

The new shape of streetlighting

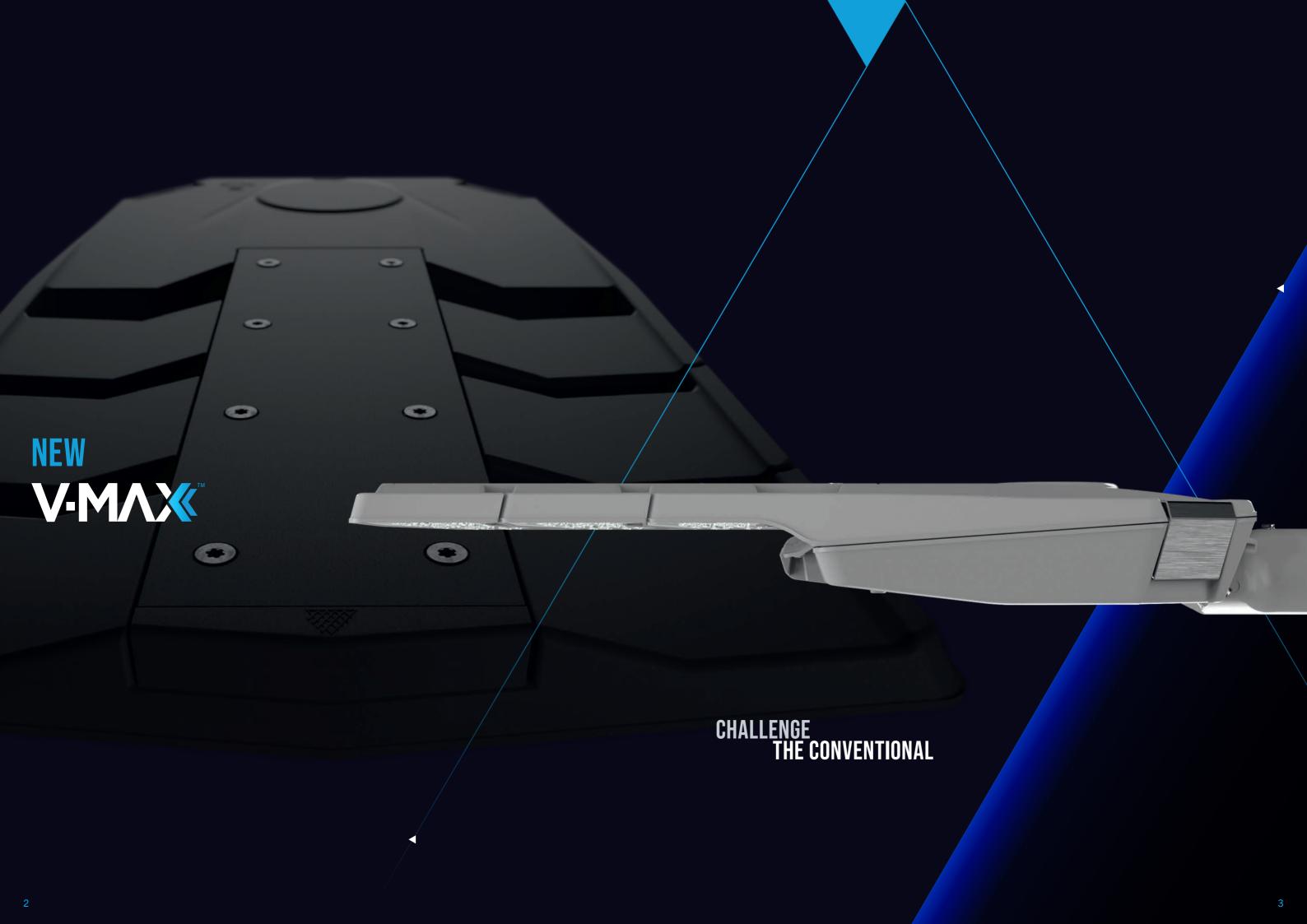
















Power Range: 12W-76W Lm/W: up to 167lm/W Weight: 6.3kg Windage: 0.03m² V-MAX **V1** Applications: Residential and Minor Roads

V-MAX **V2**

V-MAX **V3**

Lumen Output: up to 19,000lms Power Range: 41W-152W Lm/W: up to 176lm/W Weight: 7.8kg Windage: 0.033m² Applications: Minor and Major Roads

Lumen Output: up to 9,000lms

Power Range: 84W-223W Lm/W: up to 176lm/W Weight: 8.8kg Windage: 0.036m² Applications: Main Roads

V-MAX's patented modular design allows for a versatile luminaire system that can meet the demands for a range of challenging applications.

