

# Case Study

Kensington Place



Pictures courtesy of Michael Maynard, Number Nine Design

This project achieved a  
**75%**  
energy  
reduction



**PhotonStar**™



Designed & Produced in **the UK**

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## Project

Kensington Place

## PhotonStar™ Products

EcoStar 500, Laser Fixed Darklight

## Benefits of Installment

- High-end residential letting
- 70% improved efficiency of from 15.79W/m<sup>2</sup> to 4.57W/m<sup>2</sup>.
- 75% reduction in energy costs
- 50,000 hours operational life at high ambient temperatures (to L<sub>70</sub>) leading to zero maintenance
- Payback period of 52 Months
- Additional selling point for Landlord with lower running costs, no maintenance and high quality lighting aesthetics.

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# application

PhotonStar were invited to supply a low energy lighting solution for a high-end refurbishment and extension project at Kensington Place, a Notting Hill town house for use in residential letting. The original installation consisted of 25x 50W GU10 low voltage halogen fittings, and 16 x 80W incandescent pendant fittings, achieving 15.79W/m<sup>2</sup>.

The specifier (Jonathan Ashe Architects) highlighted the benefits of using PhotonStar products to their client due to three key factors:

**Part L Building Regulations** - By using PhotonStar products the client can ensure that they are complying with UK Building Regulations Part L1 and L2 and ECA. For amenity, accent & display lighting units, all PhotonStar light engines comply with the efficiency, colour rendering and other requirements of the UK Building Regulations.

**Low maintenance** - PhotonStar LED luminaires come with a 50,000 lifetime thus virtually eliminating maintenance requirements. As the property is a high-end residential let, the specifier highlighted the benefit to having low maintenance light fittings to the landlord. The lower running costs that this inevitably brings, in addition to the reduction in time spent interrupting tenants with replacement lamps, or even dealing with complaints regarding the maintenance of the lights, is clearly a huge advantage to the landlord. This is also a very

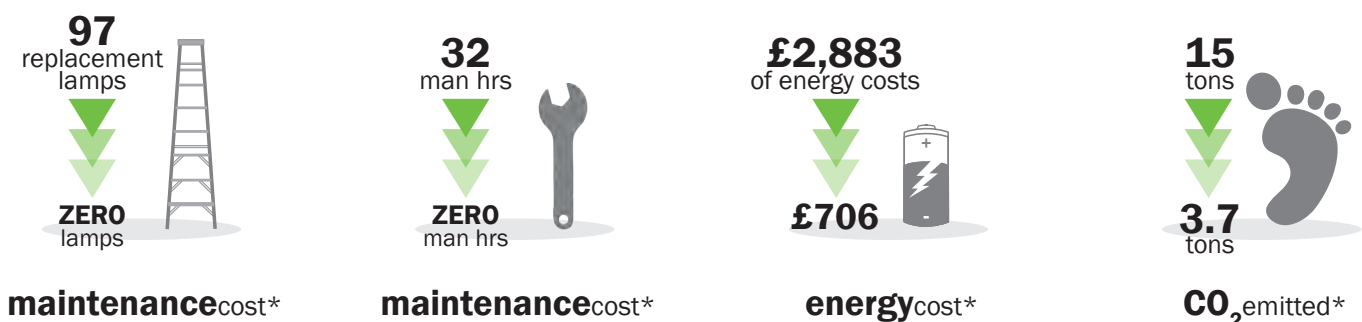
powerful tool for the landlord to use when selling the benefits of the house to potential tenants, and marketing it in a way to 'pass the savings onto them'. In this application, the landlord was sure that this would be a big selling point due to home energy ratings and rising electricity prices.

**Reputation** - In this application, the specifier had a long track record with PhotonStar and knew that the products he was specifying were reliable and from an industry-recognized, award-winning brand:

"I have a long track record with PhotonStar and have been specifying them since the company started. I know that I can specify their products with the confidence that they will perform and that they will satisfy Building Regulations. I like the fact that I can send over my M+E schematics and someone will specify the fittings, looms, drivers etc. for me. Also, they make it easy for me to promote them to my clients by having ranges of interesting, innovative products that one of their reps will demonstrate to my clients - in addition to the fact that they keep winning all the important lighting awards!" Jonathan Ashe, Jonathan Ashe Architects.

