PRODUCT ENVIRONMENTAL PROFILE

PRODUCT ENVIRONMENTAL PROFILE OF LUMINAIRES FOR 2330 Panel

Reference product: 2330 G4 M84 PW19 30-42/4ML-840 ET

Registration number	TRLX-00023-V01.01-EN	**Drafting rules**	PCR-ed4-EN-2021 09 06
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Date of issue	12-2025	**Validity period**	5 years

Independent verification of the declaration and data, in compliance with ISO 14025: 2006

Internal		**External**	x

The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)

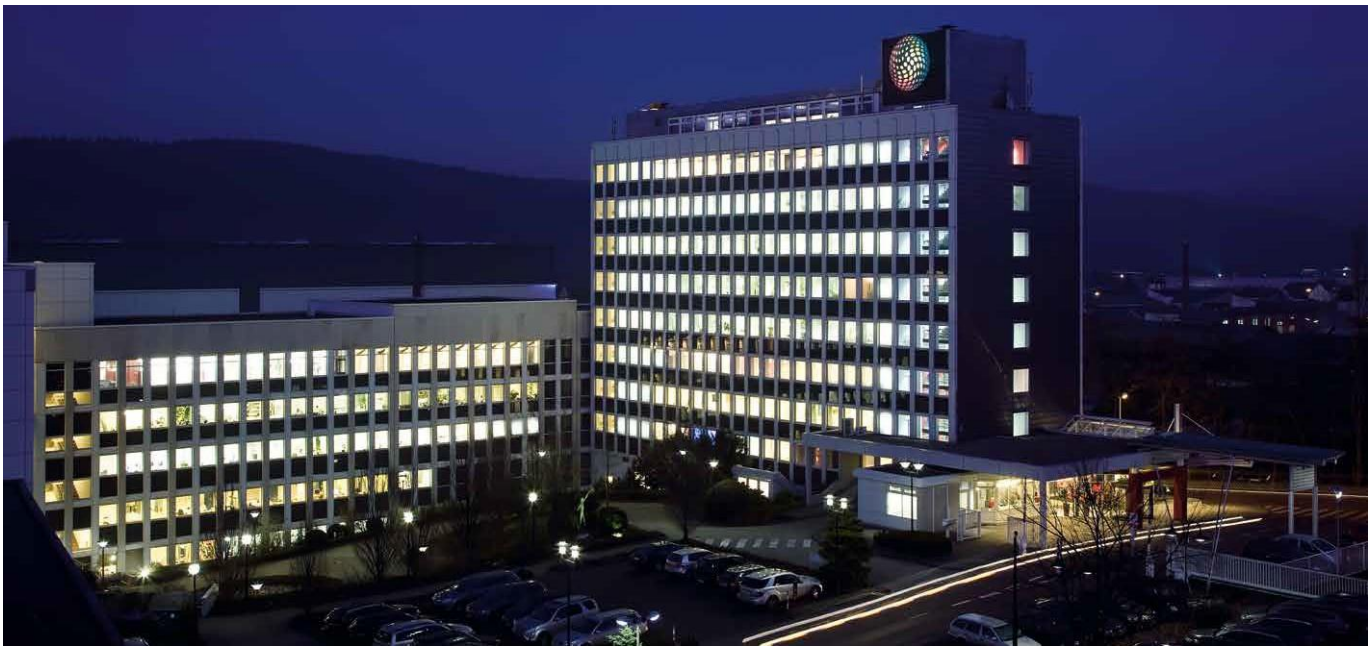
PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500:2022

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



1.1 Company information

TRILUX - Simplify Your Light stands for the simplest way to intelligent, individual light. For more than 100 years TRILUX has been inspiring its customers with high-quality and individual lighting solutions - because light is our passion. This includes not only innovative luminaires but also perfectly matched lighting solutions for offices, industry, healthcare, education, retail and sports. At TRILUX we know that the perfect luminaire alone is not enough. TRILUX focuses on people and contributes with its solutions to a sustainable, healthy and connected world. Because where there is light, there is life.

1.2 Product information

The name of the product under study is “2330 Panel”.

2330 LED is a recessed luminaire for system ceilings in 600 x 600 and 625 x 625 mm grid size. It scores points with pleasantly uniform light distribution and with UGR < 19 is suitable for VDU workstations. With adjustable light colour (multi-colour) and adjustable luminaire luminous flux (multi-lumen), the luminaire can be adapted to local conditions. Typical applications are offices, corridors, foyers, conference rooms, sales areas and waiting zones.

