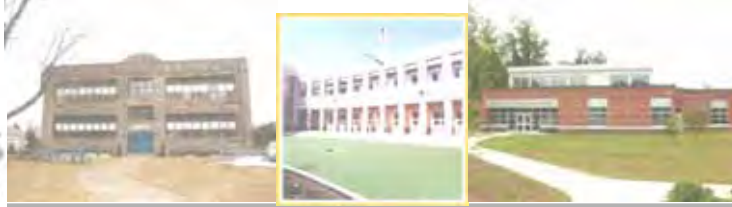


Can we or can't we?

What are the benefits of having a
Dark Campus?

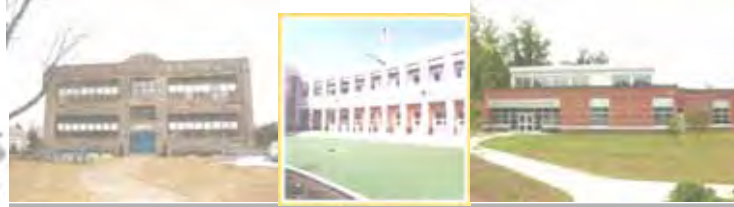
Presented by:

**The World Institute of Lighting and Development
Corporation**



Not So Dark





Why Have A Dark Campus?

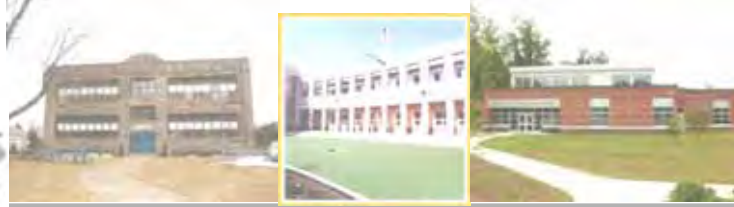
- **Saves lots of energy - \$500-\$750 Million Nationwide**
- **Studies show reduced vandalism**
- **Reduces Light Trespass**
- **Reduces Light Pollution**
- **Reduces Chemical Pollution**
- **Complies with IES/NA recommendations of**
- ***“Light Where You Need It, When You Need It”***
- **Helps Keep Skies Dark**



Solutions
Energy Efficient Solutions

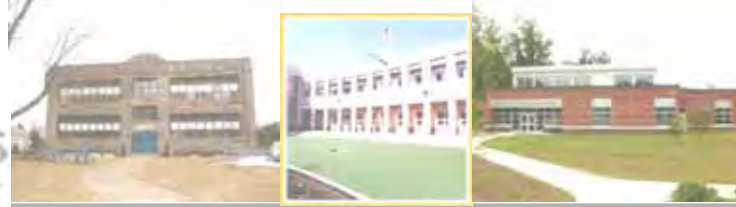
How Do We Achieve a Dark Campusand Have Security?

- ✎ Incorporate motion sensors in exterior lighting circuits. Time clocks are used until 10-11 p.m., then control goes to motion sensors, and
- ✎ Convert power hungry HID fixtures to “instant-on” *weatherproof* fluorescent fixtures that pay for themselves in 1-3 years, depending on utility rate.
- ✎ Be aware the new electronic ballasts operate twin T5 lamps down to -15°F, in properly designed fixtures.
- ✎ Incorporate high resolution digital cameras to photograph trespassers for litigation purposes.



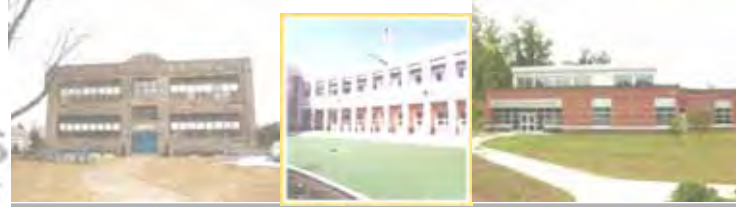
From Dark.....





To ... *Light* - *Instantly*



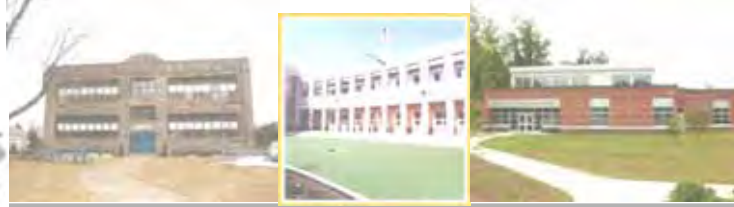


So,

How much Can Your
Facility Save ?

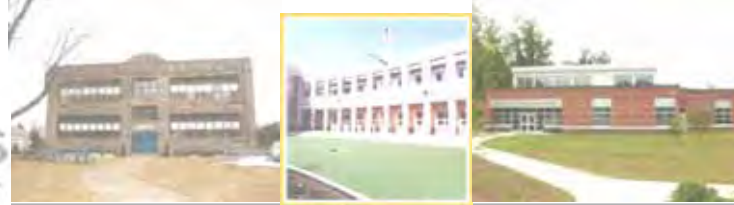
Or

How much can you save your
clients with energy efficient
lighting system designs?



