

CODA

STREET FURNITURE, LIGHTING AND SIGNAGE



Marshall's
Creating Better Spaces



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SUPERIOR DESIGN FOR EVERY URBAN SPACE

Coda is a cohesive range of street furniture, lighting and signage elements that has derived from our extensive experience of public realm innovation and regeneration.

Building upon the successful legacy of our best selling Geo range, we have collaborated with leading designer Alex Lifschutz, and his team at LDS once more, to conceive a modern urban design classic. Through a mutual desire to develop products that respond to the current demands of the sector in which we work, this partnership has a design heritage like no other.

Responding to an ever-shifting sector, we have been thoughtful through every stage of the design to ensure that this range will stand the test of time. By considering the "whole-life-cost" of materials and manufacturing, we have developed a range that meets current needs and that will look impressive through many years of challenging use. Every element will weather well and, when eventually no longer fit for purpose, may be reused in part or as a whole. Products are easily disassembled in order to update or extend them as a project evolves and this highly sustainable design methodology also means individual elements are easily recycled at end of life.

Sustainability is a clichéd concept that often obscures the essential qualities of good design, but with Coda we have selected materials that consume as little energy in manufacture as possible and yet are extremely robust.

Manufactured entirely within the UK, the sourcing of all materials is accredited through ISO14001. All timber is ethically sourced through a Chain of Custody validated by the Timber Trade Federation, and Marshalls' concrete is subject to rigorous scrutiny of all manufacturing processes in order to assure minimal environmental impact. Our Patent Pending LED luminaire is inherently future-proof and offers incredible energy efficiency across its lifetime.



