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Avia Picoty









LONDON Westfield Group

RENNES ALMA Unibail Rodamco





AIX-EN-PROVENCE

Nexity Business Ywood







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NEW PRODUCT





NEW PRODUCT Natty bollards

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# THE AUBRILAM PHILOSOPHY

FOR OVER 35 YEARS

The story of Aubrilam began in 1978 with an order from the town of Brioude in the Haute Loire where the company had a woodworking workshop for a series of wooden lighting columns. The company was launched and began by focusing on the transformation of laminated timber into shafts for lines of outdoor products: namely lighting columns and bollards.

From the very outset Aubrilam chose to pursue its development in France and abroad by concentrating on the production of lighting columns and street furniture for local authorities and equipment for restaurant chains to become one of the world's leading specialists in the supply of products for outdoor facilities with over 500,000 products in place worldwide.

At the same time the company has permanently sought to perfect its expertise and know-how to offer only the very best in many different fields.



The factory, located in Brioude, Auvergne.

# SINCE 22 YEARS, PARTNERSHIP WITH McDONALD's



### **KEY FIGURES**

- More than 4 500 terraces equipped since 22 years in more than 40 countries
- Since 2010: more than 250 terraces equipped per year

### MANUFACTURING

Aubrilam is specialized in the design and manufacture of glued-laminated columns and furniture for public spaces and the catering industry.

The columns, between 3 and 16 m high and up to 25 m for tailored needs are designed for all types of environments and climatic conditions, even the most extreme, from barren and arid zones to areas subject to cyclones, sea fronts and mountainous regions. They are manufactured in line with CUAP (Common Understanding for Assessment Procedure) procedures and have received CE approval. The certified ACERBOIS GLULAM wood is carefully selected to comply with all technical and sustainability requirements.

Some products lines produced by Aubrilam, namely the bollards, lighting columns and points and the Bamboo charging points for electric vehicles benefit from development partnership agreements with some of the world's leading brand names (BEGA for lighting and HAGER for Bamboo)





Beach walk - Dubaï. 2. Morzine - France. . Boxtel - Netherlands.

**EUROLINE 3: A SMART SOLUTION** 















### AESTHETIC APPEARANCE AND DESIGN



UTYL by Flavard & Saguez.

During the design process, Aubrilam works alongside designers to ensure its products perfectly integrate the existing architecture and surroundings to create a sensation of harmony and coherence. Huge efforts are also made with regard to the quality of the materials used and the finished aspect of the products.

The creation of colour charts with unique wood and metal combinations that fit in with all types of architecture is a major asset for both the clients and project specifiers. Public spaces have gradually become lively places in their own right and have enhanced their attractiveness as a result.

### PRODUCT MAINTENANCE

Aubrilam is highly concerned with the durability of the projects it works on, hence the creation of a fully-fledged product maintenance department.

### ENVIRONMENTAL SUSTAINABILITY

Aubrilam is, and has always been, concerned by the challenge of environnemental sustainability.

In 2006 the company integrated a Life Cycle Analysis process in line with ISO 14040 and 14025 standards to provide data on the environmental profile and ecological footprint of each of its products. This makes it possible to calculate the environmental impact of a complete development project and to advise clients in their efforts to reduce the energy consumed.

The origin of the wood, the quantities used and choice of sub-contractors are major concerns for Aubrilam. The wood it selects is untreated and comes uniquely from sustainably managed forests.

In 2011 the company also set up an Environmental Management System at its production site in line with ISO 14001 standards as part of the continued improvement of its environmental performance.



### TODAY

Meeting today's new requirements such as the design of more energy-efficient projects, the needs for tighter cost-control and also the necessity to create intelligent and sustainable projects, our regularly improved and updated product and service offer is ready to take on both existing and future challenges.

Propose appropriate solutions for all types of outdoor space projects for enhanced performance, either standard or tailored, while developing new skills and know-how to satisfy all market requirements, wherever the project may be ...

Make life easier for our clients by providing comprehensive product-service solutions thanks to our PURE & SPACE multi-level service offer based on three founding values: Elegant - Ecological -Economical...



... THIS IS **AUBRILAM'**S TRADEMARK

# structura

**DESIGN IN FRANCE** MADE IN USA

Since 2013, the Aubrilam brand extends its presence in North America. It is present through licensed production with Structura Company which owns its production facility and commercial network.



Aubrilam product ranges are then manufactured and marketed in the USA. Aubrilam and Structura share a common vision in various areas such as the product range offering, research, development, production and market areas.





# REFERENCES A COLLABORATION WITH MANY CLIENTS

ON EVERY CONTINENT



McDonald's - Olympic park, London, 2012.

### LOCAL AUTHORITIES FRANCE

Amiens - Bailleul sur Thérain Besse en Chandesse - Bussy Saint Georges Cannes - Château de Chantilly Clermont-Ferrand - La Ciotat - Le Grand Bornand Les Sables d'Olonne - Morzine - Nancy - Perpignan Saint Denis (La Réunion) - Strasbourg Balma Gramont Toulouse - Valence - Vichy

### EXPORT

Abu Dhabi Municipality (United Arab Emirates) Belfast (United Kingdom) Chelsea College of Art & Design of London (United Kingdom) Connswater (United Kingdom) Dream Forest Park (South Korea) Dubaï Municipality (United Arab Emirates) Firenze (Italy) - Katwijk (Netherlands) - Saïdia (Morocco) Roads and Transport Authority (United Arab Emirates)

And many more for over 35 years ...





Ekaterinburg, Russia, 2012.

### PROPERTIES DEVELOPERS

Bouygues Immobilier Gicram Icade Kaufman and Broad MGM Constructeur Nexity Business Ywood

### PROPERTIES

Apsys Carrefour Property Etixia (Kiabi) Frey Immobilier Hammerson Immochan Inter Ikea Meraas (United Arab Emirates) Mercialis (Groupe Casino) Oxylane (Decathlon) Unibail Rodamco Westfield London (United Kingdom) Système U

### RESTAURANTS CHAINS

Autogrill Casino restauration Courtepaille Flunch La Pataterie Léon de Bruxelles McDonald's Pat à Pain

### MOTORWAY SERVICE AREA

Agip Eni Avia Picoty Avia Thevenin Ducrot BP Delek Total Argedis

### RECREATION CENTER

Belambra Clubs Center Parcs Club Med Disneyland Paris

### RETAIL CHAINS

Casino Coop Atlantique Leroy Merlin

# **THE AUBRILAM OFFER**

PURE AND SMART SPACE: AN OFFER DESIGNED FOR ALL OUTDOOR SPACES

The number and type of outdoor spaces is almost limitless and whether they are public or private, urban or landscaped, in temperate zones or exposed to extreme weather conditions, they all need developing in order to create lively spaces and flows.

Our aim is to find the ideal solution in line with the limitations and needs of each site to create a harmonious, unique, vibrant and sustainable place.

Today, Aubrilam brings you two solutions with a multi-level service offer:









JAUNAY CLAN Motorway service area - France.





PURE SPACE: this solution has been designed for projects for which the choice of furniture and **speed of execution** are paramount. PURE SPACE is ideal for sites in terms of enhanced functionality and cost while offering a refined design. PURE SPACE guarantees operational and functional excellence.

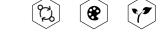


**SMART SPACE** is an extension of PURE SPACE. This solution is ideal for projects in which innovation and originality are the key factors. SMART SPACE means enhancing spaces through a carefully tailored approach to street furniture with a  $\ensuremath{\text{detailed cost-benefit analysis.}}$  It is the ideal solution for existing and future smart cities.





# smart space







operational excellence



Bollards and lighting column

Terses furniture

columns

Products

Lighting points.

Furniture

chelters

The Pure solution, a combination of functional design and outstanding performance. A range of solutions tailored to your needs and the site. A comprehensive service offer for quick

and easy project development.





Services

Advice and supe

pies and last antingstu





# **Client - Contracting party** Euro Immobilia

Architect MDR

**Landscaping** Ici et Là Paysage

**Engineering and Design** JCK Ingénierie

# PRODUCTS



A Squared tapered column single and double lighting SILEA 6 M - 8 M Product description page 125.



B Lighting bollard MOSHI Product description page 98.

# SERVICES



Advice and support Advice in the choice of products



Computer-generated images





# PRODUCTS

Squared column MOSHI XL 4 M - 5 M  $\left[ A \right]$ Product description page 124.



## PROJECT MEMBERS

Client - Contracting party SOLOREM

Architect ANMA

\_\_\_\_

Engineering and Design EGIS

Lighting design Agence ON







Advice and support Advice in the choice of products



Computer-generated images



Environmental impact assessment



Client - Contracting party Nexity Business Ywood

Architect Tangram Architectes







Squared lighting point UTYL HIT 70 W [A] Product description page 94.

Squared lighting column UTYL LED 44,2 W B Product description page 97.

Lighting bollard  $\begin{bmatrix} C \end{bmatrix}$ мозні Product description page 98.

D Litter bin MOSHI Product description page 113.

Cycle stand UTYL  $\left( \mathbf{E} \right)$ Product description page 109.

+ charging point for electric vehicles **BAMBOO** Product description page 123.



Lighting studies

• 3D simulations

Installation and worksite (+) coordination



roducts designed in harmony with the architecture

PROJECT

Α

# L'Ensoleillée NEXITY BUSINESS

France

AIX-EN-PROVENCE

# PROJECT

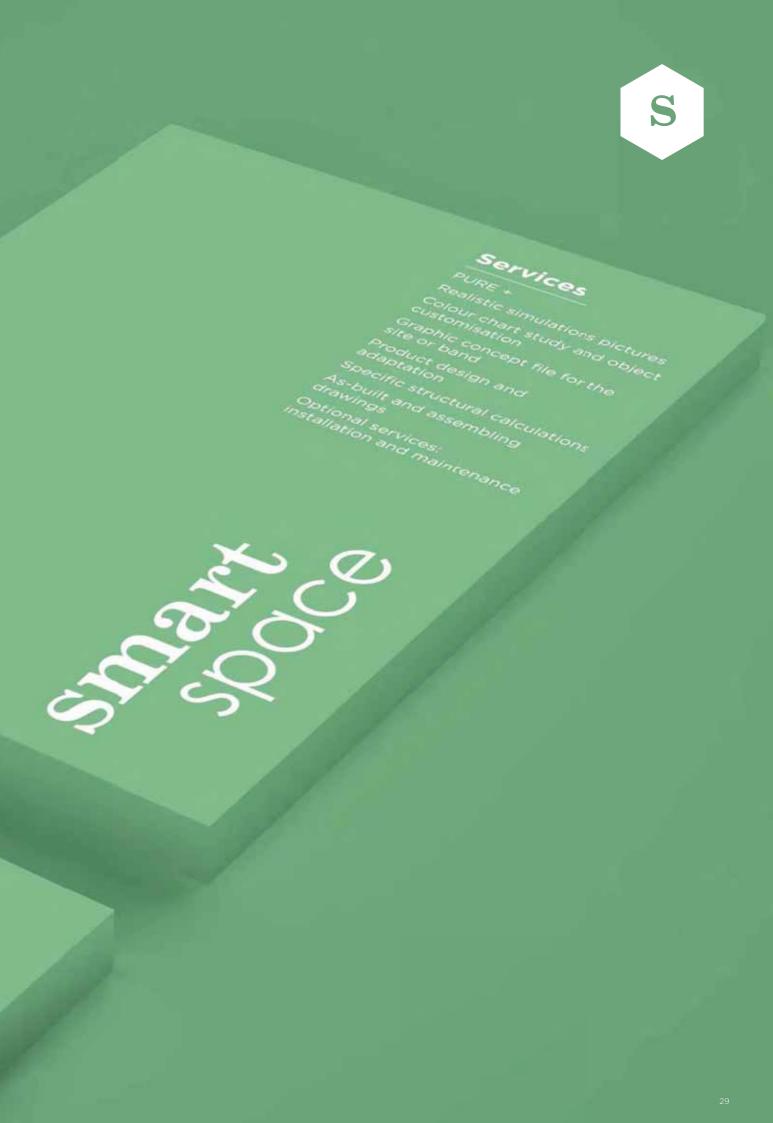
YWOOD

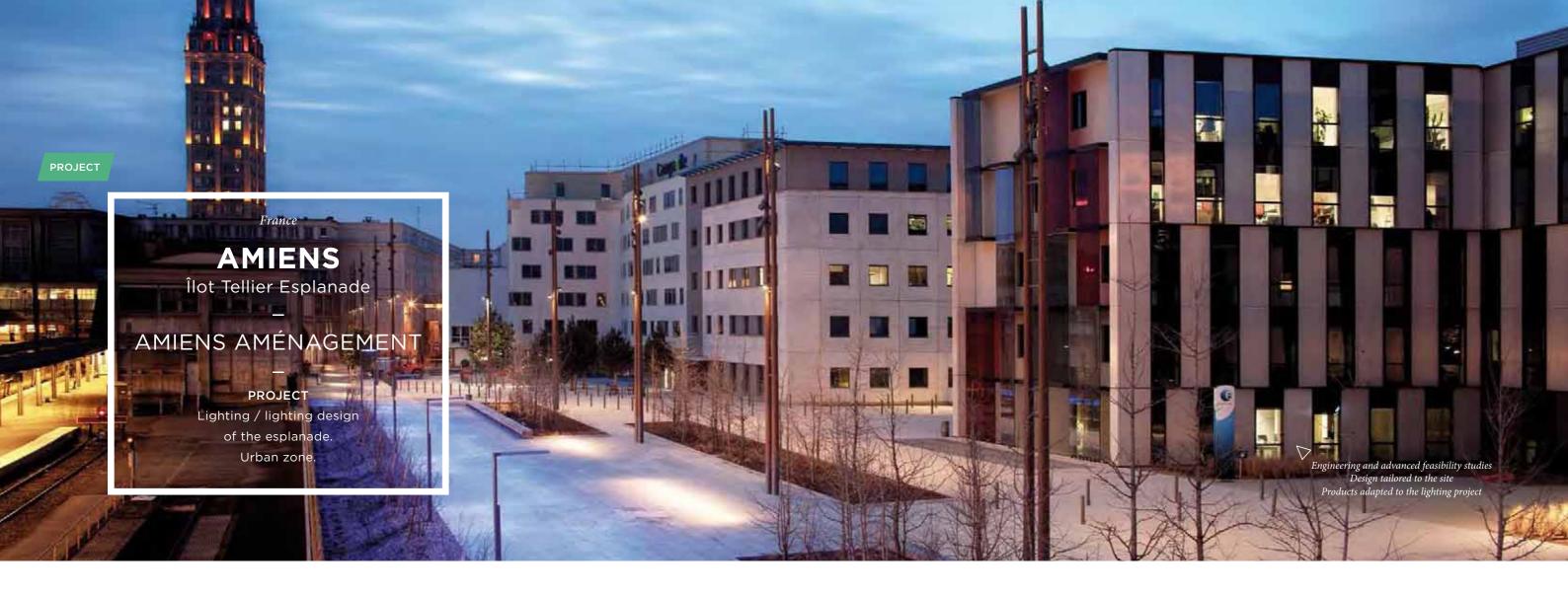
Development and lighting of the site and parking areas. ZONE: Tertiary activities.

**Smart** is Pure + an exclusive and innovative solution tailored to the site. Showcasing the site and project through innovation, design and originality.

Products

Exclusivity a innovation







### SERVICES

$\sim$
(m)
$\langle \neg \rangle$

Advice and support

Advice and support Design and customisation of accessories Structural calculations Dimensioning and checking operations As-built drawings



**Client - Contracting party** City of Raon l'Étape

Architect Atelier Cité Architecture

Landscaping ARPAE

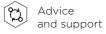
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**Lighting design** Scène publique

**Structural design** Groupe Alto

Hydraulics and roads and utility services engineering Sinbio

SERVICES



Computer-generated images

Design and customisation of accessories Dimensioning and verification operations As-built drawings







B Single and double bracket RÂ Product description page 135.

> + round tapered column DÔME XL 9 M Product description page 127.

PROJEC

### France



# CITY OF RAON L'ÉTAPE

### PROJECT

Lighting / lighting design of pedestrian areas and streets. Urban zone and river banks.





# Client - Contracting party

City of Les Sables d'Olonne

### Delegated management contractor Sydev

Architect Atelier d'Architecture et d'Urbanisme Lancereau & Meyniel

Lighting design Agence Concepto



Very high round tapered column with lighting batten for spotlights and fairy lights DÔME XL 14 M Product description page 129.



Round tapered column DÔME XL 8,20 M Product description page 127.



Aluminium spike extension Product description page 136.



Advice and support



Design and customisation of accessories Structural calculations Dimensioning and checking operations As-built drawings





Client - Contracting party City of La Ciotat - MPM

Project manager ENVEO Ingénierie

Specifier Eric Giroud

Shelter design Ateliers Aude Cayatte



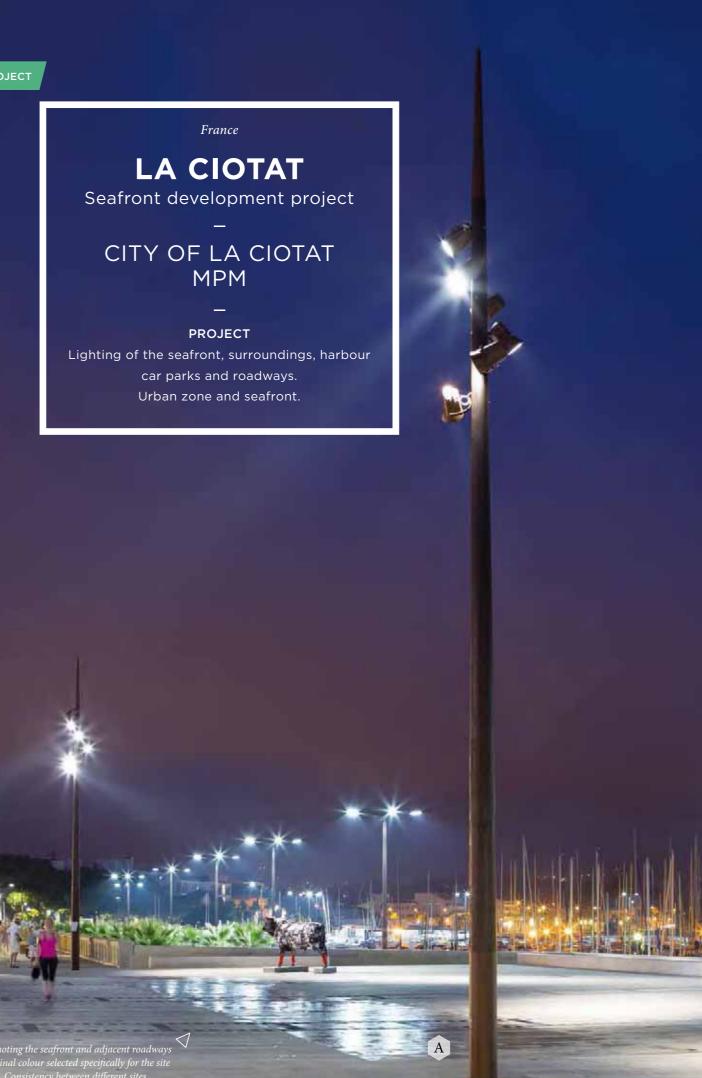
Round tapered column DÔME XL 4 M - 7 M - 9 M [A] Product description page 127.

Squared tapered column
SILEA XL 10 M B Product description page 125.

Customised  $\begin{bmatrix} C \end{bmatrix}$ sail mast.







r selected specifically for the . ncy between different sites

(P)

8

Advice and support

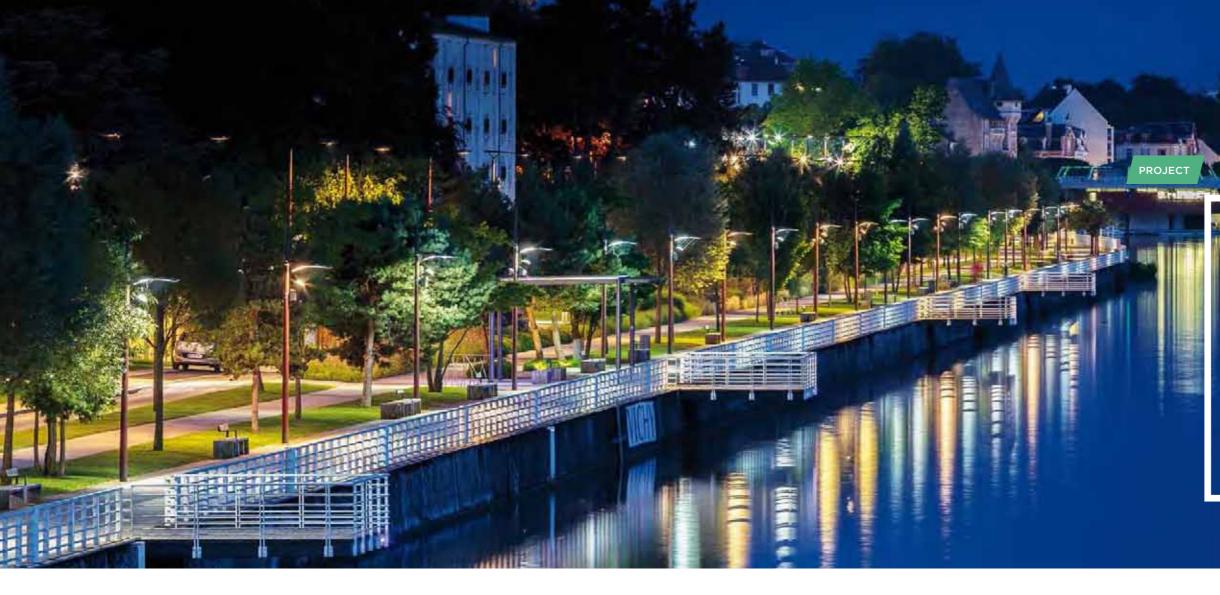
Colour-coding

Environmental impact assessment

Computer-generated images

Design and customisation

of accessories Structural calculations Dimensioning and checking operations As-built drawings







# PRODUCTS

A Round tapered column with pointed top DÔME 7 M Product description page 127.

B Single bracket

VEGA Product description page 134.

Spike extension  $\left[ C \right]$ Product description page 136.

Advice

and support

Computer-generated images

# The banks of the Allier

F PAR Spons (44) -4 (48)

# CITY OF VICHY

### PROJECT

Lighting the banks of the Allier, surrounding areas, beach zones, walkways and streets. Urban zone and river banks.

PROJECT MEMBERS

Client - Contracting party City of Vichy

Architect Landscape designer representative AXE SAONE

Engineering and Design INGEDIA - BIOTECH



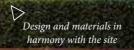
Environmental impact assessment

Dimensioning and checking operations As-built drawings



# WESTFIELD GROUP

PROJECT Lighting / lighting design of forecourts



PROJECT

# PROJECT MEMBERS

С

**Client - Contracting party** Westfield Group



Round tapered column DÔME 4,5 M Product description page 127.



B Double bracket ELEA Product description page 134.



Lighting bollard **LADY LED** Product description page 99.



Advice and support



Dimensioning and checking operations





**Client - Contracting party** MERAAS Holding

Architect Benoy

\_\_\_\_

Landscaping Cracknell

**Lighting design** CD+M's Bill Johnson



Round tapered column DÔME XL 4 M Product description page 127.



Advice and support



Dimensioning and checking operations



SERIE

PROJECT MEMBERS

# **Client - Contracting party** Association of municipalities La Porte du Vignoble

Engineering and Design ECOTRAL



Squared tapered column single or double lighting SILEA XL 7 M Product description page 125.



Advice in the choice of products



Computer-generated images



Environmental impact assessment



Design and customisation of accessories Structural calculations Dimensioning and checking operations As-built drawings





Client - Contracting party Unibail Rodamco

Saguez & Partners

Engineering and Design SETUR - BEG Performance Partner

Lighting design Voyons voir

Round tapered column DÔME XL 5 M Product description page 127.

B Kakemono and signage supports Product description page 137.

# France RENNES ALMA Shopping centre

# UNIBAIL RODAMCO

PROJECT Development and lighting of car parks and surrounding area. ZONE: Shopping centre.



# PRODUCTS







F Bike shelter UTYL Product description page 115.

D Bracket CATELAM

G Litter bin MOSHI Product description page 113.

H Charging point for electric vehicles BAMBOO Product description page 123.

+ Shopping trolley shelter



Support from the beginning through to the installation Computer-generated images

 images
 Product design and customisation Dimensioning and checking operations As-built drawings

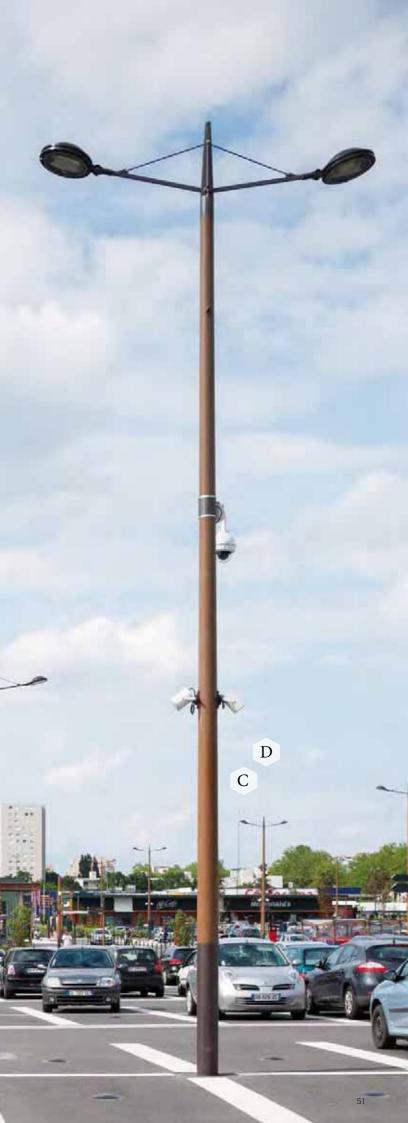
+ Installation and worksite coordination



Site harmony Development project taken as a whole Exclusively designed product

111

4







Client - Contracting party Frey Immobilier

Architect AREP

Structural architect EREME



# PRODUCTS

Round tapered column **SILEA 8 M**  $\left[ A \right]$ Product description page 125.

