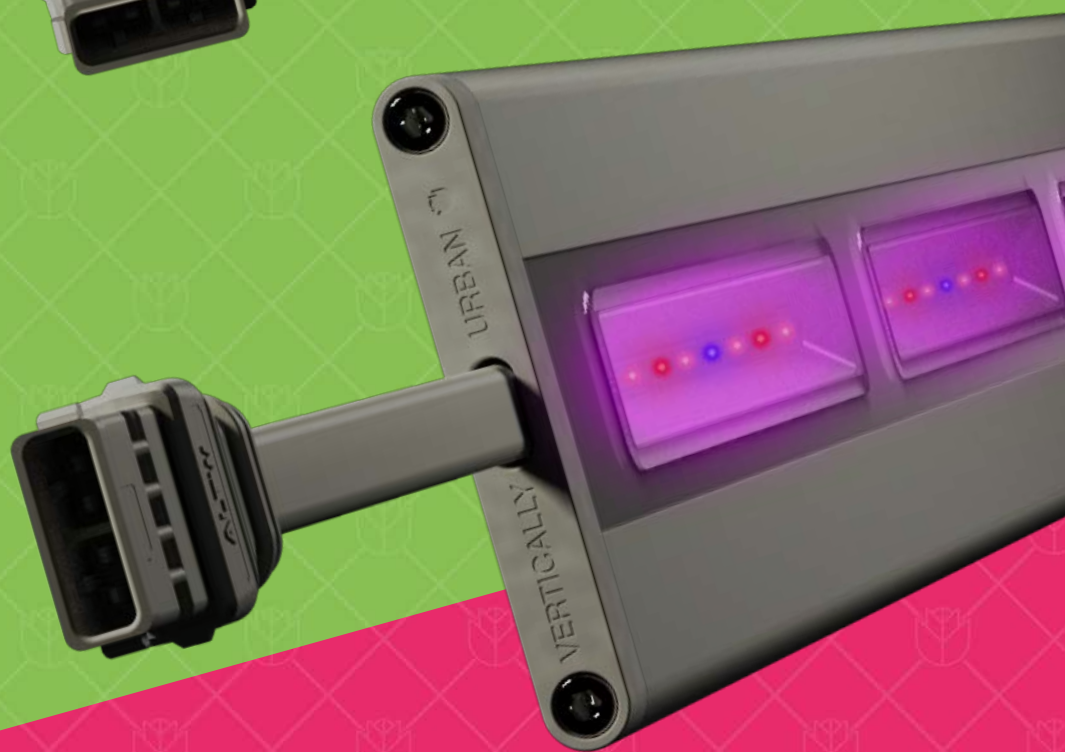


HORTI-BLADE™



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LIGHTING THE FARMS OF THE FUTURE

AN EFFICIENT & RUGGED
ULTRA-SLIM LED GROW LIGHT

For Vertical Farms & Space-Limited Applications

+44 (0)113 322 6459

hello@verticallyurban.com

verticallyurban.com

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V.U.23.02.25



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HORTI-BLADE™



The Horti-Blade™ is an ultra low-profile horticultural LED grow-light for vertical farming applications, designed to be integrated into racking systems and tailored to growers' needs.

Manufactured in the UK using the latest in LED technology and in lengths up to 2.4m, Horti-Blade is available in multiple spectra, including a unique tunable spectrum* option.

ENGINEERED

- Ultra low-profile design
- Designed and made in Britain
- Multiple length and spectra options
- Custom solutions available

RUGGED

- Ingress protected to IP68
- Uses IP68 interconnect
- A robust aluminium housing
- Fully PU encapsulated technology

EFFICIENT

- Efficient spectra options up to 3.8 $\mu\text{mol}/\text{J}$
- Optimum photon extraction technology
- Multiple spectra options
- Dimmable 0% to 100%



IP68 INTERCONNECT

UP TO
3.8 $\mu\text{mol}/\text{J}$



JUST 8MM
THIN



IP68 RATING

FOOD GRADE
PU RESIN
ENCAPSULATION

CUSTOM TIR OPTICS
FOR MAXIMUM PHOTON
EXTRACTION

*See additional 'Horti-Blade Tunable Spectrum' datasheet for details.

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HORTI-BLADE™



There are three models of Horti-Blade to choose from depending on your main focus when it comes to investing in the lighting for your farm.

