



EarthLIGHT



HOLOPHANE[®]
An Acuity Brands Company



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TRANSFORMING WHAT MATTERS



**EARTHLIGHT IS A CENTRAL
TENET OF ACUITY BRANDS'
STRATEGY AND REFLECTS OUR
COMPREHENSIVE APPROACH
AROUND ESG TOPICS**



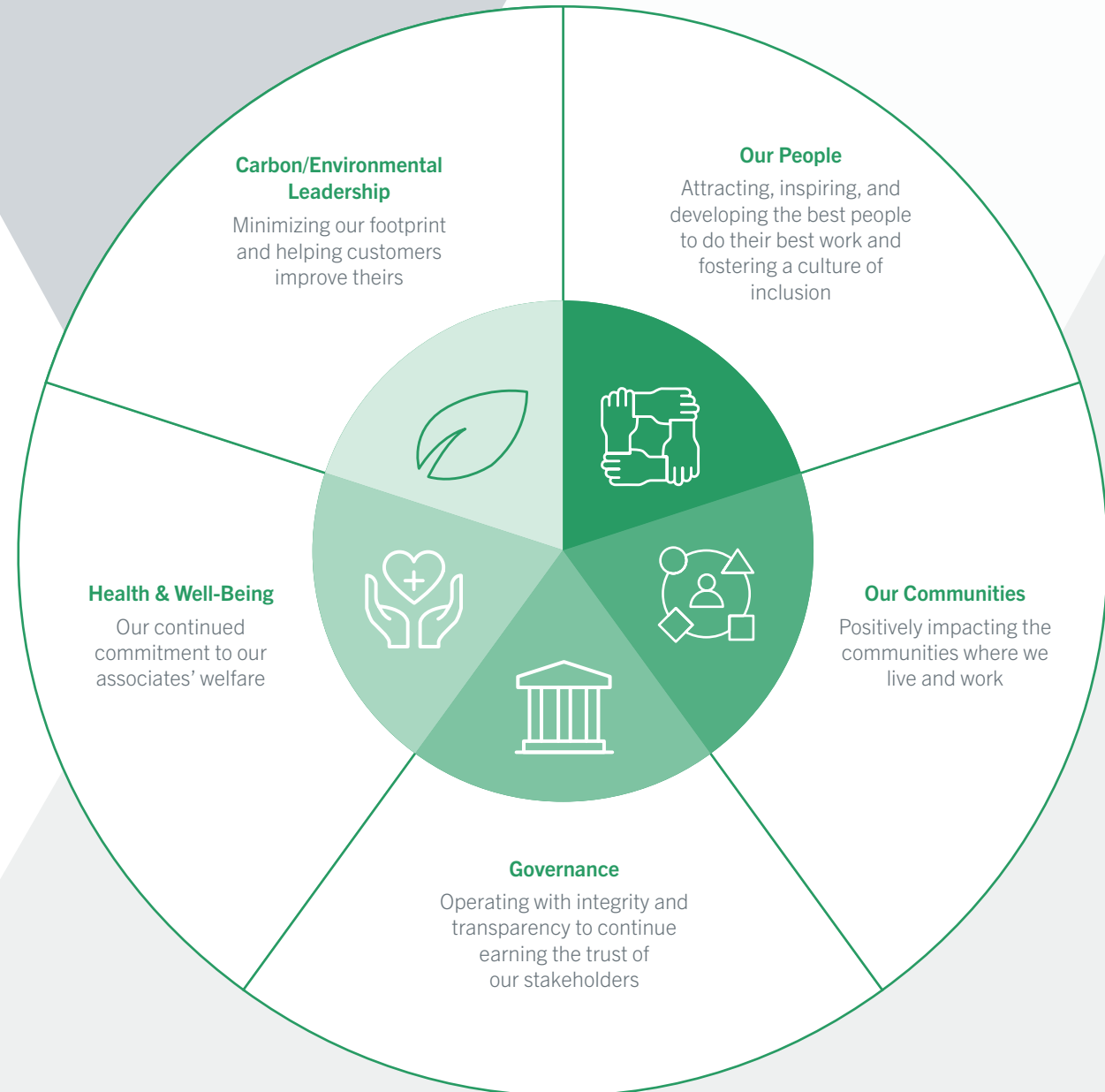
Through EarthLIGHT, Holophane improves its operations, social responsibility and products to aid customers in lessening their carbon emissions and creating a more sustainable environment.



ACUITY'S APPROACH TO ESG

EarthLIGHT is a central tenet of Acuity Brands' strategy and reflects our comprehensive approach around ESG topics. Through EarthLIGHT, we improve our performance, increase transparency, and better highlight our results on numerous ESG priorities.

