IBSE TM65.2 Embodied Carbon Mid-level Calculation         Introduct Information         Stane Lighting com         Introduct Carbon Results with Mid-Level TM65 Calculation' Method Total         Introduct Carbon Results with Mid-Level TM65 Calculation' Method Total         Introduct Carbon Results with Mid-Level TM65 Calculation' Method Total         Introduct Carbon Results with Mid-Level TM65 Calculation' Method Total         Introduct Carbon Results with Mid-Level TM65 Calculation' Method Total         Introduct Carbon (kgCO2e)         Introduct Carbon (kgCO2e)         Introduct Carbon (kgCO2e)         Introduct Information         Your Information		alculation						
the image in	Bulrush	hadiad Carbor	Mid Javal Calaulatia					
Stature Lighting induct         Stature Lighting induct         Induction Results with MoLewel TM65 Calculation' Method Total         Induction Results with MoLewel TM65 Calculation' Method Total         Induction Results with MoLewel TM65 Calculation' Method Total         Image: Status Calculation Region       Repair 0.24         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         Stature Lighting 0.24       Repair 0.24       Rep		bodied Carbor						
Introduct Carbon Results with Md-Level TM65 Calculation' Method Total           Introduct Carbon (kgCO,e)           I         2         3         4         5         6         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21         22         23         24         25           Symptomic Carbon (kgCO,e)         Introduct Method Carbon (kgCO,e)           Introduct Method Symptom Carbon         Carbon Carbon (kgCO,e)           Total Comparison         Carbon Carbon (kgCO,e)           Introduct Method Symptom Carbon         Carbon Comparison           Notation Complexity or unit of product         Carbon Complexity           Meterials by % of Product Weight           Interview Complexity         Carbon Complexity           Meterials by % of Product Weight         Carbon Complexity           On Complexity <td< th=""><th>Assessor/Organisat</th><th>ion:</th><th>Stoane Lig</th><th>hting</th><th>-</th><th></th><th></th><th></th></td<>	Assessor/Organisat	ion:	Stoane Lig	hting	-			
10.88 kg CO2e         Invested Life (25 year) Embodied Carbon (kgCO,e)         Repair         1 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         S year product Ife         Total Information         Total Information         Total Information         Optimize Signature         Materials 19% of the product weight. Breakdown         Colspan="2">Call Information         Optimize Signature         Materials 19% of the product weight. Breakdown         Colspan="2">Call Information         Optimize Signature         Optimize Signature         Materials by % of Product Weight         Materials by % of Product Weight         0.28.7%         0.26%         Optimize Signature	contact.		<u>sales@mikestoane</u>	<u>aignung.com</u>				
Introduct If (25 year) Encloded Cactor (kgCO,e)         Introduct If (25 year) Encloded Cactor (kgCO,e)         Introduct If (25 year) Encloded Cactor (kgCO,e)         System product If (25 year) Enclosed Information         System product If (25 year) Enclosed Information         Optimized Information         Unrefinite Information         Optimized Information <td>Embodied Carbon F</td> <td>Results with 'Mic</td> <td>d-Level TM65 Calculat</td> <td>ion' Method Total</td> <td></td> <td></td> <td></td> <td></td>	Embodied Carbon F	Results with 'Mic	d-Level TM65 Calculat	ion' Method Total				
Repair 0.24           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           Syear product life           Troduct Information           Unrinning the product weight. Breakdown         Luminaires           Luminaires           Luminaires           Odd to fragin           Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"Colspa="2"Colspan="2"Colspan="2"Colspan="2"Colspa="2"Colspa="2"C					10.88 kg CO2	9		
10.64       0.24         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         S year product lformation	Through Life (25 ye		Carbon (kgCO <sub>2</sub> e)			_		
5 year product life								
