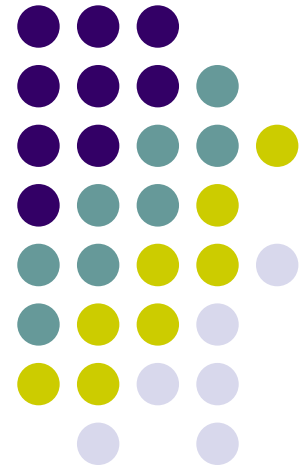


iVISION

Case Study :

Royal Glamorgan Hospital 2008



Project Brief



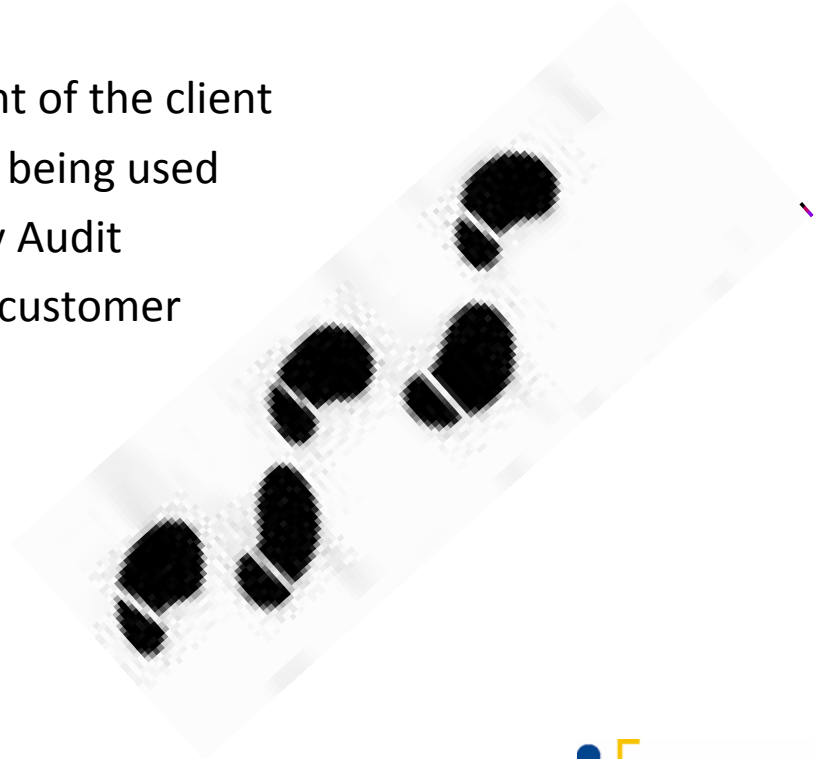
- To provide a low energy efficient solution for the car park and roadway lighting
- Offer significant savings on energy bills and Maintenance costs.
- Improve the lighting within the car park to ensure good visibility and security to all users



Steps Taken to complete



1. Understand the requirement of the client
2. Review the existing lighting being used
3. Complete an i-vision Energy Audit
4. Present the solution to the customer
5. Install and project manage

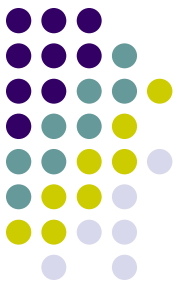


Review of Existing lighting scheme



- Consultation with the Energy Manager (Paul Lewis) at the Royal Glamorgan hospital to gain an understanding of the hospitals requirements. (Reduce Energy costs, improve security etc)
- The existing lighting was a mixture of high pressure sodium and Metal Halide lamps
- The existing lamps had an expected life time of between 8,000 & 15,000 hrs
- The light spread across the car park was uneven and broken in some areas.

Energy Audit existing products



- After taking all of the information of the current lighting system we were able to establish the below information.

Conventional lighting				
Energy consumed (Kilowatts)	cost of energy (£/KWH)	Annual cost of electricity	Estimated maintenance Costs	TOTAL COSTS
271,122	0.12	£32,534.64	£7,760.00	£40,294.64

**These figures are per year based on the number of fittings that the hospital had prior to our solution*



The Solution

- Once we had gathered all of the information we were then able to decide on how we were going to replace the existing lighting scheme and improve on it.
- Lighting =
 - Car park HPS400 units were replaced with our SL48 LED Units taking consumption down from 485watts to 60 watts per fitting
 - Roadway MB1250 units were replaced by our SLUB36 LED Unit taking consumption down from 290 watts to 45 watts per unit
- Fitting = The existing Lighting poles were utilised, however by angling the light differently and adding lenses to the lights we were able to offer a much better spread and therefore improve the overall scheme



