



2310 G2 WEATHERPROOF

ENVIRONMENTAL PRODUCT DECLARATION

PRODUCT ENVIRONMENTAL PROFILE OF 2310 G2 WEATHERPROOF

Reference product: 2310 G2 15 L 45-80/3ML-8MC ET PC+LV

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The components of the present PEP cannot be compared with elements from another program.			
Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			

Content of the PEP report

1	General information	3
1.1	Company information	3
1.2	Product information	3
1.3	Functional unit	5
1.4	Homogeneous environmental family	5
2	Constituent materials	7
2.1	Overview	7
2.2	Product	7
2.3	Packaging	7
3	Information on life cycle stages	8
3.1	Manufacturing stage	8
3.2	Distribution stage	8
3.3	Installation stage	8
3.4	Use stage	8
3.5	End-of-life stage	9
3.6	Benefits and loads beyond the system boundaries stage	9
4	Environmental impacts	10
4.1	Introduction	10
4.2	Results per functional unit	10
4.3	Results per unit of product	12

1 General information



1.1 Company information

TRILUX Simplify Your Light represents the most simple and reliable path to customized, energy-efficient and sustainable lighting solutions. In the dynamic and ever more complex lighting market, customers are provided with optimal advice, ideal orientation and perfect light. To ensure this, TRILUX offers a wide portfolio of technologies as well as high-performance partners within the TRILUX Group and unites single components to create custom-designed complete solutions – always perfectly matched to customer requirements and specific applications.

In this way, complex and extensive projects are simply and rapidly realized from a single source. According to the principle of "SIMPLIFY YOUR LIGHT", planning, installation and ease of use, besides quality and cost efficiency, is focused on for customers.

1.2 Product information

The name of the product under study is "2310 G2 WEATHERPROOF".

Weather-proof luminaire with PC luminaire body and PC diffuser. With 3 x 2.5 mm² through-wiring. For ceiling, wall and suspended mounting. Variable mounting distances using slidable fixing clips on the luminaire body. The fixing hardware is included in the scope of delivery. Theft-proof mounting is possible using enclosed screws. Polycarbonate diffuser with inner prism structure. With Lambertian light distribution. Luminaire luminous flux and light color adjustable in 6 levels (Multilumen, Multicolour). Luminaire luminous flux 4500 lm - 8000 lm, connected load 32 W - 56 W, maximum luminous efficiency of luminaire 143 lm/W. Light colour neutral white or daylight white, correlated colour temperature (CCT) 4000 K or 6500 K, general colour rendering index (CRI) Ra > 80. Colour locus tolerance (initial MacAdam) < 4 SDCM. Flicker: Pst LM < 1.0 at full load. Stroboscopic effect: SVM < 0.4 at full load. Luminaire body of PC. Surface coated light grey (similar to RAL 7035). Dimensions (L x W x H): 1540 x 96 x 82. Safety class (EN 61140): I, protection rating (DIN EN 60529): IP65, impact resistance level in accordance with IEC 62262: IK08, testing temperature of wire glow test in accordance with IEC 60695-2-11: 650 ° C. Weight: 1.9 kg. With

1 General information

3-pole terminal to 2.5 mm². Multiple feed-in options. Face end (x2), rear (x5), side (x6). With electronic control gear unit, switchable. The luminaire complies with the fundamental requirements of applicable EU regulations and product safety legislation and bears the CE symbol. The luminaire is also ENEC-certified by an independent testing authority.

Further technical information can be obtained by contacting Heidestraße, D-59759 Arnsberg, Germany or on the website <https://www.trilux.com> or by E-Mail s.ke@trilux.com.

