

C I R C U L A R R E G E N B Y P H O S

Regenerations For Generations



OUR HERITAGE

MADE IN GREAT BRITAIN FOR OVER 140 YEARS AND COUNTING

Phos is part of a family group of UK based engineering companies called The Cadisch Group, founded in 1883, spanning five generations.

Our deep understanding of metals has been passed down through generations, successfully demonstrated across multiple industries and sectors, including supply to the world's most reputable aircraft and

and automotive brands, the Ministry of Defence and even gaining a Royal warrant.

This manufacturing experience combined with the latest LED technology allows us to create some of the most functional, customisable and beautifully crafted luminaires in the world.

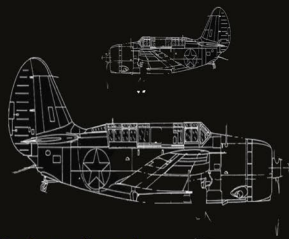
1883

Richard Cadisch starts R.Cadisch & Sons.

Motor parts and first lights sold in London.

1930s

In World War 2, manufactured parts for the Spitfire and Gypsy Moth aeroplanes.



1960s

Wire mesh side of the business takes off.

Architectural Mesh & LED company founded, combining 138 years of engineering and finishing.

2000s



1900s



1950s

Awarded two royal warrants supplying motor parts to the Royal Family.



1970s

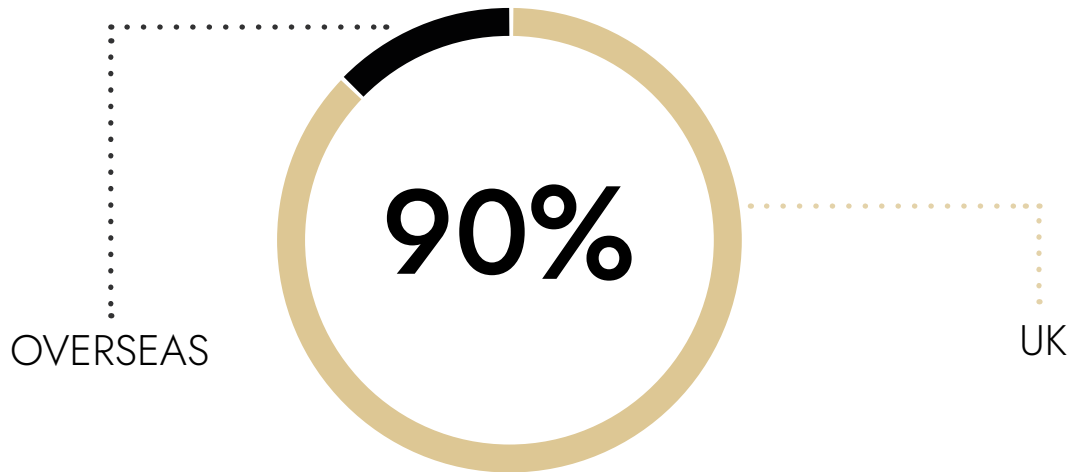
Key supplier to the Rolls Royce aeronautical division.



TODAY

Five generations later, multiple awards and shortlists and a special mention at Women in Lighting Awards for "Best Non-Profit Initiative" for their research and development of the business "Light Tribe." A passion that goes beyond just selling lights.

LOCAL PROCUREMENT & MANUFACTURING



90% of our components are designed, manufactured and assembled in the UK.

For the past 12 years we have employed the principles of a circular economy in our manufacturing processes. We have always given an unlimited duty of care on all the components we manufacture.

As a British manufacturer, we are supported by a local community of suppliers of services, components and products, thus reducing our overall carbon footprint.

This also enables us to reduce delivery times, maintaining better control of our manufacturing process and most importantly, gives us the ability to easily repair or adapt fittings after installation, ensuring we preserve the planet's vital resources.



Phos Ltd.