B Squared column MOSHI 3,5 M - 6 M Product description page 124.

C and PRM bollard UTYL

D Litter bin MOSHI

Bench, 6-slat bench, bollard

Products description page 105, 106 and 110.

(P)	Layout
	advice



Computer-generated images Realistic photo simulations Customisation



Development of prototypes



Installation and worksite coordination

Product description page 113.





Client - Contracting party AVIA Picoty

Architect Nicolas David



Round tapered lighting column UTYL LED 44,2 W Product description page 97.

UTYL LED 50,6 W UTYL LED 101,2 W UTYL LED 151,8 W

4-seat table, high table, litter bin SOLEA

+ UTYL Bench Product description page 105.

B Squared tapered lighting points single and double lights

Products description page 89, 91 and 92.

Products description page 116, 118 and 120.

(P)



Computer-generated images

Technical documents

and specifications included



Studies and layout plans Lighting studies

(+)

Installation and worksite coordination



Client - Contracting party AVIA Picoty — Architect Nicolas David



A Round tapered lighting column UTYL LED 44,2 W Product description page 97.

B Squared tapered lighting points single and double lights UTYL LED 50,6 W UTYL LED 151,8 W Products description page 89 and 92.



Product description page 105.

D 4-seat table, high PRM table, high table, litter bin **SOLEA** Products description page 116, 118 and 120.



В

Technical documents and specifications included Computer-generated images

Studies and layout plans Lighting studies

+ Installation and worksite coordination





Architecture showcased Product harmonisation Start to finish support and coordination

A

France

JAUNAY CLAN Jaunay Clan motorway service area

# AVIA PICOTY

PROJECT Development and lighting of the car parks, roads, surroundings, terraces and picnic areas. ZONE: Motorway service area.

57



PROJECT

PROJECT Lighting or parking areas. Urban zone.

Α

Mar alexander al

٩

A

B

**Client - Contracting party** Auvergne regional council

Architect Bruno Mader

Associated Architect Atelier 4

Fluids engineering BET Louis Choulet



Round tapered column DÔME XL 6 M Product description page 127.



B Spotlight support CENO Product description page 136.

10 diam 11127



Advice and support



Colourcoding



Environmental impact assessment



Customisation of accessories

# FLAVARD 🛞 SAGUEZ

# **RENDEZ-VOUS**

A NEW EXCHANGE POINT



# 

I wanted to design a bench that would stand out in the furniture for public spaces landscape by drawing inspiration from indoor furniture rather than urban furniture.

I didn't want it to be just for single use, but to be used alone, as a couple, with children or friends and have other people in the same area close by, without that bothering me. I wanted a piece of furniture to share.

In practical terms it is somewhere between a sofa and a bed; I can sit on it to wait, relax, read, work or even rest. These activities define the positions that **RENDEZ-VOUS** suggests through its design without them being an

obligation, for instance it's possible to sit down for a short spell or for longer while leaning back, lying down, resting one's elbows, sitting cross-legged or even perching on a backrest while waiting for someone.

**RENDEZ-VOUS** is generously sized and leaves enough room for everyone. Built like an indoor bench, the seat area is based on a frame and simple legs made of rectangular painted metal bands. The seat is made of thick wooden slats, soft like leather, with components fitted here and there which appear from the flat surface.

These modular seat and back / armrest elements are made of moulded mineral and allow for a whole range of layouts so as to fit in with the specific characteristics of the location.

**RENDEZ-VOUS** is a living space for public areas.

//

Xavier FLAVARD Designer - Associate FLAVARD 🛞 SAGUEZ







NEW PRODUCTS













# Rendez-vous A living space for public areas.

### BOLLARDS AND LIGHTING COLUMN

# NATTY COMFORTABLE AND SMART LIGHTING SOLUTIONS

Our new NATTY lighting bollards provide effective and comfortable lighting conditions for paths and entrances, pedestrian walkways, cycle paths, roadsides, esplanades, etc.



66

### Comfortable and smart lighting solutions.

LED technology, lighting systems and light path control have all been studied and analysed to provide the ideal lighting conditions using the minimum power to avoid troubling the public and without any loss of light.

LED-based technology offers an extended lifespan and enhanced lighting with reduced energy consumption.

The resulting lighting performance makes it possible to increase the spacing between bollards thereby improving installation possibilities for all your lighting projects.

The Natty range includes a number of references with varying lighting combinations to meet all lighting project requirements: comfort, security, attractions, PRM regulation, etc.

Fully consistent with the complete Aubrilam product range, these lighting bollards have been specifically designed to offer an added architectural dimension and to perfectly integrate into all types of development projects whether urban, landscape, seafront or for housing areas and business zones.

NATTY XL



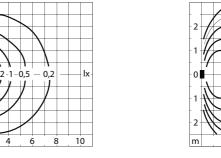


NATTY 1 LED 8,3 W

482 lm

# NATTY 2

LED 8,4 W 392 lm

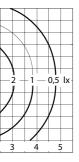


NATTY 1 and 2: LED 8,3 W and 8,4 W, consistent lighting uniformity for roadsides, open spaces, esplanades, passageways, paths, steps. The resulting lighting solution provides easy to follow visual landmarks.

NATTY 3: elliptic 10W LED downward lighting for an extensive, uniform, reduced-glare lighting solution. An ultra discreet bollard in which the LEDs are not visible to enhance the area lit up. Ideal for walkways, roadsides, attractions and esplanades.







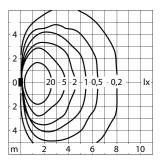


smart

space

NATTY 3

LED 10,5 W 592 lm



NATTY XL: symmetrical 32 W LED, 4 440 lm lighting to provide visual landmarks thanks to the soft light they emit. For streets, paths, squares and car parks.

OLLECTION 2014

# **COLOUR CHART**

WOOD AND METAL FINISHES

This colour chart has been designed to provide a solution to all architectural forms. Aubrilam's urban furniture fits perfectly into all development projects thanks to the quality of its design and its beautiful appearance.

By playing with the shades and materials, the furniture can be integrated into a project to showcase an architectural concept or voluntarily create a visual makeover.

Our colour chart presents a collection of shades and materials: timeless, natural or mineral, offering you a multitude of colour-coding possibilities to match your architectural development project.

Product customisation: timeless, natural or mineral colours.



# SHADES

# THE TIMELESS COLLECTION

WOOD AND METAL FINISHES



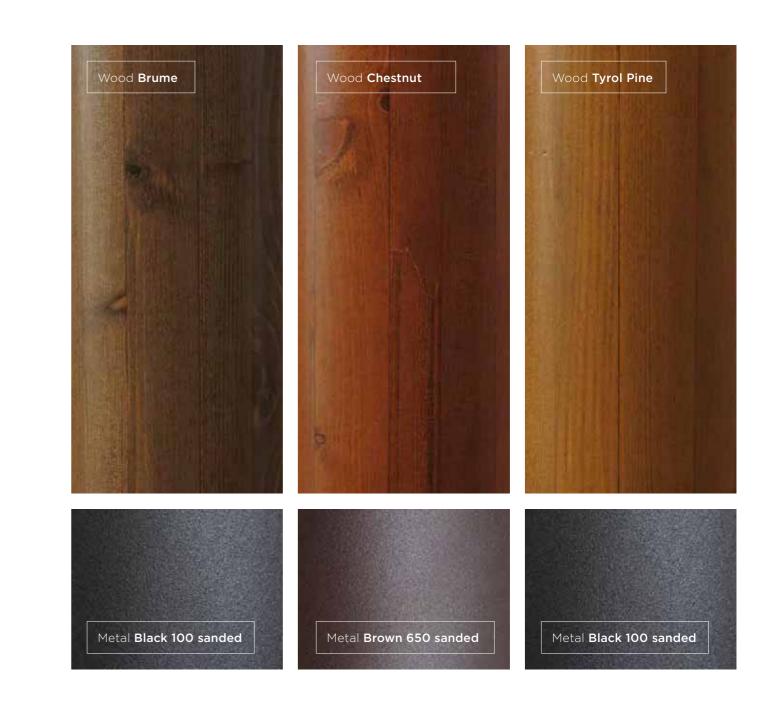
Authenticity, modernity, elegance. As Aubrilam's best sellers, they suit all types of architectural developments, whether predominantly colourful or not. The interplay of materials and contrasts for a sensation of warmth in metallic or mineral surroundings.













METAL COLOUR	OPTIONAL METAL COLOUR
	Grey 900 sanded
	Grey 900 sanded
	Grey 900 sanded

# THE NATURAL COLLECTION

WOOD AND METAL FINISHES



# THE NATURAL COLLECTION

Light shades revealing the grain of the wood. Fashionably popular fresh delicate **shades** that can be combined with a wood architecture or natural environment or simply to offer a contrast by providing a natural flair to a metal or urban architecture.











	WOOD STAIN	METAL COLOUR STANDARD ASSOCIATION	
Chêne de Ferrare		Brown 650 sanded	Grey 900 sanded Black 100 sanded Ral 9006
Tonnelier		Black 100 sanded	Grey 900 sanded

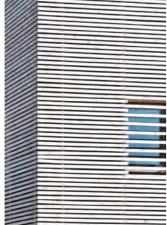




# THE MINERAL COLLECTION

WOOD AND METAL FINISHES



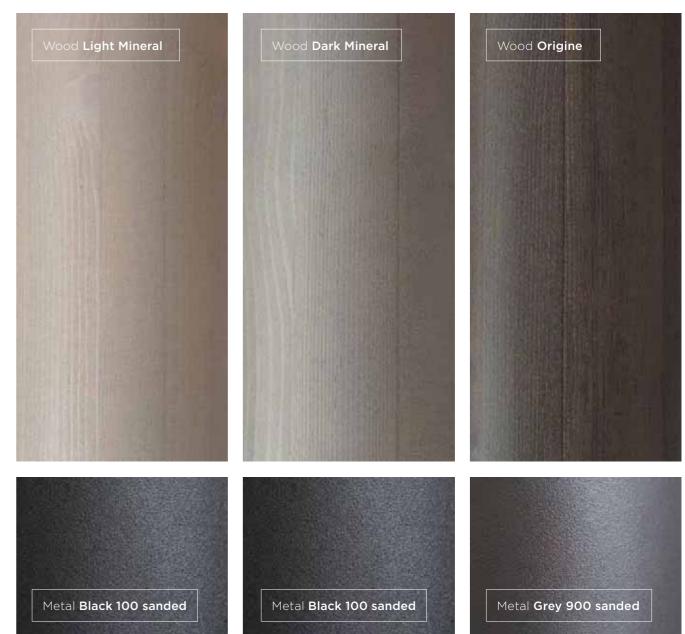








Coloured greys, either warm or cool, depending on the light. The grain of the wood is just visible while the iridescent effects give a metal or stone-like aspect. Ideal for those shades of grey often found in the architectural landscape by giving a little hint of something both original and neutral.









METAL COLOUR	OPTIONAL METAL COLOUR	
	Grey 900 sanded	
	Ral 9006	
	Black 100 sanded	

# **SERVICES**

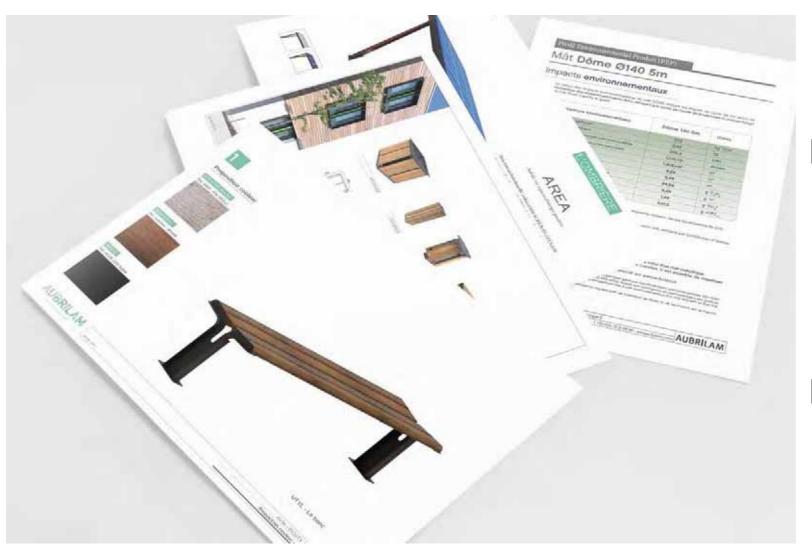
GUIDING YOU THROUGH EVERY STAGE OF THE PROJECT

A development project is often complex and raises a number of questions. It is important to make the most accurate choices according to the needs and constraints.

This may concern selecting the right products or type of lighting as well as the layout of the street furniture and even how to be original to showcase an architectural concept.

For a space to last over time, it is also fundamental and crucial to take its maintenance into consideration during the design process.

Part of the Aubrilam package is the supply of services and tools to make this process easier by benefitting from expert advice and support at every stage of the project, from defining needs to the installation, and even afterwards.



## GUIDING YOU THROUGH EVERY STAGE OF THE PROJECT



# ADVICE & SUPPORT

**P s** In the choice of products P

In the layout

**P S** For all tender documents and technical specifications

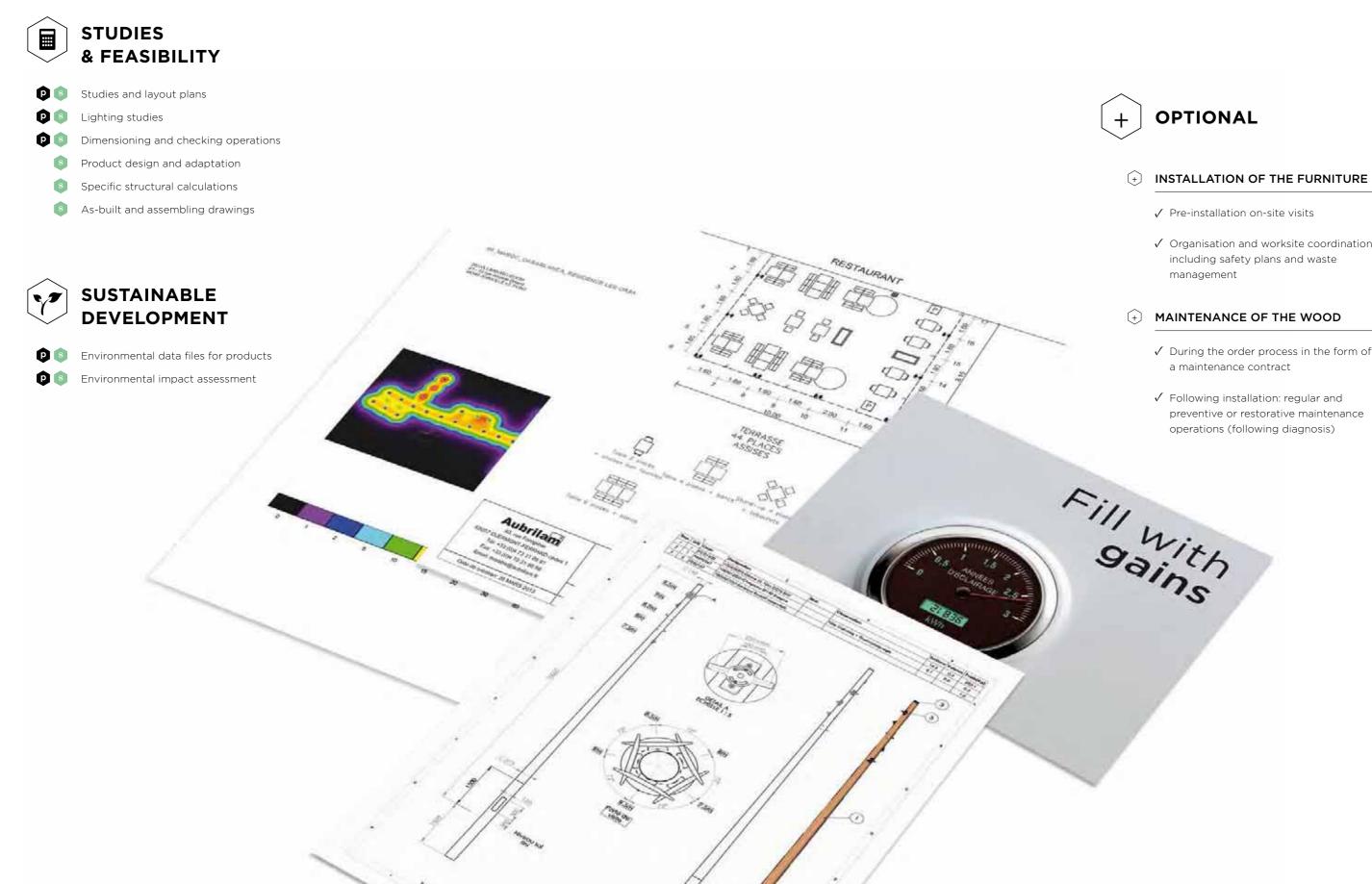
**P** S From the beginning right through to the installation

## **GRAPHIC DESIGN** • **STUDIO**

- **P S** Computer-generated images
  - S Realistic simulations pictures
  - s Colour chart study and object customisation (marking, labelling)
  - Graphic concept file for the site or brand

## GUIDING YOU THROUGH EVERY STAGE OF THE PROJECT

78



- $\checkmark$  Organisation and worksite coordination including safety plans and waste
- MAINTENANCE OF THE WOOD
  - $\checkmark\,$  During the order process in the form of a maintenance contract
  - $\checkmark$  Following installation: regular and preventive or restorative maintenance operations (following diagnosis)

METHODOLOGY

# A SIMPLE GUIDE TO EASY MAINTENANCE

Outdoor development projects are quickly becoming lively places and thus raise the issue of their sustainability and durability, for the users and for the project managers.

Today, the full range of Aubrilam products are not only functional objects, they all contribute to the attractiveness of the site. Therefore they need maintenance to keep their decorative look good.

Wood is the ideal material. It can be easily and repeatedly maintained over time for a very satisfying result. Aubrilam's service can include the maintenance of your products once they have been ordered with a simple maintenance contract or following their installation.



Aubrilam's design and manufacturing process optimizes the durability of the wood outside and is your guarantee that our products continue to perform well. The process includes a wood-stain finish which both colours and protects the surface of the wood.

## TECHNOLOGY

Wood-stain is a surface treatment which limits the damage caused by humidity and provides UV protection. The qualities of the wood-stain chosen enable it to stand up to dimensional variations in the wood without flaking.

Thanks to our outstanding manufacturing techniques, how the wood is used and the quality of the wood-stains selected by Aubrilam, maintenance work should be scheduled every 5 to 7 years for products located in normal climatic conditions.

For more exposed sites, for example next to the sea where the sand and salt are extremely aggressive, heat-coated and wood-stained products may be more affected. **However, wood in** general is not sensitive to salt and does not rust.

For preventive maintenance operations, one coat of a quality wood-stain is enough to protect the surface of the wood until the next scheduled maintenance operation.

The technology we have selected and applied to protect the surface of the wood involves the application of 4 coats of wood-stain:

1 coat for the colouring

## ¢

1 saturation coat to penetrate the wood in particular for machined areas

2 coats of colourless protective varnish



The basis of our approach to maintenance is **the correct diagnosis** of the challenge faced.

# MAINTENANCE

**OPERATIONS** 

## **PREVENTIVE MAINTENANCE** Every 5 - 7 years\*



> Colour dull > Wood-stain > 50% remaining

- ✓ Brushing ✓ Varnish sanding
- ✓ 1 or 2 coats of wood-stain

## **RESTORATIVE MAINTENANCE** Every 15 - 20 years\*



> Colour completely faded > Wood-stain < 50% remaining ✓ Sanding ✓ 3 coats of wood-stain

\*For normally exposed sites.





Remove all dusts, moss, resin and other residues

Brush lightly and evenly over the whole surface



Eliminate top coat of wood-stain

Sand manually following the grain of the wood





Remove all traces of the wood-stain

Sand evenly down to the original wood surface



WOOD

STAINING

Give an « as-new » appearance to the wood

Apply the wood-stain\* evenly from top to bottom. Allow to dry between the 2 coats





### GRAFITTI



### NOTCHES



CRACKS



\*Contact Aubrilam for information on the wood-stain to use. NB: Place a plastic sheet at the base of the mast to protect the ground from spills. 1 Remove the resin using a flat scraper

- 2 Soak a clean cloth in water
- **3** Rub over the resin spil without removing the wood-stain
- **4** Apply wood-stain to the zone if required
  - NB: Resin seepage will stop naturally as soon as the resin pocket is empty.

1 Apply Techno Decapant Graffiti B solvent

- 2 Rub gently to remove all traces of the graffiti
- **3** Rinse with water and dry
- **4** Apply a coat of wood-stain to the area is required
  - NB: For aqueous phase wood-stain, simply down and apply a new coat of wood-stain.

1 Clean the surface with a damp cloth **2** Lightly sand the damaged area **3** Apply 3 coats of wood-stain to the area

1 Clean the surface with a damp cloth **2** Lightly sand the damaged area **3** Apply the wood filler as required **4** Manually sand over the area 5 Apply 3 coats of wood-stain

# **SPECIFICATIONS & STANDARDS**

MATERIALS CHOSEN BY AUBRILAM

#### WOOD

Aubrilam founds its raw material, wood, right beside the Arctic Circle, its slow growth gives timber very fine annular rings that are extremely uniform. The glued laminated timber shaft is certified ACERBOIS GLULAM and produced with sawn planks from sustainably managed forests.

No chemical treatments have been used

All the wood waste from the plant is recycled





#### COMPACT LAMINATE

are made of strips of natural wood fibers (around 65% of the weight) impregnated with synthetic resins.

- The panels comply with the following standards and regulations:
- EN ISO 4892-2: resistance to weathering
- EN ISO 4892-3: resistance to UV
- EN ISO 178: resistance to impact
- DMTA-OFI 300.128: resistance to temperature

#### CONCRETE

The seating elements and backrests of the benches Rendez-Vous are made of high performance concrete charged with organic fibers.

Main properties of the concrete used:

- Compressive strength: 100-120 MPa Bending strength: 12-15 MPa
- Protection stain BF 24H type

### PLYWOOD BEECH

The FUNDERMAX Compact Laminate panels used in this range Plywood beech, 9 layers, PEFC-certified. 0.8mm double-sided laminated veneer, post formable. Edges varnished with 4 coats, 2 coats of protective saturation, 1 anti UV coat and 1 coat of colour with anti UV pigmentation. Production process and outdoor performance tested and validated in a lab with CRITT Bois\*. UV resistance validated with CNEP\*\*.

#### \*CRITT Bois: Resource Center for Wood Industries. \*\*CNEP: Centre for Organic Materials Ageing.

#### STEEL

The steel parts are made of S235 Class I. In our case, after hot-dip galvanization, Class I of the steel guarantees an anti-corrosive protection as well as a uniform coating. After surfaces preparation, powder coating is then applied.

Main properties of the steel used: Yield strength: 235 MPa • NF EN ISO 1461: coating on finished steel products









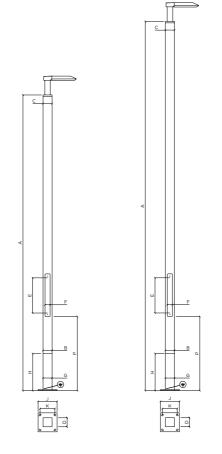
- TECHNICAL SHEET -

UTYL

**LED 38 W** 

# **TECHNICAL SHEETS**

AUBRILAM PRODUCTS



Cpa Car Parking area - Pa Public area - Ap Access path - Cp Cycle path - Pf Pedestrian footpath - S Street

LED LIGHT 38 W Ê Asymmetrical elliptical lighting Œ 4 320 lm - Colour temperature 4 000 K (T° 3 000 K - 4 030 lm as option). Colour rendering index R<sub>a</sub>> 80. Cast aluminium, aluminium and stainless steel. Safety glass. Reflector in pure anodized aluminium. Dust-proof and water jet protected. Delivered with connecting cable X05BQ-F 4 x  $1^{2}$  - Length  $\,$  7 m. Power supply LED 220-240 V - 0/50-60 Hz. DC 176-264 V - Dimmable 1-10 V. Class II - IP 66 - IK 07 - Weight: 4,4 kg.

Descriptions of the ranges of lighting columns and urban furniture, as well as dimensions and technical data sheets reproduced in this catalogue are provided by Aubrilam for information purposes only. Aubrilam reserves the right to make any adjustments to the catalogue as deemed necessary and without warning. Tolerances: wood items  $\pm$  3 %, steel items  $\pm$  1 %, aluminium items ± 2 %.

SQUARED LIGHTING POINTS



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UTYL	SQUA	ARED LED 38 W	PCO9416	PCO9516
A	m	Pole height	4	5
В	mm	Shaft section at base	120	120
С	mm	Shaft section on top	120	120
D	mm	Door: useful depth	78	78
ExF	mm	Door: useful height x width	460 x 60	460 x 60
P	m	Distance door bottom to plate	1	1
G	mm	Base section	120	120
н	m	Base height	0,50	0,50
J	mm	Base plate dimensions	260 x 260	260 x 260
K	mm	Spacing dimensions	200 x 200	200 x 200
L	mm	Anchor rods	4 HA16 M14 - 300	4 HA16 M14 - 300
	kg	Weight	24	27
	m	Height of the light	4,20	5,20



#### MATERIALS SQUARED SHAFT

Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polvester finish. Overlving top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

CE mark product: Conformity certificate CE 0679-CPD-0473.

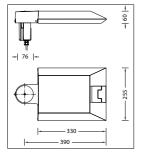
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STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.







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Light diffusion LED 38 W.

#### ΝΟΤΕ

# LED 50,6 W

LED 38 W

ROUND TAPERED LIGHTING POINTS

- TECHNICAL SHEET -

UTYL

LP.

