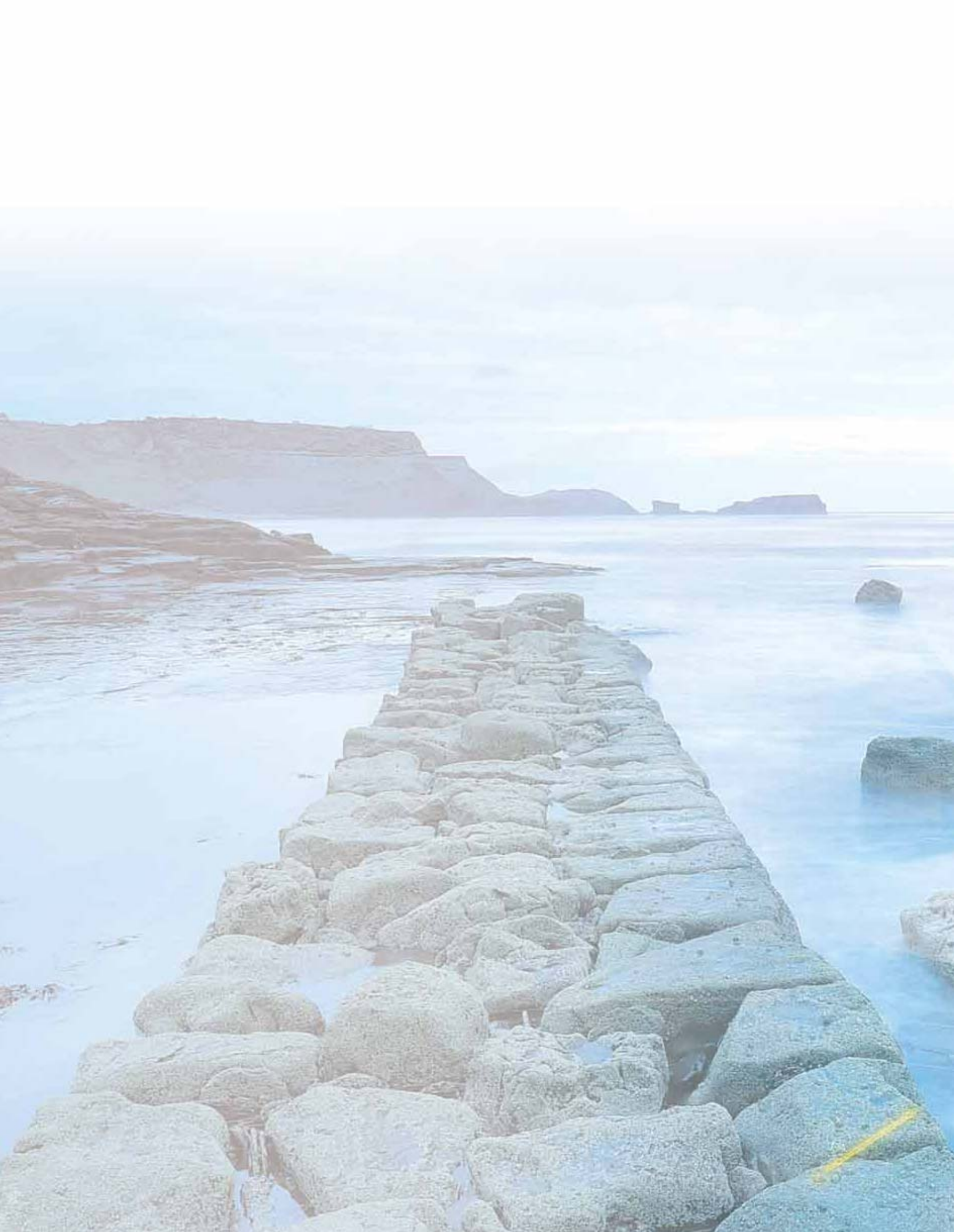




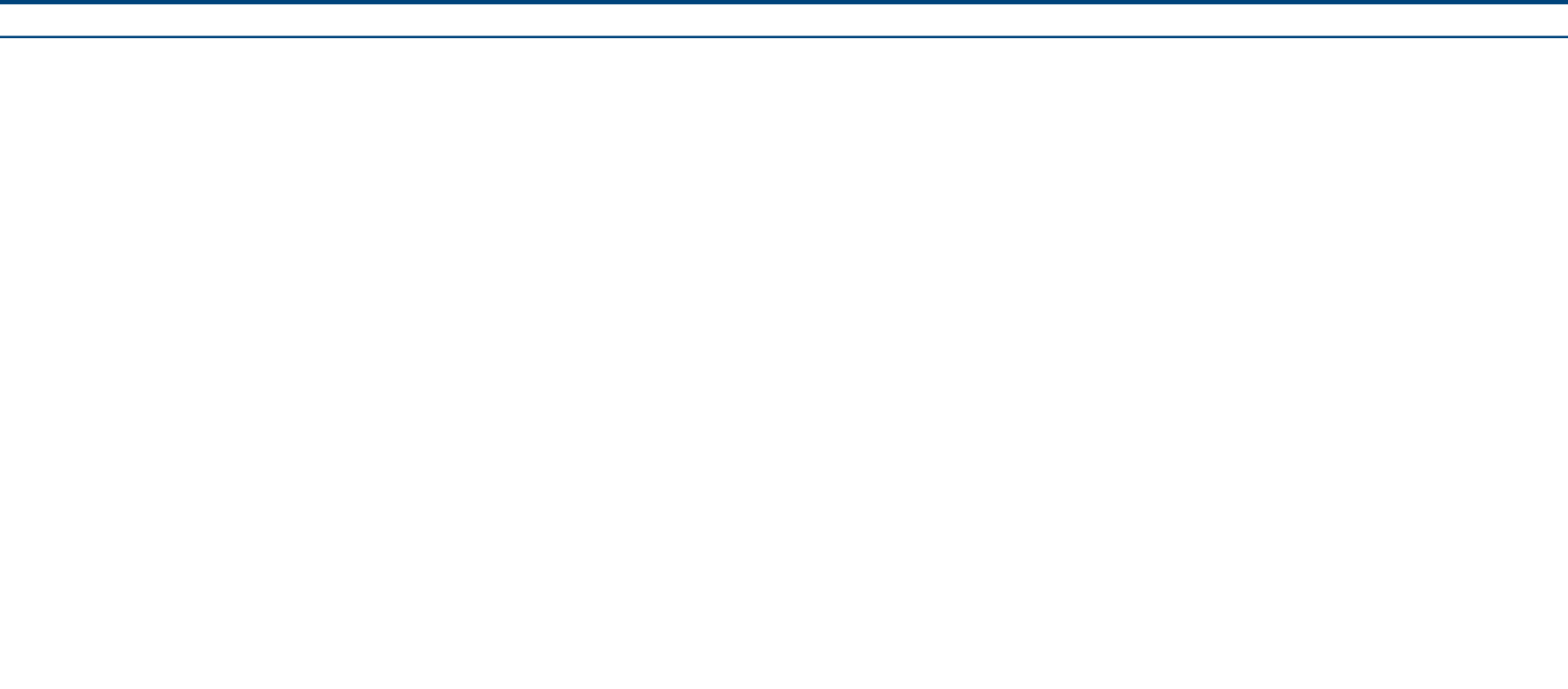
LED MARKER-LIGHTINGS AND SPOTLIGHTS

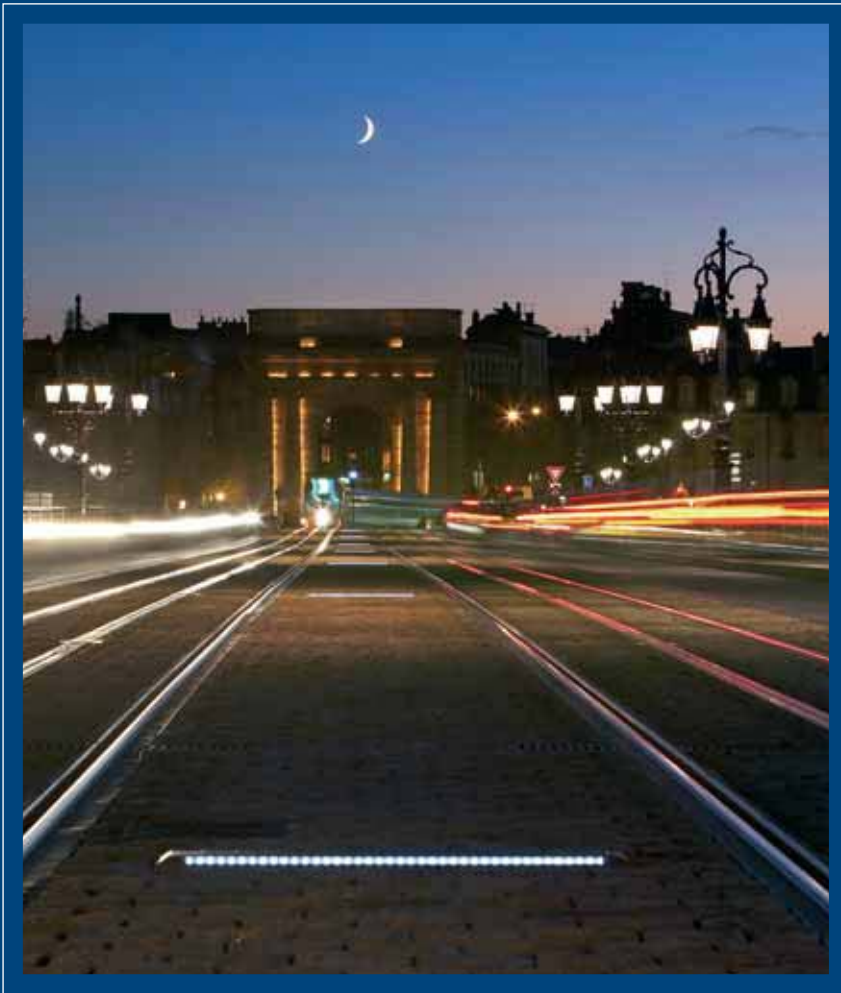


LEC

L y o n







B O R D E A U X - France

Tramcar - **Light bars of specific realisation**

Project design and construction supervision: Mairie de Bordeaux

Architects: Brochet, Lajus, Puyos architects, Signes, EdP.

« It's so beautiful, a city by night »... and it is truer everyday!

Light is playing an ever increasing part in today's architectural projects - it helps structure our urban environment by combining both aesthetic and safety considerations.

Tomorrows stake is based on offering lighting designers high-tech solutions, with their imagination as the only limit.

At the heart of this issue, LEC keeps pace with its development strategy and offers a simpler, newer, more beautiful, powerful and reliable range of LED luminaires.

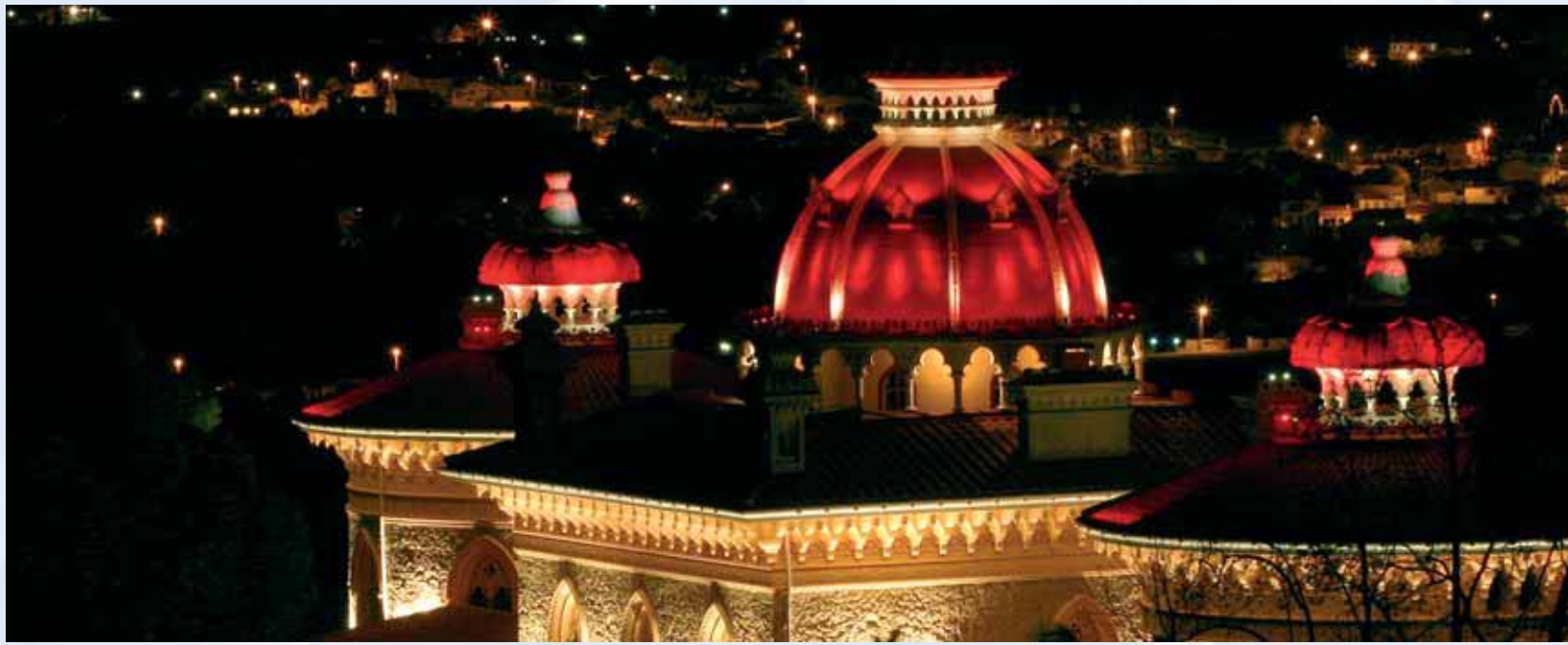
Safety lighting brand, illustrious path, artist dream, bright idea... are various expressions to express the many states of innovative light that LEC invites you to discover through the pages of this catalogue dedicated to marker and lighting applications.

Some architects and engineers have marked illustrious paths, designers have affixed their safety lighting brand to cities, specifiers have brought their ideas to light and some artists have expressed their dreams of light...

Thanks to LEC's lighting, they have manage to perpetuate their realisations of light while protecting our environment and developing a sustainable urban comfort.

A warm thank to all of them!

Jean-Pierre Valancogne



MONSERRATE PALACE - Portugal

Divisão de Iluminação Pública da Câmara Municipal de Sintra - **Luminy 4010**

Photo Credit:

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Design, manufacture: **STORM** (Lyon - France) 33 (0) 478 523 160

01/2007

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In 1977, when Pierre VALANCOGNE, a road sign engineer, saw the first light emitting diodes (LED) appear on the market, he immediately realized how useful they would be in his profession: combining a remarkable reliability and low energy consumption, they virtually make maintenance and operating budgets obsolete.

Consequently, he developed his first LED system and started up LEC Lyon, a company fully dedicated to the development of LED marker-lightings.

Many well-known specifiers - including the City of Paris - were quickly seduced by the product characteristics and adopted it to give an original look to prominent constructions such as the main courtyard of the Palais Royal, the Place Vendôme, the Esplanade des Invalides and many more.

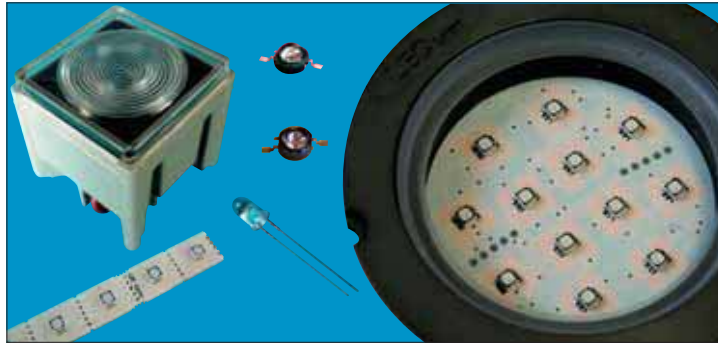
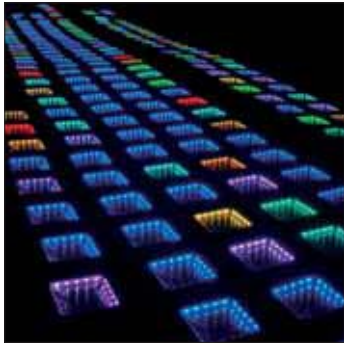
For the last 30 years, LEC has constantly worked on developing this technology and created a range of products with high added value. Since the creation of the ARACOLOR® system in 2002, LEC is providing lighting designers with dynamic lighting solutions offering a wealth of possibilities. Today at LEC, the latest generation of LEDs is used in a range of compact, powerful and reliable spotlights specially conceived for accentuation and dynamic lighting applications.

LEC's know-how reveals itself by a close and permanent cooperation with the project designers to answer all their safety-marking and decorative lighting needs.

