

COLDBAY LED CASE STUDY



Hunt's Foodservice is a leading supplier of frozen, chilled and ambient foods.

These areas were previously lit using 250W sodium lowbays, which operate continuously throughout the 12 hour working day. With low occupancy levels it was clear that a sensor controlled luminaire would return instant savings. The Coldbay LED with integral R11 sensor offers low temperature presence detection and dimming along with benefits such as a higher colour rendering with whiter light and better light distribution.

BEFORE



AFTER





“ Following a 15 day onsite trial the Coldbay LED returned an 88.1% energy saving. ”

HUNTS FOODSERVICE

Following a 15 day on-site trial an 88.1% energy reduction was achieved. This trial also demonstrated significant refrigeration and maintenance savings, equating to a total combined saving of approximately £3813.97 per annum.

When combining these savings with the other benefits of the Coldbay LED such as glass and mercury free operation and constant light output (with zero lumen depreciation after 50,000 hours of operation), Hunt's Foodservice decided to install Coldbay LED throughout the entire freezer unit.

Luminaire Running Costs

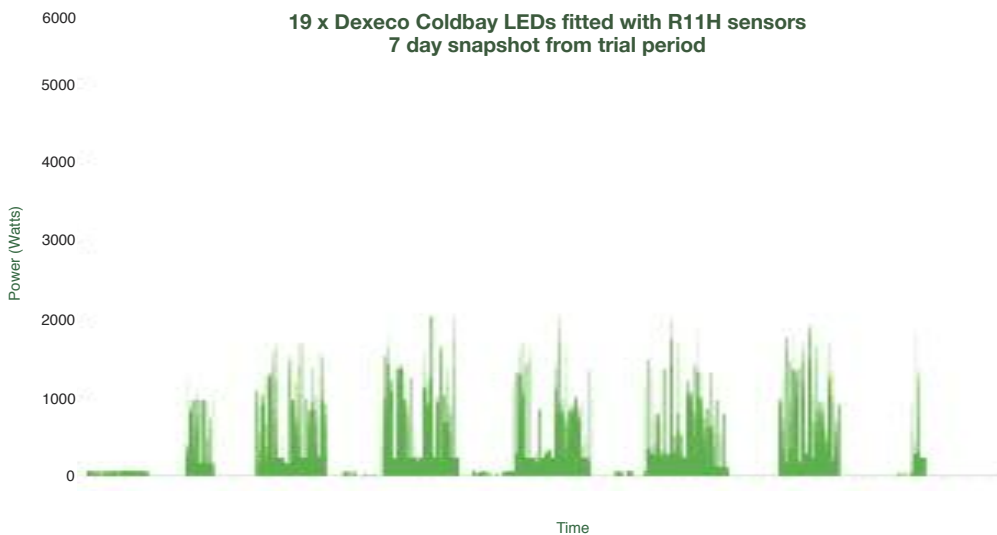
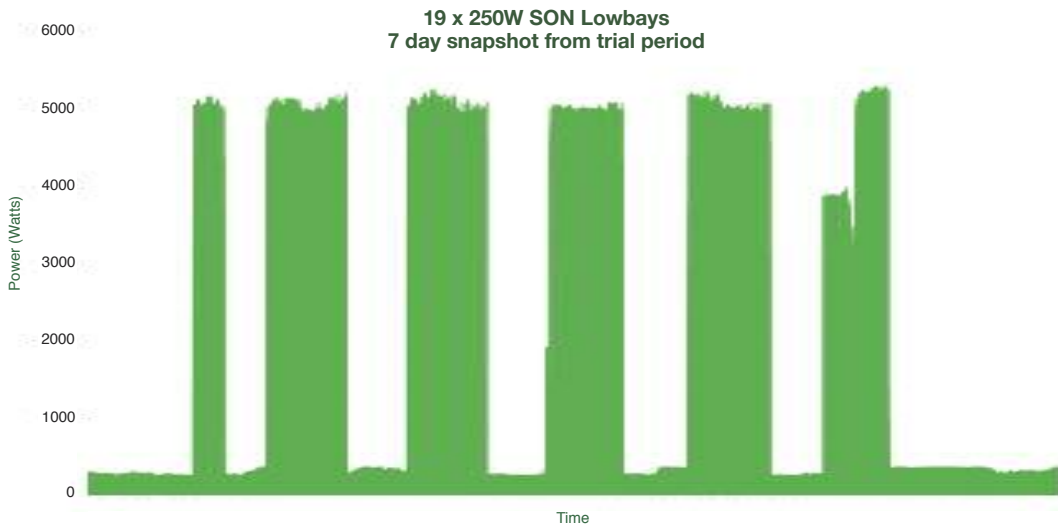
Product	Luminaire Circuit Wattage	Total Circuit Watts	Electricity Cost (kWh)	Sensor Control	15 Day Power Consumption (kWh)	15 Day Running Cost
19 250W SON Lowbay	276	5244	0.10p	None	879	£87.90
19 Coldbay LED	110	2090	0.10p	R11 - Presence	105	£10.50

SAVING PER ANNUM: £2135.97 (88.1%)



Individually Programmable Sensors

Integral R11 sensors maximise energy savings by only activating the luminaires under which the forklift passes.



“ The Coldbay LEDs in this case study will be operating at just 10% output for the majority of their life. This could potentially allow the LED modules to operate far beyond their expected 50,000 hour life. ”

Lamp Maintenance Costs - Based on a design life of 10 years or 50,000 operating hours.

Product	Maintenance Cycle Lamp/LED Life	Total Lamp Changes in 10 year life	Lamp Change Cost	Total Lifetime Cost	Average Cost Per Annum
19 250W SON Lowbay	15,000 hours	3	£1260	£3780	£378
19 Coldbay LED	50,000 hours	0	£0	£0	£0
19 250W HQI Lowbay*	8,000 hours	6	£1260	£7560	£756

SAVING PER ANNUM: £378

Refrigeration Savings

Based on the results of the 15 day trial the estimated annual refrigeration savings are £1300

SAVING PER ANNUM: £1300

*This case study is based on a sodium lowbay installation, but given the common usage and higher maintenance costs of HQI (Metal Halide) lowbays it is important to offer an example of these also.

TOTAL SAVINGS PER ANNUM: £3813.97
30 MONTH PAYBACK PERIOD