

July 7, 2020

100% Design Community Meeting

Edgewater HS Ballfield Lighting




**Orange County
Public Schools**

Edgewater HS Ballfield Lighting Meeting Agenda

July 7, 2020, 5:30PM

- Welcome – School Board Member, Karen Castor Dentel
- Introductions – Lauren Roth, Facilities Communications
- Project Update:
 - OCPS Athletic Director: Doug Patterson
 - Construction Manager: Musco Lighting
- Questions and Answers

Why Lights?

- Bringing facilities to the district standard
 - OCPS transportation
 - Students not driving students
 - Lack of field trip buses
 - Buses not available until 4:30 for athletics
 - Students not missing class time
 - Allows more family members to attend games
 - Helps umpires' ability to cover games
- 

List of High Schools with similar light fixtures

- Apopka High School – Baseball Field (2019)
- West Orange High School – Baseball and Softball Field (2019)
- Winter Park High School – Baseball Field (2019)
- Boone High School – Baseball and Football Fields (July-August 2020)



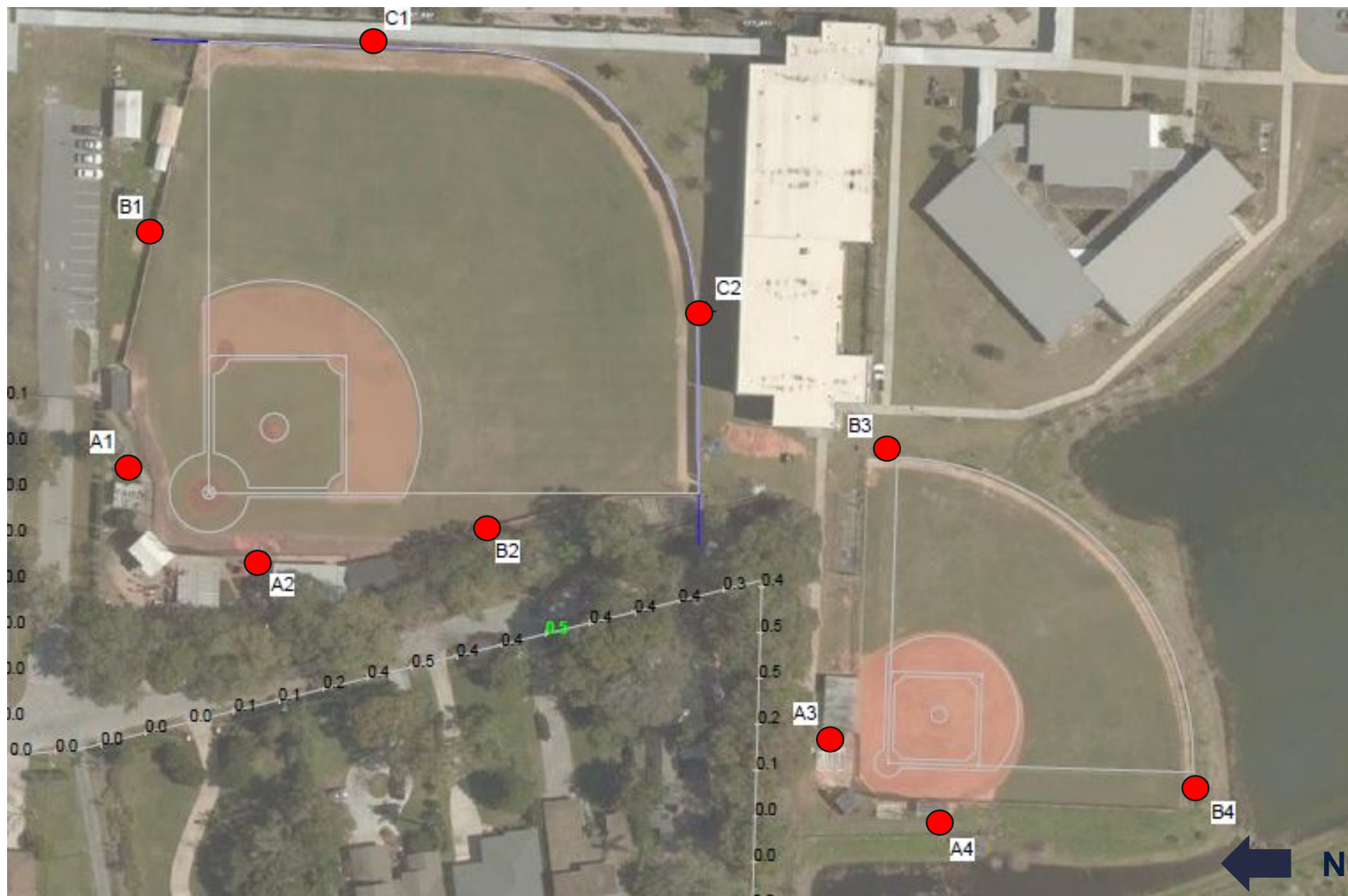


This project proposes the installation of a new lighting system for the Baseball and Softball fields.





Accessible from N Westmoreland Dr and W Preston St, there is an existing vehicular gate to enter the school parking lot located north of the baseball field.



Approximate locations for the lighting design (Shown in red).

Pole heights:

- Softball – 60' on infield (A3 & A4) and 70' on outfield (B3 & B4)
- Baseball – 70' on the infield and outfield poles (A1, A2, C1, C2) and 80' on the baseline poles (B1 & B2)

(Existing pole heights on the football field are 80')

Also, the numbers on the street are the horizontal footcandles (spill light) that will be on the opposite side of the street.

It should be noted that the existing street lighting produces more light than what will spill from the fields.



Photometrics indicate the light level at the school side of the road.

IMPORTANT: This scan does not take into account any of the foliage surrounding the site which will also be blocking the light.



Photometrics indicate the light level on the residence side of the road for comparison.

IMPORTANT: This scan does not take into account any of the foliage surrounding the site which will also be blocking the light.