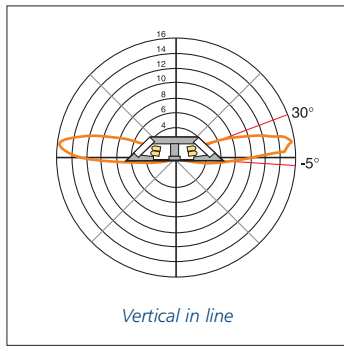
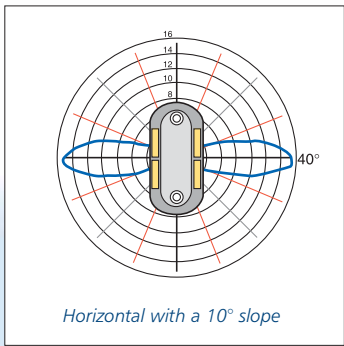
Today, "LEC" remains a generic term when referring to LED marker-lightings.

LEC is a member of the Confederation for Lighting and the French Association for Lighting (AFE).





A REINFORCED LUMINOSITY



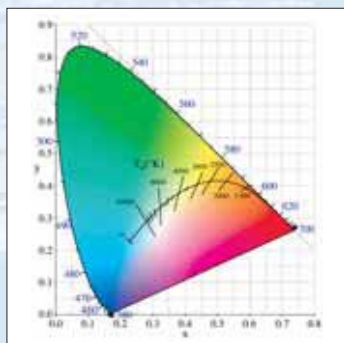
Average photometric distribution with yellow diodes.

Since the 1960s, research in the LEDs substrates have greatly improved their light emitting efficiency. The latest developments in LEDs have produced a new generation of high power diodes (Superwatt), allowing to widen their scope of application well beyond marker-lighting into accentuating, dynamic or safety lighting applications.

Soon, the many improvements in these semiconductors physical qualities will increase their fields of applications and thus their popularity.



MORE COLOURS



Here again, the technological evolution gives ultimate freedom to the designers. The first generation LEDs were only available in red and could essentially only be used as indicating lamps, today however, the choice in colours has widened and LEDs are now available in blue, green and (warm or cold) white.

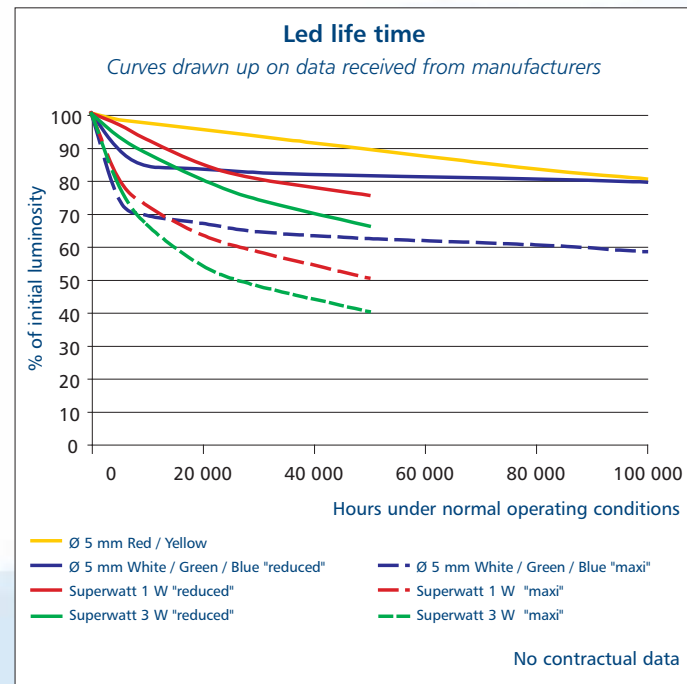
When combining 3 diodes (red + green + blue) into one capsule and blending these three fundamental colours together, manufacturers can obtain around sixteen million colours, which allows a solution to very precise graphical charts.

**A TRIED
AND TESTED
RELIABILITY**

New generation LEDs are now remarkably long lasting. Some tests also proved that LED performance is variable depending on colour.

However, even after thousands of working hours, most LEDs will still have kept around 80 % of their original brightness.

Thanks to these exceptional characteristics, maintenance operations are reduced or even made obsolete on a very long run. A great advantage when it comes to accessing hard-to-reach locations or realizing maintenance operations in installations such as tunnels, roads, car parks, ...) which would otherwise need to be shut down.



**LEC,
ACTOR IN
SUSTAINABLE
DEVELOPMENT**



LEC aims to act in compliance with all environmental requirements and has developed an eco-concept approach to reduce its manufacturing impact on the environment.

The Light Emitting Diode offers considerable advantages in the respect of the environment, with low power installations contributing to reduce the global energy

consumption. Thanks to its remarkable longevity of up to 100 000 working hours, the LED contributes to reducing maintenance costs and waste quantity. Less energy

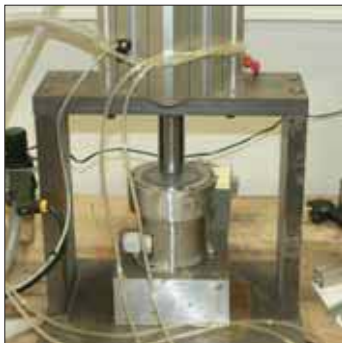
consuming and always more efficient, LEDs will clearly be at the heart of tomorrow's lighting innovations.

FOR A TOTAL QUALITY



In 2002, LEC obtained its first ISO 9001 version 2000 certificate, clearly making customer satisfaction a priority. Since then, the certificate has been subjected to recurrent audits with a triennial renewal obtained in July 2005.

LEC is also planning to implement an environmental management system based on ISO 14001 certificate.

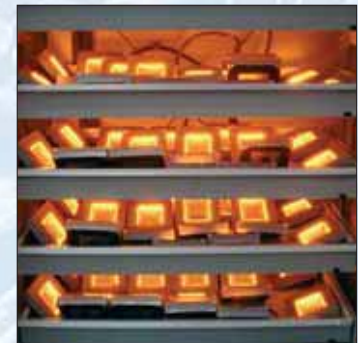


Marker compression and watertightness tests.

PRODUCTION AND CONTROL

Each step of the product conception and production is controlled to guarantee total quality.

All our luminaires are subjected to extremely thorough controls for water and dust protection (IP 68) and all possible electronic interference is systematically



tested within extreme temperature conditions into a climatic cabinet controlled by PC.

Finally, artificial aging tests are regularly carried out to validate product components quality, design reliability and production run.

A DEDICATED
DESIGN OFFICE



LEC's team of engineers is dedicated to guiding creators through all the steps of a project. This includes safety marker-lighting and accentuation lighting developments or lighting processes by fulfilling all customer, user and

by-laws requirements while guaranteeing the reliability of installations. Each new product is manufactured following creator specific requirements and is named after its first project. This step of concerted

development helps us giving the installation a personal touch and systematically looking for the best way to integrate the luminaire into the architectural background in order to give the lighting project its full dimension.



LEC keeps a market leadership position thanks to its ability to innovate and to consider light-designers' expectations such as customizing a luminaire or developing specific products, which are all natural and daily approaches of LEC's teams.

In that respect, the new LED-based lighting spotlights range is an innovating and customisable response to these needs, combining creativity, quality and reliability. These special care taken in developing specific products allows us to guarantee luminaires longevity.



**AN ONGOING
INNOVATION
PROCESS**



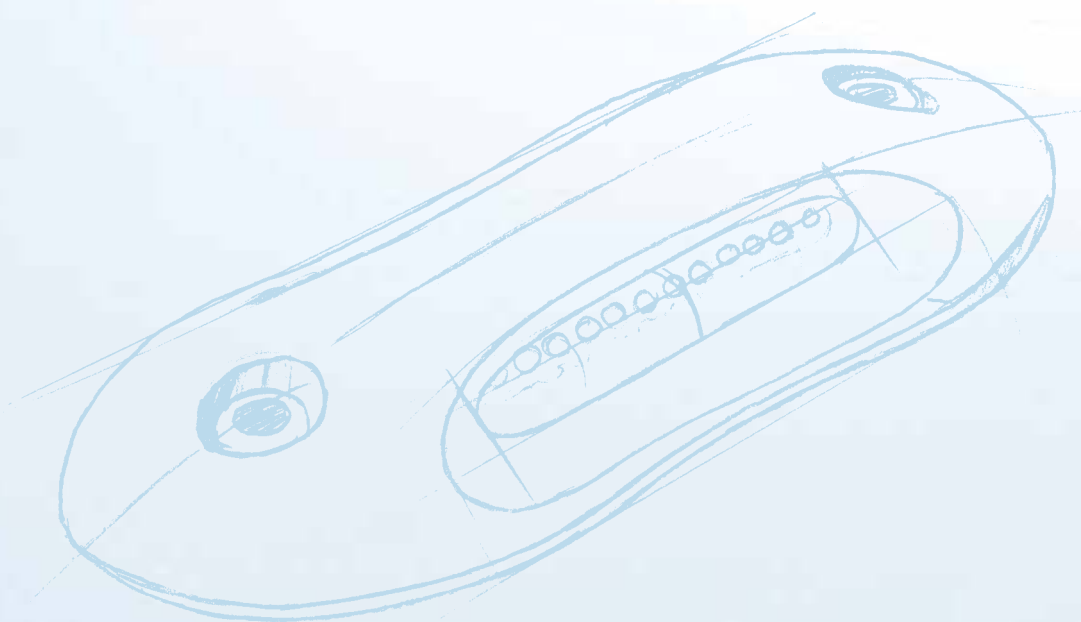
A market leader, LEC permanently innovates to meet and even anticipate lighting designers requirements.



Optimal adaptations to the requirements of a site or ambiance, contribution to the aesthetical achievement of a building, enhancement of dynamic lighting installations... LEC is always at the forefront of innovation and creation.



LEC's everyday task is to develop products in accordance to specific projects and to adapt existing products by using the most up-to-date and efficient tools in the market for conception and testing purposes. A innovating partner for your projects, LEC gives life to your imagination.



When marker-lighting was still solely used for safety purposes, nobody would have imagined that design would later become a cornerstone of the conception phases. At the beginning, the



conception of a product was purely based on resistance, light emitting efficiency and reliability of the light source. Today at LEC, the team in charge of the luminaires design (in close



collaboration with the design agency LUCANE) takes special care in combining high standards of technical, reliable, ergonomic and aesthetic characteristics in each products.

**DESIGN
AS A PLUS**



LED-BASED
SPOTLIGHTS

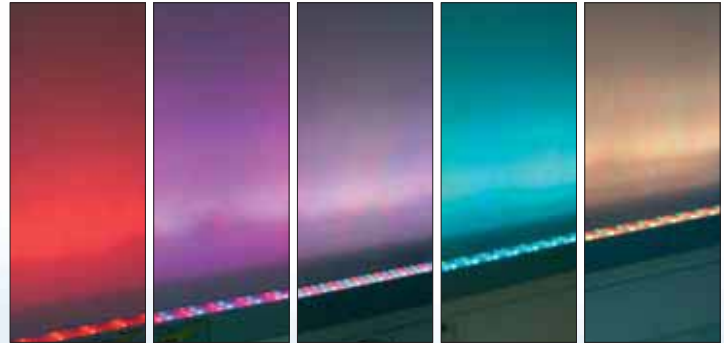


The new range of LEC's LED-based spotlights stands at the forefront of technology: conceived for the architectural accentuation of a building or to offer dynamic light experiences, they are equipped

with an electronic colour control and a cooling system to guarantee longevity. Appealing lighting effects are obtained with a simple monochrome spotlight or a more sophisticated

dynamic colour scenario to outline a building architecture or animate an urban environment. Small and compact, these luminaires are easy to integrate into the urban landscape.

COLOUR CONTROL SYSTEM FOR DYNAMIC LIGHTING APPLICATIONS



One can easily imagine that the colour change in luminaires is controlled by an operator working from a control room.

In reality, scenarios are conceived by artists in the first place. They start by mentally picturing the whole installation before figuring out how it will work automatically, continuously and without problems.

ARACOLOR® is a range of colour control systems allowing the user to create innovating dynamic lighting scenarios that work automatically without the need of further human intervention. These systems are compatible with DMX, DALI or PWN applications.

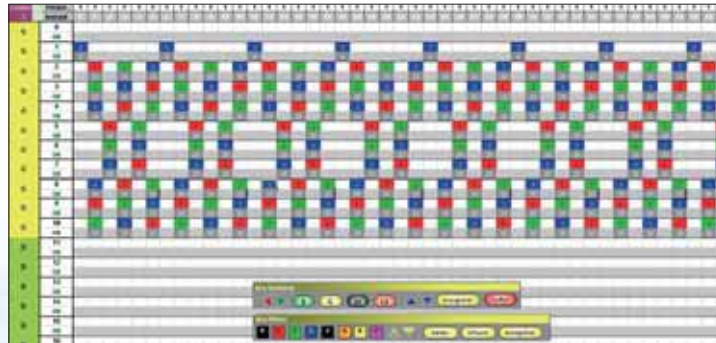


ARACOLOR® FOR DYNAMIC COLOUR CHANGES

Even if the LED has not yet replaced the most frequently used light sources in urban applications, it has however created a revolution in the lighting world by introducing it to the diversity of dynamic lighting applications.

Everywhere in the world, engineers are working on improving the "trichromical" LEDs. These three fundamentals (green, red and blue) are blended to such a level of homogeneity that today, it is possible to obtain all the colours of the rainbow just by controlling the intensity in each one of these three fundamentals.

ARAPILOT® TO FACILITATE INSTALLATIONS



In case of ground-recessed applications, a simple cabling and a perfect water-tightness are key-qualities to long-lasting working operations. Keeping in mind simplicity and quality of installations, LEC has therefore developed the ARAPILOT® technology. The luminaires are fitted with a non-polarized 2-wire cable for a parallel connection, to

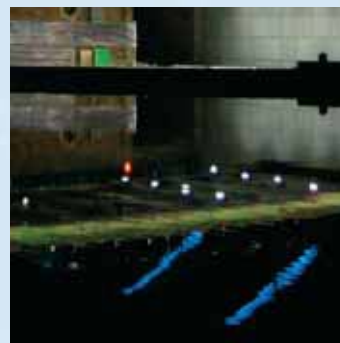
cancel any risk of connection error. The colour control information contained in the luminaires travel on the supply cable "carrier current". Each luminaire is equipped with a colour control card that reads the received information and provides the LEDs in various intensity and colours.



ARALOG® is a software for the programming of lighting choreographies. The animation of single or group of luminaires is based on pre-defined scenarios. These scenarios can be activated through a clock, a cell phone or any colour control system compatible with DMX.



A SYSTEM THAT CONVEYS EMOTIONS



ARACOLOR® dynamic colour control system is a new tool to help lighting designers convey emotions and fill the urban spaces with light to positively change our perception of cities at night.

A NETWORK OF COMPETENCE



Specialized in lighting systems, marker-lighting and street furniture in France and abroad, our network of regional branches accompanies you step by step in the realization of your project and is at your disposal:

- To deliver a personalized advice in systems, marker-lightings or spotlights to suit your projects

- To interface with our production unit to adapt or customize our products.
- To assist installers during implementation phases to ensure quality and sustainability of the equipment in the respect of your prescription.



In more than 15 countries, our onsite agents provide you with the LEC offer and guide you in the preparation of your projects to ensure the quality of specifications and to coordinate multiple tasks, always with the guarantee of LEC's quality.

Our agents and representative subscribe to LEC's quality chart and their goal is to help you make your project happen.

To contact the agent of your choice, please visit the updated site list on our Website at www.lec.fr.

AN INTERNATIONAL NETWORK

DOCUMENTATION
TOOLS



Our technical datasheets are available in various languages and contain all the information and characteristics of our marker-lightings, spotlights and accessories.

They will guide you with your specification and help you validate your choice in luminaires.

Installation datasheets are also available to help you with the implementation of your installation.

They contain recommendations and other important steps that should be considered at the various steps of civil engineering, mounting, connection and maintenance.



Always up-to-date, our Website www.lec.fr is a place where you will discover LEC and find all resources concerning our products and activities. A regular visit of our Website www.lec.fr will allow you to:

- Be informed of the latest technical and commercial activities of the company.
- Discover our new references.
- Obtain information on our products and technologies.
- Alternatively, simply get in touch with one agent or representative of our network.



AFFIX A SAFETY LIGHTING BRAND



MARK AN ILLUSTRIOUS PATH



PERPETUATE ARTIST DREAMS



BRING YOUR IDEAS TO LIFE



SPECIFIC REALISATIONS



PRODUCT RANGES

PAGE 21



The implementation of LEDs is necessary in a safety marking installation to draw users attention on the road or closed to crossroads or roundabouts to provide safety lighting or visual guidance at low level even in smoke filled tunnels... In today's era of increased speed and movement we inevitably have to provide visual guidance to ensure an optimal fluidity of traffic. However, a safety maker-lighting is also a signature. It contributes to give a place its own identity, the identity of the customer or the lighting designer or the place itself. With LEC, express your own identity with lightings combining safety and aesthetical characteristics.