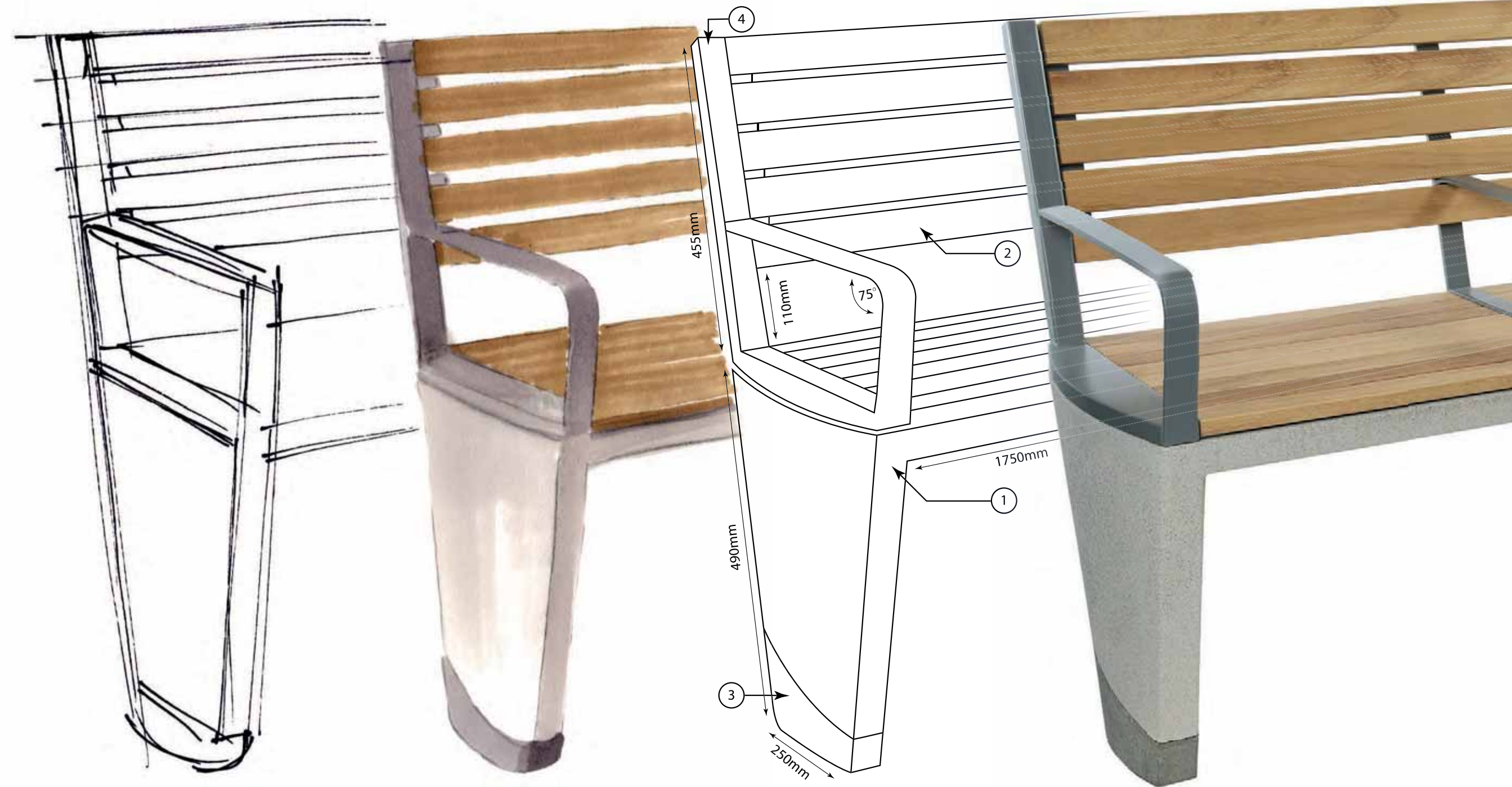
DESIGN EVOLUTION

The concept design of Coda was initiated through our close working relationship with the award winning architectural and multi-disciplinary urban design team at Lifschutz Davidson Sandilands, led by Alex Lifschutz.

After initial discussions, a brief was developed to address the various and changing needs we could see being brought about by shifts in the world economy and an increasing demand for environmentally sound products. As always for Woodhouse, underpinning this intent was a strategy to unite buildings and spaces in order to become successful and desirable environments for all to enjoy.

Through an iterative design process, the range has evolved through many revisions, each stage being rigorously assessed against developing technologies, changing fashions and customer requirements. Coda is a resolved product range for today's emerging urban spaces, responding to current budgets and priorities.

Offering long-term durability and coherence, with a striking palette of materials and finishes, every element has developed to a premium product at prices that are suited to a broad range of projects.



SHAPE, FORM & COLOUR

Every item in the Coda range suites with the next to create a co-ordinated street scene. The recurring conic shape and tapered profile express a contemporary, yet timeless, design that complements a range of architecture styles.

The slim, low-profile of the seating conveys a sense of lightness and refinement that contrasts with the robustness of the concrete employed as the fundamental structural ingredient. Through collaboration with our colleagues at Marshalls, and developments in manufacturing technology, we have created a structural element that defies the traditional view of concrete.

Instantly identified by the distinctive colour slash inherent throughout the range, this strong mark creates a two-tone effect and provides enormous scope for personalisation of the products. Several combinations are possible, to allow either the matching of furniture to paving or a contrast to be provided for DDA reasons.

The core products will be available in a grey colour palette, to complement popular granite effect concrete paving ranges available from Marshalls. Several combinations exist across the silver grey - mid grey - anthracite range, to allow coordination with Conservation, Mistral, Celestia and Metrolinia flags and blocks. Additional colour options are in development to allow future specification with alternative palettes such as Saxon.

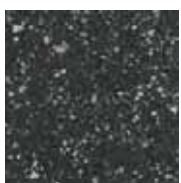
Polished finishes will also soon be available - please enquire for further details.