Energy Audit

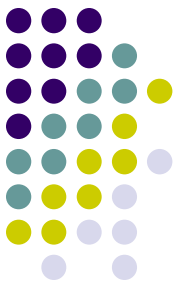
The Lumos Solution



- THE SOLUTION details the considerable savings achieved

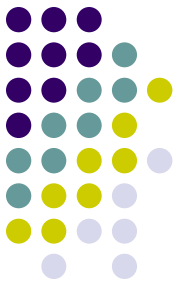
LUMOS Led Solution				
Energy consumed (Kilowatts)	cost of energy (£/KWH)	Annual cost of electricity	Estimated maintenance Costs	TOTAL COSTS
40050	0.12	£4,806.00	£970.00	£5,776.00

Comparing the Lumos Solution

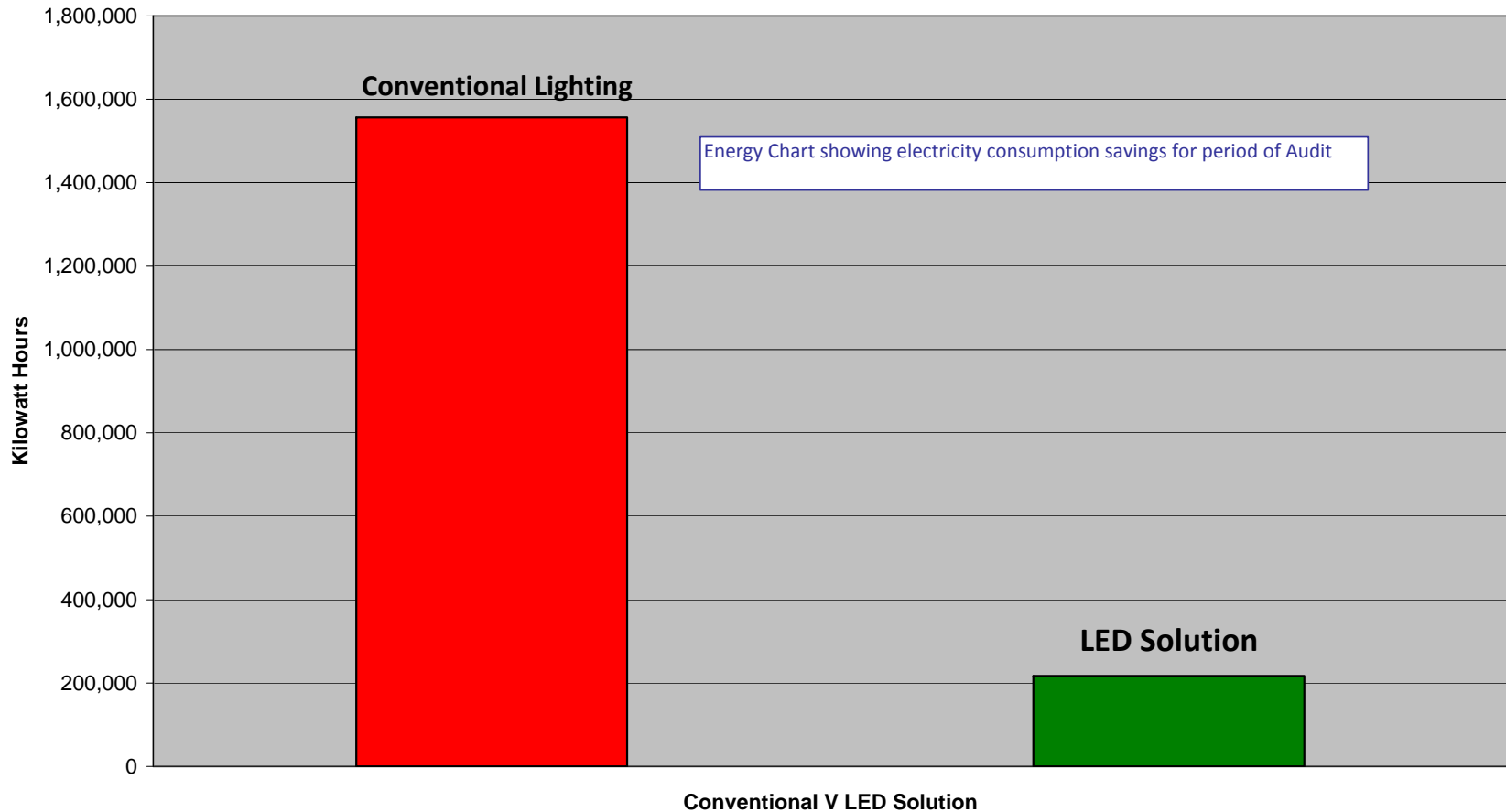


Conventional lighting				
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LUMOS Led Solution				
Energy consumed (Kilowatts)	cost of energy (£/KWH)	Annual cost of electricity	Estimated maintenance Costs	TOTAL COSTS
40050	0.12	£4,806.00	£970.00	£5,776.00
Cash Savings Per annum				£34,518.64
Investment Costs				£99,800
Payback period (YEARS)				2.891
Cash Savings whole of life (estimated)				£245,386.40

