

STOANE LIGHTING

EQUIPMENT DESIGN + MANUFACTURE

TM65.2 Lighting Calculation

ZTA.50 downlight

CIBSE TM65.2 Embodied Carbon Mid-level Calculation

Date:	19/12/2024
Assessor/Organisation:	Stoane Lighting
Contact:	sales@mikestoanelighting.com

Embodied Carbon Results with 'Mid-Level TM65 Calculation' Method Total

108.47 kg CO2e

Through Life (25 year) Embodied Carbon (kgCO₂e)

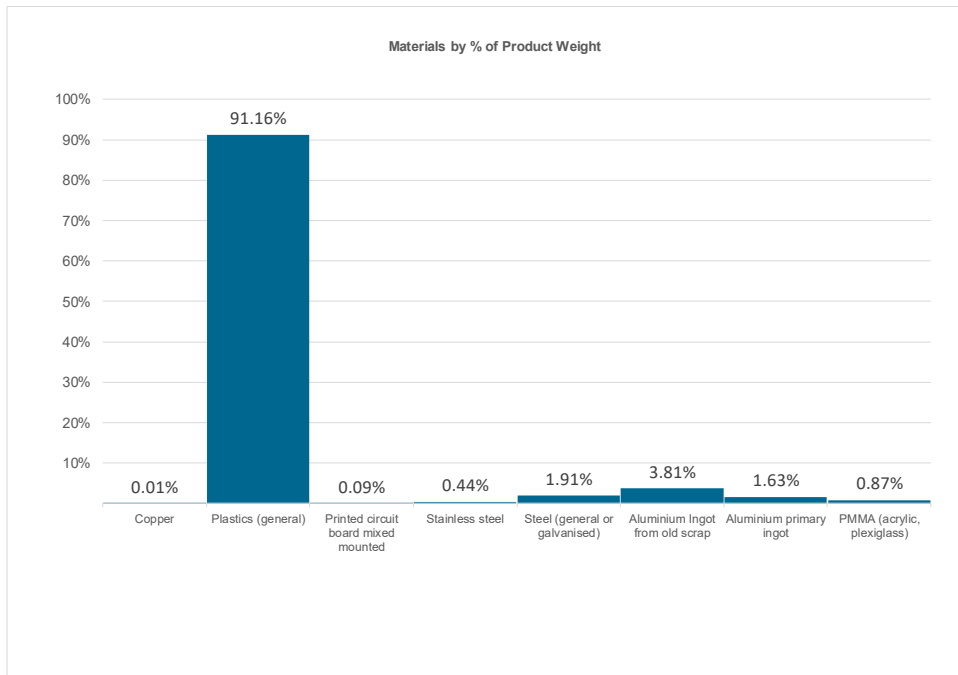
First Build 107.59	Repair 0.88
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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25 year product life

Product Information

Type of Product	Luminaires
Product Weight	4.615 kg
Material Breakdown for at least 95% of the product weight. Breakdown	99.91%
B3: Materials replaced as part of repair	0.879 kgCO ₂ e
Energy consumption of the factory per unit of product	80.29 kWh
Location of Manufacture	Edinburgh, Edinburgh, City of, United Kingdom
Product Complexity	Category 2



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TM65.2 Lighting Calculation: Luminaire

ZTA.50 downlight

CIBSE TM65 Embodied Carbon Mid-level Calculation

Embodied Carbon Results Breakdown (kg CO ₂ e)	
A1: Material Extraction	16.435
A2: Transport	1.828
A3: Manufacturing	42.823
A4: Transport to Site	0.183
B3: Repair	0.676
C2: Transport	0.061
C3: Waste Processing	21.412
C4: Disposal	0.023

Embodied Carbon Results (kg CO ₂ e)	
A1-C4	83.44
A1-C4 with Buffer Factor	108.47

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