



Expert is Ireland's largest electrical retailer with 69 stores nationwide.

The chosen lighting system is the QL4 QuarterLites from Sign Lights Ltd. They are ideally suited for double-sided signs, as the light shines sideways to illuminate both faces at the same time.

Each sign has a single 'QL-Kit 4' with 4 QuarterLites and a LED driver, using just 18 Wh of electricity.

QuarterLites use very high brightness LEDs and reduce energy consumption by 65% - 85% in all signs. They have a longer lifespan than fluorescent tubes and do not require maintenance for over 50,000 hours.

## Energy saving 80%



Expert 1500 mm diameter sky sign using 12 QL4 QuarterLites, as shown on the overlay above.

### QL4 Specification:



Light output	400 - 428 Lm
Half life	50,000 + hours
Input current	350mA, 4-12v, 4w
Wave guides	Silver ABS plastic
Heat Sink	Aluminium
Op/temperature	Ambient + 6° C
Size	80 x 80 x 24 mm
Weight	75 g
Guarantee	2 years

### Sign Lights Ltd

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Swinton Insurance sign,  
Church Street, Bilston, West  
Midlands, UK.

Signs built and installed by  
Blaze Neon Ltd.

Design of the lighting layout  
by Sign Lights Ltd



Fluorescent	Qty	Item	Wh	Wh	Wh	Total	CO2	Carbon
Size			Unit	Total	kWh	cost 5Y	Kgs	Kgs
825 x 440	4	24" Fluorescent tubes	18	72	315	166.83		
	2	Ballast	9	18	79	41.71		
<b>Total kWh per year</b>					<b>394</b>	<b>208.53</b>		
Tubes/disposal						81.00		
<b>Total cost</b>						<b>£289.53</b>	<b>1,058</b>	<b>289</b>
QuarterLite	Qty	Item	Wh	Wh	Wh	Total	CO2	Carbon
Size			Unit	Total	kWh	5Y	Kgs	Kgs
825 x 440	1	QL-Kit 4	18	18	79	41.71		
<b>Total kWh per year</b>					<b>79</b>	<b>£41.71</b>	<b>212</b>	<b>58</b>
<b>Saving</b>					<b>315</b>	<b>£247.83</b>	<b>847</b>	<b>231</b>
					<b>80.00%</b>	<b>85.60%</b>	<b>80.00%</b>	<b>80.00%</b>

### Key:

Wh (Unit) = Watts of electricity used per hour by each tube or QL4

Wh (Total) = Qty x Wh (unit)

12/365\* (kWh) = Wh (total) x 12 hours x 365 days / 1000 = kWh per year

Energy (cost 5/Y) = kWh x cost of energy\*\* of 5 years.

CO2 = The amount of CO2 (Kgs) produced as a result of generating the Total kWh per year

Carbon = the equivalent Carbon (Kgs) produced from the Total kWh per year

Total kWh per year = Total energy use in 1 year for each lighting system

New Tubes / Disposal = cost of replacing and disposing of fluorescent tubes over 5 years

Saving = difference between the two lighting systems in kWh, Energy costs, CO2 and Carbon

(Note: This excludes the savings in maintenance)

\*Over 11 years maintenance free. \*\*Energy cost forecasts from UK Government source.