



Press Information

CosmoPolis – April 2008

PHILIPS



Philips' energy efficient CosmoPolis street lighting solutions

One third of the roads are based on old, energy inefficient lighting technology. The revolutionary Philips CosmoPolis range – which is the most energy efficient street lighting system on the market today - offers savings of 50 per cent or more compared to HPL mercury vapour lamps, saves more than 100kg CO₂ per year per lamp and delivers a stunning quality white light that improves the safety on roads. It offers more energy savings with the addition of lighting controls which can automatically adjust light levels at various times of the night.

City Councils would save EUR 3 billion (based on 2006 energy prices) in energy costs per year by switching from older road lighting to the latest road lighting technology such as Ceramic Metal Halide lamps (non-retrofit). This equates to: 10 million tonnes of CO₂, 45 million barrels of oil per year, the annual output of 15 power stations @ 2TWh/yr.

Philips installed the CosmoPolis system in many cities around the world. Below are a number of examples, explaining the benefits in terms of the reduction of energy consumption, carbon emissions, costs, while delivering a better light quality, enhancing the feeling of safety.

Caoxibei Road, Shanghai, China



Before



In October 2006, Shanghai Road Lighting Bureau renovated the lighting facilities in Caoxibei Road, a major road located at Xujiahui, one of the commercial centers in Shanghai, to improve lighting performance and reduce energy consumption. They chose CosmoPolis system, the latest generation of city road lighting product as their new solution. The renovation was successfully completed on Jan. 23, 2007, totally 47 sets of 250W high pressure sodium system were replaced. One on one replaced old system (250W SON) without changing the poles.

The result is Cosmopolis system saved more than 40% of energy compared to the old one while greatly improving color rendering at the same time.

Research:

Research on White Light for Urban Road Lighting in China, a report presented by Philips Lighting and the Research Institute of Electric Light Source of Fudan University, Chinese authoritative electric light source research institute.

The report, based on Shanghai Caoxibei Road and Qipu Road applied with CosmoPolis, two research targets, provides one year follow up and research, as well as survey of passengers on Qipu Road.

Roads for comparison:

Qipu Road applied with CosmoPolis and Henanbei Road applied with high pressure sodium lamps.

Result:

The survey covers 26 people in total. In view of overall result, lighting effect on Qipu Road is better. More than 90% of people believe lighting on Qipu Road is brighter and makes items easier to distinguish; in terms of uniformity of road, all people believe Qipu Road performs better. In respect of overall comfort, 92.3% prefer Qipu Road lamps, much higher than Henanbei Road applied with high pressure sodium lamps.

Zhongshansi Road, Chongqing, China



Before

In Chongqing, Philips has installed the CosmoPolis street lighting system. In mid-June this was officially switched on at a ceremony attended by Philips CEO, Mr. Gerard Kleisterlee, and the Vice Major of Chongqing Municipality, Mr. Yu Yuanmu.

CosmoPolis has already proved an enormous success there: saving 40% energy compared to the previous installation and offering greatly improved color rendering. The average illumination of the newly lighted Zhongshansi Road has been improved by 24% and the uniformity has increased by 23%. These professional solutions for energy efficiency satisfy the multiple demands of clients: both the energy efficiency tensions and the growing requirement for lighting quality. It's a double win choice!

The Cosmopolis system's lower total energy consumption reduces the emission of carbon dioxides and therefore was adopted by various road lighting supervisory authorities in China as a new benchmark for city road lighting.

If CosmoPolis systems are replaced on 10000 km road (like Beijing, Shanghai and Guangzhou), approximately 200 million RMB per year can be saved as well as around 300 million kWh and 124 K tons CO₂ reduction per year.

Anyang river side, town, Korea



Before



In August 2006, Philips Lighting Korea supplied Cosmopolis 140W system, 400 Milewide sets to Anyang City as the first energy efficient Cosmopolis road lighting project in Korea. Since Anyang City government experienced up to 50% energy saving due to the outstanding performance of Cosmopolis system, they've installed additional Cosmopolis luminaires, 300 Milewide and 500 Modena sets.

Vechta, Germany

50% energy savings and a higher quality of light



Before



The North-German City of Vechta recently decided to upgrade its street lighting from the older less energy efficient Mercury Vapour lamps to the new Philips CosmoPolis system. The result has been energy savings of 50% per lamp post and cost savings of 1256 euros / km / year. These energy savings also mean an indirect CO₂ reduction of about 100 kg CO₂ / light point / year.

In addition drivers and pedestrians also experience a huge increase in the quality of the street lighting which means safety is enhanced.