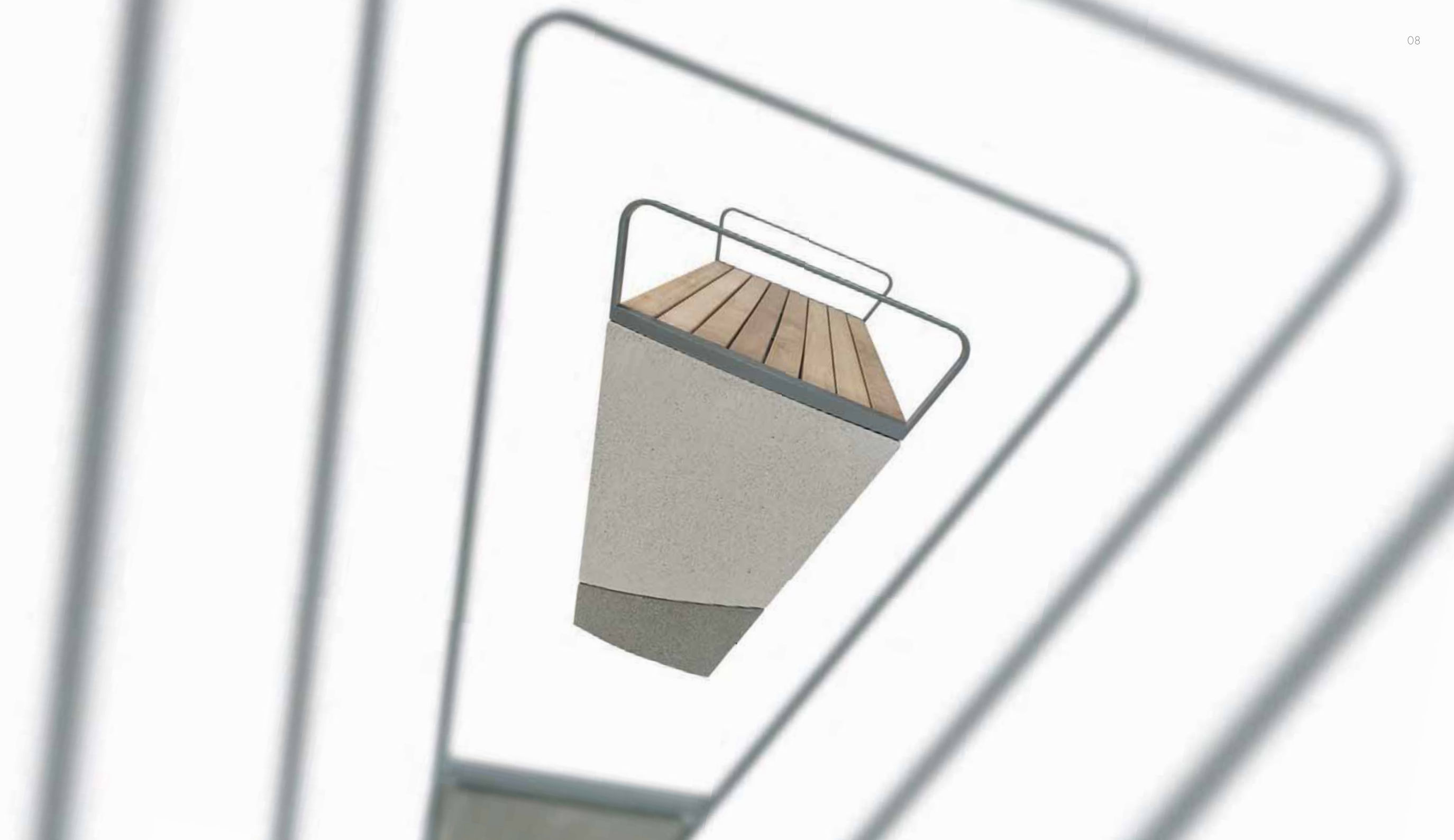
SILVER GREY



MID GREY



ANTHRACITE



RANGE APPLICATION

Maintaining a refined balance between the delivery of discerning design and the extensive demands of public space projects, Coda is a highly affordable system. Its inherent design flexibility and modular approach ensures that, in most applications, it is as appropriate as much more expensive customised options.

It is easy to select a standard specification, and by adjusting or modifying interchangeable parts, make appropriate alterations to suit individual applications. By designing modular forms in a range of robust materials, we have ensured that Coda is suited to both highly trafficked and important public spaces, but also to low key areas of the public realm. The available options also allow specifiers the opportunity to use budgets intelligently -

key public areas may be furnished with higher quality or more elaborate items; background areas can be populated with simpler, more economic versions.