PAGE 29



As the cities are becoming always more beautiful, LEC's LED lighting find a proper place into the urban environment: they promote social interaction, increase the feeling of safety and outline the buildings and public spaces architectural features. At nightfall, in the midst of the night or at dawn, illustrious path can guide users throughout a unique experience that will last the time of their journey, leading them to discover a site where lights bring out a whole new kind of sensitivity... LEC will help you create atmospheres in which you feel most safe while arousing your senses and awakening your emotions.

PAGE 37



With their soft light so typical of LEDs, marker-lighting opens new horizons, with games of shadows and light, variations in colours and brightness... Thanks to its technological expertise and large experience, LEC is the ideal partner to make lighting designers wishes come true. When the artists dream finally turns into reality, the lighting application reveals the communion of the creator and its object ; the fulfilment of its wishes and its talent illuminates our astonished eyes.

PAGE 45



The birth of a new idea is always a great moment of joy, a door wide open on a world full of novelty and surprises. When seduced by a bright idea, LEC always mobilizes its people to act towards its culmination, to such an extent that a successful project soon becomes a fixed idea... Confident of its experience and competences, LEC leads lighting designers towards the achievement of specific projects by providing its know-how and ability to innovate until an idea turns to reality. Exchanging thoughts is a key to the realisation of a lighting application, in that respect LEC strives to share the conception of bright ideas.

PAGE 55

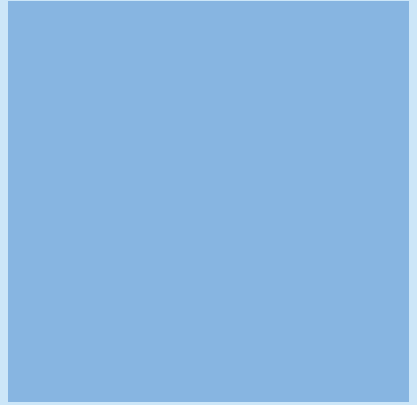


Innovate to create better lighting effects, develop to get ahead, adapt, test and apply... Conceiving and elaborating specific products is an answer to enquiries, the concretisation of a meeting or a need, more than a purely methodological approach. In the end, the result appears, a challenge was taken up, solutions were found and new applications materialize.

PAGE 61



This chapter is an introduction to all the LEC ranges of products: marker-lighting, spotlights, accessories... We invite you to go through these pages as though it were a suggestion box... We know what we are looking for but we don't exactly know what we will find in it... all information, drawings and technical specifications needed are here. Enjoy your reading!





A F F I X A S A F E T Y L I G H T I N G B R A N D

A safety lighting brand gives your marker-lighting installation its own enduring style. The reliability and durability of LEC's LED marker-lightings allow to minimize maintenance and service operations while increasing safety and reducing costs.



B O R D E A U X - France

Tramcar - **Light bars of specific realization**

Project design and construction supervision: Mairie de Bordeaux

Architects: Brochet, Lajus, Puyos architects, Signes, EdP.



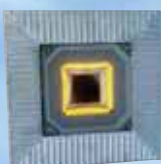
N Î M E S - France

Géant Casino Supermarket at Nîmes Sud - Myart - Raoult architects - 6000



L Y O N - France

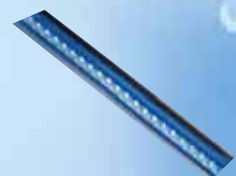
Tramcar platform and taxi stands - Bruno Dumetier - 2852





M A R S E I L L E - France

Espace Saint-Jean - Lévy & Magnan - Speeg et Michel - 5620



L Y O N - France

Saint-Georges Car park - Lyon Parc Auto (LPA) - 1844



P A R I S - France

Palais Royal Courtyard - Buren - Bouchain & Haro - 1843



L Y O N - France

Saint-Georges Car park- Wilmotte - Lyon Parc Auto (LPA) - 1844



M O N A C O

SNCF train station - Platform edge marker-lighting - Les Eclairagistes Associés - Agence des Gares - 2850



Z U R I C H - Switzerland
Weidikon - Tiefbauamt Architekt - 5620



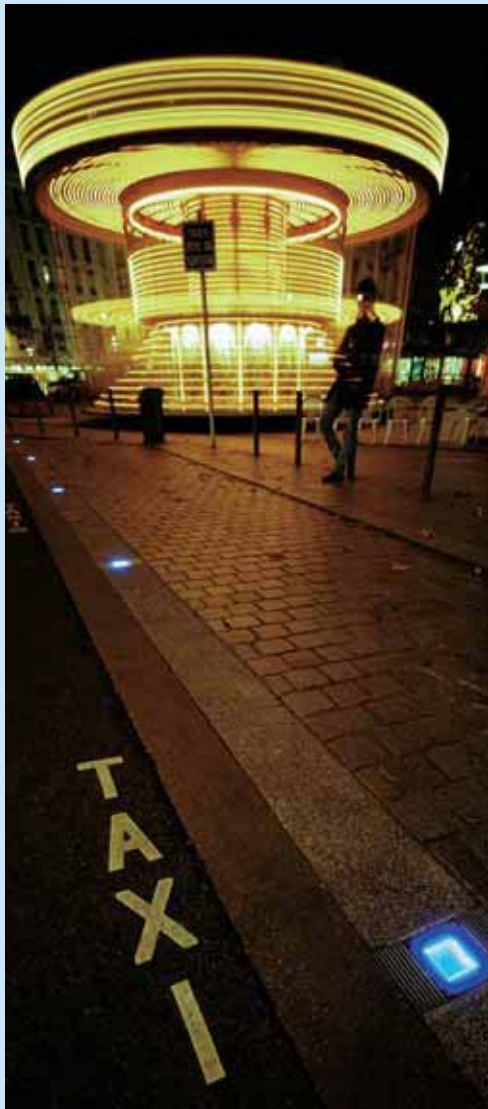
L A N Ç O N D E P R O V E N C E - France
Caravanes giratory - CETE Aix-en-Provence - 1843



M A U G U I O - France
City Hall Square - François Fontes - 2852



G L A S G O W
Buchanan Street St Enoch Square
Speirs & Major Gillespies - 2852



L Y O N - France
Taxi stand, Place de la République
G.Verney-Caron - BBC Arch. - 2852



S A I N T - N A Z A I R E - France
Océanis roundabout - TETRARC - 1832



L Y O N - France
City Hall car park - Lyon Parc Auto (LPA) - 1843



O R E L L E S - France
A 43 - Sorderettes Tunnel - 1821



L U X E M B O U R G

Wallis Place - Observatoire 1 - Atelier Paczowski Fritsch - 1832



L Y O N - France

Underpass Part-Dieu Brotteaux - 1821



L Y O N - France

Juliette Récamier Place - Reinhard Katz - 2852

C R U Z E I L L E S - France

Pilot factory - Patrick Bowder - 1831



M A R S E I L L E - France
Espace Saint-Jean - Lévy & Magnan
Speeg et Michel - 5620

P A R I S - France
Atlantic TGV platform - Montparnasse Station
Agence des Gares - 2850

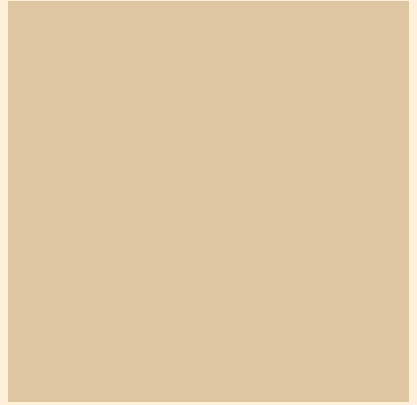


L Y O N - France

"Valmy" Tube Station
Pierre Vurpas, Philippe Hutinet - 1831

L Y O N - France

Part-Dieu TGV Car park - Lyon Parc Auto (LPA) - 1843

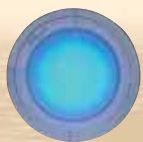




M A R K A N I L L U S T R I O U S P A T H

Light touches from grounds, walls or spaces reveal illustrious paths inviting users in their wanderings and embellishing their daily life while ensuring safety.

The animated and interactive ARACOLOR® technology offers a world of combinations in marker-lighting applications that only find restriction in our imagination.



S I O N - Switzerland
Egide Concept - 1830

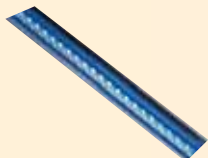
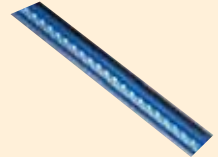


L Y O N - France
Saint-Georges Car park - Lyon Parc Auto (LPA) - 1844



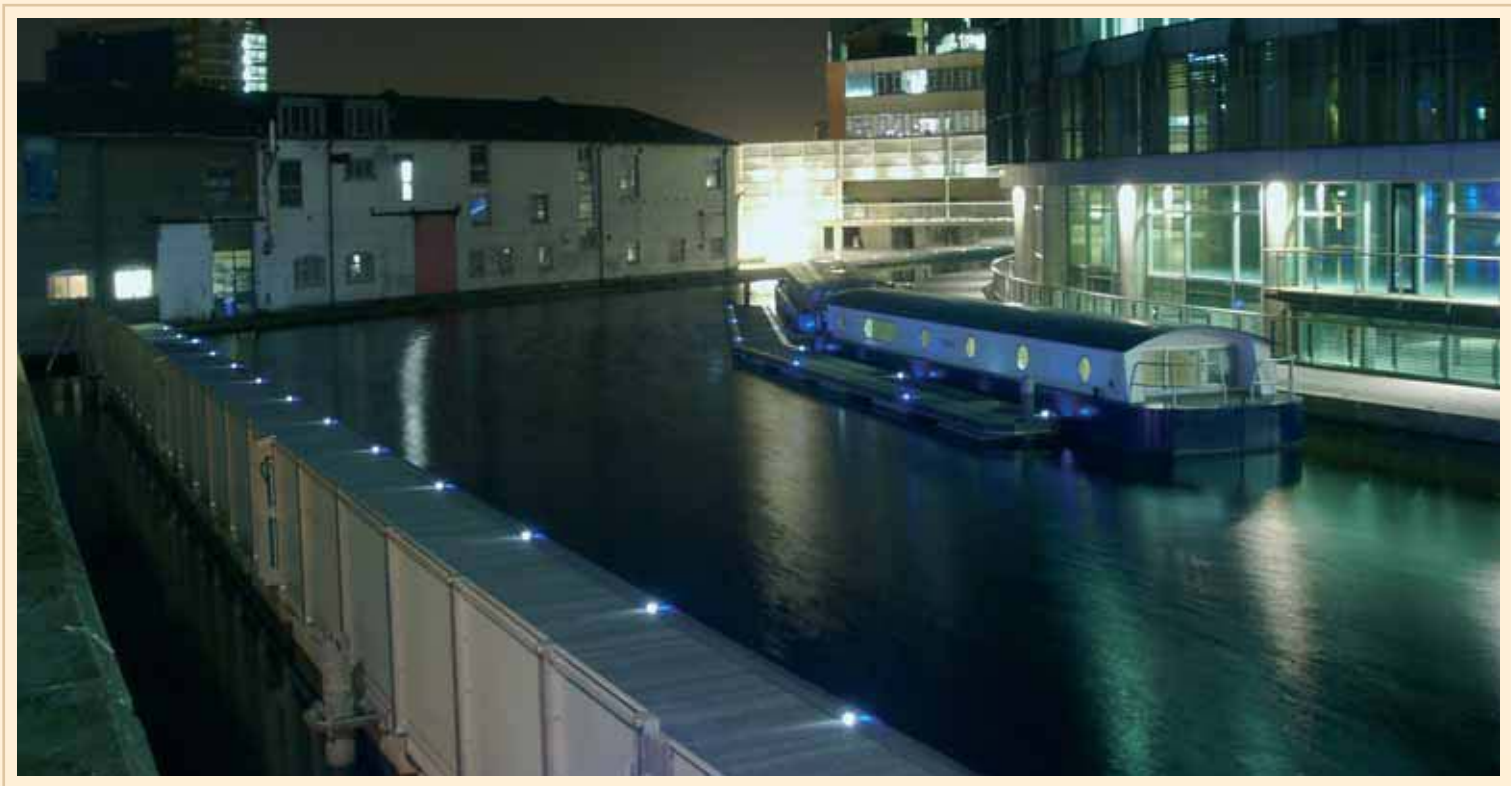
L O N D O N

London School of Economics Library Plaza - MJP Architects London - Bruce Allan - 5620



B O U T A C A - Portugal

Boutaca Bridge - 5620



L O N D O N

Paddington Basin - Speirs & Major - 1843



O E I R A S - Portugal

Passeio Marítimo de Oeiras - Camara Municipal de Oeiras - 1843



CHAMONIX - France

Mont-Blanc Tunnel - 1843



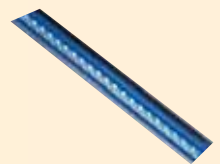
VILLEURBANNE - France

Cours Emile Zola - Architecture Lumière - 1826



LONDON

London School of Economics Stairs
Speirs & Major - Mouchel-Parkman - 5620





L O N D O N
South Bank - Riverside - Speirs & Major - 1830



G L A S G O W
Argyle Street - Simon Hirst - 1830



M O N T P E L L I E R - France
ZAC Jacques Cœur - BBA (Bedeau & Bonon) - 1830



P A R I S - France
Esplanade des Invalides - 5423



B A I N S D E B R E T A G N E - France
City Centre - Chouzenoux Architecte - 2853



L O N D O N
Stratford Salway Road - London Borough of Newham - 2849



O U L L I N S - France
Grande Rue - Architecture Lumière - 1826



L I S B O N - Portugal
Praça de Figueira - 2852



T U N N E L D E L ' É P I N E - France
INGEROP - AREA - 1810



B A R C E L O N A - Spain
Mae Edificio - Forum 2004 - Herzog - Isometrix - 1831



G E N A P P E - Belgium
Place de la République - Francis Leclau - 2855HL



GREENWICH
Greenwich Dome Meridian Line - Speirs & Major - 5620



RENNES - France
"Université" Tube station - Jean-Paul Philippe - 2849



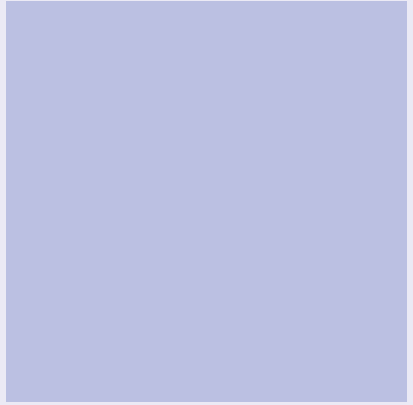
EDINBURGH
Edinburgh Park: Kingston Place - RMJM - 2851



P A R I S - France
Place de Vendôme - Ville de Paris - 1830



A R Q U E N N E S - Belgium
Grand Place Walkway - IGRETEC - 1830





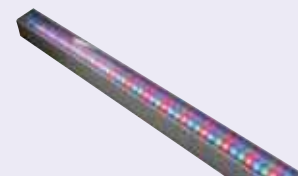
P E R P E T U A T E A N A R T I S T D R E A M

By offering lighting designers always more powerful LEDs (especially in terms of brightness), LEC widens the imagination spectrum... with the ARACOLOR® system, LEC brings accentuation lighting to life and offers creators a tool for freedom.



