Luxeos

Colour beyond comparison

Unmatched in light quality.
Unrivalled in performance.

Combining advanced multi-channel LED technology and precision optics, the Luxeos range has been designed to deliver exceptional quality of light and performance.

Perfectly suaited to a wide range of exterior applications - from Floodlighting to distance projection - Luxeos has been engineered to Pulsar's exacting standards and constructed to withstand the toughest environments.

Available in multiple sizes and with a choice of colour-changing LED sources, including RGBW, RGBA and Tunable White, Luxeos offers a flexible architectural lighting solution like no other.

2

Key design principles

The result of extensive research and development, Luxeos brings together Pulsar's five key design principles, culminating in an exterior lighting solution capable of delivering unprecedented light quality and performance whilst enduring some of the world's harshest environments – day after day.

Superior Light Quality

From the outset, Luxeos luminaires have been designed to deliver beautiful, high-quality light. Powered by our QuadCore LED™ Technology which expands the colour gamut, Luxeos offers an extensive array of hues, from vivid saturated colours to subtle pastel shades. The addition of precisely defined white LED chips in Luxeos ensures accurate colour temperatures are achieved, resulting in high CRI (90+) illumination. Furthermore, by hot binning our LEDs, we can maintain consistency within 3 SDCM, even at higher temperatures found in warmer climates.

Outstanding Performance

Following the guiding principle of providing light only where it's needed, Luxeos utilises Pulsar's Holographic Beam Shaping™ technology to maximise the luminaire's optical performance, whilst ensuring light is directed only as required. The advanced optical system enables a wide variety of symmetrical and elliptical Beam distributions from 3° to 80°. Meanwhile, the use of high-powered LEDs and our dynamic power management system, LuxRamp™, ensures Luxeos achieves a high luminous flux, delivering peak intensities of over 1,000,000cd.
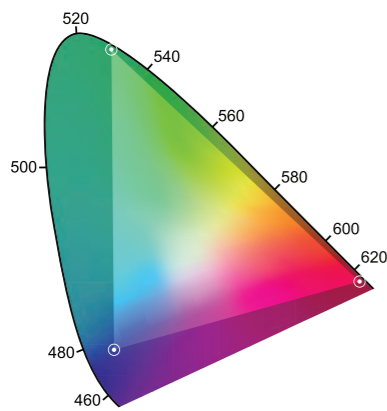
Standard Colour Gamut
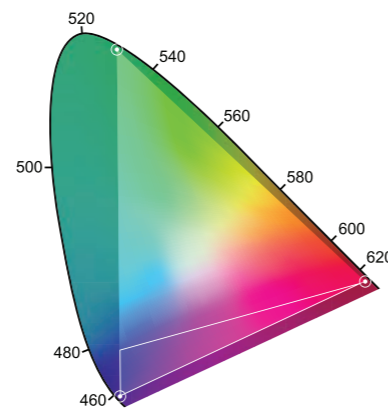
Luxeos Colour Gamut

Key design principles

Seamless Control

For dynamic lighting systems, the ability to seamlessly transition between scenes is essential, however the speed and magnitude of these changes can sometimes lead to visible steps in light intensity. To combat this, Luxeos features our InterBit Smoothing™ technology which rulsts in smoother fades and transitions. Luxeos luminaires also utilise DMX; an industry standard lighting control protocol that is both incredibly fast and robust. This is particularly important for schemes that feature multiple fixtures as it ensures any changes remain synchronised.

Built to Last

The capacity to withstand extreme weather conditions, as well as large fluctuations in ambient temperature were crucial design considerations for the Luxeos range. By utilising a robust aluminium exterior housing and toughened glass optical cover, Luxeos is able to endure the most challenging environments, including marine locations thanks to a corrosion-resistant outer coating. Internal thermal management coupled with a passive heatsink design ensures product reliability and longevity, helping Luxeos to achieve a 100,000 hour lifetime.