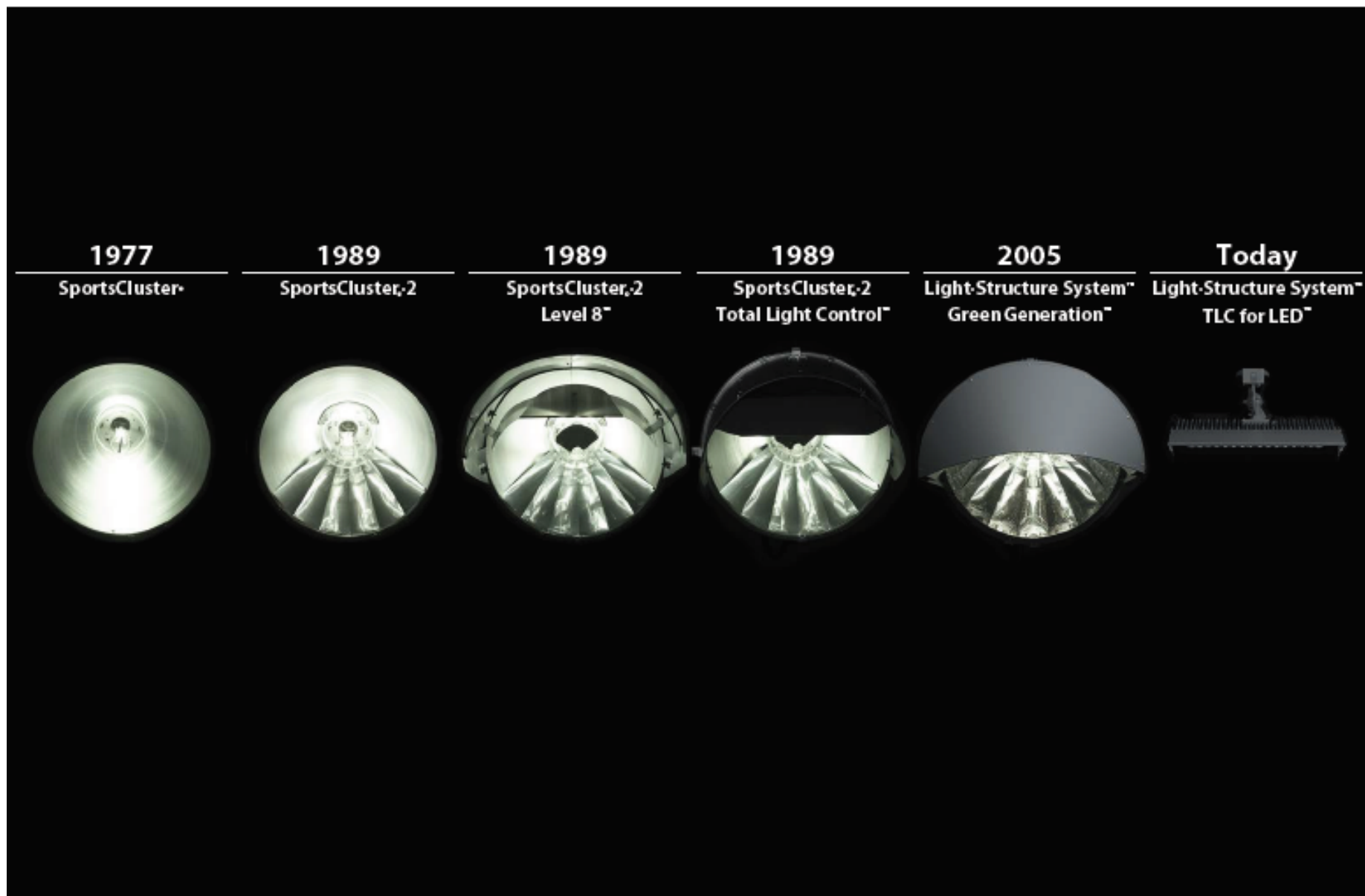
