Liveable Cities

Feel at home in the city
Feel what light can do for your city

Cities want to create an identity, branding themselves as unique, beautiful and secure places. High quality white light can transform the night scene, enhancing urban architecture and creating an inviting ambience for visitors as well as for inhabitants.
The heart of the city

In the heart of each city are the people that live there or visit it. Getting together, socialising outside, building a community within an inspiring and safe environment are the cornerstones of city life. Lighting solutions should not only save energy, but make people feel what light can do for their cities.

Better experiences, better lives

On the pages that follow you’ll find out how Philips can help you to create engaging environments, clear, de-cluttered spaces and secure and beautiful LED-lit streets. We’re committed to helping cities build an image of liveability and vitality. Invigorating skylines without high energy use and helping people to do more by using less. We know you are too.

The Philips Lighting difference

We believe in creating innovative outdoor solutions that beautify and inspire. At the same time we also respect the delicate balance that exists between the identity of a city and the needs of its residents. Our expertise and unrivalled knowledge has enabled us to develop LED lighting solutions that are practical and beautiful, but also energy efficient and sustainable. Solutions that make cities more liveable while still taking the responsibility to preserve the planet.

A responsible choice

It’s well known that inefficient lighting depletes our planet’s precious resources and that emissions can affect the quality of air that we breathe. But it’s also important to understand the impact of artificial light on our sleep and other natural processes that affect our quality of life as a whole. By limiting light to when and where it’s needed, our solutions help you to reclaim ‘dark skies’ for the sake of beauty, natural rhythms and conservation.

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Feel responsible

Acting responsibly towards the environment means securing the optimum balance between energy savings (and CO₂ reduction) versus costs during the lifetime of your lighting installation. Our innovation leadership in LED technology enables you to decide already now for future-proof solutions, giving you peace of mind when switching to newest LED technology.

Peace of mind from Philips
The technological development of LED is still moving fast and to maximise their performance, LEDGINE modules should be replaced every six to eight years to profit from the efficiency gains. Not only will it eliminate any worries about unforeseen maintenance costs, as LED technology evolves over the next 12 years, 6-yearly upgrades could reduce your energy consumption and CO₂ emissions by an extra 45%. Our LED lighting solutions are future-proof and easy to upgrade, giving you that peace of mind for your decision to switch to LED in your lighting installation.

Carbon neutral luminaires
Sustainability and energy saving are our key core values. We aim to delight people with energy efficient solutions, through efficient optics, light sources and intelligent controls. With LEDs and latest Ceramic MH technologies Philips also greatly reduced the amount of energy needed to run our luminaires, the reason they have the most environmental impact.

However, we’ve also decided to go one step further by neutralising the environmental impact of some of our ranges. SpeedStar and Iridium are not only representing a breakthrough in energy efficient solutions for road lighting, they are also the first certified carbon neutral luminaires and there are more to come!!

The carbon footprint of their manufacturing and end-of-life phase has been assessed and verified by an external and independent agency. By financing certified projects aimed at reducing carbon emissions, we will be compensating for this figure, making it carbon neutral. This programme will soon be extended to our key outdoor luminaire ranges such as CitySoul and CitySpirit. Best in class for energy savings, produced in a ISO-14001 factory which offsets its carbon footprint, SpeedStar and Iridium are definitely the greenest luminaires of all.

Timetable for discontinuation of inefficient high-pressure discharge lamps

<table>
<thead>
<tr>
<th>From April each Year</th>
<th>2010</th>
<th>2012</th>
<th>2015</th>
<th>2017</th>
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<tbody>
<tr>
<td>Sodium vapour lamps</td>
<td>Permitted</td>
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<td>Discontinuation of inefficient sodium vapour lamps</td>
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<td>Plug-in sodium vapour lamps on HPM gear</td>
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<td>Discontinuation of all plug-in sodium vapour lamps on HPM gear</td>
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<td>Mercury vapour lamps</td>
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<td>Metal halide vapour lamps</td>
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<td>Discontinuation of inefficient metal halide vapour lamps</td>
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<td>Permitted</td>
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<td>Discontinuation of all inefficient lamps</td>
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Permitted: Note: all wattages are indicative only. The deciding factor is the light output (lumen)
Discontinuation: Lamps may no longer be offered for sale. All existing stocks may be used up
Turnkey projects and services

We believe that great partnerships encourage great results. Our expertise in new technologies has given us the freedom to create new possibilities in lighting breakthrough solutions that were simply not possible before. But it is only by working closely with you that we can truly understand what is desirable for cities and viable in your market place.

