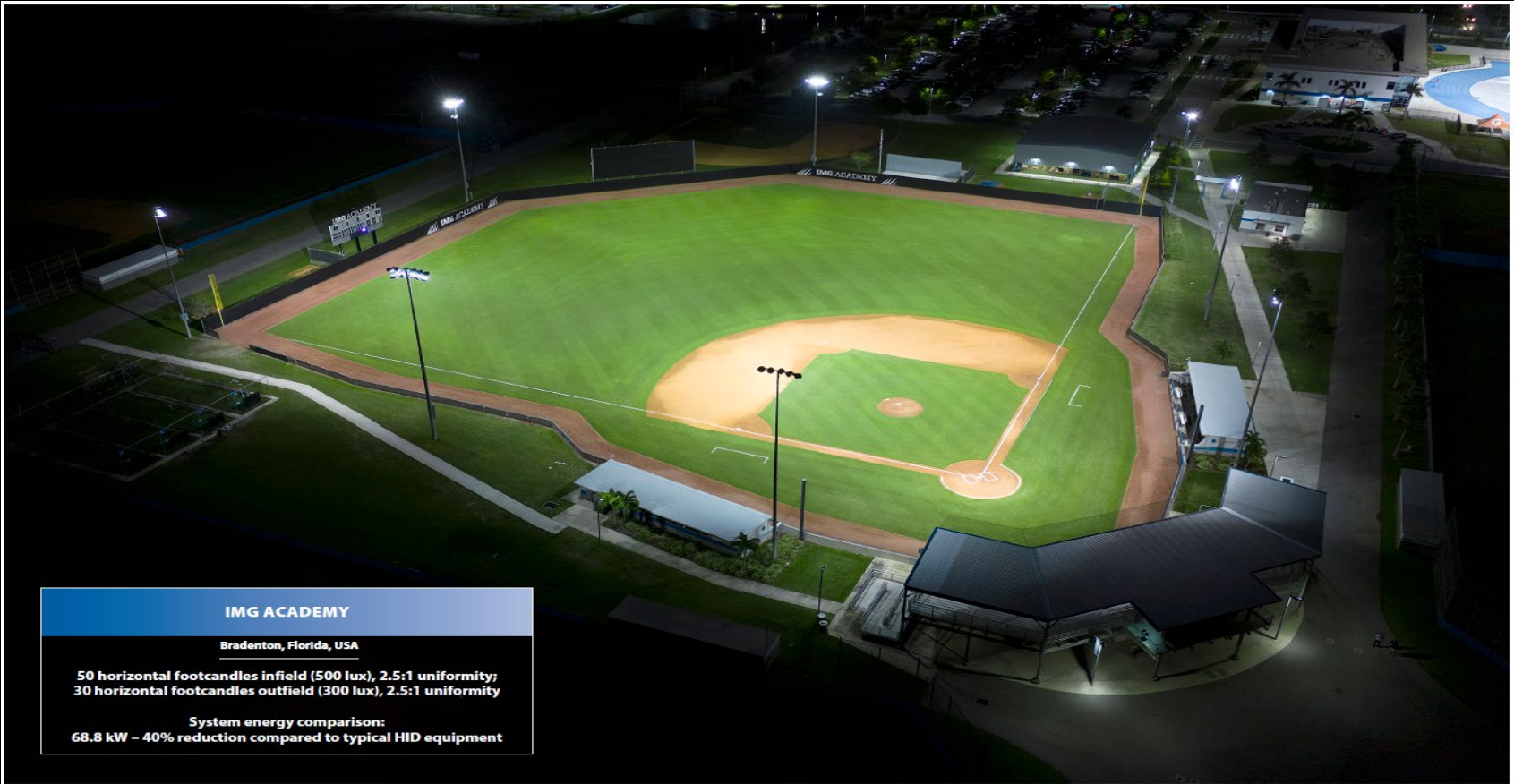
System energy comparison:  
86.3 kW – 74% reduction compared to typical HID equipment