Unit 2, The IO Centre, 2 Hearle Way,
Hatfield, Hertfordshire, AL10 9EW, UK.



Electronic Manufacturer

Hertfordshire, UK.



Metalwork Manufacturer

Buckinghamshire, UK.



LED Chip & Lens Supplier

Hertfordshire, UK.



Spring Manufacturer

Essex, UK.



Finishing Powder Coater

Hertfordshire, UK.



Finishing Anodiser

Essex, UK.



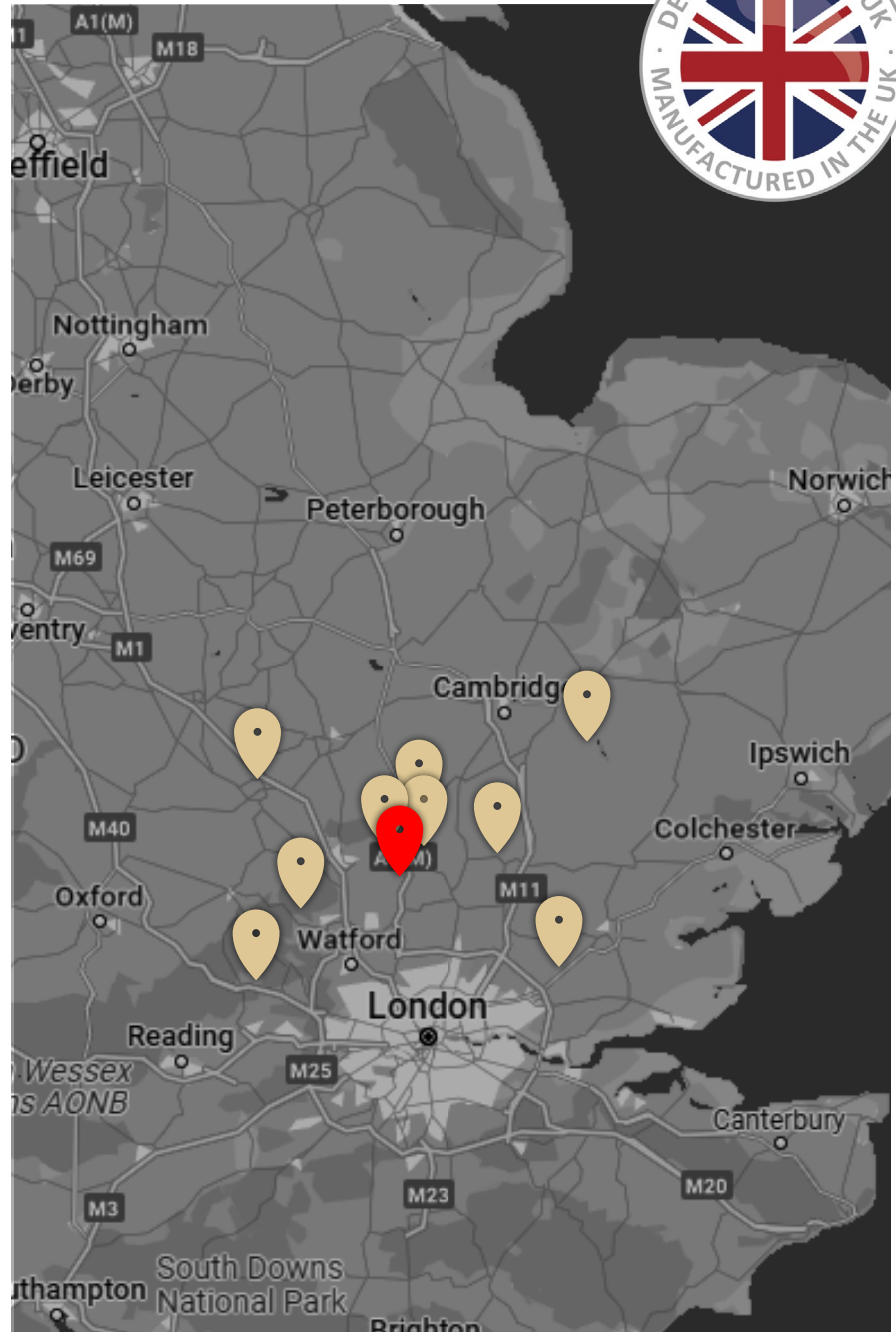
Finishing Plater

Hertfordshire, UK.