Co-development
Our aim is to work together on creating new lighting solutions that will add value to your business. We can give you access to the latest technologies, more than a century of lighting knowledge, plus a dedicated team of experts who can help you to fulfill your ideas. Co-development could help you to create new ideas that lead your cities in sustainability, achieve new levels of energy savings or define new models for your lighting needs. With our joint efforts we can realise opportunities and solve problems that could change the future of lighting for public spaces.

Turnkey projects and services
We can also minimise the hassle and maximise the benefits of your lighting project with our Turnkey Projects & Services. We can assist you with a complete range of services from financing, installation and commissioning, to training and post-project support.

Advisory Services
Our Advisory Services give clear insight into your current lighting system, how it can be improved, and what benefits you would gain from improved or newly developed systems.

- **Energy Audit**
  - Assessment of current lighting system
  - Business case development for energy savings

- **Solution Design**
  - Lighting application
  - Technical design
  - Business models

- **Project Services**
  - Project Management
  - Installation
  - Integration & Programming

Lifecycle Services
We offer customers and channel partners a variety of contracts, which cover all aspects for guaranteeing long-lasting, hassle-free, cost-effective performance.

- **Support**
  - Protects your investment

- **Maintenance**
  - Ensures hassle-free operation

- **Performance**
  - Meets business goals and objectives

Philips Lighting Capital
Philips Lighting Capital links financing to the returns that a new lighting solution will deliver. This enables you to acquire a state-of-the-art, business-enhancing solution immediately – with little to no upfront capital investment required – and keeps your cash flow as positive as possible from day one!

The services are available individually or as tailor-made turnkey packages that deliver complete project coordination from start to finish. Once you’re happy with our solution we’ll take over all responsibility, so you only have to call your dedicated Philips representative to monitor and manage your lighting project.
Lighting a city’s streets and public spaces presents many challenges. The dynamics of city life change constantly due to traffic levels, the weather, accidents or events. You need the right levels of illumination to respond to those changes and make the city feel safe, attractive and inviting. But you’re also under pressure to reduce energy costs and maximise your green credentials. CityTouch can help you can overcome all those problems and make the city more livable, now and in the future.

Flexible and future-proof
CityTouch offers you the ultimate flexibility. Fully scalable and highly reliable, it works with lamps, luminaires and controls from multiple brands, not just Philips. The extensible platform is also ready for future applications and features the highest levels of security, including completely encrypted user sessions and regular data backups. It’s an end-to-end service that also provides best-in-class payback times. Intelligent lighting management enables you to save on energy and maintenance costs with advanced lighting solutions that perform brilliantly for longer. So you can bring your city lighting to life and enhance your city’s green credentials.
IntelligentCity

Road and street lighting make a crucial contribution to a city’s safety, operational efficiency and liveability. Philips Lighting has been illuminating streets for almost a century, so we’re well aware of the changing needs, challenges and possibilities in outdoor lighting. Today’s municipalities are faced with low budgets, high maintenance outlays, growing pressure to increase sustainability, and quickly changing trends – such as the move towards smart grids. In response, we’ve developed Philips IntelligentCity – a dynamic, intelligent lighting solution that makes it possible to easily optimize road and street lighting in terms of liveability, energy efficiency and operational cost reduction.

Lighting that responds as needed
The dynamics of city streets, roads and highways change constantly due to traffic accidents, seasonal weather, crime, and special events. It therefore seems almost unnatural that outdoor lighting should be so passive, fixed and unvarying. In IntelligentCity, our latest, state-of-the-art road and street lighting products – Amplight, StarSense and CityTouch – are united to create a complete, intelligent system that offers ultimate control in lighting outdoor traffic areas of all kinds. It turns static lighting into a dynamic, flexible organ that can respond to the ever-changing situations and happenings on streets and highways.