- Environment
- Social
- Governance





AT THE INTERSECTION OF SUSTAINABILITY AND TECHNOLOGY

WE DO WELL BY DOING GOOD

In Fiscal Year 2021 (FY21), our key EarthLIGHT accomplishments included:

Achieving carbon neutrality in our operations

Announcing our 100 Million Metric Tons ambition

Calculating our Scope 3 emissions

Building a strong and diverse leadership team

Launching Executive-level ESG and DEI Councils

Implementing Acuity Anywhere, our new holistic hybrid work model

Introducing new technology solutions

These efforts contributed to our performance and positions the Company well for FY22 and beyond.

ACUITY EARTHLIGHT 100 MILLION PLEDGE

Acuity has committed to 100 million metric tons of carbon avoidance as a result of projected 2020–2030 sales of LED luminaires, lighting controls, and building management systems replacing older technologies in existing buildings

↓100 Million





121 MMT

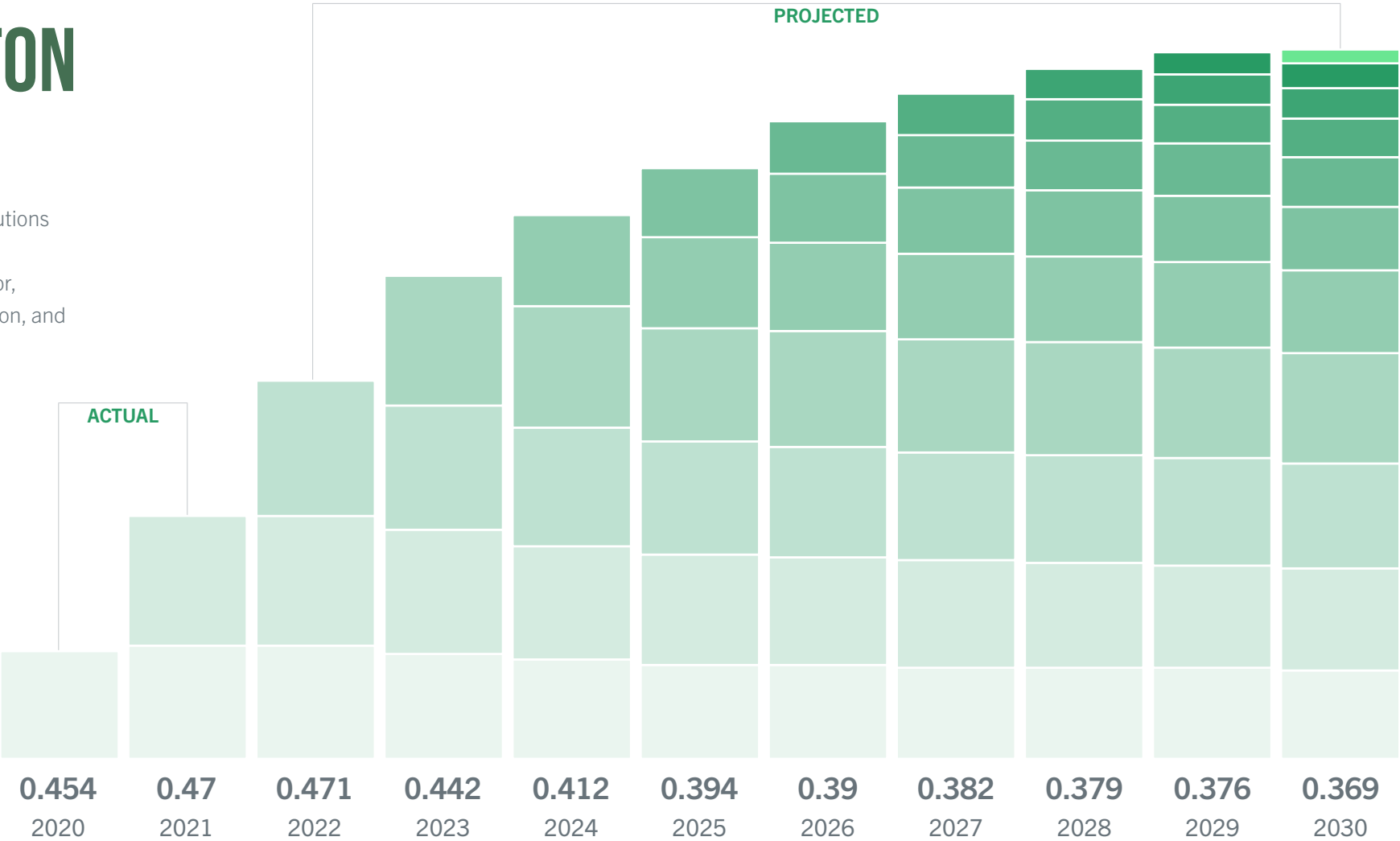
The sum of years 2020–2030 is predicted to be 121 million metric tons of CO₂ avoidance

ACUITY'S 100 MILLION METRIC TON AMBITION

The estimated cumulative impact of Acuity's contributions to reducing carbon emissions is shown. Future year contributions diminish due to the Grid Emission Factor, increased efficiency of buildings undergoing renovation, and the plateauing efficiency of LEDs.