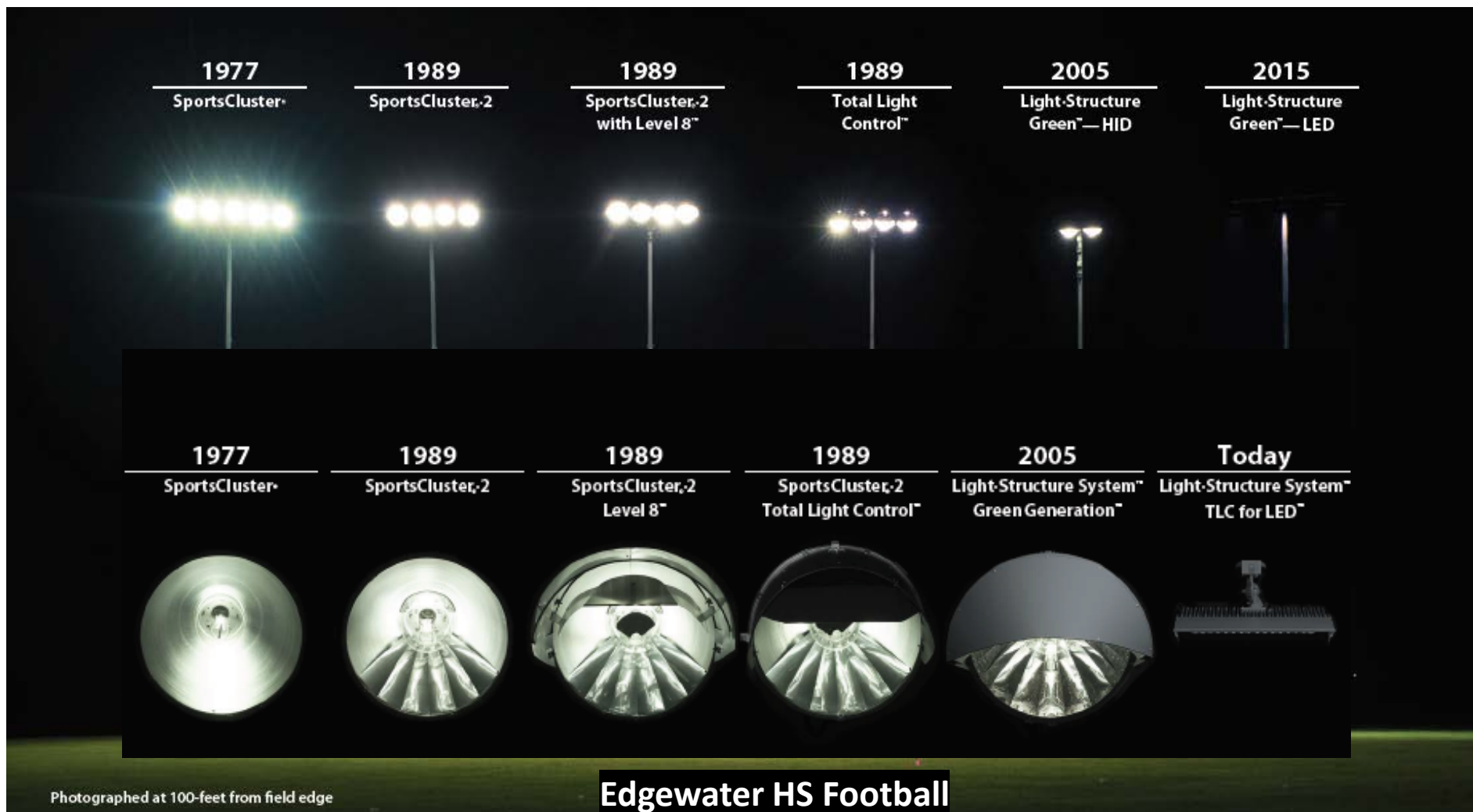