How does it work?
IntelligentCity incorporates state-of-the-art lighting technology that provides clear, high-quality, energy efficient and sustainable illumination with our service offering such as advisory, project and financing services. And it becomes even more so thanks to the complete flexibility and controllability that the components deliver. Amplight and StarSense are unique telemanagment systems that make it possible to automatically – or proactively – adjust the lighting on specific corners, streets or stretches of a highway to maximize safety, atmosphere or energy efficiency as needed. CityTouch – the first truly integrated management platform for outdoor lighting and beyond – brings it all together in one easy-to-use interface. The total solution gives you complete insight into what is taking place within the lighting system, and assists you in monitoring and managing it as effectively as possible. This delivers valuable benefits in a variety of ways.

Increased energy efficiency
• Replaces old technology with future-proof, retro-compatible technology (LEDGINE)
• Active Lighting Control during low traffic hours to save further energy
• Energy audit as advisory service offer
• Maximum LED energy efficiency, less light pollution

Most effective use of light possible
• Active Lighting Control in problematic areas to increase safety
• Automatically responds to weather changes
• Active Lighting Control in connection with city events, such as street, music live events

Intelligent asset management and easier, more efficient maintenance
• The digital system smartly plans and routes maintenance works to minimize blockages and helps plan future upgrades
• Time and cost-saving automatic failure reports

Smart energy metering and billing
• Business case development on energy savings
• Smart meter accurately measures energy consumption, taking into account the varying rates, and automatically bills all entities
• Performance reporting to track objectives and goals

Future-ready for other services
• Other services such as surveillance and traffic management can easily be integrated
Feel in control

In the current context of awareness of ecological issues and our footprint on the planet, it is important to emphasise the cost of public lighting on our energy bill. This latter represents approximately 40% and could be reduced by up to 70% with efficient (LED) lighting solutions and equipped with lighting controls, making sure you light the streets only when, where and in the exact amount needed.

星星感應無線與網路
一个系统来控制和远程监控路灯，它独立于任何照明源。星星感應是最全面的系统，它也支持从安装反馈，这容易维护。这个解决方案可以产生高达70%的能源节省和40%在维护成本。

Dynadimmer
一个集成控制器，包括每个照明点 - 运行的电子设备和可以集成到的灯笼。它可以应用5个功率级别，（重新）定义级别和持续时间，每个选择的照明点。例如，一年平均可以节省大约50%的能源。

AmpLight
AmpLight是一款经济高效的机柜式远程监控系统，适用于新装和翻新安装，提供高级远程监控“健康”机柜的总和，估算维护节省率为10-15%和多种照明节能解决方案，可能的能源节省达到25-30%。

Lumistep
一个集成控制器，降低灯泡的光强和消耗的功率在一个时间段内（3个预编程的版本）。潜在的能源节省（在照明系统）可能高达25%，取决于灯具和光源的使用。

LumiMotion
LumiMotion是一个独特的解决方案，通过提供所需光照明减小光污染。因为灯具是按需照明，它减少了CO2排放，不牺牲街道安全。智能化的照明解决方案LumiMotion也恢复了夜晚的天空，减少光污染，保护黑暗的环境，对居民，夜行动物和迁徙的鸟类。这个解决方案可以产生高达80%的能源节省。

星星感應無線與網路
With interactive dimming

Dynadimmer
With fixed / pre-set dimming

AmpLight
With fixed dimming

Lumistep
With fixed dimming

LumiMotion
With human based dimming
Every lighting scheme presents its own unique set of challenges. A myriad of different techniques, equipment and technologies are available to turn your creative ideas into reality.

Feel free to design

Lighting points must participate to the beauty of the city: enhancing the architecture and creating the ambiance. The esthetics of the luminaires becomes as important as the technical performances. Therefore luminaires, masts and brackets must form a coherent system with consistent design and perfect integration. We help to improve the livability for inhabitants and enhance cities identities with light. In our co-development program we create, together with cities, designers and energy companies, meaningful lighting solutions to reach this goal.

Dedicated lighting professionals

Our dedicated application and product development teams are here to help. They are actively involved in projects associated with the creative design and implementation of the illumination of prominent landmarks: urban, street and stadium lighting; programmes related to urban lighting; and lighting control systems for both indoor and outdoor application. Our specialists will be happy to work with you to co-create a lighting solution that brings your city lighting ideas to life.

There is a clear wish of citizens and local deciders to return the city to citizens and bring back the quality of city life. With that respect, lighting products are not only perceived as functional lighting points, but also as urban furniture part of the city landscape.
Every city aims for its own and unique identity and with LED technology there’s more and more room for design and individualisation. Here you can take a glimpse on the design possibilities you have and we are happy to support and help to bring your creative ideas to life.