"I know that I can specify [PhotonStar™] products with the confidence that they will perform and that they will satisfy Building Regulations. . They make it easy for me to promote them to my clients by having ranges of interesting, innovative products - in addition to the fact that they keep winning all the important lighting awards!"

Jonathan Ashe Architects



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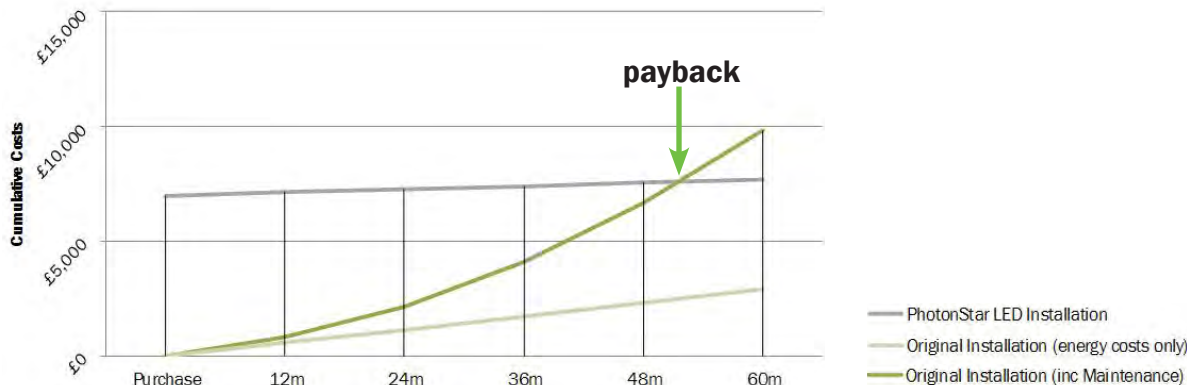
PhotonStar supplied a lighting solution consisting of 23 x Ceiling Star ED fittings and 56 x Laser Fixed Darklights with the Mercury 630 light engine achieving 4.57W/m<sup>2</sup> (620W on a total floor area of 56+41+43 = 140m<sup>2</sup>), a 70% improvement.

By virtually eliminating maintenance the landlord can use this to his advantage when selling the house to potential tenants, in addition to the reduction in energy costs and CO<sub>2</sub> emissions, giving the point of sale an additional “green” message. He can also be assured that Part L Building Regulations have been complied with. Calculations show that

the energy costs and CO<sub>2</sub> emissions have both seen a 75% reduction over a 5 year period, and that the payback period of the new installation is 52 months. This benefit is highlighted even more when considering that the project actually installed a higher number of PhotonStar fittings to replace the original installation (see table).

The lighting aesthetics have seen a huge improvement in quality, and the architect has “successfully used it to arouse interest in other clients for various high-end projects around London” reflecting the success of this project.

# solution





## equivalent output lamps

Lamp Type	No. of lamps	Total power of all lamps (circuit Watts)	Energy cost over 50khrs operation (year 1)	Relative energy saving over 50khrs operation (year 1)	Annual energy cost (year 1)	CO <sub>2</sub> (kg) Emitted over 50,000hrs operation*	Relative CO <sub>2</sub> (Tons) Saved over 50,000hrs operation*	Annual CO <sub>2</sub> (Kg)
Original Installation	41	2530W	£12,650	-	£554	68,816	-	3,014
PSL installation	79	620W	£3,009	£9,552	£136	16,856	51.96	738





1 Part  
1&2  
compliant

mercury  
630

## CeilingStar ED

Illuminance comparable to a 35W LV or 50W GU10 halogen

Rich warm white light output to match halogen sources

Easy to install - driver connects straight to mains.

Ra80+ colour quality - as called for by the CIBSE Code for Interior Lighting

IP65 sealed, suitable for use in wet areas

Designed to comply with UK Building Regulations parts B, C, E, L & P

In this application, delivered lumens of 468lm (L100) and efficacy of 47lm/cW at full power



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## Laser Fixed Darklight

A fixed architectural downlight with a darklight baffle.

In this application a superior replacement for a typical halogen downlight equivalent.

Lifetime (L<sub>70</sub> F10) of 50,000hours

In this application, output up to 484lm and delivered lumens of 68.9lm/cW at full power





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