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22 24 26 Pole stability ensured Outside those thresholds onsult us

Wind speed m/s

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υτγι	ROU	ND TAPERED LED 38 W	PCD9426	PCD9526
A	m	Pole height	4	5
В	mm	Shaft diameter at base	140	140
С	mm	Shaft diameter on top	76	76
D	mm	Door: useful depth	62	62
ExF	mm	Door: useful height x width	460 x 60	460 x 60
P	m	Distance door bottom to plate	0,90	0,90
G	mm	Base diameter	140	140
н	m	Base height	0,45	0,45
J	mm	Base plate dimensions	260 x 260	260 × 260
K	mm	Spacing dimensions	200 x 200	200 x 200
L	mm	Anchor rods	4 HA16 M14 - 300	4 HA16 M14 - 300
	kg	Weight	20	23
	m	Height of the light	4,20	5,20



Round tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Round flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE mark product: Conformity certificate CE 0679-CPD-0473.

#### STANDARD COLOUR IDENTITY

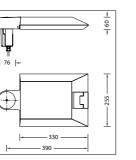
 $[\bigcirc]$ WOOD: Brume - METAL: Black 100 sanded.



Cpa Car Parking area - Pa Public area - Ap Access path - Cp Cycle path - Pf Pedestrian footpath - S Street

١. ١	LED	LIGHT	38	w	

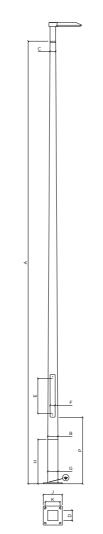
Asym	metrical elliptical lighting.
4 320	Im - Colour temperature 4 000 K (T° 3 000 K - 4 030 Im as option)
Colou	r rendering index R <sub>a</sub> > 80.
Cast a	aluminium, aluminium and stainless steel.
Safety	y glass. Reflector in pure anodized aluminium.
Dust-	proof and water jet protected.
Delive	ared with connecting cable X05BQ-F 4 x $^{12}$ - Length 7 m.
Power	r supply LED 220-240 V - 0/50-60 Hz.
DC 17	6-264 V - Dimmable 1-10 V.
Class	II - IP 66 - IK 07 - Weight: 4,4 kg.



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#### NOTE

Lighting points delivered without case, light not assembled on the shaft. Possibility to fix the lights on brackets or surface mounted on demand.



#### Cpa Car Parking area - Pa Public area - Pr Public road - Ap Access path - Cp Cycle path - Pf Pedestrian footpath - S Street

Asymn	netrical elliptical lighting.
5760 lr	n - Colour temperature 4 000 K (T° 3 000 K - 5 370 lm as option)
Colour	rendering index R <sub>a</sub> > 80.
Cast al	uminium, aluminium and stainless steel.
Safety	glass. Reflector in pure anodized aluminium.
Dust-p	roof and water jet protected.
Deliver	ed with connecting cable X05BQ-F 4 x 1² - Length 8 m.
Power	supply LED 220-240 V - 0/50-60 Hz.
DC 176	-264 V - Dimmable 1-10 V.
Class II	- IP 66 - IK 08 - Weight: 4,6 kg.

UTYL SQUARED TAPERED LIGHTING POINT

> Wind speed m/s 22 24 Pole stability ens Outside those thresholds nsult us

υτγι	_ squ	ARED TAPERED LED 50,6 W	PCS9627
A	m	Pole height	6
В	mm	Shaft section at base	140
С	mm	Shaft section on top	76
D	mm	Door: useful depth	72
ExF	mm	Door: useful height x width	460 x 70
P	m	Distance door bottom to plate	0,90
G	mm	Base section	140
Н	m	Base height	0,60
J	mm	Base plate dimensions	260 × 260
K	mm	Spacing dimensions	200 x 200
L	mm	Anchor rods	4 HA16 M14 - 300
	kg	Weight	34
	m	Height of the light	6,20



#### MATERIALS SQUARED TAPERED SHAFT

Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

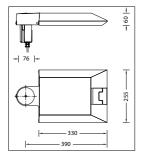
CE mark product: Conformity certificate CE 0679-CPD-0473.



#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.



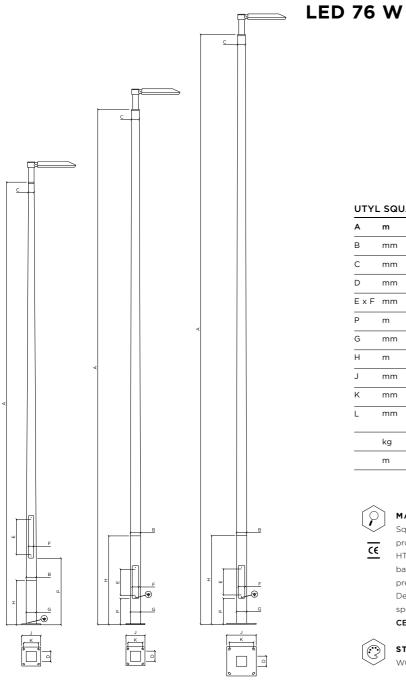


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Light diffusion LED 50,6 W.

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## SQUARED TAPERED LIGHTING POINTS



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υτγι	SQU	ARED TAPERED LED 76 W	PCS9628	PCS9798	PCS9898
A	m	Pole height	6	7	8
В	mm	Shaft section at base	140	140	140
С	mm	Shaft section on top	76	100	100
D	mm	Door: useful depth	72	117	117
ExF	mm	Door: useful height x width	460 x 70	400 × 90	400 x 90
P	m	Distance door bottom to plate	0,90	0,35	0,35
G	mm	Base section	140	140	140
н	m	Base height	0,60	1,20	1,20
J	mm	Base plate dimensions	260 x 260	400 x 400	400 x 400
K	mm	Spacing dimensions	200 x 200	300 x 300	300 x 300
L	mm	Anchor rods	4 HA16 M14 - 300	4 HA20 M18 - 400	4 HA20 M18 - 400
	kg	Weight	34	55	68
	m	Height of the light	6,20	7,20	8,20



Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE mark product: Conformity certificate CE 0679-CPD-0473.

#### STANDARD COLOUR IDENTITY

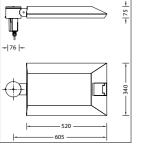
WOOD: Brume - METAL: Black 100 sanded.



na	Car Parking Area - I	Pa Public area -	Pr Public road - A	p Access path -	Cp Cycle path - I	Pf Pedestrian footo;	ath - S Street

۲.	LED	LIGHT	76	w	
MA 1					

	ymmetrical elliptical lighting.
864	40 lm - Colour temperature 4 000 K (T° 3 000 K - 8060 lm as option)
Col	lour rendering index R <sub>a</sub> > 80.
Cas	st aluminium, aluminium and stainless steel.
Saf	fety glass. Reflector in pure anodized aluminium.
Du	st-proof and water jet protected.
Fle	xible head for beam direction 0° or 15°.
De	livered with connecting cable X05BQ-F 4 x 1 $^2$ - Length 9 m.
Po	wer supply LED 220-240 V - 50-60 Hz - Dimmable 1-10 V.
Cla	ass II - IP 66 - IK 08 - Weight: 8.6 kg.



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#### NOTE

Lighting points delivered without case, light not assembled on the shaft. Possibility to fix the lights on brackets or surface mounted on demand.



#### Cpa Car Parking Area - Pa Public area - Pr Public road - Ap Access path - Cp Cycle path - Pf Pedestrian footpath - S Street

,	Asymmetrical flat beam lighting.
1	11520 lm - Colour temperature 4 000 K (T° 3 000 K - 10 740 lm as option).
(	Colour rendering index R <sub>a</sub> > 80.
(	Cast aluminium, aluminium and stainless steel.
-	Safety glass. Reflector in pure anodized aluminium.
[	Dust-proof and water jet protected.
	Flexible head for beam direction 0° or 15°.
1	Delivered with 2 connecting cables 05BQ-F 4 x $1^2$ - Length 7 m.
	Power supply LED 220-240 V - 0/50-60 Hz
1	DC 176-264 V - Dimmable 1-10 V.
(	Class II - IP 66 - IK 08 - Weight: 9 kg.

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SQUARED TAPERED LIGHTING POINT

LED 101,2 W



nsult us

UTYL	UTYL SQUARED TAPERED LED 2 X 50,6 W PCS9794							
A	m	Pole height	7					
В	mm	Shaft section at base	140					
С	mm	Shaft section on top	100					
D	mm	Door: useful depth	117					
ExF	mm	Door: useful height x width	400 × 90					
P	m	Distance door bottom to plate	0,35					
G	mm	Base section	140					
Н	m	Base height	1,20					
J	mm	Base plate dimensions	400 × 400					
К	mm	Spacing dimensions	300 x 300					
L	mm	Anchor rods	4 HA20 M18 - 400					
	kg	Weight	55					
	m	Height of the light	7,20					



#### MATERIALS SQUARED TAPERED SHAFT

Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

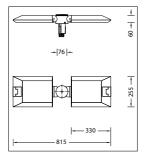
CE mark product: Conformity certificate CE 0679-CPD-0473.



#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.





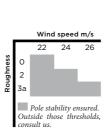
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Light diffusion LED 2 x 50,6 W.

#### ΝΟΤΕ

SQUARED TAPERED LIGHTING POINT

LED 151,8 W



υτγι	_ SQU	ARED TAPERED LED 151,8 W	PCS9899
A	m	Pole height	8
В	mm	Shaft section at base	140
С	mm	Shaft section on top	100
D	mm	Door: useful depth	117
ExF	mm	Door: useful height x width	400 × 90
P	m	Distance door bottom to plate	0,35
G	mm	Base section	140
Н	m	Base height	1,20
J	mm	Base plate dimensions	400 x 400
K	mm	Spacing dimensions	300 x 300
L	mm	Anchor rods	4 HA20 M18 - 400
	kg	Weight	68
	m	Height of the light	8,20



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Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE mark product: Conformity certificate CE 0679-CPD-0473.

#### STANDARD COLOUR IDENTITY

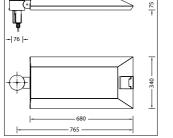
[? WOOD: Brume - METAL: Black 100 sanded.

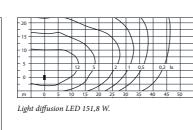


Cpa Car Parking Area - Pa Public Area - Pr Public Road - Ap Access Path - Pf Pedestrian Footpath - S Street

Ĩ	LED LIGHT 151,8	w
$\sim$	Asymmetrical ellipti	cal

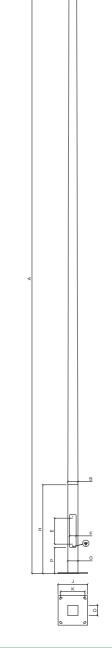
Asymm	etrical elliptical lighting.
17 280lr	n - Colour temperature 4 000 K (T° 3 000 K - 16 110 lm as option)
Colour r	rendering index R <sub>a</sub> > 80.
Cast alu	uminium, aluminium and stainless steel.
Safety ç	glass. Reflector in pure anodized aluminium.
Dust-pr	oof and water jet protected.
Flexible	head for beam direction 0° or 15°.
Delivere	ed with connecting cable 05BQ-F 4 x $1^2$ - Length 10 m.
Power s	supply LED 220-240 V - 50-60 Hz - Dimmable 1-10 V.
Class II	- IP 66 - IK 08 - Weight: 10,4 kg.





#### NOTE

Lighting points delivered without case, light not assembled on the shaft. Possibility to fix the lights on brackets or surface mounted on demand.



#### Cpa Car Parking Area - Pa Public Area - Pr Public Road - Ap Access Path - Pf Pedestrian Footpath - S Street

LED LIGHT 2 X 151,8 W
Asymmetrical flat beam lighting.
34 560 lm - Colour temperature 4 000 K (T° 3 000 K - 32 220 lm as option).
Colour rendering index R <sub>a</sub> > 80.
Cast aluminium, aluminium and stainless steel.
Safety glass. Reflector in pure anodized aluminium.
Dust-proof and water jet protected.
Flexible head for beam direction 0° or 15°.
Delivered with 2 connecting cables 05BQ-F 4 x 1 <sup>2</sup> - Length 10 m.
Power supply LED 220-240 V - 50-60 Hz - Dimmable 1-10 V.
Class II - IP 66 - IK 08 - Weight: 19,8 kg.

UTYL SQUARED TAPERED LIGHTING POINT

LED 303,6 W



Outside those threshold nsult us

UTYL	UTYL SQUARED TAPERED LED 2 X 151,8 W PCS9895								
A	m	Pole height	8						
В	mm	Shaft section at base	140						
С	mm	Shaft section on top	100						
D	mm	Door: useful depth	117						
ExF	mm	Door: useful height x width	400 x 90						
P	m	Distance door bottom to plate	0,35						
G	mm	Base section	140						
Н	m	Base height	1,20						
J	mm	Base plate dimensions	400 x 400						
K	mm	Spacing dimensions	300 × 300						
L	mm	Anchor rods	4 HA20 M18 - 400						
	kg	Weight	68						
	m	Height of the light	8,20						



#### MATERIALS SQUARED TAPERED SHAFT

Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

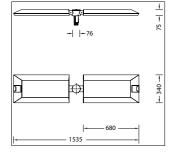
CE mark product: Conformity certificate CE 0679-CPD-0473.



#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.





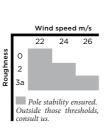
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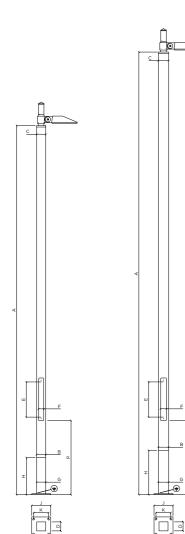
Light diffusion LED 2 x 151,8 W.

#### NOTE

SQUARED LIGHTING POINTS

HIT\* 70 W





υτγι	SQU	ARED HIT* 70 W	PCO9510	PCO9640
A	m	Pole height	5	6
В	mm	Shaft section at base	120	140
С	mm	Shaft section on top	120	140
D	mm	Door: useful depth	78	93
ExF	mm	Door: useful height x width	460 x 60	460 x 70
P	m	Distance door bottom to plate	1	1
G	mm	Base section	120	140
Н	m	Base height	0,50	0,60
J	mm	Base plate dimensions	260 x 260	260 x 260
K	mm	Spacing dimensions	200 x 200	200 × 200
L	mm	Anchor rods	4 HA16 M14 - 300	4 HA16 M14 - 300
	kg	Weight	27	43
	m	Height of the light	5	6

#### MATERIALS SQUARED SHAFT

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Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE mark product: Conformity certificate CE 0679-CPD-0473.

#### STANDARD COLOUR IDENTITY

 $[\bigcirc]$ WOOD: Brume - METAL: Black 100 sanded.



pa Car Parking Area - Pr Public Road - Ap Access Path - Pf Pedestrian footpath - S Stree	t
	-

Ğ.	ніт*	70	w	LIGHT	

As	symmetrical elliptical lighting.
M	etal halide lamp HIT-CE 70 W - G12 Socket - 7 300 lm.
Cá	ast aluminium, aluminium and stainless steel.
Sa	fety glass. Reflector in pure anodized aluminium.
Dı	ust-proof and water jet protected.
Ad	djustable angle of + 90° in 10° levels.
Te	rminal 2,5 <sup>2</sup> - Earthing system.
Ba	allast 220-240-250 V - 50 Hz permutable. Factory connection 230 V
CI	ass I - IP 66 - IK 10 - Weight: 7,2 kg.

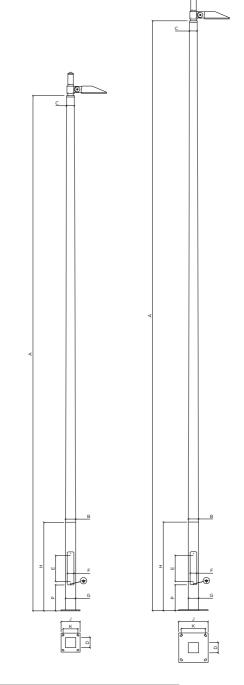
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Light diffusion HIT\* 70 W.

#### NOTE

Lighting points delivered without case, light not assembled on the shaft. Possibility to fix the lights on brackets or surface mounted on demand.



#### Cpa Car Parking Area - Pa Public Area - Pr Public Road

Asyn	nmetrical extensive lighting.					
Meta	l halide lamp HIT-DE-CE 150 W - RX7s Socket - 14 500 lm.					
Cast	aluminium, aluminium and stainless steel.					
Safety glass. Reflector in pure anodized aluminium.						
Dust	-proof and water jet protected.					
Adju	stable angle of + 90° in 10° levels.					
Term	inal 4 <sup>2</sup> - Earthing system.					
Balla	st 220-240-250 V - 50 Hz permutable. Factory connection 230 \					
Class	; I - IP 66 - IK 10 - Weight: 8,5 kg.					

# UTYL

SQUARED TAPERED LIGHTING POINTS

HIT\* 150 W



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UTYI	SQU	ARED TAPERED HIT* 150 W	PCS9792	PCS9892
A	m	Pole height	7	8
В	mm	Shaft section at base	140	140
С	mm	Shaft section on top	100	100
D	mm	Door: useful depth	117	117
ExF	mm	Door: useful height x width	400 x 90	400 x 90
P	m	Distance door bottom to plate	0,35	0,35
G	mm	Base section	140	140
н	m	Base height	1,20	1,20
J	mm	Base plate dimensions	400 x 400	400 x 400
ĸ	mm	Spacing dimensions	300 x 300	300 x 300
L	mm	Anchor rods	4 HA20 M18 - 400	4 HA20 M18 - 400
	kg	Weight	55	68
	m	Height of the light	7	8



#### MATERIALS SQUARED TAPERED SHAFT

Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

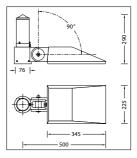
CE mark product: Conformity certificate CE 0679-CPD-0473.



### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.





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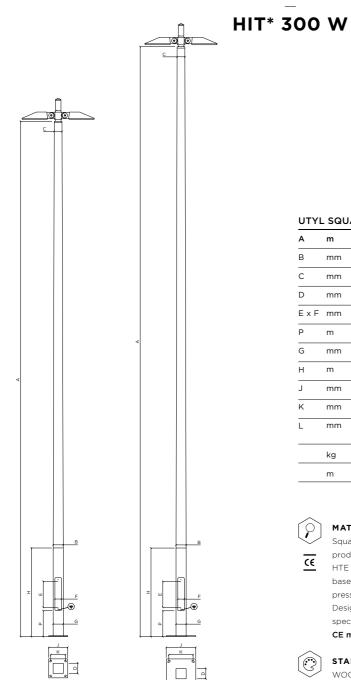
Light diffusion HIT\* 150 W.

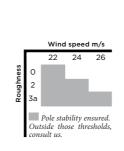
#### ΝΟΤΕ

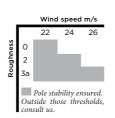
SQUARED TAPERED LIGHTING POINTS

# UTYL

LED 44,2 W







UTYL	SQU	ARED TAPERED HIT* 2 X 150 W	PCS9793	PCS9893
A	m	Pole height	7	8
В	mm	Shaft section at base	140	140
С	mm	Shaft section on top	100	100
D	mm	Door: useful depth	117	117
ExF	mm	Door: useful height x width	400 x 90	400 x 90
P	m	Distance door bottom to plate	0,35	0,35
G	mm	Base section	140	140
н	m	Base height	1,20	1,20
J	mm	Base plate dimensions	400 x 400	400 x 400
K	mm	Spacing dimensions	300 x 300	300 × 300
L	mm	Anchor rods	4 HA20 M18 - 400	4 HA20 M18 - 400
	kg	Weight	55	68
	m	Height of the light	7	8



Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE mark product: Conformity certificate CE 0679-CPD-0473.

#### STANDARD COLOUR IDENTITY

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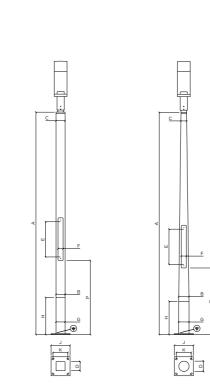
[? WOOD: Brume - METAL: Black 100 sanded.



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## NOTE

Lighting points delivered without case, light not assembled on the shaft. Possibility to fix the lights on brackets or surface mounted on demand.



#### Cpa Car Parking Area - Pr Public Road - Ap Access path - Pf Pedestrian Footpath - S Street

S	ymmetrical circular lighting.
3	435 lm - Colour temperature 4 000 K (T° 3 000 K - 3 203 lm as option)
С	Colour rendering index R <sub>a</sub> > 80.
С	Cast aluminium, aluminium and stainless steel.
С	Clear synthetic cylinder. Reflector in pure anodized aluminium.
D	Dust-proof and water jet protected.
D	Delivered with connecting cable X05BQ-F 5G1 <sup>2</sup> - Length 6 m.
Ρ	Power supply LED 220-240 V - 0/50-60 Hz.
D	DC 170-280 V - Dimmable 1-10 V.
С	Class I - IP 65 - IK 10 - Weight: 5 kg.

Cpa Car Parking Area - Pa Public Area - Pr Public Road

Asymmetrical extensive lighting

#### HIT\* 2 X 150 W LIGHT Ť

Asymmetrical exten	sive lighting.
Metal halide lamp H	IT-CE 2 x 150 W - RX7s Socket - 14 800 lm.
Cast aluminium, alur	ninium and stainless steel.
Safety glass. Reflect	or in pure anodized aluminium.
Dust-proof and wate	er jet protected.
Adjustable angle of	+ 90° in 10° levels.
Terminal 4 <sup>2</sup> - Earthir	ng system.
Ballast 220-240-250	) V - 50 Hz permutable. Factory connection 230 V.

Class I - IP 66 - IK 10 - Weight: 15,6 kg.

#### \*HIT : Metal halide with magnetic ballast.

LIGHTING COLUMNS



			SQUARED	ROUND TAPERED
UTYL LED 44,2 W			PCO9311	PCD9321
А	m	Pole height	3	3
В	mm	Shaft section/diameter at base	120	140
С	mm	Shaft section/diameter on top	120	76
D	mm	Door: useful depth	78	62
ExF	mm	Door: useful height x width	460 x 60	460 x 60
P	m	Distance door bottom to plate	1	0,90
G	mm	Base section/diameter	120	140
н	m	Base height	0,50	0,45
J	mm	Base plate dimensions	260 x 260	260 x 260
к	mm	Spacing dimensions	200 x 200	200 x 200
L	mm	Anchor rods	4 HA16 M14 - 300	4 HA16 M14 - 300
	kg	Weight	20	17
	m	Height of the light	3,60	3,60



#### MATERIALS SQUARED SHAFT

Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

CE mark product: Conformity certificate CE 0679-CPD-0473.



#### MATERIALS ROUND TAPERED SHAFT

Round tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Round flush base in galvanised steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

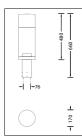
CE mark product: Conformity certificate CE 0679-CPD-0473.



#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.







Light diffusior LED 44,2 W.

#### ΝΟΤΕ

# MOSHI

LIGHTING BOLLARD

# **CFL 18 W HIT 20 W**

# LADY LED LIGHTING BOLLARD

# LED 6 X 1,2 W



MEASUREMENTS h x L x l: 1 008 x 120 x 120 mm Weight: 17 kg

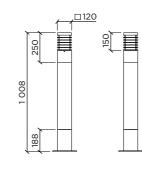


Cp Cycle Path - Pf Pedestrian footpath - S Street

Integrated terminal strip connector - Connection 3 x 2.5<sup>2</sup> max. + fuse 1A (5x20).

Class I - IP 55 - IK 10.

MOSHI BOLLARD	PMR0135	PMR0174
Height	1 m	1 m
Power	18 W	20 W
Type of lamp	CFL	IM
Class	I	I
IP	55	55







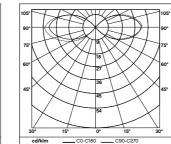
Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base and top in galvanized steel, powder coated polyester finish. Opal polyamide diffusor.



Chemical sealing. Anchor rods: threaded rod M12 x 200. Fixation holes on plate: 16 x 24 mm.



18 W LUMINAIRE
p in galvanized steel, powder coated polyester finish.
pal polyamide diffusor.
uo Compact lamp (not included) - 500 lm - Socket G24q-2.
egrated terminal strip connector - Connection 3 x $2.5^2$ max. + fuse 1A (5x20)
ass I - IP 55 - IK 10.
T 20 W LUMINAIRE
p in galvanized steel, powder coated polyester finish.
pal polyamide diffusor.
etal halide lamp (not supplied) - 800 lm - G8,5 Socket.



Light diffusion HIT 20 W.





h x Ø: 800 x 115 mm h x Ø: 1 008 x 115 mm Weight: 8 kg Weight: 9 kg



STANDARD COLOUR IDENTITY

#### TOP: Grey 900 sanded.

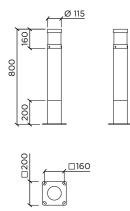
#### Cp Cycle Path - Pf Pedestrian footpath - S Street

	LED 6 X 1,2 W LUMINAIRE
$\checkmark$	Aluminium top, powder coated polyester finish.
	Polycarbonate clear diffusor.
	220 lm - Colour temperature 4 000 K.
	No distribution box. Connection with pre-cabling 3 x $1.5^2$ max Length 2 m.
	Class I - IP 65 - IK 09.

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LADY BOLLARD	PBE0142	PBE0143
Height	0,80 m	1 m
Power	6 x 1,2 W	6 x 1,2 W
Type of lamp	LED	LED
Class	11	Ш
IP	55	55





#### MATERIALS ROUND SHAFT

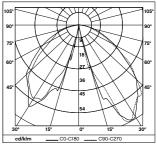
Regular round shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Round flush base in galvanized steel, powder coated polyester finish. Aluminium top, powder coated polyester. Opal polyamide diffusor.



#### FIXATION

Chemical sealing. Anchor rods: threaded rod M12 x 200. Fixation hole on plate: Ø 14 mm.





Light diffusion LED 6 x 1,2 W.

# LED 8,3 W

LIGHTING BOLLARD

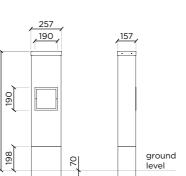
NATTY 1

- TECHNICAL SHEET -

NATTY 1 BOLLARD PBD0710 Height 1,07 m 8,3 W LED

Power Type of lamp

ijpe er idnip	220
Class	I
IP	55
257 , <u>190</u>	







#### MATERIALS SQUARED SHAFT

Regular rectangular shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Rectangular flush base in galvanized steel, powder coated polyester finish. Overlying top in galvanized steel, powder coated polyester finish.