Laser Cutters

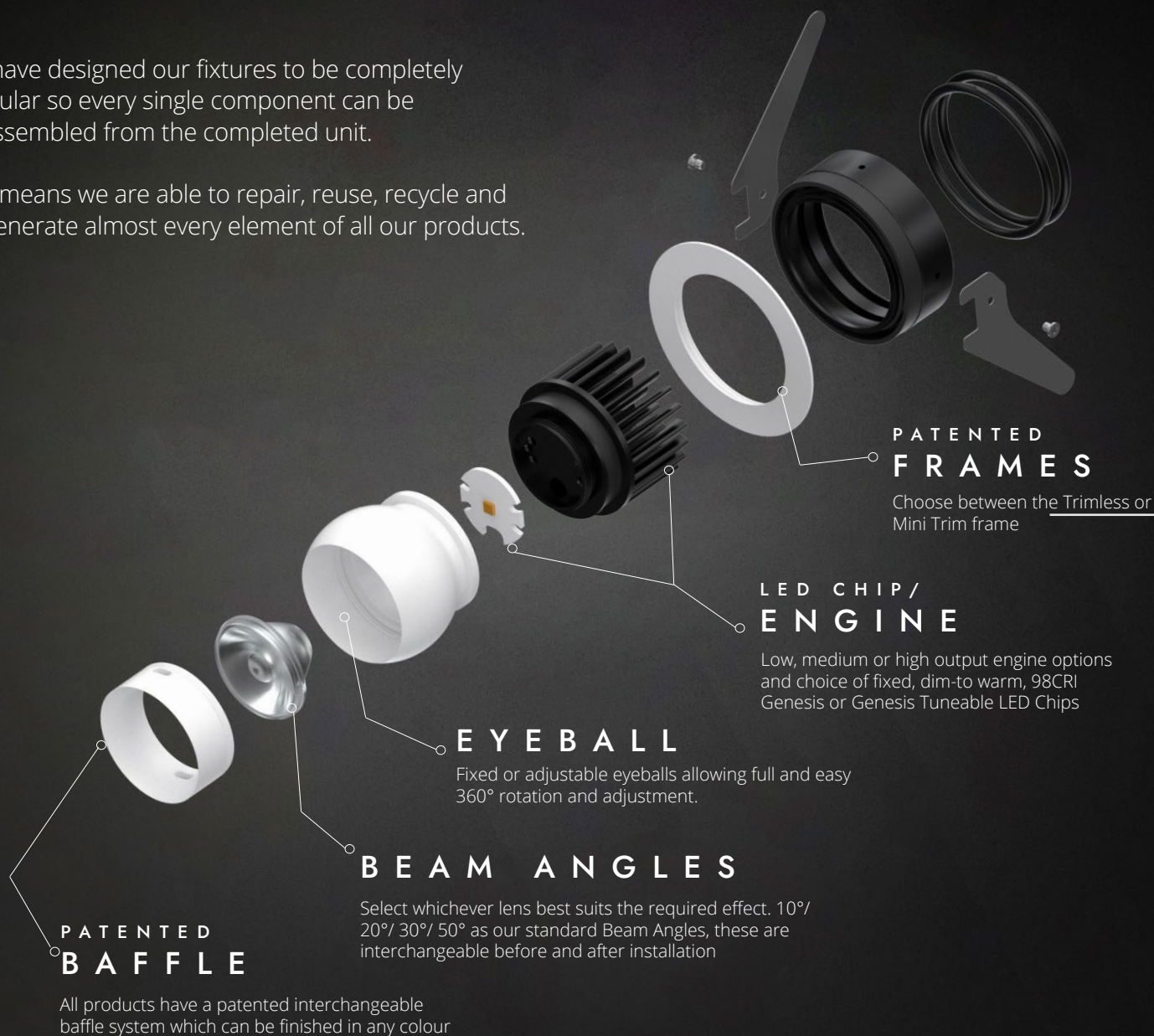
Cambridgeshire, UK.