- Flexible use with multi-lumen and multi-colour: Four luminous fluxes and two light colours in one luminaire.
- Wireless Connect types (ETWD) for wireless light management.
- Pleasant light effect due to uniform illumination
- Suitable for VDU workstations (UGR < 19).
- Separate control gear unit simplifies installation (and replacement). 1:1 replacement of conventional luminaires offering time and cost savings during refurbishment.
- Can be covered with insulation material (not ETWD / Wireless Connect types)
- High efficiency (up to 145 lm/W) and reliable service life (50,000 h, L80)
- Additional installation possibilities with suspension accessories (available separately)

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.

Technical Data

The evaluated product family can be divided into switchable (ET) and dimmable (ETDD and ETWD) series. The categorization is based on the presence (ETDD and ETWD) or absence (ET) of energy saving functions. The ETDD series can be connected via DALI and the ETWD series can be connected via Bluetooth. The energy saving coefficients of ETDD and ETWD series are equal to 0.5 according to table 5 in PSR-0014-ed2.0-EN-2023 07 13. For the ET series, there are no energy saving functions and energy saving coefficients are equal to 1. This family includes the following products in the following table:

Table 1: The energy saving functions among 2330 Panel

TK	TOC	Description	Energy saving functions	Energy saving coefficient
10423861	6000682640	2330 G4 M84 PW19 30-42/4ML-840 ET	/	1
10423864	6000682940	2330 G4 M73 PW19 30-42/4ML-840 ET	/	1
10431312	6000702551	2330 G4 M73 PW19 42-865 ETDD	DAIL	0.5
10423865	6000683040	2330 G4 M73 PW19 30-42/4ML-8MC ET	/	1
10423866	6000683151	2330 G4 M73 PW19 42-8MC ETDD	DAIL	0.5
10425492	6000683465	2330 G4 M73 PW19 42-8MC ETWD	Bluetooth	0.5
10423862	6000682740	2330 G4 M84 PW19 30-42/4ML-8MC ET	/	1
10423863	6000682851	2330 G4 M84 PW19 42-8MC ETDD	DAIL	0.5
10425493	6000683565	2330 G4 M84 PW19 42-8MC ETWD	Bluetooth	0.5

The reference product is the 2330 G4 M84 PW19 30-42/4ML-840 ET. The most important information is summarized in the following table:

Table 2: Key technological data

Information	Unit	Description
Light source	-	Integrated LED module
Control gear	-	External
Color temperature	K	4000
Protection index for water and dust (IP)	-	IP40 (Room side)
Impact resistance index (IK)	-	IK02
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	3000/3400/3800/4200
Electrical input power	W	21/23.5/26.5/29
Luminous efficiency	Lumen/W	Up to 145
Dimension	mm	620 x 620 x 32

For the 2330 Panel with an assigned lifetime of 50000 hours that can be installed in indoor applications, the 2330 Panel has the following annual service time.

Table 3: 2330 Panel annual operating times according to the type of building

Type of building	Annual operating hours by default	Operational lifetime (years)
Residential building	3500	14.30
Office	2500	20.00
Educational institutions	2000	25.00
Hospital	5000	10.00
Hotel	5000	10.00
Catering	2500	20.00
Sports establishments	4000	12.50
Retail (wholesale and retail services)	5000	10.00
Industry (manufacturing plants)	4000	12.50

Following the requirements of the PSR, the operational lifetime of 2330 Panel is 10 years.

1.3 Functional unit

The functional unit of 2330 Panel is defined as “Provide lighting that delivers an outgoing artificial luminous flux of 1000 lumens during a reference lifetime of 35000 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 2330 Panel 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 2330 Panel is 4200 Lumen. The assigned lifetime of the 2330 Panel is 50000 Hours, which is estimated by the test report.