EXCELLENCE BY DESIGN

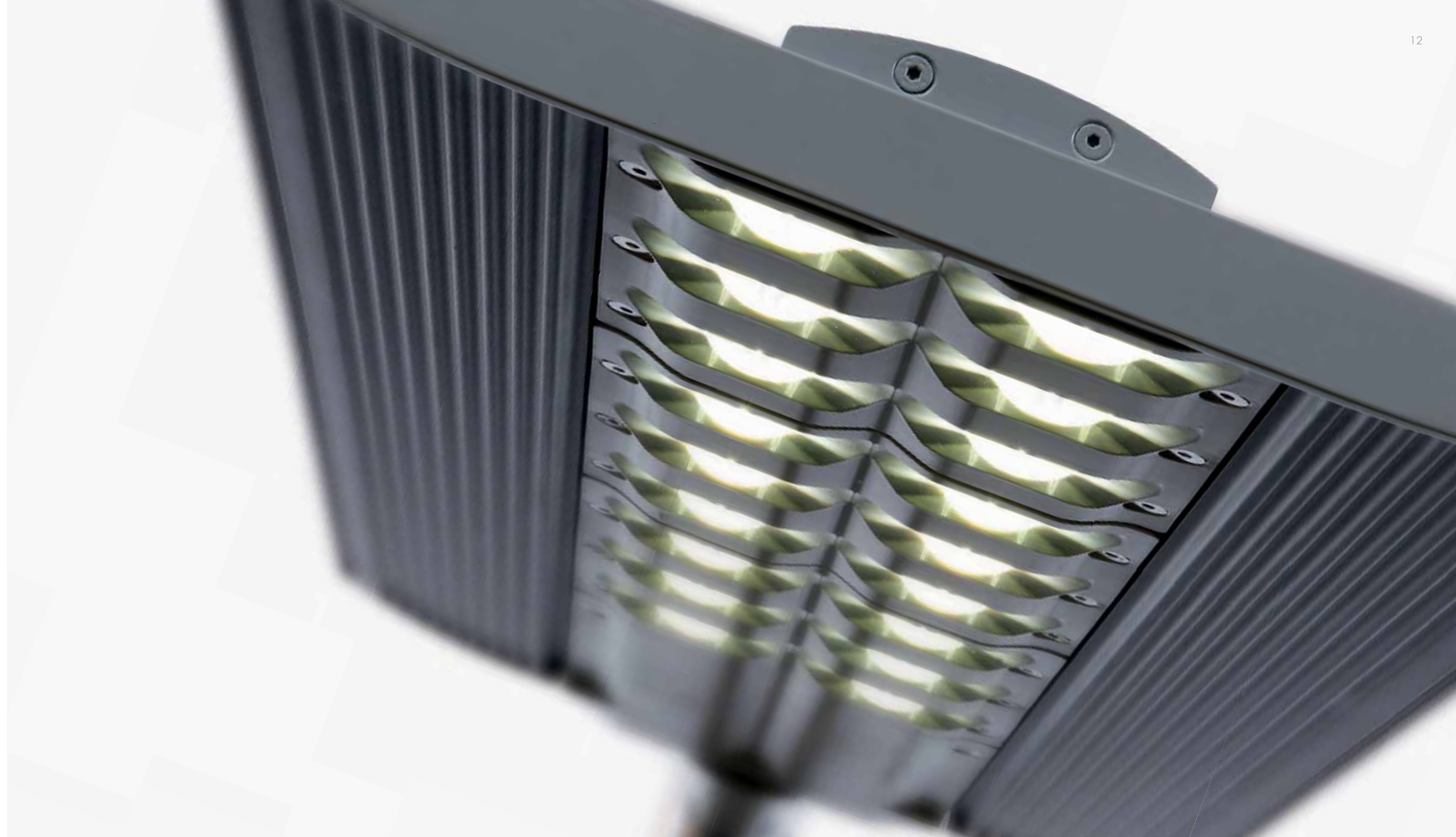
Our philosophy is to design and manufacture our products to not just withstand the test of time, but also perform to the very highest standard for you throughout their lifetime. It's a philosophy we have maintained throughout the development of the CODA luminaire.

To succeed we start by selecting the right partners; partners who we trust, who uphold our technical values and who are leaders in their field. It is why we chose to work with Wipac/Carclo, manufacturers of headlamps for the likes of Bugatti, Lamborghini and Aston Martin, to develop the LED modules for our luminaires.

It continues with choosing the right components; components that we believe will perform to our exacting standards and deliver real long-term value to you, our customer. In specifying the CREE XML LED we knew that the versatility it offers, coupled with our innovative designs, would provide the perfect base for a high customisable lighting unit. 72 lighting options in total encompass alternative colour temperatures, outputs and running currents. Matching these with Exelsys control gear gave us the peace of mind that our systems would be as low maintenance as possible.

We design for the whole life of our products; we understand your maintenance challenges, the costs involved and your desire to reduce them wherever possible. So the innovative heatsink design of the CODA luminaire minimises cleaning requirements by eliminating the often characteristic cooling fins of LED luminaires and encouraging water run-off so allowing rain to clean the lantern. Of course the unit also allows for all manner of control system integration to reduce energy costs and environmental impact. In fact, full cut-off and precise light controls enable us to consider the effects of our lighting on wildlife as never before.

We know that technology never stands still. So our lighting units are completely modular and as LED technology inevitably develops we will create new modules that simply slip into the same lantern body. Saving you money, yet ensuring you are not stuck with outdated technology. When our CODA luminaire finally reaches the end of its life it can be easily disassembled and over 90% of its components recycled, giving you the reassurance that you have minimised your environmental impact throughout the whole life of your lighting scheme.



SEATING



INFINITELY FLEXIBLE TO SUIT EVERY URBAN SPACE

The Coda seating range offers infinite configuration flexibility to allow specification for every public space.

The seating range is conceived as a kit of parts, starting with 'platforms' that can be upgraded for particular tasks or environments. Thus benches are simple concrete items that might have timber elements added, also arms and backs in many combinations. The co-ordinated forms ensure visual consistency with other seating from the family, whilst the end profile of the bench invites other elements, such as single seats, cycle stands or litter bins to be placed nearby.