Acuity's yearly greenhouse gas avoidance:

- 2020
- 2021
- 2022
- 2023
- 2024
- 2025
- 2026
- 2027
- 2028
- 2029
- 2030



ACUITY'S PROGRESS AGAINST THE FY22 TARGETS

In FY20, Acuity outlined our FY22 targets. We’re providing an update on our FY21 and introducing our new 100 million metric ton carbon avoidance ambition.

Goal	Metric	FY19 Baseline	FY21 Target	FY21 Actual	FY22 Target	Status
Carbon Intensity	g CO ₂ / \$	25.92	20.73	24.02	19.44	Continuing
	%	-	-20%	-11.01%	-25%	
Energy Efficiency	Mt CO ₂	83,698	66,958	73,888	62,774	Continuing
	%	-	-20%	-11.72%	-25%	
Raw Materials	%	-	-20%	-27%	-25%	 Achieved and Completed
Customer Energy Reduction	Billions of kWh	9.6	18.0	28.77	27.0 (cumulative FY19–22. Goal met, goal retired)	 Achieved and Completed
Associate Engagement	%	71	81	84*	85	FY21 Target Achieved
Ethics	%	100% of salaried associates	100% of salaried associates and 60% of hourly associates	100% of salaried associates and 80% of hourly associates	100% of salaried associates and hourly associates	FY21 Target Achieved
Supplier Ethics	%	n/a	70% of total spend	80% of total spend	90% of total spend	FY21 Target Achieved

*Our survey partner changed to Willis Towers Watson in FY21. The metric measures sustainable engagement.

ACUITY'S CARBON FOOTPRINT

This report covers FY21 results, and includes estimates and assumptions collected from September 1, 2020 to August 31, 2021.

Scope	Category	Emissions (MT CO ₂ e)	Emissions Methodology
Total Scope 1		38,346	
Total Scope 2		44,785	
Part 1	Purchased Goods & Services	1,559,138.36	Spend-based method; Average-data method
Part 2	Capital Goods	30,417.17	Spend-based method
Part 3	Fuel & Energy-Related Services	32,693.86	Average-data method
Part 4	Upstream Transportation	82,228.69	Distance-based method; Spend-based method
Part 5	Waste Generated in Operations	2,162.24	Spend-based method; Waste-type-specific method
Part 6	Business Travel	10,575.38	Distance-based method; Spend-based method
Part 7	Employee Commuting	8,743.75	Distance-based method
Part 8	Leased Assets	.	n/a
Part 9	Downstream Transportation	60,213.35	Distance-based method / Fuel-based method; Spend-based method
Part 10	Processing of Sold Products	.	n/a
Part 11	Use of Sold Products	36,735,800.00	Handprint Methodology
Part 12	End-of-Life Treatment of Sold Products	32,669.98	Waste-type-specific method
Part 13	Leased Assets	.	n/a
Part 14	Franchises	.	n/a
Part 15	Investments	1.09	Average-data method
Total Scope 3		38,554,644	
Total Scope 1+2+3		38,637,775	

125 years of
Innovation & Excellence

HOLOPHANE “EARTHLIGHT”

In 2021 the world famous Holophane brand was 125-years-old, the oldest lighting brand in the Acuity Brands portfolio. Since 1896 Holophane has always been synonymous with energy efficiency and sustainability through its pioneering product design and optical performance, delivering the lowest cost of ownership combined with the use of recyclable manufacturing materials and repairable construction. To this day Holophane continue to thrive as a leading brand in the professional lighting market with technology and controls that deliver best in class solutions for our customers.



Our EarthLIGHT philosophy and initiative is fundamental to the business demonstrating our commitment to the environment, our people, and our community. EarthLIGHT is a core concept of our strategy and reflects our comprehensive approach around Environmental, Social, and Governance (ESG) topics. Holophane Europe is also committed to lessening our carbon footprint and helping our customers do the same. We are reducing waste, lowering costs, minimizing carbon impacts, optimizing energy usage, increasing our product circularity, and helping our customers reduce their energy use and carbon emissions to achieve their own goals and priorities.

As a leading UK lighting manufacturer located in Milton Keynes, we have a likeminded, dedicated team of skilled people focused on delivering the very best products and service for our customers whilst concerned and committed to our environment, communities and colleagues.

Made in Britain

We are proud members of the “Made in Britain” campaign and are committed to a sustainable supply chain through the strategic decision to “on shore” both our production and supply chain to the UK and EU supply partners. As such all Holophane Europe developed products are >95% sourced from the UK or the EU and 100% manufactured at our factory in Milton Keynes, UK.



We are incredibly proud to say that all Holophane Europe developed lighting products are:

- Designed in Britain
- Compliance tested in Britain
- Tooled & sourced in Britain
- Manufactured in Britain
- Supported in Britain

This manufacturing philosophy and strategy has been critical to our success and has enabled Holophane Europe to continue offering customers exceptional service despite the well-publicised supply chain issues exacerbated by Brexit and the Coronavirus pandemic.

