Report
TM65.2

Manufacturer

Company Name	FOSS LED LTD
Registration No.	09937883
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Country	United Kingdom
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Item(s)

Model	IRIS Fire Rated LED Downlights
Brand	fossLED ®
Nominal Code	FL410-X
Variable (X)	3 (10W)

Component Breakdown

Item	Item Description	Model / Specification	Number	Unit	Weight（g）
1	Pressure line cover	PC/L=39.3mm W=38.3mm H=23mm	1	pcs	5.58
2	Driver upper Cover	PC/L=95mm W=40mm H=25mm	1	pcs	15.78
3	Driver bottom cover	PC/L=76mm W=38mm H=14mm	1	pcs	10.18
4	White reflector	Ø=62.7mm H=34.6mm	1	pcs	10.41
5	Lens	PC/L=55.1mm W=46.2mm Ø=16mm H=15.6mm：40°	1	pcs	13.43
6	Radiator	ADC12/ϕ=80mm H=75.5mm	1	pcs	160.73
7	Press line PA	PA/L=21.5mm W=7.2mm H=5.5mm：14mm	1	pcs	0.21
8	Waterproof sealing ring-silicone gel	maxϕ=44.5mm minϕ=41.9mm T=3mm	1	pcs	0.51
9	Reflection paper	PET/ØMAX=34mm ØMIN=19mm H=13.5mm T=0.18mm	1	pcs	0.21
10	Springs	L=51.7mm W=18mm ϕmin=1.4mm	2	pcs	6.42
11	DC female cable	22AWGPVC，L=150MM	3mm	1	pcs	4.66
12	Screws	M2.5*6	4	pcs	1.36
13	Spot packed bag	150mm*180mm	1	pcs	1.56
14	Screws bag	L=40mm W=30mm T=0.15mm	1	pcs	0.3
15	Intumescent ring	ØMAX=78mm ØMIN=66mm T=0.8mm	1	pcs	1.55
16	Driver Printed Wiring Board	10W-27V-1698	1	pcs	31.87
17	DC male cable	22AWGPVC，L=150MM	5mm，	1	pcs	4.95
18	COB LED pcb	C39-303N0209-0906ZB/COB 2017-27V-300MA-900-1000LM 30K ra95	1	pcs	3.21
					272.92 g

Embodied Carbon Calculator: Basic Report

(CIBSE TM65 Digital Tool)

If Section A of the 'Input' tab is correctly completed, the results will be shown here.
Please complete all purple and yellow cells.
If you would like to assist CIBSE in building knowledge on the embodied carbon of products used in building services, please complete as directed, name this file as instructed in the 'Introduction and Instructions' tab, and email this file to embodiedcarbon@cibse.org.

Basic report for FL410-00-3G4R as manufacturerd by FOSS LED LTD

Basic calculation		Notes/source
Date of assessment	21/12/23	*Form "dd/mm/yy"*
Name of assessor and assessor organisation	Self Assessment	
Contact email address of assessor	edward@fossled.co.uk	

Product information		
Type of product	Luminaires	
Capacity of equipment/size (kW; m^3; litre; etc.)	0.01 kW	
Product weight (kg)	0.27 kg	
Material % breakdown for at least 95% of the product weight? (Y/N)	Y	
Product service life (years)	12 Years	
If refrigerant based, type of refrigerant used and GWP	No refrigerant, 0 kgCO2e	
Refrigerant charge (kg)	0.00 kg	
Product complexity category	Category 2	*See CIBSE TM65 Table 4.3*

Embodied carbon results (kg CO_2e) – without refrigerant leakage		
A1: Material extraction (original product)	8 kgCO2e	
A1: Material extraction (components that are replaced in B3)	1 kgCO2e	
A1-A4, B3, C2-C4: Total embodied carbon with scale-up and buffer factor (excluding refrigerant leakage)	16 kgCO2e	

Embodied carbon result (kg CO_2e) – refrigerant leakage only		
B1 (refrigerant leakage during use) + C1 (refrigerant leakage at end of life)	0 kgCO2e	*TM65 leakage Type 0*

Embodied carbon result with 'basic' calculation method (kg CO2e) – total		
Result of 'basic' calculation method	16 kgCO2e	

Assumptions		
A1: Material carbon coefficient source	CIBSE TM65, Table 2.1	*E.g: Source = CIBSE TM65, Table 2.1*
B1: Refrigerant annual leakage rate (%)	CIBSE TM65, Table 4.4 Type 0	*E.g: Source = CIBSE TM65, Table 4.4 type 2*
C1: Refrigerant end of life recovery rate (%)	CIBSE TM65, Table 4.4 Type 0	*E.g: Source = CIBSE TM65, Table 4.4 type 2*
B3: Materials replaced as part of repair (%)	CIBSE TM65, Table 2.1	*E.g: Source = CIBSE TM65, Table 2.1*

Details	
Please provide any relevant details	Detailed Component breakdown available on request

Information disclosure	Select Yes if you agree	Notes
I consent to CIBSE's use of the data contained in this form for research purposes, on the condition that all identifying information is removed from any published output.		
I consent to CIBSE's use of the data contained in this form in order to establish an embodied carbon database for products used in building services.		