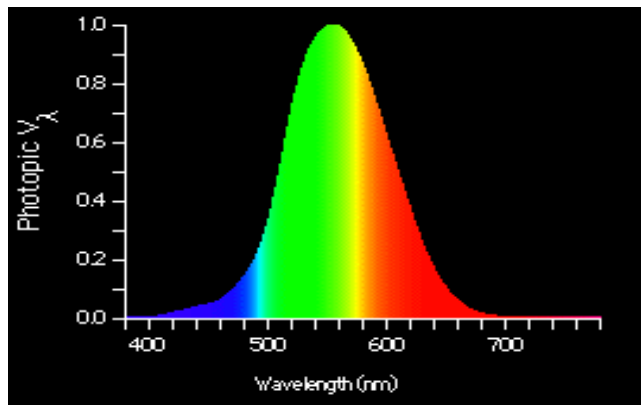
How Much Can We Save Nationwide ?

- Department of Energy Estimates that we can save about \$750,000,000 (at today's rates) per year nationwide !
- That is money that could be spent on teachers, books, facility improvements, etc.
- This would also reduce skyglow, light pollution, and chemical pollution.

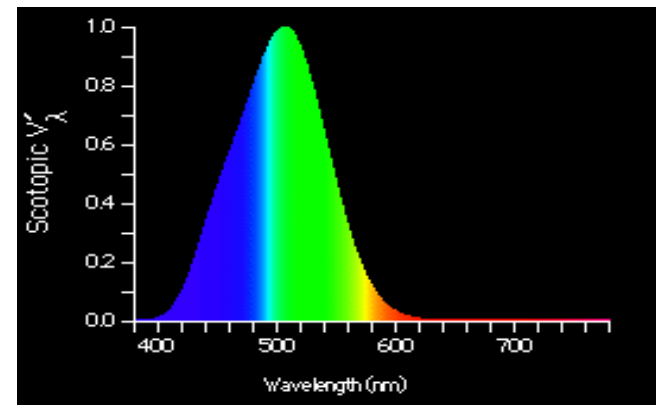


White light is more visually efficient!

Human Eye Sensitivity Curves



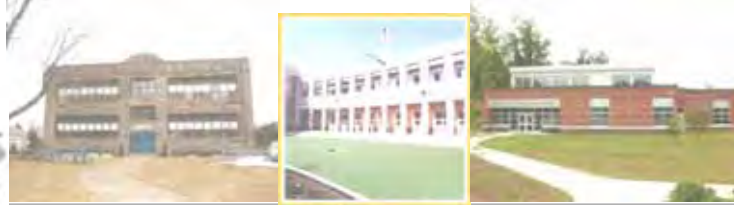
Daytime curve (used by today's light meters)



Nighttime Curve

The human eye “adapts” and becomes more sensitive to bluer/whiter light in lower light levels. Those sources with bluer wavelengths of light allow the eye to work more effectively.

The eye does not like “glare”, so if linear (fluorescent) sources can be used, less glare is produced, and the eye “sees” more. This is part of perception, and no meter can measure perception accurately, at this time. Metal halide produces more glare, which can blind cameras, and people, causing discomfort or disability glare.



UCF uses *Fluorescent* for Outdoor Security Lighting !

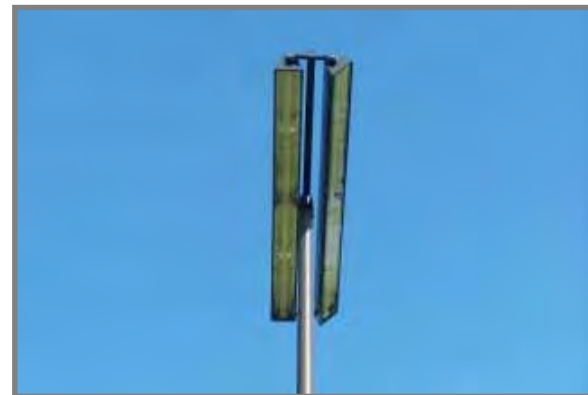
Using 212 watt twin T5, pole mounted fixtures instead of 1,000 watt metal halide building mount.



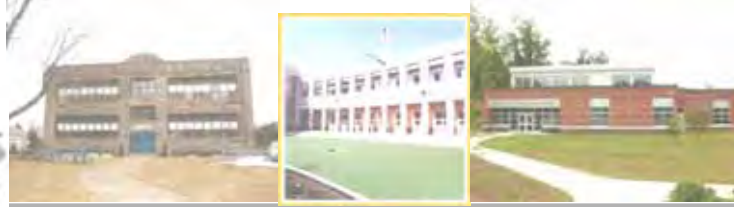
Fixtures can be motion sensed, dual circuited or use a combination of both



Clean look



Adjustable if needed.



For More Information contact.....

Your Presenter.....or.....

**The World Institute of Lighting and
Development Corporation**

1-941 755-2111 or 1-866 624-6272

Or visit.....

www.magnaray.com