ASBP WEBINAR

ASBP 2020
Reuse Summit

Circular Lighting Service

EGG Lighting

Tom Ruddell
Circular Design Engineer

REUSE SUMMIT

Kindly supported by

CLEVELAND STEEL & TUBES LTD

Tom Ruddell, design engineer
tom@egglighting.com

I'm responsible for developing EGG's remanufacture process and working with the R&D team on new opportunities to increase our impact.

EGG LIGHTING

Member of the LIA

EGG lighting was born in 2013 and today delivers lighting solutions to a broad variety of clients across Scotland and North England

We have gained a reputation for delivering projects to the highest standard at a fair price – at the same time as pioneering circular economy in our sector

The Herald GLOBAL GAME CHANGERS 2018 — WINNER

INNOVATORS MAGAZINE

SRC 2019

Scottish Resources AWARDS WINNER Best Circular Economy Initiative

GLASGOW GUARANTEE

INVESTORS IN YOUNG PEOPLE Business Award 2018

The Herald PIONEER AWARDS Driving change for a sustainable Scotland

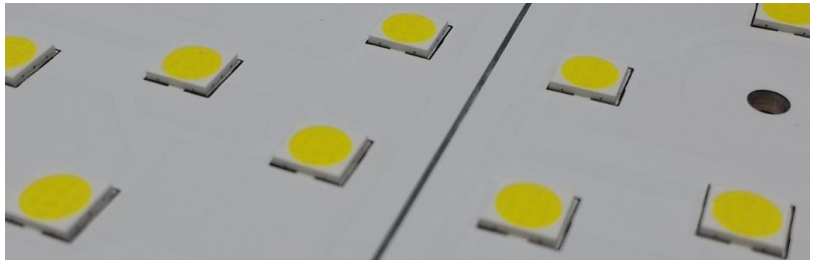
GBA

Glasgow Business Awards '19 WINNER INNOVATION in BUSINESS

VIBES SCOTTISH ENVIRONMENT BUSINESS AWARDS

The 3 components to circular lighting

Preserving asset value. Luminaires should be high-quality and avoid obsolescence through our remanufacture process



Upgradeable light sources. Installed LED module efficacy should increase as the technology becomes available, to reduce operating cost and emissions

Controls and Sensors. Bluetooth Mesh lighting controls and sensor networks should minimise energy waste, and improve via software updates

Why do we need circular lighting?

	Lamps			Fittings	
	Household	Non-household	Total	Household	Non-household
Supplied	8445	1885	10330	55,354	42,415
Recycled	4553	1.6	4555	5,559	2,697
Rate	-	-	44%	10%	6%