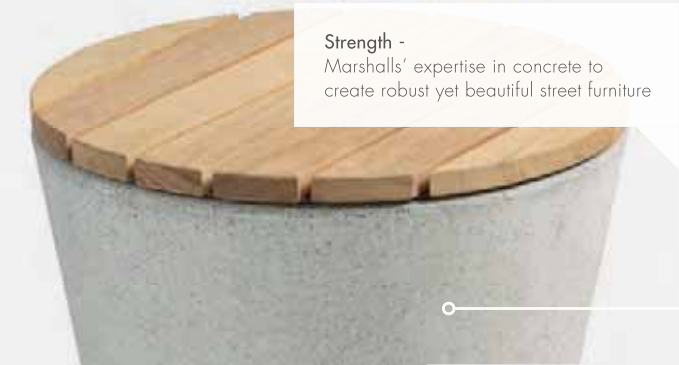
The shapes of the seating range are soft in form yet supremely robust and sturdy. Elements are supported on minimal bases to allow for easy street cleaning and the furniture is intended to visually 'float', reducing the clutter of public spaces and remaining in the background.

The single stool reflects the current desire for flexible seating in the public realm whereby clusters of individual seats encourage a more natural engagement than more traditional linear forms. The stool might be installed in isolation, scattered in informal groups or employed to form compositions in a myriad ways.



Quality -
Precision bent
galvanised steel arms
finished in RAL 9007
'Grey Aluminium'

Co-ordination -
unrivalled consistency
between seats and other
items in the Coda range



Strength -
Marshalls' expertise in concrete to
create robust yet beautiful street furniture



Flexibility -
of design and materials to
ensure suitability for every
project and new phase

Sustainability -
UK production, ethically sourced
Iroko timber, low environmental
impact concrete and all elements
fully recyclable at end of life

BOLLARDS

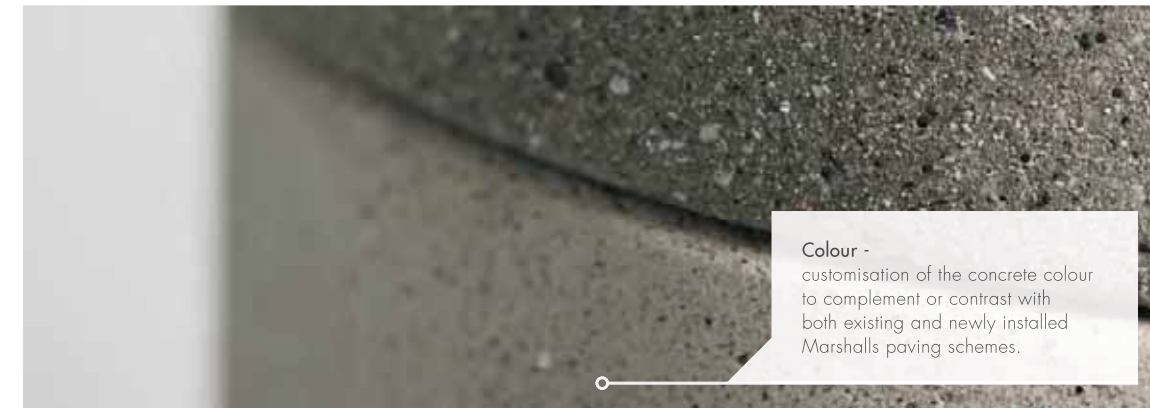
STRENGTH THROUGH DESIGN, EXCEPTIONAL WHOLE LIFE VALUE

The Coda bollard is a robust and contemporary design that seamlessly co-ordinates with the remainder of the range with its striking angled top detail and subtly conical form formed in precision cast concrete. The bollard combines significant structural strength with an elegant and timeless design for every public space.

The bollard offers a multitude of customisation options through the selection of alternative colours and finishes of concrete. This option to modify both the base and top sections allows consistency with surrounding paving and minimises visual clutter. The material of the top cap detail might be changed to support a specific wayfinding strategy or for clearer demarcation: The considered application of contrasting tones can also be used creatively to comply with guidance contained within the Equality Act 2010.



Strength -
manufactured in premium concrete, the bollard has great strength in order to withstand the toughest urban environments.



Colour -
customisation of the concrete colour to complement or contrast with both existing and newly installed Marshalls paving schemes.



