

## CASE STUDY

AV-70 Solar LED Taxiway Lights Provide Flexible Solution for Major International Airport During Construction

Orlando, Florida United States of America



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# Project Overview

- Application Cat II/III International Airport Taxiway Edge Lighting
- Droduct

L-863 Certified AV-70 Solar LED Taxiway Edge Light

**Contention** Orlando International Airport Orlando, Florida, USA

**Date** January 2019



"Avlite's Solar LED AV-70 Taxiway Lights are performing as intended, providing important guidance to the aircraft at MCO. And, they may be used on future taxiway projects. Thus, the cost for temporary taxiway edge lighting should be reduced for future projects."

> Tuan Nguyen, Manager of Civil Engineering Orlando International Airport

### Background

Central Florida is a popular, world renown tourist destination. The region includes six major attractions and one of the busiest cruise port terminals in the world. The city of Orlando, located in Central Florida, boasts a population of over 8 million people and is one of the most frequented cities in the United States. 42 million passengers per year pass through the Orlando International Airport (MCO) on their way to the region, traveling on 50+ carriers that originate from more than 120 international destinations. The area's large number of attractions, growing tourism trade, and expanding local population require the continual expansion of MCO to accommodate increasing volumes of visitors and aircraft operations.

#### Challenge

Frequent paving projects to expand runways would close effected sections of taxiways or require rerouting of ground traffic until airfield lighting could be reconfigured. Typically, temporary taxiway lights would be used to illuminate alternative or temporary taxiways to air traffic. However, temporary taxiway lighting requires 5 kV wiring with rigid steel conduit that is labor-intensive, expensive, and difficult to install and maintain. The impact of hardwired temporary lighting includes costly project and flight delays.



The Airfield Lighting Control and Monitoring System allows Avlite's L-863 AV-70 Solar Taxiway Lights to operate as part of MCO's existing airfield lighting system.

#### Solution

Avlite supplied AV-70 Solar LED Taxiway Edge Lights to the Orlando International Airport to help ensure safe rerouting of aircraft on taxiways during paving projects.

The FAA L-863 Certified AV-70's are radio frequency (RF) controlled and fully integrated with MCO's Airfield Lighting Control and Monitoring Systems (ALCMS). This allows the air traffic control tower (ATCT) to fully operate and control the AV-70 Solar LED Taxiway Edge Lights as part of Orlando's entire airfield lighting control system.

When not in use, the AV-70's are connected to Avlite's Portable Charging System (PCS) so they remain at peak charge and ready for immediate deployment.

The AV-70's feature an internal photocell to automatically operate from dusk to dawn or in low visibility conditions when not RF controlled. This provides a flexible and versatile temporary lighting solution on busy taxiway and runway paving projects, avoiding flight and project delays. The AV-70 is the only L-863 certified solar LED taxiway edge light and can be included in Airport Improvement Program (AIP) funded projects.

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When not in use, the AV-70's are neatly stored while connected to Avlite's Portable Charging System (PCS). The PCS keeps the lights fully charged and ready for immediate deployment.



Avlite's FAA compliant Frangible Mounts provide optimal aircraft safety.

"I've been in the industry since 1987 and this is the first time I've ever seen solar lights controlled by an airfield lighting system."

> Carl Johnson, Senior Aviation Lighting Specialist AVCON, INC.





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