


Product Environmental Profile of luminaires for indoor lighting - Libera family

Reference product: RP54 + PE35 + PE76 + PE64 + PF74 + PE60



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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)			
PEP are compliant with XP C08-100-1:2016 or EN 50693:2019			
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14025 : 2006 « Environmental labels and declarations. Type III environmental declarations»			



General information

Company information:

iGuzzini illuminazione S.p.A via Mariano Guzzini, 37 62019, Recanati, Italy

Web Site available at: <https://www.iguzzini.com/it/>

Legal contact: Cristiano Venturini (info.hq@iguzzini.com)

Reference product:

“Libera RP54 + PE35 + PE76 + PE64 + PF74 + PE60 ”

The assessed product range covers indoor lighting luminaires for the “Libera” family. The luminaires are used for professional lighting of indoor environments.

The main technical features of the reference product are described in the table below.

Characteristics	Unit	Libera family
Product code	-	RP54 + PE35 + PE76 + PE64 + PF74 + PE60
Light source	-	Integrated LED module
Power supply	-	62,1
Color temperature	K	3000
Protection index for water and dust (IP)	-	IP20
Impact resistance index (IK)	-	IK06
Nominal operating voltage	V	220-240
Assigned lifetime	Hours	50.000
Declaration lifetime of the LED module	Hours	50.000
Useful output flux	Lumen	7.627
Electrical power	W	62,1
Luminous efficiency	Lumen/W	95,9
Dimension	mm	2736

Functional unit:

“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 calculated as:

(1,000/outgoing luminous flux of the analyzed product in lumens) x (35,000/declared product lifetime of the analyzed product in hours):

$$(1.000/7.627) \times (35.000/50.000) = 0,092$$

Homogeneous environmental family:

The reference product represents the Libera luminaires family, which differs in terms of power, useful output flux (lumen) and size.

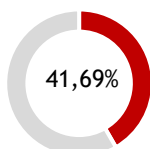
The range of variations for the products in the same family is the following:

Libera Family	Unit	Value for the reference product	Minimum value in product range	Maximum value in product range
Power	W	62,1	7,3	71
Useful output flux	Lumen	7.627	667	7.637
Dimension	mm	2.736	684	2.736

The present PEP declaration is valid for all the products in the described homogenous environmental family. The spreadsheet provided as annex shall be used by the PEP user to extrapolate the impact of the other products for the Libera family, based on the technical parameters of the considered product, as requested by the PSR.

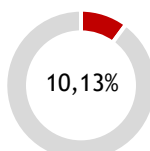


Constituent materials



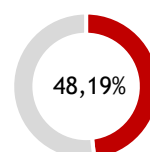
METALS

	kg	%
Aluminum	1,219	71,71
Steel	0,293	17,23
Zamak	0,100	5,88
Brass	0,088	5,18



PLASTICS

	kg	%
Polymethyl methacrylate (PMMA)	0,180	4,41
Nylon (PA66)	0,113	2,77
Silicon	0,071	1,75
Polycarbonate (PC)	0,049	1,19



OTHER MATERIALS

	kg	%
Electronical components	0,524	12,86
Chemicals	0,198	4,85
Paper	0,074	1,82
Cardboard - Packaging	0,951	23,32
Plastic (PE) - Packaging	0,038	0,93
Wood - Packaging	0,180	4,41

Total reference product	2,909	71,33
Total packaging	1,169	28,67
TOTAL	4,078	100%

The list above includes also materials with a certain amount of recycled content, in order to reduce the impacts linked to the production of virgin materials. In particular:

- The paperboard box of packaging is made of 100% of recycled content;
- The pallet used for shipment is reused.

Manufacture

The product components are manufactured or assembled by iGuzzini S.p.A. in Recanati (Italy) manufacturing site. iGuzzini applies an environmental management system, certified according to ISO 14001:2015 and an energy management system certified according to ISO 50001:2018 (the certificates are available at: <https://www.iguzzini.com/it/certificazioni/>).