The assessed products range covers luminaires from the “2310 G2 weatherproof” family, which including 2310 G2 15 L 45-80/3ML-8MC ET PC+LV (TK: 10429917; TOC: 6000701140; EAN: 4069072112369); 2310 G2 12 L 34-60/3ML-8MC ET PC+LV (TK: 10429916; TOC: 6000701040; EAN: 4069072112352); 2310 G2 12 L 60-8MC ETDD PC+LV (TK: 10429918; TOC: 6000701251; EAN: 4069072112383); 2310 G2 15 L 80-8MC ETDD PC+LV (TK: 10429919; TOC: 6000701351; EAN: 4069072112390); 2310 G2 15 L 57-100/3ML-8MC ET PC+LV (TK: 10434311; TOC: 6000727940; EAN: 4069072112376); 2310 G2 12 L 34-60/3ML-8MC ET+HFS PC+LV (TK: 10429920; TOC: 6000701440; EAN: 4069072112406) and 2310 G2 15 L 45-80/3ML-8MC ET+HFS PC+LV (TK: 10429921; TOC: 6000701540; EAN: 4069072112413). They have all characteristics described in PSR-0014-ed2.0-EN-2023 07 13 as belonging to a homogeneous environmental family. The reference product is 2310 G2 15 L 45-80/3ML-8MC ET PC+LV and the key information is summarized in the following table.

Table 1: Key technological data

Information	Unit	Value
Light source	-	Integrated LED
Power supply	-	External
Color temperature	K	4000/6500
Protection index for water and dust (IP)	-	IP65
Impact resistance index (IK)	-	IK08
Nominal operating voltage	V	220-240
Declared lifetime of the luminaire	Hours	50000
Declaration lifetime of the light source	Hours	50000
Outgoing luminous flux/Useful output flux	Lumen	4500/5700/8000
Electrical input power	W	32W / 40W / 56W
Luminous efficiency	Lumen/W	140
Dimension	mm	1540*96*82

For the 2310 G2 weatherproof with an assigned lifetime of 50,000 hours that can be installed in indoor and outdoor public lighting and other applications, the 2310 G2 weatherproof has the following annual service time. Following the requirements of the PSR, the operational lifetime of 2310 G2 weatherproof is 5.71 years.

1 General information

Table 2: 2310 G2 WEATHERPROOF annual operating times according to the type of building

Type of building	Annual operating hours by default	Operational lifetime (years)
Residential building	3500	14.29
Educational institutions	2000	25.00
Sports establishments	4000	12.50
Industry (manufacturing plants)	4000	12.50
Urban	4000	12.50
Tunnel(entrance)	4000	12.50
Tunnel(inside)	8760	5.71
Sport(recreational)	2500	20.00
Zone, open space	4000	12.50

1.3 Functional Unit

The functional unit of 2310 G2 WEATHERPROOF is defined as “Provide lighting that delivers an outgoing artificial luminous flux of 1,000 lumens during a reference lifetime of 35,000 hours”.

The reference flow is the amounts of products needed to provide the defined function. All other input and output flows in the analysis quantitatively relate to it. The reference flow of 2310 G2 15 L 45-80/3ML-8MC ET PC+LV corresponding to the functional unit shall consider the value of the outgoing artificial luminous flux as well as the rated lifetime of the luminaire. According to test report, the outgoing artificial luminous flux of the 2310 G2 15 L 45-80/3ML-8MC ET PC+LV is 8,000 Lumen. The assigned lifetime of the 2310 G2 15 L 45-80/3ML-8MC ET PC+LV is 50,000 Hours, which is estimated by the test report. The reference flow is calculated as: $(1,000/\text{outgoing luminous flux of the analyzed product in lumens}) \times (35,000/\text{declared product lifetime of the analyzed product in hours})$. Consequently, the reference flow of the 2310 G2 15 L 45-80/3ML-8MC ET PC+LV corresponds to:

$$(1,000/8,000) \times (35,000/50,000) = 0.088$$

1.4 Homogeneous environmental family

The present PEP declaration is valid for all the products in the described homogenous environmental family. The parameters used to calculate the coefficients according to the rules of extrapolation required in PSR-0014-ed2.0-EN-2023 07 13 are listed in Table 3.

