

# ELECTRIC LIGHTING

## QUANTITATIVE INSIGHT INTO BUILDING OPERATIONS

### Talking Points



**Keywords:** Electric Lighting, Advanced Lighting Controls, Maintenance, Satisfaction, Controls, Data, Building Operations, IoT

#### **A controls-based dynamic lighting control system can realize significant energy and maintenance savings and help boost employee satisfaction**

- The lighting market started out focusing on energy savings, but it's evolving quickly towards non-energy applications, Hedayat said. Other non-energy applications Digital Lumens is considering: security, fire and safety, asset tracking, and humidity (Davidson, 2016).
- It's important to audit and understand your lighting system, regardless of age, to understand its baseline costs. Even a 3-yo building/lighting system can be inefficient (Davidson, 2016).
- Secondary benefits of lighting controls such as occupancy analysis allow for more insight into how much a space is utilized (Davidson, 2016).
- Tracking occupancy "gave me the ability to consolidate product that is picked more often than others," he said. "And rather than having people going from one side of the warehouse to the other, I can consolidate all of the busy products into a small number of aisles so all of the activity is in the same area" (Davidson, 2016).
- Numerous post-occupancy evaluations have determined that employee satisfaction with their work environment is based on thermal comfort and the ability to control their visual comfort through lighting (Doulos et. al., 2020).
- Controls must be installed correctly or they will severely hinder the overall performance of the lighting system. Simply having controls is not enough (Parise, 2013).

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#### **KEY REFERENCES**

##### *Primary Research*

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