**CitySwan**
Local design addressing cultural specificities. A stylish luminaire that doesn’t need to be connected to the energy grid. Available both in LEDs and HID depending on application. Fully integrated standard solutions. Future-proof and serviceable LED solution with LEDGINE inside.

**UrbanStar** (Design by West 8, Rotterdam)
"The new UrbanStar LED street luminaire shines beautifully and certainly has the potential to be implemented elsewhere," according to Geurt Dijkstra, the project leader for the city of Almere, Netherlands, that joint in this project together with CityTec, West8 and Philips. "UrbanStar lighting is pleasant and comfortable. The luminaire prevents light pollution and is focused on efficiency whilst still being sufficiently diffuse to give a pleasant and calm overall atmosphere."

**UrbanLink** (Design by Kardorff Ingenieure, Berlin)
LED light sources give the opportunity to use very compact volumes. The slim design by Kardorff Ingenieure who joined this co-development project together with Philips, allows a decent but effective use, especially on long and curved masts with up to 14,000 lumen.

**Park LED**
ParkLED was especially developed for LEDs by the Danish architect Mads Odgaard. The design reduces glare and the directional beams ensure minimum light pollution, whilst excellent levels of colour rendering make the fitting ideal for footpaths and squares.

**UrbanSky** (Design by podpod Design, Vienna)
UrbanSky is a prime example of the effectiveness of a professional co-development. It is one of the first LED cable lights on the market and the first which sets particular store by optical guiding. Its LEDGINE modules offer the city of Stuttgart, who jointly worked together with EnBW, PodPod Design and Philips in this project, the possibility of making energy savings of up to 30% versus comparable solutions with sodium high-pressure discharge lamps (e.g. SON). Due to the extended service life of the LEDs maintenance costs are also reduced.

**FreeStreet**
The first catenary system with power- and catenary-integrated in one cable that consumes just 28W per module. The smooth transition from cable to luminaire creates a design that makes the luminaire hardly visible during daytime and aims to declutter busy urban areas, giving back the city to its citizens.

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A city is not a uniform structure, it consists of various different areas with different lighting needs. Take a walk through your city on the following pages and feel what light can do for your city.
01. Feel proud of your city

Architectural lighting
At the heart of a city lie its landmarks. Lighting buildings and monuments puts them centre stage, creating markers for orientation and celebrating the city’s unique identity. From single buildings to entire districts, lighting adds the drama and accents that bring the cityscape to life at night.

Inspiring nightlife
The landmarks, buildings and monuments that lie at the heart of a city are the essence of its unique personality and identity. The right lighting can preserve that at night, showcasing structures and materials and transforming the city into an alluring destination. Somewhere that’s a pleasure to spend time in after dark.

Investing in the future
Using beautiful, energy-efficient lighting to creative vibrant social spaces can also have a dramatic effect on a city’s reputation. It enhances tourism and nightlife, generating valuable income from hotels, restaurants and bars. So the city becomes a more attractive proposition for residents and businesses. An investment in lighting that practically pays for itself.
Lighting the Reichstag

The new lighting concept for Berlin’s most important historic landmark shows this iconic building in a new light. Although 8 times more lightpoints were used, the concept is so energy efficient, it still saves the city up to 80% in energy consumption.

Berlin, Germany

Lighting designer: Michael Batz

Product solution: DecoFlood, DecoScene, LEDLine®

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A castle to be proud of

The illumination of an ancient castle has been done before, but with this project the possibilities of the 1,000 shades of white light in enhancing historic landmarks have never been illustrated better.

Wales, UK

Product solution:
eW Reach LED, eW Graze LED, eW Blast LED

*compared to conventional lighting technology
Showing it to the world

The challenge was to illuminate the historic landmark of the Hrad at Bratislava, Slovakia to give the city an identity.

The city of Bratislava has chosen for Philips products, not only because of the energy efficiency provided, but also the high quality white light, that creates a natural ambience also during nighttime and set the Hrad in scene. The illumination received a great attention during the G8 conference in 2009.

