

STOANE LIGHTING

EQUIPMENT DESIGN + MANUFACTURE

TM65.2 Lighting Calculation

Tadpole V4 Star

CIBSE TM65.2 Embodied Carbon Mid-level Calculation

Date:	19/12/2024
Assessor/Organisation:	Stoane Lighting
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Embodied Carbon Results with 'Mid-Level TM65 Calculation' Method Total

3.40 kg CO₂e

Through Life (25 year) Embodied Carbon (kgCO₂e)

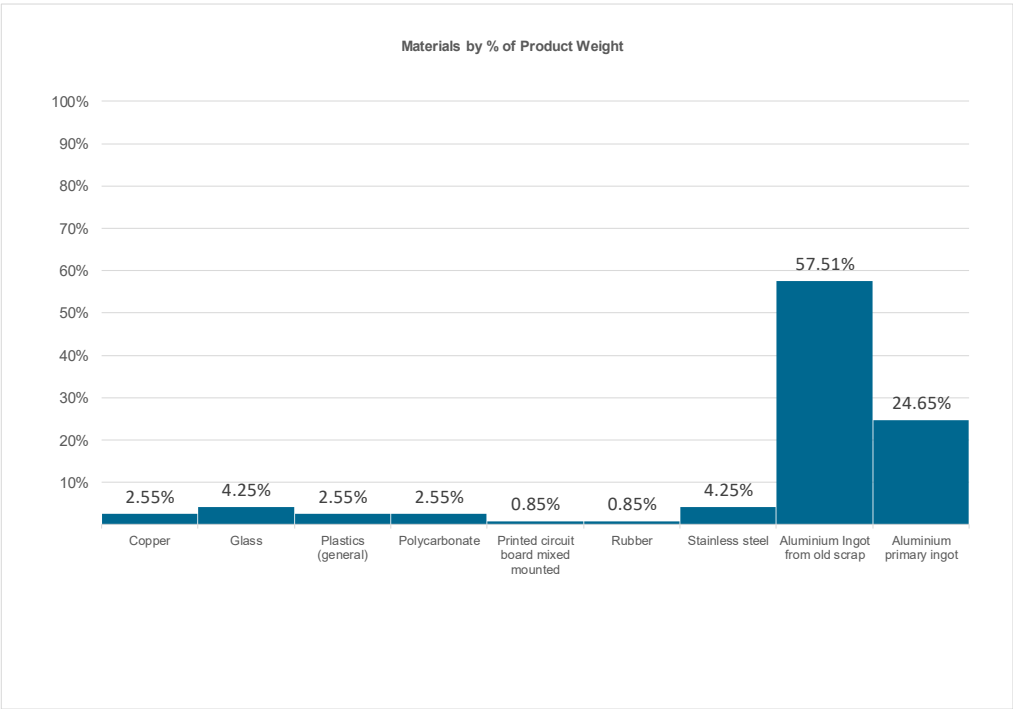
First Build
3.18

Repair
0.22

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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25 year product life

Product Information	
Type of Product	Luminaires
Product Weight	0.118 kg
Material Breakdown for at least 95% of the product weight. Breakdown	100.00%
B3: Materials replaced as part of repair	0.219 kgCO ₂ e
Energy consumption of the factory per unit of product	2.05 kWh
Location of Manufacture	Edinburgh, Edinburgh, City of, United Kingdom
Product Complexity	Category 2



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CIBSE TM65 Embodied Carbon Mid-level Calculation

Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material Extraction	0.756
A2: Transport	0.047
A3: Manufacturing	1.092
A4: Transport to Site	0.005
B3: Repair	0.168
C2: Transport	0.002
C3: Waste Processing	0.546
C4: Disposal	0.001

Embodied Carbon Results (kg CO ₂ e)	
A1-C4	2.62
A1-C4 with Buffer Factor	3.40

Assumptions	
A1: Material carbon coefficient source	TM65, Table 2.1; TM65.2 Table 9
C4 Percentage of product going to landfill(%)	55% - TM65 Table 4.14

This report was generated using the CIBSE TM65 Manufacturers form 'beta' version V1.3. Released in August 2023

Stoane Lighting are a UK based company.

Files are generated for a 'standard' version of the fitting and may not include calculations for accessories or derivatives.

Only if LED drivers or Power supplies are integral will they be included in the calculation.

Repair embodied carbon is calculated based on light source and control gear replacement once in the 25 year product life

Regional variations of the TM65 methodology are being developed; please contact us if there is a requirement for a specific regional assessment where such a local addendum exists.

For more information please contact us via our website shown below.



This report was produced using the CIBSE documents;

TM65 Embodied Carbon of MEP Products - June 2021

TM65.2 Lighting - August 2023

www.stoanelighting.com