Source: EA 2019

x 3142

Production and Distribution

2.7%

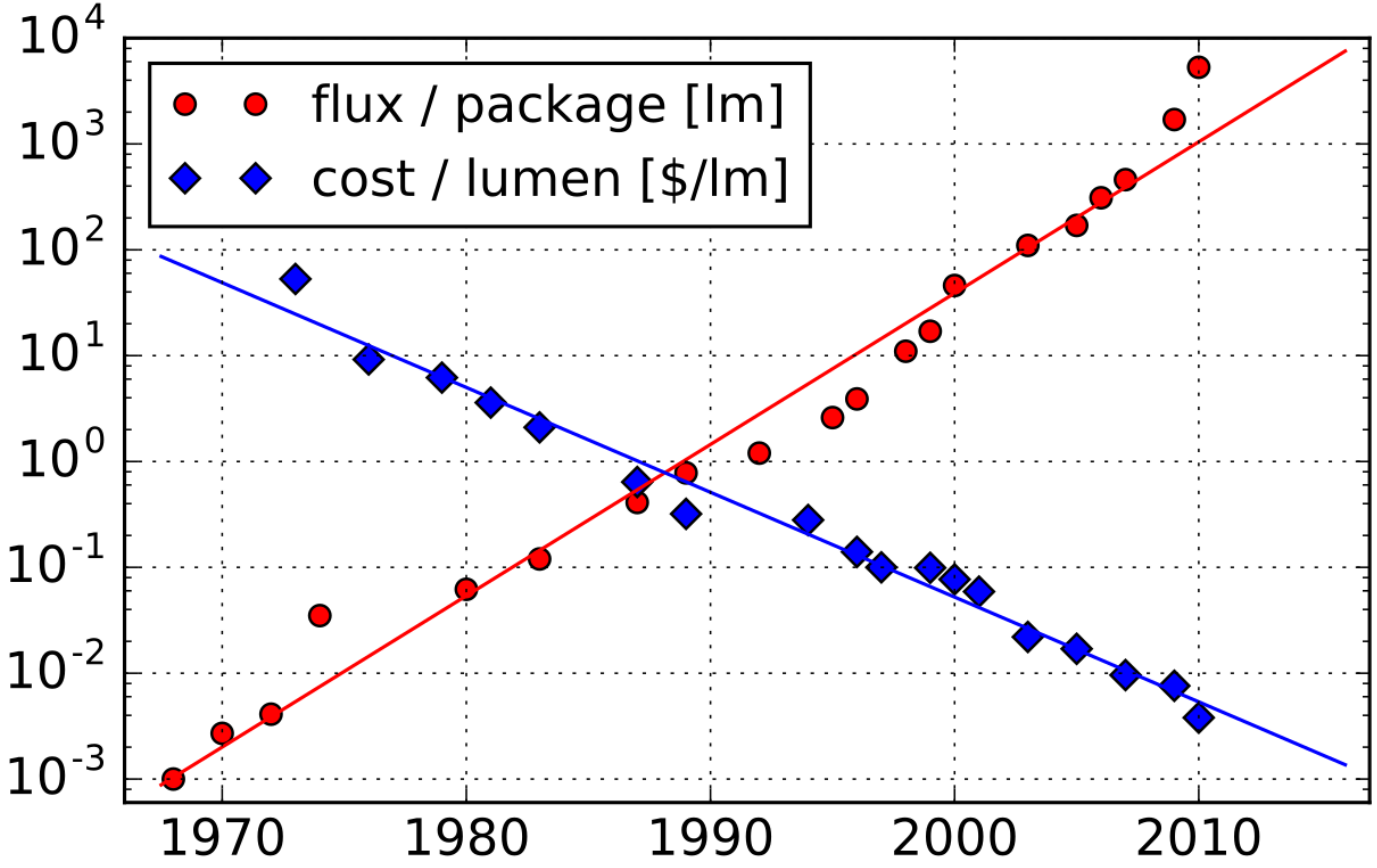
Use

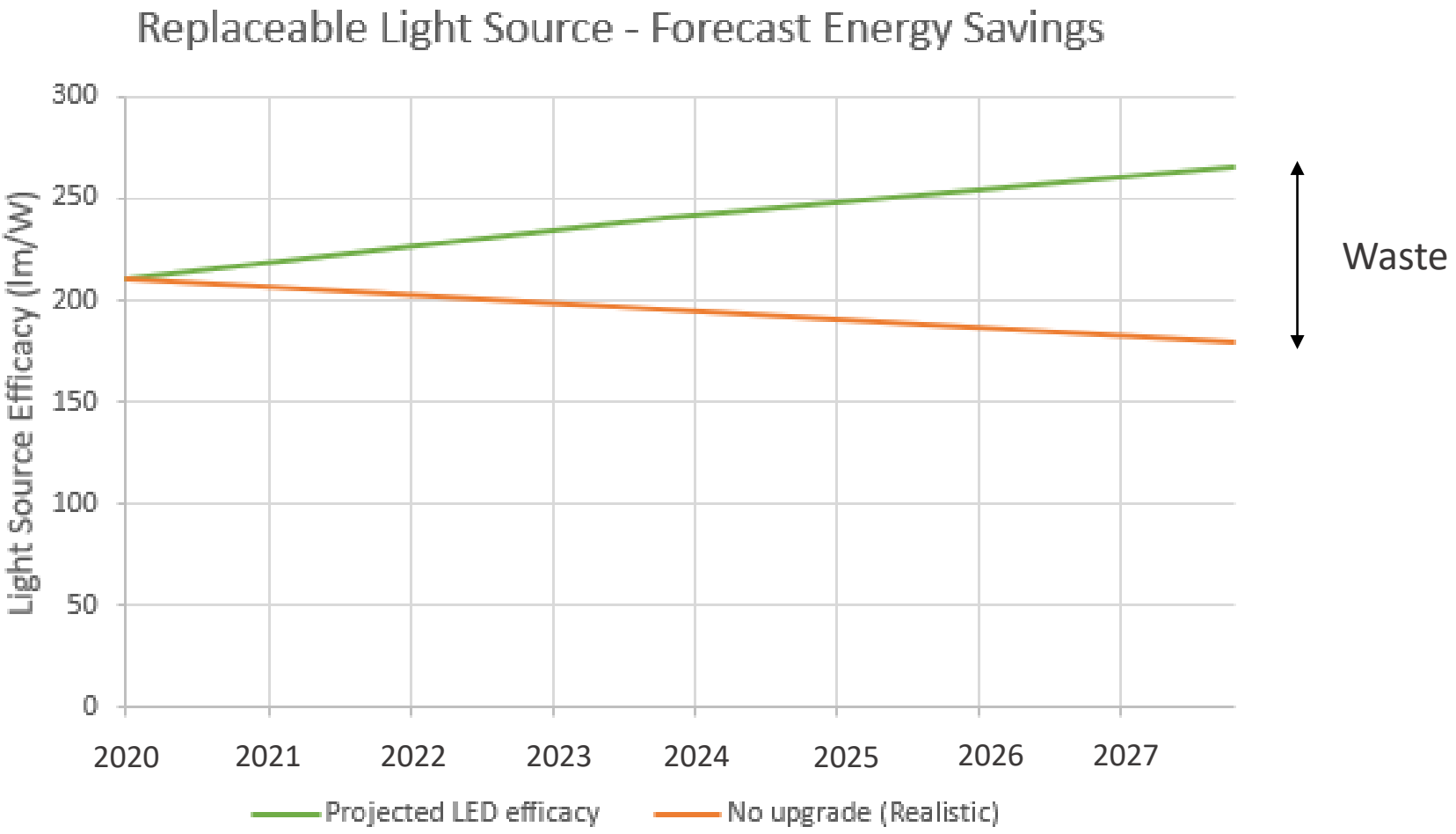
97.3%

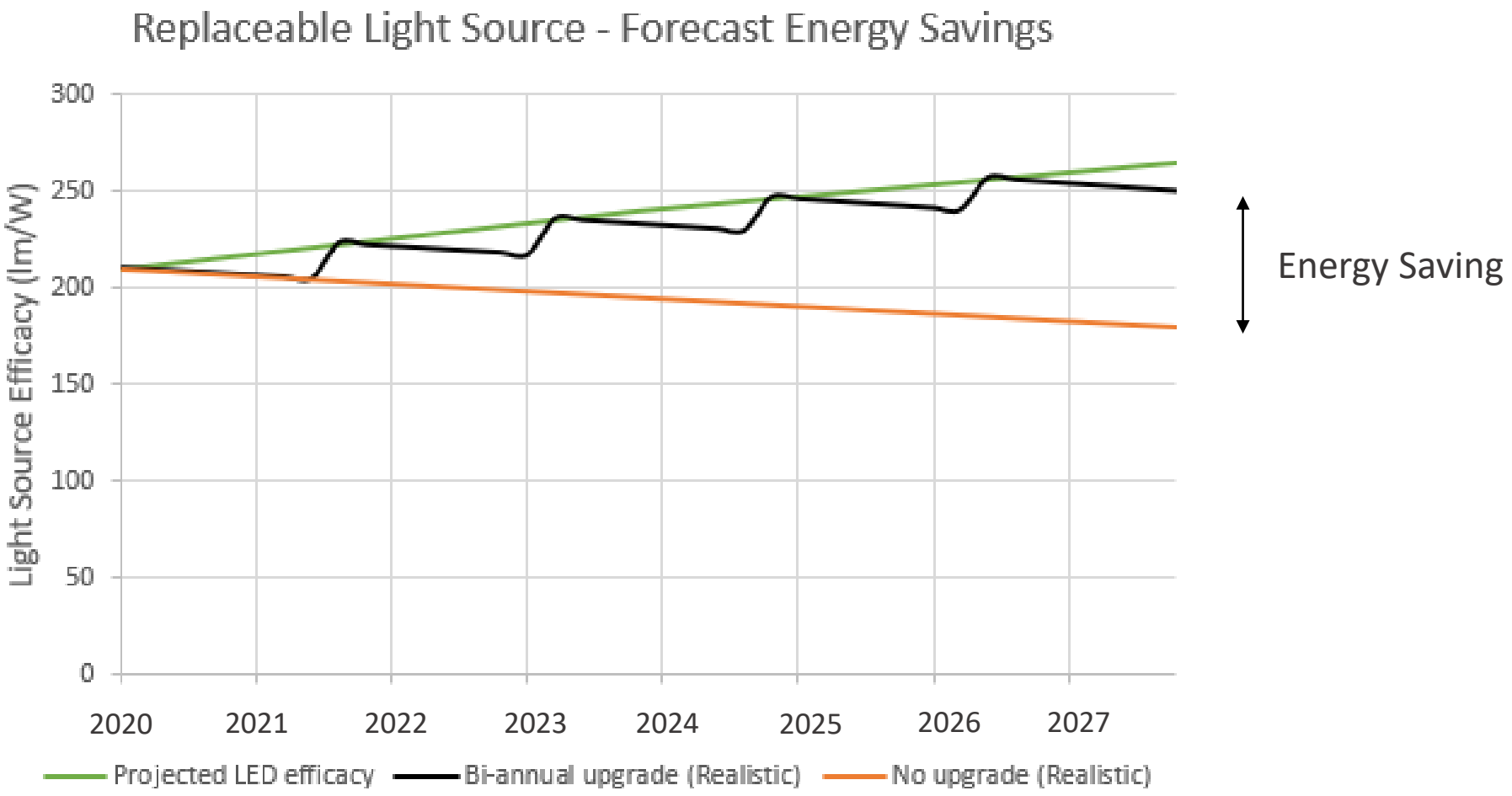
Source: Karkasinas 2020

Haitz' law predicts that per decade:

- Cost per output falls by a factor of 10
- Light output increases by a factor of 20




Replaceable Light Source - Forecast Energy Savings
Light Source Efficacy (lm/W)
300
250
200
150
100
50
0
2020
2021
2022
2023
2024
2025
2026
2027
Projected LED efficacy
No upgrade (Realistic)
Waste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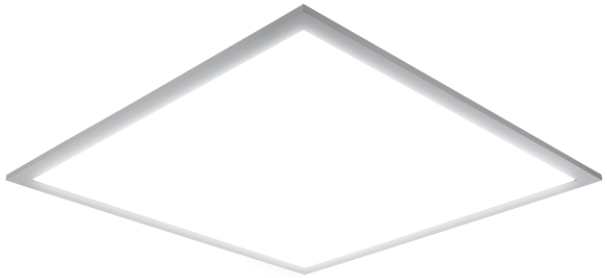
2024
2025
2026
2027
Projected LED efficacy
Bi-annual upgrade (Realistic)
No upgrade (Realistic)
Energy Saving