Bratislava, Slovakia

Product solution:
LEDLine

*compared to conventional lighting technology

Boston’s first skyscraper

The Custom House Tower was constructed in the mid 19th Century and is Boston’s 17th tallest building. The new energy efficient, low maintenance lighting concept uses high-intensity LED light to illuminate the clock tower at night, giving the building pride of place in the Boston skyline.

Boston, USA

Product solution:
eWGraze Powercore, eWBlast Powercore

www.philips.com/liveable-cities
02. Feel at home in your city

City centres

Lighting has the power to enhance life in the city. No longer simply functional, it has become a creative art, illuminating attractive and inviting atmospheres that encourage night-time socialising.

Aesthetic pride

After dark, LED light can transform buildings and architectural features, bathing them in dynamic colour to add to the city’s vibrant atmosphere. It re-humanises urban spaces and makes people feel connected to their environment. And by enriching community life, it instils residents with a real sense of local pride.

Visitor appeal

The more safe and welcoming a city feels, the more residents and visitors will enjoy it. Lighting creates exciting spaces that people want to spend time in, eating, drinking and taking in the sights. The result is a vibrant retail, entertainment and tourism economy that generates precious income and enhances the city’s appeal even further.
Creating atmosphere in Hoogeveen

A city renovation programme gave Hoogeveen the opportunity to introduce a creative lighting master plan. The complementary scheme uses white and coloured light to project shadows and shapes, highlighting architectural features and providing an attractive, cozy atmosphere.

“The wanted something special and it’s become something special. The historic facades are now not only standing out during daytime but also during the evening. And the projections onto the square and the quay wall are fantastic, they have an enormous attractive value.”

Mark van der Geest, Interior Architect

Hoogeveen, the Netherlands

Product solution:
UrbanScene, LEDLine

UrbanSky adds to the attraction of Stuttgart

The city of Stuttgart installed an attractive LED rope light solution from Philips. UrbanSky provides a soft transition between gentle illumination for the house fronts and brighter light levels to guide road users at night. An innovative solution that also maximises energy savings.

“Every city wants to present a coherent overall picture. Stuttgart successfully realised this with the innovative UrbanSky. The LED light is specially developed for typical rope suspension systems and is worth seeing in every street.”

Heiko Hau, Team Leader Department Street lighting EnBW in Stuttgart

Stuttgart, Germany

Product solution:
UrbanSky

Hoake Haas, Team Leader Department Street lighting EnBW in Stuttgart
Attracting tourists to Bremen

The historical centre of Bremen is the heart of the city and an important tourist attraction. To help promote the Hanseatic city as a destination for visitors, the city developed a new lighting concept as part of a wider urban development plan. Different shades of white light were used to light the impressive building fronts including the gothic City Hall and the Roland statue. Combined with accent and floodlighting, the mature lighting concept creates a theatrical ambience that’s pleasing for residents and visitors.

Bremen, Germany

Product solution:
DecoFlood, Mini DecoFlood, OptiFlood, Mini OptiFlood
LEDline2, Beamer LED, Lichtregelung DMX 144

“Our historic Old Town is not just for tourists an attraction. It is also an important part of the life-world of local residents. The new lighting concept stresses the urban image and at the same time provides a sense of warmth and intimacy.”

Wilfried Schneider, head of planning and execution, swb Beleuchtung Bremen
The power to make people feel safe

After dark, white LED light plays a vital role in helping people to feel safe outdoors. It’s higher perceived brightness and superior colour rendering make it easier to distinguish objects, colours, shapes and people. Even from a distance faces are far easier to recognise and this helps to reduce anxiety when residents are approached on the street.

New possibilities

The LED revolution has opened up a new world of possibilities for residential lighting. Energy savings of up to 70% are just the start. Our future-proof LED solutions with upgradable LED modules also provide a constant light level over their long lifetime. A fit and forget solution that will prove to be a great investment for years to come.

03. Feel safe in your neighbourhood

Residential areas

Once a purely functional consideration in terms of safety, security and orientation, lighting in residential areas is now being used to create attractive spaces that improve quality of life for residents. Breathing new life into parts of the city that have been overlooked for far too long.
Reassuring residents in Tilburg

The residential area of Jan van Tinbergenlaan in Tilburg was given a reassuring new ambience when the old PL lamp installation was renovated. CitySpirit LED luminaires have increased the feeling of comfort, safety and security, making the area more attractive and enhancing well-being. The addition of a dimming system meant that Tilburg realised immediate energy savings of 48%.