Ranging from lumen outputs from 2,000 to 54,000 lumens in sizes V1 to V6, V-MAX gives you the flexibility to light residential roads to major highways.

Lumen Output: up to 29,000lms

V-MAX **V4** V-MAX V5 Lumen Output: up to 54,000lms

Lumen Output: up to 39,000lms

Main Roads and Dual Carriageways

Power Range: 117W-298W

Lm/W: up to 175lm/W

Weight: 10.5kg

Applications:

Windage: 0.039m²

Lumen Output: up to 50,000lms Power Range: 163W-345W Lm/W: up to 178lm/W Weight: 11.9kg

Windage: 0.042m² Applications:

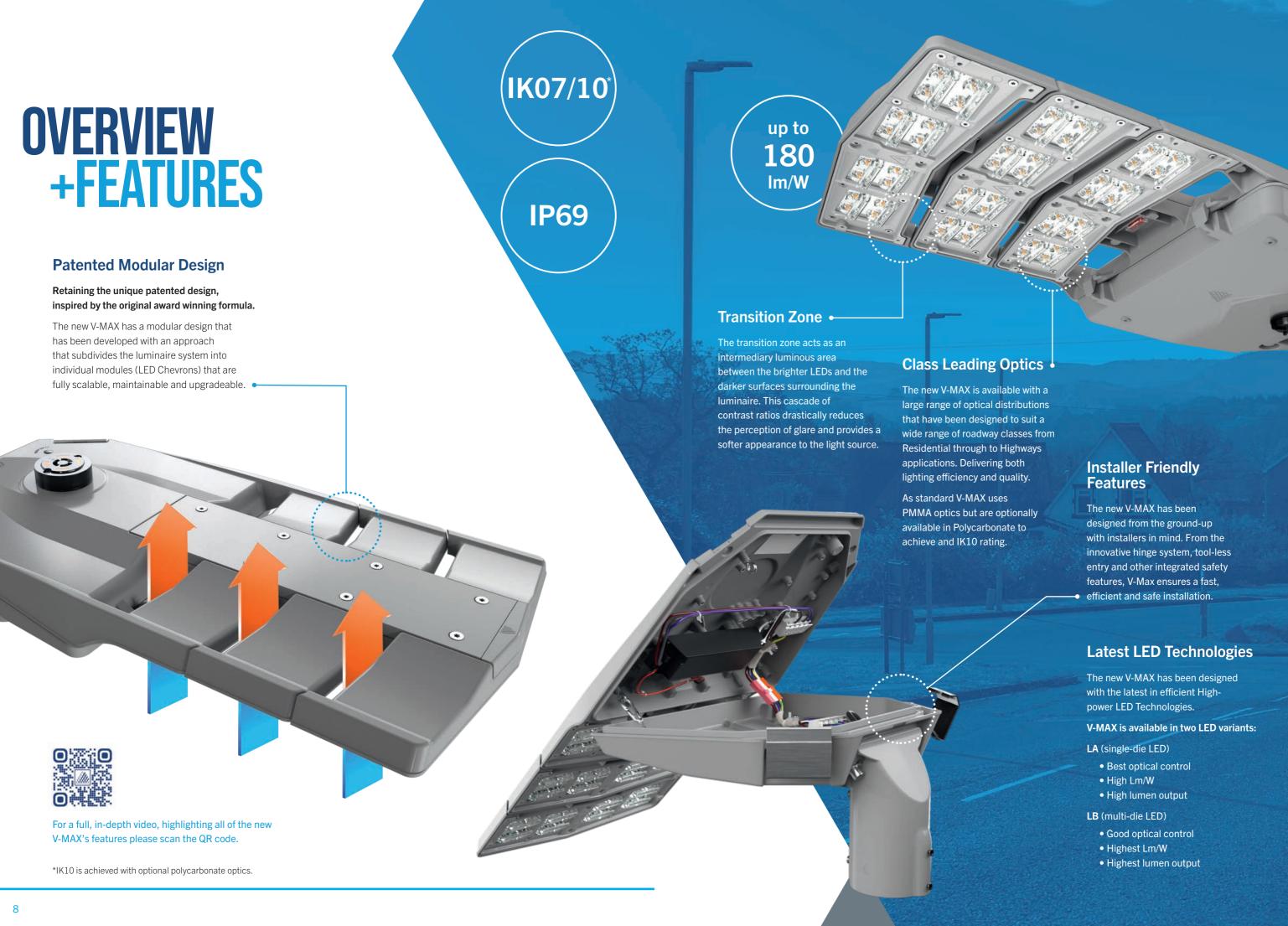
Dual Carriageways and Highways

Power Range: 241W-411W Lm/W: up to 180lm/W Weight: 13.3kg

Windage: 0.045m²

Highways and High-Mast

V-MAX V6 Applications:



