

Garage

Carbon Usage (per annum)



Energy Usage (per annum)



Annual costs energy and maintenance



CarPark

Carbon Usage (per annum)



Energy Usage (per annum)



Annual costs energy and maintenance

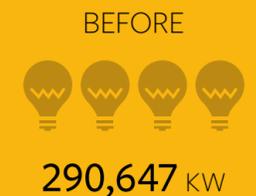


Combined

Carbon Usage per annum



Energy Usage per annum



Annual Costs energy and maintenance



AFTER



AFTER



AFTER



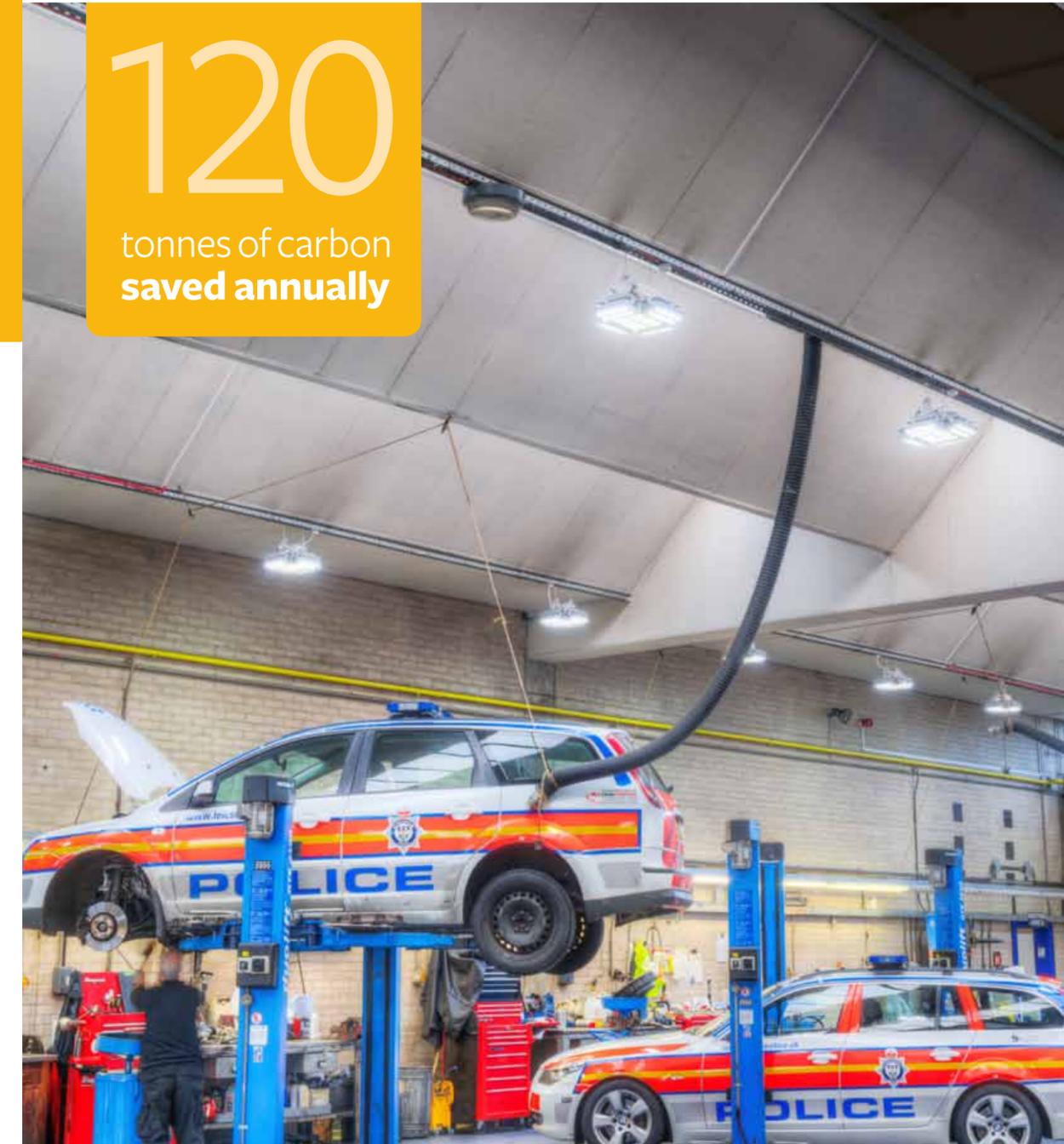
Advantages of LED lights

1. More power to light not power to heat = **save on energy bills by up to 90% and reduce carbon emissions.**
2. LED has at least 10 years life = **save on lighting maintenance costs**
3. Zero light overspill = **no light pollution to surrounding areas**
4. Pure white light (close to daylight) = **excellent visual acuity for CCTV**
5. Instant light (100ms switch on time) = **perfect for motion sensors/saving energy when not in use**
6. Impact resistant casing = **safe from vandalism**

case study



120
tonnes of carbon saved annually



About Gemma

Gemma Lighting LTD was formed to create an innovative concept for everyday lighting requirements. Drawing on 25 years of experience in LED technology, the team at Gemma Lighting LTD continues to design, develop and manufacture a new generation of environmentally friendly LED lighting suited for their customer's individual needs.