Image on the left indicates the evolution of lighting control in sports lighting.

It is important to note that the fixtures on the Edgewater football field are the 3rd from the right (Level 8 visors).

The fixture at far right is what is proposed for the Edgewater softball and baseball fields.



This slide shows how these LED fixtures perform.

As you can see, for the time period, the Level 8 controlled light better than a fixture with no optics, but still produces light spill & glare.

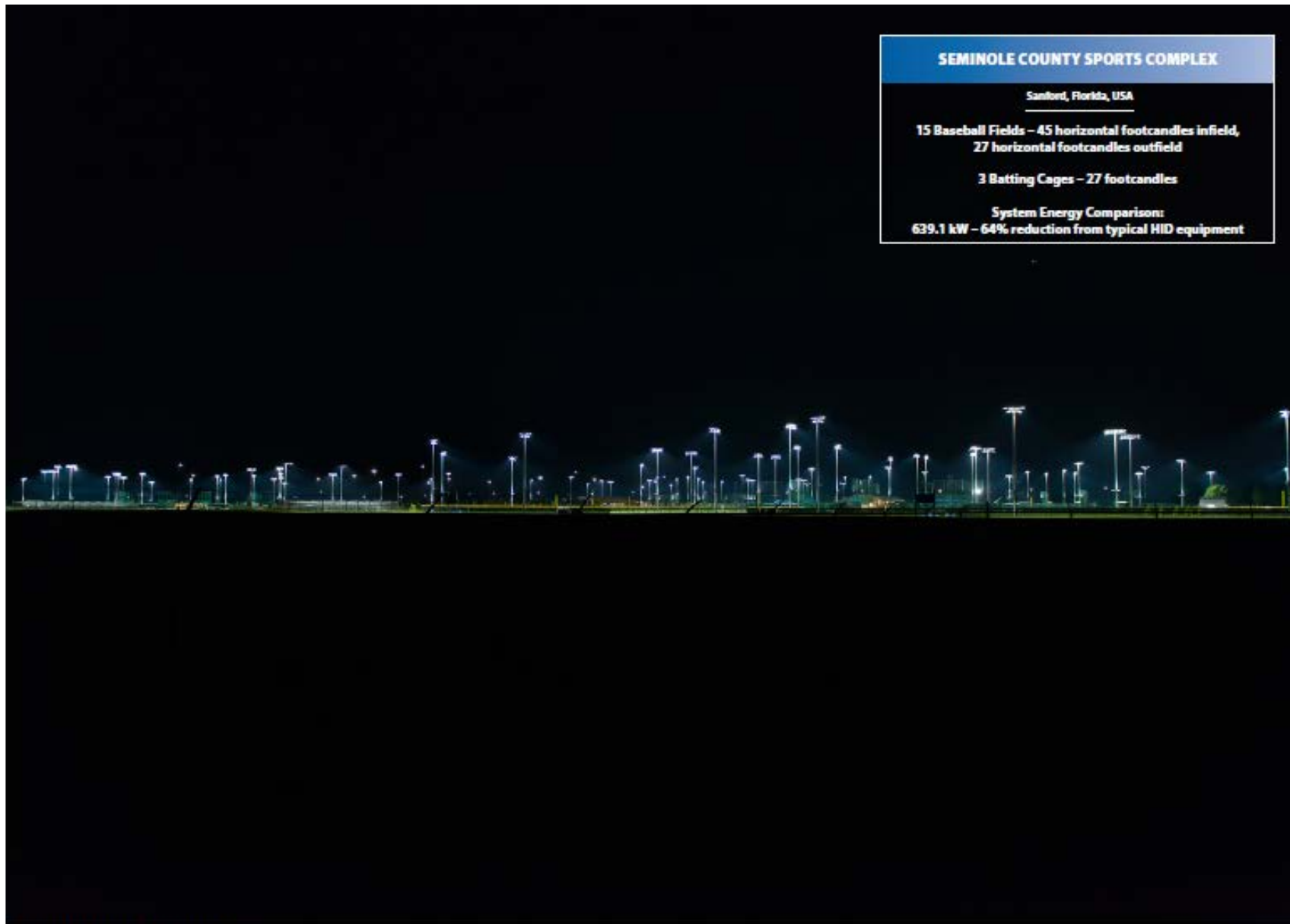
The LED fixture to the far right controls the light that can cause glare and light spill and limits it to the areas to be lighted.



The image on the left indicates the fixture proposed for the Baseball and Softball fields.

Please note that the length of the visor is 4 ½ to 5 times the height of the row of diodes (light source).

This is necessary in controlling light spill and glare.