When you start working with us, our design team will discuss your desired specifications and run a series of simulations to allow us to suggest the optimal luminaire options and layout for your project.

HORTI-BLADE™ S



The Horti-Blade S is available in each of our proprietary spectra and features optimised light output for use at lower mounting heights to maximise the use of space.

Our standard output model, whilst immensely versatile, is particularly suited to less intensive growing conditions, such as microgreen cultivation or seedling propagation.

HORTI-BLADE™ H



Horti-Blade H is optimised for both overall light output and uniformity, featuring PPF levels up to 30% higher than our S model.

Available in 3 of our bespoke spectra (HB01, HB02 & HB03), this high-output model is most suitable for crops where maximised yield and crop uniformity are paramount.

HORTI-BLADE™ HE



Horti-Blade HE is optimised to reduce operating costs and represents a leap forward in output and energy efficiency.

With up to 26% less energy required to achieve a given PPFD, running costs are significantly lower than a standard installation. Available only in our HB01 spectrum.

A tunable spectrum model of Horti-Blade is available.
For details please see the additional Horti-Blade Tunable datasheet.



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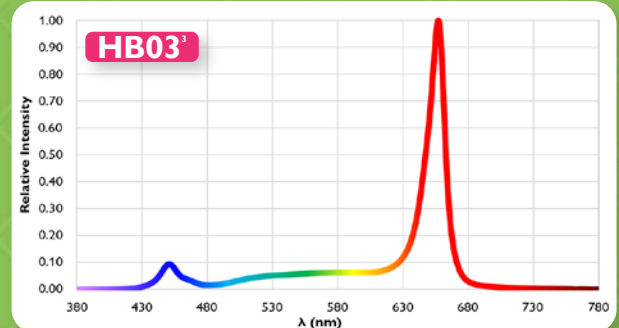


HORTI-BLADE™ SPECTRA GUIDE

Through the diligent work of our plant science team, we have developed a range of four proprietary spectra that are optimised to the most common specifications that are requested.

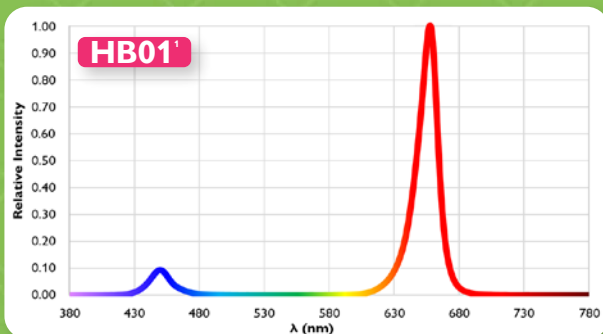
If you are unsure of the spectrum that would best allow your crops to thrive, our team can work with you to identify the best solution.

For larger projects, we can offer customised spectra either developed internally or in conjunction with your own external advisors.



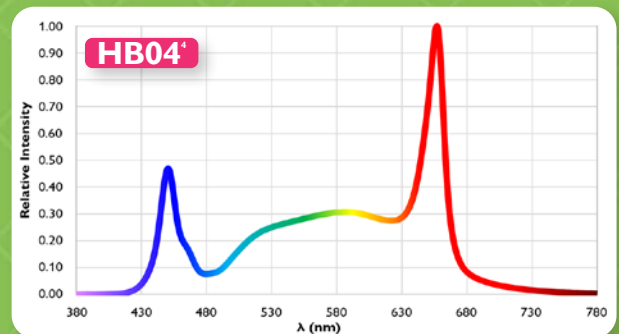
HB03 - VEGETATIVE WHITE

- Pale pink appearance
- Emphasised red and additional green wavelengths promote good overall growth
- Ideal for a wide range of crops requiring regular attention from workers



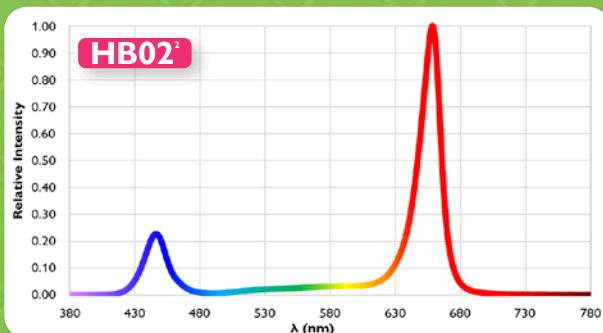
HB01 - EFFICIENT PHOTOSYNTHESIS

- Purple appearance
- Wavelengths targeted purely to drive photosynthesis, resulting in an energy-efficient, high-biomass yield
- Ideal for a wide range of crops grown in enclosed systems