Tilburg, the Netherlands

Product solution:
LumiMotion

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Pleasing residents in Magdeburg

Safety, security and orientation are essential for any residential lighting solution. The lighting concept at Magdeburg goes one step further, enhancing quality of life and creating a pleasing ambience. The bright white light with excellent colour rendering makes people feel safer outdoors at night. What’s more, the precise beam focus and light output minimises spillage making it a more acceptable solution for the city’s residents.

Magdeburg, Germany

Product solution:
CitySpirit Cone LED

Copenhagen adds ambience for conference

The city of Copenhagen created an inviting night time ambience with excellent lighting comfort, soft shadows and low glare. Part of a refurbishment programme for the climate conference in 2010, the unobtrusive design is enhanced at night when only the illuminated disc is visible.

Copenhagen, Denmark

Product solution:
UrbanScene Post Top LED

*compared to conventional lighting technology
UrbanStar saves energy beautifully in Almere

Almere Council made a revolutionary breakthrough when they installed UrbanStar—the first LED street lamp fitting to rival the traditional conical fitting on both performance and price. The fresh design fits in beautifully with the street image, reduces light spill and dimmable to save 45% in energy costs.

Almere, the Netherlands

Product solution:
UrbanStar LED

“Durability and affordability are the key points for Almere Council. The revolutionary UrbanStar LED street luminaire meets these requirements perfectly. It replaces conical street lamp fittings individually and provides considerable savings on energy and materials. This luminaire prevents light pollution, and is designed to be efficient and still sufficiently diffuse to provide a calm, pleasant overall atmosphere.”

Geurt Dijkstra, Project Leader for Almere Council

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Pleasing road users and residents
Roads that link residential areas to busy highways or industrial zones require a specialised lighting solution that accommodates both pedestrians and motorists. LED Lighting that combines functionality with feeling strikes the perfect balance. It offers the technical performance of traditional road lighting as well as the softer ambience that suits more people-centric areas of the city.

Light on demand with CityTouch
Automated lighting improves safety by providing the right light levels at the right times. CityTouch offers managed light levels on demand, maximizing safety during emergencies or special events, reducing accidents and preventing crime.

Design freedom
Tailored for use with low masts, our solutions minimise glare for drivers and pedestrians and maximise your design possibilities. You can create attractive lighting effects with the high light levels that help to keep our streets free of crime. And for extra versatility you can combine our lighting solutions with architectural brackets and columns reflecting the local surrounding and making everyone feel more at home in the city.

04. Feel safe on the streets

Urban streets
In the past, people have focused on the functional side of urban lighting. Nowadays we see that lighting is also a very important factor for creating a general feeling of safety in a city. On urban streets this doesn’t only mean traffic safety, but also the safety perception of residents or visitors.
New street life for Marseille

High quality white light has transformed the city of Marseille at night. CitySoul LEDGINE luminaires create an inviting ambience that encourages people to spend more time in the city after dark. Superior colour rendering makes the streets look and feel brighter. It’s also easier to recognise people, objects, shapes and colours. And because visibility is improved for motorists and pedestrians, the city is a safer place to socialise in too.

Marseille, France

Product solution:
CitySoul LEDGINE

*compared to conventional lighting technology

White light for Dubrovnik

The city of Dubrovnik is blessed with a wonderful medieval innercity. To show this huge asset for tourism in the best light, the city has chosen for Philips Metronomis luminaires with CosmoPolis lamps to show it heritage in an authentic and inspiring way, enhancing the total city experience.

Dubrovnik, Croatia

Product solution:
Metronomis luminaires, MASTER CosmoWhite lamps, LEDLine

*compared to conventional lighting technology
A sustainable solution for Rotterdam

The city of Rotterdam transformed the evening ambience of the Willemskade with sustainable, high quality LED lighting. Rotterdam takes the environment very seriously. Philips CitySoul LEDGINE luminaires were the ideal lighting solution because they are so energy-efficient, saving up to 20% when compared with energy-saving SON-T solutions. The white light also provides excellent colour rendering, helping to improve safety for traffic and pedestrians.

Rotterdam, the Netherlands

Product solution:
CitySoul LEDGINE

*compared to conventional lighting technology

“We choose LED lighting because it is more energy efficient. Rotterdam takes the environment and sustainability very seriously. We have set up the Rotterdam Climate Initiative. Our aim is to cut CO₂ emissions by 50% in 2025, for instance with LED lighting. It’s a lovely bright light. You can really see the colours of the cars and the people, so it also makes you feel safer.”