Roadmap to Net Zero

The UK government has recently set a challenging reductions in the nations carbon emissions targeting Net Zero by 2050. Holophane are consciously committing towards that target through our EarthLIGHT program by investing heavily in new technologies, infrastructure, systems and processes.

As you would expect from a market leading lighting company the Holophane Europe factory and offices in Milton Keynes are all illuminated with the very latest LED lighting technology using integrated sensors and controls to minimise energy consumption and maximise savings across our facilities whilst improving the lit environment for our employees.

In 2021 our carbon footprint was again reduced as we moved towards a carbon neutral business by purchasing all our electricity from renewable sources. In addition, and to demonstrate our commitment we have now also invested in 686 photovoltaic (solar) panels installed on a production facility roof which are forecast to produce 224,377 kWh annually or in excess of 70% of all our electricity requirements in 2022, also avoiding over 105,000 Kgs of CO2 emissions a year. This in turn allows us to provide cheap Electric Vehicle (EV) charging in our on-site car parks for Holophane staff whilst encouraging the transition to EVs use in line with UK Government incentives.

Linear Economy to Circular Economy

The traditional TAKE > MAKE > WASTE linear economy associated with manufacturing of goods is quite rightly being challenged with a trend towards a more circular and ultimately sustainable lifecycle described as

TAKE > MAKE > REPAIR > REUSE > RECYCLE.

Our EarthLIGHT commitment is the umbrella strategy that ensures Holophane Europe's products are designed in line with the European Eco Design directive ensuring a right to repair principle is designed-in. This critical concept of a modular design approach allows our products to be easily disassembled so that repair or refurbishment can be used to extend product life cycles. This critical approach gives particular circularity to our products with a highly knowledgeable team of after sales personnel offering repair or refurbishment service to ensure our customers have long life satisfaction from their lighting systems.

All our products are packaged in a sustainable way from easily recycled cardboard materials minimising the use of plastics; and finally at the end of life the materials used in the product allow easy reclamation and recycling to take place safely and efficiently.

In 2021 the Chartered Institute of Building Services Engineers and Society of Light & Lighting launched a new technical memorandum TM66:2021 – Creating a circular economy in the lighting industry and the Circular Economy Assessment Method (CEAM).

We have embraced this framework and scored all Holophane Europe designed products to allow specifying customers clearly see the environmental impact of those products.

Holophane Europe are members of Lumicom a UK leading provider of recycling of Lighting and Electrical products and through our recycling fees are committed to the reclaim and recycling of our lighting products at end of life whilst meeting our Waste from Electrical & Electronic Equipment (WEEE) recycling obligations.

The Heart of Holophane

Our people always have been and will continue to be - The Heart of Holophane. Of course, EarthLIGHT is only possible because of a dedicated, professional, and highly engaged work force.

In 2021 the business was awarded "Investors in People" status through its initiatives to train, develop and engage with

its people, The Brilliant Productive and Connected culture initiative has helped to develop a strong, flexible, and diverse team of people from associate to senior management team. Investments in apprenticeship programme, training for all the management team, cross functional skills and development programmes enable the business to continue to grow and evolve, leading and influencing the industry.

Summary

Our end-users and customers continue to rely on our innovations to provide their lighting, enhance their spaces, and reduce their energy costs. Looking to the future, I am excited and I am thankful to the Holophane team for never losing sight of what matters. I am proud of the positive impact Holophane Europe is making and of our ongoing progress to make our Company and our communities better.

Best,



David Barnwell
Managing Director, Holophane Europe Ltd.

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We invest in people Standard

ENVIRONMENT

REDUCING OUR CARBON FOOTPRINT

We work to reduce our carbon footprint and help customers reduce theirs. Here are some of the ways we are making an impact:



100% Carbon Neutral Operations

Our commitment to reducing carbon emissions for our customers extends to our own operations. As we lessen our energy consumption in our offices, production facilities, and distribution centers, we're also using and exploring renewable energy options.



Making Offset Investments

We are offsetting our emissions by investing in forestry and landfill gas-to-energy projects that reduce atmospheric carbon. We're tackling our Scope 1 and 2 emissions head-on with investments that improve the environment.

ENVIRONMENT SOLAR PANELS

As part of our 2021 EarthLIGHT initiative in becoming a 100% carbon neutral organisation, we invested in the installation of Photovoltaic (solar) panels across the roof of our head office and manufacturing facilities in Milton Keynes.

The state-of-the-art Solar Panel installation will allow us to produce up to 80% of our annual electrical power consumption, whilst also returning any surplus energy back into the power grid.

The remaining 20% of electrical consumption is purchased from Carbon Trust accredited 100% renewable energy sources.

Facts and Figures:

- 686 PV panels installed
- Production of up to an estimated 224,000 kWh per year
- c. 45,000 kWh returned to the grid per year
- CO₂ avoidance of c.105 tonnes per year

100% Carbon Neutral



ENVIRONMENT ENERGY PROCUREMENT



Whilst our solar PV panel installation at the Holophane Europe head office and manufacturing facilities provides us renewable energy that caters for up to 80% of our annual energy consumption, the remaining 20% is procured from external suppliers.