P A R I S - France

Bondy Bridge - Benoît Laloz - 5620



L Y O N - France

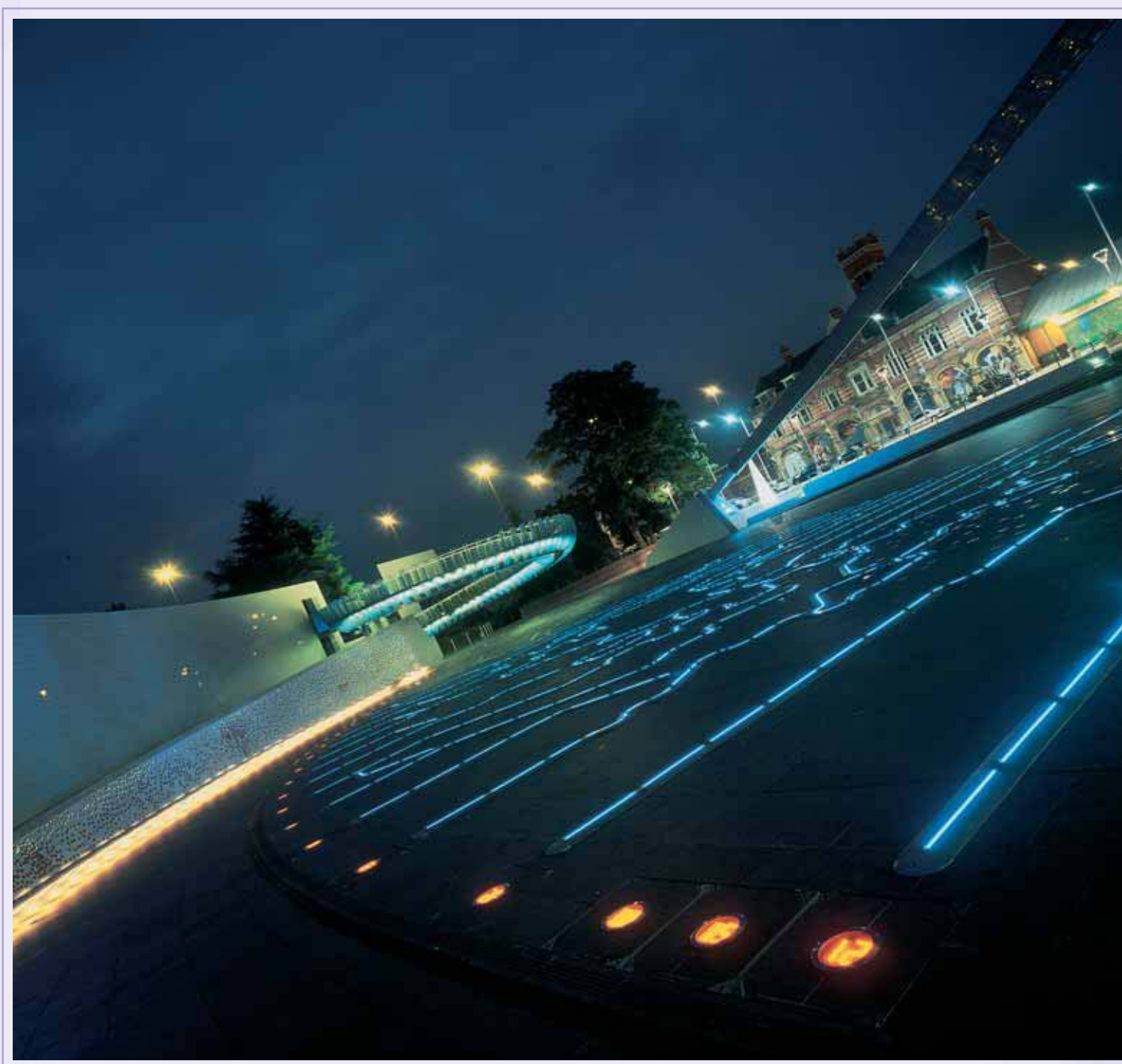
Quai Augagneur "Nature Mature" François Magos - Fête des Lumières 2004 - **Specific Realisation**



CLERMONT-FERRAND - France

Place de Jaude - Les Eclairagistes Associés - **Specific Realisation**





COVENTRY

Millenium Square - MJP Architects, "Time Zone Clock" F. Schein - "Arches" Speirs & Major - **Specific Realisation**





LYON - France

Terreaux Galery, December 2005 (AFE) - **1810**



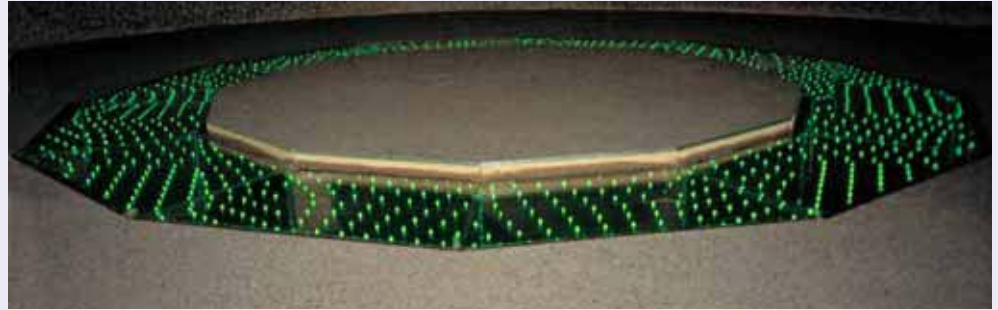
NÎMES - France

Place de l'horloge - **1830**



LYON - France

Parc de la Tête d'Or "Couleurs Flottantes" Daniel Tillier - Fête des Lumières 2004 - **Specific Realisation**



MONTORMEL - France
Memorial to the Polish Soldiers dead in 1944 - Victor Coucosh



NÎMES - France
The access to the tower is marked with recessed marker-lighting with dynamic colours programmed on a pre-defined scenario - 1830



CARDADA - Switzerland
Walking bridge above lake Locarno - Paolo Bürgi - 0320C



LYON - France
Building Le Villette Part-Dieu - La Nébuleuse du Trèfle - Babylone Avenue - 1830



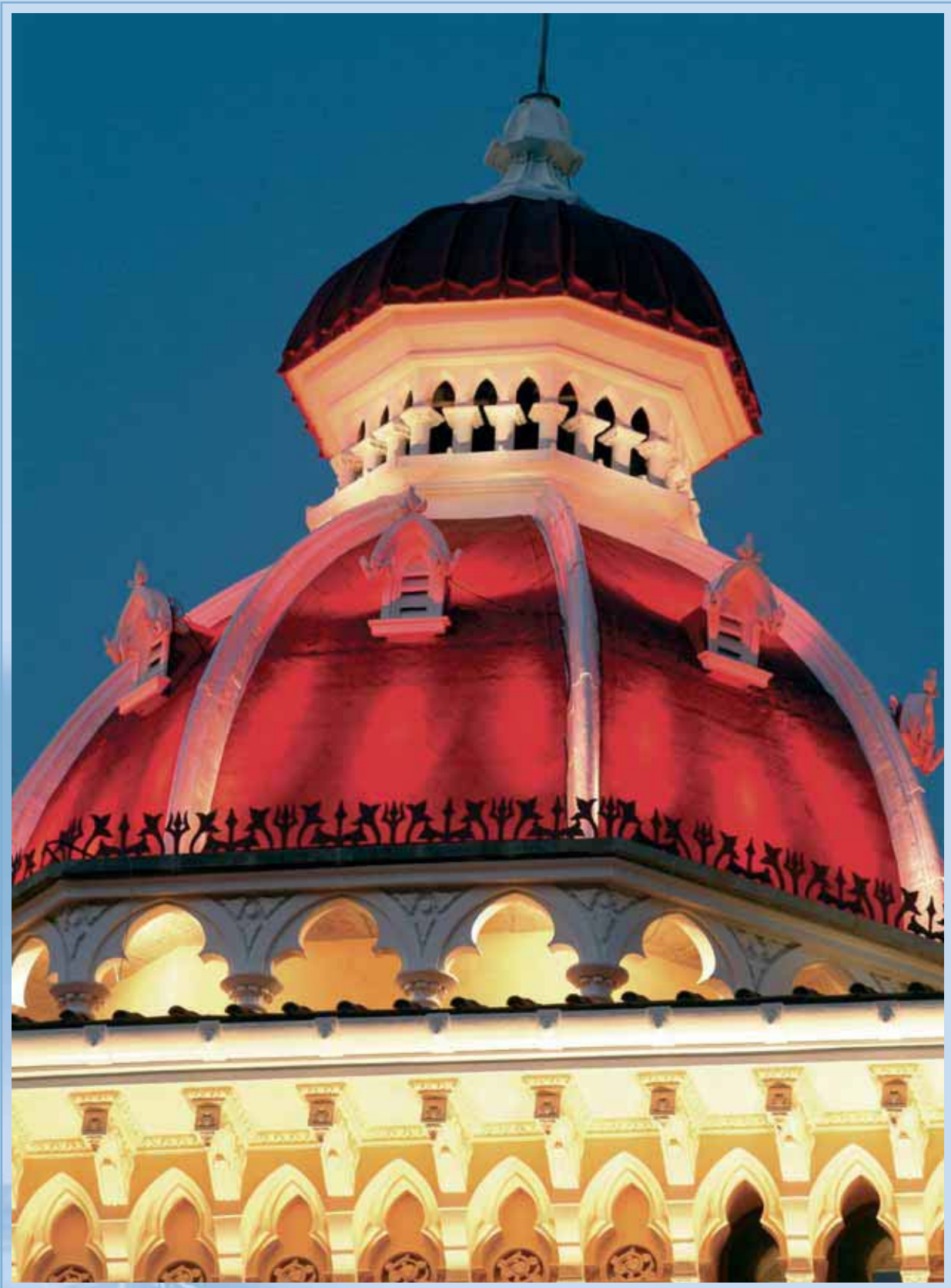
TOURNAI - Belgium
Fort Rouge - Pascal Dejaiffe - 2855





B R I N G Y O U R I D E A S T O L I G H T

A partner to the creators, LEC takes on bright ideas to bring even the most audacious project to life by staying faithful to the original creation and guaranteeing to take into consideration all the requirements of a project. Each product is unique as we manufacture LED-based luminaires on request.



MONSERRATE PALACE - Portugal

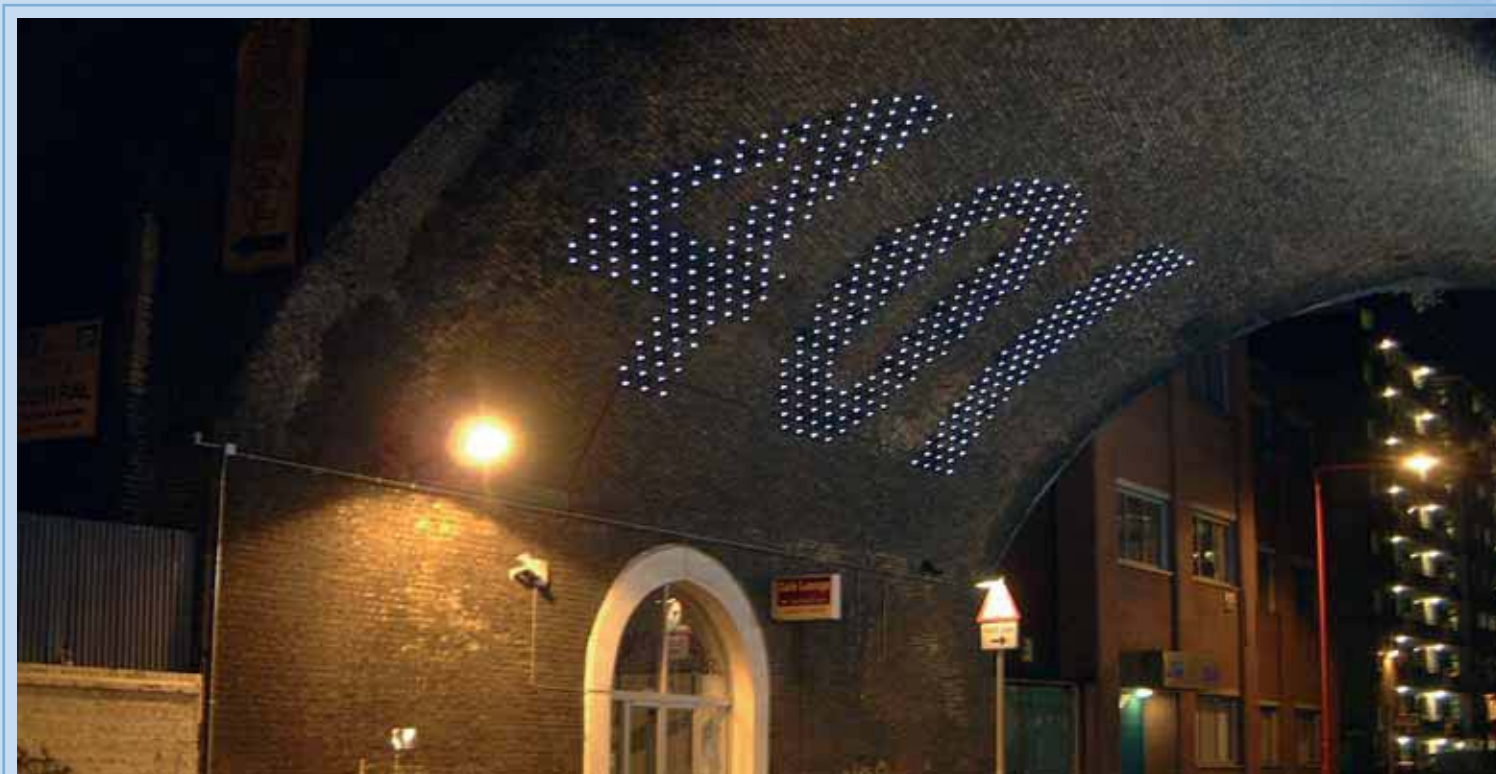
Divisão de Iluminação Pública da Câmara Municipal de Sintra - Luminy 4010



N A N C Y - France

Zenith - Communauté Urbaine du Grand Nancy - 1836

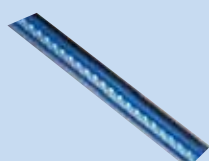




L O N D O N

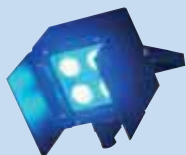
Bridge 401 - Gill Sans Southwark, London 2006

Ron Haselden working with the Architects Robert Barnes & Taeko Matsumoto - 0320



L U N E L - France

Feuillade forecourt - BE Project - 5620



B O N N E V A L - France
Bonneval footbridge - Agence Quadra, Architectes - 4540



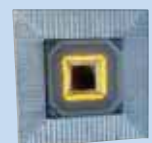
BALARC - LES - BAINS - France

Architecture Signal - 1830



VALENCIENNES - France

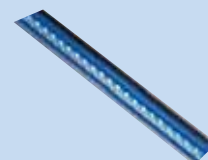
Place d'Armes - AARTILL - 2852





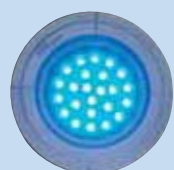
S A I N T - M A L O - France

Bastion de la Hollande (intra-muros) - AARTILL - 5620



S O I G N I E S - Belgium

Place Verte - Pascal Dejaiffe - IGRETEC - 1830



H A N N O V E R - Germany

Waterloo Säule Column - 4020





WYCOLLER
 Wycoller Park Visitor Centre
 (prix RIBA 2002) - Hakes & Ass - **1830**



P A R I S - France
 Station St-Lazare - Arte Charpentier Architectes
 Philippe Almon - **5620**



VILLEURBANNE - France
 Blue light bars - Astroballe hall - OMNILUM - **5620**



D U B L I N - Ireland
 Liffey River Bridges, O'More Bridge - Duilio Passariello - **5620**



W A L S A L L
 Walsall Bus Station - St-Paul's Church Square - AHMM Architect - **2852**



GRAZ TUMMELPLATZ - Austria
 Alfred Bramberger - **2852**



T O U L O U S E - France
 St-Joseph Church Belltower - S.E.P.T. - **4020**



M O N T P E L L I E R - France
 Public library - Chemetov & Huydobro - **1830**



C A N T E L E U - France
Water tank - LIGHTEC - 1826



L Y O N - France
SACVL Building - HTE - 1826



D U B L I N - Ireland
Liffey River Bridges, O'Donovan Bridge - Duilio Passariello - 5620



N I C E - France
Place Garibaldi, gas torch simulation
J-P. Zaccaria - Ville de Nice - **Specific Realisation**



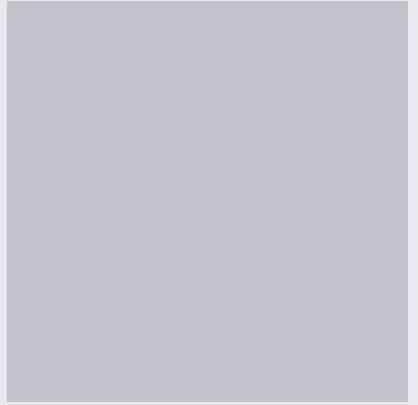
A T H - Belgique
Light thread - Commune de Ath - 5620



I S L E O F M A N D O U G L A S
Court of Justice - Jonathan Speirs & Associates - 2852



B O U L O G N E - France
Car park - 4540

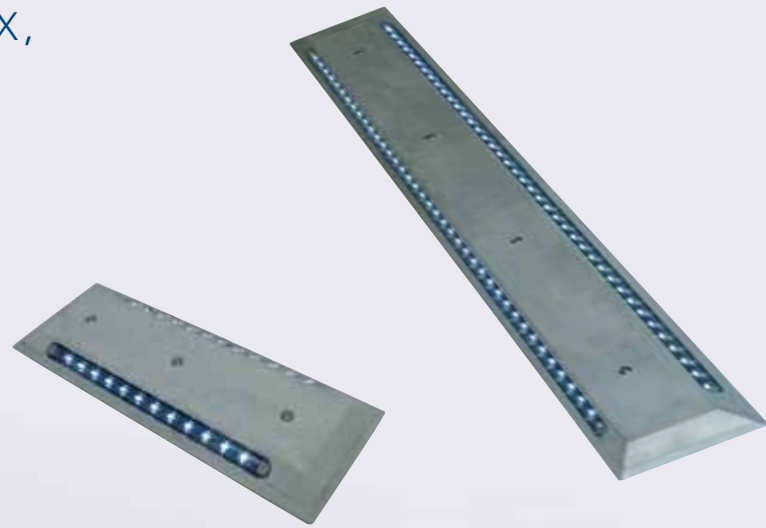




S P E C I F I C R E A L I S A T I O N S

Technological innovations often pave the way to the creation new breeds of applications, opening new worlds of possibilities... As LEC's teams are specialized in their area of application, they constantly work to bring out the best in LEDs and systematically suggest how to use them without restriction.