Connexion box with drawer for Neozed 16A installation. Synthetic shock resistant case. Protection degree IP 55. Protection class II. For diversion cabling until 5 x 4<sup>2</sup>.



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### FIXATION

Chemical sealing. Anchor rods: threaded rod M12 x 200. Spacing dimensions on plate: 200 x 200 mm. Fixation hole on plate: 16 x 24 mm.



MEASUREMENTS h x L x l: 1 068 x 207 x 157 mm Weight: 18 kg

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STANDARD COLOUR IDENTITY

WOOD: Brume or Dark Mineral - METAL: Black 100 sanded.

#### Pa Public Area - Cp Cycle Path - Pf Pedestrian footpath - S Street

LED 8,4 W LUMINAIRE Free diffusion lighting.
392 lm - Colour temperature 3 000 K (T° 4 000 K - 401 lm as option)
Cast aluminium, aluminium and stainless steel. White safety glass.
Dust-proof and water jet protected.
Pre-cabling 3G1.5 <sup>2</sup> - Length 1 m.
Power supply LED 220-240 V - 0/50-60 Hz. DC 176-264 V.
Class I - IP 64 - IK 09 - Weight: 1 kg.



h x L x l: 1 068 x 257 x 157 mm Weight: 22 kg

MEASUREMENTS

STANDARD COLOUR IDENTITY WOOD: Brume or Dark Mineral - METAL: Black 100 sanded.

#### Pa Public Area - Cp Cycle Path - Pf Pedestrian footpath - S Street

#### (Ý LED 8,3 W LUMINAIRE

Free diffusion lighting.	
482 lm - Colour tempe	rature 3 000 K (T° 4 000 K - 502 lm as option).
Cast aluminium, alumir	nium and stainless steel. White safety glass.
Dust-proof and water j	jet protected.
Pre-cabling 3G1.5 <sup>2</sup> - Le	ngth 1 m.
Power supply LED 220	0-240 V - 0/50-60 Hz. DC 176-264 V.
Class I - IP 65 - IK 09 -	Weight: 1,4 kg.



Light diffusion LED 8,3 W.

## NOTE

The power supply is located on the top part of the bollard: prepare enough cable length to proceed with the connection.

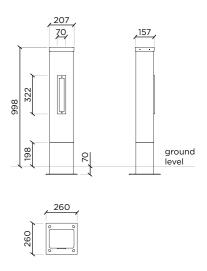


# NATTY 2

LIGHTING BOLLARD

LED 8,4 W

NATTY 2 BOLLARD	PBD0711
Height	1,07 m
Power	8,4 W
Type of lamp	LED
Class	I
IP	55





#### MATERIALS SQUARED SHAFT

Regular rectangular shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Rectangular flush base in galvanized steel, powder coated polyester finish. Overlying top in galvanized steel, powder coated polyester finish.

Connexion box with drawer for Neozed 16A installation. Synthetic shock resistant case. Protection degree IP 55. Protection class II. For diversion cabling until  $5 \ge 4^2$ .



#### FIXATION

Chemical sealing. Anchor rods: threaded rod M12 x 200. Spacing dimensions on plate: 200 x 200 mm. Fixation hole on plate: 16 x 24 mm.





Light diffusion LED 8,4 W.

#### NOTE

The power supply is located on the top part of the bollard: prepare enough cable length to proceed with the connection.

# LED 10,5 W

LIGHTING BOLLARD

NATTY 3

- TECHNICAL SHEET -

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#### MATERIALS SQUARED SHAFT

Regular rectangular shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Rectangular flush base in galvanized steel, powder coated polyester finish. Overlying top in galvanized steel, powder coated polyester finish. Connexion box with drawer for Neozed 16A installation. Synthetic shock

resistant case. Protection degree IP 55. Protection class II. For diversion cabling until 5 x 4<sup>2</sup>.



Anchor rods: threaded rod M12 x 200. Spacing dimensions on plate: 200 x 200 mm. Fixation hole on plate: 16 x 24 mm.



NOTE The power supply is located on the top part of the bollard: prepare enough cable length to proceed with the connection.

NATTY 3 BOLLARD PBD0715

1,07 m 10,5 W

LED

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55

ground

level

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Height

Power Type of lamp

Class

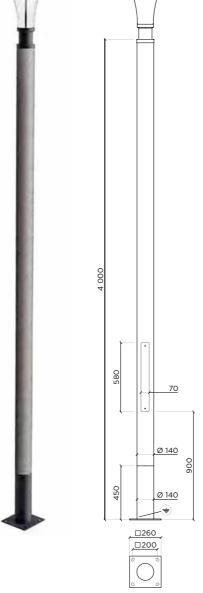
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IP

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#### Cpa Car Parking Area - Pa Public Area - Pr Public Road - Ap Access Path - Cp Cycle Path - Pf Pedestrian footpath - S Street

4 440 lm - Colour temperature 4 000 K (T° 3 000 K - 4 120 lm as optic Cast aluminium, aluminium and stainless steel. Clear synthetic bowl. Reflector in pure anodized aluminium. Closing without tool. Dust-proof and water jet protected. Delivered with 1 connecting cable X05BQ-F 4 x 1 <sup>2</sup> - Length 6 m. Power supply LED 220-240 V - 50-60 Hz. Dimmable 1-10 V.	Circula	symmetrical diffusion lighting.
Clear synthetic bowl. Reflector in pure anodized aluminium. Closing without tool. Dust-proof and water jet protected. Delivered with 1 connecting cable X05BQ-F 4 x 1 <sup>2</sup> - Length 6 m.	4 4 4 0	m - Colour temperature 4 000 K (T° 3 000 K - 4 120 lm as option)
Closing without tool. Dust-proof and water jet protected. Delivered with 1 connecting cable X05BQ-F 4 x 1 <sup>2</sup> - Length 6 m.	Cast a	uminium, aluminium and stainless steel.
Delivered with 1 connecting cable X05BQ-F 4 x 1 <sup>2</sup> - Length 6 m.	Clear :	nthetic bowl. Reflector in pure anodized aluminium.
	Closin	without tool. Dust-proof and water jet protected.
Power supply LED 220-240 V - 50-60 Hz. Dimmable 1-10 V.	Delive	ed with 1 connecting cable X05BQ-F 4 x 1 <sup>2</sup> - Length 6 m.
	Power	supply LED 220-240 V - 50-60 Hz. Dimmable 1-10 V.
Class II - IP 65 - IK 09 - Weight: 20 kg.	Class I	- IP 65 - IK 09 - Weight: 20 kg.

#### MEASUREMENTS

h x L x l: 1 068 x 257 x 157 mm Weight: 22 kg

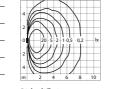
STANDARD COLOUR IDENTITY

WOOD: Brume or Dark Mineral - METAL: Black 100 sanded.

Cpa Car Parking Area - Pa Public Area - Cp Cycle Path - Pf Pedestrian footpath - S Street

#### LED 10,5 W LUMINAIRE (¥

liptical diffusion lighting.
92 lm - Colour temperature 3 000 K (T° 4 000 K - 642 lm as option).
ast aluminium, aluminium and stainless steel.
afety glass with optical structure. Reflector in pure anodized aluminium
ust-proof and water jet protected.
re-cabling 3G1.5 <sup>2</sup> - Length 1 m.
ower supply LED 220-240 V - 0/50-60 Hz. DC 176-264 V.
lass I - IP 65 - IK 09 - Weight: 1,6 kg.



Light diffusion LED 10,5 W.

CE

# NATTY XL LIGHTING COLUMN

**LED 32 W** 

NATTY XL COLUMN	PCO0213
Height	4 m
Power	32 W
Type of lamp	LED



#### MATERIALS ROUND SHAFT

Regular round shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Round flush base and overlying top in galvanized steel, powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE mark product: Conformity certificate CE 0679-CPD-0473.



#### FIXATION

Anchor rods: 4 HA20/M18 x 400. Spacing dimensions on plate: 200 x 200 mm. Fixation hole on plate: Ø 16 x 28 mm.



## MEASUREMENTS

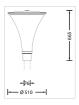
Height of light: 4 665 mm Weight: 30 kg



#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.







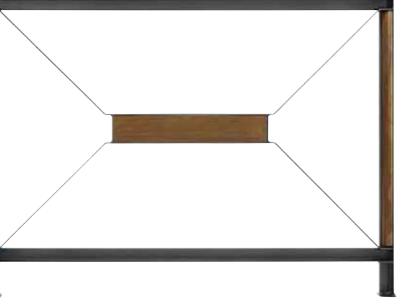
Light diffusion LED 32 W.



Ref. PMR0544

UTYL

— TECHNICAL SHEET —





р



+ Flavard & Saguez design + aesthetic + ecologic + economic

#### MATERIALS [P]

Electro-galvanised steel structure, double-layered polyester powder coated. Glued laminated timber panels from sustainably managed forests. Timber finished with three layers of woodstain. Must be buried in the ground 300 mm. Fixation on plate: optional.



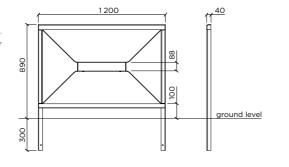
Buried 300 mm.

#### MEASUREMENTS

h x L x w: 890 x 1 200 x 40 mm Weight: 16,5 kg



STANDARD COLOUR IDENTITY WOOD: Brume - METAL: Black 100 sanded.







Electro-galvanised steel structure, double-layered polyester powder coated. Seat in glued laminated timber from sustainably managed forests. Timber finished with three layers of woodstain. Must be fixed to the ground on base plate.



Chemical sealing. Anchor rods: threaded rod M10 x 80. Fixation holes on plate: Ø 12 mm.

#### MEASUREMENTS

h x L x w: 450 x 1 864 x 468 mm Plate size: 190 x 90 mm Weight: 22,5 kg



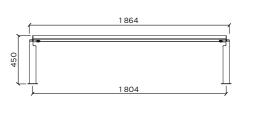
## STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.

# UTYL

Ref. PMR0541

BENCH





150

Ref. PMR0542

**14-SLAT BENCH** 











+ Flavard & Saguez design + aesthetic + ecologic + economic

#### MATERIALS $\left[ \right]$

Electro-galvanised steel structure, double-layered polyester powder coated. Seat and backrest in glued laminated timber from sustainably managed forests. Timber finished with three layers of woodstain. Must be fixed to the ground on base plate.

## B FIXATION

Chemical sealing. Anchor rods: threaded rod M10  $\times$  80. Fixation holes on plate: Ø 12 mm.

#### MEASUREMENTS

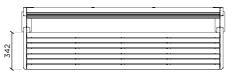
h x L x w: 900 x 1864 x 579 mm Plate size: 190 x 90 mm Weight: 31,8 kg

#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.

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408		000	
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Electro-galvanised steel structure, double-layered polyester powder coated. Seat and backrest in glued laminated timber from sustainably managed forests. Timber finished with three layers of woodstain. Must be fixed to the ground on base plate.



Chemical sealing. Anchor rods: threaded rod M10 x 80. Fixation holes on plate: Ø 12 mm.

#### MEASUREMENTS

h x L x w: 900 x 1 864 x 579 mm Plate size: 190 x 90 mm Weight: 33,8 kg



WOOD: Brume - METAL: Black 100 sanded.

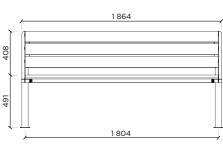


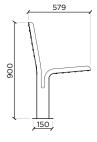
 $\bigcirc$ 

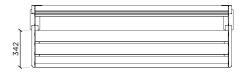
— TECHNICAL SHEET —

# UTYL Ref. PMR0543

**6-SLAT BENCH** 









Ref. PMR0548

- TECHNICAL SHEET -



UTYL PLANTER





+ Flavard & Saguez design + aesthetic + ecologic + economic

MATERIALS [9

Electro-galvanised steel structure, double layered polyester, powder coated. Stainless steel removable tank and top cover, triangular key lock. Must be fixed to the ground on base plate.

Ref. PMR0546

ASHTRAY

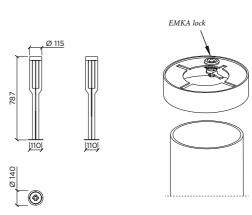


Chemical sealing. Anchor rods: threaded rod M10 x 80. Fixation holes on plate: Ø 12 mm.

MEASUREMENTS

h x Ø: 787 x 115 mm Capacity: 0,75 I - Weight: 5,2 kg









Electro-galvanised steel structure, double-layered polyester powder coated. High Pressure Laminate panels, 12mm-thick. Polyethylene tank included.

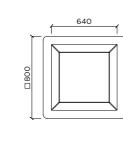
FIXATION No ground fixation required.

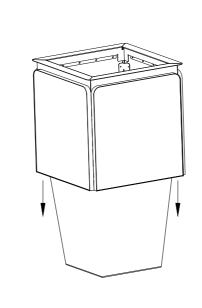
# 

MEASUREMENTS h x L x w: 820 x 800 x 800 mm Capacity: 280 | - Weight: 73,8 kg

#### $\bigcirc$ STANDARD COLOUR IDENTITY

HPL: Ref. 0797 Noyer Tirano - METAL: Black 100 sanded.

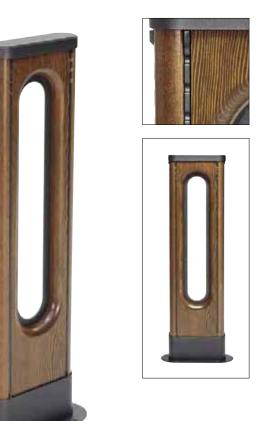




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#### MATERIALS

Electro-galvanised steel structure, double-layered polyester powder coated. Glued laminated timber panels from sustainably managed forests. Timber finished with three layers of woodstain.

Must be fixed to the ground on base plate.



#### FIXATION

Chemical sealing. Anchor rods: threaded rod M10 x 80. Fixation holes on plate: Ø 12 mm.

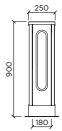
# 

MEASUREMENTS h x L x w: 900 x 250 x 70 mm Weight: 15 kg



### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded.







Ref. PJA0542

## **DIAPASON BOLLARD**



Ref. PJA0550

BOLLARD



Ref. PJA0552

**PRM BOLLARD** 





#### MATERIALS $\left( P \right)$

2014

Electro-galvanised steel structure, double-layered polyester powder coated. Glued laminated timber panels from sustainably managed forests. Timber finished with three layers of woodstain. Must be buried in the ground 300 mm. Fixation on plate: optional.



### Buried 300 mm. Exists in removable version.

+ Flavard & Saguez design + aesthetic + ecologic + economic

+ Flavard & Saguez design + aesthetic + ecologic + economic

#### MATERIALS [P

Electro-galvanised steel structure, double-layered polyester powder coated. Glued laminated timber panels from sustainably managed forests. Timber finished with three layers of woodstain. Must be buried in the ground 300 mm.

Fixation on plate: optional.



Buried 300 mm. Exists in removable version.

#### MEASUREMENTS

Weight: 6,4 kg

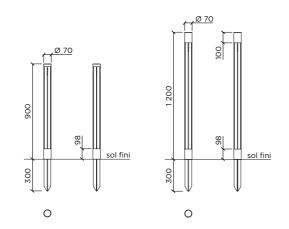
 $\bigcirc$ 

■ PJA0550 Bollard h x Ø: 900 x 70 mm

PJA0552 PMR Bollard h x Ø:1200 x 70 mm Weight: 8,3 kg

#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded. PRM top: white powder coating.



Ref. PJA0544

## **DIAPASON PRM BOLLARD**







### MEASUREMENTS

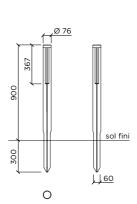
PJA0542 Diapason bollard h x Ø: 900 x 76 mm Weight: 4,8 kg

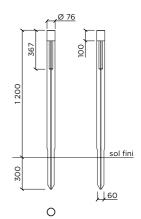
PJA0544 PMR Diapason bollard h x Ø:1200 x 76 mm Weight: 6,7 kg



#### STANDARD COLOUR IDENTITY

WOOD: Brume - METAL: Black 100 sanded. PRM top: white powder coating.





## - TECHNICAL SHEET -

UTYL

Ref. PMR0549

LITTER BIN







#### MATERIALS $\left[ \right]$

Electro-galvanised steel structure, double-layered polyester powder coated. Beech plywood sheet, HPL Noyer Tirano veneer in front and anti-UV varnish on the sides. Removable galvanised steel tank. Must be fixed on the ground on base plate.

#### FIXATION P

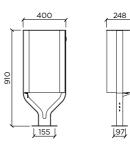
Chemical sealing. Anchor rods: threaded rod M10 x 80. Fixation holes on plate: Ø 12 mm.

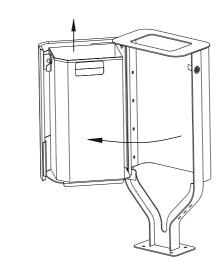
#### MEASUREMENTS

h x L x w: 910 x 400 x 248 mm Base plate size: 240 x 150 mm Capacity: 30 | - Weight: 23,5 kg

#### $\bigcirc$ STANDARD COLOUR IDENTITY

HPL: Ref. 0797 Noyer Tirano - METAL: Black 100 sanded.









p







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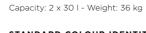
## MATERIALS

Square body made up of 4 panels in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests. Timber finished with three coats of woodstain (Aubrilam HTE process). Cylindrical lid support and base in galvanised steel polyester powder coated. Liner in polyethylene. Triangular key lock and closing hook.



Stud anchors. Anchor rods: M10 x 120.

MEASUREMENTS h x Ø: 808 x 600 mm



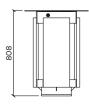
STANDARD COLOUR IDENTITY WOOD: Brume - METAL: Black 100 sanded. — TECHNICAL SHEET —

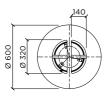
MOSHI

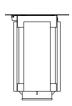
Ref. PMR0183

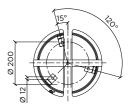
LITTER BIN











## SHADE SHELTER



FIXATION

Chemical sealing.

Anchor rods: threaded rod M16 x 250.

Fixation holes on plate: Ø 22 x 35 mm.

Spacing dimensions on plate: 230 x 230 mm.

+ versatile product + advantages of UTYL range

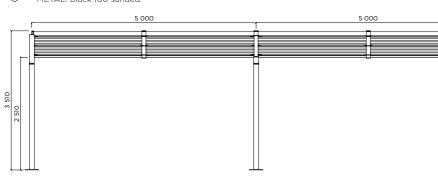
# р

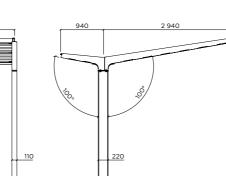
#### MATERIALS [P

Hot-dip galvanised steel structure, doublelayered polyester powder coated. Louvres in thermo-treated wood. Must be fixed to the ground on base plate.

#### STANDARD COLOUR IDENTITY $[ \bigcirc ]$

METAL: Black 100 sanded.





MEASUREMENTS

Capacity: 4 vehicules

Plate size: 300 x 300 mm

h x L x w: 3 100 x 2x5 000 x 3 880 mm

Standard module

Weight: 875 kg

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- PRM space
- (poles spacing for one space: 3,30 m)
- Extra standard space
- (poles spacing: 2,50 m)
- Anchor ground fixation
- (without concrete foundation)
- Structure in galvanized steel only





+ Flavard & Saguez design + common product for 2 different uses: bikes shelter and smokers shelter + modular product

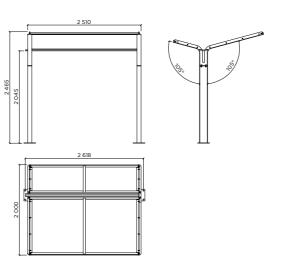
MATERIALS

[?

Electro-galvanised steel structure, double layered polyester powder coated. Alveolar polycarbonate roof, electrogalvanized drip.



Anchor rods: threaded rod M14 x 300. Plate spacing dimensions: 200 x 200 mm. Fixation holes on plate: Ø 16 x 28 mm.





UTYL

Ref. PMZ0347

## **DOUBLE SHELTER**





#### MEASUREMENTS

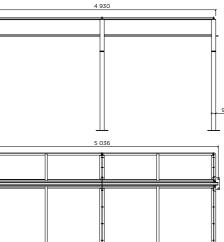
■ PMZ0350 Single shelter Storage capacity: 6 bikes h x L x w: 2 465 x 2 510 x 2 000 mm Plate size: 260 x 260 mm Weight: 167,4 kg

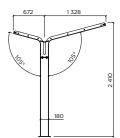


#### STANDARD COLOUR IDENTITY METAL: Black 100 sanded.

#### ■ PMZ0347 Double shelter

Storage capacity: 12 bikes h x L x w: 2 465 x 4 930 x 2 000 mm Plate size: 260 x 260 mm Weight: 271,5 kg





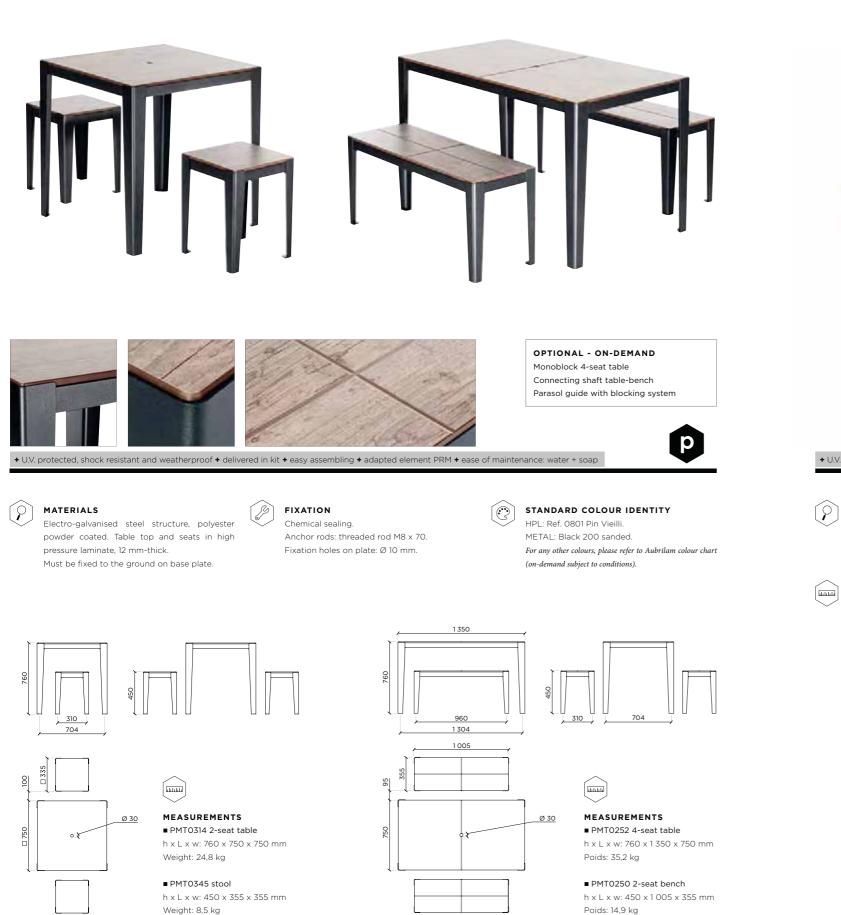
- TECHNICAL SHEET -

## SOLEA

Ref. PMT0346 **2-SEAT TABLE** 

Ref. PMT0246 **4-SEAT TABLE** 

**6-SEAT TABLE** 





MATERIALS

MEASUREMENTS

Weight: 42,1 kg

Weight: 18,6 kg

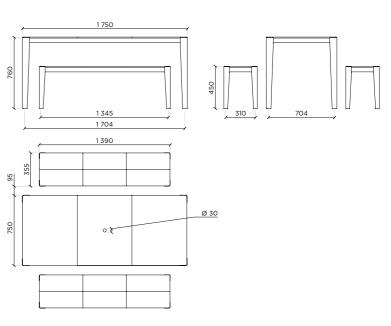
■ PMT0253 6-seat table h x L x w: 760 x 1 750 x 750 mm

PMT0251 3-seat bench h x L x w: 450 x 1 390 x 355 mm

# FIXATION

Electro-galvanised steel structure, polyester powder coated. Table top and seats in high pressure laminate, 12 mm-thick. Must be fixed to the ground on base plate.

#### Chemical sealing. Anchor rods: threaded rod M8 x 70. Fixation holes on plate: Ø 10 mm.



- TECHNICAL SHEET -



[?)

### STANDARD COLOUR IDENTITY

HPL: Ref. 0801 Pin Vieilli. METAL: Black 200 sanded. For any other colours, please refer to Aubrilam colour chart (on-demand subject to conditions).

- TECHNICAL SHEET -

## SOLEA

Ref. PMT0249

PLANTER

Ref. PMJ0215

Ref. PMT0248

**2-SEAT HIGH TABLE** 



**4-SEAT HIGH TABLE** 



+ U.V. protected, shock resistant and weatherproof + delivered in kit + easy assembling + ease of maintenance: water + soap

#### MATERIALS $\left( \mathcal{P} \right)$

310 660

Electro-galvanised steel structure, polyester powder coated. Table top and seats in high pressure laminate, 12 mm-thick. Stainless steel footrest.

Must be fixed to the ground on base plate.

MEASUREMENTS

Weight: 33 kg

Weight: 11,7 kg

■ PMT0254 High table

PMT0253 High stool

FIXATION

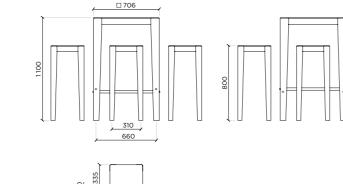
Chemical sealing. Anchor rods: threaded rod M8 x 70. Fixation holes on plate: Ø 10 mm.

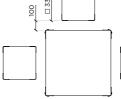
- [?]
- STANDARD COLOUR IDENTITY HPL: Ref. 0801 Pin Vieilli.

OPTIONAL - ON-DEMAND Stand-up table with PRM adaptation

METAL: Black 200 sanded. For any other colours, please refer to Aubrilam colour chart (on-demand subject to conditions).

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h x L x w: 1 100 x 706 x 706 mm h x L x w: 800 x 355 x 355 mm





+ U.V. protected, shock resistant and weatherproof + ease of maintenance: water + soap

MATERIALS [?