HB04 - TRUE COLOUR

- White light appearance
- Tailored towards the human eye, this spectrum gives balanced overall growth whilst making the plant grown under them appear vibrant and healthy
- Widely used for research applications



HB02 - BLUE BOOST

- Pink appearance
- Higher blue component triggers more compact growth and production of beneficial colour and flavour compounds
- Excellent for specialty crops or nutraceuticals

SPECTRA PHOTON DISTRIBUTION

	Blue PF	Green PF	Red PF	Far Red PF
HB01	11%	0%	89%	0%
HB02	17%	8%	75%	0%
HB03	9%	18%	72%	1%
HB04	17%	36%	45%	2%

¹ Previously known as BR

² Previously known as BRW

³ Previously known as LMRR

⁴ Previously known as LMR



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HORTI-BLADE™



SPECIFICATIONS & PRODUCT CODES

HORTI-BLADE™ S

Part No.	Spectrum	Length (mm)	PPF (μmol/s)*	Efficacy (μmol/J)	Compatible PSU (Part No.)	Power (W)	Input Current	Units per PSU
014454	HB01	612	57	3.2	014319	18	950mA	5-11
014455		1188	113			36		3-5
014456		1764	170			54		2-3
014457		2340	226			72		2
014449	HB02	612	54	3.0	014326	18	1280mA	6-12
014450		1188	108			36		3-6
014451		1764	162			54		2-4
014452		2340	216			72		2-3
014322	HB03	612	49	2.8	014326	18	1280mA	6-12
014323		1188	97			36		3-6
014324		1764	146			54		2-4
014325		2340	194			72		2-3
014495	HB04	612	45	2.5	014643	18	1700mA	5-10
014496		1188	90			36		3-5
014497		1764	135			54		2-3
014498		2340	180			72		2

HORTI-BLADE™ H

Part No.	Spectrum	Length (mm)	PPF (μmol/s)*	Efficacy (μmol/J)	Compatible PSU (Part No.)	Power (W)	Input Current	Units per PSU
015687	HB01	612	74	3.1	015524	24	1150mA	5-10
015688		1188	148			48		3-5
015689		1764	222			72		2-3
015690		2340	296			96		2
015684	HB02	612	68	2.8	015749	24	1600mA	7-10
015685		1188	136			48		4-5
014676		1764	204			72		3
015686		2340	272			96		2
015680	HB03	612	60	2.7	014715	22	1500mA	6-10
015681		1188	120			44		3-5
015682		1764	180			66		2-3
015683		2340	240			88		2

HORTI-BLADE™ HE

Part No.	Spectrum	Length (mm)	PPF (μmol/s)*	Efficacy (μmol/J)†	Compatible PSU (Part No.)	Power (W)	Input Current	Units per PSU
017377	HB01	612	99	3.4	015839	29	1500mA	7-10
017378		1188	197			58		4-5
017379		1764	295			87		3
017380		2340	394			116		2

All Horti-Blade™ luminaires require a compatible power supply, input cable and mounting clips, details of which can be found in the accessories table overleaf.

Should you need assistance deciding what you require, our team are always on hand to help.

*Typical PPF +/-10%

†A 3.8μmol/J full red luminaire is available upon request

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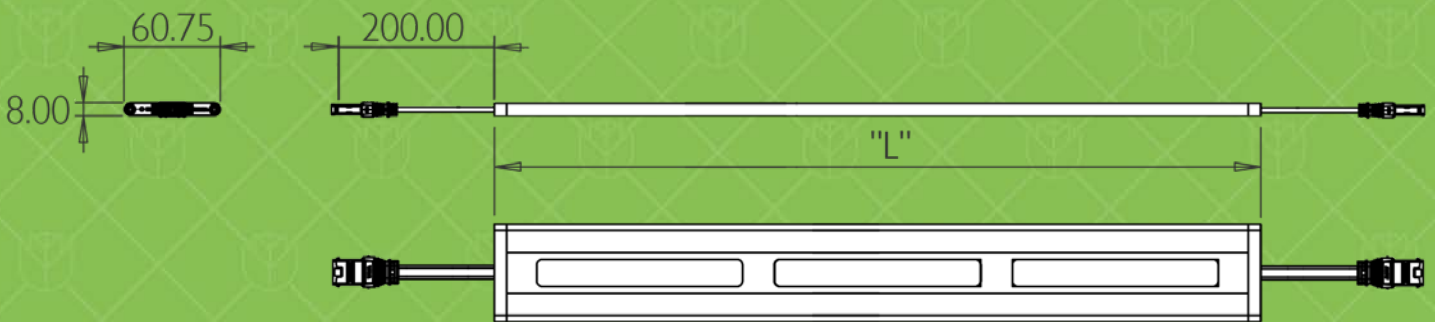
HORTI-BLADE™