LED lighting is Gemma Lighting's only product – giving them a specific knowledge and interest in developing new ideas. Gemma Lighting design and manufacture their LED lights in the UK and can proudly say that they adhere to the high UK standards of manufacturing. Gemma's area account managers provide full project support for end users, wholesalers and distributors alike.

For more information on Gemma Lighting's products please contact the sales team **0844 8565201, info@gemmalighting.com or www.gemmalighting.com**

Leicestershire Police save over 120 tonnes of carbon per year with LED lighting

Summary

- Providing cost-effective LED lighting solutions to major police force headquarters
- Annual energy and maintenance costs reduced by more than £28,000
- Over 120 tonnes of carbon saved annually
- 77% savings in energy consumption
- Tailor made solution from a UK manufacturer



The challenge

Lowering the cost of energy bills whilst reducing the impact on the environment

Leicestershire Police covers more than 965 square miles of Leicester, Leicestershire and Rutland all through the year, and is responsible for the safety and security of almost one million people. The headquarters building at Enderby is situated just off the M1, and is home to units such as Contact Management, the Road Policing Unit, Recruiting, the Dog Section and Corporate Communications.

One of the force's six key duties is to ensure effective and efficient use of resources, and it is with that in mind that Leicestershire contacted Gemma Lighting about replacing their existing metal halide lights with LED technology. The main drivers behind their decision were the growing cost of maintenance with the old lighting setup, with lamp and control gear replacements mounting and contributing to costs of more than £10,000 per year. Leicestershire Police knew that with LED lighting from Gemma they could remove these maintenance costs completely, as well as cutting their energy costs by at least half. The 150W lighting in both the garage and car park areas of the site needed new LED lighting to satisfy the needs of the force.

Leicestershire Police came to Gemma Lighting after confirming that they wanted their new setup to consist of LEDs. Assessing Gemma alongside a handful of competitors, the force concluded that Gemma's products were more reliable and were a better price in comparison to the other manufacturers, and were further reassured after calling their colleagues at Humberside Police who gave a positive reference on Gemma's products having already benefitted from Gemma's LED lighting range at their Priory Police Station site.

£28,000 + annual savings from both projects



From left to right: Gemma Lighting Sales Director Mark Major with David Hall, Estates Department - Leicestershire Constabulary

The solution

Gemma Lighting's tailored solution.

To suit the various needs of the order from Leicestershire Police a member of the Gemma team visited them on site to discuss their plans with them. After walking around the site and discussing the possibilities with the customer, Gemma used the original drawing plans of the building to produce lighting plans to show which of Gemma's products were best suited for Leicestershire Police's needs.

The Sovereign LED High Bay is a highly adjustable fitting with options to mount on walls, ceilings and differing heights thanks to adjustable side pods. In line with their policy on effective use of resources, the force were looking at a vast improvement in costs thanks to Gemma's products, both in a reduction on their energy bills and on maintenance costs with the long life span of LED lighting. Boasting all these qualities, the Sovereign leant itself perfectly to replacing the 150W lighting in the garage area, meaning the force now had high quality UK manufactured lighting solutions on site.

The Jupiter LED Street Light was selected for the car park areas. Its ability to operate in a range of conditions, including a temperature range between -30 degrees to 50 degrees, means it is ideal to operate in a wide variety of applications. The Jupiter can be found across the UK and abroad, in locations such as Dubai and the Falkland Islands, and thanks to its efficient use of power, both energy bills and maintenance costs were reduced, reducing costs and keeping in line with the force's sustainability aims thanks to the long life span of LED lighting from Gemma.

The future

LED lighting provides both financial and energy-efficient benefits

The new LED lighting provided by Gemma achieved great results across the site. The efficiency of both the Sovereign and Jupiter ranges, attributed to their better use of power to light rather than power to heat, meant that energy consumption for Leicestershire Police across the site was reduced from 290,647 KW to just 66,529 KW, a saving of 77%.

Following the success of the initial installations, Spitfire LED Flood Lights were also installed in the car park area, putting more than 250 of Gemma Lighting's LED units in place on site. The Spitfire LED Flood Light is a durable, high quality and long-lasting spotlight, suitable for lighting many exteriors. The high quality white light also provides excellent picture clarity for recording equipment such as CCTV security systems. And with a protection rating of IP66 for all three products, Leicestershire Police had absolute peace of mind with regards to their lighting requirements at Enderby for the foreseeable future.

Overall the projects undertaken by Gemma Lighting translated into savings in both energy bills and saved maintenance costs of £28,378.09, leaving the force with annual bills of just over £5,000. Gemma's LED lights also meant a reduced environmental impact for the car park lighting setup, with the new system producing 127 carbon tonnes less than the original lighting on site - 73 carbon tonnes were saved by the new garage lighting alone.

"We found the Gemma Lighting team member to be very knowledgeable during the site visit, and after drawing up a lighting plan we knew the LED lighting would give us reduced maintenance costs, energy costs and carbon emissions which is important as we are a carbon trading organisation. We spoke to Humberside Police who said they were very pleased with the products they had from Gemma Lighting and hadn't had any problems which encouraged us. Gemma's LEDs also give us a better quality of lighting with a high lumen output, and we have had favourable comments that have made a difference to our site."

Dave Hall
Leicestershire Police