Ease of Installation

For Luxeos, we've streamlined the installation process with the introduction of QuickLink+™; an intuitive plug-and-play system that allows wiring to be completed during the first fix stage. With QuickLink+, a single IP68 connector carries both power and data to the luminaire, helping to maximise ingress protection. Once installed, Luxeos is easy to commission using RDM and the luminaires can be locked in pan and tilt to maintain the focal position of the light. Optional mounting plates are also available to further aid with installation.

Technologies

Luxeos integrates Pulsar's latest technical innovations with state-of-the-art LED technology to set a new standard for dynamic architectural lighting. From intelligent power and thermal management to ultra-smooth, flicker free LED dimming, Luxeos combines advanced features to deliver enhanced luminaire performance, maximising light output and providing superior quality of light.

QuadCore LED Technology

Offering exceptional colour consistency and accuracy, QuadCore LED Technology enables a variety of optimised colour-mixing solutions. By combining four individually binned LED chips with precisely defined chromaticity coordinates, QuadCore LED Technology can deliver perfectly tuned white and coloured light.

LuxRamp Power Management

Our propriety LuxRamp technology eliminates the inefficiencies found in traditional multi-channel LED products. Through dynamic power management, LuxRamp is able to boost the power sent to individual channels to maximise the total light output of the luminaire, increasing brightness by up to 40%.
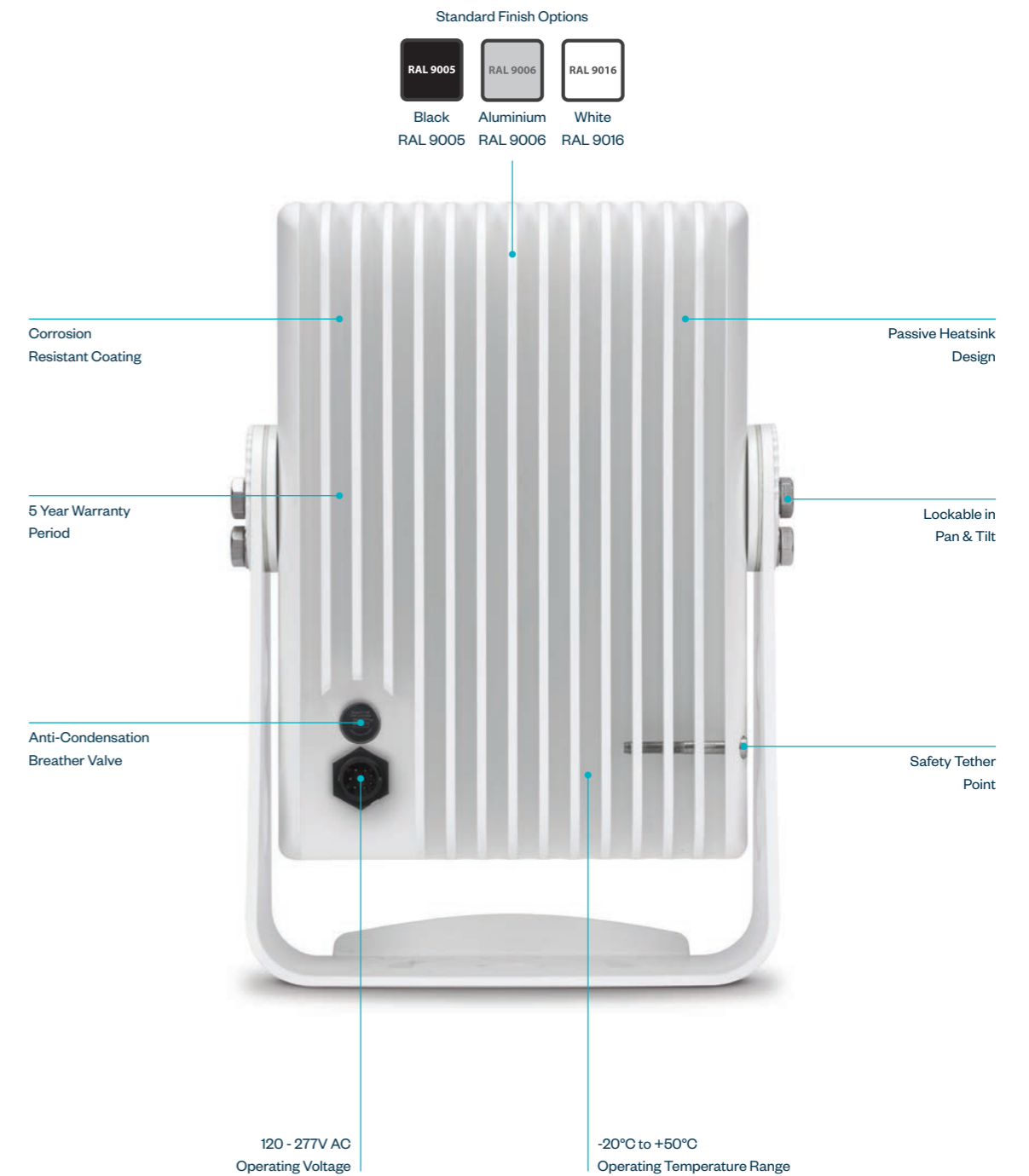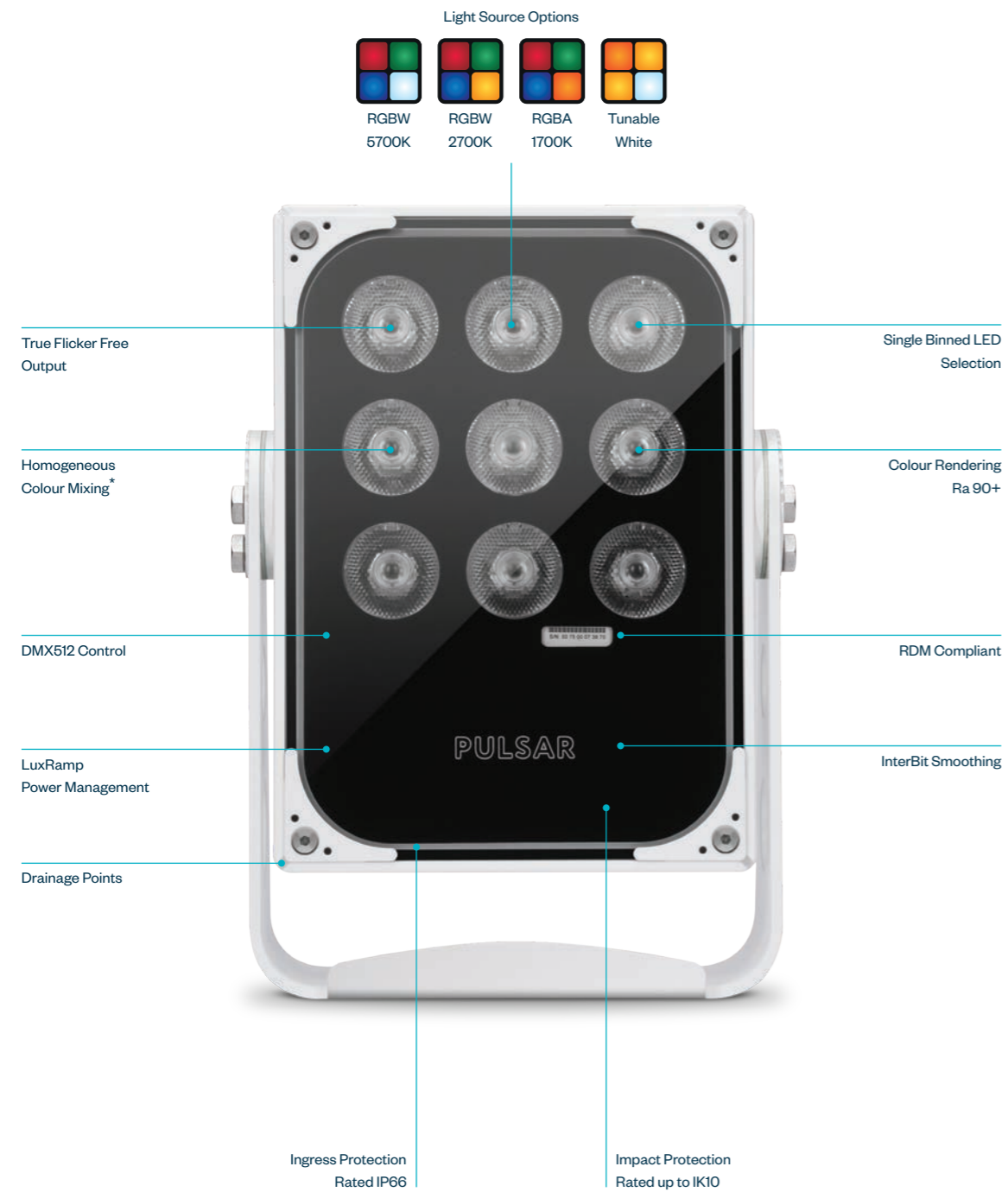
Holographic Beam Shaping