In order to reduce our carbon emissions and to ensure we maintain our 100% carbon neutral status, we procure our energy, when needed, from 100% renewable sources. This covers supply from other solar panel sources, Hydroelectric power, Wind Turbines, Thermal and Biomass.

Our 100% renewable electricity suppliers are certified by the Carbon Trust and conform to the Greenhouse Gas Protocol. This enables us to report zero carbon emissions for purchased electricity when using the market-based reporting method. The emissions measured are in CO₂, not CO₂e. The Greenhouse Gas Protocol Scope 2 Guidance states that emission factor sets may provide CO₂ emission rates, which would not include emission rates for CH₄ and N₂O.

ENVIRONMENT OPERATIONAL INITIATIVES

Reducing Waste

The reduction of waste material has always been a priority for Holophane and is even more important as part of our EarthLIGHT initiatives. This is achieved in a number of ways that cumulatively add up to make a big impact. Holophane is constantly reviewing our internal operations whilst also working with our suppliers to unlock more waste reduction potential.

Any unavoidable waste is recycled responsibly. Holophane is now proud to report that 100% of our unavoidable waste is taken by recycling companies, thus minimising any waste going to land fill.

Below are outlines a few examples of operational initiatives in order to reduce waste:

Example:

The return of packing plastic trays from our LED board supplier for the re-use in the delivery of more LED boards. This has resulted in c7.9 tonnes of plastic waste avoided since 2019. This is equal to 395,000 (500ml) plastic bottles.

Example:

Replacing all of our plastic void fill machines for product packaging and replaced with paper filler machines that uses paper that can be recycled. This has saved c.3.45 tonnes a year in plastic waste. This is equal to 175,000 (500ml) plastic bottles.

Example:

Investment in new pallet wrapping machine that overs more efficiencies over previous equipment. This saves c.0.5 tonnes a year. This is equal to 35,000 (500ml) plastic bottles.

Example:

Our product packaging comes from a supplier that uses 45% already recycled cardboard in the production of our packaging. Additionally, all our cardboard packaging is 100% recyclable at end of use.

Reducing waste is also achieved by the usage of raw materials in the first place. Coupled with the initiatives outlined above Holophane are also reducing our wood, cardboard and plastic usage year on year.



ENVIRONMENT RECYCLING (WEEE)

Along with Holophane's continuing commitment to the reduction of waste material, our EarthLIGHT initiative also prioritises the correct recycling of luminaires.

Overview of WEEE:

The **Waste Electrical and Electronic Equipment (WEEE)** directive along with the RoHS Directive became European Law in February 2003 and was introduced to the UK in 2007. Its aim is to reduce the amount of waste and the need to recycle. For Holophane, this means avoiding the end-of-life luminaires reaching landfill.

Re-use, Repair and Recycle for a circular economy.

European Commission:

https://environment.ec.europa.eu/topics/waste-and-recycling/waste-electrical-and-electronic-equipment-weee_en

UK Health and Safety Executive

<https://www.hse.gov.uk/waste/waste-electrical.htm>

WEEE Obligations:

To meet our WEEE obligations, Holophane is a member of Recolight, a premier WEEE compliance scheme, specifically setup to serve the lighting industry.

Recolight offer impartial, accurate, and expert advice on WEEE compliance for both household and non-household lighting producers.



ReColight
Reuse | Recycle.



SOCIAL THE HEART OF HOLOPHANE IS OUR PEOPLE

Holophane is creating an environment to attract and retain the best talent and ensure they can do their best work.

SOCIAL INVESTORS IN PEOPLE

Investing in our People

The heart of Holophane is our people and we believe in creating an environment where our employees are allowed to develop both professionally and personally.

Our culture helps to guide employee interaction on a day-to-day basis helping to drive an inclusive environment and ensures that Holophane help deliver market-leading products, services and customer support.

To measure this, Holophane is Investor in People accredited which assess an organisation based on their 9-part framework:

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We invest in people Standard

LEADING

1. Leading and inspiring people. Leaders are trusted members of the company. They clearly communicate the company's objectives and motivate and inspire people to work towards them.
2. Living the organisations' values and behaviours. Everyone, at every level works with the company's values in mind all the time. And they have the courage and support to challenge anyone who isn't doing the same.
3. Empowering and involving people. There's a culture of trust and responsibility in the company. Each person feels ownership over their role, and empowered to make decisions.

SUPPORTING

4. Managing Performance. Leaders and people alike set the right objectives, track their progress and act on other people's feedback.
5. Rewarding and recognising high performance. The company rewards people when they do well. People feel motivated to always do their best work.
6. Structuring work. Each role is designed in a way that works towards the company's objectives, is rewarding and encourages collaboration.