MODULARITY

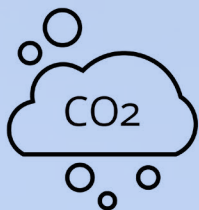
We have designed our fixtures to be completely modular so every single component can be disassembled from the completed unit.

This means we are able to repair, reuse, recycle and ReGenerate almost every element of all our products.



PHOS ARE FULLY OFF-GRID

Self-sufficient and even contributing back to the National grid. Buying Phos lights now helps power them too! All part of our commitment to minimise our environmental impact.



1360.605 kg CO2e per month.
16327.20 kg CO2 per year.

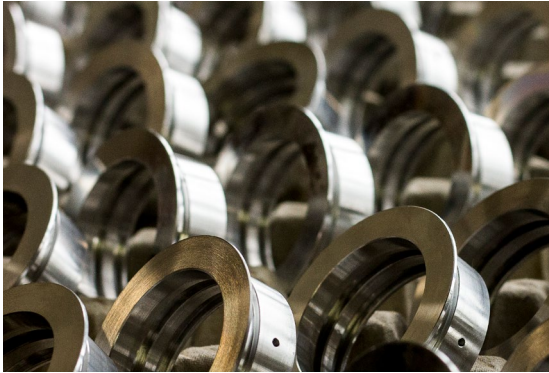


Saved 70,032kWh a year.
Equivalent to 16327.26kg CO2e.



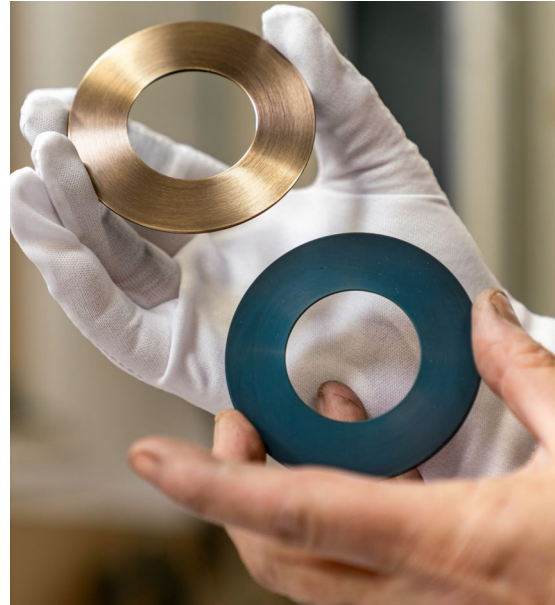
Equivalent to powering
24,039 LEDs for 8 hours for
an entire year.

RECYCLING



Material Recycling

The majority of our products are ostensibly produced using aluminium within the design. Whilst the processing of this does require an energy input, aluminium is extremely recyclable. Re-smelting aluminium from recycled metal requires 5% of the energy originally used to produce aluminium. Aluminium is in this respect an 'energy bank' and the energy used to produce it does not disappear – it is effectively captured and stored. Aluminium can be infinitely recycled without losing any of its qualities. About 70% of all aluminium ever produced is still in use.



Plastics & Rubber Consumption

The only plastics we use within our manufacturing process are cables, driver cases and certain lens which can be fully recycled but constitute less than 1% by weight of our production totals. We do not use any plastic packaging. We use very small rubber components within our production process, all of which can be fully recycled.