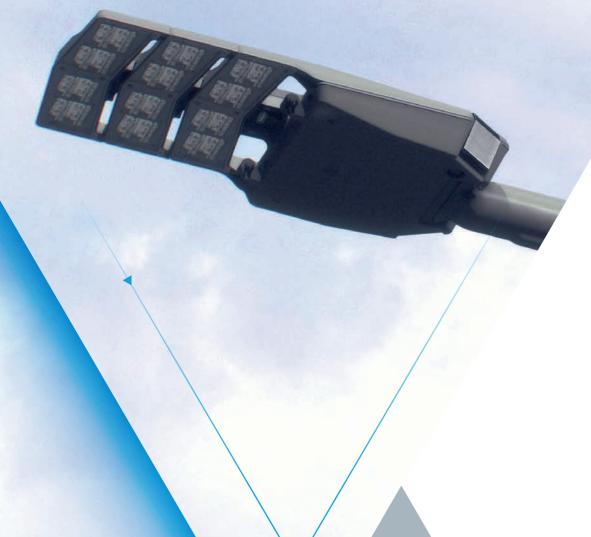
OPTICS

V-MAX is available with a selection of optimised optical distributions in order to achieve the best-in-class spacings, lighting performance and energy efficiencies across all roadway classes.

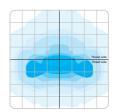
Additionally, V-MAX is approved under the International Dark-Sky Association's 'Fixture Seal of Approval' program.

Note: colour temperatures 3000K or warmer are approved under the IDA.

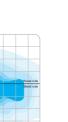




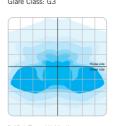
LA OPTICS



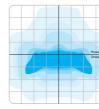
F4L2 Type II Short Glare Class: G3



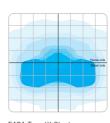
L3Q1 Type II Short Glare Class: G3



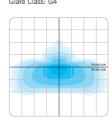
D4D4 Type III Medium Glare Class: G3



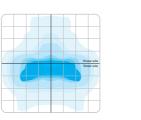
L2L3 Type II Short Glare Class: G3



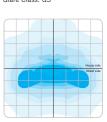
F4Q1 Type III Short Glare Class: G4



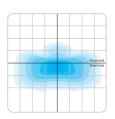
L5L5 Type III Medium Glare Class: G3



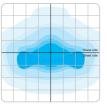
L2L4 Type II Short Glare Class: G3



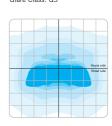
X2L2 Type III Short Glare Class: G3



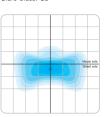
L3L4 Type II Short Glare Class: G4



L2Q1 Type II Short Glare Class: G3

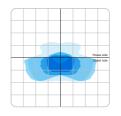


X2L3 Type III Short Glare Class: G3

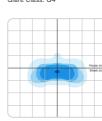


L4L4 Type II Very Short Glare Class: G6

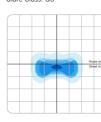
LB OPTICS



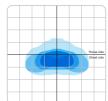
D4D4 Type III Short Glare Class: G4



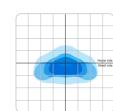
L2L4 Type II Short Glare Class: G6

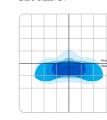


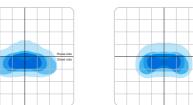
L4L4 Type II Short Glare Class: G6

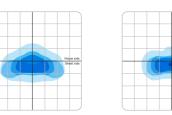


F4L2 Type III Short Glare Class: G4

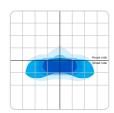




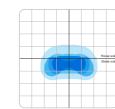




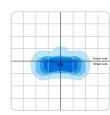
L2Q1 Type II Short Glare Class: G4



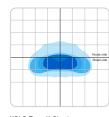
L5L5 Type III Short Glare Class: G3



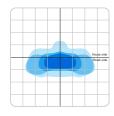
F4L4 Type II Short Glare Class: G6



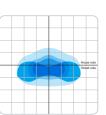
L3L4 Type II Short Glare Class: G6



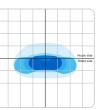
X2L2 Type II Short Glare Class: G4



L2L3 Type II Short Glare Class: G4



L3Q1 Type II Short Glare Class: G4



X2L3 Type II Short Glare Class: G4

CONNECTED SOLUTIONS

V-MAX comes prepared for the next generation of controls solutions and technologies.