 $[\bigcirc]$ 

Electro-galvanised steel structure, double-layered polyester powder coated. Rectangular body in high pressure laminate. Polyethylene tank included.

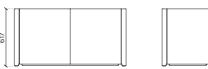
S FIXATION No ground fixation required.

> MEASUREMENTS h x L x w: 617 x 1 205 x 555 mm

Capacity: 260 I - Weight: 59,4 kg

STANDARD COLOUR IDENTITY

HPL: Ref. 0801 Pin Vieilli - METAL: Black 200 sanded. For any other colour, please refer to Aubrilam colour chart (on request according to conditions).







- TECHNICAL SHEET -



Ref. PMC0114











#### MATERIALS

Electro-galvanised steel structure, polyester powder coated. High pressure laminate panels. Electro-galvanised steel tank.



#### FIXATION

Chemical sealing on only 2 fixation points. Anchor rods: threaded rod M8 x 70. Fixation holes on plate: Ø 13 mm.



#### MEASUREMENTS

h x L x w: 788 x 273 x 273 mm Capacity: 1,8 | - Weight: 22,3 kg



#### STANDARD COLOUR IDENTITY

HPL: Ref. 0801 Pin Vieilli - METAL: Black 200 sanded. For any other colour, please refer to Aubrilam colour chart (on request according to conditions).











SOLEA Ref. PMP0131

LITTER BIN



+ U.V. protected, shock resistant and weatherproof + ease of maintenance: water + soap

#### MATERIALS [?

Electro-galvanised steel structure, polyester powder coated. High pressure laminate panels. Polyethylene tank.

FIXATION 

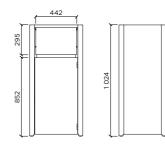
## Possible fixation to the ground.

MEASUREMENTS

h x L x w: 1 024 x 575 x 511 mm Capacity: 108 | - Weight: 71,2 kg

#### $(\bigcirc)$ STANDARD COLOUR IDENTITY

HPL: Ref. 0801 Pin Vieilli - METAL: Black 200 sanded. For any other colour, please refer to Aubrilam colour chart (on request according to conditions).







+ Flavard & Saguez design + 7 possible combinations for 1



p

#### MATERIALS

Electro-galvanised steel structure, polyester powder coated. Wood slats in glued laminated timber from sustainably managed forests. Timber finished with three layers of woodstain. High performance concrete seats, protected with a BF24h type stain. Fixation to the ground is recommended.



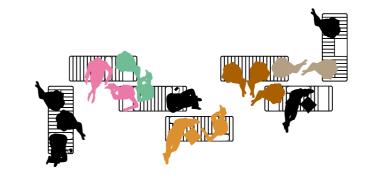
Chemical sealing. Anchor rods: threaded rod M10 x 80. Fixation holes: Ø 12 mm.

#### MEASUREMENTS

 Structure h x L x w: 430 x 2 010 x 750 mm

Small seat Large seat Weight: 12 kg Weight: 15 kg

 Backrest L x w: 520 x 365 mm L x w: 730 x 300 mm h x L x w: 225 x 730 x 205 mm Weight: 37 kg (hollow)



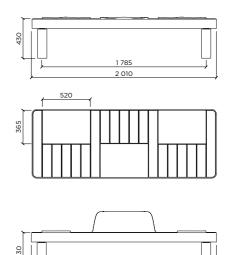
- TECHNICAL SHEET -





## STANDARD COLOUR IDENTITY

WOOD: Brume or Dark Mineral. METAL: Black 100 sanded.

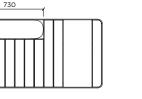


1785 2 010

300







AREA 2

# SHADE SHELTER



SHADE SHELTER AREA 2	PMO0602	PMO0604	PMO0605	PMO0607	
Roof	Steel deck	Polycarbonate	Steel deck	Polycarbonate	
Wind speed	24 m/s	24 m/s	28 m/s	28 m/s	
Terrain roughness	2	2	0	0	

+ Flavard & Saguez design + common product for 3 types of roof + delivered in kit + associated services

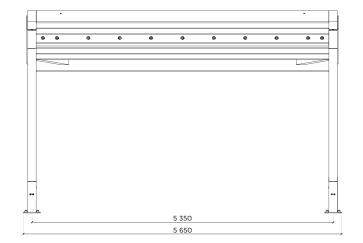
#### MATERIALS P

Structure in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Base section and connecting piece for the roof made of galvanised steel, finished in powder coated polyester.

Single pitch structure with a 10° inclination, calculated according to Structural Eurocodes (0,1,3-4-5-7-8). Covered surface area of 25 m<sup>2</sup>, with available width of 2,60 m by car space (2 covered vehicles).

#### STANDARD COLOUR IDENTITY 0

WOOD: Brume - METAL: Black 100 sanded - STEEL DECK: Black 100 sanded.

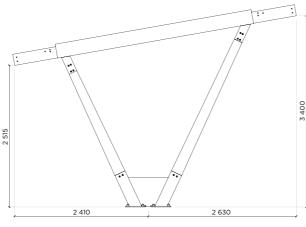


### FIXATION

Anchor rods: M20 x 500. Spacing dimensions on plate: 265 x 210 mm. Fixation holes on plate: Ø 24 x 48 mm.

#### MEASUREMENTS

■ PMO0602 - PMO0603 - PMO0604 h x L x w: 3 400 x 5 650 x 5 040 mm Plate size: 355 x 300 mm Structure weight: 1 100 kg



		P
Sel		
	CR-817 ML	

Reference         XEV500         XEV500C         XEV505         XEV505C           Plugs         Type E - Type 3         Type E - Type 3         2 x Type E - Type 3         2 x Type E - Type 3         2 x Type E - Type 3           kVa         3,7 - 22         3,7 - 22         3,7 - 22         3,7 - 22         3,7 - 22           Communication and metering         no         yes         no         yes		THREE-PHASE REGULATING POINT	PBE0711	PBE0701	OPTIONAL	OPTIONAL
kVa 3,7 - 22 3,7 - 22 3,7 - 22 3,7 - 22		Reference	XEV500	XEV500C	XEV505	XEV505C
bager		Plugs	Type E - Type 3	Type E - Type 3	2 x Type E - Type 3	2 x Type E - Type 3
Communication and metering no yes no yes		kVa	3,7 - 22	3,7 - 22	3,7 - 22	3,7 - 22
	nager	Communication and metering	no	yes		



P

Casing made of glued laminated wood GL24 Class III ACERBOIS GLULAM-

certified and made from sawn timber from sustainably managed forests and Œ designed according to the HTE process. Finished with 3 coats of wood stain.

PMMA Satin body.

Thermo-injected plastic cover and flap. Hot dipped galvanized steel base, finished in powder coated polyester. Protection degre IP54-IK10.

■ Intelligent management system of charging, by controller and electronic card

- Management of day/night rate
- Flood lighting by pulsating LEDs
- Lighting for access and charging by LEDs
- Protection system integrated in the charging point
- Energy access through RFID badge (20-badge set supplied)

#### OPTIONAL

- Metering by dispatch of information via modem

#### STANDARD COLOUR IDENTITY 3

WOOD: Tonnelier - METAL: Brown 650 sanded.

CHARACTERISTICS

- Power modulation

- Communication via Bus TCPIP and OCPP protocol (Open Charge Point
- Protocol)

Compatible with Kiwhi Pass

PMO0605 - PMO0606 - PMO0607 h x L x w: 3 400 x 5 650 x 5 040 mm Plate size: 405 x 300 mm Structure weight: 1 430 kg

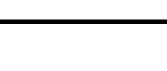
Spacing dimensions on plate:

Fixation holes on plate:



315 x 210 mm.

Ø 28 x 56 mm.





# BAMBOO CHARGING POINT FOR ELECTRIC VEHICLES







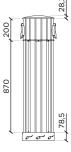




#### FIXATION

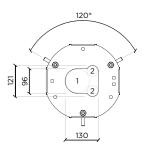
Anchor rods: threaded rod M12 x 445. Spacing dimensions on plate: Ø 250 mm. Fixation holes: Ø 13 mm.







MEASUREMENTS h x Ø: 1 200 x 300 mm Weight: 40 kg



#### ANCHOR KIT

(1) Sleeve location Power supply Ø 63 mm.

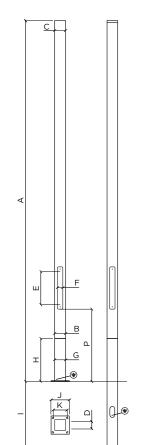
2 Sleeve location Communication Ø 40 mm.

A. Pole height

MOSHI - MOSHI XL

SQUARED COLUMNS

3 M ▶ 6 M



сД

		Α.	Pole ł	neight				E x F.	Door:	useful l	neight x widt	h I. Burie	I. Buried depth			
	<b>B.</b> Shaft section at base								ance o	loor bo	ttom to plat	e J. Base	J. Base plate dimension			
	_	<b>c.</b> s	C. Shaft section on top						se sect	ion		K. Spac	K. Spacing dimensions			
MOSH		<b>D.</b> Door: useful depth						H. Bas	se heig	ht		L. Anch	L. Anchor rods			
REF.	REF.	А	В	С	D	ExF	Ρ	G	Н	I	J	К	L			
FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg		
PCO3230	PCO2230	3	120	120	78	460 x 60	1	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	20		
PCO3235	PCO2235	3,5	120	120	78	460 x 60	1	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	22		
PCO3240	PCO2240	4	120	120	78	460 x 60	1	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	24		
PCO3440	PCO2440	4	140	140	93	460 x 70	1	140	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	32		
PCO3250	PCO2250	5	120	120	78	460 x 60	1	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	27		
PCO3450	PCO2450	5	140	140	93	460 x 70	1	140	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	38		
PCO3650	PCO2650	5	160	160	108	460 x 70	1	160	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	51		
PCO3460	PCO2460	6	140	140	93	460 x 70	1	140	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	43		
PCO3660	PCO2660	6	160	160	108	460 x 70	1	160	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	58		

#### MATERIALS SQUARED SHAFT

P. Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder ٢€ coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. 3.

CE marked	product:	Conformity	certificate	CE	0679-	CPD	0473
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					А.	Pole h	neight	:		l	E x F.	. Door:	useful l	height x widt	:h I. E	Burie	d depth			
					в.	<b>B.</b> Shaft section at base						<b>P.</b> Distance door bottom to plate								
			MOCU		<b>C.</b> Shaft section on top						G. Base section				к.	Spac	ing dimensions			
			MOSH		<b>D.</b> Door: useful depth					I	H. Base height					L. Anchor rods				
			REF.	REF.	Α	В	С	D	ExF	Ρ	G	Н	I	J	К		L			
			FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm		mm	kg		
в			PCO0235	PCO1235	3,5	120	120	100	300 x 80	0,35	120	1,00	0,80	260 x 260	200 x	200	4 HA16/M14 - 300	28		
	Н		PCO0240	PC01240	4	120	120	100	300 x 80	0,35	120	1,00	0,80	260 x 260	200 x	200	4 HA16/M14 - 300	30		
G			PCO0250	PCO1250	5	120	120	100	300 x 80	0,35	120	1,00	0,80	260 x 260	200 x	200	4 HA16/M14 - 300	35		
			PCO0450	PC01450	5	140	140	117	400 x 90	0,35	140	1,20	1,00	260 x 260	200 x	200	4 HA16/M14 - 300	48		
F			PCO0460	PC01460	6	140	140	117	400 x 90	0,35	140	1,20	1,00	260 x 260	200 x	200	4 HA16/M14 - 300	53		
- <del>-</del>		-\$	PCO0660	PCO1660	6	160	160	137	450 x 90	0,35	160	1,20	1,30	260 x 260	200 x	200	4 HA20/M18 - 400	69		
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#### MATERIALS SQUARED SHAFT

LP, Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed ٢€ forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

	1							<b>A</b>	010 11	eigin		
								<b>B.</b> S	shaft :	sectio	n at b	ase
								<b>c.</b> s	shaft :	sectio	n on t	top
			5	SILE	A			<b>D.</b> [	Door:	usefu	l dept	h
			R	EF.		REF.		А	В	С	D	Еx
				LANGE LATE		BURIED ROOT		m	mm	mm	mm	mm
			P	CS1303	3	PCS2303	5	3	120	76	64	460
			P	CS1353	5	PCS2353	;	3,5	120	76	64	460
			P	CS1304	4	PCS2304	1	4	120	76	64	460
			P	CS1504	4	PCS2504	1	4	140	76	72	460
			P	CS1305	5	PCS2305	5	5	120	76	64	460
			P	CS1505	5	PCS2505	5	5	140	76	72	460
			P	CS160	5	PCS2605	5	5	160	120	98	460
			P	CS1506	5	PCS2506	5	6	140	76	72	460
			P	CS1606	6	PCS2606	5	6	160	120	98	460
			P	CS1617		PCS2607	7	7	160	120	98	460
			P	CS1807	7	PCS2807	7	7	200	120	124	460
			P	CS1808	3	PCS2808	3	8	200	120	124	460
			P	CS1908	В	PCS2908	3	8	220	140	138	460
_H	F		P	CS1909	9	PCS2909	Э	9	220	140	138	460
ЪЩ	$\Box$		P	CS1209	Э	PCS2209	)	9	250	140	166	460
			P	CS1910	)	PCS2910	)	10	220	140	138	460
r	₽.	-	P	CS1210	)	PCS2210		10	250	140	166	460
т	G			$\sim$								
						ERIALS S						
. J			~	/ s	Squar	ed tapered	d sha	ft in	glued	lamin	ated t	imbe
1 K		-O	-	e f	orest	s and resp	pecti	ng H	TE pro	ocess.	Timbe	er fin
ľГ	בור		-	<u> </u>	oate	d polyeste	r fini	sh. C	verlyi	ng to	o in pr	resse
0	<u>_</u>			t	o rule	es defined	by C	UAP	01/0	6/200	7 and	spe
				c	CE m	arked pro	duct:	Con	formi	ty cer	tificat	e CE

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### MATERIALS SQUARED TAPERED SHAFT

Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed CE forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE marked product: Conformity certificate CE 0679-CPD-0473.

, K □ □





**E x F.** Door: useful height x width I. Buried depth P. Distance door bottom to plate J. Base plate dimension G. Base section K. Spacing dimensions L. Anchor rods H. Base height

А	В	С	D	ExF	Ρ	G	Н	I	J	К	L	
m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg
3	120	76	64	460 x 60	0,75	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	18
3,5	120	76	64	460 x 60	0,75	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	19
4	120	76	64	460 x 60	0,75	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	21
4	140	76	72	460 x 70	0,90	140	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	27
5	120	76	64	460 x 60	0,75	120	0,50	0,70	260 x 260	200 x 200	4 HA16/M14 - 300	24
5	140	76	72	460 x 70	0,90	140	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	30
5	160	120	98	460 x 70	0,90	160	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	45
6	140	76	72	460 x 70	0,90	140	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	34
6	160	120	98	460 x 70	0,90	160	0,60	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	52
7	160	120	98	460 x 70	0,90	160	0,60	0,90	400 x 400	300 x 300	4 HA16/M14 - 300	58
7	200	120	124	460 x 90	1,20	200	0,75	1,25	400 x 400	300 x 300	4 HA20/M18 - 400	88
8	200	120	124	460 x 90	1,20	200	0,75	1,25	400 x 400	300 x 300	4 HA20/M18 - 400	96
8	220	140	138	460 x 90	1,20	220	0,75	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	114
9	220	140	138	460 x 90	1,20	220	0,75	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	124
9	250	140	166	460 x 90	1,20	250	0,75	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	147
10	220	140	138	460 x 90	1,20	220	0,75	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	140
10	250	140	166	460 x 90	1,20	250	0,75	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	157

<b>E x F.</b> Door: useful height x width
P. Distance door bottom to plate
G. Base section
H. Base height

- TECHNICAL SHEET -

SUMU - SUMU XL

ROUND COLUMNS

3 M ▶ 6 M

		_																					
			A. Pole height							<b>E x F.</b> Door: useful height x width <b>I.</b> Buried depth													
					в. 9	B. Shaft diameter at base P. Distance door bottom to plate J. Base plate dimension																	
			<u> </u>		<b>c.</b> :	Shaft	diame	eter o	n top		G. Bas	se dian	neter		K. Spacing dimensions								
			SUMU		D. I	Door:	usefu	I dep	th	I	H. Bas	se heig	ht		L. Anch	or rods	27       30       30       35       48						
			REF.	REF.	Α	В	С	D	ExF	Ρ	G	Н	I	J	К	L							
			FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg						
_	ſ		PCO6430	PCO7430	3	140	140	84	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	24						
F			PCO6435	PCO7435	3,5	140	140	84	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	27						
	.		PCO6440	PC07440	4	140	140	84	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	30						
			PCO6450	PC07450	5	140	140	84	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	35						
в			PCO6750	PC07750	5	168	168	103	460 x 70	0,90	168	0,50	0,85	260 x 260	200 x 200	4 HA16/M14 - 300	48						
<u>م</u>		1	PCO6760	PCO7760	6	168	168	103	460 x 70	0,90	168	0,50	0,85	260 x 260	200 x 200	4 HA16/M14 - 300	56						

#### MATERIALS ROUND SHAFT

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Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain, Squared flush base in galvanized steel, powder coated CE polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

CE marked product: Conformity certificate CE 0679-CPD-0473.

				Pole ł	night					Door	usoful	height x widt	:h <b>I.</b> Burie	ddaath	
							base					ottom to plat		plate dimension	
						eter o				se dian				ing dimensions	
	SUMU XL					I dept		I	H. Bas	se heig	ht		L. Anch	-	
	REF.	REF.	Α	В	С	D	ExF	Р	G	н	I	J	К	L	
	FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	k
	PCO5130	PCO4130	3	115	115	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300	2
	PCO5140			115	115	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300	2
	PCO5440	PCO4440	4	140	140	93	350 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	3
	PCO5150	PCO4150	5	115	115	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300	3
	PCO5450	PCO4450	5	140	140	93	350 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	4
	PCO5460	PCO4460	6	140	140	93	350 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300	5
•	PC05660	PCO4660	6	168	168	125	450 x 90	0,35	168	1,20	1,30	260 x 260	200 x 200	4 HA16/M14 - 300	6

#### MATERIALS ROUND SHAFT

P Regular squared shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base and in galvanized steel, powder CE coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

CE marked product: Conformity certificate CE 0679-CPD-0473.

									leight		
							<b>B.</b> S	Shaft	diame	ter at	bas
				ъô			<b>C.</b> S	Shaft	diame	eter or	1 top
				DO	ME		<b>D.</b> [	Door:	usefu	l dept	h
				REF.		REF.	Α	В	С	D	Еx
				FLANO PLATE		BURIED ROOT	m	mm	mm	mm	mn
				PCD24	130	PCD3430	3	140	76	62	460
				PCD24	135	PCD3435	3,5	140	76	62	460
				PCD23	352	PCD3352	3,5	168	120	83	460
				PCD24	140	PCD3440	4	140	76	62	460
				PCD24	102	PCD3402	4	168	120	83	460
				PCD24	450	PCD3450	5	140	76	62	460
				PCD25	502	PCD3502	5	168	120	83	460
				PCD26	502	PCD3602	6	168	120	83	460
				PCD29	960	PCD3960	6	194	120	100	460
				PCD22	260	PCD3260	6	220	140	117	460
				PCD27	701	PCD3702	7	194	120	100	460
				PCD22	270	PCD3270	7	220	140	117	460
				PCD28	301	PCD3802	8	194	120	100	460
				PCD22	280	PCD3280	8	220	140	117	460
	f II F			PCD27	780	PCD3780	8	275	140	140	460
ГЦ		11		PCD22	290	PCD3290	9	220	140	117	460
				PCD27	790	PCD3790	9	275	140	140	460
	₽	⊢		PCD27	710	PCD3710	10	275	140	140	460
I -	G			$\widehat{\bigcirc}$	МАТЕ	ERIALS RO			RED	SHAF	т
┝╷╺┷		-	-	$\checkmark$	Round	d tapered sh	aft in g	lued I	amina	ted tir	mbe
- Î -	КП е	L			forest	s and respe	cting H	TE pr	ocess.	Timb	er fi
	71-1	ľ		CE	coate	d polyester i	finish. C	verly	ing to	p in pr	esse
					to rule	es defined b	y CUAF	01/0	6/200	7 and	spe

CE

Round tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Round flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE marked product: Conformity certificate CE 0679-CPD-0473.

DÔME	XL	<b>c.</b> s	Shaft	diame	eter at eter o I dept	n top		G. Bas	ance o se dian se heig	neter	ttom to plate		plate dimension ing dimensions or rods
REF.	REF.	Α	В	С	D	ExF	Ρ	G	н	I	J	К	L
FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm
PCD0335	PCD1335	3	115	76	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0325	PCD1325	3,5	115	76	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0339	PCD1339	3,5	140	76	93	350 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0326	PCD1326	4	115	76	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0328	PCD1328	4	140	76	93	350 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0327	PCD1327	5	115	76	61	300 x 90	0,35	115	1,00	0,80	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0329	PCD1329	5	140	76	93	350 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0305	PCD1305	5	168	120	125	450 x 90	0,35	168	1,20	1,30	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0330	PCD1330	6	140	76	93	400 x 90	0,35	140	1,10	0,90	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0306	PCD1306	6	168	120	125	450 x 90	0,35	168	1,20	1,30	260 x 260	200 x 200	4 HA16/M14 - 300
PCD0368	PCD1338	7	168	120	125	450 x 90	0,35	168	1,20	1,30	400 x 400	300 x 300	4 HA16/M14 - 300
PCD0357	PCD1307	7	194	120	148	450 x 100	0,35	194	1,20	1,40	400 x 400	300 x 300	4 HA20/M18 - 400
PCD0358	PCD1308	8	194	120	148	450 x 100	0,35	194	1,20	1,40	400 x 400	300 x 300	4 HA20/M18 - 400
PCD0315	PCD1315	8	220	140	175	500 x 100	0,35	220	1,35	1,50	400 x 400	300 x 300	4 HA20/M18 - 400
PCD0309	PCD1309	9	194	120	148	450 x 100	0,35	194	1,20	1,40	260 x 260	200 x 200	4 HA20/M18 - 400
PCD0316	PCD1316	9	220	140	175	500 x 100	0,35	220	1,35	1,50	400 x 400	300 x 300	4 HA20/M18 - 400
PCD0311	PCD1311	10	220	140	175	500 x 100	0,35	220	1,35	1,50	400 x 400	300 x 300	4 HA20/M18 - 400
PCD0333	PCD1333	10	245	140	195	500 x 120	0,35	245	1,50	1,50	400 x 400	300 x 300	4 HA20/M18 - 400
	ERIALS ROL	JND 1	APE	RED	SHAF	т							

# prests and respecting HTE process. Timber finished with three coats of woo

CE marked product: Conformity certificate CE 0679-CPD-0473.

A. Pole height

# DÔME - DÔME XL

ROUND TAPERED COLUMNS





**E x F.** Door: useful height x width I. Buried depth P. Distance door bottom to plate J. Base plate dimension G. Base diameter K. Spacing dimensions H. Base height L. Anchor rods D G H I L

REF.	А	В	С	D	ExF	Ρ	G	Н	I	J	K	L	
BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg
PCD3430	3	140	76	62	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	17
PCD3435	3,5	140	76	62	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	18
PCD3352	3,5	168	120	83	460 x 70	0,90	168	0,50	0,85	260 x 260	200 x 200	4 HA16/M14 - 300	26
PCD3440	4	140	76	62	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	20
PCD3402	4	168	120	83	460 x 70	0,90	168	0,50	0,85	260 x 260	200 x 200	4 HA16/M14 - 300	29
PCD3450	5	140	76	62	460 x 60	0,90	140	0,45	0,75	260 x 260	200 x 200	4 HA16/M14 - 300	23
PCD3502	5	168	120	83	460 x 70	0,90	168	0,50	0,85	260 x 260	200 x 200	4 HA16/M14 - 300	34
PCD3602	6	168	120	83	460 x 70	0,90	168	0,50	0,85	260 x 260	200 x 200	4 HA16/M14 - 300	39
PCD3960	6	194	120	100	460 x 70	0,90	194	0,60	1,20	260 x 260	200 x 200	4 HA20/M18 - 400	50
PCD3260	6	220	140	117	460 x 90	1,00	220	0,60	1,40	400 x 400	300 x 300	4 HA20/M18 - 400	75
PCD3702	7	194	120	100	460 x 70	0,90	194	0,60	1,20	400 x 400	300 x 300	4 HA20/M18 - 400	56
PCD3270	7	220	140	117	460 x 90	1,00	220	0,60	1,40	400 x 400	300 x 300	4 HA20/M18 - 400	83
PCD3802	8	194	120	100	460 x 70	0,90	194	0,60	1,20	400 x 400	300 x 300	4 HA20/M18 - 400	62
PCD3280	8	220	140	117	460 x 90	1,00	220	0,60	1,40	400 x 400	300 x 300	4 HA20/M18 - 400	92
PCD3780	8	275	140	140	460 x 110	1,20	275	0,75	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	120
PCD3290	9	220	140	117	460 x 90	1,00	220	0,60	1,40	400 x 400	300 x 300	4 HA20/M18 - 400	100
PCD3790	9	275	140	140	460 x 110	1,20	275	0,75	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	131
PCD3710	10	275	140	140	460 x 110	1,20	275	0,75	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	141

ound tiusn base in gaivanized ste coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

— TECHNICAL SHEET —

SILEA - SILEA XL

VERY HIGH SQUARED TAPERED COLUMNS

# 12 M ▶ 16 M

		А.	Pole h	neight				E x F.	Door:	useful	height x widt	h I. Burie	d depth	
			Pole h Shaft	-		base					height x widt ottom to plat		d depth plate dimension	
		в.		sectio	on at b			P. Dist		door bo	•	e <b>J.</b> Base		
SILE	4	В. С.	Shaft	sections sections and sections and sections are also sections and sections are also sections and sections are also secti	on at b on on	top		P. Dist G. Bas	ance o	door bo ion	•	e J. Base K. Spac	plate dimension	
SILE/	A REF.	В. С.	Shaft Shaft	sections sections and sections and sections are also sections and sections are also sections and sections are also secti	on at b on on	top		P. Dist G. Bas	ance o se sect	door bo ion	•	e J. Base K. Spac	plate dimension	
		В. С. D.	Shaft Shaft Door: B	sectio sectio usefu	on at k on on I dept D	top th		<b>P.</b> Dist <b>G.</b> Bas <b>H.</b> Bas G	ance o se sect se heig	door bo ion	ottom to plat	e J. Base K. Spac L. Anch	plate dimension ing dimensions nor rods	kg
REF. FLANGE	REF. BURIED	В. С. D. А	Shaft Shaft Door: B	sectio sectio usefu C mm	on at k on on I dept D	top th E x F	Ρ	<b>P.</b> Dist <b>G.</b> Bas <b>H.</b> Bas G	ance o se sect se heig H	door bo ion Iht	J	e J. Base K. Spac L. Anch	plate dimension cing dimensions nor rods L mm	-
REF. FLANGE PLATE	REF. BURIED ROOT	B. C. D. A m	Shaft Shaft Door: B mm 250	sectio sectio usefu C mm	on at k on on I dept D mm	top th E x F mm 460 x 90	P	P. Dist G. Bas H. Bas G mm 250	ance o se sect se heig H m	door bo ion ht I m	J mm	e J. Base K. Spac L. Anch K mm	plate dimension ing dimensions nor rods L mm 4 HA25/M24 - 600	17
REF. FLANGE PLATE PCS1212	REF. BURIED ROOT PCS2212	B. C. D. A m	Shaft Shaft Door: B mm 250	sections section secti	on at k on on Il dept D mm 166	top th E x F mm 460 x 90	P m 1,20	P. Dist G. Bas H. Bas G mm 250 300	ance o se sect se heig H m 0,75	door bo ion ht I m 1,50	J mm 400 x 400	e J. Base K. Spac L. Anch K mm 300 x 300	plate dimension ing dimensions for rods L mm 4 HA25/M24 - 600 8 HA20/M18 - 400	17 25
REF. FLANGE PLATE PCS1212 PCS1412	REF. BURIED ROOT PCS2212 PCS2412	B. C. D. A m 12	Shaft Shaft Door: B mm 250 300 350	sections section secti	on at k on on Il dept D mm 166 209	top th E x F mm 460 x 90 460 x 110	P m 1,20 1,80	P. Dist G. Bas H. Bas G mm 250 300	e sect se sect H 0,75 1,00	door bo ion ht I 1,50 1,50	J 400 x 400 500 x 500	e J. Base K. Spac L. Anch K mm 300 x 300 400 x 400	plate dimension ing dimensions for rods L mm 4 HA25/M24 - 600 8 HA20/M18 - 400	17 25 33

#### MATERIALS SQUARED TAPERED SHAFT [9]

Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder Œ coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010. CE marked product: Conformity certificate CE 0679-CPD-0473.