LED Recycling

LEDs and PCBs used on all our products can also be fully **recycled** due to the special components used which include copper.

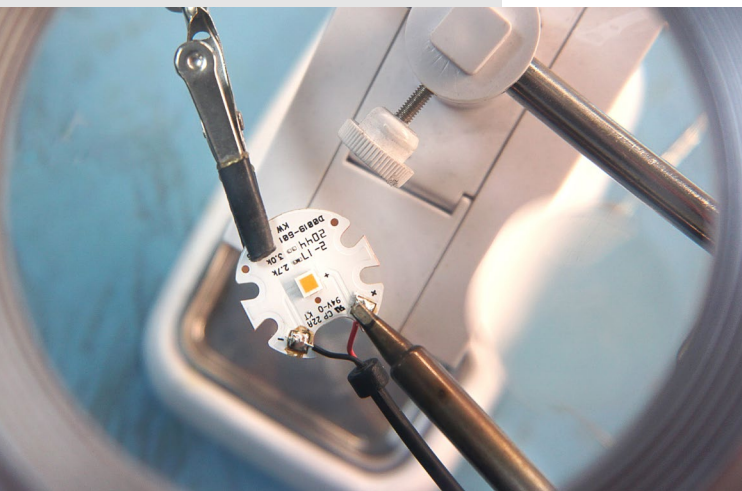
Locally Sourced

Glass is made from readily available domestic materials, such as sand, soda ash, limestone, and “cullet,” the industry term for furnace-ready recycled glass. Glass is used in most of our products but again can be fully recycled.

Reducing Transportation

A large number of our raw materials and components are produced within 20 miles of our production facility in Hatfield. We support other local businesses thus reducing delivery times, maintaining better control of our manufacturing process and with only local relatively low transport carbon associated with this part of our operation.

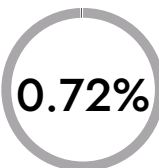




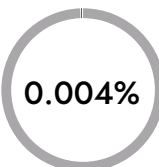
REPAIRS

Under normal circumstances our products will last for a minimum of 50,000 hours (LM80 B10), around 20 years of domestic use. Statistically less than 0.02% of our products have failed prior to this but in the very unlikely event of a failure or if a product has been maltreated, we offer a full **repair** or **replace** service for all products in current production.

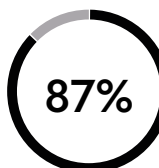
Our products have less than 0.01% out of the box failures and less than 0.72% life-time guarantee failures. 87% of returns are repaired (recycled), rather than replaced.



Life-time guarantee
failures



Out the box
failures



Returns
Repaired



WE ARE B-CORP ACCREDITED

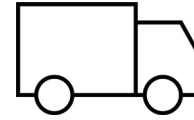
Being **B-Corp** accredited, it is fundamental to the DFM (Design for Manufacture) process during any new product development or product improvement that we ensure the very maximum amount of recyclable material is utilised where possible.

This is demonstrated by the fact that the only part of any product we manufacture that is not recyclable is the FR4 material in our PCBs (making up just 0.8% of the manufacturing process), however the copper content of the PCB is recyclable, and it is said that just 10-15% of the energy required to mine and extract new copper is used in this recycling process.

Utilizing renewable materials is one of the main focuses of the Design Department and Operations to ensure our environmental impact is minimised, whilst still maintaining a high quality and reliable product, demonstrated by our dedication to locally sourced and locally manufactured principles.

THE PHOS REGEN PROCESS

We encourage all fixtures to be returned to us so we can ReGen or recycle.



If a product has failed or has become EOL, we can arrange collection of the interchangeable light engines and associated drivers. Once received, we will review the engine to see if it can be **ReGenerated** or **recycled**.