Available with either NEMA or ZD4i compliant Zhaga sockets, V-MAX can be utilised with a wide range of sensors, devices and communication nodes.

•

Available with:

V-MAX with 7-pin NEMA configuration

- 3, 5 or 7-pin NEMA Sockets
- 4-pin Zhaga sockets (top and bottom)
- 7-pin NEMA and 4-pin Zhaga combination

axora™

connect to innovate

Enabling smart lighting, the smart town, the smart city.

axora™ enables intelligent lighting and connected infrastructure leveraging next generation connectivity that delivers a solution that integrates wireless networking connectivity and the power of cloud computing to ensure that energy and operational savings are maximised.

A simple solution for small to large challenges

simple:

axora™ delivers advanced asset management, performance analytics and control capabilities to improve energy efficiency, operational insights and optimise lighting system performance across a city.

From local to city-wide deployments

scalable:

axora™ is a highly scalable system that can adapt and expand to the needs and requirements of your lighting network as it grows. From local to city-wide deployments and beyond are all within the capability of the axora solution.

A platform you can trust. **Proven reliability and security** for your city

secure:

In 2017 Holophane selected Itron as its technical partner to enable the axora solution. This was based on Itron's global experience and the technical performance of the platform, which leads the market in terms of energy saving, security, resilience, flexibility and vendor choice.

Itron are a global leader in connected intelligent street lighting, and the platform is used to connect over 4 million lights globally in 100s of communities These partnerships deliver the smart foundation that enables local authorities to build out an anchor application of streetlight control using a robust and class leading mesh radio network, whilst providing the scope and technology to add in further sensors types and SMART City devices.

axora™ incorporates end to end security using industry standard AES-256 encryption and scalable X.509 public key infrastructure you can be sure that your city data and communications are always secure.

axora.Connect

axora.Connect: smart photocells are placed on existing lighting points in your city. Every smart photocell contributes to the creation of a wireless canopy, the foundation of your smart-city.



axora.Access

axora. Access is the gateway for your axora. Connect: Smart devices. It actively manages the communication between all devices on the axora network and sends information to the axora. Vision platform.



axora.Vision

axora. Vision is the platform that controls and monitors your smartcity. It provides data analytics and insights for every lighting asset, smart sensor and device on the axora network.



axora is Elexon approved.

INTEGRATED TECHNOLOGIES:CCTV

Looking to combine your lighting and CCTV assets into one complete package? V-MAX has been designed with CCTV integration in mind, allowing areas to be not only lit, but also monitored for increased user safety.

Benefits of a integrated **CCTV** solution

- Reduced need for additional components attached to column.
- Wireless solution means CCTV can be easily integrated into existing sites without need for new cabling.
- Light source is directly above camera to achieve best performance of CCTV

Camera Specification Overview

- Static camera with Pan: 0°-353°, Tilt: 0°-70°, Rotation: 0°-176°
- Up to 20m Smart IR Illumination
- 25FPS at 5-megapixel quality (2.8mm fixed lens)
- Deep Learning Motion Detection
- Alarm & Audio I/O
- ONVIF Profile S Compliant
- IP66 & IK10 rated



4G(LTE)/3G

Using an integral cellular router, CCTV data can be transmitted via the use of a SIM card.



WiFi 802.11 b/g/n

The integral router has the ability to transmit data via a WiFi connection to and existing wireless network.





INSTALLATION MAINTENANCE

To see any of the features highlighted on this page in action, scan the QR code.

Spigot Adapters

V-MAX is available with a range of spigot adapters to meet different installation requirements. All spigot adapters have the ability to be rotated so that they can be used in Post-top or Side-entry configuration.

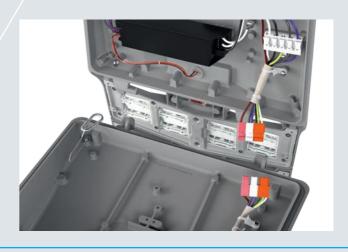
For V-MAX configurations using 3 Chevrons or more a strengthened spigot adapter is used for increased safety.