The reference flow is calculated as: (1000/outgoing luminous flux of the analyzed product in lumens) x (35000/declared product lifetime of the analyzed product in hours). Consequently, the reference flow of the 2330 Panel corresponds to:

(1000/4200) x (35000/50000) = 0.1

2.1 Overview

Table 4: Product composition

Information	Weight [in kg]	Share [in %]
Product	1.944	67.84
Packaging	0.922	32.16

2.2 Product

Table 5: Material composition – Product

Information	Weight [in kg]	Share [in %]
Metals	1.130	58.15
Plastics	0.644	33.14
Others	0.169	8.71

2.3 Packaging

Table 6: Material composition – Packaging

Information	Weight [in kg]	Share [in %]
Paper/board	0.715	77.54
Wood	0.206	22.32
other	0.001	0.14

3.1 Manufacturing

The manufacturer acquires all parts from suppliers. At the manufacturing site located in China, the manufacturer fabricated Printed Circuit Board Assembly through surface mounting and 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

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: 1000 km

3.3 Installation

During the installation process, product testing lasts for 0.05 hours and consumes 0.001475 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 the integrated LED module is 50000 Hours, which is the same as that of the 2330 Panel, no light sources need replacement. Furthermore, no standard repairs or refurbishments are anticipated. The use of the product consumes electricity, but no water.
The 2330 Panel of 2330 G4 M84 PW19 30-42/4ML-840 ET does not provide any energy saving functions, its energy saving coefficient is 1 according to PSR-0014-ed2.0-EN-2023 07 13.

The market of the product is Europe, and the distribution ratio by country/region is as follows:

Country/Region	Share (%)	Energy model
Germany	49.00	Electricity, low voltage {DE}| market for electricity, low voltage | Cut-off, S
France	32.00	Electricity, low voltage {FR}| market for electricity, low voltage | Cut-off, S
Czechia	3.00	Electricity, low voltage {CZ}| market for electricity, low voltage | Cut-off, S
Poland	7.00	Electricity, low voltage {PL}| market for electricity, low voltage | Cut-off, S
Netherland	1.00	Electricity, low voltage {NL}| market for electricity, low voltage | Cut-off, S
Spain	3.00	Electricity, low voltage {ES}| market for electricity, low voltage | Cut-off, S
Austria	1.00	Electricity, low voltage {AT}| market for electricity, low voltage | Cut-off, S
Romania	4.00	Electricity, low voltage {RO}| market for electricity, low voltage | Cut-off, S

3.5 End of life

There is no specific data available to calculate the shipment of product from the installation site to the approved treatment centers. The default distance is 1000 km by lorry was used according to PCR-ed4- EN-2021 09 06.
The product and its PCB falls under the Waste from Electrical and Electronic Equipment (WEEE) directive 2012/19/EU. The valuable fractions (Aluminum, Steel and Plastics, etc.) are recycling within the default recycling recovering rate established in WEEE REPORT of 2330 Panel. The remaining parts assumed that 100% are sent to sanitary landfill for disposal according to PEP-PCR-ed4- EN-2021 09 06.

3.6 Benefits and loads beyond the system boundaries

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 7: Material flows for reuse, recycling and/or recovery per unit of product (declared unit, 4200 Lumens during a lifetime of 50000 hours)

Information	Unit	Value
Total weight of product going into reuse	kg	0.000
Total weight of product going into recycling	kg	0.937
Share of metals	%	88.53
Share of plastics	%	10.66
Share of others	%	0.81
Total weight of product going into incineration with energy recovery	kg	0.272
Share of metals	%	0.00
Share of plastics	%	100.00
Share of others	%	0.00
Total weight of packaging going into reuse	kg	0.206
Total weight of packaging going into recycling	kg	0.586
Share of Paper/board	%	100.00
Share of Plastics	%	0.00
Total weight of packaging going into incineration with energy recovery	kg	0.064
Share of Paper/board	%	100.00
Share of Plastics	%	0.00

4.1 Introduction

The 2330 Panel 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 life cycle be divided into manufacturing stage (A1-A3), distribution stage (A4), installation stage (A5), use stage (B1-B7, the value of B1-B7 except B6 are 0 and not reflected in the table 9 and table 11), End-of-life stage (C1-C4) and benefits and loads beyond the system boundaries stage (D). The results refer to the core environmental impact indicators and mandatory indicators describing resource use, waste categories, and output flows according to PEP-PCR–ed4- EN-2021 09 06.

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 PEP-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 1000 lumens over a reference lifetime of 35000 hours.