LITTER BIN

ROBUST AND DURABLE FOR THE TOUGHEST URBAN ENVIRONMENTS

An extremely robust design, the bin can be modified to suit your exact specifications – changing colour combinations to suite with surrounding paving or perhaps incorporating waste segregation options. The Coda litter bin is offered with a standard volume of 80 litres and the materials selected for the composition of the bin are fully recyclable.

The litter bin has been designed to provide the easiest maintenance possible with a removable MDPE (Medium Density Polyethylene) liner for the emptying cycle. The anti graffiti coating applied as standard will repel everyday stains and the lightly etched concrete surface is easily cleaned with a high pressure washer.

The litter bin is also customisable through the etching of town or district insignias or logos into the concrete face.



CYCLE STAND

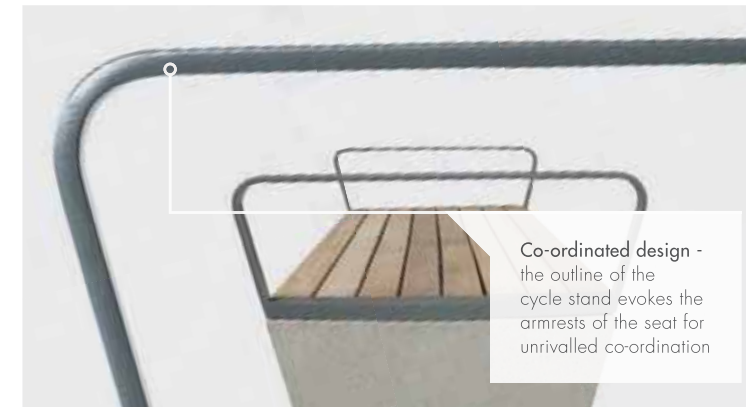
SECURE AND ROBUST WITH UNRIVALLED VISUAL COHESION

With ever increasing fuel costs and concern for the environment high on the agenda, cycling around Britain has never been more popular.

There are significant strategies in place to radically increase the use of cycling as an everyday means of transport across the UK, particularly in our cities. The aim is to raise the percentage of journeys made by bicycle from its current rate of 2% to 10% by 2025 and 25% by 2050. A comprehensive increase in cycling infrastructure provision will be required to support this growth.

The profile of the Coda cycle stand clearly mirrors the form of the seat armrest and the slash detail at the base makes for unrivalled consistency across the full range of furniture elements.

The slim, elegant steel form is galvanised and finished in RAL9007 'Grey Aluminium' paint.



WAYFINDING

SIGNAGE THAT MOVES PEOPLE



We believe in creating signs that enhance the experience of all users within the public realm. As such, the Coda signage system can be customised to perform any people movement or information delivery task your project requires, whilst simultaneously being visually coherent with the rest of the Coda range.

The signage suite is comprised of a highly versatile monolith system and a complementary fingerpost sign. The Coda fingerpost can be capped with a colour contrast 'slash' concrete finial to match the furniture or a bespoke design. With a total of twenty directional fingers can be specified oriented across eight directions.

Since every wayfinding information point is bespoke by its very nature, the concept of the Coda monolith originates from one of our standardised frames. A cost-effective and infinitely flexible system, each of the signs' individual elements is designed to be populated by your creativity and specific project requirements.

Based upon our long experience of wayfinding projects, we've developed a set of standardised components that offers unlimited adaptation potential and a guide for the design of your signage. These modules are available in varying sizes and are tailored to accommodate your mapping, logos and other directional assets.

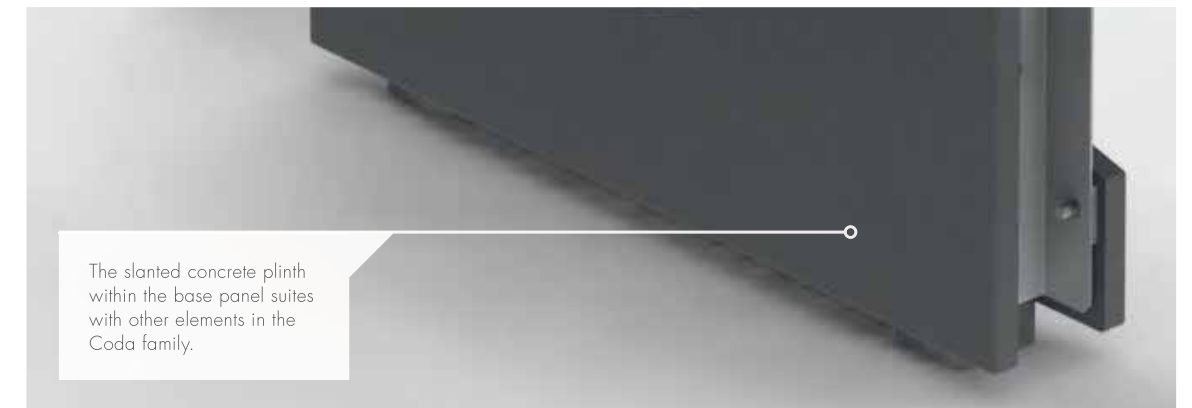
Furthermore, Coda signage solutions are robust and durable to ensure that the information provided is legible for many years of use.