THE TRAMWAY OF BORDEAUX,
A STREETCAR LINE
IN THE CITY'S HEART...
OR THE ART TO AFFIX
A LIGHTING BRAND

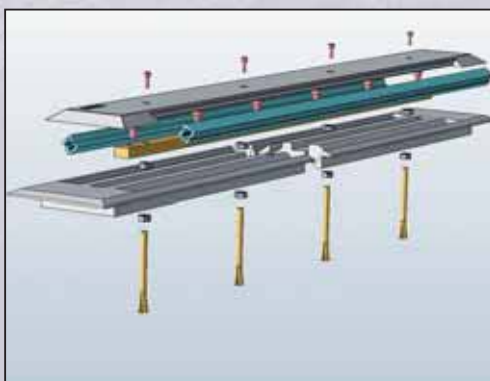


Together with EDP and SIGNE, the architects Brochet, Lajus & Pueyo, wanted to mark the streetcar path of the urban conglomeration of Bordeaux with a strong safety-lighting signal by integrating light bars of specific conception along the line.

Originally conceived as safety marker-lighting, these LED light-bars soon became a sign of identity.

A unique safety lighting brand, they contribute to give the new streetcar line its own identity, illuminating the path of millions of night-time strollers.

Placed perpendicularly to the rails, these light-bars answer very precise requirement specifications and take advantage of all the LEDs characteristics: quality and adapted brightness, easy installation and maintenance and long-lasting life... in the respect of the public request for tenders obligations.



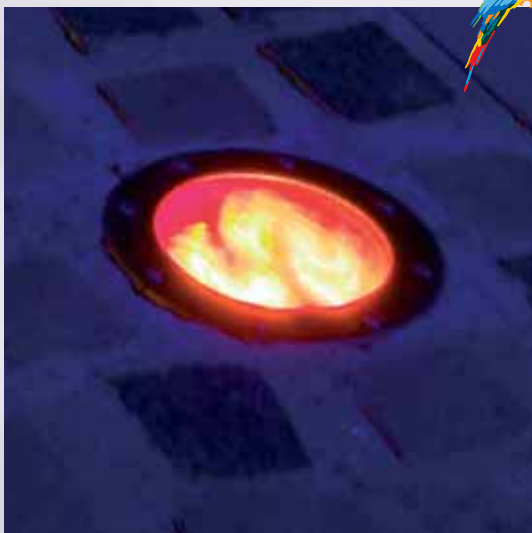
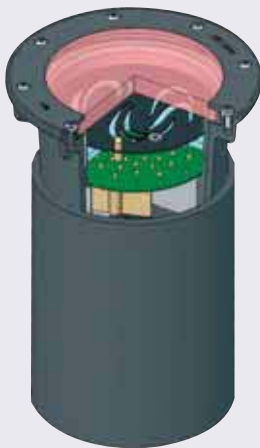
JAUDE, ERUPTIONS OF LIGHT
 IN A SYMBOLIC PLACE,
 OR THE ART OF MARKING AN ILLUSTRIOUS PATH



Led by the agency Les Eclairagistes Associés, LEC has developed an innovating lighting device covering part of the 3.5 hectares of the Jaude Place: the main area of Place Centrale de Clermont-Ferrand (France) is now home to 250 LED ground recessed luminaires simulating the movement of lava in fusion.

A technical performance issued from a close-collaboration between the lighting designers and LEC engineers, the lighting of the Jaude Square is a realisation of telluric inspiration, the expression of an idea and a technological innovation to further the identity of a unique site.

Composed of delicate yellow and red light drops, each autonomous lighting flickers into the basalt floor to create evolving ambiances and to suggest the nearby volcanic territory.



TO PERPETUATE AN ARTIST'S DREAM: WHEN LIGHT SERVES TIME AT COVENTRY



The "Time Zone Clock" expresses a political point of view of the relationship between time and space."

Françoise Schein

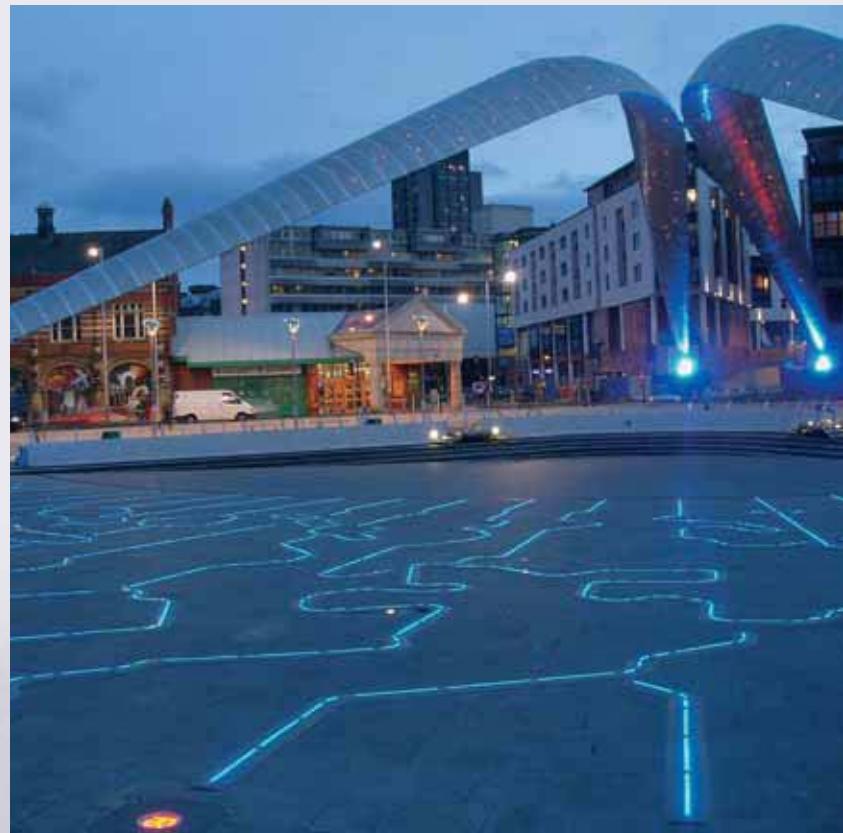
For her International Time Zone Clock project at the Millennium Square in Coventry, the Belgian artist Françoise SCHEIN chose LEC to ensure that the scale and the originality of her project would be respected.

LEC went on to schedule a precise programme and collaborated with various actors on a gigantic construction site, always taking into consideration the various constraints of integration and the legitimate colour rendering requirements.



The conception of floor recessed cast aluminium time zone bars encrusted with LED-lights was both a technological and an aesthetic challenge.

Since 2004, this artist dream has permitted to simultaneously read the time of the 26 towns twinned to Coventry... this symbolises the artist implication in the human rights, the city's actual dynamics and her dream of a future full of imagination, innovation and poetry.



LEDS AS FLOATING LIGHTS...
ARTIST'S DREAM AND POETICAL REALITY



"To escape the traditional frame of painting, by simulating painting", was the original bright intention of French artist Daniel Tillier, which turned into reality in collaboration with the designer Frederic du Chayla and LEC, under the shape of floating lighting objects...

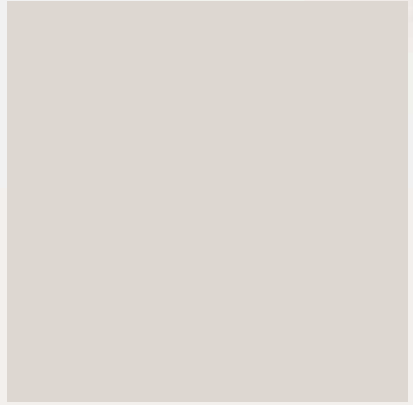
Equipped with electroluminescent lights, these floating colour drops recreate a bright multicolour work of art, strolling into the waves and the waters reflection. A real invitation to travel, this installation was first introduced to a public in 2002 during the "Fête des Lumières" in Lyon, where they could be seen floating on the Saone riverbed.

In 2004, they were subsequently staged as a static representation in the ponds of the botanic gardens of the Parc de la Tête d'Or in Lyon. This time, LEC suggested to equip them with high-power (1W), "SUPERWATT" LED for more brightness.



Daniel Tillier's work of art has travelled lately to a new destination, since the City of Lyon and LEC offered it to the City of Canton, where they navigate today in the Yu Tai gardens, at the heart of the Chinese City.







P R O D U C T R A N G E S

If LEC technological knowledge is fully expressed with specific projects, standards product ranges are also broadening to create always more audacious realisations.
Today's prototype is tomorrow standard and vice-versa, the adaptation of a product or the deflection of its usage opens the door to creativity... the actors of the light get their creativity out of such an exchange.

BOUT DE FIL - 0320

<p>0320C LED with threaded Plexiglas cabochon</p>	<p>0320L LED with threaded eye</p>

OCTO 23 - 1401

BOURGOGNE - 1750

<p>1750 Flush recessed</p>	<p>1750R Wall recessed</p>	<p>1750A+E</p>	<p>1750AK+E Stainless steel flange</p>

Registered design

Patented device

Light beam direction

Various opening angles of the light beam

Adjustable

On walls or ceilings, surface fitted

Recessed on walls or ceilings

On the ground with a snow-plough resistant protrusion or on walls and ceilings

On the ground, non-protruding or on walls and ceilings

Number of Ø 5 mm diodes per luminaire

Number of SUPERWATT diodes

Number of LMS

Luminaire equipped with ARACOLOR® technology

Flat frosted window (option)

Diffuser dome (option)

Aluminium

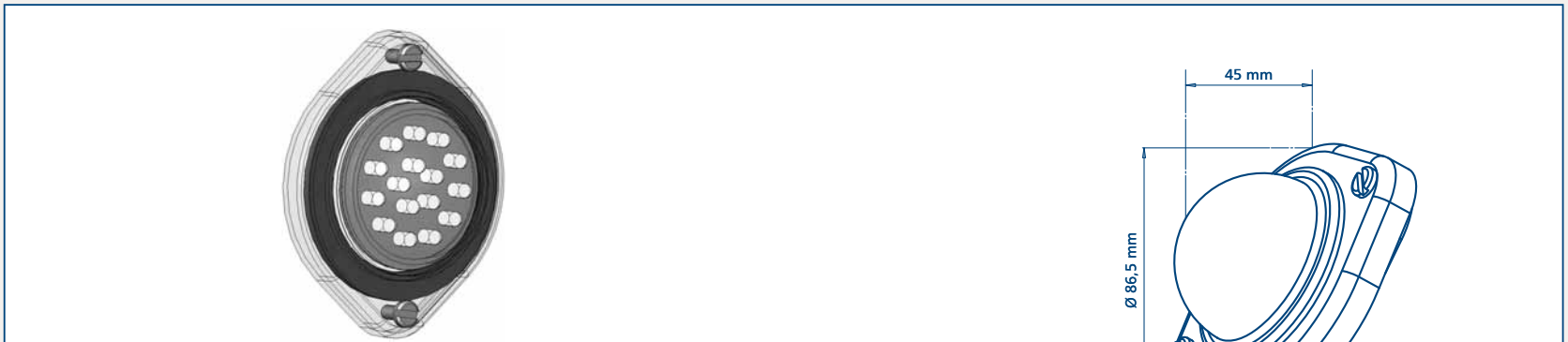
Marine anodised cast aluminium











SAVOIE - 1810 



					2x9, 12, 16 or 24	
	40J					

M P L E C - 1822 



					8, 16, 24		Frontal marking
	40J						

S I O N - 1826 





 1826DF - LIORAN











1826 Frontal marking					24	
	6J					

1826DF Lateral marking					2x24	
						

-  For marking roundabouts and directional islands
-  For safety marking in car parks
-  For safety marking in tunnels
- 20J** Resists chocks up to 20 joules
- 8T** Resists compression up to 8 tons

-  Withstands 2-wheels traffic
-  Withstands low-speed light vehicle traffic
-  Withstands all vehicle traffic
-  Protusion which is an obstacle for 2-wheels vehicles and pedestrians. The unit should be permanently lit to draw attention to the obstacle.

-  Vandal-proof, anti-U.V. polycarbonate window
-  Vandal-proof, non-scratch, anti-U.V. polycarbonate window, M2
-  Vandal-proof organic glass
-  Protection index

-  Flame and ignition proof materials (EC4)
-  Certified in compliance with European Standards 60598-2-22 for emergency lighting units
-  24 volts supply
-  Class 3 insulation

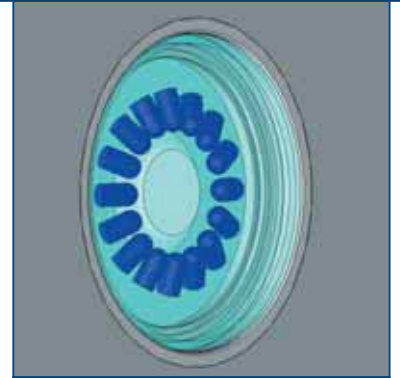
LUCERNE - 1830 

A wide range of optics.
Quantity, colour and LED layout.
Shape and transparency of windows.
A wide range of optics.

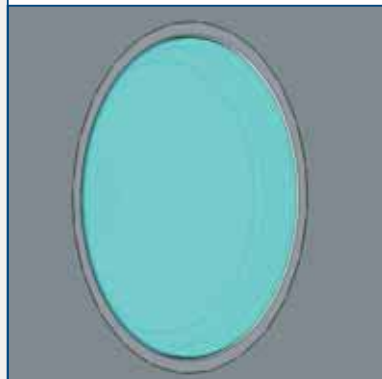
Glued recessed.
Screwed recessed.
... Thousands of variations possible.



1830 
8, 16, 24, or 36



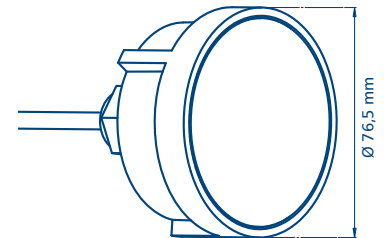
1830M   
8 or 16



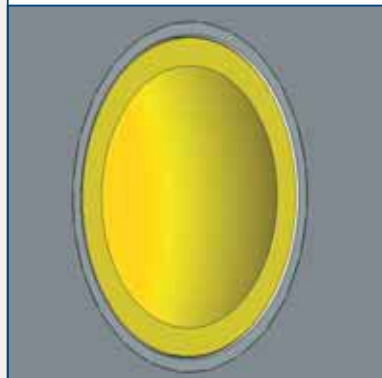
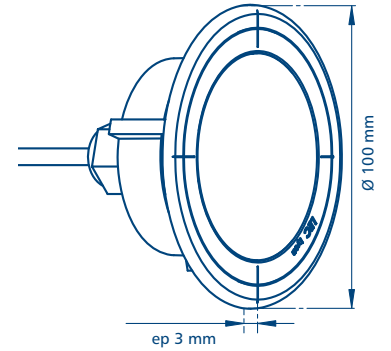
1830H  




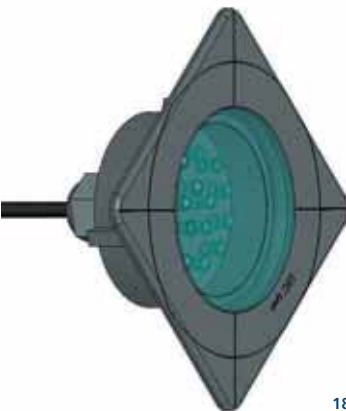
1830



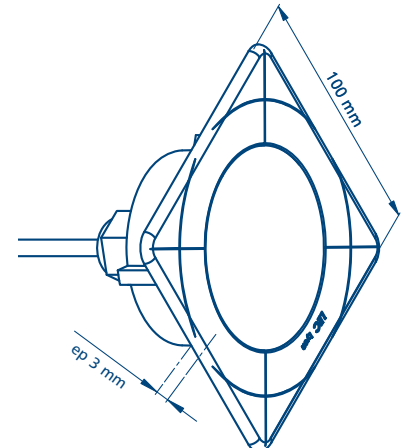
1830R



1830DS  



1830C



1830
Sealed recessed



1830R
Glued recessed



1830C
Glued recessed





 Registered design


 Patented device


 Light beam direction


 Various opening angles of the light beam


 Adjustable


 On walls or ceilings, surface fitted


 Recessed on walls or ceilings


 On the ground with a snow-plough resistant protrusion or on walls and ceilings


 On the ground, non-protruding or on walls and ceilings


 Number of Ø 5 mm diodes per luminaire

 Number of SUPERWATT diodes

 Number of LMS

 Luminaire equipped with ARACOLOR® technology

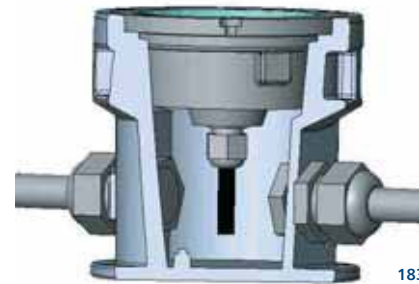
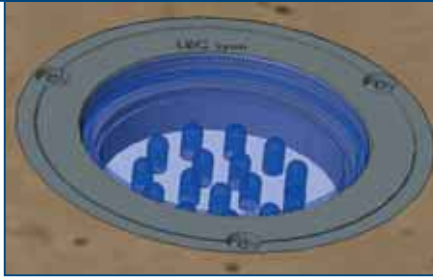
 Flat frosted window (option)