Böblingen, Germany

approx 50% energy savings



Before

To save costs, the first idea was to switch off the light at night completely. This was vetoed by the local police and this resulted in an investment plan. The Council started to renovate 2000 - 3000 light points. The Pay-back time of investment six years with energy savings of about 50%.

Redbridge, UK

Better street lighting and compliance with new standard



Before

The Redbridge authorities were looking for modern technology to improve its street lighting and to ensure that the new CEN standards were implemented. By adopting Philips' CosmoWhite 60W lamp and MiniMilewide luminaire, plus Telemanagement system, these goals were achieved - with 'very pleasing results' for the borough of Redbridge.

South Tyneside, UK

Cheaper to run with better light and greater safety



Before



South Tyneside Council wanted a new street lighting solution to replace the old SOX system. This had to provide a brighter, simpler to maintain, energy efficient and cost-effective system. The system chosen, using Philips' CosmoWhite lamps and Iridium luminaires has achieved this, and also provided residents with a greater sense of safety.

Somosaguas (Madrid), Spain

Better lighting, safer, CO₂ cut by 47%



Before

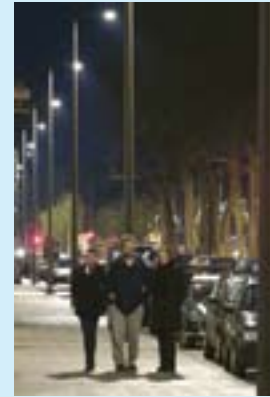


The authorities at Somosaguas, Madrid required a new street lighting system to provide good quality white light, close to natural vision, with an increased the feeling of safety, and a better quality of life for local inhabitants. Using Philips' CosmoWhite 140W lamps fitted to Philips Modena luminaires, all this has been achieved with a lower energy requirement and a 47% cut in CO₂ emissions.

The authorities' strict aesthetic requirements have also been met, increasing local property values.

Antwerp, Belgium (Leien)

Best quality white light with 22% energy saving



The public lighting department in Antwerp required an urban street lighting scheme which provided top quality white light with significant energy saving. The use of Philips' CosmoWhite 60W lamps gave exactly what was required, with an energy saving of 22%.

Brussels, Belgium

Energy saving, better light, longer life



The new lighting

The Goffinlaan in St.-Agatha-Berchem, Brussels, Belgium required both good quality white light and a lower energy consumption. This was achieved through the installation of Philips' CosmoWhite 60W lamps in conjunction with Philips' Metronomis Cambridge luminaires. It had been thought that 70W lamps might be needed but, in the event, the 60W lamps were ideal, with negligible losses in the controlgear. The resulting light output was excellent and lifetime was also improved.

Assen, The Netherlands

Energy saving and greater social safety



In the Thorbeckelaan, Assen, The Netherlands, Philips promised street lighting having the same quality light, using CosmoWhite lamps, as with MASTER City White 70W lamps, yet with even greater energy saving. The energy savings are substantial, with a mere 60W of energy / installed luminaire consumed. This lighting scheme has also improved recognition of people and traffic movements, so enhancing social safety.

Godalming, UK

Heritage innovation, energy saving



Before



Godalming, a small and attractive south of England town, wanted 'the perfect way' to mark a 125th anniversary celebration. This included installing a new energy-saving street lighting system which uses Philips CosmoWhite 60W lamps installed in heritage-style lanterns – considered necessary to match the town's ancient architecture. This is the first time that CosmoWhite has been used in classic conservation lanterns. The new lighting system has replaced a SON installation and provides a higher quality of light.

The town authorities are now considering dimmable lighting to further increase the benefits of lower energy use at night.

Breskens, The Netherlands

Energy saving, good lighting, low light pollution



In Breskens, a coastal city in the Netherlands, a new road lighting system was needed to provide a combination of excellent quality lighting with high aesthetics. Philips' CosmoWhite lamp was chosen for its energy saving (it is a Philips 'Green Flagship' product), and for its comfortable white light compared with HPL. Philips' CitySoul luminaires were used (also 'Green Flagship' products) and the result is excellent light with low light pollution. An interesting and attractive feature is the lighting mast design, with a sweep formed like a wave rolling on the shore.

Holbæk, Denmark

Attractive bright white light with excellent colour rendering



In Holbæk, Denmark, Philips' CosmoWhite lamps fitted to Philips MiniMilewide luminaires were used in a residential road lighting scheme. The result is an attractive, bright white light with good colour rendering, such that – even at night - hedges and trees are revealed in their 'greenness' clearly and very effectively .



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