Table 4 showed the extrapolation coefficients at product level based on the technical parameters of 2310 G2 WEATHERPROOF, and the extrapolation coefficients at functional unit level shall be considered with the following formula:

$$\text{Extrapolation coefficient at the product level} \times \frac{\text{Lighting output of reference product (lumens)}}{\text{Lighting output of concerned product (lumens)}}$$

1 General information

Table 3: The parameters of homogeneous environmental family was used in rules of extrapolation

Product name	Weight of light source (g)	Weight of Control gear (g)	Weight of luminaire structure (g)	Weight of product (g)	Weight of packaging (g)	Power (W)	Lumen (lm)
2310 G2 15 L 45-80/3ML-8MC ET PC+LV	93.400	128.800	1,656.100	1,870.700	1,038.724	32/40/56	4500/5700/8000
2310 G2 12 L 34-60/3ML-8MC ET PC+LV	76.700	92.000	1,380.500	1,546.000	935.724	24/30/43	3400/4200/6000
2310 G2 12 L 60-8MC ETDD PC+LV	76.700	172.000	1,380.500	1,627.500	935.724	24/30/43	3400/4200/6000
2310 G2 15 L 80-8MC ETDD PC+LV	93.400	171.000	1,613.000	1,878.000	1,036.724	32/40/56	4500/5700/8000
2310 G2 15 L 57-100/3ML-8MC ET PC+LV	93.400	128.500	1,614.000	1,829.000	1,036.724	40/60/70	5700/8500/10000
2310 G2 12 L 34-60/3ML-8MC ET+HFS PC+LV	76.700	136.000	1,402.000	1,614.000	933.724	24/30/43	3400/4200/6000
2310 G2 15 L 45-80/3ML-8MC ET+HFS PC+LV	93.400	136.000	1,636.500	1,872.000	1,036.724	32/40/56	4500/5700/8000

Table 4: The extrapolation coefficients at product level (declared unit)

Product name	Manufacturing stage	Distribution stage	Installation stage	Use stage	End of life stage	Module D
2310 G2 15 L 45-80/3ML-8MC ET PC+LV	1.000	1.000	1.000	1.000	1.000	1.000
2310 G2 12 L 34-60/3ML-8MC ET PC+LV	0.855	0.853	0.901	0.768	0.826	0.855
2310 G2 12 L 60-8MC ETDD PC+LV	0.892	0.881	0.901	0.768	0.870	0.892
2310 G2 15 L 80-8MC ETDD PC+LV	1.004	1.002	0.998	0.500	1.004	1.004
2310 G2 15 L 57-100/3ML-8MC ET PC+LV	0.987	0.985	0.998	1.250	0.978	0.987
2310 G2 12 L 34-60/3ML-8MC ET+HFS PC+LV	0.876	0.876	0.899	0.768	0.863	0.876
2310 G2 15 L 45-80/3ML-8MC ET+HFS PC+LV	0.993	1.000	0.998	1.000	1.001	0.993

2 Constituent materials

2.1 Overview

Table 5: Product composition

Information	Weight [in kg]	Share [in %]
Product	1.871	64.30
Packaging	1.039	35.70

2.2 Product

Table 6: Material composition – Product

Information	Weight [in kg]	Share [in %]
Metal	0.549	29.33
Plastics	1.038	55.49
Others	0.284	15.18

2.3 Packaging

Table 7: Material composition – Packaging

Information	Weight [in kg]	Share [in %]
Paper/board	0.560	53.95
Wooden pallet	0.467	44.93
Plastics	0.012	1.12

3 Information on life cycle stages



3.1 Manufacturing stage

The manufacturer acquires all parts from suppliers. At the manufacturing site located in China, the manufacturer fabricated Printed Circuit Board Assembly through hole-through mounting processes from the Printed Circuit Board by utilizing energy and auxiliaries. Subsequently, the product was assembled and tested with the application of energy. In the end, the product is packaged in packaging materials and distributed to the client.



3.2 Distribution stage

The main market for product is Europe and there is no specific data available. For this reason, an intercontinental transport from China to the arrival of the product at the place of use following PCR-ed4-EN-2021 09 06 is considered in the model.

