

The Fabulous  
**Lighting Maven**  
*Unexpectedly Illuminating*

ACTION-ORIENTED PEARLS OF WISDOM FOR INDUSTRIAL MANAGERS AND CONTRACTORS  
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Dear Reader:

Virtually all Facilities and Energy Managers are aware of the value of occupancy sensors used in conjunction with LED luminaires, but some might benefit from an enhanced understanding of how to adjust the settings to optimize their lighting system's ability to lower energy consumption without compromising the illuminating qualities of each fixture within the system.

Let's face it, it doesn't matter what the efficacy of a fixture is – be it good or bad – if the fixture is off, and a fixture can be turned off, or at least dimmed down, when there is no reason for the fixture it controls to be on. When this occurs, the energy savings harvested can be significant.

**OCCUPANCY SENSING**

The Energy Efficiency and Renewable Energy division of the U.S. DOE has put out a great paper on occupancy sensor control, and you can find it here: [Wireless Occupancy Sensors for Lighting Controls](#).

As we plan out an occupancy settings regime, we typically cut a manufacturing facility into five distinct areas, production, warehouse, aisle, office and restrooms. From there, we plan to treat each one uniquely:

**Production** – Passive, low sensitivity, you don't really want fixtures popping on and off a lot, as disruption and irritation can become a real problem with people.

**Warehouse**, including Rack Aisles – Aggressive, high sensitivity, on/off without dimming. These areas are typically occupied intermittently (statistically only 30-40% of the time), and as-such lend themselves to significant harvesting.

**Aisle** – Medium sensitivity, we don't use the sensors to turn fixtures off during business hours in these areas, choosing instead to dim them down. We've found that this is much easier on the eyes.

**Office** – Open areas require a more passive approach, as people generally don't appreciate adjacent cubicle office lighting turn off, even absent occupancy in that cubicle. Enclosed offices can be switched aggressively though, as you're typically setting the control for only one occupant, in or out.

**Restrooms** – The only distinction here is the need to plan out the locations of the sensors so that they're picking up a person who might be in a stall. You wouldn't want maroon someone in there when the lights go out.



U.S. Power is an industrial energy services company that specializes in the reduction of energy consumption across a broad array of manufacturing and food processing facilities located in Michigan, Ohio, Indiana, Illinois and Wisconsin. In addition, the company publishes a useful curation of lighting-oriented information from the marketplace, and consolidates it into this concise, twice per month letter known as The Fabulous Lighting Maven, distributed to Facilities Managers throughout the nation.

While the company prides itself in its diversity, it owns and operates a niche lighting contracting firm as well, known as U.S. Power Vision, LLC. With a core business in and around industrial LED lighting, it keeps itself and its clients at the cutting edge of illuminating technologies, all aimed at providing – from the eyes to the fingertips – exceptional illumination, superb control and intuitive simplicity.

**YOUR MORNING GRIN**

Life can be tough.  
And no one gets out alive.  
But you can enjoy your lighting  
along the way.

We foster that enjoyment.

**Ron Motsch**  
**(616) 570-9319**

*Building and Managing a Suite of  
The Most Productive and Admired  
LED Lighting Systems on Earth*

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