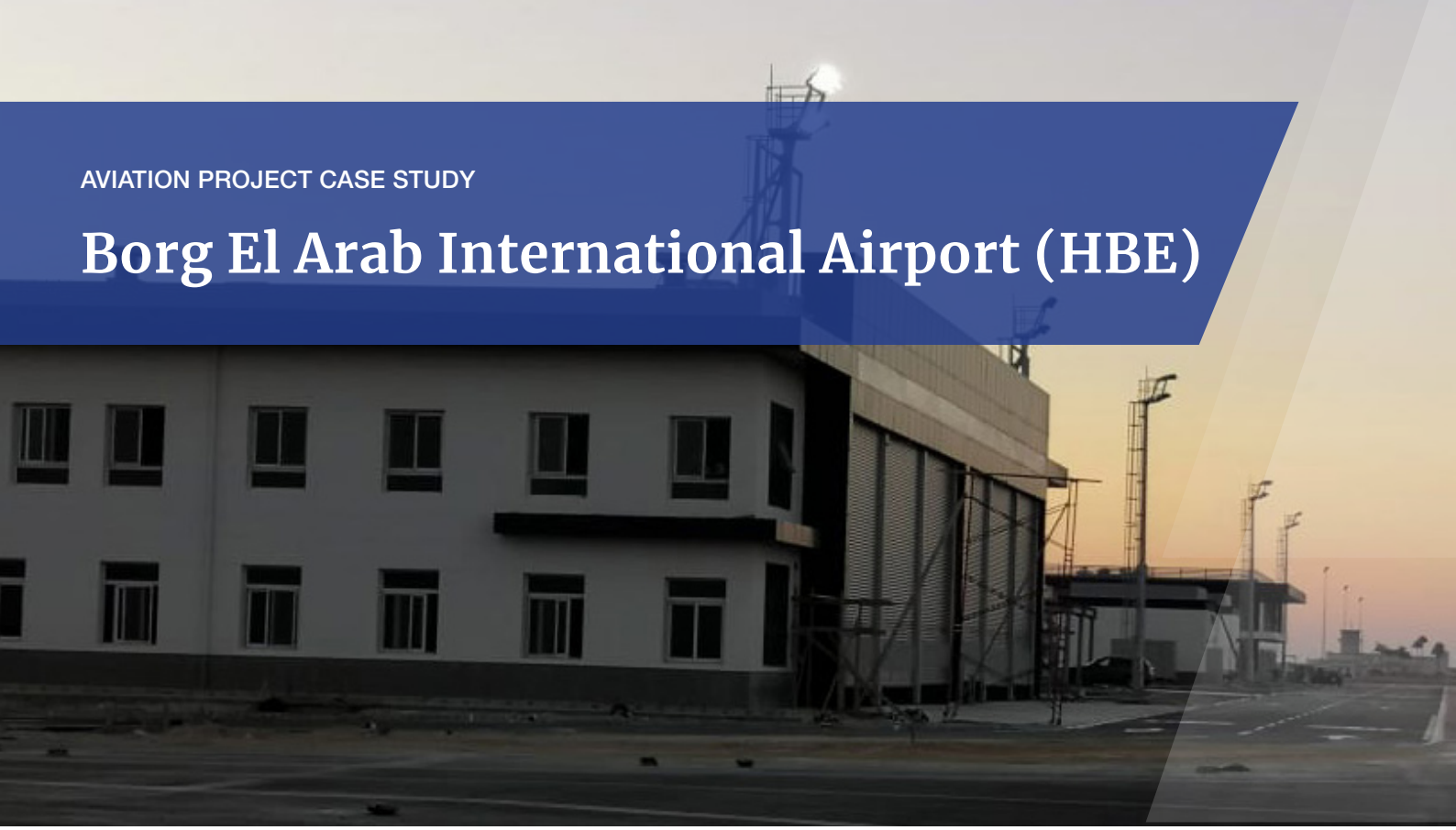
AVIATION PROJECT CASE STUDY

# Borg El Arab International Airport (HBE)



Located just 40km from the city of Alexandria, Borg El Arab International serves not only the city but all of the surrounding areas in the Nile Delta.

