



Engineering growth

Midstream. Experts in
horticultural lighting

 **MIDSTREAM**

HORTICULTURE | AVIATION
SPORTS | MARITIME

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Advancing growth, the Midstream way

The challenges the horticulture industry face – increased demand, environmental, and political – continue to rise.

That's why we're dedicated to designing and delivering the most advanced, efficient and innovative LED lighting solutions for commercial growers worldwide.

These solutions are manufactured to the highest quality standards to provide long-lasting, best-in-class horticultural lighting. And our technology is specifically engineered to solve the challenging and complex needs of growers allowing for;

- Faster germination and root growth
- Earlier flowering and controlled plant growth
- Environmental and space maximisation
- Significant energy use reduction
- And, most importantly – increased yields

That's not all. We're an innovation and knowledge hub. One that's here to educate and guide you on how advanced LED lighting can help you meet your specific needs.

What we'll bring you

- Our **vast global knowledge, expertise, and proven record** of success across the horticultural sector, in all locations and climates.
- A **solution and design-driven approach** from retrofit projects to greenfield solutions.
- We **make continued investment in product development** – to ensure we've got the experience and flexibility to meet your demands.
- A team you can trust. Why? We've designed and **delivered 1,000s of global lighting solutions**. Who else can say that?
- **Exceptional customer support 24/7** whenever and wherever you need it.
- A **network of qualified installers around the world**, to deliver turnkey projects, on time and on budget, with the highest level of workmanship.
- **Quality control and traceability, certification and fast delivery times** thanks to our European manufacturing operation.

Quality and reliability – always at the heart of what we do.

Our products are manufactured to the highest quality at sites in both the UK and Europe. All metal parts are laser cut, bent and painted on-site. All finished products undergo end-of-line testing before being packed and shipped.

We also have full component traceability across all our sites. We operate an audited ISO 9001, 14001 and 45001 Integrated Management System and continually monitor and improve our processes. We're also certified to ENEC (Europe) and UL (USA) requirements. Plus, we've always passed any facility audits by independent certification bodies.



Flare – Engineering Growth

Working with future-facing global experts in the world of horticulture, we've engineered a flexible, precise and energy-efficient LED lighting solution called Flare.

Flare at glance:

- An effective alternative to natural sunlight or HPS / SON-T grow lights.
- Proprietary technology allows stable spectrum for product lifetime.
- The Flare PCB is completely waterproof to resist corrosive environments.
- Extremely low LED temperatures, for high performance and durability – over a long lifespan.
- Can be customized to deliver any spectrum.

Versatile

Due to a wide range of spectrums and mounting accessories, Flare. can be used in a broad variety of applications.

Flexible

Flare. can be equipped with integrated or remote drivers, allowing the user to place the power supplies in the most convenient location for easy access and maintenance.

Reliable

Flare. is built for heavy duty usage. The circuit design and the thermal management system guarantees stable spectrum output over its lifetime.

Performing

The Flare. PCB is built with high grade copper material, keeping very low LED temperature, which delivers high performance and a long lifetime.

Practical

The integrated Midstream Active Cooling System (MACS) allows for an extremely compact design, significantly reducing the shadowing over the plants during daylight hours.

Durable

Flare. is constructed from powder coated stainless steel to resist wet and corrosive environments. It is entirely waterproof.



Greenhouse

Edible crops



Greenhouse

Ornamentals



Tomato



Lettuce



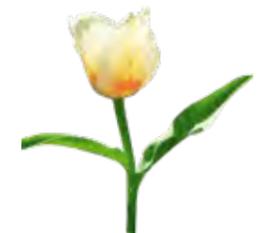
Cucumbers



Orchid



Roses



Tulip

$\mu\text{mol/s.m}^2$	190	$\mu\text{mol/s.m}^2$	130	$\mu\text{mol/s.m}^2$	175
Uniformity:	0.7	Uniformity:	0.8	Uniformity:	0.8
Mounting Height:	3 m	Mounting Height:	3 m	Mounting Height:	3 m
Line Layout		Grid Layout		Grid Layout	
Distance Between Luminaires:	3 m	Distance Between Luminaires:	3.5 m	Distance Between Luminaires:	3m
Connected Load:	80 W/m ²	Connected Load:	55 W/m ²	Connected Load:	75 W/m ²

$\mu\text{mol/s.m}^2$	100	$\mu\text{mol/s.m}^2$	180	$\mu\text{mol/s.m}^2$	45
Uniformity:	0.8	Uniformity:	0.8	Uniformity:	0.65
Mounting Height:	3 m	Mounting Height:	3 m	Mounting Height:	3 m
Line Layout		Grid Layout		Grid Layout	
Distance Between Luminaires:	3.9 m	Distance Between Luminaires:	2.9 m	Distance Between Luminaires:	6.9 m
Connected Load:	42 W/m ²	Connected Load:	78 W/m ²	Connected Load:	16 W/m ²

Indoor Cannabis



Medicinal Cannabis Vegetative Stage

μmol/s.m ² :	350
Uniformity:	0.8
Mounting Height:	2.8 m
Field Configuration	
Distance Between Luminaires:	1.7 m
Connected Load:	78.5 W/m ²
Luminaire Dimming:	60%

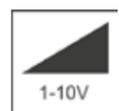


Medicinal Cannabis – Flowering Stage

μmol/s.m ² :	830
Uniformity:	0.8
Mounting Height:	2.8 m
Field Configuration	
Distance Between Luminaires:	1.7 m
Connected Load:	188.5 W/m ²
Luminaire Dimming:	0%



Due to the smart dimming controls available for Flare products (WiFi or LAN) medicinal cannabis growers can optimize their energy use during the different stages of growth.



