## Q: What is the purpose of the LBIL?

A: The LBIL is intended to save energy in indoor commercial areas where safety, security, and/or code may require constant light in frequently unoccupied spaces.

## Q: How does the LBIL save energy?

A: LBIL can be used in a number of ways to save energy. The most common is by using two light levels and defaulting to the lower light level when the area is unoccupied.

## Q: Where is the LBIL typically used?

A: Stairwells, restrooms, and back-of-house are typical LBIL placement areas.

## Q: How is the LBIL typically used?

A: LBIL is normally used in retrofit, relight, or new construction areas that do not have an occupancy sensor located externally to the light fixture. It is used to reduce light levels when the space is unoccupied.

## Q: Can LBIL turn off lighting rather than lowering light levels?

A: Yes. LBIL includes an integral occupancy sensor which can, if desired, be used for on/off rather than as a multi-level lighting function.

*Note: The "E" driver is typically selected when only on/off is desired.*

## Q: How do I calculate energy savings from LBIL?

A: The calculation is fairly simple.

1. Determine annual operating hours.

2. Estimate how many hours each year the area is unoccupied.

3. Subtract to determine how many hours each year the area is occupied.

4. Determine (or estimate) system watts for the product you are replacing, then multiply the watts by the annual operating hours and divide the total by 1,000 for kwH.
   a. If you need help estimating energy used by existing systems, reference our table at
      http://www.hubbelllighting.com/solutions/retrofit/tools/input-watt-finder/

5. Select the appropriate LBIL for your space and find the input watts at both 50% and 100%.
   a. Multiply the LBIL input watts at 50% by the unoccupied hours, divide total by 1,000 for kwH
   b. Multiply the LBIL input watts at 100% by the occupied hours, divide total by 1,000 for kwH
   c. Add quotients of (a) and (b) to get total kwH estimate
   d. Note, if the space is being turned off when unoccupied, adjust calculation accordingly

6. Subtract LBIL total kwH from existing system kwH for annual kwH savings.

7. Multiply annual kwH savings by electrical rate for dollars saved per year.

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### Example: Stairwell
Operates 24/7
  • Annually: 8,760 hours

In use 7% to 10% of the time
  • Unoccupied: 7,446 hours
  • Occupied: 1,314 hours
Existing 2-Lamp T8
  • 58 watts
LBIL4-40LW
  • 12 watts at 50%
  • 24 watts at 100%
Energy Cost: $0.12 (national average)

### Existing System: T8 at 58W
(58W x 8,760 H) / 1,000 = 508 kwH

### LBIL Low Watt System
(12W x 7,446 H) / 1,000 = 134
(24W x 1,314 H) / 1,000 = 46
134 + 46 = 180 kwH
508-180 = 328 kwH savings per year
328 x $0.12 = $39.37 savings per year, each

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*Above data is meant for an example only and assumes 50% power when unoccupied and 100% power when occupied. It is not meant to replace site-specific calculations.*

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