



aviationrenewables

# PROJECT REPORT

LED APRON LIGHTING OPERATING AT CARIBBEAN INTERNATIONAL AIRPORT



**LOCATION** The Caribbean

**EQUIPMENT** LED Apron Floodlighting

**DATE** 2021

**APPLICATION** Apron Floodlighting compliance to ICAO Annex 14 5.3.23 / IES RP37-15 Standards

**CLIENT** International Airport

**ROI** 2.5 Years on the Entire System

## SYNOPSIS

Aviation Renewables designed and supplied an ICAO compliant LED apron floodlighting system for an apron expansion project at an International Airport in the Caribbean. The LED apron lighting project was installed by a Canadian contracting company in the spring of 2021 with remote technical assistance from Aviation Renewables due to the pandemic travel restrictions.

## CHALLENGE

The International Airport undertook an Apron expansion in late 2019, in order to expand capacity for wide body aircraft from overseas. As part of the project, they desired the ICAO compliant LED apron lighting to incorporate into the existing control system located in the ATC tower. Although the product was ordered prior to the COVID-19 pandemic, the delivery and installation took place during strict travel restrictions, which added extra layers of complexity to the installation and commissioning components of the LED apron floodlighting project.



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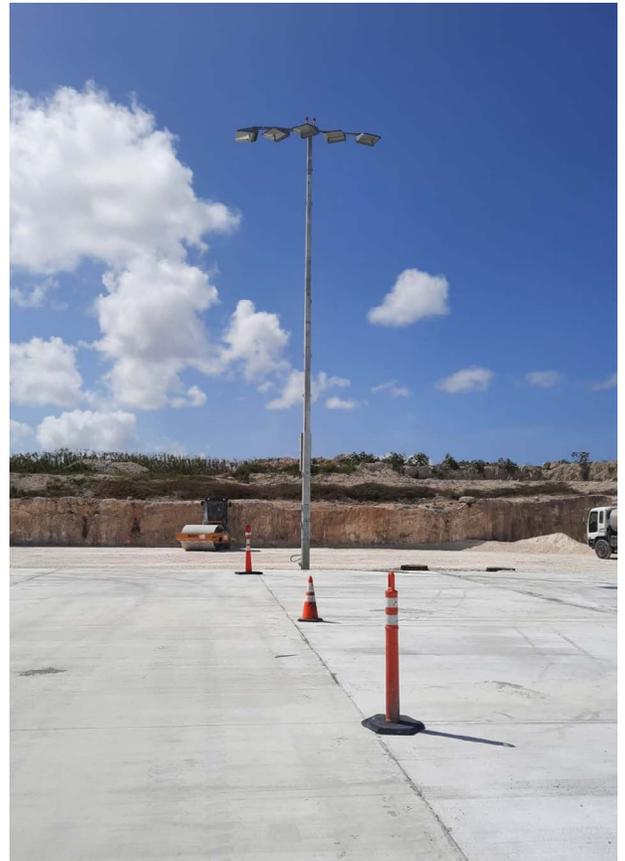
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## SOLUTION

Aviation Renewables provided the design and supply of an LED apron lighting system including: pre-cast concrete bases, slip-fit steel poles, all wire harnesses and lighting fixtures. The system, provided by Musco Lighting of the USA, is unique in that all light fixtures are aimed in the factory, leading to easy installation and commissioning. The international airport has a very harsh climate with salt-laden moist air and risk of hurricanes. The provided structures meet 130mph wind specifications and feature exclusively internally routed wiring, which extends the lifespan of the wiring.

The system was designed to incorporate into the existing LED apron floodlighting control system by wifi repeaters. The ATC tower can control both on/off and intensity functions. This allows the LED apron light levels to be dimmed during periods of low activity, resulting in significant electricity savings over the lifespan of the system with energy savings covering the cost of the entire LED apron floodlighting in two years time. In addition to the control, each of the poles is individually monitored for correct operation. Faults are relayed to the central tech support in the USA, where troubleshooting can be conducted remotely. This support centre is staffed 24/7.



This system is backed by an industry leading 10 year warranty on LED apron flood light output, supported by a technical team and parts supply based in Florida ensuring any problems that do arise are corrected in a very timely manner. During the COVID travel restriction, Aviation Renewables was unable to conduct the installation and commissioning of the LED apron lighting system. As a result, we developed remote support resources and technical briefings to allow the on-site team to conduct the installation. The system was installed in Spring of 2021 and has been performing extremely well.