Table 8: 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	9.43E+01	2.60E+00	5.59E-02	4.04E-02	1.46E-01	3.56E-02
GWP-biogenic	kg CO_2 eq	4.79E+00	-1.12E-01	1.83E-05	-1.07E-04	4.07E-06	2.28E-02
GWP-fossil	kg CO_2 eq	8.93E+01	2.71E+00	5.59E-02	4.05E-02	1.45E-01	1.27E-02
GWP-lulut	kg CO_2 eq	1.34E-01	4.95E-03	2.54E-05	2.00E-05	7.40E-05	1.56E-05
ODP	kg CFC11 eq	1.24E-06	1.35E-07	7.60E-10	1.39E-10	2.07E-09	1.63E-10
AP	mol H+ eq	4.01E-01	1.62E-02	2.36E-04	2.19E-04	2.95E-03	7.04E-05
EP-marine	kg N eq	8.01E-02	2.90E-03	8.44E-05	4.59E-05	7.58E-04	3.41E-05
EP-freshwater	kg P eq	1.14E-01	1.21E-03	6.09E-06	8.74E-06	8.97E-06	1.71E-06
EP-terrestrial	mol N eq	6.30E-01	2.91E-02	9.19E-04	4.75E-04	8.40E-03	2.69E-04
POCP	kg NMVOC eq	1.90E-01	1.11E-02	3.20E-04	1.27E-04	2.36E-03	9.93E-05
ADPE	kg Sb eq	1.23E-03	1.15E-04	1.85E-07	1.87E-07	2.39E-07	4.83E-08
ADPF	MJ	2.10E+03	3.74E+01	7.78E-01	4.08E-01	1.89E+00	1.63E-01
WDP	m^3 depriv.	1.27E+01	7.52E-01	3.60E-03	4.88E-03	6.52E-03	-8.72E-04

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	9.11E+01	1.02E-01	3.40E-02	1.47E-02	8.99E-02	-7.51E-01
GWP-biogenic	kg CO_2 eq	4.79E+00	2.02E-05	2.09E-05	5.96E-03	8.43E-02	1.31E-01
GWP-fossil	kg CO_2 eq	8.62E+01	1.02E-01	3.39E-02	8.75E-03	5.57E-03	-8.80E-01
GWP-lulut	kg CO_2 eq	1.29E-01	3.63E-05	1.23E-05	2.04E-05	1.34E-06	-1.96E-03
ODP	kg CFC11 eq	1.11E-06	1.53E-10	7.47E-10	1.03E-10	3.49E-11	-7.74E-09
AP	mol H+ eq	3.81E-01	1.14E-04	1.39E-04	5.79E-05	1.65E-05	-5.09E-03
EP-marine	kg N eq	7.60E-02	3.32E-05	5.18E-05	2.27E-05	1.11E-04	-1.04E-03
EP-freshwater	kg P eq	1.13E-01	8.70E-06	2.41E-06	2.05E-06	8.80E-06	-4.77E-04
EP-terrestrial	mol N eq	5.90E-01	3.15E-04	5.65E-04	2.04E-04	4.96E-05	-1.02E-02
POCP	kg NMVOC eq	1.76E-01	8.66E-05	2.14E-04	6.53E-05	3.90E-05	-3.13E-03
ADPE	kg Sb eq	1.11E-03	1.52E-07	9.60E-08	7.36E-08	2.98E-09	-1.15E-05
ADPF	MJ	2.06E+03	2.37E-01	4.99E-01	1.05E-01	3.34E-02	-1.05E+01
WDP	m^3 depriv.	1.19E+01	3.75E-03	2.27E-03	8.02E-04	-1.98E-02	-2.56E-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 9: Results of mandatory indicators per functional unit

Indicators	Unit	Value
Renewable primary energy (without raw material)	MJ	3.92E+02
Renewable primary energy (raw material)	MJ	3.56E+00
Total use of renewable primary energy	MJ	3.96E+02
Non-renewable primary energy (without raw material)	MJ	2.07E+03
Non-renewable primary energy (raw material)	MJ	3.57E+01
Total use of non-renewable primary energy	MJ	2.10E+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	8.64E-01
Hazardous waste disposed	kg	9.92E-02
Non-hazardous waste disposed	kg	7.94E+00
Radioactive waste disposed	kg	1.67E-02
Components for reuse	kg	3.43E-02
Materials for recycling	kg	2.62E-01
Materials for energy recovery	kg	5.61E-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	7.67E-02

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 4200 Lumens over a declared lifetime of 50000 hours).