Delivering precisely controlled light distributions with perfect uniformity, Holographic Beam Shaping (HBS) technology offers outstanding optical performance and flexibility. From ultra-narrow spots to extra wide Floods, plus elliptical Beams, HBS provides excellent centre to edge illumination whilst minimising Beam artifacts.

InterBit Smoothing

Offering seamless fades and transitions, InterBit Smoothing technology adds intelligent dimmer control to Luxeos luminaires. By automatically maximising the number of dimming steps between lighting scenes, InterBit Smoothing effectively eliminates any noticeable incremental changes in light output during transitions.

Luxeos features

Light Source Options

RGBW 5700K	RGBW 2700K	RGBA 1700K	Tunable White

True Flicker Free Output

Homogeneous Colour Mixing*

DMX512 Control

LuxRamp Power Management

Drainage Points

Single Binned LED Selection

Colour Rendering Ra 90+

RDM Compliant

InterBit Smoothing

PULSAR

Ingress Protection Rated IP66

Impact Protection Rated up to IK10

Standard Finish Options

RAL 9005	RAL 9006	RAL 9016
Black RAL 9005	Aluminium RAL 9006	White RAL 9016

Corrosion Resistant Coating

5 Year Warranty Period

Anti-Condensation Breather Valve

Passive Heatsink Design

Lockable in Pan & Tilt

Safety Tether Point

120 - 277V AC Operating Voltage

-20°C to +50°C Operating Temperature Range

*Luxeos Flood Range Only

LED light sources

Luxeos can be specified with a choice of four dynamic LED light options to ensure that no matter what your individual project needs are, we'll have the right solution for you. Powered by our QuadCore LED Technology, all Luxeos sources offer high-quality, controllable light, unrivalled in performance and colour accuracy.

VividColour

Ideal for applications which require a mix of white and coloured light, our VividColour light options all feature separate red, green and blue channels, plus the addition of a white light LED. To maintain consistency, the wavelength of each coloured LED has been carefully selected; this includes the use of a deep royal blue that widens the colour gamut – extending the range of blue, magenta and cyan colours. When mixed, these sources produce a full spectrum of colours, from saturated primaries to subtle pastels.

To provide further refinement, with VividColour, the white light LED can be specified with a cool (5700K), warm (2700K) or very warm (1700K) correlated colour temperature (CCT). This allows the light source to be more closely tuned to the surfaces being lit.


5700K

2700K

1700K

VividColour (RGBW 5700K)

VividColour (RGBW 2700K)

VividColour (RGBA 1700K)

LED light sources

TunableWhite

Our TunableWhite solution is perfect for white light applications where you want to adjust the colour temperature of the light. Whether it's to add dynamism to a scheme, or simply refine the colour of the source, our high CRI TunableWhite option is the ideal choice.