Ship: 19,000 km

Lorry: 1,000 km



3.3 Installation stage

During the installation process, product testing lasts for 0.25 hours and consumes 0.014 kWh of electricity. No material input is required for installation. The end-of-life scenario of packaging materials was utilized in accordance with PSR-0014-ed2.0-EN-2023 07 13. The transportation of packaging materials follows PSR-0014-ed2.0-EN-2023 07 13:

Lorry: 100 km



3.4 Use stage

The product has no direct emissions, and no maintenance is required. Given that the assigned lifetime of integrated LED module is 50,000 Hours, which is the same as the 2310 G2 weatherproof, no light sources need to be replaced. Furthermore, no standard repairs or refurbishments are anticipated. The use of the product consumes electricity, but no water.

The main market of the product is Europe, and the distribution ratio of country/region is the following:

Country/Region	Share (%)	Energy model
Germany	70.00	Electricity, low voltage {DE} market for electricity, low voltage Cut-off, S
Slovenia	10.00	Electricity, low voltage {SI} market for electricity, low voltage Cut-off, S
Romania	5.00	Electricity, low voltage {RO} market for electricity, low voltage Cut-off, S
Poland	5.00	Electricity, low voltage {PL} market for electricity, low voltage Cut-off, S
Finland	5.00	Electricity, low voltage {FI} market for electricity, low voltage Cut-off, S
Serbia	1.00	Electricity, low voltage {RS} market for electricity, low voltage Cut-off, S
Austria	2.50	Electricity, low voltage {AT} market for electricity, low voltage Cut-off, S
Estonia	0.50	Electricity, low voltage {EE} market for electricity, low voltage Cut-off, S
Netherlands	0.50	Electricity, low voltage {NL} market for electricity, low voltage Cut-off, S
Spain	0.50	Electricity, low voltage {ES} market group for Cut-off, S

3 Information on life cycle stages



3.5 End-of-life stage

No specific data was available to determine the transport distance from the installation site to the approved treatment centres. A default distance of 1,000 km by lorry was therefore assumed in line with PCR-ed4-EN-2021 09 06. The deinstallation stage was modelled using an LCI dataset for mechanical treatment of used industrial electronic devices.

The product and its PCB are within the scope of the WEEE Directive 2012/19/EU. Recyclable fractions are treated using default recovery rates from EN 50693, while the remaining material is landfilled based on a mass balance.

3.6 Benefits and loads beyond the system boundaries stage

The reuse/recycling of the product (incl. packaging) and incineration with energy recovery generates environmental benefits by avoiding the production of primary materials or energy. The scope of the Module D is With Net Benefits and the net benefits and loads beyond the system boundaries are calculated using the formulas described in PCR-ed4-EN-2021 09 06. The amount and type of material flows used for the calculation of benefits are listed in Table 8.

Table 8: Material flows for reuse, recycling and/or recovery per unit of product (declared unit, 30,000 Lumens during a lifetime of 50,000 hours)

Information	Unit	Value
Total weight of product going into reuse	kg	0.000
Total weight of product going into recycling	kg	0.463
Share of metals	%	94.51
Share of plastics	%	0.78
Share of others	%	4.71
Total weight of product going into incineration with energy recovery	kg	0.517
Share of plastics	%	0.00
Share of metal	%	100.00
Share of others	%	0.00
Total weight of packaging going into reuse	kg	0.467
Total weight of packaging going into recycling	kg	0.464
Share of Paper/board	%	98.97
Share of Plastics	%	1.03
Total weight of packaging going into incineration with energy recovery	kg	0.055
Share of Paper/board	%	92.12
Share of Plastics	%	7.88

4 Environmental impacts

4.1 Introduction

The “2310 G2 WEATHERPROOF” family evaluated in this PEP are in lined with EN 60598-1.

The primary data collected were representative of a current scenario in terms of geographical coverage and technological, of which coverage averaged 6 months. The environmental information included in this study covers all the stages of the life cycle ("cradle to grave"). The environmental information included in this study covers all the stages of the life cycle ("cradle to grave"). The life cycle is divided into manufacturing stage (A1-A3), distribution stage (A4), installation stage (A5), use stage (B1-B7, but only B6 in this study), End-of-life stage (C1-C4) and benefits and loads beyond the system boundaries stage (D).