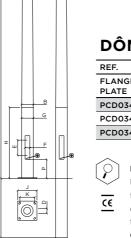
		Α.	Pole ł	neight			I	E x F.	Door:	useful l	height x widt	dth I. Buried depth			
		в.	Shaft	sectio	on at b	oase	1	P. Dist	ance o	door bo	ottom to plate	te J. Base plate dimension			
		с.	Shaft	sectio	on on	top		G. Bas	e sect	ion		K. Spacing dimensions			
SILEA	XL	D.	Door:	usefu	l dep	th	I	H. Bas	e heig	ht		L. Anch	or rods		
REF.	REF.	Α	В	С	D	ExF	Ρ	G	Н	I	J	К	L		
FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	k	
	PCS4212	<b>12</b> 250 140 223 500 x 120					0,40	250	1,50	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	2	
PCS3212	1 004212														
PCS3212 PCS3412	PCS4412	12	300	160	273	450 x 120	0,35	300	1,50	2,00	500 x 500	400 x 400	8 HA25/M24 - 600	2	
		12 14		160 160	273 273	450 x 120 450 x 120		300 300	7	2,00	500 x 500 500 x 500	400 x 400 400 x 400		_	

#### MATERIALS SQUARED TAPERED SHAFT

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Squared tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed Œ forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

CE marked product: Conformity certificate CE 0679-CPD-0473.



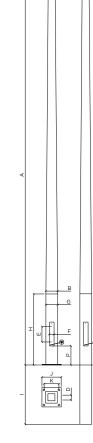
		<b>A.</b> F	ole h	eight		
		<b>B.</b> S	shaft (	diame	ter at	b
		<b>c.</b> s	haft	diame	eter or	n t
DÔME	XL	<b>D.</b> [	Door:	usefu	l dept	h
REF.	REF.	А	В	С	D	E
LANGE	BURIED ROOT	m	mm	mm	mm	m
PCD0346	PCD1346	12	245	140	195	5
PCD0347	PCD1347	12	275	140	226	5
CD0349	PCD1349	14	275	140	226	5
r I	RIALS ROUN					
- Round	tanered shaft	in a	lued l	amina	ted tir	mł

CE marked product: Conformity certificate CE 0679-CPD-0473.

Ē	Π	Π															
					A.	Pole h	eight				= x F.	Door: 1	useful ł	neight x widtl	n <b>I.</b> Buriec	depth	
					в.	Shaft (	diame	eter at	base	I	P. Dist	ance d	loor bo	ttom to plate	J. Base	plate dimension	
			ATHE			Shaft (						e diam				ng dimensions	
			AIREI		D.	Door:	usefu	l dept	h	I	H. Bas	e heig	ht		L. Ancho	or rods	
			REF.	REF.	Α	В	С	D	ExF	Ρ	G	Н	I	J	К	L	
			FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg
			PGR0222	PGR1222	12	245	140	195	500 X 120	0,35	245	1,50	1,50	400 X 400	300 X 300	4 HA20/M18 - 400	366
			PGR0322	PGR1322	12	275	140	226	500 x 120	0,35	275	1,50	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	416
	в		PGR0324	PGR1324	14	275	140	226	500 x 120	0,35	275	1,50	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	460
	G		Twin		shaft	ts conr	necteo	d by m	netal bracers		-					IS GLULAM, produce s of woodstain. Round	

base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to Building Eurocodes and European technical frame of reference CUAP 01/06/2007 « Wood and metal composite lighting columns ».









	E	E x F.	Door: ເ	useful h	neight x widt	h I. Buried	d depth			
ase	F	P. Dist	ance d	oor bo	ttom to plate	<b>J.</b> Base	J. Base plate dimension			
ор	C	G. Bas	e diam	eter		K. Spaci	K. Spacing dimensions			
	ł	H. Bas	e heigl	ht	L. Anch	L. Anchor rods				
ХF	Ρ	G	Н	I	J	K	L			
nm	m	mm	m	m	mm	mm	mm	kg		
500 x 120	0,35	245	1,50	1,50	400 x 400	300 x 300	4 HA20/M18 - 400	180		
500 x 120	0,35	275	1,50	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	195		
500 x 120	0,35	275	1,50	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	220		

Round tapered shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Round flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

- TECHNICAL SHEET -

HELIACA - HELIACA XL

VERY HIGH SQUARED TAPERED COLUMNS

# 12 M ▶ 16 M

			Α.	Pole h	neight				E x F.	Door: ເ	useful h	eight x width	I. Buried	d depth	
			в.	Shaft	sectio	on at b	base		P. Dist	ance o	door bo	ttom to plate	J. Base	plate dimension	
			С.	Shaft	sectio	on on	top		G. Bas	se sect	tion		K. Spac	ing dimensions	
	HELIA	ACA	D.	Door:	usefu	l dept	:h		H. Bas	se heig	ght		L. Anch	or rods	
	REF.	REF.	А	В	С	D	ExF	Р	G	Н	I	J	К	L	
	FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg
	PGS1412	PGS2412	12	300	160	209	460 x 110	1,80	300	1,00	1,50	500 x 500	400 x 400	8 HA20/M18 - 400	530
	PGS1614	PGS2614	14	350	160	249	460 x 110	1,80	350	1,20	1,80	550 x 550	450 x 450	8 HA25/M24 - 600	706
	PGS1616	PGS2616	16	350	160	249	460 x 110	1,80	350	1,20	1,80	550 x 550	450 x 450	8 HA25/M24 - 600	777
	PGS1816	PGS2816	16	400	160	292	460 x 110	1,80	400	1,20	1,80	600 x 600	500 x 500	8 HA25/M24 - 600	903

#### MATERIALS TWIN SQUARED TAPERED SHAFT

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Twin squared tapered shafts connected by metal bracers. Shafts in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

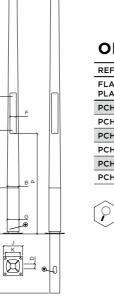
CE marked product: Conformity certificate CE 0679-CPD-0473.

			Pole h Shaft			250					eight x width ttom to plate	I. Buried	d depth plate dimension	
HELIA	ACA XL	<ul><li>C. Shaft section on top</li><li>D. Door: useful depth</li></ul>				(	<b>G.</b> Base section <b>H.</b> Base height				K. Spac	<ul><li>K. Spacing dimensions</li><li>L. Anchor rods</li></ul>		
REF.	REF.	А	В	С	D	ExF	Р	G	н	I	J	К	L	
FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg
PGS3212	PGS4212	12	250	140	223	500 x 120	0,40	250	1,50	1,50	400 x 400	300 x 300	4 HA25/M24 - 600	21
PGS3412	PGS4412	12	300	160	273	450 x 120	0,35	300	1,50	2,00	500 x 500	400 x 400	8 HA25/M24 - 600	59
PGS3414	PGS4414	14	300	160	273	450 x 120	0,35	300	1,50	2,00	500 x 500	400 x 400	8 HA25/M24 - 600	6
PGS3616	PGS4616	16	350	160	323	450 x 120	0,35	350	1,50	2,00	550 x 550	450 x 450	8 HA25/M24 - 600	8

#### MATERIALS TWIN SQUARED TAPERED SHAFT

Twin squared tapered shafts connected by metal bracers. Shafts in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared flush base in galvanized steel and powder coated polyester finish. Overlying top in pressed galvanized steel, powder coated polyester finish. Design and manufacture according to rules defined by CUAP 01/06/2007 and specifications from European Technical Approval ETA-10/0089: 2010.

CE marked product: Conformity certificate CE 0679-CPD-0473.



		<ul><li>A. Pole height</li><li>B. Shaft section at base</li></ul>						<b>E x F.</b> Door: useful height x width <b>P.</b> Distance door bottom to plate					I. Buried depth		
											ttom to plate		J. Base plate dimension		
		<b>c</b> . s	Shaft :	sectio	n on t	top		G. Bas	e secti	ion		K. Spaci	K. Spacing dimensions		
OHAS	HI	<b>D.</b> Door: useful depth			I	H. Base height				L. Anch	L. Anchor rods				
REF.	REF.	А	В	С	D	ExF	Ρ	G	Н	I	J	К	L		
FLANGE PLATE	BURIED ROOT	m	mm	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg	
PCH1653	PCH2653	3,5	160	76	80	400 x 70	0.9	160	0,20	0.9	260 x 260	200 x 200	4 HA16/M14 - 300	50	
PCH1604	PCH2604	4	160	76	80	400 x 70	0.9	160	0,20	0.9	260 x 260	200 x 200	4 HA16/M14 - 300	52	
PCH1605	PCH2605	5	160	76	80	400 x 70	0.9	160	0,20	0.9	260 x 260	200 x 200	4 HA16/M14 - 300	56	
PCH1206	PCH2206	6	250	114	150	400 x 90	1,25	250	0,20	1.5	400 x 400	300 x 300	4 HA20/M18 - 400	140	
PCH1207	PCH2207	7	250	114	150	400 x 90	1,25	250	0,20	1.5	400 x 400	300 x 300	4 HA20/M18 - 400	147	
PCH1208	PCH2208	8	250	114	150	400 x 90	1,25	250	0,20	1.5	400 x 400	300 x 300	4 HA20/M18 - 400	156	

MATERIALS FROM SQUARED BASE TO ROUND TOP coated polyester finish. metal composite lighting columns ».

								Pole h			
				CA	TEL	.AM	<b>c</b> . s	Shaft	diame	eter at eter or I dept	n to
				REF.		REF.	А	В	С	D	Е×
	в			FLAN		BURIED ROOT	m	mm	mm	mm	mr
	84	NT 101									
				PCCO	123	PCC1123	5	178	140	140	40
		с С		PCC01 PCC01	-	PCC1123 PCC1114	5 8	178 224	140 168	140 180	40 40
G G G G G G G G G G G G G G G G G G G	 ⊕ 	≎ **			MATE Round		8 JND 1 aft in g	224	168 RED : amina	180 SHAF	40 <b>T</b> mbe
		• • •	_		MATE Round forest finishe	PCC1114 ERIALS ROU d tapered sha	8 JND 1 aft in g cting H pated	224 TAPE	168 RED : amina rocess ster fir	180 SHAF ited tin s. Timb nish. C	40 T mbe ber f

metal composite lighting columns ».



SPECIFIC COLUMNS



Variable section shaft in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Squared base in galvanized steel and powder coated polyester finish. Extruded aluminium base powder coated polyester finish. Overlying top in pressed galvanized steel, powder

Design and manufacture according to Building Eurocodes and European technical frame of reference CUAP 01/06/2007 « Wood and

height					E x F.	Door: u	seful he	eight x width	I. Buried	I. Buried depth			
t diameter at base <b>P.</b> Distance doo						ance d	oor bot	tom to plate	J. Base	plate dimension			
t diameter on top					G. Bas	e diam	neter		K. Spac	K. Spacing dimensions			
: useful depth					H. Bas	e heig	ht		L. Anch	L. Anchor rods			
	С	D	ExF	Ρ	G	Н	I	J	K	L			
n	mm	mm	mm	m	mm	m	m	mm	mm	mm	kg		
	140	140	400 x 80	0,37	178	1,55	0,90	300 x 300	200 x 200	4 HA25/M24 - 600	45		
1	168	180	400 x 80	0,37	224	1,55	1,30	400 x 400	300 x 300	4 HA25/M24 - 600	101		

laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed process. Timber finished with three coats of woodstain. Ribbed round flush base in extruded aluminium ester finish. Overlying top in pressed galvanized steel, powder coated polyester finish.

Design and manufacture according to Building Eurocodes and European technical frame of reference CUAP 01/06/2007 « Wood and

# BRACKETS



# BRACKETS



Weight

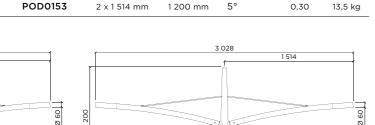
9,3 kg

Scx

0,20

#### BUSSY Reference Extension Inclination Height SINGLE Ø 120 MM POS0152 1 514 mm 5° 1200 mm DOUBLE Ø 120 MM POD0153 2 x 1 514 mm 5° 1200 mm

1 568



#### MATERIALS

9

Extension spike in cast aluminium. Bracket and outreach arm in aluminium tube. Polyester powder coated. Cabling: cable puller installed at our factory.

#### FIXATION

The extension spike is assembled with the bracket in our factory. The fixation of bracket and outreach arm is realized on site: - the bracket is assembled to the extension spike with 4 round head M6 screws.

- the outreach arm is assembled to the bracket with 1 round head M6 screw, the extension spike

Bracket in galvanized welded steel. Polyester

fixation is done by direct insertion.

		Extension	Scx	Weight
SINGLE Ø 120 MM	2°	787 mm	0,11	8,2 kg
DOUBLE Ø 120 MM	2°	2 x 787 mm	0,19	11,9 kg
WALL-MOUNTED	י 2°	750 mm	0,12	4,8 kg
	-			







SOLIS	Reference	Extension	Height	Inclination	Scx	Weight
0,5 M - 1 LIGHT	ALT0478	500 mm	144 mm	5°	0,03	4,3 kg
0,5 M - 2 LIGHTS	ALT0479	500 mm	144 mm	5°	0,06	6,4 kg
0,5 M - 3 LIGHTS	ALT0480	500 mm	144 mm	5°	0,09	8,5 kg
0,5 M - 4 LIGHTS	ALT0481	500 mm	144 mm	5°	0,12	10,6 kg
1 M - 1 LIGHT	ALT0482	1000 mm	144 mm	5°	0,06	9,1 kg
1 M - 2 LIGHTS	ALT0483	1000 mm	144 mm	5°	0,12	15,9 kg
1 M - 3 LIGHTS	ALT0484	1000 mm	144 mm	5°	0,18	22,8 kg
1 M - 4 LIGHTS	ALT0485	1 000 mm	144 mm	5°	0,24	29,6 kg

P MATERIALS

Bracket in galvanized welded steel. Polyester powder coated.

MATERIALS

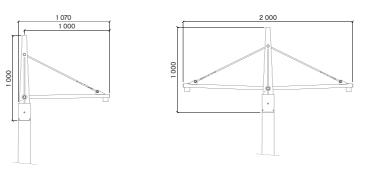
powder coated.

[P

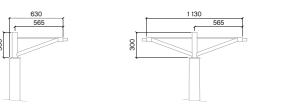
eight	500 - 1 000	
ß kg		500 - 1 000
1 kg	300 400	
5 kg	₩ ₩	₩ Ø 120 Ø
6 kg		
kg		
9 kg		
,8 kg		
,6 kg		8 <sup>0</sup> ·



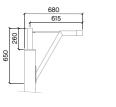
CATELAM	Reference	Extension	Height	Inclination	Scx	Weight
SINGLE Ø 140 MM	POS0120	1 000 mm	1 000 mm	0,5°	0,27	11,2 kg
SINGLE Ø 168 MM	POS0126	1 000 mm	1 000 mm	0,5°	0,32	12,8 kg
DOUBLE Ø 140 MM	POD0120	2 x 1 000 mm	1 000 mm	0,5°	0,40	15,2 kg
DOUBLE Ø 168 MM	POD0126	2 x 1 000 mm	1 000 mm	0,5°	0,48	16,8 kg
WALL-MOUNTED	POM0110	1 183 mm	600 mm	0,5°	0,01	9,4 kg

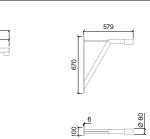


PORTO	Reference	Extension	Height	Inclinat
SINGLE	POS0115	565 mm	300 mm	-
DOUBLE	POD0115	2 x 565 mm	300 mm	-
WALL-MOUNTED	POM0124	690 mm	365 mm	-



ISIS	Reference	Extension	Height	Inclinati
SINGLE	POS0116	615 mm	650 mm	-
DOUBLE	POD0116	2 x 615 mm	650 mm	-
WALL-MOUNTED	POM0125	579 mm	670 mm	-

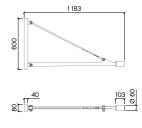




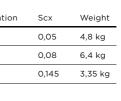


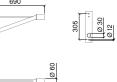
#### MATERIALS

Extension spike in cast aluminium, polyester powder coated. Bracket in galvanized welded steel, polyester powder coated. Outreach arm in welded steel, adjustable with inox turnbuckle, polyester powder coated.







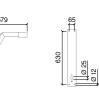




#### MATERIALS

Bracket in galvanized welded steel. Polyester powder coated. Cabling: cable puller installed at our factory.

on	Scx	Weight
	0,06	6,7 kg
	0,10	11 kg
	0,0725	5 kg





## MATERIALS

Bracket in galvanized welded steel. Polyester powder coated. Cabling: cable puller installed at our factory.

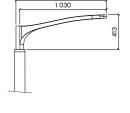
## BRACKETS

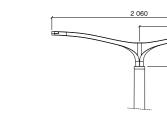


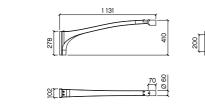
ELEA	Reference	Extension	Height	Inclination	Scx	Weight
SINGLE	POS0109	1 030 mm	413 mm	-	0,16	7,6 kg
DOUBLE	POD0108	2 x 1 030 mm	413 mm	-	0,26	12,5 kg
WALL-MOUNTED	POM0107	1 131 mm	410 mm	-	0,12	8,7 kg

1 0 3 0

 $\mathcal{P}$ MATERIALS Bracket in cast aluminium, polyester powder coated. Cabling: cable puller installed at our factory.





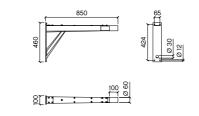


VEGA	Reference	Extension	Height	Inclination	Scx	Weight
SINGLE	POS0106	1 145 mm	430 mm	-	0,32	12,6 kg
DOUBLE	POD0106	2 x 1 145 mm	430 mm	-	0,40	16 kg
WALL-MOUNTED	POM0106	850 mm	460 mm	-	0,12	6,2 kg



Bracket in cast aluminium, polyester powder coated. Outreach arm in glue laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Spigot in galvanized steel finished in powder coated polyester. Cabling: cable puller installed at our factory.

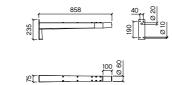
19 5

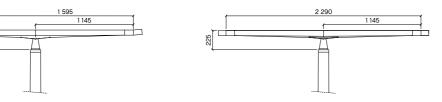


OMEGA	Reference	Extension	Height	Inclination	Scx	Weight
SINGLE	POS0108	1 145 mm	230 mm	-	0,26	9 kg
DOUBLE	POD0107	2 x 1 145 mm	225 mm	-	0,35	12 kg
WALL-MOUNTED	POM0108	Contact us	235 mm	-	0,12	5,2 kg

#### MATERIALS 19

Bracket in cast aluminium, polyester powder coated. Outreach arm in glue laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain. Spigot in galvanized steel finished in powder coated polyester. Cabling: cable puller installed at our factory.

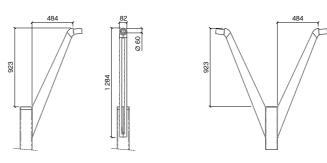




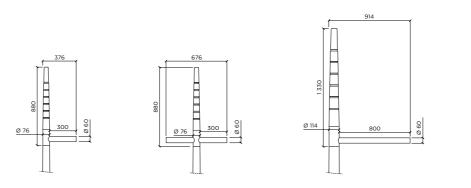


Adaptation piece for round column Ø 140 mm		AMP0653	•			
			Reference			
ADAPTATOR	PPD0221	107 mm	Ø 86 mm	-	0,19	7,6 kg
DOUBLE	POD0130	2 x 484 mm	900 mm	-	0,38	15,2 kg
SINGLE	POS0131	484 mm	900 mm	-	0,19	7,6 kg
RÂ	Reference	Extension	Height	Inclination	Scx	Weight

Adaptation piece for round column Ø 168 mm AMP0654



Reference	Extension	Height	Inclination	Scx	Weight
POS0181	300 mm	880 mm	3°	0,10	4,5 kg
POD0143	2 x 300 mm	880 mm	3°	0,13	5,7 kg
POS0182	800 mm	1 330 mm	3°	0,25	11,5 kg
POD0142	2 x 800 mm	1 330 mm	3°	0,32	14,8 kg
	POS0181 POD0143 POS0182	POS0181         300 mm           POD0143         2 x 300 mm           POS0182         800 mm	POS0181         300 mm         880 mm           POD0143         2 x 300 mm         880 mm           POS0182         800 mm         1 330 mm	POS0181         300 mm         880 mm         3°           POD0143         2 x 300 mm         880 mm         3°           POS0182         800 mm         1 330 mm         3°	POS0181         300 mm         880 mm         3°         0,10           POD0143         2 x 300 mm         880 mm         3°         0,13           POS0182         800 mm         1 330 mm         3°         0,25





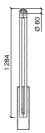


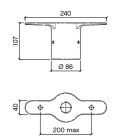
#### MATERIALS

Bracket and adaptator in cast aluminium, polyester powder coated.

## FIXATION

The adaptator is supplied undrilled and is therefore suitable for most commercially available cradles.

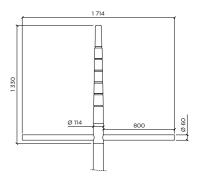




The Râ bracket is only available with a spigot for lateral fixation  $\emptyset$  60 mm, length100 mm.

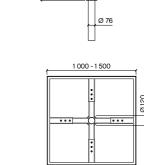
#### $(\mathcal{P})$ MATERIALS

Bracket in galvanized welded steel. Polyester powder coated. Extension spike in glued laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainaly managed forests and respecting HTE process. Timber finished with three coats of woodstain. Cabling: cable puller installed at our factory.



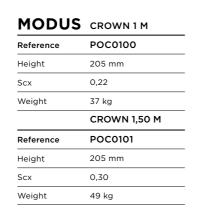
# **CROWNS - ACCESSORIES**

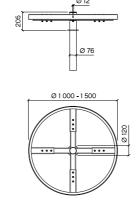




#### [P] MATERIALS

Crown in galvanized welded steel, polyester powder coated. Cabling: cable puller installed at our factory.





#### MATERIALS [?]

Crown in galvanized welded steel, polyester powder coated. Cabling: cable puller installed at our factory.

Crowns delivered not assembled, an instruction note is enclosed.

CATELAM	Reference	Height	Scx	Weight
SPIKE EXTENSION Ø 140 MM	PPD0148	1000 mm	0,133	6,7 kg
SPIKE EXTENSION Ø 168 MM	PPD0149	1 000 mm	0,152	8,2 kg
Spike extension in cast	t aluminium, p	olyester pow	der coat	ed.
	t aluminium, p Reference	olyester pow Height	der coat	ed. Weight
Spike extension in cast				
Spike extension in cast	Reference	Height	Scx	Weight

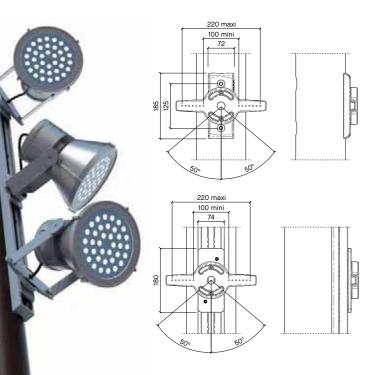
OHASHI	Reference	Height	Scx	Weight
SPIKE EXTENSION Ø 76 MM	SZB0398	800 mm	0,141	1 kg
SPIKE EXTENSION Ø 114 MM	SZB0399	1 200 mm	0,158	3,5 kg

#### MATERIALS [P]

Spike extension in glue laminated timber certified ACERBOIS GLULAM, produced with sawn planks from sustainably managed forests and respecting HTE process. Timber finished with three coats of woodstain.