There had been plans to further develop another nearby airport – El Nouzha – in the 2010s to take some of the passenger load off HBE. However, the 2011 revolution put pay to those plans and they've yet to be resurrected. This leaves HBE as the only international airport in the region.

## The challenge

A new hub was created at the southern end of the airport. This was a private hub and owned by an oil and gas company to serve their off-shore rig. The hub featured ten stands in total. Eight of these were for helicopter use and the remaining two for aircraft.

When we were appointed to the project, the hub was still very much in the design phase. So, as its layout changed a number of times along the way, we had to keep revising our lighting designs.

Because of where HBE is located, near the sea and in a very hot country, heat and saline environmental issues had to be considered very carefully. As with any lighting project, especially airport ones, the potential effect glare had to be accounted for also.

The weight of the luminaires was also something that needed to be factored into our solution. Keeping any maintenance down to a minimum and making it as hassle-free as possible, was another thing we'd been asked to ensure.

The whole project needed to be delivered at the height of the COVID-19 pandemic too.

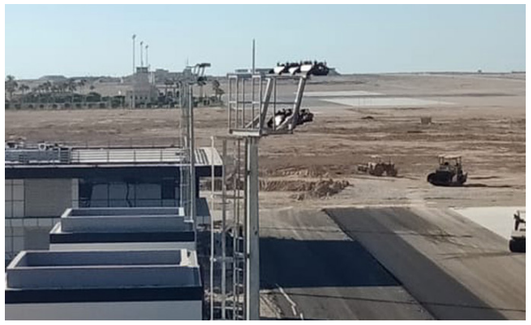
## At a glance

**Sector:** Aviation
**Customer:** HBE

**Stands:** 8 x Helipad + 2 x Aircraft
**Project date:** Aug 2020

**LED floodlights installed:** 34 pcs
**Type:** Modus R800 FV

**Lux average values:** Global - 32 Lux
**Uniformity:** 1 Global - > 0.6



## Our solution

The fact that the hub layout wasn't 100% finalised before we were asked to provide our lighting solution wasn't an issue for us at all. Whilst other suppliers charge for their lighting designs, we don't – even if they have to change as a project develops. That's because we understand things can change and are happy to move with them to get the best, final solution for clients.

As for the potential environmental issues, they weren't a huge problem either. Since we began, we've known what an impact the environment can have on lighting installations. That's why we always look at the working environment before we start to do any work. It's also why we incorporate special features in our luminaires to cope with environmental pressures.

The final hub layout featured seven lighting masts. We fitted these with 34 of our Modus R 800, with FV asymmetric optics – needed for an airport lighting solution. See below for more details of the Modus R Series features and benefits, and why they made it the perfect choice for HBE.

As to the challenges presented by COVID-19, we've got an amazing team of project managers who worked tirelessly to make sure things happened exactly when they should. Working with the entire project team, they kept supply chains open during the harshest periods of lockdown. They scheduled, rescheduled, and rescheduled again the whole programme of works with suppliers and contractors to keep things moving. Thank you, everyone!

## Our Modus R Series benefits at a glance:

A lightweight, extremely versatile product, the Modus R Series has been engineered for both new build and retrofit projects.

- The series is manufactured in stainless steel, which improves its structural integrity and product life – a critical need when used in high-heat, saline environments. It is Certified IP 67 for the highest level of ingress protection also.
- Its in-house designed extruded heat sink allows for highly efficient heat dissipation compared with a die-cast product. This keeps lumen degradation to a minimum – helping to extend life and performance – in any environment, hot or cold.
- It has a single remote driver that's outdoor rated for ease of access and maintenance.
- It also comes with special light shields to control light spill, reduce glare, and increase uniformity.
- The modular design and low weight of the Modus R make it perfect for versatile, tailored applications and solutions.
- Plus, its integrated 10V surge protection, coupled with a panel-mounted Type 2 surge suppressor, guarantee high protection against power surges and a longer product lifetime.

## Technical details:

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| Number of projectors | 34 |
| Nominal power for single appliance | 800W |
| Absorbed power (measured data) | 800W |
| Total power absorbed | 27.2 kW |
| Energy consumption per year | 119136 kWh (4380h/Y) |
| Colour temperature | 5000K |
| Colour rendering index | CRI 70 minimum |
| Average light level | >23 Lux |
| Uniformity | >0.32 |



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