Whilst most variable white sources use two-channels to create their light, TunableWhite uses a mix of cool (5700K), warm (2700K) and very warm (1700K) LEDs to generate a white light that is more closely aligned to the blackbody curve and therefore far more natural in appearance. Furthermore, because TunableWhite utilises our QuadCore LED technology, we can add additional warm LEDs to the mix, delivering consistent intensity across the temperature range.

1700K   2700K
               5700K

TunableWhite (5700K - 1700K)

1700K   2700K   5700K
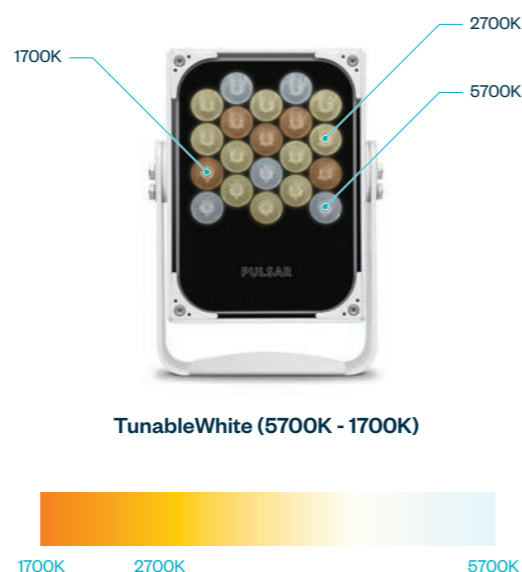
Colour Mixing Explained

Multi-channel LED luminaires blend different coloured sources to generate their light. There are two main ways for this colour mixing to be achieved; inside the optic, and outside the optic. Luxeos luminaires employ both mixing types, depending on the application.

In-Optic Mixing

Used in our Luxeos Flood luminaires. In-Optic Mixing blends light from the four separated LEDs inside the optic, resulting in a single-coloured, uniform Beam projected from the luminaire. This method of mixing is generally preferred as it minimises colour fringing, however, it is limited to wider Beam distributions of 10° and above.
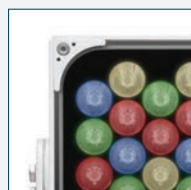
Out-of-Optic Mixing

Used in our Luxeos Beam luminaires. With Out-of-Optic Mixing, every LED has its own separate optic, with the light from each source mixing outside the luminaire to generate the coloured light. This method of mixing allows us to deliver ultra-narrow Beam distributions down to 3°, ideal for distance projection applications.

Luxeos range overview

Luxeos has been designed to support a variety of exterior applications, from Floodlighting to distance projection. Available in three sizes, the range is divided into Flood and Beam luminaires, offering a wide selection of light distributions and power options.

LUXEOS FLOOD

Luxeos Flood 9 (60W)

Luxeos Flood 18 (120W)
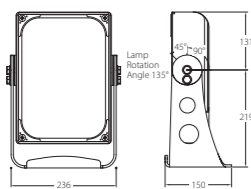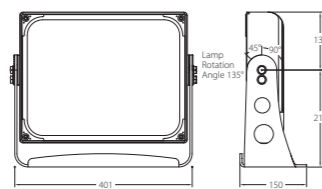
Luxeos Flood 36 (240W)

LUXEOS BEAM

Luxeos Beam 20 (45W)

Luxeos Beam 40 (90W)

Luxeos Beam 80 (180W)

Flood 9 / Beam 20

Flood 18 / Beam 40
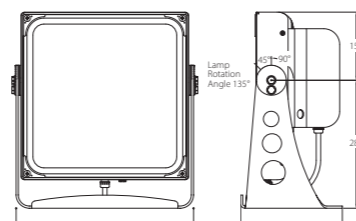
Flood 36 / Beam 80

LUXEOS FLOOD DISTRIBUTIONS

● Narrow (10° / 15°) ● Medium (20° / 30°) ● Wide (40° / 60°)

● Extra Wide (80°)

⬭ Narrow Elliptical, Horizontal (10° x 60° / 15° x 60° / 30° x 60°)