#### MATERIALS

Spike extension round tapered in cast aluminium, poyester powder coated.



CENO	Reference	Weight
INDEPENDANT FIXED ROTATING CRADLE	SRE0137	1 kg
ROTATING CRADLE FOR TRACK	SRE0138	0,8 kg
1 m TRACK FOR SQUARE COLUMN	AMP0328	-
ADDITIONAL METER FOR SQUARE COLUMN	AMP0321	-
1 m TRACK FOR CYLINDRICAL COLUMN	AMP0325	-
ADDITIONAL METER FOR CYLINDRICAL COLUMN	AMP0318	-

#### MATERIALS

Fixed spotlight cradle: Consisting of a spotlight cradle and fixing plate in cast aluminium. The cradle is fixed and swivels on the fixing plate. Powder coated polyester finish.

Spotlight cradle: Consisting of spotlight cradle in cast aluminum and a fixing plate in extruded aluminium. The cradle is mounted and swivels on the fixing plate which can be slid up and down the Ceno Track. Powder coated polyester finish.

Track: Extruded aluminium profile to fit cylindrical or square section column with end caps to each extremity. Powder coated polyester finish. Assembled in the factory with through bolts.

## SPIGOT

## SPIGOT FOR AUBRILAM BRACKET

Our standard brackets are with a lateral spigot diameter 60 mm, length 100 mm. The G-thread spigot are available only with an extra cost, and only for top fixation or suspended.

#### LATERAL SPIGOT

Our standard lateral spigot is CENO.

# Top spigot Ø 76 mm Top spigot Ø 60 mm - L Top spigot Ø 60 mm - L Top spigot Ø 90 mm - L

SPECIFIC SPIGOTS

CENO	Reference	Inclination	Weight
LATERAL SPIGOT	SRE0149	5°	0,9 kg
Minimum 2 units. Only for diameter above 76 m	m.		
MATERIALS Spigot in cast	aluminium.	polvester	powder



STANDARD COLOUR IDENTITY  $\left[ \bigcirc \right]$ Grey 900 sanded.

FITTINGS FOR KAKEMONOS	Reference
KAKEMONO ARM - Ø 30 MM SINGLE - L 600 MM	SRE0163
KAKEMONO ARM - Ø 30 MM DOUBLE - L 600 MM	SRE0164
KAKEMONO ARM - Ø 30 MM SINGLE - L 900 MM	SRE0161
KAKEMONO ARM - Ø 30 MM DOUBLE - L 900 MM	SRE0162
KAKEMONO SINGLE FITTING POINT	SRE0165
KAKEMONO DOUBLE FITTING POINT	SRE0166

## FIXATION

Fittings delivered not assembled, an instruction note is enclosed. Sandows and kakemonos not supplied. Paulstra seals must be changed each 2 years. A first substitution kit is supplied.

#### ACCESS DOOR WITH EXTERNAL HINGE Reference

WOOD ACCESS DOOR WITH EXTERNAL HINGE	PPD0178
METAL ACCESS DOOR WITH EXTERNAL HINGE*	PPD0179

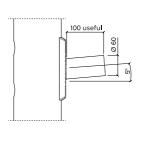
Minimum 2 units - Technical sheet on request. \* For diameter 114 mm. contact us for other diameters.



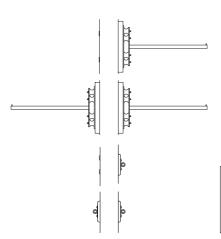




SPECIFIC SPIGOTS	Reference
Threaded tube Ø 27 mm - G-thread - L 50 mm on top	PPD0101
Threaded tube Ø 27 mm - G-thread - L 50 mm on bracket	PPD0102
Spigot for lateral fixing Ø 60 mm - L60 to 100 mm with an angle	PPD0103
Top spigot Ø 76 mm	PPD0105
Top spigot Ø 60 mm - L 110 to 300 mm for square column	PPD0126
Top spigot Ø 60 mm - L 110 to 300 mm for cylindrical column	PPD0127
Top spigot Ø 90 mm - L 60 to 100 mm	PPD0121







#### ΝΟΤΕ

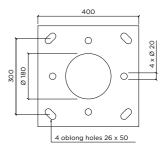
For winds up to 100 km/h, the kakemonos fittings must be disassembled.

REPLACEMENT PART	Reference
WOOD ACCESS DOOR (contact us)	PPD0180

## **BASE SECTION ADAPTATOR PLATE**

BASE SECTION ADAPTATOR PLATE M18	PPD0239
BASE SECTION ADAPTATOR PLATE M24	PPD0240

Minimum 2 units - Only for column without brackets.



Reference



#### **OPERATIONAL & FUNCTIONAL EXCELLENCE**

#### PRODUCTS

UTYL IM lighting points	> Pages 94 to 96
MOSHI lighting bollard	> Page 98
UTYL furniture	> Pages 104 to 112
UTYL shelter	> Page 115
UTYL shade shelter	> Page 114
SOLEA furniture	> Pages 116 to 120
MOSHI and MOSHI XL columns	> Page 124
SILEA and SILEA XL columns	> Page 125
SUMU and SUMU XL columns	> Page 126
DÔME and DÔME XL columns	> Page 127

### SERVICES

## ADVICE & SUPPORT

In the choice of products In the layout For all tender documents and technical specifications From the beginning right through to the installation

GRAPHIC DESIGN STUDIO

Computer-generated images

#### STUDIES & FEASIBILITY

Studies and layout plans Lighting studies Dimensioning and checking operations



+

(P)

8

#### SUSTAINABLE DEVELOPMENT

Environmental data files for products Environmental impact assessment

OPTIONAL SERVICES

Installation of the furniture Maintenance of the wood



## PRODUCTS: ALL OF THE PURE PRODUCTS LINE + UTYL LED lighting points UTYL LED lighting columns LADY LED lighting bollards NATTY bollards and lighting columns BAMBOO charging point for electric vehic AREA shade shelter RENDEZ-VOUS benches SILEA and SILEA XL very high columns DÔME XL and ATHENA XL very high colur HELIACA and HELIACA XL very high colum OHASHI and CATELAM specific columns

Columns with brackets, crowns and specifi

#### SERVICES: ALL OF THE PURE SERVICES +

#### GRAPHIC DESIGN STUDIO

Realistic simulations pictures Colour chart study and object customisation (marking, labelling) Graphic concept file for the site or brand



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#### STUDIES & FEASIBILITY

Product design and adaptation Specific structural calculations As-built and assembling drawings



Installation of the furniture Maintenance of the wood

# smart space

## **EXCLUSIVITY & INNOVATION**

	> Pages 87 to 93
	> Page 97
	> Page 99
	> Page 100 to 103
cles	> Page 123
	> Page 122
	> Page 121
	> Page 128
mns	> Page 129
mns	> Page 130
	> Page 131
fic accessories	> Pages 136 to 137

FOR LIGHTING COLUMNS

	FRANCE           22 m/s         24 m/s         26 m/s         28 m/s												EUROPE											
	22 m/s			24 m/s			26 m/s			28 m/s			24 m/s			27 m/s			30 m/s					
Rough. 3-a	Rough. 2	Rough. O	Rough. 3-a	Rough. 2		Rough. 3-a	Rough. 2	Rough. O	Rough. 3-a	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O				

#### мозні

#### Height Section m mm

3	120	1.92	1.75	1.21	1.58	1.44	0.98	1.31	1.20	0.80	1.10	1.00	0.67	2.03	1.62	1.06	1.55	1.26	0.80	1.23	0.97	0.58
3.5	120	1.45	1.20	0.82	1.17	0.97	0.65	0.96	0.79	0.52	0.79	0.65	0.41	1.50	1.08	0.70	1.15	0.82	0.51	0.88	0.61	0.36
4	120	1.12	0.89	0.58	0.89	0.70	0.44	0.71	0.55	0.33	0.57	0.43	0.24	1.15	0.78	0.47	0.85	0.56	0.32	0.63	0.40	0.20
4	140	1.93	1.55	1.06	1.56	1.25	0.83	1.27	1.01	0.66	1.05	0.82	0.52	1.99	1.39	0.89	1.50	1.03	0.63	1.15	0.76	0.45
5	120	0.66	0.43	0.23	0.49	0.31	0.13	0.36	0.20	0.06	0.25	0.12	-	0.67	0.35	0.15	0.45	0.21	-	0.29	0.09	-
5	140	1.25	0.86	0.54	0.97	0.65	0.38	0.75	0.48	0.25	0.57	0.35	0.15	1.26	0.73	0.41	0.90	0.48	0.23	0.63	0.31	0.10
5	160	2.26	1.61	1.09	1.80	1.27	0.83	1.45	1.00	0.63	1.17	0.79	0.46	2.33	1.43	0.91	1.76	1.04	0.62	1.30	0.74	0.40
6	140	0.73	0.44	0.20	0.51	0.28	0.08	0.35	0.15	-	0.22	0.05	-	0.72	0.33	0.10	0.45	0.15	-	0.26	-	-
6	160	1.46	0.97	0.59	1.11	0.71	0.39	0.84	0.51	0.23	0.63	0.35	0.10	1.48	0.82	0.44	1.05	0.53	0.22	0.71	0.30	-

## MOSHI XL

# Height Section m mm

3.5	120	2.57	2.16	1.51	2.10	1.76	1.21	1.75	1.46	0.99	1.45	1.20	0.81	2.42	1.76	1.15	1.83	1.32	0.84	1.41	1.00	0.61
4	120	2.08	1.68	1.16	1.68	1.35	0.92	1.39	1.11	0.73	1.14	0.90	0.57	1.95	1.35	0.87	1.47	1.00	0.60	1.10	0.73	0.41
5	120	1.35	0.95	0.62	1.06	0.74	0.44	0.84	0.56	0.31	0.65	0.42	0.20	1.26	0.74	0.41	0.90	0.49	0.22	0.62	0.30	0.09
5	140	2.42	1.75	1.22	1.96	1.40	0.95	1.60	1.14	0.74	1.31	0.90	0.56	2.28	1.40	0.91	1.74	1.03	0.60	1.26	0.72	0.37
6	140	1.54	1.05	0.66	1.20	0.79	0.45	0.92	0.57	0.28	0.69	0.40	0.15	1.42	0.79	0.41	0.98	0.48	0.18	0.65	0.26	-
6	160	2.70	1.90	1.31	2.15	1.50	0.98	1.73	1.17	0.72	1.38	0.89	0.51	2.50	1.50	0.92	1.83	1.03	0.56	1.31	0.68	0.29

#### SILEA Height Section

m	mm																					
3	120/76	1.49	1.36	0.95	1.23	1.12	0.77	1.02	0.94	0.63	0.86	0.79	0.52	1.37	1.10	0.72	1.08	0.86	0.56	0.84	0.66	0.41
3.5	120/76	1.20	1.00	0.69	0.97	0.81	0.55	0.80	0.66	0.44	0.66	0.54	0.35	1.10	0.79	0.51	0.83	0.58	0.38	0.64	0.45	0.26
4	120/76	0.97	0.78	0.52	0.78	0.62	0.40	0.62	0.48	0.30	0.51	0.39	0.23	0.90	0.62	0.38	0.67	0.45	0.25	0.49	0.32	0.16
4	140/76	1.59	1.29	0.90	1.30	1.05	0.73	1.07	0.86	0.59	0.90	0.72	0.48	1.49	1.05	0.69	1.13	0.79	0.49	0.88	0.60	0.37
5	120/76	0.64	0.44	0.26	0.49	0.32	0.17	0.37	0.23	0.11	0.27	0.16	-	0.59	0.32	0.16	0.40	0.20	-	0.26	0.11	-
5	140/76	1.16	0.83	0.57	0.93	0.66	0.44	0.75	0.52	0.33	0.61	0.41	0.24	1.08	0.66	0.41	0.79	0.46	0.25	0.59	0.33	0.14
5	160/120	2.14	1.54	1.07	1.72	1.23	0.82	1.40	0.98	0.64	1.13	0.78	0.49	2.06	1.27	0.81	1.53	0.91	0.54	1.15	0.66	0.36
6	140/76	0.79	0.54	0.33	0.61	0.40	0.21	0.47	0.29	0.12	0.34	0.18	-	0.72	0.40	0.18	0.49	0.23	-	0.32	0.10	-
6	160/120	1.45	1.00	0.64	1.12	0.75	0.45	0.87	0.56	0.30	0.67	0.41	0.18	1.37	0.78	0.44	0.97	0.51	0.22	0.68	0.31	-
7	160/120	0.73	0.43	0.18	0.50	0.25	-	0.33	0.12	-	0.19	-	-	0.67	0.27	-	0.39	-	-	0.17	-	-
7	200/120	1.91	1.33	0.89	1.50	1.01	0.63	1.17	0.76	0.43	0.91	0.56	0.28	1.74	1.00	0.59	1.24	0.66	0.31	0.87	0.41	0.09
8	200/120	1.36	0.90	0.52	1.02	0.62	0.31	0.75	0.41	0.13	0.54	0.25	-	1.22	0.63	0.26	0.80	0.33	-	0.50	0.09	-
8	220/140	2.14	1.47	0.96	1.65	1.09	0.65	1.27	0.79	0.41	0.97	0.56	0.21	1.93	1.10	0.61	1.34	0.68	0.25	0.92	0.36	-
9	220/140	1.57	1.01	0.57	1.15	0.68	0.30	0.82	0.42	0.08	0.56	0.21	-	1.39	0.68	0.24	0.88	0.31	-	0.51	-	-
9	250/140	2.69	1.88	1.25	2.08	1.40	0.86	1.61	1.02	0.56	1.23	0.73	0.33	2.42	1.41	0.82	1.69	0.89	0.39	1.16	0.51	0.40
10	220/140	1.10	0.62	0.24	0.74	0.33	-	0.45	0.10	-	0.23	-	-	0.94	0.33	-	0.43	-	-	0.18	-	-
10	250/140	2.06	1.37	0.82	1.53	0.94	0.48	1.12	0.62	0.22	0.79	1.28	-	1.83	0.95	0.42	1.19	0.49	-	0.73	0.12	-

#### SILEA XL

Height Section

m	mm																					
4	120/76	2.02	1.65	1.15	1.65	1.34	0.93	1.36	1.10	0.75	1.13	0.91	0.60	1.89	1.34	0.87	1.45	1.01	0.64	1.10	0.75	0.45
5	120/76	1.45	1.04	0.71	1.15	0.82	0.54	0.93	0.65	0.41	0.74	0.52	0.31	1.34	0.82	0.51	0.99	0.59	0.33	0.72	0.40	0.20
5	140/76	2.67	1.96	1.40	2.17	1.59	1.12	1.79	1.30	0.90	1.48	1.07	0.72	2.49	1.59	1.06	1.90	1.18	0.76	1.44	0.88	0.53
6	140/76	1.85	1.34	0.94	1.49	1.06	0.72	1.20	0.84	0.54	0.97	0.66	0.41	1.71	1.06	0.67	1.28	0.75	0.44	0.93	0.52	0.26
6	160/120	2.85	2.06	1.45	2.28	1.62	1.11	1.85	1.29	0.84	1.49	1.02	0.63	2.63	1.62	1.03	1.96	1.16	0.69	1.43	0.80	0.42
7	160/120	1.58	1.08	0.67	1.20	0.79	0.44	0.91	0.56	0.26	0.67	0.38	0.12	1.42	0.79	0.39	0.98	0.47	0.15	0.63	0.23	-
8	200/120	2.84	2.03	1.39	2.21	1.53	0.99	1.73	1.17	0.70	1.36	0.87	0.46	2.54	1.53	0.92	1.82	1.02	0.53	1.27	0.63	0.23
9	200/120	2.09	1.43	0.89	1.55	1.00	0.56	1.16	0.70	0.31	0.85	0.45	0.11	1.82	1.00	0.50	1.22	0.58	-	0.77	0.25	-
9	220/140	3.13	2.22	1.48	2.39	1.63	1.02	1.85	1.21	0.68	1.42	0.87	0.41	2.76	1.63	0.94	1.93	1.04	0.17	1.32	0.59	0.14
10	220/140	2.26	1.51	0.91	1.65	1.03	0.53	1.20	0.67	0.24	0.85	0.40	-	1.95	1.03	0.46	1.27	0.54	-	0.76	0.16	-
10	250/140	3.68	2.60	1.78	2.82	1.94	1.23	2.18	1.44	0.82	1.68	1.04	0.50	3.24	1.94	1.14	2.28	1.23	0.60	1.55	0.70	0.18

Wind catching areas (Scx) in m<sup>2</sup>: for lanterns on top without any offset.

	FRANCE           22 m/s         24 m/s         26 m/s         28 m/s           Rough, Rough												EUROPE									
	22 m/s			24 m/s			26 m/s			28 m/s			24 m/s			27 m/s			30 m/s			
Rough 3-a	Rough. 2	Rough. O	Rough. 3-a	Rough. 2		Rough. 3-a	Rough. 2		Rough. 3-a	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O		

#### SUMU Hoight

a

	m	ر mm																					
ſ	3	140	1.45	1.33	0.91	1.20	1.09	0.74	0.99	0.90	0.60	0.82	0.74	0.49	1.37	1.09	0.69	1.04	0.82	0.50	0.80	0.62	0.36
	3.5	140	1.12	0.93	0.64	0.91	0.75	0.51	0.75	0.62	0.40	0.62	0.50	0.31	1.04	0.75	0.47	0.78	0.55	0.32	0.59	0.40	0.21
	4	140	0.88	0.70	0.45	0.69	0.54	0.34	0.54	0.42	0.24	0.43	0.32	0.17	0.81	0.54	0.31	0.57	0.37	0.18	0.41	0.24	0.09
ĺ	5	140	0.50	0.32	0.16	0.36	0.21	-	0.25	0.14	-	0.16	0.06	-	0.44	0.21	0.06	0.27	0.10	-	0.14	-	-
	5	168	1.13	0.80	0.51	0.88	0.60	0.37	0.68	0.46	0.25	0.53	0.33	0.16	1.04	0.60	0.32	0.72	0.39	0.17	0.50	0.24	-
[	6	168	0.65	0.41	0.20	0.47	0.26	0.10	0.32	0.16	-	0.21	0.06	-	0.57	0.26	-	0.34	0.10	-	0.18	-	-

#### SUMU XL

Height m	Ø mm																					
3	115	1.70	1.56	1.08	1.40	1.28	0.88	1.17	1.07	0.73	0.98	0.90	0.60	1.60	1.28	0.83	1.23	0.98	0.62	0.96	0.76	0.47
4	115	1.08	0.88	0.60	0.88	0.70	0.47	0.71	0.57	0.36	0.58	0.46	0.28	1.01	0.70	0.44	0.75	0.51	0.30	0.57	0.37	0.20
4	140	2.09	1.70	1.20	1.70	1.37	0.95	1.41	1.14	0.78	1.17	0.95	0.63	1.94	1.37	0.91	1.48	1.03	0.66	1.15	0.79	0.48
5	115	0.67	0.47	0.29	0.52	0.35	0.20	0.39	0.26	0.12	0.30	0.18	-	0.62	0.35	0.18	0.42	0.22	0.08	0.29	0.12	-
5	140	1.45	1.04	0.72	1.15	0.82	0.54	0.93	0.65	0.42	0.75	0.52	0.31	1.35	0.82	0.51	0.99	0.58	0.33	0.73	0.41	0.20
6	140	0.91	0.62	0.38	0.69	0.45	0.25	0.53	0.33	0.15	0.39	0.23	-	0.82	0.45	0.23	0.56	0.27	0.09	0.37	0.15	-
6	168	1.85	1.33	0.92	1.48	1.04	0.69	1.18	0.81	0.51	0.95	0.64	0.38	1.70	1.04	0.65	1.25	0.72	0.40	0.91	0.49	0.24
DÔME																						
Height m	Ø mm																					
3	140/76	0.86	0.79	0.55	0.71	0.65	0.45	0.60	0.54	0.37	0.51	0.46	0.31	0.81	0.65	0.42	0.62	0.50	0.32	0.49	0.39	0.24

	111111																					
3	140/76	0.86	0.79	0.55	0.71	0.65	0.45	0.60	0.54	0.37	0.51	0.46	0.31	0.81	0.65	0.42	0.62	0.50	0.32	0.49	0.39	0.24
3.5	140/76	0.74	0.62	0.43	0.61	0.50	0.35	0.50	0.42	0.28	0.42	0.34	0.22	0.70	0.50	0.33	0.53	0.38	0.22	0.41	0.28	0.15
3.5	168/120	1.78	1.49	1.05	1.45	1.22	0.84	1.20	1.00	0.68	1.00	0.83	0.56	1.67	1.22	0.79	1.26	0.91	0.58	0.97	0.69	0.42
4	140/76	0.64	0.51	0.35	0.51	0.41	0.26	0.42	0.33	0.19	0.33	0.25	0.14	0.59	0.41	0.24	0.44	0.28	0.14	0.31	0.19	0.08
4	168/120	1.50	1.22	0.84	1.22	0.98	0.66	1.00	0.80	0.53	0.82	0.64	0.42	1.40	0.98	0.62	1.04	0.71	0.43	0.79	0.53	0.30
5	140/76	0.45	0.30	0.17	0.33	0.21	0.11	0.25	0.15	-	0.18	0.09	-	0.40	0.21	0.09	0.26	0.12	-	0.16	-	-
5	168/120	1.06	0.75	0.50	0.83	0.57	0.36	0.66	0.45	0.26	0.52	0.33	0.18	0.97	0.57	0.33	0.69	0.38	0.19	0.49	0.25	0.09
6	168/120	0.69	0.46	0.27	0.51	0.31	0.16	0.38	0.22	-	0.27	0.13	-	0.61	0.31	0.12	0.40	0.17	-	0.24	0.06	-
6	194/120	1.46	1.05	0.72	1.17	0.81	0.54	0.93	0.64	0.40	0.74	0.49	0.29	1.35	0.81	0.49	0.98	0.55	0.30	0.71	0.37	0.16
6	220/140	2.07	1.50	1.04	1.66	1.17	0.81	1.34	0.94	0.61	1.08	0.73	0.46	1.90	1.17	0.75	1.40	0.82	0.48	1.03	0.58	0.30
7	194/120	0.80	0.53	0.30	0.59	0.36	0.18	0.44	0.25	-	0.31	0.13	-	0.71	0.36	0.14	0.45	0.18	-	0.28	-	-
7	220/140	1.23	0.85	0.54	0.95	0.62	0.37	0.72	0.46	0.23	0.55	0.31	0.12	1.11	0.62	0.32	0.75	0.37	0.13	0.50	0.19	-
8	194/120	0.52	0.30	0.11	0.35	0.15	-	0.21	-	-	0.11	-	-	0.43	0.15	-	0.22	-	-	-	-	-
8	220/140	0.84	0.54	0.29	0.61	0.34	0.14	0.43	0.21	-	0.28	0.08	-	0.73	0.34	0.09	0.44	0.14	-	0.24	-	-
8	275/140	2.00	1.45	1.00	1.60	1.11	0.74	1.27	0.86	0.52	1.00	0.63	0.35	1.82	1.11	0.67	1.31	0.73	0.38	0.93	0.46	0.16
9	220/140	0.54	0.29	-	0.35	0.11	-	0.19	-	-	-	-	-	0.44	0.11	-	0.20	-	-	-	-	-
9	275/140	1.55	1.07	0.68	1.18	0.76	0.45	0.90	0.55	0.27	0.66	0.35	0.12	1.37	0.76	0.39	0.92	0.43	0.13	0.59	0.20	-
10	275/140	1.16	0.75	0.42	0.84	0.48	0.21	0.59	0.30	-	0.40	0.12	-	0.99	0.48	0.15	0.60	0.19	-	0.33	-	-

### DÔME XL

Height Ø

m	mm																					
3	115/76	1.72	1.58	1.10	1.42	1.30	0.90	1.19	1.08	0.75	1.00	0.92	0.63	1.61	1.30	0.86	1.25	0.99	0.65	0.97	0.78	0.50
3,5	115/76	1.37	1.15	0.81	1.12	0.94	0.66	0.93	0.78	0.53	0.77	0.65	0.44	1.28	0.94	0.62	0.98	0.71	0.46	0.76	0.54	0.34
3,5	140/76	2.59	2.18	1.57	2.14	1.81	1.28	1.80	1.51	1.07	1.52	1.25	0.90	2.42	1.81	1.23	1.89	1.38	0.93	1.49	1.08	0.72
4	115/76	1.10	0.90	0.62	0.90	0.73	0.49	0.73	0.59	0.39	0.60	0.49	0.31	1.04	0.73	0.47	0.78	0.54	0.33	0.60	0.40	0.23
4	140/76	2.14	1.75	1.25	1.77	1.45	1.02	1.47	1.20	0.84	1.24	1.01	0.70	2.03	1.45	0.98	1.56	1.10	0.73	1.20	0.85	0.55
5	115/76	0.75	0.54	0.36	0.60	0.42	0.26	0.47	0.32	0.19	0.37	0.25	0.13	0.70	0.42	0.25	0.50	0.28	0.15	0.36	0.19	0.08
5	140/76	1.54	1.14	0.81	1.26	0.92	0.64	1.04	0.75	0.51	0.86	0.61	0.40	1.46	0.92	0.61	1.10	0.68	0.43	0.84	0.50	0.30
5	168/120	2.74	2.02	1.46	2.25	1.65	1.16	1.86	1.35	0.95	1.54	1.12	0.77	2.58	1.65	1.12	1.96	1.23	0.81	1.52	0.94	0.60
6	140/76	1.02	0.72	0.49	0.81	0.56	0.37	0.64	0.44	0.27	0.51	0.34	0.19	0.94	0.56	0.34	0.68	0.39	0.21	0.49	0.26	0.11
6	168/120	1.97	1.44	1.03	1.60	1.15	0.80	1.30	0.91	0.62	1.06	0.74	0.48	1.84	1.15	0.75	1.37	0.83	0.51	1.04	0.60	0.34
7	168/120	1.09	0.76	0.48	0.84	0.56	0.33	0.64	0.41	0.21	0.49	0.29	0.12	0.99	0.56	0.30	0.69	0.35	0.14	0.47	0.20	-
7	194/120	1.89	1.37	0.96	1.51	1.07	0.72	1.20	0.84	0.54	0.97	0.66	0.40	1.73	1.07	0.68	1.26	0.75	0.44	0.93	0.51	0.26
8	194/120	1.36	0.95	0.63	1.05	0.72	0.44	0.81	0.52	0.28	0.62	0.38	0.17	1.23	0.72	0.40	0.86	0.45	0.20	0.59	0.26	-
8	220/140	2.43	1.77	1.26	1.94	1.40	0.96	1.56	1.09	0.72	1.26	0.86	0.53	2.24	1.40	0.91	1.63	0.97	0.58	1.19	0.67	0.34
9	194/120	0.95	0.62	0.35	0.70	0.43	0.20	0.50	0.27	-	0.35	0.15	-	0.84	0.43	0.17	0.54	0.21	-	0.31	-	-
9	220/140	1.80	1.28	0.85	1.40	0.96	0.60	1.08	0.71	0.40	0.83	0.52	0.25	1.62	0.96	0.56	1.14	0.61	0.29	0.78	0.36	-
10	220/140	1.33	0.90	0.55	0.99	0.63	0.33	0.73	0.42	0.16	0.52	0.25	-	1.18	0.63	0.29	0.77	0.33	-	0.47	0.12	-
10	245/140	2.11	1.51	1.03	1.65	1.15	0.73	1.27	0.84	0.50	0.98	0.61	0.31	1.90	1.15	0.69	1.32	0.73	0.36	0.92	0.43	0.12

Wind catching areas (Scx) in  $m^2$ : for lanterns on top without any offset.

