

## Dialight DuroSite® Series LED Lighting

LED lighting helps Koehler Paper Group to deliver its ecology and economy goals

The global demand for energy is growing, so energy prices will continue to rise and efficient energy management will become ever more important. The Koehler Paper Group has teams dedicated to saving energy, which means that it is continually improving in this respect and over recent years has reduced the amount of energy needed to produce one kilogram of paper by 20%.



First photo shows 440W metal halide lighting in foreground and LED at back. Two photos on right are lit by 171W LED high bays.

### The Challenge

In keeping with its group environmental strategy Koehler Kehl GmbH was looking to reduce its lighting energy needs as well as its maintenance costs. Its energy-hungry 440W metal halide lights were in operation 24/7 and were actually drawing 475W. With a lot of cellulose fibre in the atmosphere the high temperature lamps attracted dust which caused lens discolouration and impaired performance. At 17 metres mounting height it was a problem to access them for maintenance or replacement, as many were positioned over production machinery and processes were liable to be subject to disruption to allow maintenance to take place safely.

### The Solution

The 164 metal halide lamps were replaced one-for-one with Dialight's DuroSite® Series LED high bays each drawing only 171W to deliver an immediate cut in energy use and CO2 emissions of 64%. The LED high bays carry a five-year continuous performance warranty and are L70 rated for 100,000 hours, so maintenance is eliminated. Additionally the LEDs' low operating temperature avoids the problem of dust accumulation on the lens and consequent variation in colour. As sealed fittings with no end-of-life failures, there is no risk that parts can fall into the production line to contaminate product or cause a fire hazard and with no UV output they will not cause discolouration of product.

### Installation Snapshot

- One-for-one replacement of (164) 440W Metal Halide lights with (164) 171W Dialight LED High Bays
- Energy use down by 64% = 436,740kWh annually
- CO<sub>2</sub> emissions down by 308 tonnes annually
- W/sqm down from 8.66 to 3.12

### Dialight LED Benefits

- L70 rated for >100,000 hours @ 25°C ambient
- 5 year full performance warranty as standard
- 10 year full performance warranty available (17,500 lumen models only)
- Up to 102 lm/W
- Significant energy savings
- Instant on/off
- Maintenance free
- Mercury free
- No UV or IR
- Produces minimal heat compared to traditional fittings
- Reflector based optics for precise light control
- Resistant to shock and vibration
- Temperature compensation technology for long life
- Copper free aluminium
- Typical payback < 2 years in Europe



Dialight's DuroSite® Series LED High Bay