TM65:2021 Mid-Level Calculation



LDR65

Date March 2023 Prepared By I Jakubczyk

Product Information

 Product Name
 LDR65

 Weight (kg)
 0.43

 Size (mm)
 Ø=85mm

 Service Life (Lx@Hrs)
 L90@100000hrs

 Location Of Manufacture
 Dewsbury, England

 % Assessed by Weight
 100%

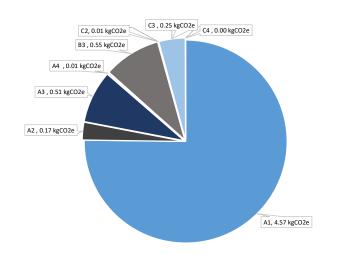
Total embodied carbon calculated in line with Mid Level TM65 calculation method

7.89 kgCO2e



Embodied carbon calculations results breakdown

Life Cycle Stage	KgCO2e	Percentage of total
A1 Material Extraction	4.57 kgCO2e	75.21%
A2 Transport to Factory	0.17 kgCO2e	2.80%
A3 Manufacturing Energy	0.51 kgCO2e	8.37%
A4 Transport to Site	0.01 kgCO2e	0.21%
B3 Repair	0.55 kgCO2e	9.09%
C2 Transport To Waste	0.01 kgCO2e	0.09%
C3 Waste Processing	0.25 kgCO2e	4.19%
C4 Waste Disposal	0.00 kgCO2e	0.03%
Total A1-A4, B3, C2-C4	6.07 kgCO2e	
With Buffer (1.3)	7.89 kgCO2e	



About this product

IP65 recessed LED downlight with cast aluminium body and heatsink. Multi-faceted anodised aluminium reflector with clear glass front – as Whitecroft Lighting LDR65.

Assumptions

A1 Material Extraction
Table 2.1 default values are used from TM65 2021
A2 Transport to Factory
Table 2.1 default values are used from TM65 2021
Calculated in line with TM65 Table 4.8 & Table 4.9 (HGV)

A3 Energy WLL use >97% REGO backed renewable energy so assumed value equals 0kgco2/kwh

This study is using Whitecroft 2022 energy values and production weight values

Energy values as TM65 default Carbon Factors; Electricity (non REGO): Table 4.10 - UK, Gas: Table 4.11 - Global

A4 Transport Approximate distance assumed to be Ashton-Under-Lyne to Northampton (227km), & Table 4.8 (HGV)

B3 Repair TM65 Table 4.6: 10% of A1-A3, C2-C4 assumed

C2 Trasnport to Waste TM65 Table 4.7 & Table 4.8

C3 Waste Processing TM65 Table 4.7

C34 Waste Disposal TM65 Table 4.14 - Light & Table 4.15