 Diffuser dome (option)

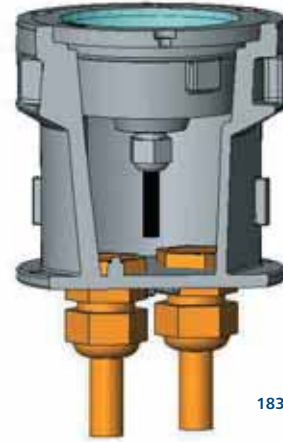
 Aluminium

 Marine anodised cast aluminium

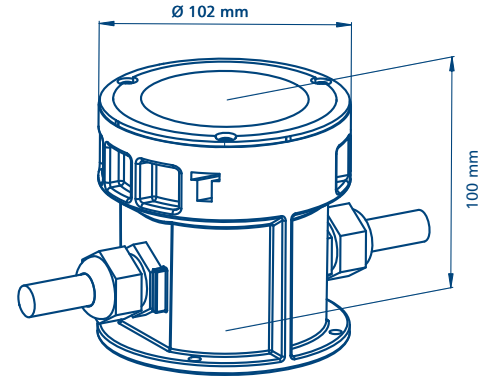
LEC M 1830 - LUCERNE



1830A+EBL



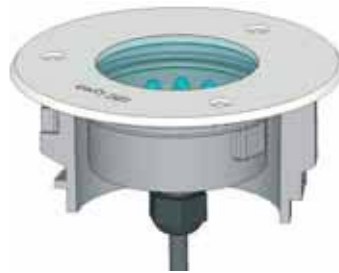
1830A+EBV



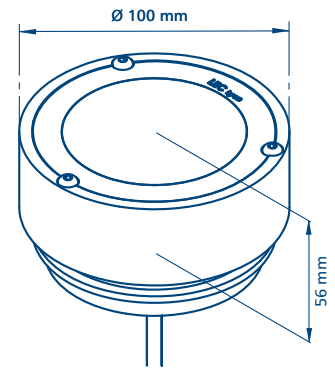
1830A+EBL



1830AK+EBL



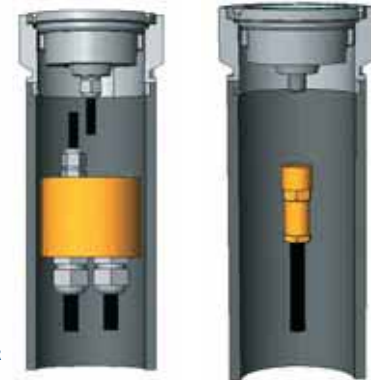
1830AK+E



1830A+E

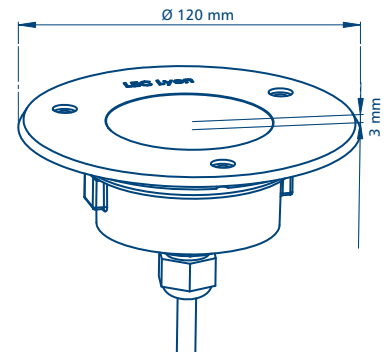


1830A+EBC



1830A+EL+BRIR

1830AY+EL



1830AK

1830A
Screwed recessed



1830AK
Stainless steel flange



- For marking roundabouts and directional islands
- For safety marking in car parks
- For safety marking in tunnels
- 20J** Resists chocks up to 20 joules
- 8T** Resists compression up to 8 tons

- Withstands 2-wheels traffic
- Withstands low-speed light vehicle traffic
- Withstands all vehicle traffic
- Protusion which is an obstacle for 2-wheels vehicles and pedestrians. The unit should be permanently lit to draw attention to the obstacle.

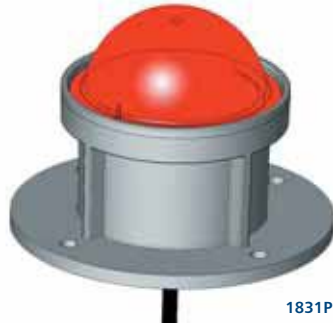
- Vandal-proof, anti-U.V. polycarbonate window
- Vandal-proof, non-scratch, anti-U.V. polycarbonate window, M2
- Vandal-proof organic glass
- Protection index

- Flame and ignition proof materials (EC4)
- Certified in compliance with European Standards 60598-2-22 for emergency lighting units
- 24 volts supply
- Class 3 insulation

CHATELLERAUT - 1831 



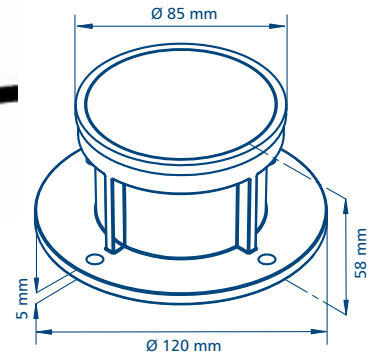
1831P



1831PB



1831PDS



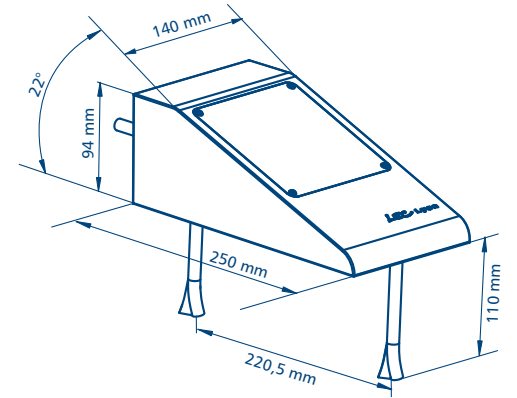
Wall-lamp



ANGOULEME - 1832 



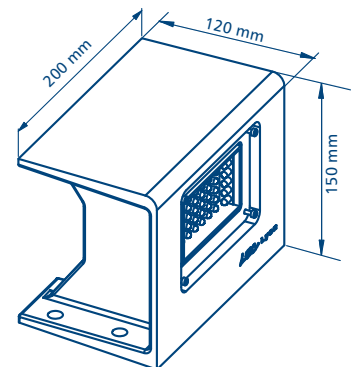
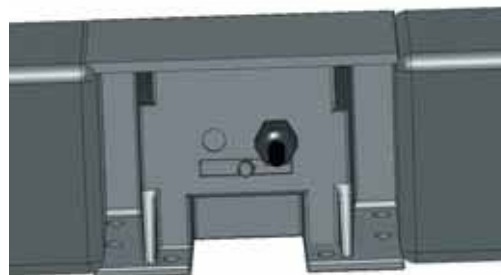
1832H



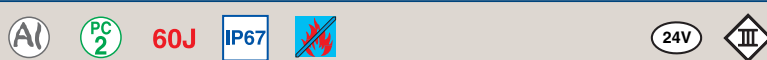
For recessing in inclined road-kerbs



VILLE DE PARIS - 1836 




For recessing in straight road-kerbs





 Registered design


 Patented device

 Light beam direction


 Various opening angles of the light beam

 Adjustable


 On walls or ceilings, surface fitted


 Recessed on walls or ceilings


 On the ground with a snow-plough resistant protrusion or on walls and ceilings

 On the ground, non-protruding or on walls and ceilings


 Number of Ø 5 mm diodes per luminaire

 Number of SUPERWATT diodes


 Number of LMS

 Luminaire equipped with ARACOLOR® technology

 Flat frosted window (option)

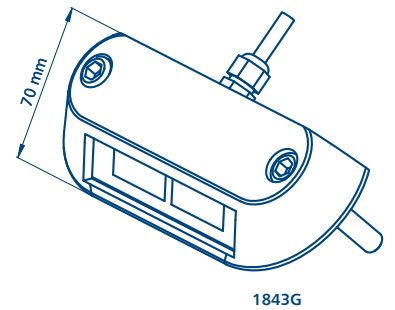
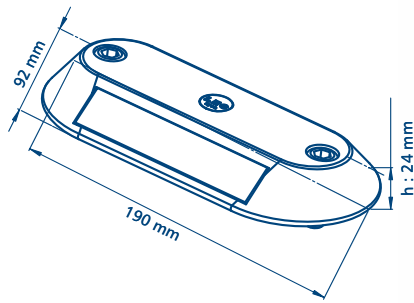
 Diffuser dome (option)

 Aluminium

 Marine anodised cast aluminium

PALAIS ROYAL - 1843 

1843G - CARQUEFOU 



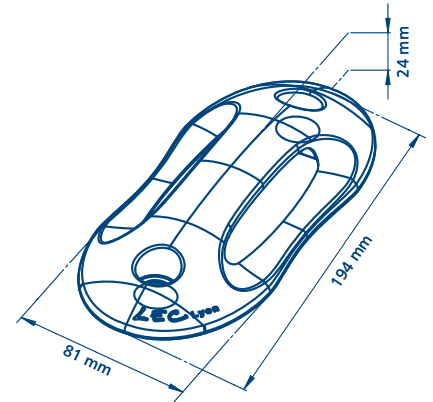
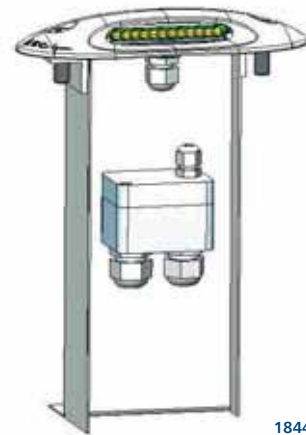
Directional marking, 1 or 2 windows

1 or 2 x 9, 16 or 24

Horizontal cable outlet

12, 16 or 24

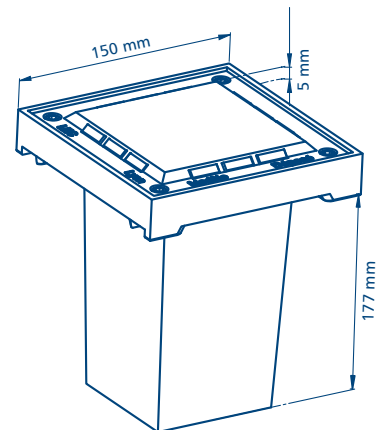
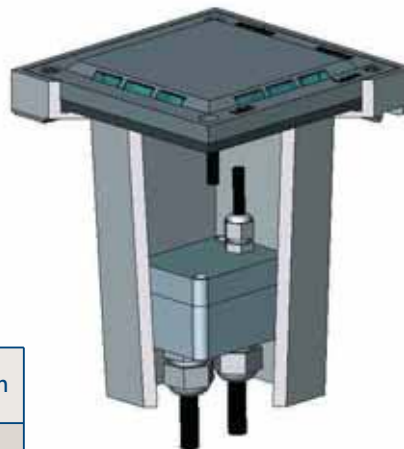
SAINT-RAPHAEL - 1844 



Directional marking, 2 windows

2x8 or 12





BERCY - 2849 











4 directions, protrusion 5 mm

4x12

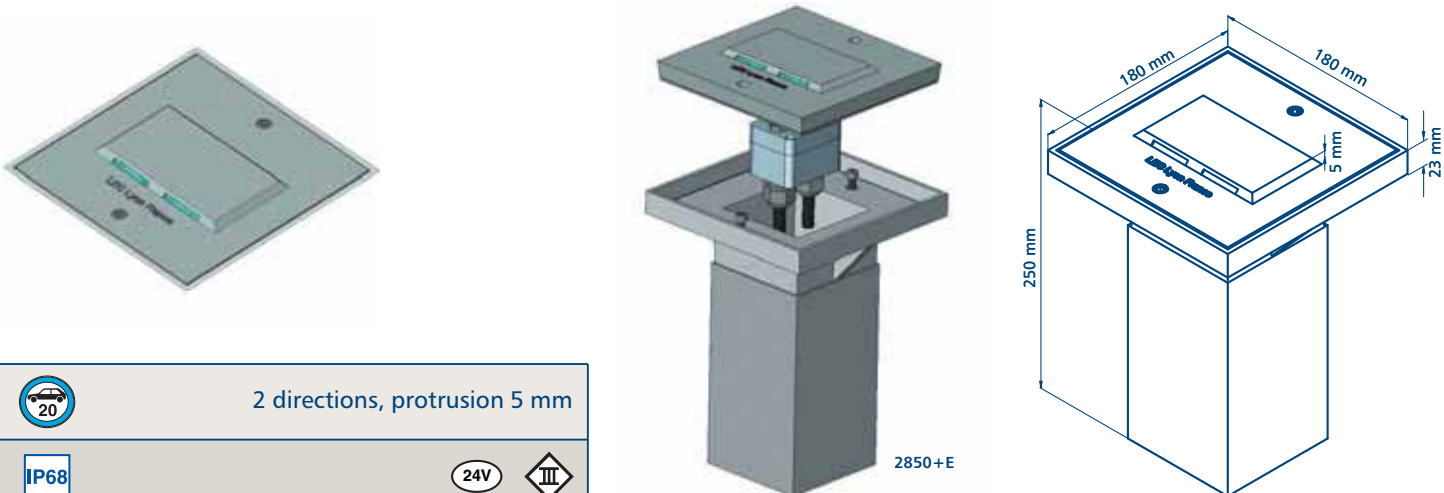
-  For marking roundabouts and directional islands
-  For safety marking in car parks
-  For safety marking in tunnels
- 20J** Resists chocks up to 20 joules
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-  Withstands 2-wheels traffic
-  Withstands low-speed light vehicle traffic
-  Withstands all vehicle traffic
-  Protrusion which is an obstacle for 2-wheels vehicles and pedestrians. The unit should be permanently lit to draw attention to the obstacle.

-  Vandal-proof, anti-U.V. polycarbonate window
-  Vandal-proof, non-scratch, anti-U.V. polycarbonate window, M2
-  Vandal-proof organic glass
-  Protection index


-  Flame and ignition proof materials (EC4)
-  Certified in compliance with European Standards 60598-2-22 for emergency lighting units
-  24 volts supply
-  Class 3 insulation

MONTPARNASSE - 2850 





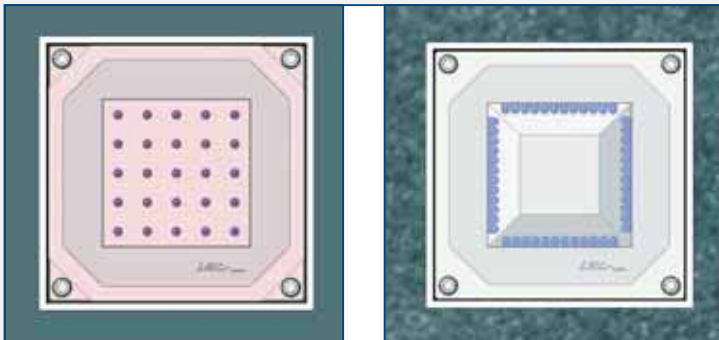
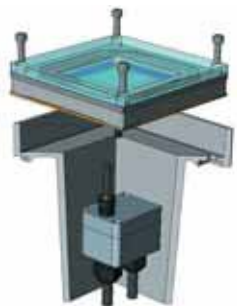
2 directions, protrusion 5 mm



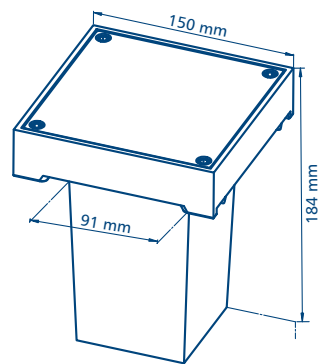
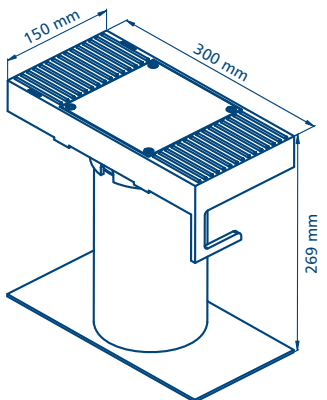
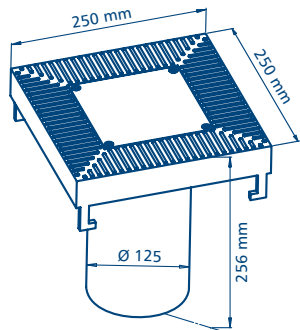

2850+E

PYRAMIDE - 2852 

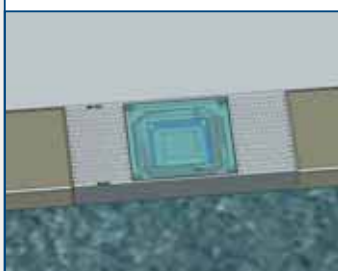
Various optics and recessions. Allowing various combinations

