

Milan Linate Airport (LIN)



Built in 1930, LIN started life as Milan's main international airport. However, it soon became too small to cope with the demands placed on it and was rebuilt in the 1950s and again in the 1980s.

In 1988 the nearby Malpensa Airport was upgraded and became Milan's main air hub, handling the majority of international scheduled and charter flights. LIN was downgraded and now only handles domestic and inter-European flights. Despite this, LIN is still the fifth busiest airport in Italy.

The airport is home to the 'Emporio Armani' Hanger which, as well as being a working hanger, has hosted the fashion house's catwalk shows.

The challenge

We carried out two different projects for LIN.

- The first, a relatively straightforward project in 2016, was for its VIP jet area. A modification to the area's apron layout meant the ground markings to the parking zones also needed to change. This in turn, due to International Civil Aviation Organisation (ICAO) regulations, meant the area's lighting needed updating.
- Then in 2018, LIN invited us to upgrade its old lighting system as part of a refurbishment of the entire airport. This upgrade included replacing all the airports inefficient and difficult to maintain High Pressure Sodium (HPS) floodlights – as saving energy was high on LIN's agenda.

At a glance

Sector: Aviation
Customer: LIN
Location: Milan, Italy
Number of passengers: 9.233,475
Runways: 2
Stands: 5
Average aircraft movements: 115,301

Project date: 2016/2018
LED floodlights installed: 194
Type: Titan
Lux average values: 25
Uniformity: 0.4
Energy savings: 53%



Our solution

The solution for the first project simply involved installing 4 high masts to house 19 of our Titan 720 Series luminaires. Tried and tested around the world, our Titan Series is perfect for large area lighting projects like this.

The second project was to prove more complex. LIN's entire lighting system at the time included 262 HPS floodlights that needed upgrading. These floodlights ranged from 400W to 1,000W and were housed on a variety of masts from 9m to 35m.

As part of the upgrade, we also had to deliver 10 Lux across the entire length of the taxiways. This aspect of the project was additionally challenging as ICAO regulations stipulated that the light source, had to come from two directions – to deliver the lighting levels required

To replace the 262 HPS luminaires we used the current masts and housed them with just 175 of our Titan Series floodlights. This was made up of:

- 104 Titan 720 lights.
- 33 Titan 420 lights.
- 28 Titan 320 lights
- And, 10 Titan 160 lights – specifically for the 'Emporio Armani' Hangar.



This upgrade cut LIN's energy use by 53%.

During the planning for this project, the need to hit the apron with light from two sources was built into the overall solution. And it was delivered thanks to our proprietary optics systems.

Anything Else

SEA Aeroporti di Milano, who runs LIN, has asked us to carry out a similar upgrade to another of its airports – the nearby and much larger Milano Malpensa Airport (MXP).

Technical Data

	BEFORE	AFTER WITH LED
Number of projectors	262	177
Nominal power for single appliance	400W/1000W16 kW	167/326/455/705W
Total power absorbed	226.3 kW	105.5kW
Energy consumption per year	991426 kWh	462081 kWh
Colour temperature	2000k	5000K
Colour rendering index	25	70
Average light level	20	25
Uniformity	0.25	0.4
Energy savings		53%