Table 10: Results core environmental impact indicators per unit of product (declared unit, 4200 Lumens during a lifetime of 50000 hours)

Impact category	Unit	Total	Manufacturing			Distribution	Installation
			A1	A2	A3	A4	A5
GWP-total	kg CO_2 eq	5.66E+02	1.56E+01	3.35E-01	2.43E-01	8.73E-01	2.13E-01
GWP-biogenic	kg CO_2 eq	2.88E+01	-6.69E-01	1.10E-04	-6.42E-04	2.44E-05	1.37E-01
GWP-fossil	kg CO_2 eq	5.36E+02	1.63E+01	3.35E-01	2.43E-01	8.73E-01	7.65E-02
GWP-lulut	kg CO_2 eq	8.04E-01	2.97E-02	1.52E-04	1.20E-04	4.44E-04	9.34E-05
ODP	kg CFC11 eq	7.47E-06	8.08E-07	4.56E-09	8.36E-10	1.24E-08	9.81E-10
AP	mol H+ eq	2.41E+00	9.75E-02	1.42E-03	1.31E-03	1.77E-02	4.22E-04
EP-marine	kg N eq	4.80E-01	1.74E-02	5.07E-04	2.75E-04	4.55E-03	2.04E-04
EP-freshwater	kg P eq	6.84E-01	7.26E-03	3.66E-05	5.24E-05	5.38E-05	1.03E-05
EP-terrestrial	mol N eq	3.78E+00	1.75E-01	5.52E-03	2.85E-03	5.04E-02	1.62E-03
POCP	kg NMVOC eq	1.14E+00	6.64E-02	1.92E-03	7.64E-04	1.42E-02	5.96E-04
ADPE	kg Sb eq	7.38E-03	6.92E-04	1.11E-06	1.12E-06	1.44E-06	2.90E-07
ADPF	MJ	1.26E+04	2.25E+02	4.67E+00	2.45E+00	1.14E+01	9.76E-01
WDP	m^3 depriv.	7.61E+01	4.51E+00	2.16E-02	2.93E-02	3.91E-02	-5.23E-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	5.47E+02	6.13E-01	2.04E-01	8.84E-02	5.39E-01	-4.51E+00
GWP-biogenic	kg CO_2 eq	2.88E+01	1.21E-04	1.25E-04	3.58E-02	5.06E-01	7.87E-01
GWP-fossil	kg CO_2 eq	5.17E+02	6.13E-01	2.04E-01	5.25E-02	3.34E-02	-5.28E+00
GWP-lulut	kg CO_2 eq	7.73E-01	2.18E-04	7.36E-05	1.22E-04	8.04E-06	-1.17E-02
ODP	kg CFC11 eq	6.63E-06	9.18E-10	4.48E-09	6.16E-10	2.09E-10	-4.64E-08
AP	mol H+ eq	2.29E+00	6.84E-04	8.31E-04	3.48E-04	9.92E-05	-3.05E-02
EP-marine	kg N eq	4.56E-01	1.99E-04	3.11E-04	1.36E-04	6.67E-04	-6.27E-03
EP-freshwater	kg P eq	6.77E-01	5.22E-05	1.45E-05	1.23E-05	5.28E-05	-2.86E-03
EP-terrestrial	mol N eq	3.54E+00	1.89E-03	3.39E-03	1.22E-03	2.98E-04	-6.13E-02
POCP	kg NMVOC eq	1.05E+00	5.20E-04	1.28E-03	3.92E-04	2.34E-04	-1.88E-02
ADPE	kg Sb eq	6.69E-03	9.09E-07	5.76E-07	4.42E-07	1.79E-08	-6.88E-05
ADPF	MJ	1.24E+04	1.42E+00	3.00E+00	6.28E-01	2.00E-01	-6.29E+01
WDP	m^3 depriv.	7.16E+01	2.25E-02	1.36E-02	4.81E-03	-1.19E-01	-1.54E+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.

Table 11: Results of mandatory indicators per unit of product (declared unit, 4200 Lumens during a lifetime of 50000 hours)

Indicators	Unit	Value
Renewable primary energy (without raw material)	MJ	2.35E+03
Renewable primary energy (raw material)	MJ	2.14E+01
Total use of renewable primary energy	MJ	2.38E+03
Non-renewable primary energy (without raw material)	MJ	1.24E+04
Non-renewable primary energy (raw material)	MJ	2.14E+02
Total use of non-renewable primary energy	MJ	1.26E+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	5.19E+00
Hazardous waste disposed	kg	5.95E-01
Non-hazardous waste disposed	kg	4.76E+01
Radioactive waste disposed	kg	1.00E-01
Components for reuse	kg	2.06E-01
Materials for recycling	kg	1.57E+00
Materials for energy recovery	kg	3.37E-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	4.60E-01

5.1 Homogeneous environmental family

The present PEP declaration is valid for all the products in the described homogeneous 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 14 and the range of variations for the products in the same family are listed in Table 4.