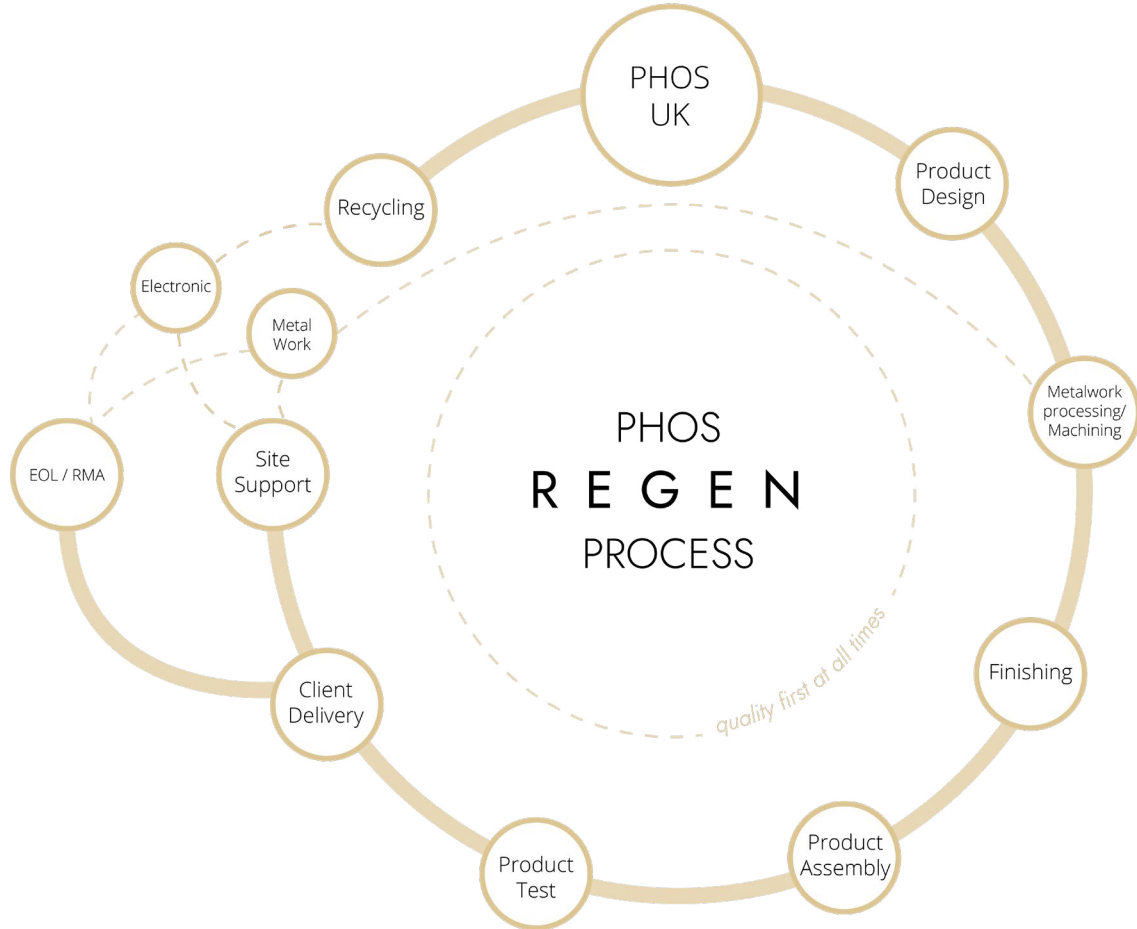
Regenerate - If we can ReGenerate the light engine, we will only need to replace the faulty part of the fitting, which can then be restored to life, utilising all of our original optics and bezels.



Recycled - If the unit is beyond the point of repair, we will ensure the raw material is always fully recycled. We encourage all fixtures to be returned to us so we can ReGen or recycle.

Please note:

We will never compromise the quality or future reliability of the product, as this is fundamental to our core business values.



TM66 values available on request.