▮ Narrow Elliptical, Vertical (60° x 10° / 60° x 15° / 60° x 30°)
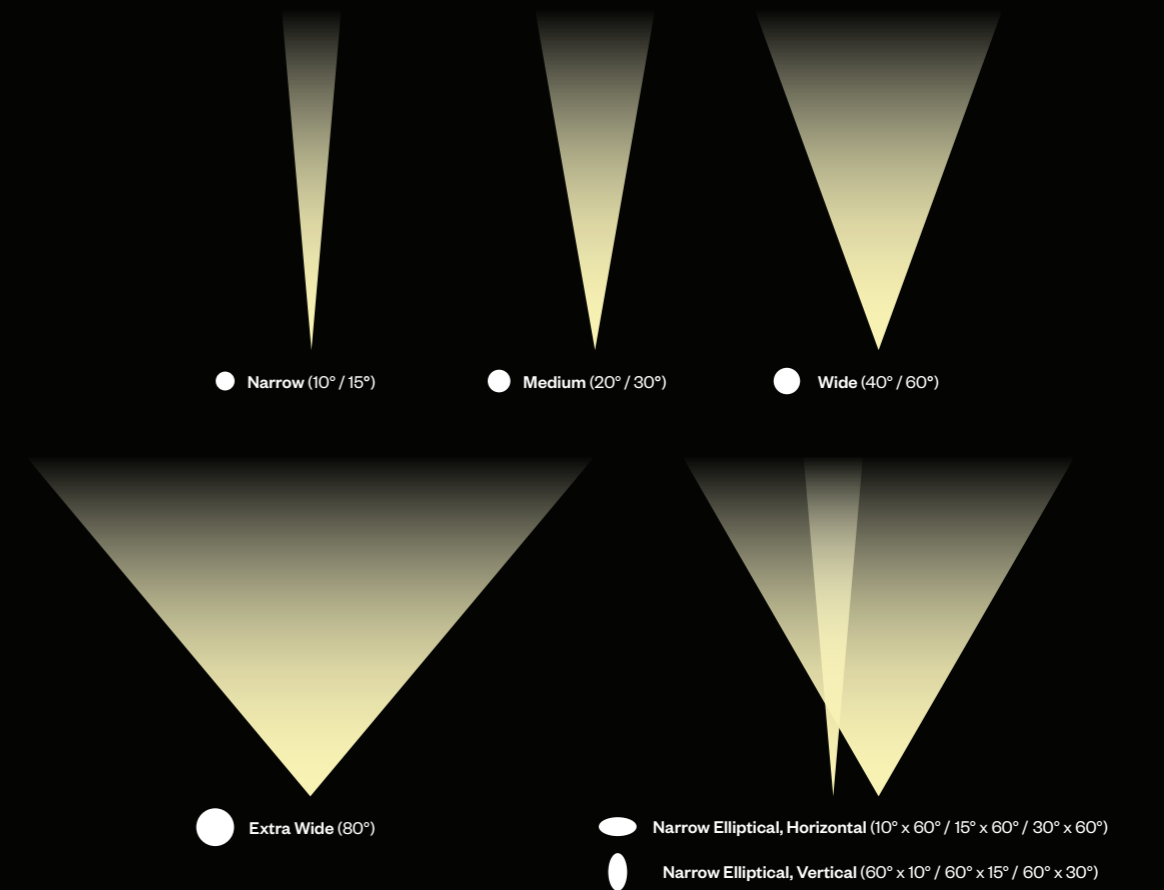
LUXEOS BEAM DISTRIBUTIONS

● Ultra Narrow Spot (3°) ⬭ Ultra Narrow Elliptical, Horizontal (3° x 60°)