Table 12: The range of variations for the products in the same family

Parameter	Value for the reference product	Minimum value in product range	Maximum value in product range
Power (W)	21/23.5/26.5/29	21/23.5/26.5/29	21/23.5/26.5/29
Lumen (lm)	3000/3400/3800/4200 @4000K	3000/3400/3800/4200 @4000K 2800/3150/3500/3900 @3000K	3000/3400/3800/4200 @4000K
Weight of luminaire (g)	1943.99	1805.49	2129.10
Weight of packaging (g)	921.51	880.46	962.39
Theoretical coefficient of energy saving	0.5	0.5	1.0

The extrapolation coefficients at product level (declared unit) are listed in table 13 and the parameters of homogeneous environmental family was used in rules of extrapolation are listed in table 14.

Table 13: The extrapolation coefficients at product level (declared unit)

Product name	Manufacturing stage	Distribution stage	Installation stage	Use stage	End of life stage	Module D
2330 G4 M84 PW19 30-42/4ML-840 ET	1.000	1.000	1.000	1.000	1.000	1.000
2330 G4 M73 PW19 30-42/4ML-840 ET	0.938	0.937	0.955	1.000	0.929	0.938
2330 G4 M73 PW19 42-865 ETDD	0.992	0.971	0.963	0.500	0.975	0.992
2330 G4 M73 PW19 30-42/4ML-8MC ET	1.005	0.970	0.955	1.000	0.977	1.005
2330 G4 M73 PW19 42-8MC ETDD	1.055	1.004	0.963	0.500	1.023	1.055
2330 G4 M73 PW19 42-8MC ETWD	1.019	0.982	0.963	0.500	0.992	1.019
2330 G4 M84 PW19 30-42/4ML-8MC ET	1.062	1.033	1.000	1.000	1.049	1.062
2330 G4 M84 PW19 42-8MC ETDD	1.118	1.079	1.044	0.500	1.095	1.118
2330 G4 M84 PW19 42-8MC ETWD	1.086	1.057	1.044	0.500	1.064	1.086

Note: The extrapolation coefficients are intended at product level (declared unit) and not at functional unit, and the extrapolation coefficients at functional unit level shall be taken into account with the following formula:

Extrapolation coefficient at the product level x Lighting output of reference product (lumens)/ Lighting output of concerned product (lumens)

Table 14: 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)
2330 G4 M84 PW19 30-42/4ML-840 ET	74.060	163.990	1,705.940	1,943.990	921.509	21/23.5/26.5/29	3000/ 3400/ 3800/ 4200
2330 G4 M73 PW19 30-42/4ML-840 ET	74.060	163.990	1,567.440	1,805.490	880.457	21/23.5/26.5/29	3000/ 3400/ 3800/ 4200
2330 G4 M73 PW19 42-865 ETDD	74.060	253.600	1,567.440	1,895.100	887.357	29.000	4200
2330 G4 M73 PW19 30-42/4ML-8MC ET	154.570	163.990	1,580.930	1,899.490	880.457	21/23.5/26.5/29	3000/ 3400/ 3800/ 4200 @4000K 2800/ 3150/ 3500/ 3900 @3000K
2330 G4 M73 PW19 42-8MC ETDD	154.570	253.600	1,580.930	1,989.100	887.357	29.000	4200 @4000K 3900 @3000K
2330 G4 M73 PW19 42-8MC ETWD	155.230	192.130	1,580.270	1,927.630	887.357	29.000	4200 @4000K 3900 @3000K
2330 G4 M84 PW19 30-42/4ML-8MC ET	154.570	163.990	1,720.930	2,039.490	921.509	21/23.5/26.5/29	3000/ 3400/ 3800/ 4200 @4000K 2800/ 3150/ 3500/ 3900 @3000K
2330 G4 M84 PW19 42-8MC ETDD	154.570	253.600	1,720.930	2,129.100	962.389	29.000	4200 @4000K 3900 @3000K
2330 G4 M84 PW19 42-8MC ETWD	155.230	192.130	1,720.270	2,067.630	962.389	29.000	4200 @4000K 3900 @3000K