Removable head

The new V-MAX features an innovative design that allows easy removal of the luminaire head. Through a unique hinge system users can quickly and efficiently disconnect and remove the head without the use of tools.





Tilt Adjustment

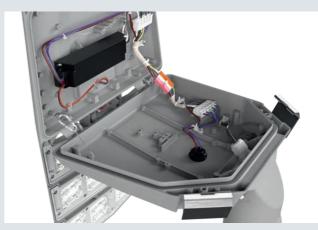
V-MAX can be adjusted to achieve tilts of -10° to +10° in 2.5° increments. This is achieved by simply loosening the spigot adapter bolts adjusting the spigot adapter to suit. The adjustment is aided via the presence of 'tilt angle markings' and position ridges to guide the spigot adapter to the desired position.



Service Position

Through the unique hinge system the head of V-MAX can be locked in an intuitive service position providing safe and easy maintenance.

This ensures hassle free installation and maintenance when change components such as drivers.





Tool-less Entry (option)

V-MAX can be specified with convenient latches to enable quick and tool-less entry into the luminaire.

As standard bolts are used to secure the canopy.





Safety Chain Attachment

The V-MAX body includes a cast-in threaded hole for a safety chain device. As an option the luminaire can be built with this device. Combined with the safety lanyard accessory, V-Max can be securely tethered to a column for enhanced safety.





INSTALLATION MAINTENANCE

To see any of the features highlighted on this page in action, scan the QR code.

Simple Electrical Termination

V-MAX features a 'piano-key' push-in terminal block for efficient and safe wire termination. No screw-fixings are required and it is suitable for stranded and solid core cable.





M20 Cable Gland

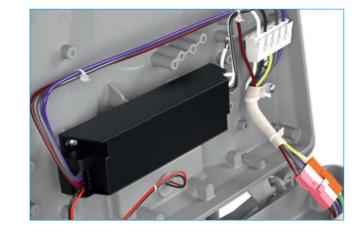
V-MAX uses an internal M20 cable gland for cable entry into the gear-compartment. This offers the most familiar and secure way for installers to ensure a consistent IP seal.





Easily Removable Gear

V-MAX has been designed with easy maintenance in mind. Critical components, such as drivers, are easily removed with basic tools and have quick connectors to aid in achieving a simple swap-out and in process.







SUSTAINABILITY ENVIRONMENTAL



AN ECO DESIGN THAT IS SUSTAINABLE WITHIN.

Our products are just one part of our sustainability efforts, with the 4 pillars of our eco-design which constantly push us to create the most sustainable products that reduce our own environmental impact.

Pillar One Sustainable we make more with less

How are we doing it?

- To make use of recycled materials where we can
- Reducing unnecessary materials, weight and component count
- Only using components that can be used in other luminaries
- Reduce labour time and energy usage during the manufacturing process

Pillar Two Scalable we tailor the product for application

We offer:

- Products that are scalable to accommodate new features
- Form-factor sizing for each application to help reduce material waste
- Flexible mounting options



For information on our EarthLIGHT initiative please scan the QR code

Pillar Three Serviceable we ensure product longevity

All of our products are:

- Upgradable
- Simple in design
- Ensure easy access to internal components
- Spares are easily available to enable customer servicing and repair

Pillar Four Separable we are committed to global sustainability

Our products are:

- Environmentally friendly
- Recyclable
- Easy to disassemble, making materials used easy to separate
- Reduce labour time and energy usage during the manufacturing process



CIRCULAR ECONOMY TM66

Holophane's ambitious sustainability efforts have set us on the path to obtaining several accreditations with the LIA and CIBSE's TM66 which allows us to rate our products and follow a method that designs out waste.

The traditional resource sonsumption model is linear, where raw material is collected to make products, then often thrown away once they have served their purpose.

CIBSE's TM66 allows us to rate our products and follow a method to design out waste, maximise value and improve maintenance so that our luminaires can be repaired, recycled and re-used.



Our flagship street lighting luminaire, the V-Max has been assessed under the LIA Circular Economy Assured Scheme and confirmed at the TM66 CEAM rating of 2.8 "Excellent Circularity".

