

CASE STUDY #1

JACKSON-EVERS INTERNATIONAL AIRPORT | JACKSON, MISSISSIPPI

AIRFIELD PROFILE

Aircraft Operations: Approximately 55,000 per year

Runways: 16L/34R (8,500 x 150 ft.), 16R/34L (8,500 x 150 ft.)

WHAT THEY DID

Jackson-Evers converted all its existing Lumacurve signs to LED using Lumacurve LED Upgrade Kits.

WHY THEY DID IT

Jackson-Evers International Airport spans 3,300 acres. It's a challenging space to maintain for the airport's maintenance staff of just 5-7 employees. In an effort to find ways to make maintaining the airfield more manageable, Jackson-Evers researched the annual time and costs associated with sign maintenance. The research revealed the staff was completing roughly 200 sign maintenance trips per year and that these trips amounted to an estimated \$25,000.

The airport saw an opportunity to change this reality with Lumacurve's help!

HOW THEY DID IT

After research on the annual time and costs spent on sign repairs was completed, a memo with these findings was presented to the airport's board of directors (a group known to be environmentally conscious), along with a proposal to upgrade all existing signs to LED using Lumacurve LED Upgrade Kits.

The energy savings and additional benefits of going green with LED rang true with the board. They loved the proposal to upgrade the airport's signage, and approved funding to cover the entire project at once using only their capital improvement budget (no city money or utility company kickbacks).

After taking advantage of Lumacurve's LED Upgrade Kit training, two Jackson-Evers maintenance staff members installed the upgrade kits, and the airport was able to make a smooth transition to LED.

CASE STUDY #2

O'HARE INTERNATIONAL AIRPORT | CHICAGO, ILLINOIS

AIRFIELD PROFILE

Aircraft Operations: Approximately 800,000 per year

Runways: 10L/28R (13,000 x 150 ft.), 10C/28C (10,801 x 200 ft.), 14L/32R (10,005 x 150 ft.), 14R/32L (9,686 x 200 ft.), 4R/22L (8,075 x 150 ft.), 9R/27L (7,967 x 150 ft.) 4L/22R (7,500 x 150 ft.), 9L/27R (7,500 x 150 ft.)

WHAT THEY'RE DOING

O'Hare is converting signs on its field to LED through direct purchases of both new Lumacurve signs and upgrade kits.

WHY THEY'RE DOING IT

Leaders at O'Hare International Airport have delivered a clear message to their employees: O'Hare is going green. The airport's commissioner is looking for every avenue available to increase energy efficiency and decrease the airport's carbon footprint. The airport sees converting all lighting—from the terminals, parking lots and access roads to the airfield's signs and lights—to LED as an opportunity to accomplish these goals.

Beyond their environmental benefits, Lumacurve LED signs appeal to O'Hare electricians because they are easy to maintain. With so many fixtures on their airfield, the airport's technicians have traditionally preferred to switch out fixtures rather than attempt to troubleshoot them in the field. But with easily accessible components and a controller reset to help maintenance workers quickly diagnose problems, Lumacurve's LED system makes field maintenance possible, even on a field like O'Hare's.

HOW THEY'RE DOING IT

With the exception of signs replaced as part of new construction projects happening on the airfield, the LED conversion process has been financed exclusively in-house, after being factored into the airport's annual budget. Because a big part of the LED conversion task was not to rush to abandon existing fixtures, but rather find possible ways to convert them, O'Hare has chosen to purchase Lumacurve Upgrade Kits in place of new signs wherever possible. LED signs and upgrade kits have been purchased in phases and installed by airport maintenance personnel.

The conversion process started with the island pads on O'Hare's north airfield. Now all remaining signs on the north airfield are being systematically converted or replaced. Upon completion of the north airfield upgrade, this process will be repeated for O'Hare's south airfield.

