

# Green Programs

## Easy Green Lighting Solutions

### Quick Reference Card



#### What is this card all about?

Being Green and saving money does not have to cost a lot to make a big difference. This card contains some basic lighting upgrades which will help lower a building's carbon footprint as well as save money in electric bills. This is not an all inclusive list, but a starting point to get some Green ideas.

#### T-12 Lamp/Ballast Replacement

One of the quickest and lowest cost retrofits is to replace T-12 lamps and ballasts with T-8 lamps and electronic ballasts. In most cases, you can use the same fixture and sockets already installed and it will save about 10% in energy cost.



#### ES8R Retrofit Kit

If a parabolic fixture is in use, the ES8R delivers more balanced light levels vertically and horizontally while eliminating the "cave effect" produced by traditional parabolic fixtures. ES8R provides substantial energy savings of up to 56%.



3 Lamp Parabolic

ES8R – 2 Lamp T8 Retrofit Kit



#### ES8P Replacement

If a 2PM3N 3 lamp parabolic fixture is called for in the plans, replace it with the ES8P. It delivers more balanced light levels vertically and horizontally while eliminating the "cave effect" produced by traditional parabolic fixtures. ES8P provides substantial energy savings of up to 45% compared to a three-lamp T8 electronic ballast system.



2PM3N 3 Lamp Parabolic



ES8P – 2 Lamp T8 Fixture

#### Warehouse Lighting

Warehouses all have different needs. If the plan is to install 400W Metal Halide High Bay lights, consider a 4 or 6 lamp Lithonia T5HO I-Beam fixtures instead. They have comparable light output and use about half of the electricity.



New or Retrofit Applications



BASED ON: 365 days | 16 hours per day | \$0.08 cost per kWh

## 6" Down lighting

For residential or commercial 6" down light applications, there two options better than the standard 65W incandescent lamp. The first option is the 26W CFL and second is the Cree LR6 LED. The LR6 is always the best option, but the CFL is still a step up from the incandescent.



65W Incandescent Lamp



26W Reflector CFL



12W Cree LR6 LED

On a New installation, the Cree LED option is the same cost as the 26W CFL option



On a Retrofit installation, the 26W CFL screw-in is the lower cost option

## Lighting Controls

The light switch is another great place to upgrade a lighting system. Rather than a regular switch, recommend a dimmer, occupancy sensor or occupancy / daylight sensor. All of these will save money in electric cost by providing the right amount of light when it is needed.



Leviton OSSMD Multi-Technology Sensor  
Infrared/Ultrasonic/Ambient  
Light Override Technologies

Lighting Cost Comparison of 1000W/h Lighting System  
(based on \$.07 per kWh)

Device	Day	Week
Switch	Lit at full power for 10 hours = \$.70	Lit at full power for 50 hours = \$3.50
Dimmer	Lit at half power for 10 hours = \$.35	Lit at half power for 50 hours = \$1.75
Occupancy Sensor	Lit at full power for 2 hours (when space used) = \$.14	Lit at full power for 10 hours (when space used) = \$.70



Annual Cost