EXCELLENT OF SOME NT WE'TH

TM66 Assured Score

2.5 (0 4.0	excellent circulanty
1.5 to 2.5	Definite/substantial progress to circularity
0.5 to 1.5	Some circular economy functionality
0 to 0.5	Very poor circular economy performance

 \sim 20

DETAILED SPECIFICATION

To specify V-MAX

Holophane V-MAX is a state of the art road lighting luminaire. Ultra-low profile design combined with a patented modular chevron light engine concept built in system sizes. High pressure die-cast marine grade LM6 aluminium body, spigot adaptor and chevrons (EN 1706 AC-44100). Extruded 6063-T6 Aluminium spine. Finished with a TGIC-free polyester powder coating. The luminaire shall be sealed to IP69 and rated to IK07. Suitable for either Post-top or Side-entry mounting with ability to adjust on-site by -10° to +10° tilt in 2.5° increments. Hinged canopy design with integrated locked service position allowing fast and safe installation and maintenance. The canopy has provision for the inclusion of an anti-fall device. Preliminary CIBSE TM66 (CEAM) Rating: 2.8 - Excellent Circularity. If not supplied with factory fitted flying lead, only use flex cable diameter from 6mm to 13mm. International Dark-Sky Association Approved (colour temperatures 3000K or warmer are approved under the IDA).

V1: 6.3Kg

V2: 7.8Kg

V3: 8.8Kg

MacAdam Elipses

configurations)

dimming regimes

available

Programmable Pre-set Via photocell

5-step

V4: 10.5Kg

V5: 11.9Kg

V6: 13.3Kg

V1: 0.03m²

V2: 0.033m²

V3: 0.036m²

ULOR

configurations

0% ULOR across all available

database at www.elexon.co.uk)

Mechanical IP Rating IK Rating Die-cast LM6 Marine Grade TGIC-free polyester IP69 Light Engines IK07 Aluminium (Body/Pole IP69 Gear Compartment IK10 (option) powder coating: Adaptor/Chevron) Smooth White (RAL9016) Extruded 6063-T6 Aluminium Smooth Graphite (RAL7011) (Spine) Smooth Grey (RAL7035) Injection moulded Textured Black (RAL9005) Polycarbonate (Caps) Metallic Silver (RAL9006) **Ambient Operating Temperature** +/- 10° tilt. (2.5° increments) 3m-18m -40°C to +50°C Post-Top Ø76/60mm, Ø42/60mm, Ø34/42mm Side Entry Ø60mm, Ø42/60mm, Ø34/42mm Weight

Light Output			
Lumens	Power	Drive Current	Efficacy
LA variant: 2,000 - 50,000lm LB variant: 2,000 - 54,000lm	12W - 411W	230mA - 1500mA	Up to 180Lm/W
Colour Temperature	CRI	Distributions	Lifetime Hours L9050 @ 25°C
PC Amber 3000K 4000K	70CRI	X2L2 F4 X2L3 L2 L2Q1 L2 L3Q1 F4	L3 L4

V4: 0.039m²

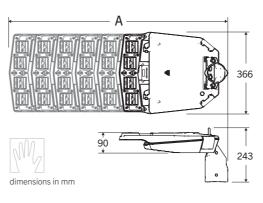
V5: 0.042m²

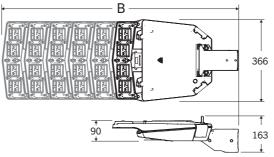
V6: 0.045m²

Electrical			
Electrical Class	Surge Protection	Power Cable Termination	Power Cable Entry
Class I (option)	8Kv/10kA (standard) 10Kv/10Ka (option)	ENEC approved Push-in terminal block (suitable for 1.5mm²-2.5mm² stranded or solid core)	M20 Cable gland (suitable for 6mm-13mm diameter)
Factory Fitted Flying Lead	UMSUG Codes		
Available as standard (consult order code for	Available (please consult Elexon		

comgarations,	datas	aco at mmoloxonii	oo.uiy
Control			
Socket Interface	CMS	Control Protocol	CLO
NEMA 3,5 or 7-Pin ZD4i 4-Pin Zhaga	axora	DALI & DALI 2.0	available at 70% Programmed to deliver 70% of the initial lumens over life of luminaire 80% Programmed to deliver 80% of the initial lumens over life of luminaire 90% Programmed to deliver 90% of the initial lumens over life of luminaire
Dimming	Switching		

DIMENSIONS AND PERFORMANCE





Luminaire Optical Outreach/Centres

Configuration	Post-top (m)	Side-Entry (m)
V-MAX 1 Chevron	0.4	0.42
V-MAX 2 Chevron	0.45	0.47
V-MAX 3 Chevron	0.5	0.52
V-MAX 4 Chevron	0.55	0.57
V-MAX 5 Chevron	0.6	0.62
V-MAX 6 Chevron	0.65	0.67