The environmental impacts assessment of the reference product has been performed using Simapro 9.5 software. Background datasets have been retrieved from Ecoinvent 3.11. The results refer to the core environmental impact indicators and mandatory indicators describing resource use, waste categories, and output flows according to PCR-ed4-EN-2021 09 06.

4.2 Results per functional unit

The following results of the environmental declaration have been developed by considering an outgoing artificial luminous flux of 1,000 lumens over a reference lifetime of 35,000 hours.

Table 9: Results core environmental impact indicators per functional unit

Impact category	Unit	Total	Manufacturing			Distribution	Installation
			A1	A2	A3	A4	A5
GWP-total	kg CO ₂ eq	1.17E+02	1.80E+00	9.67E-03	1.73E-02	7.76E-02	1.62E-02
GWP-biogenic	kg CO ₂ eq	6.81E+00	-9.57E-02	3.17E-06	6.41E-05	2.17E-06	9.40E-03
GWP-fossil	kg CO ₂ eq	1.10E+02	1.89E+00	9.66E-03	1.72E-02	7.75E-02	6.80E-03
GWP-lulut	kg CO ₂ eq	1.81E-01	3.11E-03	4.39E-06	1.40E-05	3.94E-05	7.87E-06
ODP	kg CFC11 eq	1.36E-06	4.82E-08	1.32E-10	3.95E-10	1.10E-09	8.39E-11
AP	mol H ⁺ eq	5.70E-01	1.65E-02	4.09E-05	1.07E-04	1.57E-03	3.49E-05
EP-marine	mol N eq	9.52E-02	2.25E-03	1.46E-05	2.08E-05	4.04E-04	1.61E-05
EP-freshwater	kg P eq	1.56E-01	1.50E-03	1.05E-06	5.35E-06	4.78E-06	1.61E-06
EP-terrestrial	mol N eq	7.33E-01	2.38E-02	1.59E-04	2.18E-04	4.48E-03	1.25E-04
POCP	kg NMVOC eq	2.23E-01	8.60E-03	5.54E-05	9.12E-05	1.26E-03	4.57E-05
ADPE	kg Sb eq	1.37E-03	2.07E-04	3.20E-08	3.13E-07	1.28E-07	2.89E-08
ADPF	MJ	1.71E+03	2.80E+01	1.35E-01	1.90E-01	1.01E+00	8.56E-02
WDP	m ³ depriv.	1.31E+01	5.58E-01	6.23E-04	4.68E-03	3.47E-03	-2.75E-04

4 Environmental impacts

Table 9: Results core environmental impact indicators per functional unit

Impact category	Unit	Use	End of life				Benefits and loads Beyond the system boundaries stage
			B6	C1	C2	C3	
GWP-total	kg CO ₂ eq	1.15E+02	5.17E-02	1.72E-02	4.07E-03	5.72E-02	-3.99E-01
GWP-biogenic	kg CO ₂ eq	6.84E+00	1.02E-05	1.06E-05	1.65E-03	5.37E-02	5.35E-02
GWP-fossil	kg CO ₂ eq	1.08E+02	5.16E-02	1.72E-02	2.42E-03	3.55E-03	-4.52E-01
GWP-lulut	kg CO ₂ eq	1.78E-01	1.84E-05	6.20E-06	5.71E-06	8.53E-07	-9.63E-04
ODP	kg CFC11 eq	1.31E-06	7.73E-11	3.77E-10	2.76E-11	2.22E-11	-4.27E-09
AP	mol H+ eq	5.52E-01	5.76E-05	7.00E-05	1.60E-05	1.05E-05	-2.72E-03
EP-marine	mol N eq	9.24E-02	1.68E-05	2.62E-05	6.24E-06	7.07E-05	-5.25E-04
EP-freshwater	kg P eq	1.55E-01	4.40E-06	1.22E-06	5.86E-07	5.61E-06	-3.02E-04
EP-terrestrial	mol N eq	7.04E-01	1.59E-04	2.85E-04	5.59E-05	3.16E-05	-5.17E-03
POCP	kg NMVOC eq	2.13E-01	4.38E-05	1.08E-04	1.79E-05	2.48E-05	-1.56E-03
ADPE	kg Sb eq	1.16E-03	7.66E-08	4.85E-08	2.03E-08	1.90E-09	-1.34E-05
ADPF	MJ	1.68E+03	1.20E-01	2.52E-01	2.89E-02	2.13E-02	-5.90E+00
WDP	m³ depriv.	1.25E+01	1.89E-03	1.15E-03	2.25E-04	-1.26E-02	-1.17E-01