SPECIFICATIONS & PRODUCT CODES (CONTINUED)

PSU Input Voltage	~90-305 VAC (actual value PSU dependant)	IP Rating	IP68 (Horti-blade)
Dimming Protocol	0-10V (others available on req)	Storage Temp	-30° to 85°C
PSU Power Factor	>0.95	Operating Temp	0° to 40°C
Dimming Range	0% - 100%	Warranty	5 Year limited
Cooling	Passive	IK Rating	3
Beam Distribution	118°	Cable Exit	End
Lifetime	L90 >55,000 hrs	Finish	Anodised aluminium / PU

DIMENSIONS



Length (mm)	612	1188	1764	2340
WxH (mm)	60.75x8	60.75x8	60.75x8	60.75x8
Weight (Kg)	0.51	1.02	1.53	2.04

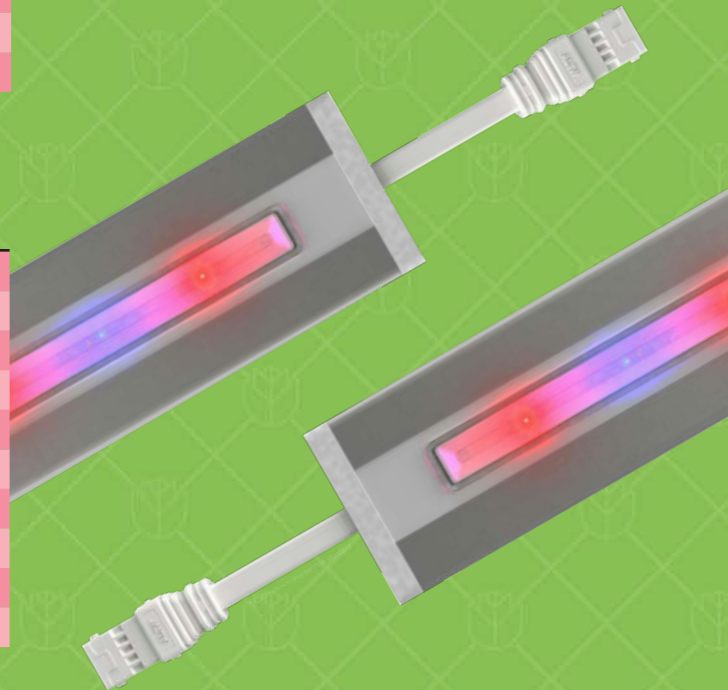
ACCESSORIES

Part No.	Description	Qty
014371	Single Spectrum 1m Input Cable & Terminator	1
012444	Sprung Steel Fixing Clip	1
016220	Vertical Mounting (Basket) Clip	1
014319	240W 950mA 0-10V PSU	1
015524	240W 1150mA 0-10V PSU	1
014326	240W 1280mA 0-10V PSU	1
014715	240W 1500mA 0-10V PSU	1
015749	240W 1600mA 0-10V PSU	1
014643	240W 1700mA 0-10V PSU	1
015839	300W 1500mA 0-10V PSU	1

Note:
PSU's supplied are IP66



Vertically Urban run regular development cycles, continuously optimising and balancing product specifications to best suit our customers. All information therefore, is intended as a guide and specifications may change on occasion without notice or announcement. Technical data is measured under controlled conditions, expected performance is within +/- 10% of advertised figures. Information provided is intended as a description of the product and shall not be used in the form of any contract.





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CONTACT DETAILS

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Typhoon House
Moxon Way
Leeds
West Yorkshire
LS25 6FB
United Kingdom



hello@verticallyurban.com



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verticallyurban.com



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