IMPROVING

7. Building capability. Leaders develop their people and make sure they're given everything they need to thrive at work. And the company hires the right people, at the right time, for the right roles.
8. Delivering continuous improvement. The company is always looking for ways to improve. Leaders will look beyond their industry for inspiration, and any new approaches they find are welcomed by a culture that encourages innovation.
9. Creating sustainable success. Leaders are aware of how the world around their company is changing over time, and are making the right internal changes to not just keep up, but stay ahead.

SOCIAL EMPLOYEE STORIES



Rui Monteiro
Design Engineer

My story at Holophane started in 2015, just weeks after I moved with my wife to the UK. I can say that the support given by the company from the first moment was fundamental for me to be in the position I am today.

Initially I started a temporary role as a manufacturing operator and was offered a lead operator position on a full-time contract just 6 months later.

Another 6 months later I was offered a dispatch department position, which only lasted 2 months as a vacancy arose for a Planner Buyer position and once again the company decided to give me the opportunity. Since the company knew about my mechanical engineering background, it only took 11 months for a position in the NCP (Non-Configurable Products) engineering department to open up.

Again, I was offered such a position and immediately accepted, as I knew I had achieved the position I had studied for. And more recently, I was offered the position of Design Engineer. Another step forward in my career in this company, which I consider peculiar, in the sense that I've never found another place where the people/employees were so appreciated.



Matthew Fordham
Finance Director

I first joined Holophane in 2000 almost straight from school, working four days a week in Credit Control whilst studying towards my AAT qualification one day a week at Milton Keynes College.

Over the next couple of years, the Company supported me in gaining my CIMA qualification, via a combination of evening classes & study leave.

Once qualified, the Company granted me a secondment in the Operations side of the business, to help broaden my experience – 20 years on this decision paid off when I became Finance Director of the Company!



Stephanie Gormley
Planner Buyer

I joined Holophane in October 2015, I started as a project coordinator in the customer service department and worked there for 5 years.

I then saw a job opportunity in the production department for a Planner Buyer position and decided to take the opportunity. Since then I have been in my job role for 1yr and 8 months. I have learnt so much since working for Holophane and the opportunities that can happen in this company.



SOCIAL APPRENTICESHIPS/TRAINING

Holophane has had a long-standing commitment in supporting apprenticeship schemes and Year-in-work placements for various educational establishments.

Developing, nurturing, passing on vital skills and knowledge are the key components of our student placements. This will not only advantage the individual but also aid in the long-term success of British engineering, business and the British economy.

In the past Holophane has partnered with educational institutions and trusts such as:

- The Engineering Development Trust
- Loughborough University
- Coventry University
- Bedford College
- Local Milton Keynes Schools and Colleges

Nathan Robinson Engineering Apprentice

I only recently became a part of Holophane, joining as an Engineering Apprentice in February 2022. Since then, I have already been given the opportunity to not only work in the Laboratory, but also in production and goods return, all while attending college 1 day a week.

When I finished sixth form last year, I began looking for apprenticeships because I wanted a more hands-on, real-world experience than University could offer me. When I found Holophane's apprenticeship I was immediately drawn to the unique and interesting opportunity and so far, it has yet to disappoint."



SOCIAL EQUALITY

Holophane Europe
is committed to
encouraging equality,
diversity and inclusion
among our workforce,
and eliminating
unlawful discrimination.

The aim is for our workforce to be truly representative of all sections of society and our customers, and for each employee to feel respected and able to give their best.

The organisation - in providing goods and/or services and/or facilities - is also committed against unlawful discrimination of customers or the public.

Our policy's purpose

This policy's purpose is to:

1. Provide equality, fairness and respect for all in our employment, whether temporary, part-time or full-time
2. Not unlawfully discriminate because of the Equality Act 2010 protected characteristics of:
 - age
 - disability
 - gender reassignment
 - marriage or civil partnership
 - pregnancy and maternity
 - race (including colour, nationality, and ethnic or national origin)
 - religion or belief
 - sex
 - sexual orientation
3. Oppose and avoid all forms of unlawful discrimination. This includes in:
 - pay and benefits
 - terms and conditions of employment
 - dealing with grievances and discipline
 - dismissal
 - redundancy
 - leave for parents
 - requests for flexible working
 - selection for employment, promotion, training or other developmental opportunities

SOCIAL EQUALITY



Our commitments

The organisation commits to:

1. Encourage equality, diversity and inclusion in the workplace as they are good practice and make business sense
2. Create a working environment free of bullying, harassment, victimisation and unlawful discrimination, promoting dignity and respect for all, and where individual differences and the contributions of all staff are recognised and valued.

This commitment includes training managers and all other employees about their rights and responsibilities under the equality, diversity and inclusion policy. Responsibilities include staff conducting themselves to help the organisation provide equal opportunities in employment, and prevent bullying, harassment, victimisation and unlawful discrimination.

All staff should understand they, as well as their employer, can be held liable for acts of bullying, harassment, victimisation and unlawful discrimination, in the course of their employment, against fellow employees, customers, suppliers and the public

3. Take seriously complaints of bullying, harassment, victimisation and unlawful discrimination by fellow employees, customers, suppliers, visitors, the public and any others in the course of the organisation's work activities.