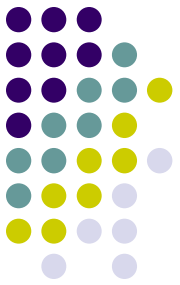
Energy Chart



Energy Chart

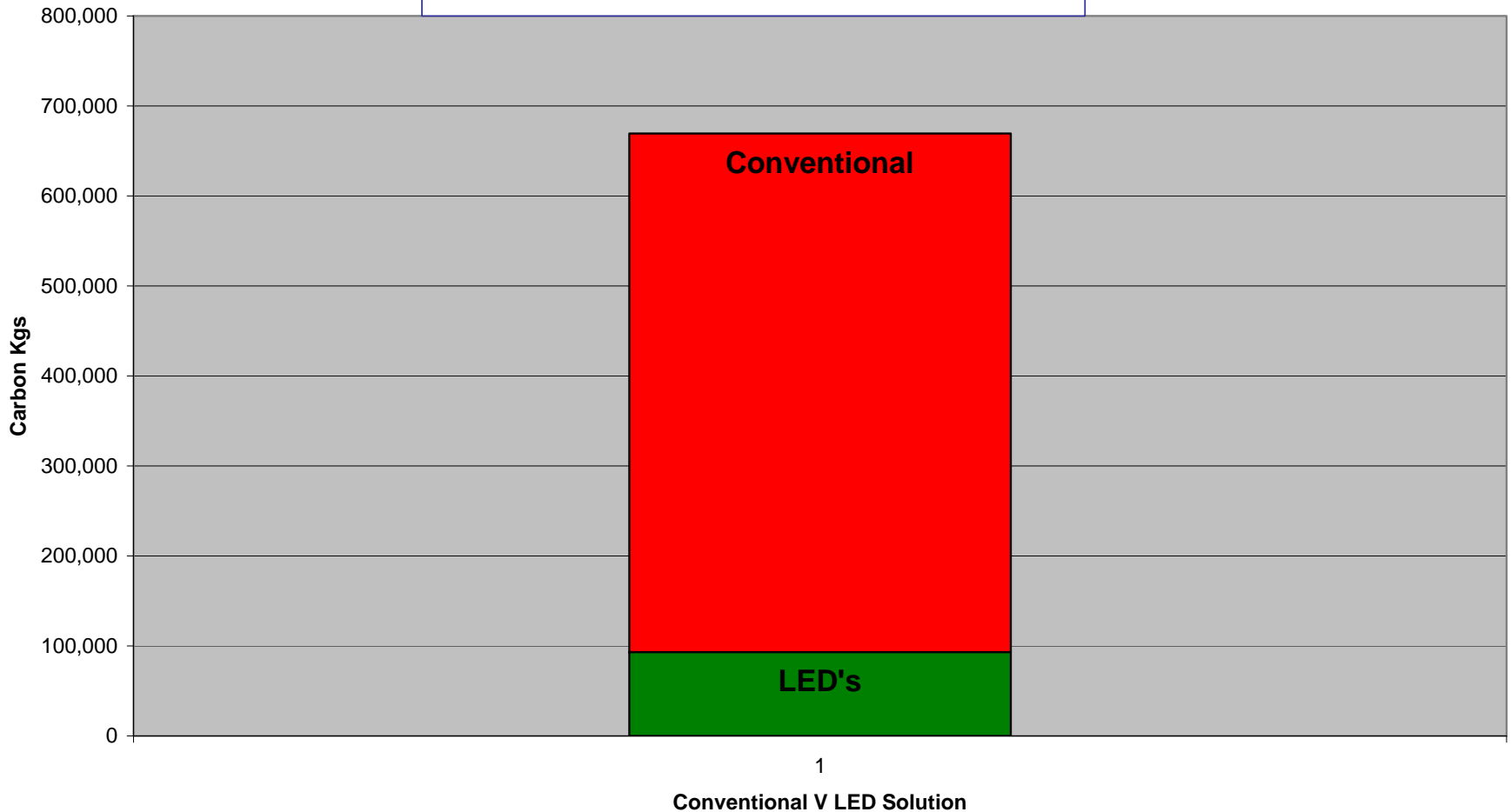


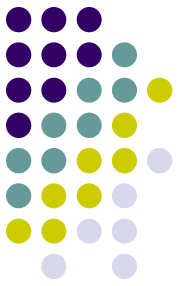
Carbon Analysis Chart



Carbon Comparison

Energy Chart showing carbon comparison for the period of the audit.