LED Light Source

LED Light Source



Solutions for Lighting · TLC for LED®



**IMG ACADEMY**

Bradenton, Florida, USA

50 horizontal footcandles infield (500 lux), 2.5:1 uniformity;  
30 horizontal footcandles outfield (300 lux), 2.5:1 uniformity

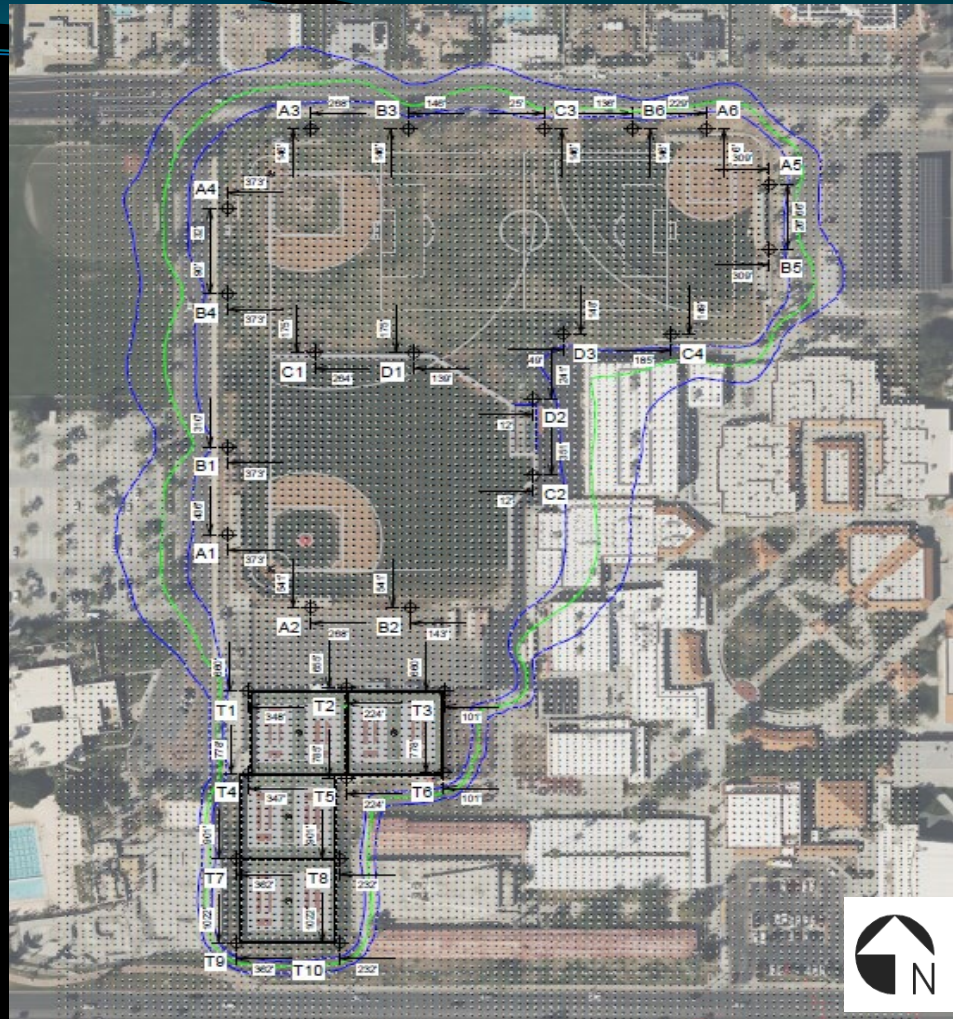
System energy comparison:  
68.8 kW – 40% reduction compared to typical HID equipment