Source: Skinflint, THORN

Our “stroma” luminaire – modular, robust and easy to upgrade

Circular Lighting Service

Our circular model cuts waste, inefficiency and obsolescence, enabling us to pass on benefits to our clients

We retain ownership. We ensure asset lifetime is maximised to reduce waste, through remanufacture

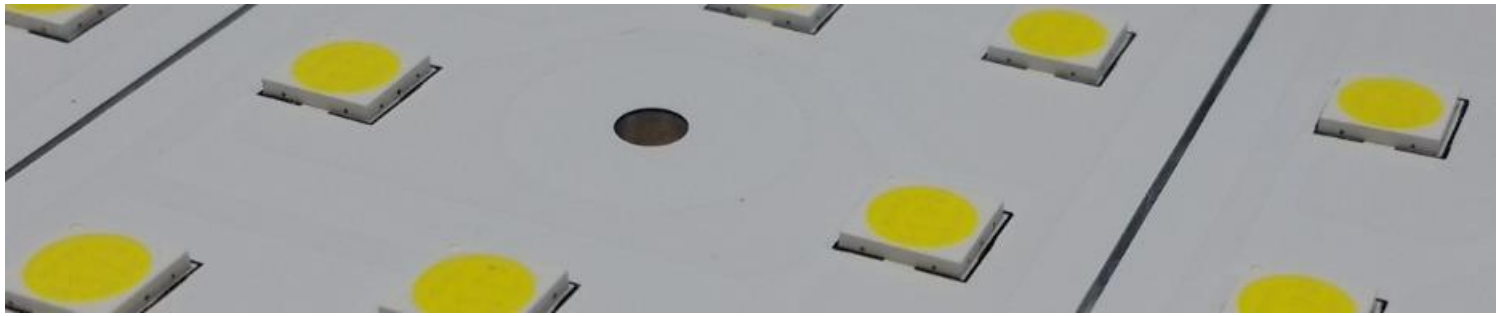
Upgradeable controls. Controls, IoT and sensor technology increase energy savings – software updates improve these over time

Ongoing LED upgrades. Our model encourages us to periodically upgrade LEDs; reducing bills and emissions

100% maintenance, for life. Warranty is a key driver for product obsolescence. We take on maintenance costs for life, encouraging use of high-quality components

case study WH Malcolm Group

We were able to increase the installed efficacy by 35% by upgrading from 2016 to 2020 model Philips LEDs – saving the client over £8,000/year in electricity bills!



▼ £40,000

▼ £8,000/y

▼ 1,875kg

Circular Lighting Service

Understand your requirements. Friendly conversation to find out what you want and discuss how we can help

Site survey and lighting assessment. Free, no-obligation survey by inhouse trained experts

Environmental and cost savings projection. We estimate your savings and environmental impact, to get the service right for your needs

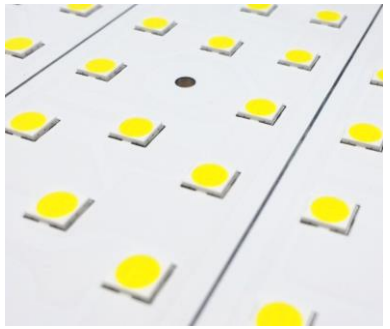
Service agreement and installation. Our inhouse expert electrical team will carry out the work with no contractors involved

Ongoing support and upgrades. We are on-call to remedy any maintenance issues and provide scheduled LED upgrades with minimum disruption

EGG LIGHTING

Sustainable lighting from Scotland.

Making circular economy work for you



Revolve

REVIVE

Contact us for a free, no-obligation site survey to find out how much waste and money you could save

Call us: 0141 416 2624
Email us: enquiries@egglighting.com
Visit us: Challenge House, 29 Canal Street, Glasgow, G4 0AD