Free recycling service for Cat A fit-outs – return your fittings from site and we'll recycle them.



OUR PLEDGE

We pledge to be carbon neutral by 2030.

As we have for 12 years, we will continue to follow this ambitious set of values that makes a conscious effort to be as sustainable as we can be, whilst delivering a superior product range to the market.



Product quality above all else



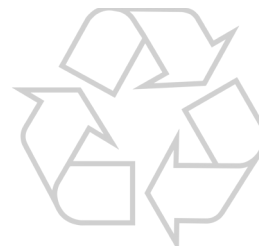
5 Year warranty of all products



Unlimited duty of care on all our components



We will always look to ReGenerate all components we manufacture



Last resort ... we will responsibly recycle

CAN'T HAVE THE LIGHTS OFF?

1. Advanced replacement - Return and Repair service so we can reuse the light engines for future projects.



2. Site support – aided by the modularity of our range.



Returned Electronics (PSUs and Drivers) that are not faulty: Reused if possible for samples. However, we would never reuse these on new products (as they would have been in-use and therefore the life-cycle would be affected) – these are recycled in accordance with the WEEE directives.

Returned metalwork that is reusable: We will reuse back into the metalwork processing / machining stage to ensure they are perfect from cosmetic & functional perspectives – if this is not possible, we recycle the material to be re-smelted by a specialist company.

WATER AT PHOS

The water at Phos HQ puts the environment first...

The money passed to our supplier is invested into saving carbon emissions from entering the atmosphere, championing a circular economy and ending water poverty.

So far, we've been part Belu's incredible journey to give WaterAid over £5.2 million, bringing clean water, decent toilets and good hygiene to everyone, everywhere.



BELU



PACKAGING

We only use recyclable and environmentally friendly packaging (primarily cardboard). We recycle all incoming cardboard and paper packing in house with special machinery and reuse this to pack our own products once again.

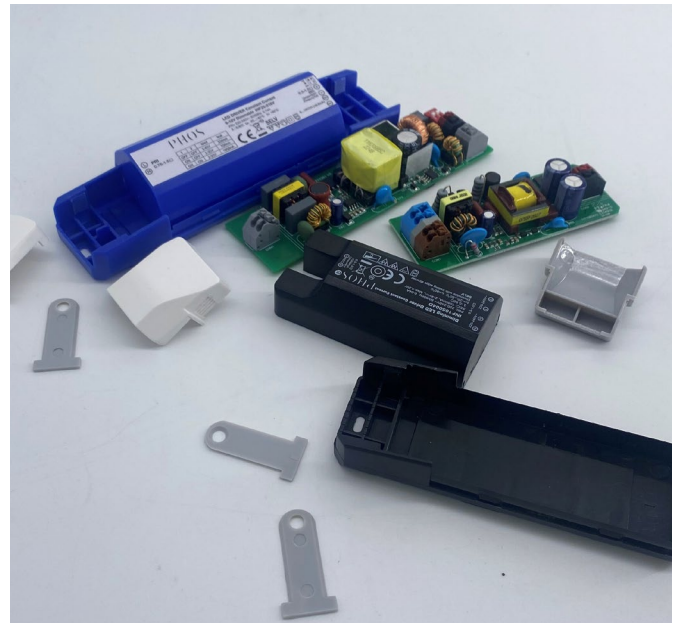
Phos has WEEE compliant certification, this aims to encourage the design of electronic products with environmentally-safe recycling and recovery in mind. RoHS compliance dovetails into WEEE by reducing the amount of hazardous chemicals used in electronics manufacture.

WEEE RECYCLED



Phos has WEEE compliant certification, meaning we design our products with environmentally-safe recycling and recovery in mind.

Therefore any products that cannot be repaired are designed for deconstruction and are responsibly recycled.