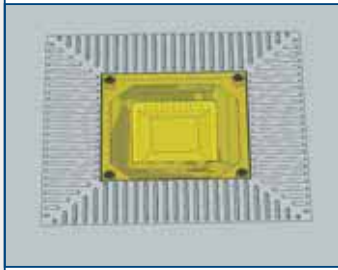
2852+E


2852+ET




2852+EA



2852+ET



4 directions without protrusion





 Registered design


 Patented device


 Light beam direction


 Various opening angles of the light beam


 Adjustable


 On walls or ceilings, surface fitted

 Recessed on walls or ceilings

 On the ground with a snow-plough resistant protrusion or on walls and ceilings

 On the ground, non-protruding or on walls and ceilings


 Number of Ø 5 mm diodes per luminaire

 Number of SUPERWATT diodes


 Number of LMS

 Luminaire equipped with ARACOLOR® technology

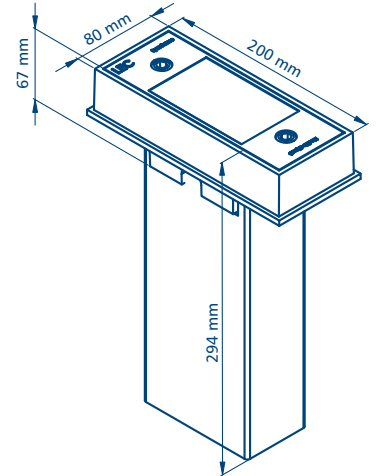
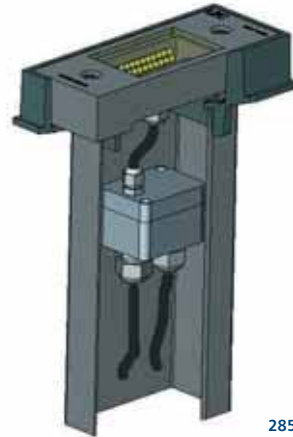
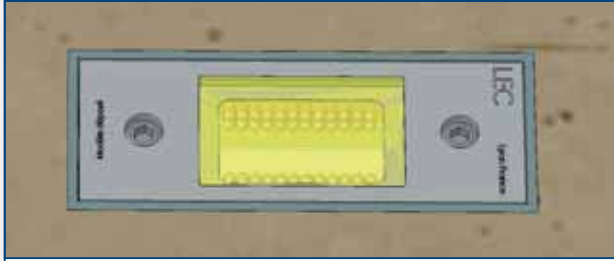
 Flat frosted window (option)

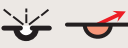




 Diffuser dome (option)

 Aluminium

 Marine anodised cast aluminium

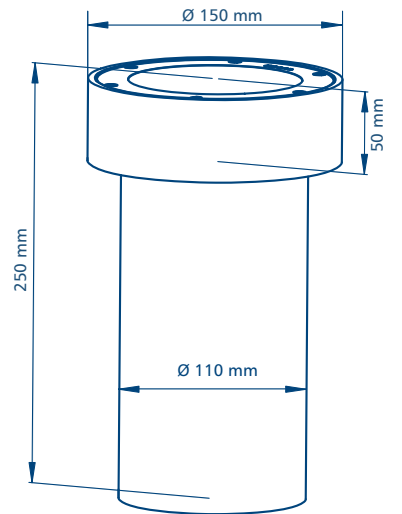
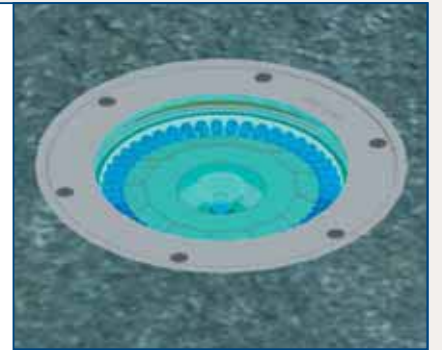
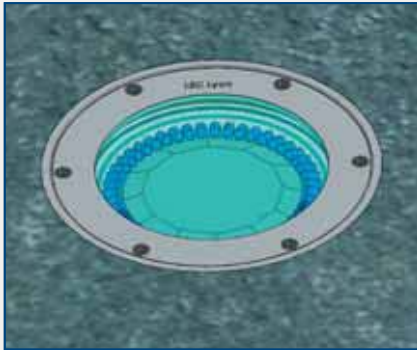
LUXEMBOURG - 2853 





 1 or 2 directions without protrusion
 1 or 2 x 16 or 24




METEOR - 2855 

 METEOR - 2855HB



2855 - Circular lighting and marking non-protruding





 36 or 48

2855HB Circular non-protruding











 36 or 48 1







-  For marking roundabouts and directional islands
-  For safety marking in car parks
-  For safety marking in tunnels
- 20J** Resists shocks up to 20 joules
- 8T** Resists compression up to 8 tons

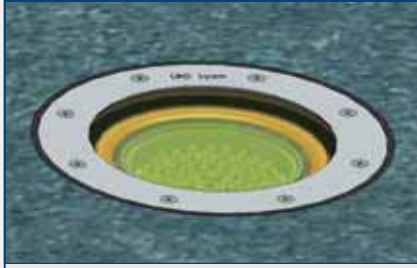
-  Withstands 2-wheels traffic
-  Withstands low-speed light vehicle traffic
-  Withstands all vehicle traffic
-  Protrusion which is an obstacle for 2-wheels vehicles and pedestrians. The unit should be permanently lit to draw attention to the obstacle.

-  Vandal-proof, anti-U.V. polycarbonate window
-  Vandal-proof, non-scratch, anti-U.V. polycarbonate window, M2
-  Vandal-proof organic glass
-  Protection index

-  Flame and ignition proof materials (EC4)
-  Certified in compliance with European Standards 60598-2-22 for emergency lighting units
-  24 volts supply
-  Class 3 insulation

DOUAI - 5422 

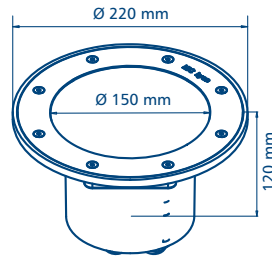
 **5422DS - INVALIDES**



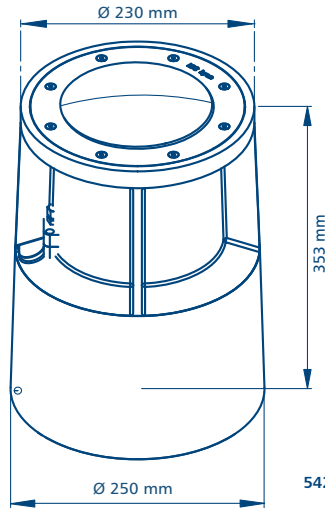
5422
Non-protruding, stainless steel flange



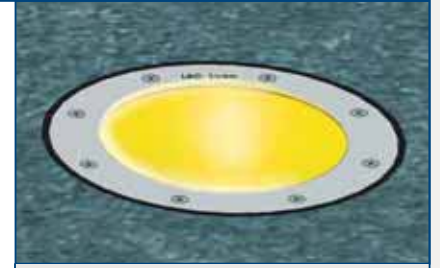
5422+5423



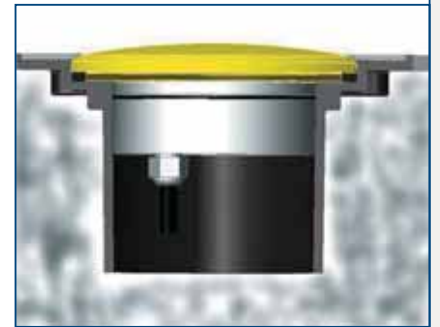
5420EA



5423



5422DS
Diffusing dome, stainless steel flange



5422DS+5420EA

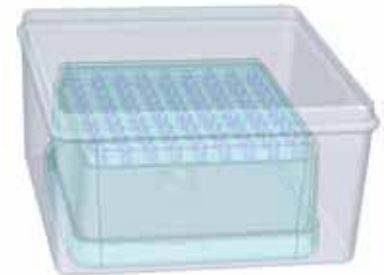
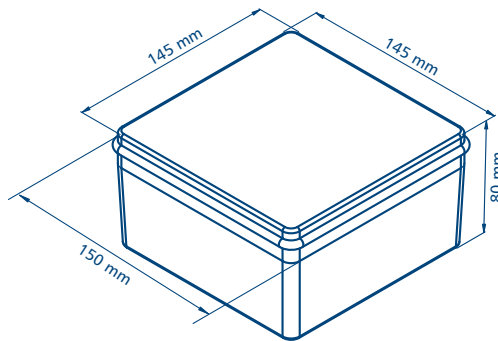
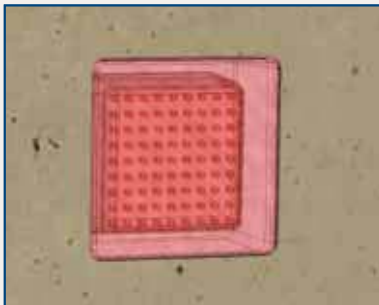
5422
Non-protruding

48 or 81

5422DS
Diffusing dome

48 or 81

LUMAX - 5430 




48 or 81


Glass paving


 Registered design


 Patented device


 Light beam direction


 Various opening angles of the light beam


 Adjustable


 On walls or ceilings, surface fitted


 Recessed on walls or ceilings

 On the ground with a snow-plough resistant protrusion or on walls and ceilings


 On the ground, non-protruding or on walls and ceilings

 Number of Ø 5 mm diodes per luminaire

 Number of SUPERWATT diodes


 Number of LMS

 Luminaire equipped with ARACOLOR® technology

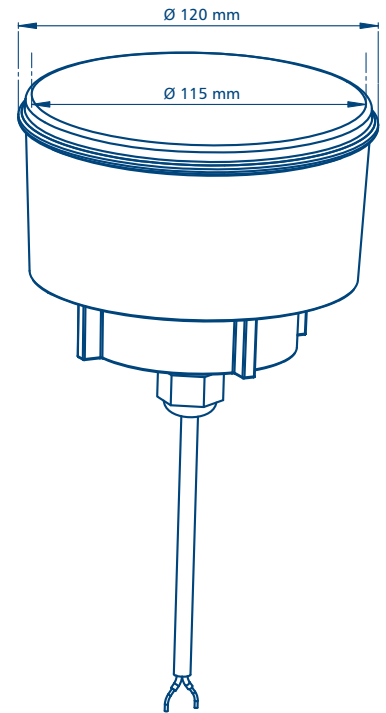
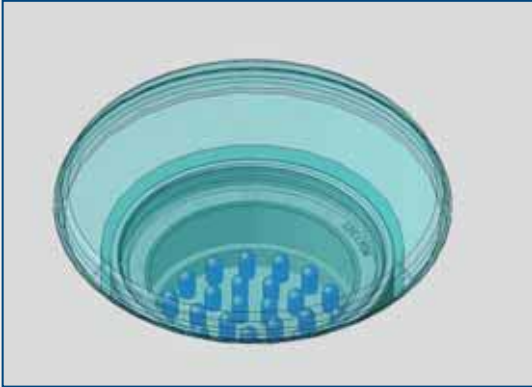
 Flat frosted window (option)









 Diffuser dome (option)

 Aluminium

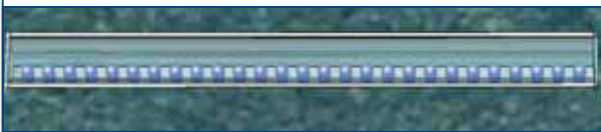
 Marine anodised cast aluminium

PALLAS - 5431 

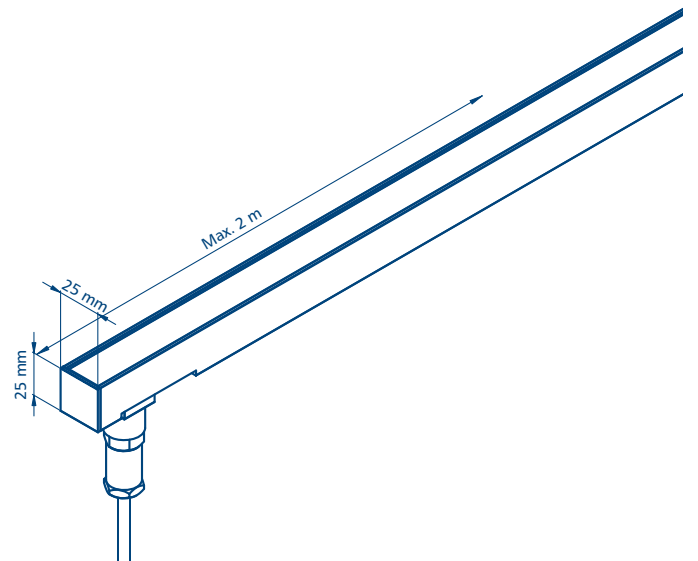
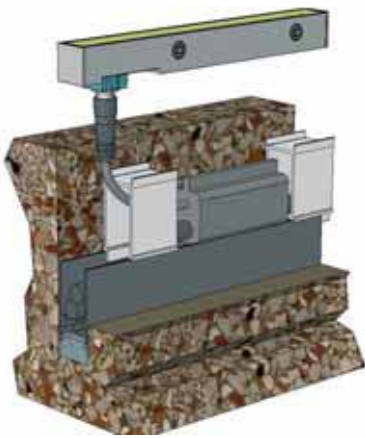



				Glass paving
				 

BRUNEÏ - 5620 











Length on request, max. 2 meters.
Various orientations of the luminous flux







5620				40, 60, 80 or 120/m	5623		Light-diffusing glass	120/m
								 

-  For marking roundabouts and directional islands
-  For safety marking in car parks
-  For safety marking in tunnels
-  Resists chocks up to 20 joules
-  Resists compression up to 8 tons

-  Withstands 2-wheels traffic
-  Withstands low-speed light vehicle traffic
-  Withstands all vehicle traffic
-  Protusion which is an obstacle for 2-wheels vehicles and pedestrians. The unit should be permanently lit to draw attention to the obstacle.

-  Vandal-proof, anti-U.V. polycarbonate window
-  Vandal-proof, non-scratch, anti-U.V. polycarbonate window, M2
-  Vandal-proof organic glass
-  Protection index

-  Flame and ignition proof materials (EC4)
-  Certified in compliance with European Standards 60598-2-22 for emergency lighting units
-  24 volts supply
-  Class 3 insulation

TÊTES DE MATS

6060



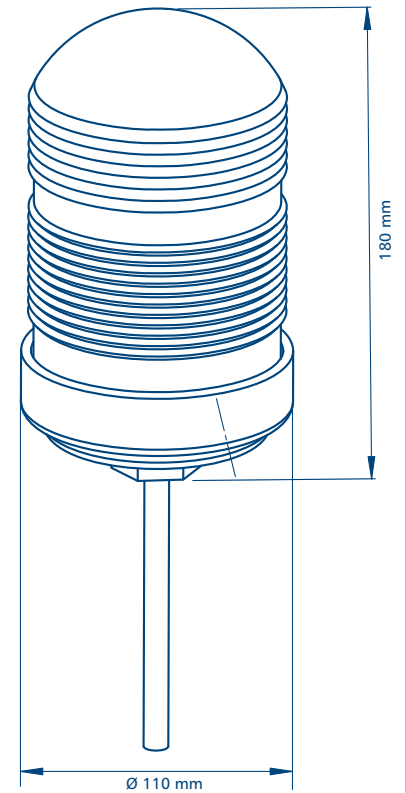
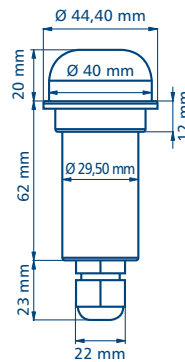
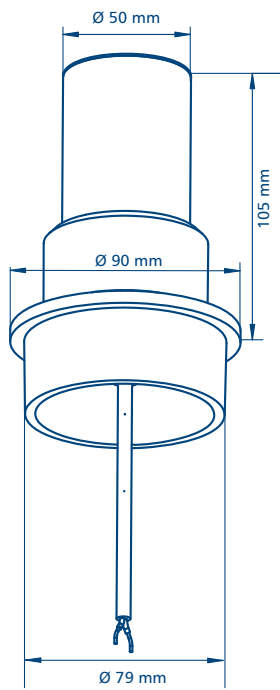
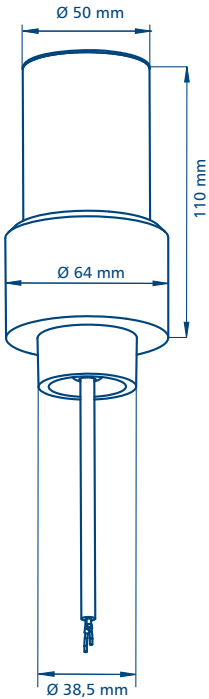
6090