Luxeos specifications

Product Specifications

Luxeos Flood

Luxeos Flood	Luxeos Flood 9	Luxeos Flood 18	Luxeos Flood 36
LED Quantity	36	72	144
Power	60 W	120 W	240 W
Lumen Output (VividColour)	up to 2,389 lm	up to 4,778 lm	up to 9,556 lm
Lumen Output (TunableWhite)	up to 3,773 lm	up to 7,546 lm	up to 15,092 lm
Weight	7.2 kg	12 kg	23 kg
Light Source Options	RGBW 5700 K / RGBW 2700 K / RGBA 1700 K / TW		
Beam Options (Symmetrical)	10° [native] / 15° / 20° / 30° / 40° / 60° / 80°		
Beam Options (Elliptical)	10° x 60° / 15° x 60° / 30° x 60° [horizontal & vertical orientations]		
Colour Rendering (VividColour)	CRI Ra 90+ [white]		

Luxeos Beam

Luxeos Beam	Luxeos Beam 20	Luxeos Beam 40	Luxeos Beam 80
LED Quantity	20	40	80
Power	45W	90W	180 W
Lumen Output (VividColour)	up to 1,442 lm	up to 2,884 lm	up to 5,768 lm
Lumen Output (TunableWhite)	up to 2,106 lm	up to 4,212 lm	up to 8,424 lm
Weight	7.3 kg	12.2 kg	23.4 kg
Light Source Options	RGBW 5700 K / RGBW 2700 K / RGBA 1700 K / TW		
Beam Options (Symmetrical)	3° [native]		
Beam Options (Elliptical)	3° x 60° [horizontal & vertical orientations]		
Colour Rendering (VividColour)	CRI Ra 90+ [white]		

Range Specifications

Electrical

Operative Voltage	120V - 277 V AC
Operating Frequency	50/60 Hz
Electrical Class	Class I

Operational

Temperature Range	-40°C to +50°C
Thermal Management	Internal; passive heatsink
Lifetime (L70) at 50°C	100,000 hrs

Control

Control Protocol	DMX 512; 4-Channel (VC), 3-Channel (TW)
Dimming Resolution	8-Bit (with InterBit Smoothing)
RDM Compliant	Yes; for commissioning & feedback
Connection	QuickLink+ cable for power & data

Construction

Body	LM6 Aluminium
Glazing	Toughened glass
Seals	Silicone
Coating	Corrosion resistant polyester powder coat
Finishes	Black; Aluminium; White

Movement

Pan	360°
Tilt	+45° to -90°

Certification

Ingress Protection	IP66
Impact Protection	up to IK10*
Compliance	CE, UKCA

*Luxeos Flood 9 / 18 & Luxeos Beam 20 / 40 luminaires rated IK09

Luminaire Order Codes

	Code	Example
Model		
Flood	LSQU	LSQU
Beam	LBEA	
Fixture Size		
Flood		
9	A09	A09
18	A18	
36	A36	
Beam		
20	M20	
40	M40	
80	M80	
Control		
DMX + RDM	RDM2	RDM2
Light Source		
RGBW 5700K	VC	VC
RGBW 2700K	A3	
RGBA 1700K	A1	
Tunable White	TW	
Colour Finish		
RAL 9016 White	9016	9005
RAL 9005 Black	9005	
RAL 9006 Aluminium	9006	
Light Distribution		
Flood		
Narrow (10° / 15°)	010 / 015	040
Medium (20° / 30°)	020 / 030	
Wide (40° / 60° / 80°)	040 / 060 / 080	
Vertical Elliptical (60°x 10° / 60°x 15° / 60°x 30°)	V01 / V02 / V03	
Horizontal Elliptical (10°x 60° / 15°x 60° / 30°x 60°)	H01 / H02 / H03	
Beam		
Ultra Narrow (3°)	003	
Horizontal Elliptical (3°x 60°)	H06	
Not Applicable		
Not Applicable	XX.XX	XX.XX