Dimensions

Configuration	Α	В	Weight (kg)	Rating	Windage (m²)
V-MAX 1 Chevron	498	578	6.3	IK07	0.03
V-MAX 2 Chevron	599	679	7.8	IK07	0.033
V-MAX 3 Chevron	700	780	8.8	IK07	0.036
V-MAX 4 Chevron	801	881	10.5	IK07	0.039
V-MAX 5 Chevron	902	982	11.9	IK07	0.042
V-MAX 6 Chevron	1003	1083	13.3	IK07	0.045

Typical luminaire performance

Configuration	LED Type	Number of LEDs	Delivered Lumens	Circuit Power (W)	Driver Output Current (mA)	Luminaire Efficiency (Im/W)
V-MAX 1 Chevron	LA variant	16	2,000 - 9,000	8 - 78	180 - 1497	up to 167
	LB variant			8 - 59	142 - 1174	up to 167
V-MAX 2 Chevron	LA variant	32	4,000 - 18,000	24 - 160	238 - 1500	up to 168
V-IVIPOL Z OTICVIOTI	LB variant	02	4,000 - 19,000	24 - 132	250 - 1304	up to 176
V-MAX 3 Chevron	LA variant	48	9,000 - 26,000	55 - 225	371 - 1467	up to 169
V-IVIAX 3 CITEVIOII	LB variant	40	9,000 - 29,000	50 - 205	352 - 1358	up to 176
V-MAX 4 Chevron	LA variant	64	11,000 - 35,000	70 - 300	371 - 1472	up to 169
	LB variant	04	12,000 - 39,000	70 - 275	372 - 1382	up to 175
V-MAX 5 Chevron	LA variant	80	24,000 - 43,000	165 - 345	664 - 1354	up to 171
	LB variant	00	23,000 - 50,000	140 - 350	590 - 1400	up to 178
V-MAX 6 Chevron	LA variant	96	35,000 - 50,000	251 - 411	838 - 1384	up to 173
	LB variant	30	35,000 - 54,000	210 - 360	748 - 1244	up to 180

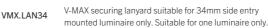
Lumen data is considered to be representative of the configuration shown, and may vary, with a tolerance on flux of +/- 7% (typical of LED manufacturers data) and luminaire power of +/- 5%.

ORDERING DETAILS



ACCESSORIES INFORMATION





V-MAX securing lanyard suitable for 42mm side entry mounted luminaire only. Suitable for one luminaire only.

VMX.LAN60 V-MAX securing lanyard suitable for 60mm post top or side entry

mounted luminaire only. Suitable for one luminaire only.