6140



EUR96



6060
Mast Ø 60



6090
Mast Ø 90



6140



EUR96



Hardened glass
with Fresnel lens



LEC M Registered design

LEC B Patented device

Light beam direction

Various opening angles of the light beam

Adjustable

On walls or ceilings, surface fitted

Recessed on walls or ceilings

On the ground with a snow-plough resistant protrusion or on walls and ceilings

On the ground, non-protruding or on walls and ceilings

Number of Ø 5 mm diodes per luminaire

Number of SUPERWATT diodes

Number of LMS

Luminaire equipped with ARACOLOR® technology

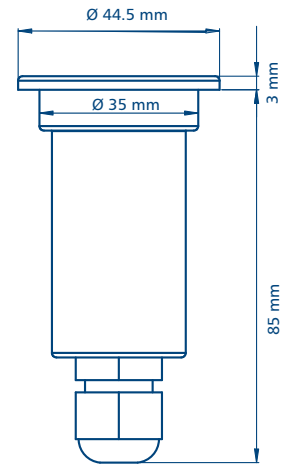
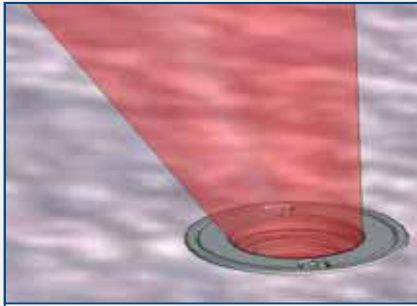
Flat frosted window (option)

Diffuser dome (option)

Aluminium

Marine anodised cast aluminium

BOURGOGNE - 1750 







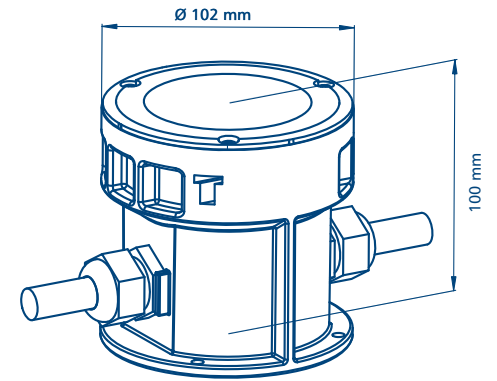
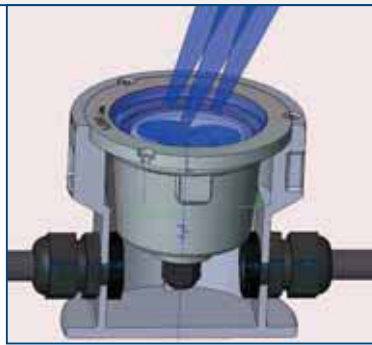
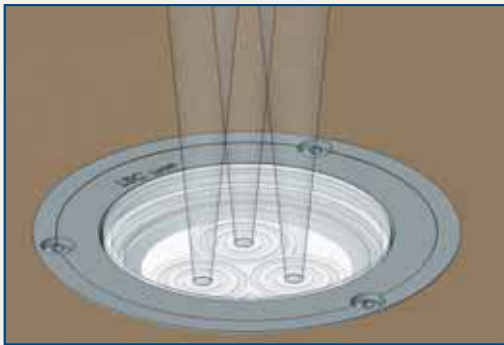












LUCERNE - 1830 





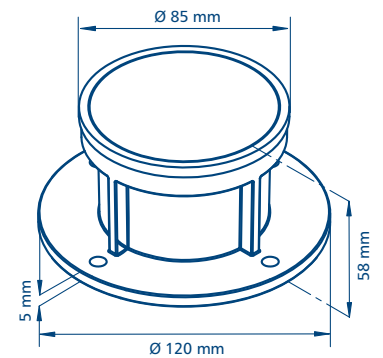
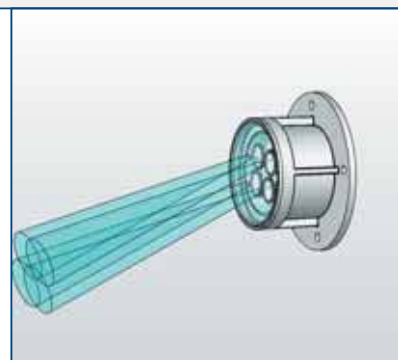


















CHATELLERAULT - 1831 








1831C et 1831R
 Glued recessed
 























1831P
 Wall-lamp
 



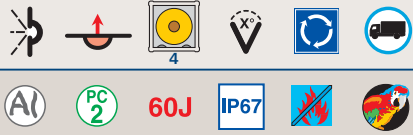
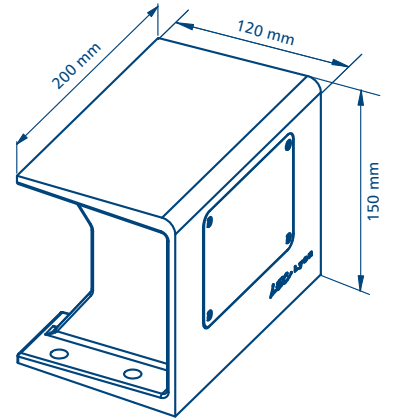
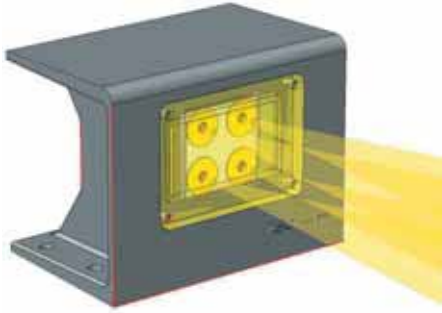
-  For marking roundabouts and directional islands
-  For safety marking in car parks
-  For safety marking in tunnels
- 20J** Resists chocks up to 20 joules
- 8T** Resists compression up to 8 tons

-  Withstands 2-wheels traffic
-  Withstands low-speed light vehicle traffic
-  Withstands all vehicle traffic
-  Protusion which is an obstacle for 2-wheels vehicles and pedestrians. The unit should be permanently lit to draw attention to the obstacle.

-  Vandal-proof, anti-U.V. polycarbonate window
-  Vandal-proof, non-scratch, anti-U.V. polycarbonate window, M2
-  Vandal-proof organic glass
-  Protection index

-  Flame and ignition proof materials (EC4)
-  Certified in compliance with European Standards 60598-2-22 for emergency lighting units
-  24 volts supply
-  Class 3 insulation

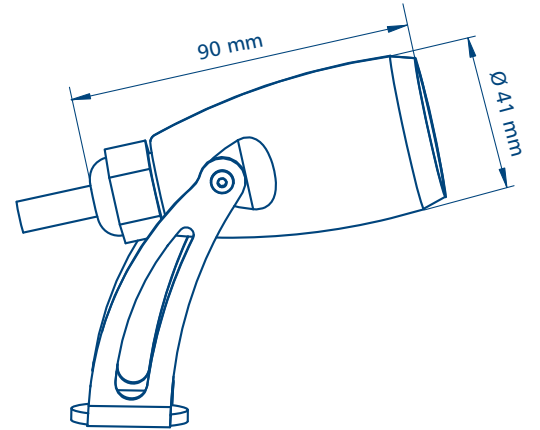
ZENITH - 1836 



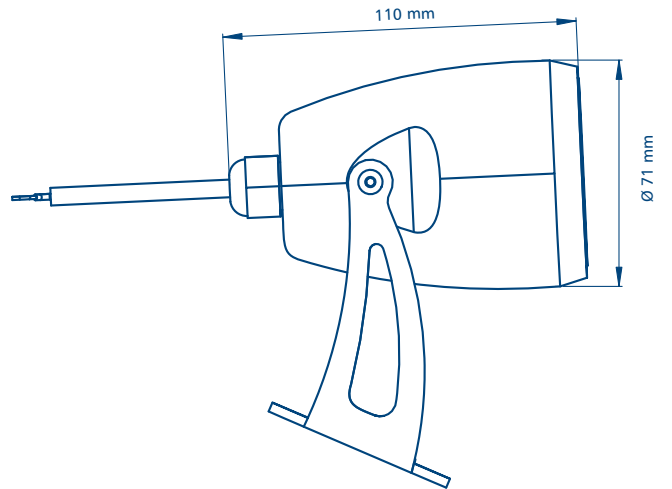
For recessing in straight road-kerbs



LUMINY - 4010 




LUMINY 2 - 4020 





 Registered design


 Patented device

 Light beam direction


 Various opening angles of the light beam


 Adjustable


 On walls or ceilings, surface fitted


 Recessed on walls or ceilings


 On the ground with a snow-plough resistant protrusion or on walls and ceilings


 On the ground, non-protruding or on walls and ceilings


 Number of Ø 5 mm diodes per luminaire

 Number of SUPERWATT diodes


 Number of LMS

 Luminaire equipped with ARACOLOR® technology

 Flat frosted window (option)

 Diffuser dome (option)

 Aluminium

 Marine anodised cast aluminium

BONNEVAL - 4540



4542 - BONNEVAL 2

BRUNEÏ - 5620



LECLINE - 5650



- For marking roundabouts and directional islands
- For safety marking in car parks
- For safety marking in tunnels
- 20J** Resists shocks up to 20 joules
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- Vandal-proof organic glass
- Protection index

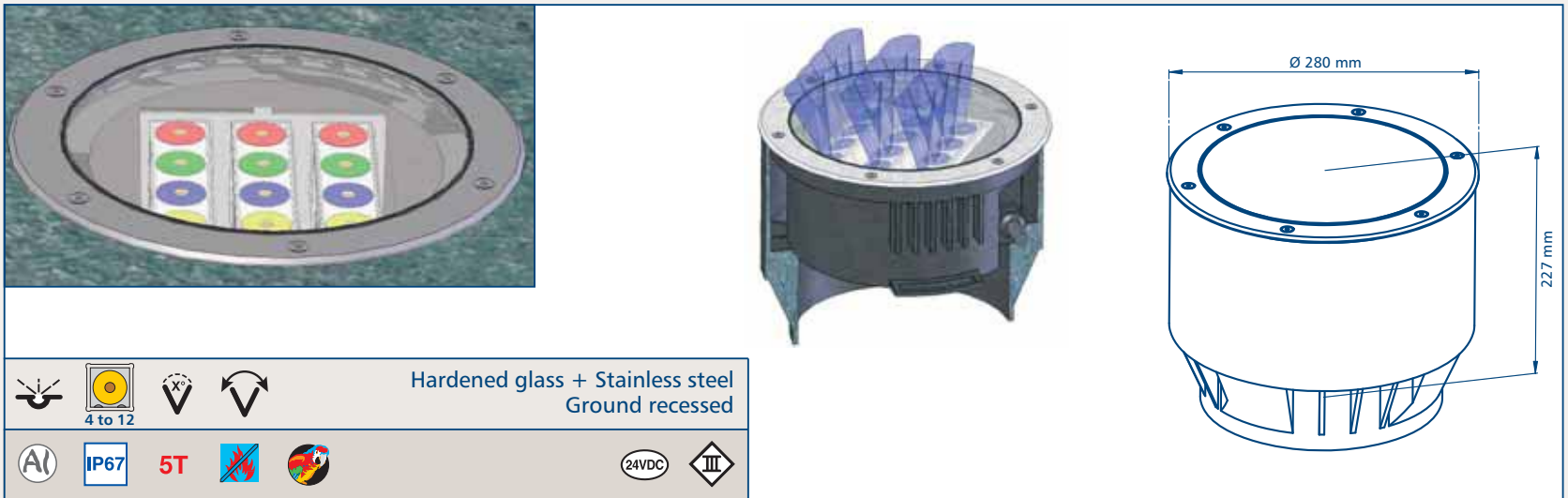
- Flame and ignition proof materials (EC4)
- Certified in compliance with European Standards 60598-2-22 for emergency lighting units
- 24 volts supply
- Class 3 insulation








LECLINE 2 - 5660 



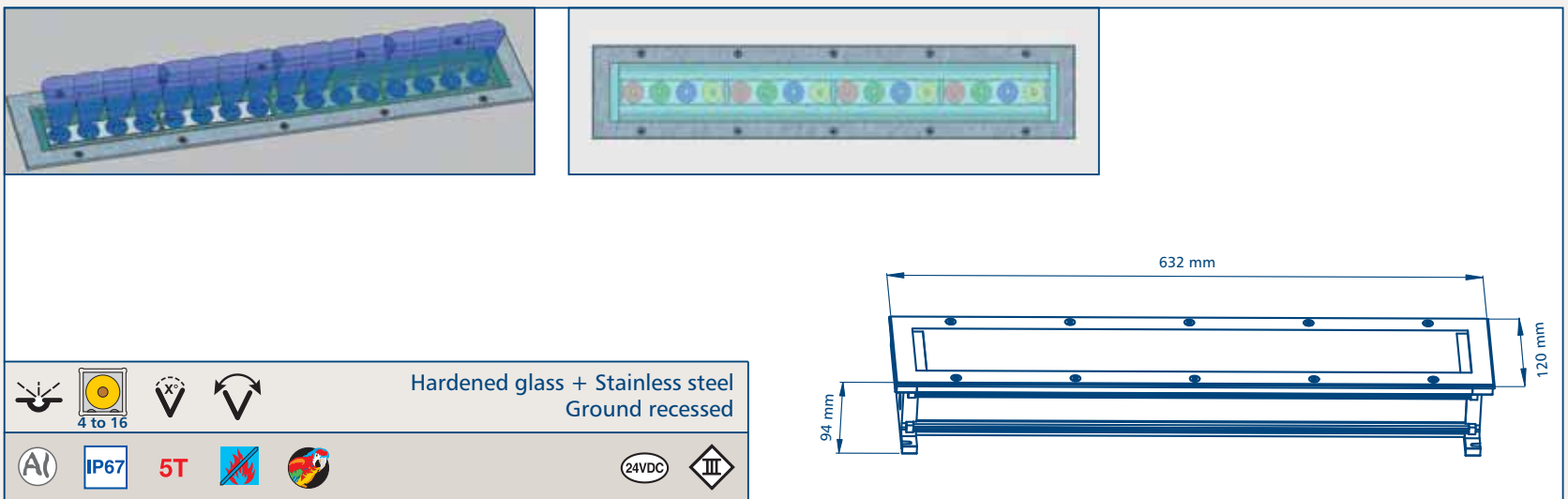
		
		
		








ALFORT - 5725 



		Hardened glass + Stainless steel
		Ground recessed
		

SAINT-REMY - 5750 





		Hardened glass + Stainless steel
		Ground recessed
		


 Registered design


 Patented device


 Light beam direction


 Various opening angles of the light beam


 Adjustable


 On walls or ceilings, surface fitted


 Recessed on walls or ceilings


 On the ground with a snow-plough resistant protrusion or on walls and ceilings


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 Number of Ø 5 mm diodes per luminaire


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 Number of LMS

 Luminaire equipped with ARACOLOR® technology

 Flat frosted window (option)

 Diffuser dome (option)

 Aluminium

 Marine anodised cast aluminium

JUNCTION-BOX FOR PARALLEL SUPPLY

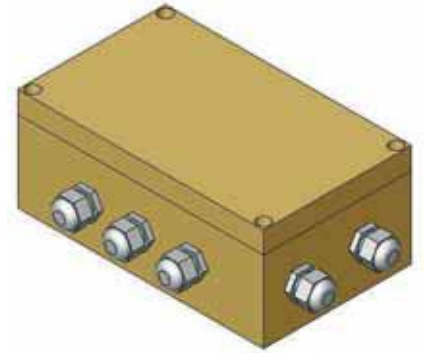
BRICBV
Vertical cable-glands



BRICBH
Horizontal cable-glands



TBER
Dispatch-box



IP67

CONNECTORS

FCD
Unpluggable straight connector



FCD2
Unpluggable dual straight connector



FCC
Unpluggable angled connector



FDM8
Over-moulded connector

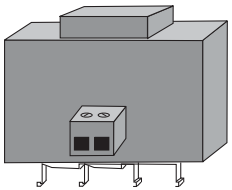


IP67

IP68

ELECTRICITY SUPPLY ACCESSORIES

Txx
220-240/24 volts AC Transformers



ALIM xx
Electricity supply 220-240/2W DC



TBExx
Waterproof power supply boxes IP67
M2 220-240/24 Volts AC
With primary & secondary protection fuses.
To be placed in spy holes or in the lighting poles of public installations.

TBAxx
Waterproof power supply boxes IP67
M2 220-240/24 Volts DC
To be placed in spy holes or in the lighting poles of public installations.



AC: from 1VA to 400 VA (for marker-lighting applications)
DC: from 7.5 W to 720 W (for lighting applications)

IP67

- For marking roundabouts and directional islands
- For safety marking in car parks
- For safety marking in tunnels
- 20J** Resists chocks up to 20 joules
- 8T** Resists compression up to 8 tons

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- Vandal-proof organic glass
- Protection index

- Flame and ignition proof materials (EC4)
- Certified in compliance with European Standards 60598-2-22 for emergency lighting units
- 24 volts supply
- Class 3 insulation



LEC

L y o n





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