

# Hangar almost triples lux level with LED lighting while saving on power

## The Challenge

Anglo-Normandy Aero Engineering's aircraft maintenance and repair hangar was built in 1995 and with only twelve 400W metal halide fittings it suffered from insufficient light levels from the outset. Three years ago six 100W LED fittings were added, but at that time the LED technology and the cost could not meet the lighting or budget targets to fix the problem adequately.

In 2012 with only 140 lux being delivered at work level where an acceptable level would be 350 lux, Anglo-Normandy resolved to address the lighting problem properly.

## The Solution

After their early experience of LED lighting the company conducted a cost benefit analysis between LED and fluorescent T5s as candidate solutions and calculated that an investment in Dialight's state-of-the-art 25,000 lumen LED high bay technology would yield an acceptable payback period of 4-4.5 years. As well as its superlative light output which easily met the 350 lux target, a key benefit of choosing Dialight's 250W LED high bay is its 10-year continuous performance warranty. This allows Anglo-Normandy to eliminate maintenance and the need for a scissor lift to reach the 9.5m ceiling that would be a regular feature of life with fluorescents.



Lit by Dialight's 250W LED high bays the hangar now achieves 400 lux at work height

## Installation Snapshot

- 1482 sqm facility
- Power draw down from 3.96 to 3.37W/sqm
- Lux up from 140 to 400 at work level
- 10-year warranty eliminates maintenance
- No re-strike delays
- Lux meter enables further efficiencies

## The Result

With twenty 250W LED high bays in place of the combination of 400W metal halides and 100W LEDs, the lux level has now gone from 140 to over 400 at work level, almost tripling performance while power draw has gone down from 3.96 to 3.37W/sqm.

Projects and facilities manager Chris Roussel commented: "The quality of light exceeds my expectations. These are not at all like older generations of LEDs. The previous LEDs produced a very cold light, but Dialight's LED technology is much more advanced and these give a very nice warm light. Psychologically it's a better working environment and much better for colour rendition. Also, if we'd gone for the equivalent set up using T5s, we'd have been drawing about fifty percent more power and there would be endless demand for maintenance on top of that."

Anglo-Normandy's lighting is in full operation 16/7 and the company is now able to make use of a lux meter to keep power consumption down by switching off rows of lights when not needed. This was not practical with the metal halides which took 20-30 minutes to warm up on re-strike. The company also achieves more power saving by using a timer system to switch off all but the background lighting after the main workforce has finished for the day.