Using a simple pp or anual 1-10v Dimmers the light level can be adjusted to the required 1-10V level, reducing heat in your grow room and maximizing profits by reducing energy costs.

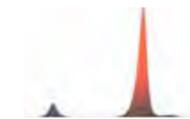
Standard Spectra

In detail

Flare offers a wide variety of spectra to fulfill most typical requirements, however if you need to refine your perfect blend we're here to help.

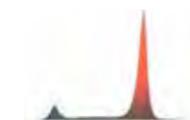
We can deliver your bespoke light recipe offering a stable spectrum output and our warranty covers spectrum deviations for 5 years.

Greenhouse



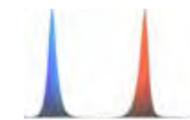
SFLO

The high red and far red wavelengths of this spectrum stimulate flowering and reproduction in a wide variety of plants. It is ideal for floriculture and ornamentals.



SVGR

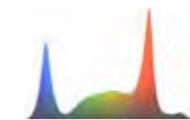
This spectrum is designed to promote leaf building and biomass production. It is ideal for leafy greens and crops such as tomatoes, cucumbers and bell peppers.



SVGB

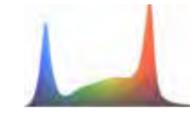
The additional peak on the blue spectrum (400-500nm) counteracts the plant stretch induced by the far red radiation of the sun, allowing for strong growth & development in the vegetative state, delivering compact crops. Additionally, this spectrum is perfect for algae production.

Indoor



IFLO

This spectrum is known as full cycle, with blue and red peaks and a strong far red component, ideal for full cycle cannabis cultivation and floriculture.



IVGR

This spectrum is designed to promote leaf building and biomass production. The additional white spectrum allows for a complete indoor cycle for leafy greens and crops such as tomatoes,



IVGB

This spectrum is designed for rapid growth and complete plant development, from propagation to final product. The high colour fidelity also allows for easy crop inspection for effective quality control during growth.

Flare

In detail

Flare benefits include:

- Faster germination and root growth.
- Earlier flowering and controlled plant growth.
- Environmental and space maximisation.
- Significant energy use reduction
- And, most importantly – increased yields.

Plus, as with all Midstream LED solutions, there are environmental and financial benefits thanks to the energy savings and efficiencies Flare offers.



Technical specs

PERFORMANCE

PPF	1440 - 1980 mol/s
Efficacy	2.3 - 3.2 mol/J
Power Absorption	620 W

LUMINAIRE BODY

Structure	Corrosion proof Stainless Steel
Metal Coating	Powder Painted
Heatsinks	Extruded Aluminum
Bracket	Hanging / Busway / Adjustable ropes
Weight	8 kg
Dimensions (LxWxH mm)	375L x 202W x 161H mm

ELECTRONICS - REPLACEABLE REMOTE POWER SUPPLY UNIT

Voltage Input	249-528 VAC 50-60 Hz
Power Factor	0.95
Mean Time to Failure	200,000 hrs
Surge Protection	Line to Earth 10kV; Line to Line 6kV
Insulation Class	IEC Class 1
IP Rating	IP 67
Short Circuit Protection	Auto-recovery
Over Heat Protection	Drops output current
Rel. Humidity Range	0 - 98%
Operating Temp	-40°C up to +75°C

Ordering codes

FAMILY	POWER	SPECTRUM	CONTROL	VOLTAGE 3F	VOLTAGE INPUT	DRIVER	MOUNTING HARDWARE
F (Flare)	62	SFLO (Supplemental) IVGF (Indoor) ALGA (Algae Spectrum)	00 CW (Synapse Wireless)	3F (249 - 528 Vac)	WG (Weiland Green) WB (Weiland Black) NC (No Connector)	I (Integrated Driver) R (Remote Driver)	S (Suspension Rings) B (Busway Clamp) R (Adjustable Ropes)

The product family can be tailored to the specifications outlined above. Example ordering code: F-62-ALGA-00-3F-WG-I-R

Getting you to a solution that works – for you

We take the consultative approach as we know one size doesn't fit all when it comes to your grow light needs and we truly deliver a full turnkey solution, from day one.

- **Lighting design – we get it right first time, every time:** We provide expert lighting design services right from the start of a project – free of charge. Even if your requirements change as the project develops, we won't charge you.
- **Installation – no hassle and no wasted time:** To make sure your installation goes smoothly, our expert engineers and supervisors can be with you from start to finish. Our installation teams have years of experience across all our sectors so whatever the installation needs, they'll be able to support you at every stage.
- **Maintenance and warranty – protecting your investment:** The great thing about LED lighting is it requires far less maintenance. It's important though that you protect your investment to maximize the life span and return on investment. This is especially true in the humid environments of horticulture. So, our Flare Lighting Warranty lasts for 10 years!
- **Training and Education – getting your team up to speed:** Our experienced team is on hand to support you. Whether a partner, client, consultant or engineer, we've got your back. We offer a range of training and educational courses to support both our product and sector partners. From technical training on our product range to installation guidance and beyond, we'll be there for you.
- **Advising and consulting – let us help you make the right choice:** We've got many years of in-depth experience across the lighting sector, and a very experienced management and advisory team. So, we can support, advise and consult at anytime. Whether for a completely new project or to look at existing solutions, just let us know.
- **Financing – we can provide you with project financing solutions for your lighting projects.** Through our approved financing plans we can help you to manage budgetary concerns and hurdles.



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