Simple Executive Summary

Save Cost & Pollution by Converting To Modern LED Lighting by I-Vision

Executive summary for:

Key facts for decision makers:

The main benefits of proceeding with this proposal include the following:

1) Whole of life savings of	£403,533.02
2) Significant reduction in maintenance call outs	?
3) Payback period is only	2.30
4) The net cash benefit to the organisation over Whole Of Life	£322,280.52

This means that cash resources can be released for other purposes

Key factors

Investment Cost	£81,252.50
Payback Period For your investment (YRS)	2.30
Energy and Lamp replacement savings	£176,747.46
Net Savings Whole of Life	£403,533.02
Net CO2 savings for period (Kgs)	1,315,003
Estimated Whole of life period (years)	11

Installation and project management



- Once the project had been agreed the Product was manufactured in our Manufacturing Facility in Cwmbran, Wales and then delivered direct to site.
- On this occasion we supplied the product to the Hospitals chosen electrical contractors and they completed the installation
- We were able to assist the contractors with full project management during installation

Summary



- The Hospital are now seeing a reduction in their Energy Costs of up to 80% in this area.
- The Hospital are very happy as they currently have had no failures on any lights.
- This project is now used by us as a demonstration unit as the light coverage is very good.
- The hospital have since asked us to look at further work for them following the success of this project

What This Does For You

1

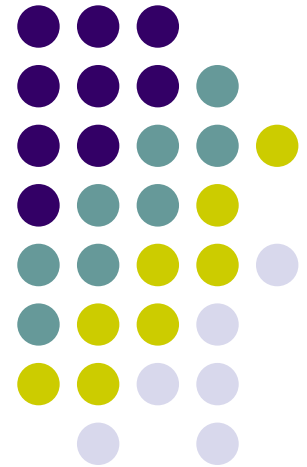
Financially

Achieves

£398,000

Whole of Life savings.....JUST IN ENERGY

(£7.88 Per Hour)



What This Does For You

2

Environmental

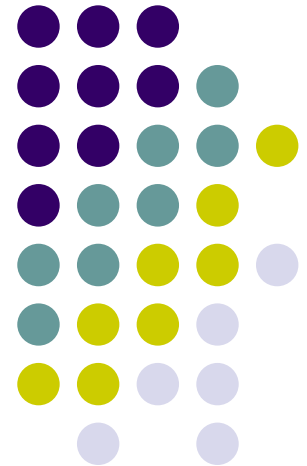
Reduces YOUR Footprint by:

445 metric tonnes

Whole of Life

(26Kg Per Hour)

Equates to 33 CARS



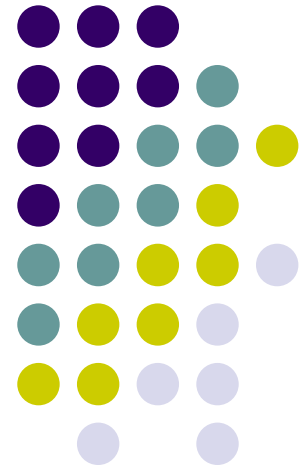
What This Does For You

3

Maintenance

Reduces Maintenance

50,000 Hour Life



What This Does For You

4

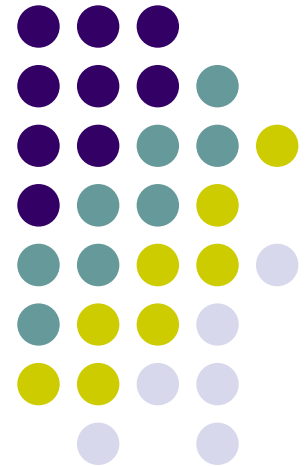
Living

Improved the overall lighting

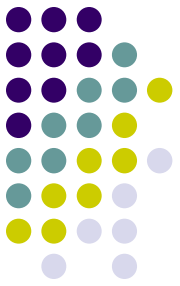
Safety

Environment

Perception



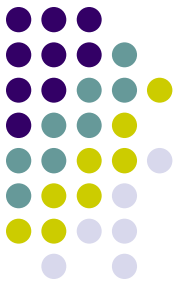
What Can we Do for you?



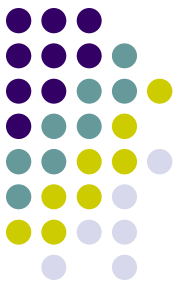
- Help to AUDIT your energy usage.
- Work closely with your 'in house' property maintenance teams
- Significantly influence your fixed overhead costs (save you money)
- We manufacture in the UK
- Specify systems that deliver light where it is needed

- CUT your CO2 emissions

Have You ever had one of those lightbulb moments



- How much light currently generated is actually needed?
 - LED's deliver light where it is needed
- How much money could you save by using LED's?
- What improvements could be made to the work-space environment with better controlled lighting
- Will this make your life easier



The Solution in Pictures





The Solution in Pictures