Gerda Velthoen, advisor public lighting, city of Rotterdam

[www.philips.com/liveable-cities](http://www.philips.com/liveable-cities)
05. Feel safe on major roads

Major road lighting

Municipalities are under pressure to meet energy conservation goals by reducing their energy consumption while complying with lighting norms and standards. All our luminaires are optimised to provide precisely the right level of light, in the right place, at the right time.

Preventing accidents

White LED light makes our streets safer for drivers. Visibility is a critical factor in road safety and tests show that this is actually improved with white light. Not only can drivers detect roadside movement more quickly, they also have more time to stop should something be about to cross their path.

Reliability

To guarantee long lifetime, components in luminaires are protected against moisture, dust, vibrations and extreme temperatures. Optionally also an extreme lightning stroke protection can be built in.

Digitalization of light

LED technology is revolutionising functional outdoor lighting for major roads in the city. Energy efficient and controllable, it offers limitless possibilities. CityTouch makes it possible to dim light points outside of peak hours, detect failures and provide smart lighting workflow support, the system significantly reduces operating costs and energy usage – leading to lower energy bills, lower carbon emissions and less light pollution.

Kirjala Meets, Finland

www.philips.com/liveable-cities

product overview, page 57
In a unique pilot project, Public Works and Water Management (RWS) replaced conventional lighting with sustainable LED on a section of the A44. SpeedStar was chosen for its uniform light distribution, excellent colour recognition and dimming options to save energy. The flexible dimming system also increases safety by adapting light levels in case of accidents. The Netherlands now has the first highway in the world with LED lighting.

**A44, Wassenaar, the Netherlands**

**Product solution:**
SpeedStar and StarSense telemangement system

“**I hope and expect that this project will make us a shining example for both national and international organizations that, like the Department of Public Works and Water Management, give high priority to sustainability**”

Willem Zandvliet (left), Technical Manager of Sustainable Public Works and Water Management
For safety and efficiency
Lighting can increase the efficiency of these 24/7 locations. It also makes them safer and more secure for those working on site. When selecting area lighting the efficiency of the system in terms of long burning hours will be a key consideration. But limiting light spill will also be important, especially when the surrounding environment is residential.

White light for a safer and working environments
To improve the working environment, Philips offers with the MASTERColour CDM Elite MW system an unrivalled level of light quality and performance. The lamps sparkling white light creates a more natural ambience. In addition, the high efficiency of the lamp and driver together means reduced energy use and a lower cost of ownership.

06. Feel safer at work
Transport & areas
The 24-hour economy has led to a significant increase in human activity around the clock. Whether it’s a production centre, airport, container terminal or industrial site, the activity is non-stop as people carry out tasks throughout the night and a good lighting is a pre-condition for a safe and effective work environment.
Fighting crime on the A67

East Brabant used a combination of advanced cameras and effective lighting to monitor suspicious activity in a rest area on the A67 between Eindhoven and Venlo. High quality white light provides the consistent brightness and colour rendering that the camera software needs to detect objects, recognise vehicles and identify people. Following installation the crime statistics fell spectacularly and the number of thefts is now practically zero.

A67, the Netherlands

Product solution: MASTERColour CDM Elite MW Indium Luminaires

“Since the camera system and the new lighting were installed, the crime statistics have fallen spectacularly. The number of thefts is practically zero. At other ‘converted’ rest areas we also see a comparable trend.”

Peter van den Ende, director of the East Brabant Regional Crime Control Platform (Stichting CrimiNee! [No-To-Crime! Foundation]) and Police Commissioner for the South-East Brabant region.

www.philips.com/liveable-cities
Experience it yourself

Every lighting scheme presents its own unique set of challenges. A myriad of different techniques, equipment and technologies are available to turn your creative ideas into reality. But to achieve the very best results you need to work as part of a team.

New demonstration area

To address the changing agenda for lighting designers and reflect the increasing densification of urban areas, we have completely transformed our demonstration area at the Outdoor Lighting Application Center (OLAC). Originally representing a street with family homes, OLAC now recreates a contemporary urban setting with a mixture of residential buildings, a restaurant, nursery school and private houses.