Such acts will be dealt with as misconduct under the organisation's grievance and/or disciplinary procedures, and appropriate action will be taken. Particularly serious complaints could amount to gross misconduct and lead to dismissal without notice.



Further, sexual harassment may amount to both an employment rights matter and a criminal matter, such as in sexual assault allegations. In addition, harassment under the Protection from Harassment Act 1997 – which is not limited to circumstances where harassment relates to a protected characteristic – is a criminal offence.

4. Make opportunities for training, development and progress available to all staff, who will be helped and encouraged to develop their full potential, so their talents and resources can be fully utilised to maximise the efficiency of the organisation.
5. Make decisions concerning staff being based on merit (apart from in any necessary and limited exemptions and exceptions allowed under the Equality Act).
6. Review employment practices and procedures when necessary to ensure fairness, and also update them and the policy to take account of changes in the law.
7. Monitor the make-up of the workforce regarding information such as age, sex, ethnic background, sexual orientation, religion or belief, and disability in encouraging equality, diversity and inclusion, and in meeting the aims and commitments set out in the equality, diversity and inclusion policy.

Monitoring will also include assessing how the equality, diversity and inclusion policy, and any supporting action plan, are working in practice, reviewing them annually, and considering and taking action to address any issues.

Agreement to follow this policy

The equality, diversity and inclusion policy is fully supported by senior management and has been agreed with our employee representatives.

PRODUCT SUSTAINABILITY INTRODUCTION

Innovation and sustainability is at the core of the products we build.

Here, at the intersection of sustainability and technology, we're ensuring we design and manufacture innovative products that not only perform but also enable a more sustainable product lifecycle.



PRODUCT SUSTAINABILITY ECO-DESIGN PRINCIPLES

Holophane's first product was the famous patented globe in 'white' or 'rose crystal' that sold for around 2 shilling (10p).

Throughout our 125-year history Holophane continues this proud tradition with our values deeply rooted in the dedication to creating luminaires, with exceptional lighting performance, innovative patented technologies, and delivering added customer value beyond illumination.

Today, along with our commitment to EarthLIGHT, we design our products to not only provided best-in-class performance but also to enable a more sustainable product lifecycle.

We achieve this by applying something we call the **4-pillars of Eco-Design**, which is integral to our product development process.

SUSTAINABLE

"More with less"

- Use of recyclable materials – (aluminium & glass as examples)
- Reduce unnecessary materials
- Reduce component weight
- Reduce component count
- Use components that have use in other luminaires
- Reduce labour times & energy usage in manufacture



SCALABLE

"Tailor the product for application"

- Design-in scalability
- Product form-factor is sized for application – (multiple sizes to match lumen output)
- Reduce material 'waste'
- Flexible mounting options for different applications & uses



PRODUCT SUSTAINABILITY ECO-DESIGN PRINCIPLES

SERVICEABLE

“Ensure product longevity”

- Making the product upgradeable
- Designing in simplicity:
 - Easy to install features
 - Ease of access to internals
 - Tool-less entry
- Ensuring spares are easily available
- Manuals to enable customer servicing and repair

SEPARABLE

“Environmentally friendly & recyclable”

- Making luminaires easy to disassemble (i.e. non-permanently bonded components)
- Making materials used easy to separate
- Marking of materials to ensure quick identification



PRODUCT SUSTAINABILITY LIGHTING DESIGN

Holophane are renowned for our excellence and innovation in luminaires, which not only provide the best-in-class energy efficiency but are also designed with optimised optical distributions to achieve the best light performance.

However, we also know recognise that considered application of our luminaires in lighting designs is of equal importance. Therefore, the EarthLIGHT initiative also flows through our highly trained lighting design team.



PRODUCT SUSTAINABILITY LIGHTING DESIGN



Designs optimised for reduced energy consumption and no. of lighting points

Our lighting design teams actively work to ensure the best whole project solution. This involves carefully considering the best range of Holophane luminaire's to utilise, to achieve the least amount of energy consumption and overall reducing the number of lighting points needed.

In doing so this helps our customers achieve reduction of carbon emissions (through energy usage) and overall costs for their project. Additionally, we actively work with our customers who are looking to achieve accreditations, such as BREEAM, in providing the most efficient solution in order to achieve the highest building ratings.

Respect to people using the area of application

Good lighting design not only lies with lighting an area to a specification, but also lighting the area in consideration of the people using the space. Certain applications require less perceived glare for example or sites where enhanced lighting is needed.

Our lighting design team will work with customers to understand the project and light the space in respect to their employee's wellbeing.

Reduction of Obtrusive light

When lighting spaces, especially outdoor designs, our lighting designers will respect surrounding areas and also the people who may be using them. Whilst the majority of our luminaires produce 0% ULOR, consideration is still needed to ensure the reduction of obtrusive light or light spill. Our team will work with customers to identify the project area and any surrounding areas that need special attention.