The flexible format allows for technology integration such as LED lighting, proximity sensing, Wi-Fi and Near Field Communication (NFC)



The mapping panel supports a variety of standard materials, whether reverse applied vinyl or vitreous enamel



The slanted concrete plinth within the base panel suites with other elements in the Coda family.

A WATERSHED FOR LED STREET LIGHTING

The Coda luminaire represents a watershed moment in exterior luminaire design, performance and value. The sleek aerodynamic body encapsulates a revolutionary heatsink design (patent pending) which allows efficient heat transfer directly from the LED module to the surrounding air. This allows a truly unique, low profile and contemporary aesthetic whilst providing an extremely low junction temperature for the cutting-edge, high output LEDs. The highly efficient optical design features just one interface between the LED source and where you need its light most - on the ground. These customised optics also allow greater column spacing and a level of uniformity exceeding traditional discharge designs.

Great looking, with exceptional whole life value and independently tested; this luminaire delivers efficiency from the day of installation.

Coda has been designed for unrivalled total cost of ownership for S (or P) class applications, with pricing comparable to discharge lanterns so you can enjoy the benefits of LEDs today.

Furthermore, the unique heatsink design extends the LED service life whilst the flexible and modular design allows factory replacement of modules for future upgrades as LED technology progresses.

The Coda design houses modules of six LEDs which are then assembled into the luminaire according to required light levels, ensuring visual and performance consistency for large street lighting schemes.

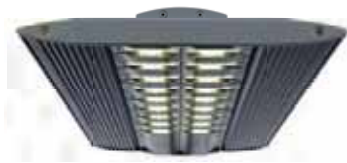
The LED running current can also be specified according to design requirements from 350mA, for low power applications with maximum efficiency, up to 2100mA for the highest light levels all in, one cleverly designed and highly flexible luminaire package.

The standard colour temperature of Coda is Neutral White, 5000K. Alternatively, if your scheme requires a warmer feel then the luminaire is available at 4000K or 3500K.

With 1,2,3 or 4 modules, six running currents and three colour temperatures, a total of 72 lighting options are available in one luminaire unique design envelope.



LIGHTING TECHNOLOGY



The Coda luminaire features a fully sealed, IP 66 rated, LED module complete with an attached thermal interface which allows direct coupling to the robust, anodised aluminum luminaire body.

This body acts as an extremely efficient heat sink minimizing the barriers to effective heatsink away from the LEDs. By minimising these junction temperatures the results are astounding in both maximising light output and extending life and allow the use of near unity lumen depreciation figures for design calculations.

Our junction temperatures have been verified by a UKAS approved and UL preferred partner test house, Lux Tsi, that confirms industry leading efficiency and lifetime predictions.

The versatility of the modular design, combined with the flexibility of running current specification, delivers ultimate flexibility within one coordinated lighting package. The luminaire can be configured to provide lighting levels that suit all situations, with correlating energy efficiencies that minimise running costs.

The UV-protected S (or P) class optics will deliver clean, crisp, energy efficient light-on-the-ground to a wide range of urban road, cycle, and pedestrian environments. Guaranteed efficiency and performance in every situation.

The standard colour temperature is Neutral White 5000K, with IES and LDT figures available online. Alternatively, if your scheme requires warmer light, then the luminaire is available at 4000K (adjust to 93% of published IES or LDT values) or 3500K (adjust to 85% of IES or LDT values).