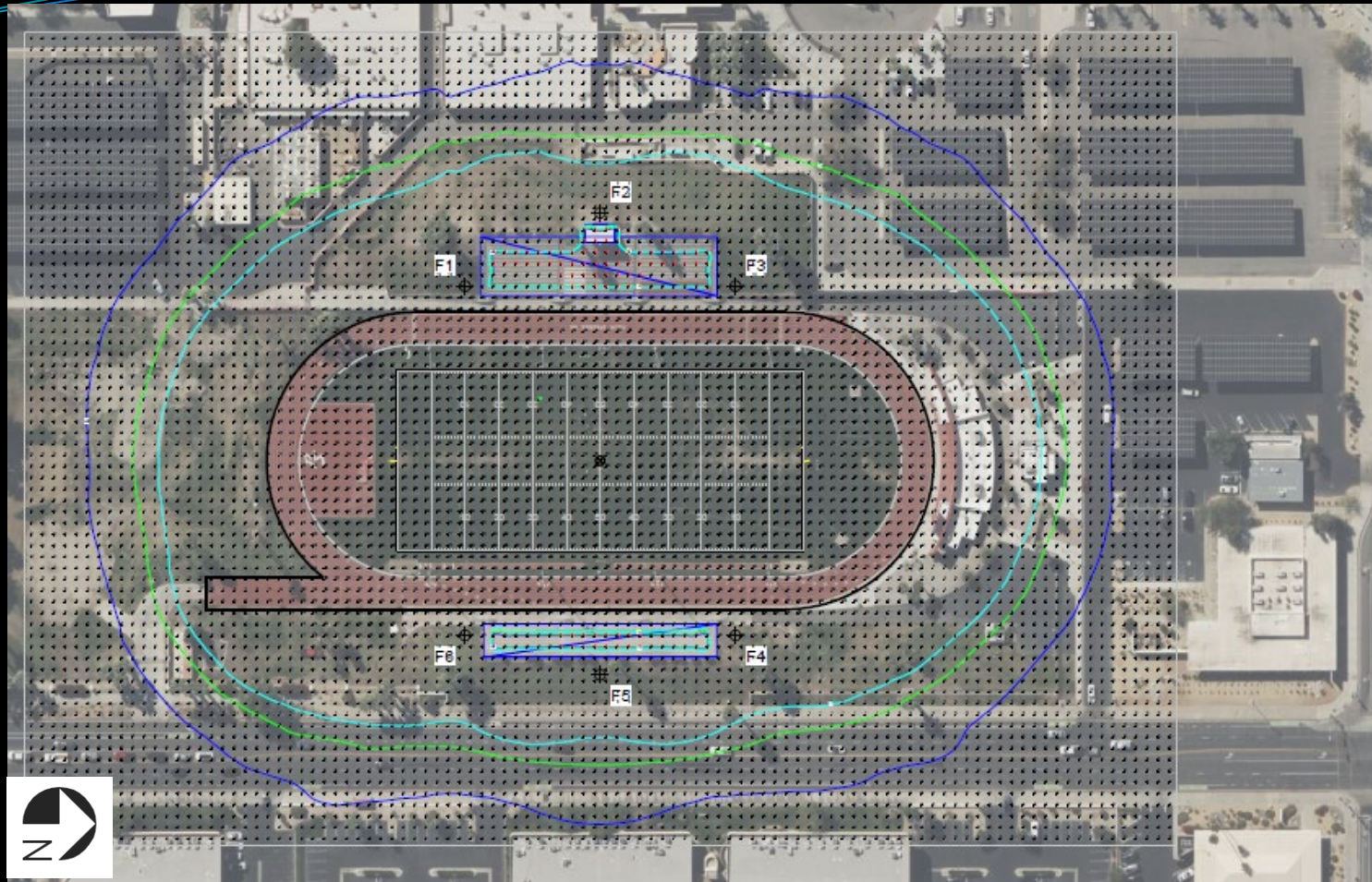
# Palm Springs High School – Proposed Lighting



# PSHS - New Lighting Pole Locations



# Palm Springs High School – Football Stadium



# QUESTIONS & ANSWERS