Information     Luminaires       type of Product     0.428 kg       taberial Breakdown for at least 95% of the product weight. Breakdown     100.00%       3: Materials repair     0.241 kgO20e       inergy consumption of the factory per unit of product     7.44 kWh       coation of Manufacture     0.421 kgO20e       roduct Complexity     Category 2	1 2 3	4 5 6	7 8 9 1	10 11 12 13	14 15 16	17 18 19 2	0 21 22 23	24 25
Information     Luminaires       type of Product     0.428 kg       taberial Breakdown for at least 95% of the product weight. Breakdown     100.00%       3: Materials repair     0.241 kgO20e       inergy consumption of the factory per unit of product     7.44 kWh       coation of Manufacture     0.421 kgO20e       roduct Complexity     Category 2	25 year product life							
Upped Product         Luminaires           roduct Weight         0.428 kg           Balerial Breakdown for at least 95% of the product weight. Breakdown         100.00%           3: Meterials replaced as part of repair         0.241 kgC02ae           r.4.4 kWh         7.4.4 kWh           cation of Manufacture         r.4.4 kWh           roduct Complexity         Category 2	zo year product life							
Induct Weight         0.428 kg           Iderial Breakdown for at least 95% of the product weight. Breakdown         100.00%           Si Materials replaced as part of repair         0.241 kgCO2e           regry consumption of the factory per unit of product         7.44 kWh           Category 2         Edihourgh, City           oct, United Kingdom         Category 2	Product Information	on					l umi	naires
3: Materials replaced as part of repair       0.241 kgCO2e         rrady consumption of the factory per unit of product       r.44 kWh         occation of Manufacture       Edinburgh, Edi	Product Weight	for at least 95%	% of the product weig	ht Breakdown			0.42	28 kg
Cocation of Manufacture         Edinburgh, Edinburgh, City of, United Kingdom           roduct Complexity         Category 2	B3: Materials replac	ed as part of re	epair				0.241	kgCO2e
Image: reduct Complexity     Category 2         Materials by % of Product Weight         Image: reduct Complexity         Image: reduct			per unit or product				Edinburgh, E	dinburgh, City
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Product Complexity							
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	100%							
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	90%							
60%       45.72%         40%       28.87%         30%       28.87%         10%       4.56%       0.26%	80%							
50%     45.72%       40%     28.87%       30%     11.23%       10%     4.56%     0.26%	70% —							
40%	60%							
30%     28.87%       20%     11.23%       10%     4.56%     0.26%	50%				45.72%			
30%     11.23%       10%     4.56%     4.56%       0.26%     4.81%	40% —							20 070/
10%     4.56%     4.56%     4.81%       0.26%     4.81%	30% —							20.07 /0
10% 4.56% 4.56% 4.81%	20% —					11.23%		
Copper Plastics (general) Printed circuit board Stainless steel Aluminium Ingot from Aluminium primary PMMA (acrylic, mixed mounted old scrap ingot plexiglass)	10%	4.56%	4.56%	0.26%			4.81%	
		Copper	Plastics (general)	Printed circuit board	Stainless steel	Aluminium Ingot from old scrap	Aluminium primary	PMMA (acrylic, plexiglass)
						p		, 3/

## **STOANE** LIGHTING

## EQUIPMENT DESIGN + MANUFACTURE

## TM65.2 Lighting Calculation: Luminaire

## Bulrush

CIBSE TM65 Embodied Carbon Mid-level Calculation

Embodied Carbon Results Breakdown (kg CO2e)	
A1: Material Extraction	2.038
A2: Transport	0.169
A3: Manufacturing	3.969
A4: Transport to Site	0.017
B3: Repair	0.185
C2: Transport	0.006
C3: Waste Processing	1.985
C4: Disposal	0.002
Embodied Carbon Results (kg CO <sub>2</sub> e)	
A1-C4	8.37
A1-C4 with Buffer Factor	10.88
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

Stoare 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 calcualted 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 speific regional assessment where such a local addendum exists. For more inoformation 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

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