

Case Study

[Systeme U]

Airis Energy Solutions UK



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Background

Systeme U is the 2nd largest food distribution company in France.

They have a total of 500.000 m2 distributed in a number of warehouses of which 20% are refrigerated.

The first warehouse Airis worked on was Carquefou in France request.

Airis LED Solution

Systeme U had 58W fluorescent T8 tubes with old Ferro ballast. These were replaced by 36W LED Tubes with internal power source. Every tube had one power source on each side to balance temperature cooling. This saved 49% of the lighting consumption of the traditional lights. 4,016 traditional T8 tubes were replaced with 3,300 T8 LED tubes, manufactured by AIRIS. After 30 months, 45 had to be replaced. Every year around 0.70% are replaced.

Airis and System U have an ongoing relationship, replacing a new warehouse every 6 months. For Systeme U, Airis is developing a new tube to suit the height of the larger warehouse of 12 metres. With new technology the goal is to improve light, minimize ROI to 32months and comply with geometrical constraints.

Building Data

Location: 170-174 Rue de la Nouvelle France, 93100 Montreuil, France

Surface Area: 17,000 m2

LED Tube: 3,300

Investment Type

Total Savings - £109,987
Savings Split - 80% Airis
 20% Systeme U
Payback Duration - 41 Months

Previous Situation



Airis LED Solution

4,016 fluorescent tubes

Type: 58W electronic ballast
Lifetime: 8.000 hours

Energy Consumption: 2,040,565 kWh/year
Energy Bill: 224,462 £/year

3,300 Airis LED T8 Tubes

Type: Airis LED T8 Tubes
Lifetime: 50.000 hours

Energy consumption: 147.420 kWh/year
Energy bill: 114,475 £/year

Process

Preliminary data collection:

The team gathers information on existing lights, light distribution and current electricity use and cost.

Proposal:

Solutions are presented to the customer. In large projects AIRIS offers the possibility of performing a sample test. The customer will choose test locations where AIRIS will install luminaries

Installation:

Lighting systems are installed without interfering with the customer's day to day operation. Additionally, there will most likely be savings derived from HVAC improvements which haven't been included in the calculations.

>51% SAVINGS

Summary of benefits:

Results were, >51% less energy consumption, with the lighting levels improved by 38%. In addition, a reduction of 541 tones of CO2 per year has been achieved.

	CONVENTIONAL LIGHTING	LED LIGHTING
ANNUAL CONSUMPTION	2,040,565 kWh/year	1,040,688 kWh/year
ANNUAL SPENDING	224,462 £/year	114,475 £/year



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