RoHS

Restriction of
Hazardous substance

RED

Restriction of harmful materials
to living creatures

BCORP

Verification of social &
environmental performance

WEEE

Waste Electrical and Electronic
Equipment recycling

TM66

Adopting the Circular Economy in
the Lighting Industry

Community Impact

Sponsoring and collaborating
with local organisations e.g.
Hertfordshire University

ACCREDITATION & CERTIFICATION

Flexitime Hours

Allowing employees to alter
workday start and finish times

REACH

Restriction of Chemicals

Fair Living Wage

Allowing employees to afford a
decent standard of living

Ecologi

Sponsoring carbon offsetting

Packaging

Recycling and
Environmentally friendly

Surfers Against Sewage

Marine conservation charity working
with communities to protect oceans,
beaches and marine life



Biophilic
manufacturing
video here:



Phos is a proud member of the Green Light Alliance, whose aim is to light up the world, without depleting its resources.

Made up of an alliance of suppliers, specifiers, and educators, we aim to shape the debate around sustainable lighting and make a difference to the world in which we live.



GreenLight
Alliance

BIOPHILIC DESIGN

Biophilia. noun – “An innate and genetically determined affinity of human beings with the natural world.”

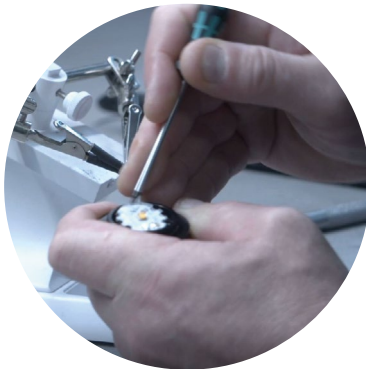
Driven by the local community, naturally occurring shapes, colours and textures, full-spectrum light and respect for the planet. Phos fittings are some of the most biophilic on the planet.



Finishes inherent in nature



Products based on the natural world



Responsible, local and community-driven business model



Considerate manufacturers dedicated to preserving the Earth

CREATING A COMMUNITY OF LIGHTING ENTHUSIASTS

Phos is a family company whose passion for light goes below the surface of just selling lights.

Authors of a book now present in a number of university design course reading lists, as well as being the leading manufacturer in terms of education about the power of light to the design industry, we understand light more than most and make it our mission to pass this on to those with the responsibility of designing the spaces that humans inhabit.

Our independent research and education platform, Light Tribe by Phos, has spread this knowledge to over 48,000 people and was shortlisted at the "Women In Lighting Awards" for "Best Non-Profit Initiative". We have spent the past 5 years educating designers on the power of light and its ability to either positively or negatively influence you, giving over 500 educational presentations to universities and design studios as well as online webinars during lockdown and beyond.

Our products embody all of our research, epitomising what it means to look and feel natural; our light quality is the closest thing to artificial light on the market and we offer an industry-leading range of organic, "biophilic" finishes.

To learn more or to book a presentation on the neuroscience of light and biophilic design, visit the Light Tribe by Phos page on our website.

Neuroscience &
Biophilic CPD:



ACCOLADES

Phos is a family-run, award-winning British designer and manufacturer of architectural lighting. Every one of our ranges has been acknowledged within the lighting industry.



Darc Awards

- Winner of “Best Interior Kit” at the Darc Awards 2019
- Runner up in “Best Exterior Kit” at the Darc Awards 2020
- Shortlisted in “Best Interior Kit” at the Darc Awards 2021
- Shortlisted in “Best Exterior Kit” at the Darc Awards 2021
- Shortlisted in “Best Interior Kit” at the Darc Awards 2022

FX Awards

- Short-listed for “Product of the Year” at the FX Awards 2020
- Short-listed for “Best Lighting Product” at the FX Awards 2021
- Finalist for category “Lighting Product” at the FX Awards 2022

LDA

- Highly Commended for “Product of the year” at LDA 2021

BCORP

- B-Corp Certified 2022

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PHOS