Project Case Study

Agricultural Equipment Storage Barn Des Moines, Iowa



GreenMAX® DRC Wired

An Agricultural Equipment Storage Barn Installs Leviton Controls for Energy Savings

The Challenge

The owner of a seed equipment storage barn in Des Moines, lowa need to retrofit the building, bring it up to code, and replace the High-Intensity Discharge (HID) Lamps for energy savings.

The Installation

The owner worked with Crescent Electric to install GreenMAX DRC Keypads, Smart Packs, and Sensors to control overhead and emergency lighting.

The Solution

During planting and harvesting seasons, a typical farm equipment storage barn has occupants and equipment moving in and out at all hours of the day. When the owner of a large equipment storage barn in lowa, needed to retrofit the space, he turned to Leviton.

Crescent Electric showed the owner an example of a Leviton GreenMAX DRC Solution Sheet for open spaces and sold the project based on the product line's capabilities.

The barn had high ceilings and 6-8 zones of HID lights which were expensive to maintain and drove up energy costs. The storage barn also needed to meet energy code requirements for ASHRAE 90.1 2010 and 2012 IECC.

GreenMAX DRC's fully configurable system, daylighting capabilities, and ease of installation were selling points along with the ability to control zones of lighting, control emergency lighting, and meet energy codes.





Advanced occupancy/ vacancy and emergency lighting controls for agricultural applications.

GreenMAX DRC 1- and 8-Button Keypads were chosen to control the lighting in each zone and the buttons were individually programmed for the space.

GreenMAX DRC Smart Packs were chosen for the project to control rows of fixtures for switching and 0-10V dimming control and for plug load controls. The Smart Packs were also installed for UL924 Emergency lighting control.

The GreenMAX DRC Digital Sensors were chosen to ensure the lights were ON when the space was occupied and OFF when it was vacant. The integrated photocell provided 0-10V dimming to the space to meet energy codes.

By installing new light fixtures and GreenMAX DRC controls, the owner of the barn was able to save 20% on electrical costs. The owner appreciated the easy setup and





control using the GreenMAX DRC App.

GreenMAX DRC Keypads

GreenMAX DRC Digital Keypads offer out-of-the-box code compliant auto configuration with no commissioning required.

GreenMAX DRC Smart Packs

Enables switching and 0-10V dimming control of a single zone of fixtures, allowing for a distributed control solution. The Smart Packs are used to control multiple fixtures in a zone and plug load control solutions. The Smart Packs use distributed relays, which eliminates the need to run wires back to a cabinet.

GreenMAX DRC Digital Sensor

The Digital Sensor integrates a PIR occupancy/vacancy sensor with a daylight-sensing photocell, providing more capabilities while requiring less equipment and wiring.

GreenMAX DRC Wired Controls can be used to meet IECC, ASHRAE 90.1, and 2022 Title 24, Part 6 occupancy/vacancy sensing and dimming requirements.

Leviton offers spec-ready lighting and control solutions and energy savings for agricultural applications.