E.18 We have put office funds toward replacing, within the next 3 years, our T-1 fluorescent lighting with energy efficient T-8 or T-5 fixtures with electronic ballasts or other equivalent efficacy lighting.

**Intent**

To increase energy efficiency, T-12 fluorescent bulbs are replaced with either T-8 bulbs or even more efficient T-5 bulbs with electronic ballasts. Lighting is measured by 1/8” increments; a T-12 bulb is 1.5” in diameter and a T-8 is 1” in diameter. In general, a thinner bulb is more energy efficient. While upgrades are typically done with T-8 or T-5 bulbs, they can be done with other fixture types as well (e.g. induction lighting, LEDs).

**Point Value**

4 points

**Instructions**

**How to put office funds toward replacing lighting:**

1. Identify the number of T-12 bulbs in your area.
2. Determine if the overall illumination level could be reduced.
3. Coordinate with FRES and your BA to determine the optimal lighting solution for the space (this could include replacing the T-12 bulbs with T-8 or T-5 fixtures, or upgrading the lighting control system).
4. Project the cost of the replacement over the next 3 years, if not already started.
5. Plan for the replacement in the budget.
6. Contact Facilities to begin replacement.

Note: Facilities will also ensure proper disposal of the replaced bulbs.

**Resources**

Building Administrator Listing
http://www.facilities.upenn.edu/contacts.php?section=3&build=0&page=1 (search by building)