Consideration of Flora & Fauna

Whilst LED lighting has revolutionised lighting performance, we also recognise that this can have an effect on surrounding areas. This is especially relevant when lighting in consideration of Bat colonies, for example. Holophane has undertaken it's own research on lighting in respect to bats, to ensure we understand better the effect our products have on the environment.

Our lighting designers actively work and consult with our customers to ensure we respectfully light projects to ensure minimal impact on surrounding flora and fauna.



PRODUCT SUSTAINABILITY CIRCULAR ECONOMY PRINCIPLES IN PRODUCT DESIGN TM66

In November, CIBSE released their new technical memorandum **TM66:2021** – Creating a circular economy in the lighting industry. This new document sets out what the industry could do in the design and manufacturing of products to comply with circular economy principles. It also includes a new assessment framework that can be applied to our industry.

TM66:2021 included the introduction of a new Circular Economy Assessment Method (CEAM) that looks to standardise an assessment process to rate the circularity of luminaires in the UK market.

Holophane has actively supported and implemented the TM66:2021 guidance and CEAM into our new product development process. This now helps guide our product development teams in designing and developing products that will ensure longer product lifecycles and thus creating a more circular economy.

Our goal moving forward is that all new product developments achieve an ‘Excellent circularity’ rating against the CEAM.

Understanding the TM66:2021 Circular Economy Assessment Method (CEAM)

TM66 outlines two methods the **MAKE** rating and the **SPECIFY** rating. The MAKE rating is aimed at manufacturers and is a comprehensive assessment looking at product design, manufacturing, materials, and the ecosystem. The SPECIFY rating is a simplified version of the MAKE rating and is aimed at our customers to help them quickly assess different products.

After completing either a MAKE or SPECIFY document a score is generated for the luminaire between 0.0 and 4.0 (the higher the score, the better). For example, scores between 2.5 and 4.0 are described as ‘Excellent circularity’.

See following page on how to analyse the score:



CityMax (SCL)
2.3
Definite/substantial
progress to circularity



CityMax Large (BCL)
2.4
Definite/substantial
progress to circularity



Denver Elite Bollard (DEB)
2.2
Definite/substantial
progress to circularity



Denver Elite Wall (DEW)
2.3
Definite/substantial
progress to circularity



HI-BEAM (HIB)
2.3
Definite/substantial
progress to circularity



HMAO IV (HMAO)
2.3
Definite/substantial
progress to circularity



Metrolux (MTX)
2.5
Excellent circularity



Parkpack (PPK)
2.6
Excellent circularity



WALLPACK (WAP)
2.4
Definite/substantial
progress to circularity



WALLPACKETTE (WPT)
2.1
Definite/substantial
progress to circularity



Denver iD Bollard (DBD)
2.4
Definite/substantial
progress to circularity



Denver iD Pole (DBL)
2.4
Excellent circularity



Denver iD Wall (DWL)
2.4
Excellent circularity



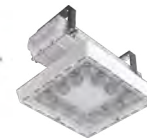
D-Series Family (DSX)
2.3
Definite/substantial
progress to circularity



Prismashield Elite (PSE)
2.4
Definite/substantial
progress to circularity



Prismaspace (PRS)
2.0
Definite/substantial
progress to circularity



Prismpack (PPS & PPH)
2.5
Excellent circularity



R-Line (RLI)
2.4
Definite/substantial
progress to circularity



D-Series Parking Garage (DPG)
2.2
Definite/substantial
progress to circularity



Factor (FTR)
2.3
Definite/substantial
progress to circularity



Factor Small (FTS)
2.3
Definite/substantial
progress to circularity



Haloprism (HAL)
2.3
Definite/substantial
progress to circularity



SIGNATURE (SIG)
2.2
Definite/substantial
progress to circularity



SIGNATURE Bollard (SGB)
2.2
Definite/substantial
progress to circularity



S-Line (SLI)
2.4
Definite/substantial
progress to circularity



V-MAX (VMX)
2.6
Excellent circularity

0 to 0.5

Very poor circular economy performance

0.5 to 1.5

Some circular economy functionality

1.5 to 2.5

Definite/substantial progress to circularity

2.5 to 4.0

Excellent circularity

PRODUCT SUSTAINABILITY DARK SKIES



Holophane Europe Ltd is proud to be a member of the International Dark-Sky Association, helping to accomplish their mission to protect and restore our natural night environment.

What is the International Dark Sky Association?

The International Dark-Sky Association (IDA) is the recognized authority on light pollution and is the leading organization combating light pollution worldwide. In part of their strategic work the IDA educates lighting designers, manufacturers, technical committees and the public about controlling light pollution.

To achieve this, the IDA has developed the 'Fixture Seal of Approval' program to provide objective, third-party certification for lighting that minimizes glare, reduces light trespass and doesn't pollute the night sky.

Under this program Holophane has successfully obtained the 'Fixture Seal of Approval' for the following products*:

* Note that only fittings specified with colour temperatures 3000K or warmer are approved under the IDA.



EarthLIGHT



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