Acronyms: GWP-total = Global Warming Potential total; GWP-biogenic = Global Warming Potential biogenic; GWP-fossil = Global Warming Potential fossil; GWP-lulut = Global Warming Potential land use and land use transformation; ODP = Ozone Depletion; AP = Acidification; E = Eutrophication; POCP = Photochemical ozone formation; ADPE = Depletion of abiotic resources-minerals and metals; ADPF = Depletion of abiotic resources-fossil fuels; WDP = Water resource deprivation.

Table 10: Results of mandatory indicators per functional unit

Indicators	Unit	Value
Renewable primary energy (without raw material)	MJ	4.78E+02
Renewable primary energy (raw material)	MJ	2.52E+00
Total use of renewable primary energy	MJ	4.80E+02
Non-renewable primary energy (without raw material)	MJ	1.68E+03
Non-renewable primary energy (raw material)	MJ	2.64E+01
Total use of non-renewable primary energy	MJ	1.71E+03
Use of secondary materials	kg	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00
Use of non-renewable secondary fuels	MJ	0.00E+00
Net use of fresh water	m ³	8.83E-01
Hazardous waste disposed	kg	1.20E-01
Non-hazardous waste disposed	kg	8.54E+00
Radioactive waste disposed	kg	8.46E-03
Components for reuse	kg	4.08E-02
Materials for recycling	kg	8.93E-02
Materials for energy recovery	kg	5.00E-02
Exported energy	MJ	0.00E+00
Biogenic carbon content of the product	kg of C	0.00E+00
Biogenic carbon content of the associated packaging	kg of C	4.49E-02

4 Environmental impacts

4.3 Results per unit of product

The following results of the environmental declaration have been developed by considering one product (outgoing artificial luminous flux of 30,000 Lumens over a declared lifetime of 50,000 hours).

Table 11: Results core environmental impact indicators per unit of product (declared unit, 8,000 Lumens during a lifetime of 50,000 hours)