SEMINOLE COUNTY SPORTS COMPLEX

Sanford, Florida, USA

15 Baseball Fields – 45 horizontal footcandles infield,
27 horizontal footcandles outfield

3 Batting Cages – 27 footcandles

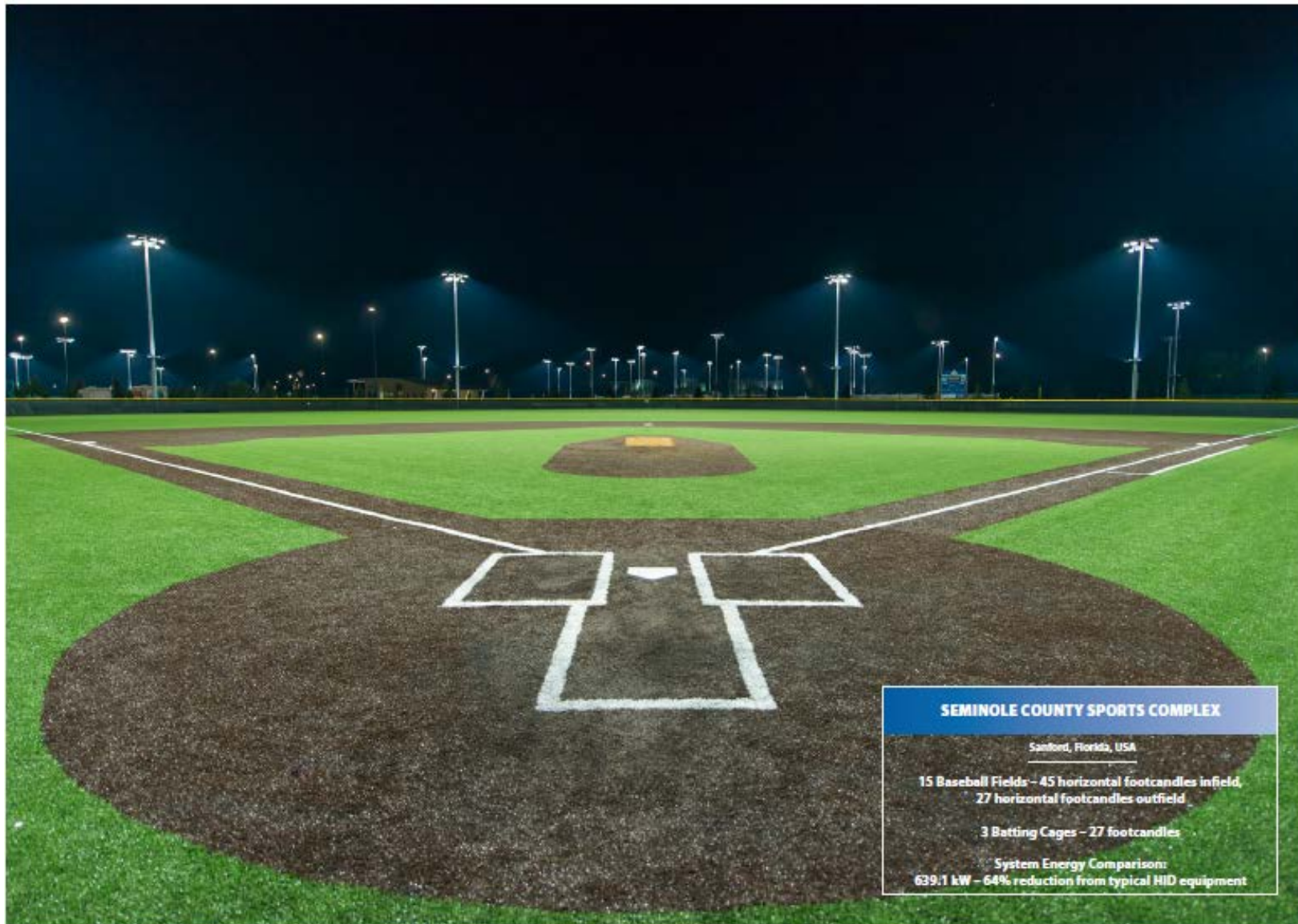
System Energy Comparison:
639.1 kW – 64% reduction from typical HID equipment

How does the fixture perform in the real world?

The photo on the left is the Boomba Sports Complex in Seminole County.

Located adjacent to the Sanford / Orlando International airport, there are 99 poles and over 1,000 fixtures. There have been no complaints from the airport or adjacent neighbors.

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LED Light Source

The image on the left also shows the Boomba Sports Complex, taken from home plate looking out at all the poles. You can see the light, but not the light source.

This is the technology being proposed for this school lighting.

Proposed Project Timeline



- OCPS issues Purchase Order – 3 to 4 weeks.
- Fabrication of Fixtures – 6 to 8 weeks duration.
- Construction and Installation of the system – 6 weeks duration.



Questions & Answers