CASE STUDY #3

MASON CITY MUNICIPAL AIRPORT | MASON CITY, IOWA

AIRFIELD PROFILE

Aircraft Operations: Approximately 32,000 per year

Runways: 18/36 (6,501 x 150 ft.), 12/30 (5,502 x 150 ft.)

WHAT THEY'RE DOING

Mason City is converting over half of its existing Lumacurve airfield signs to LED using Lumacurve LED Upgrade Kits.

WHY THEY'RE DOING IT

Like many airports, Mason City Municipal Airport only receives funding to make significant capital improvements every 20 years. So with the most recent opportunity to update their field, officials wanted the latest technology that would also be sure to stand the test of time. With its significant energy and maintenance savings, a switch to LED was "a no-brainer," according to the airport's operations manager. From officials at the airport to outside consultants, the consensus for Mason City Municipal was to convert as much of the field as possible to LED.

The airport favored the idea of upgrading its signs to LED using Lumacurve Upgrade Kits because it gave them the opportunity to keep the signs they love on their field (and continue to benefit from their initial investment) as well as secure the LED technology they were after.

HOW THEY'RE DOING IT

The airport has an operating budget for every fiscal year, which runs July 1-June 30. The budget is submitted in February/March for approval by city council. The airport typically is approved for enough money to maintain its facilities, but not enough to make significant improvements. The city typically prefers using AIP funding for capital improvements.

With a significant capital improvements project in the works, the airport decided to tie the purchase of LED upgrade kits into the project. Using funds from its Capital Improvement budget that were left over from the project coming in under the projected budget, the airport purchased the upgrade kits directly, and bid the installation of the equipment as part of the improvements project.

The kits are being installed by the awarded electrical contractor, and the airport will be well on its way to experiencing all the benefits LED has to offer.

CASE STUDY #4

ONTARIO INTERNATIONAL AIRPORT | ONTARIO, CALIFORNIA

AIRFIELD PROFILE

Aircraft Operations: Approximately 83,000 per year

Runways: 8L/26R (12,197 x 150 ft.), 8R/26L (10,200 x 150 ft.)

WHAT THEY'RE DOING

Ontario International is converting existing Lumacurve signs to LED using Lumacurve LED Upgrade Kits.

WHY THEY'RE DOING IT

The Ontario International Airport maintenance staff does not have a designated graveyard shift. Instead, staff members rotate night shifts, and if major problems arise, additional personnel are brought in. Given this situation, LED was highly attractive to the airport because LED fixtures experience fewer burnouts and require less manpower/maintenance to maintain operation.

The airport was also attracted to LED because of the energy savings that it has to offer. The airport maintenance director at Ontario International is a visionary who encourages and empowers the maintenance staff to research LED opportunities and pricing and to take advantage of cost-efficient ways to convert.

Lumacurve LED Upgrade Kits, then, seemed like the most natural choice for the airport. The airport viewed the upgrade kits as the most cost-effective way to get LED signs on its field. Airport officials also liked Lumacurve LED Upgrade Kits for the flexibility they give the airport to convert signs when and where they want.

HOW THEY'RE DOING IT

Once Ontario International decided to proceed with LED, the airport identified high-priority areas on the airfield to begin the conversions. Project leaders chose to upgrade mandatory signs first because they are most important to pilots, are some of the most difficult to get to for maintenance, and tend to be longer (and hence, contain more incandescent lamps that have the potential to burn out and require replacement).

Ontario International has continued its conversion, purchasing Lumacurve LED Upgrade Kits as money has been available within the airport's operations and maintenance budget. All conversions have been completed in-house. In addition to converting all of their existing airfield lights, the airport is switching over parking lot lights. Ontario International is using its operations budget to fund all conversions, so the upgrade process has been slow and steady.

Still, airport personnel have begun to notice the benefits of the converted signs. Airport staff members say the LED signs are brighter, more intense and crisper visually. Plus, they have been able to take one-third of their regulators out of service because they aren't needed anymore, creating significant energy savings.