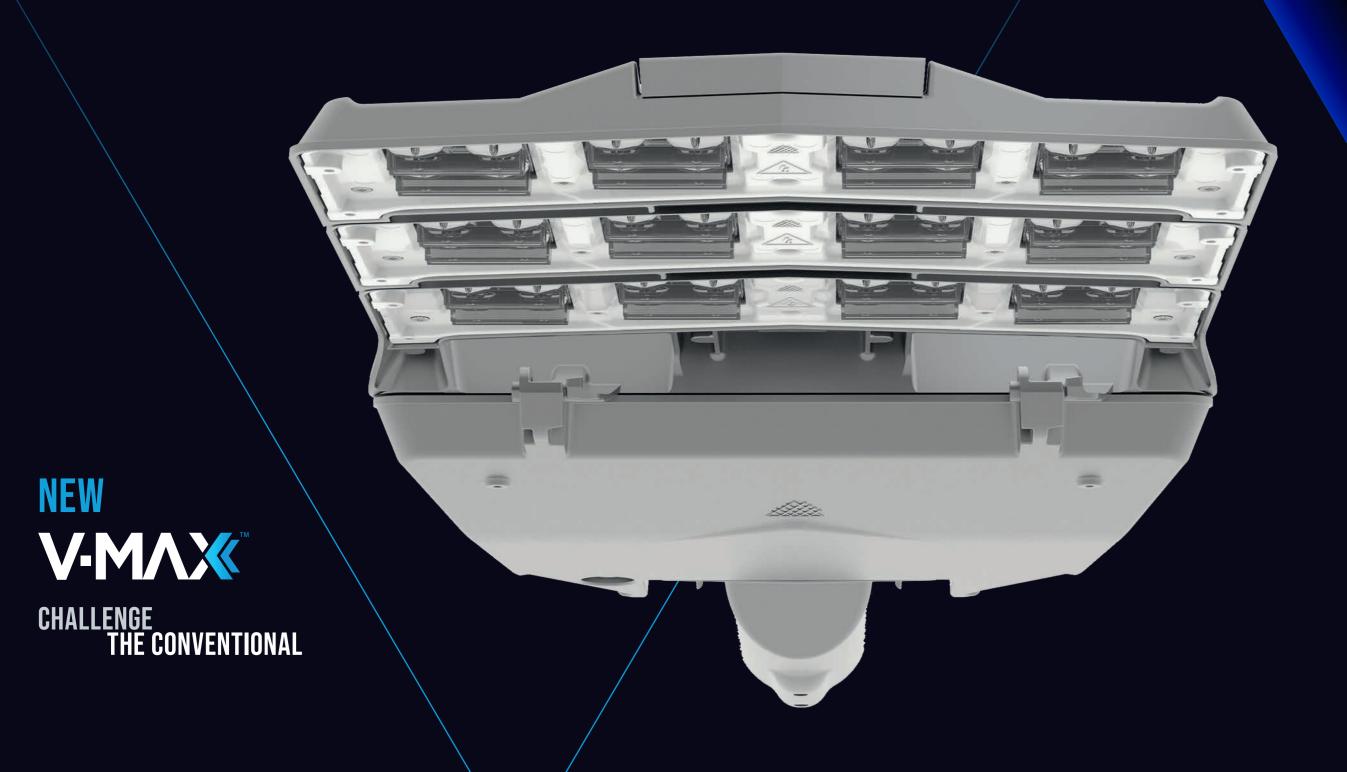
VMX.LAN76 V-MAX securing lanyard suitable for 76mm post top or side entry mounted luminaire only. Suitable for one luminaire only.

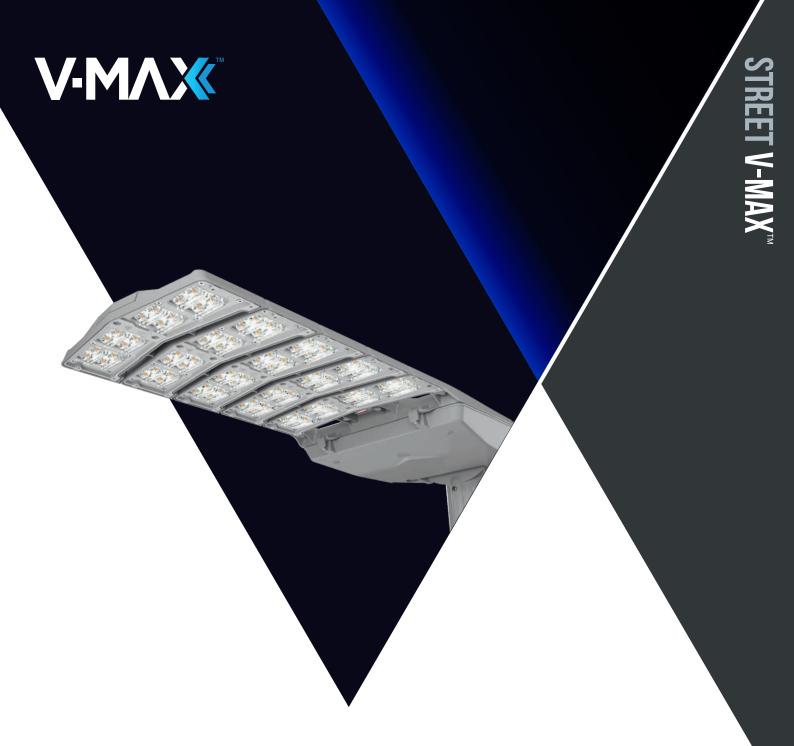
Note: V-MAX luminaire configuration must include the safety chain eyelet (.02, .04, .06 or .07) for compatibility



*Restrictions apply.

Note: The specifications of the Holophane luminaire, all descriptions, illustrations, drawings and specifications in the Holophane catalogue and website represent only general particulars of the goods to which they apply and shall not form part of any contract. The company reserves the right to change specifications at its discretion without prior notification or public announcement.







Holophane Europe Limited
Bond Avenue, Bletchley, Milton Keynes MK1 1JG United Kingdom

Telephone: +44 (0)1908 649292 E-mail: info@holophane.co.uk

www.holophane.co.uk

HOL-BRO-VMAXII-UK-04/24