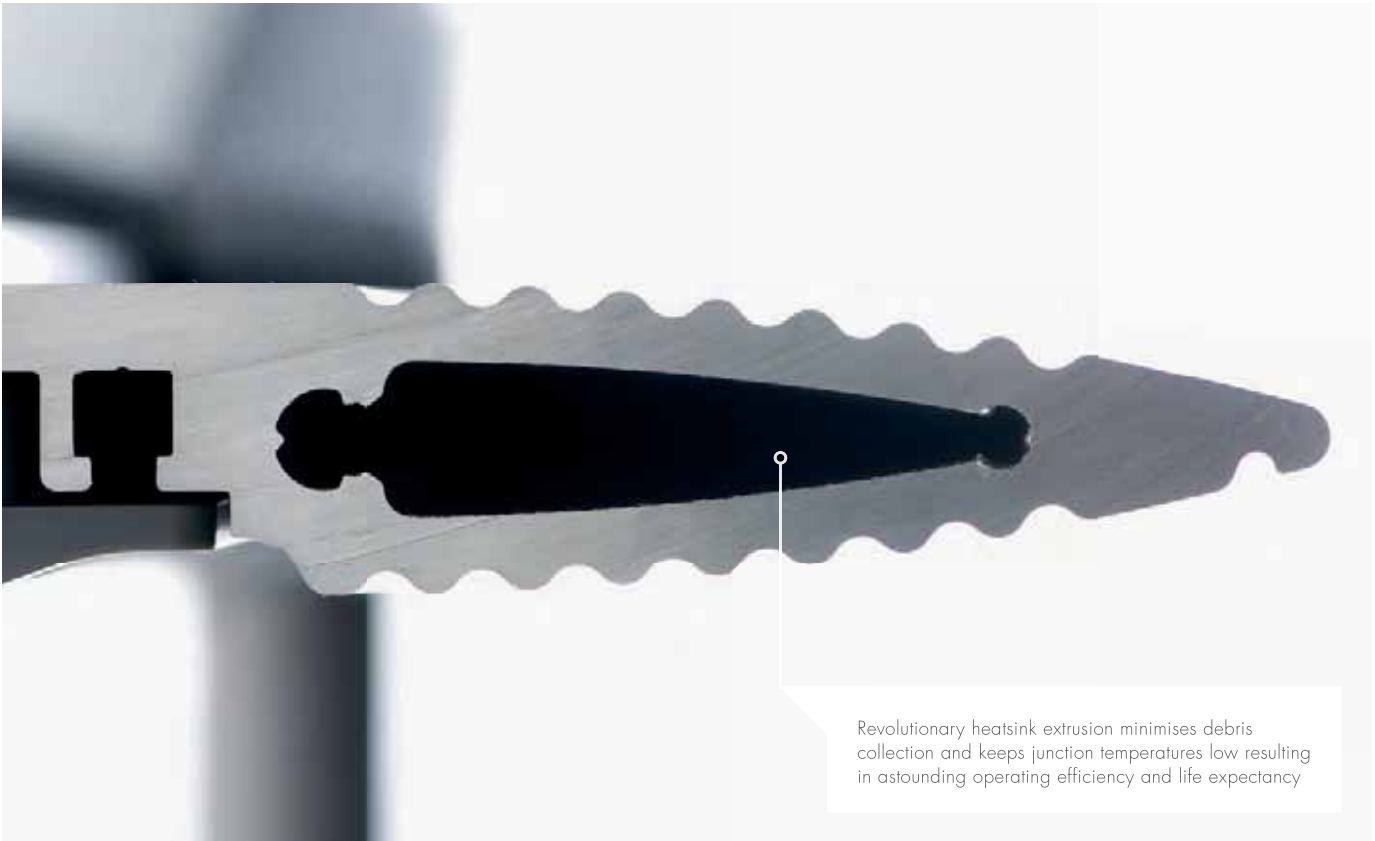
Key Features & Benefits

- Ø Fully sealed LED module to prevent moisture and dirt ingress
- Ø Full “cut-off” lantern with no light emitted above the horizontal
- Ø Post top or side entry options available for mounting on a 60mm spigot (adjustable on site)
- Ø 76mm post top fitting with alternative spigot entry available
- Ø Miniature or NEMA socket photocell configuration options available
- Ø Hinged gear cover allows easy tool-free access to the control gear
- Ø Large gear compartment allows for fitting of dimming or CMS control gear.
- Ø Remote control gear optional

Tested and verified by



Drive Current	Measurement	1 Module	2 Module	3 Module	4 Module
350 (mA)	Electrical Power	6.9W	13.9W	20.8W	27.7W
	Design Lumens	620	1180	1770	2360
700 (mA)	Electrical Power	14.0W	27.9W	39.6W	85.2W
	Design Lumens	1240	2360	3530	4710
1050 (mA)	Electrical Power	21.3W	40.7W	61.0W	81.3W
	Design Lumens	1740	3300	4950	6600
1400 (mA)	Electrical Power	28.9W	54.7W	81.1W	108.1W
	Design Lumens	2230	4240	6360	8480
1750 (mA)	Electrical Power	37.0W	68.3W	102.5W	136.6W
	Design Lumens	2710	5140	7710	10,280
2100 (mA)	Electrical Power	47.4W	91.7W	134.5W	179.3W
	Design Lumens	3100	5880	8830	11,770





Marshalls

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