

Part 3 – Lighting Fundamentals

Review Questions

1. **A lamp...**
 - a. is a lighting fixture installed in a facility.
 - b. includes all types of bulbs and tubes.
 - c. Is a general term that refers to the enclosure of the light source, the light producing elements and their connection to power.
 - d. **B and C**

2. **What is a measure of the level of light?**
 - a. Lumens
 - b. **Footcandle**
 - c. Brightness
 - d. Lamp

3. **Which lighting source is more efficient?**
 - a. T12 lamp
 - b. **T8 lamp**
 - c. T40 lamp
 - d. Incandescent lamp

4. **What does IES stand for?**
 - a. Indoor Engineering Standards
 - b. **Illuminating Engineering Society**
 - c. Illuminating Efficiency Standards

5. **IES is recommending the following light levels for regular desk work in classrooms:**
 - a. 10 footcandles
 - b. 20 footcandles
 - c. **30 footcandles**
 - d. 50 footcandles

6. **To accurately measure lighting levels...**
 - a. Take measurement at task surface.
 - b. Consideration for daylight is not necessary.
 - c. Calculate average from maximum and minimum readings.
 - d. Don't obstruct or shadow the meter.
 - e. **A, C and D**

Fundamentals of Energy Efficient Building Operations



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7. **CRI is the abbreviation for**
 - a. Critical Room Illumination
 - b. Color Rate Index
 - c. **Color Rendering Index**

 8. **Building operators should be aware of lamp characteristics including the efficacy, efficiency, color and:**
 - a. Fixture Style
 - b. Ventilation
 - c. **Light output (lumens)**
 - d. LEDs

 9. **Magnetic ballasts are commonly found in buildings with:**
 - a. **T12 lamps**
 - b. LED lighting
 - c. **HID fixtures**

 10. **Conference rooms, bathrooms, and lobbies are ideal candidates for automatic lighting controls like occupancy or vacancy sensors due to their variance in occupancy.**
 - a. **True**
 - b. False