# **CONCRETE FOUNDATION**

мозні		DOWNWAR	RD LOADING		MENDED DATION
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3	120	262	539	0.60	0.50
3.5	120	251	537	0.60	0.50
4	120	225	518	0.60	0.50
4	140	339	817	0.70	0.50
5	120	167	466	0.60	0.50
5	140	280	770	0.70	0.50
5	160	451	1252	0.80	0.60
6	140	232	738	0.70	0.50
6	160	345	1158	0.80	0.60

MOSHI XL		DOWNWA	RD LOADING	RECOM FOUNE	
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3,5	120	300	707	0.70	0.50
4	120	285	689	0.70	0.50
5	120	230	643	0.70	0.50
5	140	386	1071	0.80	0.60
6	140	293	974	0.80	0.60
6	160	463	1532	1.00	0.60

SILEA		DOWNWA	RD LOADING		MENDED DATION
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3	120/76	203	390	0.60	0.50
3.5	120/76	199	396	0.60	0.50
4	120/76	180	384	0.60	0.50
4	140/76	265	596	0.70	0.50
5	120/76	140	366	0.70	0.50
5	140/76	225	587	0.70	0.50
5	160/120	372	1056	0.80	0.60
6	140/76	186	563	0.70	0.50
6	160/120	313	1014	0.80	0.60
7	160/120	276	979	0.80	0.60
7	200/120	504	1854	0.90	0.60
8	200/120	448	1804	0.90	0.60
8	220/140	612	2533	1.00	0.60
9	220/140	557	2497	1.00	0.60
9	250/140	807	3699	1.10	0.70
10	220/140	446	2331	1.00	0.70
10	250/140	721	3624	1.10	0.70

SILEA XL		DOWNWA	RD LOADING		MENDED DATION
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
4	120/76	254	609	0.70	0.50
5	120/76	213	594	0.70	0.50
5	140/76	361	1047	0.80	0.60
6	140/76	323	1009	0.80	0.60
6	160/120	445	1512	0.90	0.60
7	160/120	393	1436	0.90	0.60
8	200/120	661	2756	1.00	0.70
9	200/120	588	2636	1.00	0.70
9	220/140	778	3643	1.10	0.70
10	220/140	657	3454	1.10	0.70
10	250/140	932	4900	1.20	0.80

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					FRA	NCE									E	UROP	E			
	22 m/s			24 m/s			26 m/s			24 m/s			27 m/s			30 m/s				
Rough. 3-a	Rough. 2	Rough. O	Rough. 3-a	Rough. 2		Rough. 3-a	Rough. 2	Rough. O	Rough. 3-a	Rough. 2	Rough. O	Rough. 3		Rough. O	Rough. 3	Rough. 2	Rough. O	Rough. 3	Rough. 2	Rough. O

#### SILEA VERY HIGH COLUMN

# Height Section m mm

12	250/140	1.10	0.56	0.13	0.68	0.22	-	0.35	-	-	-	-	-	0.90	0.22	-	0.32	-	-	-	-	-
12	300/160	2.60	1.73	1.00	1.92	1.15	0.49	1.35	0.68	0.10	0.89	0.29	-	2.26	1.16	0.47	1.42	0.53	-	0.82	-	-
14	350/160	3.35	2.24	1.40	2.46	1.52	0.79	1.75	0.95	0.32	1.20	0.51	-	2.88	1.53	0.72	1.82	0.74	-	1.06	0.11	-
16	350/160	1.91	1.00	0.30	1.17	0.40	-	0.60	-	-	0.14	-	-	1.54	0.42	-	0.65	-	-	-	-	-
16	400/160	3.94	2.60	1.46	2.83	1.64	0.68	1.92	0.90	-	1.18	0.31	-	3.28	1.54	0.48	1.89	0.50	-	0.90	-	-

### SILEA XL VERY HIGH COLUMN

Height Section m mm

•	-
0.76	0.12
-	-
-	-
6	

#### DÔME XL VERY HIGH COLUMN

Height Ø m mm

12	245/140	1.41	1.00	0.65	1.08	0.72	0.4	0.82	0.48	0.20	0.59	0.29	-	1.25	0.72	0.36	0.85	0.38	-	0.52	0.14	-
12	275/140	2.15	1.59	1.15	1.70	1.22	0.84	1.35	0.93	0.57	1.06	0.69	0.36	1.93	1.22	0.79	1.38	0.80	0.41	0.98	0.47	-
14	275/140	1.41	0.97	0.62	1.05	0.67	0.37	0.77	0.44	0.17	0.54	0.25	-	1.23	0.67	0.33	0.79	0.34	-	0.47	-	-

#### ATHENA XL VERY HIGH COLUMN

# Height Ø m mm

_																							
	12	245/140	2.92	2.04	1.30	2.24	1.46	0.80	1.66	0.98	-	1.24	0.60	-	2.59	1.46	0.76	1.72	0.84	-	1.04	-	-
ſ	12	275/140	4.30	3.18	2.30	3.40	2.44	1.68	2.70	1.86	1.14	2.12	1.38	0.72	3.86	2.44	1.58	2.76	1.60	0.82	1.96	0.94	-
	14	275/140	3.10	2.16	1.42	2.34	1.54	0.92	1.74	1.06	-	1.30	0.68	-	2.83	1.54	0.81	1.78	0.84	-	1.12	-	-

#### HELIACA VERY HIGH COLUMN

Height Section m mm

12	300/160	5.20	3.46	1.00	3.84	2.30	0.98	2.70	1.36	-	1.78	-	-	4.52	2.32	0.94	2.84	1.06	-	1.64	-	-
14	350/160	6.70	4.48	1.40	4.92	3.04	1.58	3.50	1.90	-	2.40	1.02	-	5.76	3.06	1.44	3.64	1.48	-	2.12	-	-
16	350/160	3.82	2.00	0.30	2.34	-	-	1.20	-	-	-	-	-	3.08	0.84	-	1.30	-	-	-	-	-
16	400/160	7.88	5.20	1.46	5.66	3.28	1.36	3.84	1.80	-	2.36	0.62	-	6.56	3.08	0.96	3.78	1.00	-	1.80	-	-

#### HELIACA XL VERY HIGH COLUMN

Height Section m mm

12	250/140	4.52	3.06	1.74	3.38	2.00	0.88	2.36	1.20	0.22	1.56	0.54	-	3.94	2.00	0.74	2.26	0.7	-	1.36	-	-
12	300/160	8.90	6.34	2.14	6.80	4.70	2.90	5.24	3.36	1.84	3.92	2.32	-	7.90	4.70	2.72	5.40	2.82	1.22	3.60	1.52	-
14	300/160	5.52	3.52	0.94	3.90	2.20	0.80	2.60	1.14	-	1.56	-	-	4.72	2.20	0.64	2.72	0.68	-	1.32	-	-
16	350/160	6.68	4.16	1.10	4.60	2.54	0.80	3.00	1.20	-	1.72	-	-	5.64	2.54	0.66	3.12	0.66	-	1.38	-	-

## OHASHI

Height Ø m mm

riergine	0																					
m	mm																					
3,5	160/76	2.42	2.04	1.53	2.00	1.68	1.22	1.71	1.43	1.02	1.42	1.18	0.82	2.25	1.68	1.14	1.76	1.31	0.86	1.07	0.89	0.62
4	160/76	2.17	1.76	1.32	1.73	1.40	1.02	1.47	1.18	0.84	1.20	0.96	0.66	1.95	1.40	0.95	1.50	1.07	0.70	0.90	0.72	0.50
5	160/76	1.57	1.22	0.85	1.26	0.94	0.65	1.06	0.78	0.53	0.85	0.62	0.40	1.42	0.94	0.61	1.07	0.70	0.43	0.64	0.47	0.30
6	250/114	4.36	3.20	2.40	3.60	2.63	1.92	3.00	2.20	1.56	2.50	1.80	1.26	4.05	2.63	1.79	3.09	2.00	1.32	1.52	1.10	0.77
7	250/114	2.68	1.95	1.42	2.14	1.55	1.10	1.76	2.30	0.86	1.45	1.01	0.68	2.41	1.55	1.03	1.81	1.66	0.72	0.88	0.62	0.41
8	250/114	2.04	1.48	1.05	1.64	1.14	0.80	1.34	0.92	0.59	1.06	0.71	0.41	1.85	1.14	0.75	1.35	0.82	0.47	0.65	0.43	0.25

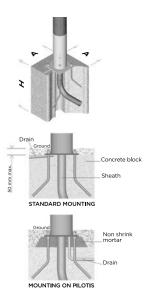
#### CATELAM

Height Ø m mm

5	178/140	2.62	1.93	1.41	2.16	1.58	1.14	1.80	1.31	0.93	1.50	1.09	0.76	2.46	1.58	1.09	1.88	1.19	0.80	1.88	0.92	0.60
8	224/168	1.90	1.36	0.94	1.50	1.04	0.70	1.19	0.80	0.50	0.94	0.61	0.35	1.72	1.04	0.66	1.24	0.70	0.39	1.24	0.46	0.20

Wind catching areas (Scx) in  $m^2$ : for lanterns on top without any offset.

pacity of 0,2 N/mm<sup>2</sup> (2 bars).



SUMU		DOWNWAF	RD LOADING	RECOM FOUNE	MENDED DATION
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3	140	171	342	0.60	0.50
3.5	140	166	340	0.60	0.50
4	140	134	313	0.60	0.50
5	140	102	286	0.60	0.50
5	168	180	526	0.70	0.50
6	168	145	489	0.70	0.50

SUMU XL		DOWNWAF	RD LOADING	RECOM FOUNE	MENDED DATION
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3	115	178	391	0.60	0.50
4	115	157	365	0.60	0.50
4	140	242	650	0.70	0.50
5	115	119	331	0.60	0.50
5	140	209	615	0.70	0.50
6	140	170	568	0.70	0.50
6	168	295	1011	0.80	0.60

DÔME		DOWNWA	RD LOADING		MENDED DATION
Total height above ground (m)	e Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3	140/76	128	232	0.60	0.50
3.5	140/76	117	232	0.60	0.50
3.5	168/120	217	491	0.70	0.50
4	140/76	110	239	0.60	0.50
4	168/120	212	496	0.70	0.50
5	140/76	86	234	0.60	0.50
5	168/120	179	483	0.70	0.50
6	168/120	151	473	0.70	0.50
6	194/120	258	855	0.80	0.60
6	220/140	328	1096	0.80	0.60
7	194/120	219	790	0.80	0.60
7	220/140	298	1093	0.80	0.60
8	194/120	184	769	0.80	0.60
8	220/140	250	1063	0.80	0.60
8	275/140	480	1998	1.00	0.60
9	220/140	213	1038	0.80	0.60
9	275/140	433	1958	1.00	0.60
10	275/140	370	2026	1.00	0.60

	DÔME XL		DOWNWAR	RD LOADING	RECOM FOUNE	MENDED DATION
	Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
	3	115/76	175	390	0.60	0.50
	3,5	115/76	160	374	0.60	0.50
	3,5	140/76	254	668	0.70	0.50
	4	115/76	151	359	0.60	0.50
	4	140/76	235	648	0.70	0.50
	5	115/76	125	341	0.60	0.50
	5	140/76	215	619	0.70	0.50
	5	168/120	324	1050	0.80	0.60
	6	140/76	175	567	0.70	0.50
block	6	168/120	311	1032	0.80	0.60
	7	168/120	251	955	0.80	0.50
	7	194/120	390	1462	0.90	0.60
	8	194/120	327	1394	0.90	0.60
	8	220/140	517	2239	1.00	0.60
ık	9	194/120	273	1321	0.90	0.60
	9	220/140	432	2113	1.00	0.60
	10	220/140	381	2030	1.00	0.60
	10	245/140	523	2823	1.10	0.70

SILEA VERY HIG	H COLUMN	DOWNWAF	RD LOADING	RECOM FOUNE	MENDED DATION
otal height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
12	250/140	544	3320	1.20	0.80
12	300/160	963	5723	1.30	0.80
14	350/160	1359	9213	1.50	0.80
16	350/160	1172	9113	1.50	0.80
16	400/160	1614	12609	1.60	0.90

SILEA XL VERY H	HIGH COLUMN	DOWNWAF	RD LOADING	RECOM FOUNE	MENDED DATION
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
12	250/140	770	4659	1.40	0.80
12	300/160	1291	7800	1.40	0.80
14	300/160	1044	7358	1.40	0.80
16	350/160	1409	10950	1.60	1.00

DÔME XL VERY HIGH COLUMN		DOWNWAF	RD LOADING	RECOMMENDED FOUNDATION	
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
12	245/140	446	2331	1.00	0.70
12	275/140	544	3320	1.20	0.80
14	275/140	770	4659	1.40	0.80

ATHENA XL VER	Y HIGH COLUMN	DOWNWARD LOADING		
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	
12	245/140	840	5600	
12	275/140	1080	7650	
14	275/140	1050	7450	

HELIACA VERY H	HIGH COLUMN	DOWNWARD LOADING		
Total height above ground (m)			Moment M <sub>d</sub> (daN.m)	
12	300/160	1900	11150	
14	350/160	2550	10900	
16	350/160	2300	17800	
16	400/160	3200	23200	

HELIACA XL VE	RY HIGH COLUMN	DOWNWARD LOADING		
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	
12	250/140	1540	9318	
12	300/160	2300	14500	
14	300/160	2020	14200	
16	350/160	2780	21500	

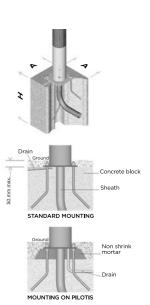
онаѕні		DOWNWAR	DWNWARD LOADING RECOMMENDED FOUNDATION		
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
3.5	160/76	230	610	0.70	0.50
4	160/76	220	610	0.70	0.50
5	160/76	210	610	0.70	0.50
6	250/114	470	2120	1.00	0.60
7	250/114	450	2080	1.00	0.60
8	250/114	425	2150	1.00	0.60

CATELAM		DOWNWAF	RD LOADING	RECOMMENDED FOUNDATION	
Total height above ground (m)	Dimension at base (mm)	Effort V <sub>d</sub> (daN)	Moment M <sub>d</sub> (daN.m)	H (m)	A (m)
5	178/140	309	1042	0.80	0.60
8	224/168	452	2025	1.00	0.60

These values are given for information only and are based on a reference surface with bearing capacity of 0,2 N/mm<sup>2</sup> (2 bars).

These values are given for information only and are based on a reference surface with bearing capacity of 0,2 N/mm<sup>2</sup> (2 bars).

MOUNTING ON PILOTIS



# GENERAL CONDITIONS OF SALE

Any order transmitted to the vendor confirms that the purchaser has accepted the general conditions of sale below and has renounced the purchaser's own general conditions of purchase.

Clauses included on purchase documents or correspondence from the purchaser cannot alter this, unless there is express agreement on the part of the vendor mentioned on this latter's offer or on his confirmation of order.

#### 1. GENERAL POINTS

Prices and information contained in catalogues, brochures or price lists are for information purposes only, and the vendor reserves the right to make any alterations to lay-out, form and dimensions of, or materials used in apparatus, devices or parts of devices whose illustrations and descriptions figure in this printed matter for the purpose of publicity.

Estimates and offers are valid for a period of two months. It is understood that what we supply is limited solely to the material specified in the offer. Our offers may be subject to revision contingent on the conventions for the revision of offers published by " Le Syndicat de l'éclairage ".

Our acceptance of an order, even when preliminary estimates or offers have been submitted, is only valid upon written confirmation from us, the vendor, of the purchaser's order. Unless the vendor contests our confirmation of order within 48 hours, then the terms and conditions contained therein are deemed accepted.

The weights given on estimates or marketing material are for information only; they may on no account form the basis for any claim for compensation or price reduction when the goods are sold as part of a package.

When the goods are sold unpackaged, the prices are calculated on the basis of the product supplied. Dimensions for the foundation blocks are given only as a guide; these blocks must be prepared by the purchaser at his entire responsibility and take account of the variations dictated by local conditions.

For follow-up orders, prices and delivery times are renegotiated by the vendor and the purchaser. Conditions agreed for the main order should not in any way prejudice those agreed for additional orders.

Sample goods should be returned within two months. If not, they will be invoiced according to terms stated in the offer, as stipulated by law.

#### 2. INTELLECTUAL PROPERTY

The vendor retains in full all intellectual property rights for his plans, studies and documents of whatever nature, and none of these may be passed on or executed without the vendor's written permission. In the case of written communications, these must be returned to the vendor upon first demand. The technology and know-how, whether patented or not, as well as all intellectual and industrial property rights relating to its products and services remain the sole property of the vendor. The purchaser is accorded only the right to use the products in a non-exclusive way.

#### 3. DELIVERY DATES

Delivery is deemed made when goods leave the factory or warehouse of the vendor.

The vendor is released in full from all obligations relating to delivery dates if the general payment conditions have not been respected by the purchaser or: • in the case of force majeure. Any circumstance beyond the control of the vendor and preventing his normal function in the production or despatch of the products constitutes force majeure.

• in the case of events such as lock-outs, strikes or go slows effecting the smooth function of the vendor's company or that of one of his suppliers, subcontractors or shipping agents, in the interruption of transport, supply

of energy, raw material, or parts, in the case of epidemic, war, requisition, fire, extreme weather, natural catastrophe, equipment accidents, or any other events leading to short time working.

• when information to be supplied by the purchaser does not reach the vendor at the requested time., as well as in the case of modifications or new specifications.

#### a. Delays

Delivery dates are given solely as a guide and without guarantee. A delay does not give the purchaser the right to cancel the order, to refuse delivery or to be entitled to damages or interest payments.

In the case of delay, the purchaser may not cancel his order out of hand: he must send the vendor formal notice.

#### b. Penalties

No penalties for delays in delivery will be accepted unless they are part of special contractual clauses. In that case they may not exceed 5% of the value, in the workshop or in the warehouse, of goods remaining undelivered. These constitute fixed damages in full discharge, and exclude any other form of reparation.

#### 4. TRANSPORT

Our goods are shipped at the risk of the purchaser, and it is his responsibility to check shipments on arrival, to note possible damage and to make any claims to the shipper, even if the delivery was made carriage-paid.

Shipping and packaging costs may be the charged to vendor or purchaser according to what was decided at the time when the order was made and accepted by both parties.

All additional shipping costs occasioned by the purchaser (in the case of incorrect delivery address or non-availability of the recipient to take delivery) will be automatically recharged to the purchaser.

#### a. Claims

In order for them to be considered, all complaints concerning the nature, type, characteristics, delivery parameters and apparent quality of the products, not withstanding legal obligations, must be reported to the vendor by registered letter with signed receipt within 8 calendar days of delivery.

#### b. Packaging

Non consigned packaging is the responsibility of the customer and is not taken back by the vendor. In the absence of any special guidelines on the subject, packaging is prepared by the vendor acting in the customer's best interests.

#### c. Returns

A product that has been delivered may only be returned in exceptional cases and after prior written agreement from the vendor. Once the vendor has agreed to accept the return, the product must be shipped back within 8 calendar days in the condition in which it was delivered, as regards both the product and the packaging. In the case that the goods have suffered materially, costs for repairing them will be charged to the purchaser.

#### 5. TERMS AND CONDITIONS OF PAYMENT

The contract sets out the conditions of payment

The invoice states the date by which payment should be made as well as the scale of penalties chargeable from the day following the settlement date shown on the invoice.

Payment term is set at 30 calendar days from the date of invoicing.

Any extension of this term that has not been previously agreed by the parties will be deemed a contravention according to article 66 of French law no. 2001-240 dated 15th May 2001.

The non payment of a sum due entails by law the forfeiture of the term and therefore the payability of all sums owing, even those not yet due for payment.

All sums not paid on the due date will be, without any need for formal notice to be given, subject to interest charges at the rates of the European Central Bank surcharged by 7 points in accordance with the clauses set out by the European Directive 2000/35 of the 29th June 2000 and by French law no. 2001-420 of the 15th May 2001, and this without prejudice to bringing about the cessation of the infraction. The vendor reserves the right to apply a penalty surcharge equal to 15% of the amount of the sums owing. For the first order, payment is due immediately upon receipt of invoice. In the case that a contract has been only partially fulfilled, payment is due on that part of the contract not in dispute or partially fulfilled.

Payment is deemed made on the date upon which funds are made available by the customer to the beneficiary or his agent.

Services associated with the supply are payable immediately, net and without deduction

#### 6. RETENTION OF OWNERSHIP

The vendor retains ownership of the goods sold until payment in full of the principal and any secondary amount charged. In any case, the transfer of risk to the purchaser's account is effective from despatch.

Default of payment by a party whatever the due date may result in a claim on the goods

#### 7. GUARANTEES

#### a. Faults resulting in a claim on the guarantee

The vendor promises to put right any technical malfunction arising from a fault in design, materials or manufacture (including installation if this operation is entrusted to the vendor) within the bounds of the clauses that follow. This obligation on the vendor may not be enforced if the malfunction is occasioned by materials supplied by the purchaser or by a design insisted upon by the latter.

Any guarantee is invalidated for incidents resulting from unintentional events or force majeure, as well as for replacements or repairs resulting from normal wear and tear, or deterioration and accidents caused by negligence, faulty installation, monitoring or maintenance, or by use of the goods that is abnormal or that does not conform to the vendor's instructions.

#### b. Duration and start of the guarantee

This commitment remains in force for faults that become evident during a guarantee period of one year. Replacement parts or parts replaced are guaranteed for the period left to run in terms of the guarantee.

The period of the guarantee runs from the date of delivery as set out in paragraph 3 above

#### c. Purchaser's reponsibilities

In order to be in a position to call upon the benefits of these clauses, the purchaser must:

• communicate to the vendor, prior to ordering, the destination of the goods and the conditions in which they will be used.

 advise the vendor, without delay and in writing, any faults which he attributes to the goods and provide any evidence to back these up.

 afford the vendor every opportunity to establish the nature of the faults and proceed with their rectification.

• not attempt, moreover, without the vendor's express agreement, to carry out repairs himself or to have these carried out by a third party.

#### d. Modalities relating to the guarantee

Once the vendor has been advised as set out above, he must remedy faults at his costs and without delay, but he reserves the right if the need arises to make adjustments to the equipment in order to fulfil his obligations.

Work occasioned by the obligations of the guarantee is generally carried out in the vendor's workshops after the purchaser has returned to the former the defective equipment or parts to be repaired or replaced.

Nevertheless, taking into account the type of equipment to be repaired, when repairs have to be done on site, the vendor will pay for the labourcharges arising from the repair operation itself, not including time spent on preliminary works, dismantling or reinstalling made necessary by the conditions of use or installation partaining at the site and costs relation

the conditions of use or installation pertaining at the site and costs relating to parts not included with the supply in question.

The shipping costs of the faulty equipment or parts, as well as the return of equipment and repaired or replaced parts back to site are to be paid by the purchaser as well as, for repairs carried out on site, the travel expenses of the vendor's agents.

Parts replaced free of charge return to the vendor's ownership.

#### 8. RESPONSIBILITY

#### a. Responsibility for direct material damage

The vendor is bound to repay direct damage caused to the purchaser which results from faults attributable to the vendor in the execution of the contract. By this title, the vendor is not bound to repay either the harmful consequences of the purchaser's errors or those of third parties relating to the execution of the contract, nor damages resulting from the use by the vendor of technical documents, data or any other technical means supplied or imposed upon the vendor by the purchaser and containing errors not detected by the vendor.

#### b. Responsibility for indirect damage and/or resulting financial loss

Under no circumstances will the vendor be responsible for compensating non material or indirect damage such as, in particular, trading losses, loss of profit, harm to commercial interests...

The responsibility of the vendor is limited strictly to the obligations expressly stipulated in the contract. All penalties and compensation scheduled therein have the nature of fixed damages and interest, and discharge the vendor in full, so excluding any other sanction or obligation to compensation.

#### c. General remarks

part from the case of gross negligence by the vendor and the compensation for bodily harm, the vendor's responsibility is limited, for all reasons, to a sum which, in the absence of a different stipulation in the contract, is limited to the sums received for the supply of the goods or services on the day the claim is made.

The purchaser guarantees not to take legal action through his insurers or third parties in a contractual relationship with him against the vendor or his insurers beyond the limits and exclusions stipulated below.

#### 9. DISPUTES

In the event that an amiable agreement cannot be reached, it is to be clearly understood that any litigation pertaining to the contract will be put in the hands of a tribunal having jurisdiction for the area where the vendor's domicile is situated, even in the case of claim under warranty or when a number of defendants are involved.

> GENERAL SALES CONDITIONS: GUARANTEES FOR EXTERIOR LIGHTING EQUIPMENT See the guarantees of the Syndicat Français de l'Eclairage (www.feder-eclairage.fr)

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