

King Shaka Airport (DUR)



Named after a 19th-century Zulu nation leader, DUR started construction in 1973. But, the first flight from the airport didn't take place until 2010, this was due to an economic slowdown in the 1980s and a delay in the project's Environmental Impact Assessment approval. Since 2013 DUR has consistently won the best airport in the world awards for airports handling under five million, or five to ten, million passengers a year. DUR is now the third busiest airport in South Africa.

The challenge

DUR needed to:

- Make sure its lighting complied with ICAO – the International Civil Aviation Organisations – regulations.
- Replace its current metal halide fixtures. These already had a very high lumen output. However, the halide system suffered from major light depreciation, the bulbs were losing lumen output quickly and had to be replaced constantly to keep the airport's aprons compliant.
- It also wanted to have full control of its lighting without the need to pull any existing wiring.
- Complete the whole project as a retrofit using existing towers.

When asked why DUR chose us the reply was simple – 'Your superior quality'.

At a glance

Sector: Aviation
Customer: DUR
Number of passengers: 5,990,000
Runways: 1
Stands: 119
Average aircraft movements: 51,131
Project date: 2018

LED floodlights installed: 78
Installation Height: 25m and 35m
Type: Titan Series
Lux average values: 25 Lux
Energy savings:

- 77%



Our solution

As we had to use the existing lighting towers, which had only a few mounting points each, a complete retrofit was needed. We also needed to keep the number of floodlights as low as possible. We used our Titan 720 and 420 flood lights because it was the only lightweight floodlight in the market that could match the light output of a 2kW metal halide fixture. The Titan's advanced optics also meant we were able to give uniform lighting with just two floodlights per mast.

We also worked with our partner ZetaQlab, to install a full wireless control system – one of the first to be used in an airport environment.

The results speak for themselves – light levels have almost trebled, maintenance costs have dramatically fallen, and energy savings are a massive 77%.

Product used for King Shaka Airport: Titan Series

- A highly asymmetric floodlight providing an excellent solution for low glare applications.
- Our propriety optics deliver maximum light levels on designated areas.
- It's designed for maximum heat management.
- And it's manufactured to survive the harshest of environments, whilst delivering high performance and long life.
- Which in total makes it the go-to product for many of our aviation and maritime clients for years.