The new area starts with an old installation as an eye-opener to demonstrate how lighting can be improved with modern technology. The new solutions are all state-of-the-art and feature a variety of light sources, luminaires, optics, lighting controls and dimming modes to illustrate the possibilities. It provides a unique opportunity to see the latest trends in urban lighting and assess how they meet the needs of your city in terms of sustainability, creativity and liveability. To find out more, just ask your local Philips representative.

city.people.light

Our city.people.light project pushes creative and intellectual boundaries, producing innovative and relevant lighting solutions that enrich urban settings. We share ideas and network with partners such as the Professional Lighting Designers Association (PLDA). We have also established an annual city.people.light award in conjunction with LUCI (Lighting Urban Community International) Association.
“With the increasing trend towards urbanisation, we need to think about new ways to enhance our cities and turn them into more liveable spaces. I can show you LED lighting solutions that can transform the urban nightscape, creating identity, adding vitality and promoting safety and security. All without harming the planet – or your green credentials.”

Find out more at www.philips.com/shoplighting
01. Architectural lighting

- iW/ColorBurst Powercore
  - High-output spotlight with RGB or variable color
  - Supports a multitude of different light applications

- MicroMax® (Maxi/Mini Maxi)
  - High performance floodlight for large scale architectures
  - Perfect integration with conventional Decoflood² range

- DecoFlood²
  - Energy-efficient solution for flood lighting
  - Superior fixture consistency, static or tunable white light

- Easy Installation
  - Compact urban luminaire enhancing the city’s identity

- UrbanBright
  - Best colour rendering
  - Long lifetime

- Master Control
  - Easy installation and maintenance
  - Comfort and safety with high levels of light

- Mini300 LED
  - Upgradable optics for maximum flexibility
  - Easy installation and maintenance

- MINI400 LED
  - Advanced efficient luminaires with best possible TCO
  - Mini Modena / Mini Iridium / Mini MileWide

- SpeedStar LED
  - Advanced efficient luminaires with best possible TCO
  - Master CDM Elite MW

02. City Centres

- Wais
e
  - High-performance floodlights with RGB or variable color
  - Supports a multitude of different light applications

- MicroMax® (Maxi/Mini Maxi)
  - High performance floodlight for large scale architectures
  - Perfect integration with conventional Decoflood² range

- DecoFlood²
  - Energy-efficient solution for flood lighting
  - Superior fixture consistency, static or tunable white light

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  - Mini Modena / Mini Iridium / Mini MileWide

- SpeedStar LED
  - Advanced efficient luminaires with best possible TCO
  - Master CDM Elite MW

03. Residential areas

- Wais
e
  - High-performance floodlights with RGB or variable color
  - Supports a multitude of different light applications

- MicroMax® (Maxi/Mini Maxi)
  - High performance floodlight for large scale architectures
  - Perfect integration with conventional Decoflood² range

- DecoFlood²
  - Energy-efficient solution for flood lighting
  - Superior fixture consistency, static or tunable white light

- Energy efficient and easy to install
  - Maximum energy saving
  - Maximum night and nature preservation

- LumiMotion
  - Minimum waste of light without compromising on safety
  - Best colour rendering
  - Long lifetime

- UltraBright
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- LowProfile
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- Upright
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- Koffer
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- SpeedStar LED
  - Advanced efficient luminaires with best possible TCO
  - Master CDM Elite MW

04. Urban Streets

- Matrix
  - High flexibility of spacing and installation height
  - Slim design, hardly visible at day, decluttering urban areas

- Koffer
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- SpeedStar LED
  - Advanced efficient luminaires with best possible TCO
  - Master CDM Elite MW

05. Major Roads

- Matrix
  - High flexibility of spacing and installation height
  - Slim design, hardly visible at day, decluttering urban areas

- Koffer
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- SpeedStar LED
  - Advanced efficient luminaires with best possible TCO
  - Master CDM Elite MW

06. Transport & area

- Matrix
  - High flexibility of spacing and installation height
  - Slim design, hardly visible at day, decluttering urban areas

- Koffer
  - Acrylic coated outdoor luminaire designed to age gracefully
  - Excellent energy saving

- SpeedStar LED
  - Advanced efficient luminaires with best possible TCO
  - Master CDM Elite MW

Find out more at www.philips.com/catalog