Example Code: **LSQUA09.RDM2.VC.90065.040.XX.XX**

Installation Accessories Order Codes

Mounting Brackets & Cables

For Luxeos Flood 9 & 18 / Luxeos Beam 20 & 40	LUXIM01.F002.XX.BLCK.XXX.XX.XX
For Luxeos Flood 36 / Luxeos Beam 80	LUXIM01.F001.XX.BLCK.XXX.XX.XX
QuickLink+ 1m cable - bare ends	LUXIHWX.XL01.XX.NONE.XXX.XX.XX
QuickLink+ 2m cable - bare ends	LUXIHWX.XL02.XX.NONE.XXX.XX.XX
QuickLink+ 5m cable - bare ends	LUXIHWX.XL05.XX.NONE.XXX.XX.XX

LuxConnect Boxes

Box with 1 QuickLink+ (F) 1m cable - for hardwired installation (supplied with cable glands)	LUXIHWX.WB01.XX.NONE.XXX.XX.XX
Box with 2 QuickLink+ (F) 1m cable - for hardwired installation (supplied with cable glands)	LUXIHWX.WB03.XX.NONE.XXX.XX.XX

LuxConnect Wireless Boxes

Box with 1 QuickLink+ (F) 1m cable - for hardwired installation (supplied with cable glands)	LUXIHWX.LN01.XX.NONE.XXX.XX.XX
Prewired box with 2 QuickLink+ (F) 1m cable - for hardwired installation (supplied with cable glands)	LUXIQLX.LN03.XX.NONE.XXX.XX.XX

Optical accessories

To provide added flexibility to your scheme, a selection of optical accessories is available for Luxeos. Designed to manage light discreetly, the range of interchangeable louvres, snoots and half-snoots help to control glare and are easily fitted on-site.

Half Snoot   **Full Snoot**   **Louvre***

Accessory Order Codes

	Code	Example
Product		
Accessory	LUXI	LUXI
Fixture Size		
Flood 9 / Beam 20	A09	
Flood 18 / Beam 40	A18	
Flood 36 / Beam 80	A33	
Style		
Louvre*	A001	
Snoot	A002	A001
Half Snoot	A003	
Not Applicable		
Not Applicable	XX	XX
Colour Finish		
RAL 9016 White	9016	
RAL 9005 Black	9005	9005
RAL 9006 Aluminium	9006	
Not Applicable		
Not Applicable	XXX.XX.XX	XXX.XX.XX
	Example Code: **LUXIA09.A001.XX.9005.XXX.XX.XX**	

*Luxeos Flood Range Only

Bespoke solutions

For over 50 years, Pulsar has worked with lighting designers, architects and system integrators to help bring their visions to life. During this time, we've developed a range of architectural luminaires and control systems designed to meet the needs of our customers, however, we understand that for some projects, a unique solution may be required. For this reason, at Pulsar, we're able to offer project-based modifications of our products to meet the challenges of your design brief.

Product Modifications

From custom RAL finishes to specific Beam angles, we're able to modify our range of specification-grade luminaires to help satisfy the requirements of your individual lighting application.

Bespoke Design

For projects that require a more bespoke design, our team of in-house designers and engineers can work with you to develop a unique solution. Whether its fabricating a specific mounting bracket, or configuring a custom LED population, our experts are here to support you from concept to completion.

Here To Help

Our experienced design and engineering teams are on hand to provide bespoke support throughout the product specification and lighting design phases of any project. If you require further information or assistance on your next project, please contact us.

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Bringing architecture to life

As a leading architectural lighting brand, Pulsar designs, develops and produces high-quality luminaires and control systems that transform architectural projects with light. For over 50 years, Pulsar has delivered unique lighting solutions across a wide range of sectors; including architectural, entertainment and creative projects.

Our mission is to bring creative, dynamic architectural lighting projects to life. As pioneers within the lighting technology industry, we have an proven record in electrical innovation. Since 1970 we have focused on harnessing the latest technologies to deliver specification-grade lighting equipment for interior and exterior applications.

Now part of DW Windsor, Pulsar continues to embrace the latest in high-powered LED technology to produce feature-rich lighting products that offer a superior quality of light and performance. Our luminaires are designed, manufactured and tested to the highest standards at our facilities in Hertfordshire.

PULSAR   DW Windsor   urbancontrol

PULSAR

A DW WINDSOR BRAND

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