

street lighting case study: London Borough of Tower Hamlets - Westferry Circus



Background

Westferry Circus is a vibrant and successful business destination, home to some of the world's largest companies and most impressive corporate architecture. Landscaped gardens and waterfront promenades combined with cafes and restaurants provide the perfect working environment.

The London Borough of Tower Hamlets council is responsible for the design, installation and maintenance of streetlights and traffic signals. Westferry Circus has an underground roundabout that is lit 24/7/365 which falls under the councils' area of responsibility.

Original Situation

The underground roundabout lighting system comprised of:

- 400w Magnetic ballasts
- 246 luminaries
- Operating 24 hours a day, 7 days a week, 365 days a year

The council was determined to introduce energy saving lighting solutions to the underground roundabout while at the same time, improve the light quality.

Snapshot

Energy Savings
63%

Number of Luminaries

Reduced by 40%

Maintenance Cost

Reduction of ~50%

Annual CO² Saved

4,782 Metric Tons

ROI

40%

Simple Payback Period

2.5 years

Total Annual Saving

£72,000

The Result

- Achieved energy savings of 63%
- New installation consists of 186 400W HPI-T in Urbis AF4 floodlighting luminaire
- Electronic ballasts programmed to 80% of full power
- Maintenance costs were reduced by ~50%
- Simple payback period was less than one year

“The London Borough of Tower Hamlets Council takes the lead on both carbon reduction at the borough level (per capita reduction) and from local authority operations. The government estimates that in 2006 some 2.348,000 tonnes of CO2 were emitted in Tower Hamlets - the second highest emitting borough in London. By implementing projects such as this one, we move a step closer to significantly reducing our carbon footprint”

Mr. Jason Minnette & Mr. Stan Perpie
Lighting Engineers
London Borough of Tower Hamlets



Before Metrolight
400W Standard Gear



After Metrolight
400W Metrolight HID 80% Power HPI-T lamps

Features	Before Installation	After Installation	Savings
Fixture Power Consumption	400 Watts	400 Watts*	-
Operating Hours/Days	24/7/365	24/7/365	-
Annual Lighting-Related Energy Cost (GBP)	£106,800	£34,800	£72,000
Total Annual Savings (GBP)	£72,000		
Simple Payback/ROI	2.5 years/40%		

* Ballast programmed to 80% of full power

Distribution Partners:
John Wilkinson Ltd.



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OEM Partner:
Urbis Lighting Ltd.



Urbis Lighting Ltd., is a member of the Schröder Group GIE and is one of the largest supplier of street lighting and exterior decorative lighting equipment in the UK. Their aim is to use their global strength to bring the latest technology to market. For more information, please visit our website at: www.urbislighting.com

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