

AVIATION PROJECT CASE STUDY

Rome Fiumicino Airport (FCO)



FCO, also known as Rome Leonardo da Vinci Airport, is Italy's biggest airport. It serves as the main hub for the country's largest airline – Alitalia. It's also the main hub for Vueling, a low-cost Spanish carrier. FCO is the eight-busiest airport in Europe and the world's 47th busiest.

The challenge

FCO needed to:

- Make sure its lighting complied with new EASE – the European Union Aviation Safety Agency – regulations.
- Guarantee zero light spill to comply with Lazio regional law.
- Cut energy use in full compliance with ICAO Annex 14 regulations. And reduce their lighting maintenance costs at the same time.

As we were already the preferred supplier of LED apron lighting for FCO, they came to us to make these things happen.

At a glance

Sector: Aviation
Customer: FCO
Number of passengers: 425,119,99
Runways: 4 – including a subsidiary
Stands: 125
Average aircraft movements: 307,736
Project date: Ongoing

LED floodlights installed: 600+
Type: Titan Series
Lux average values: 30 Lux
Energy savings:

- 317W vs 812kW
- 61%



Our solution

This large project – 97 new high masts needed building with heights ranging from 10m to 40m – has been ongoing for the last few years. It's involved a 25% retrofit and the rest new-build, with the new masts being installed next to the current ones. The old masts are now being removed, so the sodium lights can be turned off and the LED lights switched on.

By using the whole range of our Titan Series – from 165W to 705W – the new floodlighting complies with EASE regulations and Lazio regional law. Plus, to help keep costs to a minimum, they've been supplied with DALI, Digital Address Lighting Interface, protocol. This means they can connect with the existing control system in a simple plug and play way. Also, as with any of our LED lighting, the maintenance costs will be a fraction of what it costs to maintain a High-Pressure Sodium system.

Before and after technical comparison

	SODIUM	LED
Number of projectors	850+	600+
Nominal power for single appliance	400W / 1000W	457W / 455W/705w
Total power absorbed	812kW	317kW
Energy consumption per year	3491600 kwh	72,670 kWh
Colour temperature	2000k	5,700K
Colour rendering index	25	70
Average light level	20lx	36 Lux
Uniformity	0.25	0.53
Energy savings		61%