

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

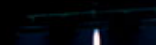
1977

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**



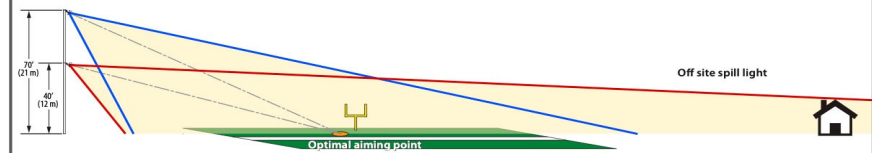
Figure #1- Same Light Pole Setback from the field.
40' Pole (in Red)- Shallow Aiming Angle. Glare to home.
70' Pole (in Blue). Minimized glare to home.

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

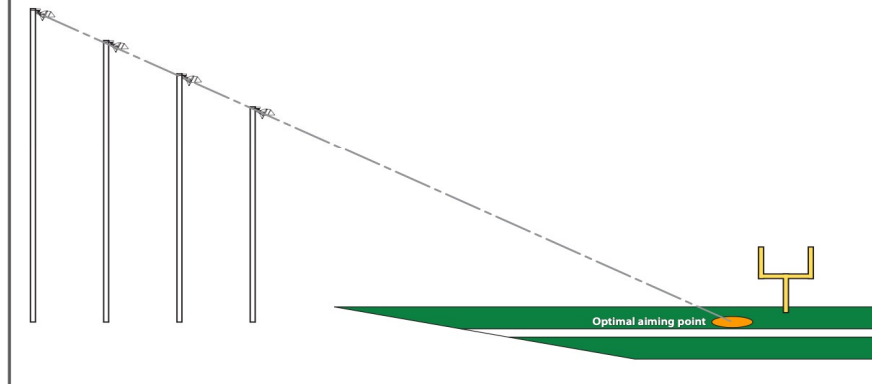
What Matters in Lighting Technology

Aiming

Pole height impacts aiming angles and the amount of spill light



Distance from the aiming point determines optimal pole height



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Solutions for Lighting

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



WILDWOOD PARK

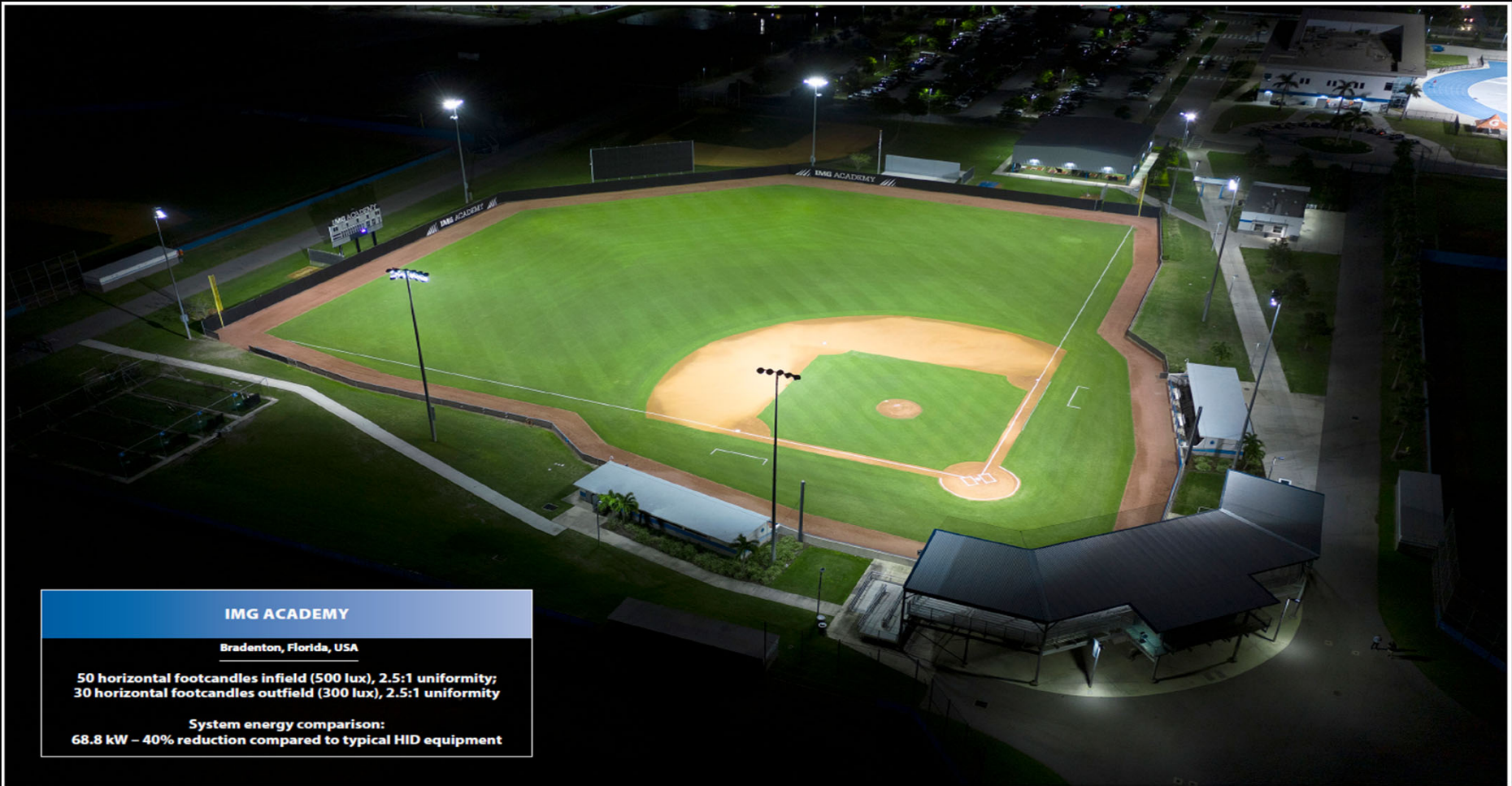
Sheboygan, Wisconsin, U.S.A.

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

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



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**

Rancho Mirage High School – Proposed Lighting



New Light Pole Locations



Neighborhood



QUESTIONS & ANSWERS