Impact category	Unit	Total	Manufacturing			Distribution	Installation
			A1	A2	A3	A4	A5
GWP-total	kg CO ₂ eq	1.33E+03	2.06E+01	1.11E-01	1.97E-01	8.86E-01	1.85E-01
GWP-biogenic	kg CO ₂ eq	7.79E+01	-1.09E+00	3.63E-05	7.33E-04	2.48E-05	1.07E-01
GWP-fossil	kg CO ₂ eq	1.25E+03	2.16E+01	1.10E-01	1.96E-01	8.86E-01	7.77E-02
GWP-lulut	kg CO ₂ eq	2.07E+00	3.55E-02	5.01E-05	1.60E-04	4.51E-04	8.99E-05
ODP	kg CFC11 eq	1.55E-05	5.51E-07	1.50E-09	4.51E-09	1.26E-08	9.59E-10
AP	mol H+ eq	6.52E+00	1.89E-01	4.67E-04	1.22E-03	1.80E-02	3.98E-04
EP-marine	mol N eq	1.09E+00	2.57E-02	1.67E-04	2.37E-04	4.62E-03	1.84E-04
EP-freshwater	kg P eq	1.79E+00	1.71E-02	1.21E-05	6.12E-05	5.47E-05	1.84E-05
EP-terrestrial	mol N eq	8.37E+00	2.72E-01	1.82E-03	2.50E-03	5.12E-02	1.43E-03
POCP	kg NMVOC eq	2.55E+00	9.83E-02	6.33E-04	1.04E-03	1.44E-02	5.23E-04
ADPE	kg Sb eq	1.56E-02	2.36E-03	3.65E-07	3.58E-06	1.46E-06	3.30E-07
ADPF	MJ	1.96E+04	3.20E+02	1.54E+00	2.17E+00	1.15E+01	9.78E-01
WDP	m³ depriv.	1.49E+02	6.37E+00	7.12E-03	5.35E-02	3.97E-02	-3.14E-03
Impact category	Unit	Use	End of life				Benefits and loads Beyond the system boundaries stage
		B6	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq	1.31E+03	5.90E-01	1.96E-01	4.66E-02	6.54E-01	-4.56E+00
GWP-biogenic	kg CO ₂ eq	7.82E+01	1.17E-04	1.21E-04	1.89E-02	6.14E-01	6.12E-01
GWP-fossil	kg CO ₂ eq	1.23E+03	5.90E-01	1.96E-01	2.76E-02	4.05E-02	-5.16E+00
GWP-lulut	kg CO ₂ eq	2.03E+00	2.10E-04	7.09E-05	6.53E-05	9.75E-06	-1.10E-02
ODP	kg CFC11 eq	1.49E-05	8.83E-10	4.31E-09	3.16E-10	2.54E-10	-4.88E-08
AP	mol H+ eq	6.31E+00	6.58E-04	8.00E-04	1.83E-04	1.20E-04	-3.11E-02
EP-marine	mol N eq	1.06E+00	1.91E-04	2.99E-04	7.13E-05	8.09E-04	-6.00E-03
EP-freshwater	kg P eq	1.77E+00	5.02E-05	1.39E-05	6.69E-06	6.41E-05	-3.45E-03
EP-terrestrial	mol N eq	8.04E+00	1.82E-03	3.26E-03	6.39E-04	3.61E-04	-5.91E-02
POCP	kg NMVOC eq	2.43E+00	5.00E-04	1.23E-03	2.04E-04	2.84E-04	-1.78E-02
ADPE	kg Sb eq	1.32E-02	8.75E-07	5.54E-07	2.32E-07	2.17E-08	-1.53E-04
ADPF	MJ	1.92E+04	1.37E+00	2.88E+00	3.30E-01	2.43E-01	-6.74E+01
WDP	m³ depriv.	1.43E+02	2.16E-02	1.31E-02	2.57E-03	-1.44E-01	-1.34E+00

Acronyms: GWP-total=Global Warming Potential total; GWP-biogenic=Global Warming Potential biogenic; GWP-fossil=Global Warming Potential fossil; GWP-lulut=Global Warming Potential land use and land use transformation; ODP=Ozone Depletion; AP=Acidification; E=Eutrophication; POCP=Photochemical ozone formation; ADPE=Depletion of abiotic resources-minerals and metals; ADPF=Depletion of abiotic resources-fossil fuels; WDP=Water resource deprivation.

4 Environmental impacts

Table 12: Results of mandatory indicators per unit of product (declared unit, 8,000 Lumens during a lifetime of 50,000 hours)

Indicators	Unit	Value
Renewable primary energy (without raw material)	MJ	5.46E+03
Renewable primary energy (raw material)	MJ	2.88E+01
Total use of renewable primary energy	MJ	5.49E+03
Non-renewable primary energy (without raw material)	MJ	1.93E+04
Non-renewable primary energy (raw material)	MJ	3.02E+02
Total use of non-renewable primary energy	MJ	1.96E+04
Use of secondary materials	kg	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00
Use of non-renewable secondary fuels	MJ	0.00E+00
Net use of fresh water	m ³	1.01E+01
Hazardous waste disposed	kg	1.37E+00
Non-hazardous waste disposed	kg	9.76E+01
Radioactive waste disposed	kg	9.67E-02
Components for reuse	kg	4.67E-01
Materials for recycling	kg	1.02E+00
Materials for energy recovery	kg	5.72E-01
Exported energy	MJ	0.00E+00
Biogenic carbon content of the product	kg of C	0.00E+00
Biogenic carbon content of the associated packaging	kg of C	5.14E-01