In 2023 iGuzzini gained the gold medal in the EcoVadis platform.

In 2022, iGuzzini disclosed its sustainability performances within the Fagerhult Group Sustainability Report. In the same year iGuzzini plant of Recanati passed to 100% green energy procurement verified and certified by GO (origin guarantee certificates).

All lighting products manufactured by iGuzzini comply to the European directive “2011/65/EU ROHS 2 - Restriction of dangerous substances in electrical and electronic equipment”.

Distribution

There is no hub for the distribution. Products leaving the production site in Recanati (MC), Italy, are delivered directly to the final clients. The distribution of the final destinations is the following:

Destination	Share (%)	Type transport considered
Italy	20%	Local
France	20%	Intercontinental
England	20%	Intercontinental
German	20%	Intercontinental
Spain	15%	Intercontinental
Emirates	5%	Intracontinental

Installation

The luminaires are provided to the client with the power supply, the fixing elements and the assembly elements, fittings and other electrical connectors needed for installation. Therefore, the installation of the luminaire does not require additional components and the product is easily installed using manual tools. In this phase the end of life (EoL) of the packaging of the final product is considered as well.

Use

Energy efficient light sources (LED lighting) are integrated. The use phase consists of electricity use during the whole lifetime of the product. The assigned lifetime of the luminaire is 50.000 hours. Because of the products are installed and used in six different states, the total consumption of the product is divided into the various states based on the percentage of sale listed on table of distribution paragraph.



End of life

The company is affiliated with a WEEE (Waste Electrical and Electronic Equipment) Italian consortium (Ecolight, <https://ecolight.it/>). The product at its end of life is managed as prescribed by the current legislation about EEE waste (Directive 2012/19/EU) and the waste treatment scenarios of the Countries in which the product is distributed. According to the most recent data available, waste treatment scenarios are the following:

Scenario	Recycling	Energy recovery	Incineration	Landfill
Italy	95%	2%	0%	3%
German	54%	-	-	46%
France	41%	15%	0%	44%
England	59%	-	-	41%
Spain	34%	-	-	66%
Emirates	6%	-	-	94%

The end of life scenarios are made with the following assumptions:

- In Italian scenario the transport to the end of life is assumed to be 100 km and the treatment of waste is based on Ecolight statistics;
- In French scenario the transport to the end of life is assumed to be 1000 km and the treatment of waste is based on PSR statistics;
- In other European and not-Europeans scenarios the transport to the end of life is assumed to be 1000 km and the treatment of waste is based on Global E-Waste Monitor report;



Environmental impacts

The evaluation of environmental impacts examines the manufacturing, distribution, installation, use and end-of-life stages of the Reference Product life cycle.

The environmental impacts assessment of the reference product has been performed using SimaPro 9.4.0.2 software. Background datasets have been retrieved from Ecoinvent 3.8 libraries. The impact indicators and impact models used are the ones indicated by the PCR-ed4-EN-2021 09 06. This environmental declaration has been developed considering an outgoing artificial luminous flux of 1,000 lumens over a reference lifetime of 35,000 hours (Functional Unit).

Results of mandatory indicators per F.U. (for 1.000 lumens during 35.000 hours):

Impact category	Unit	Total	Manufacturing	Distribution	Installation	Use	EoL
Climate change	kg CO ₂ eq	1,06E+02	4,40E+00	4,73E-01	2,40E-02	1,01E+02	1,15E-01
Ozone depletion	kg CFC-11 eq	7,20E-06	2,07E-07	1,07E-07	2,34E-10	6,88E-06	5,10E-09
Photochemical ozone formation	kg NMVOC eq	6,62E+01	1,55E-01	3,07E-02	9,48E-05	6,61E+01	1,87E-03
Acidification	mol H ⁺ eq	2,21E-01	1,49E-02	2,60E-03	9,60E-06	2,04E-01	1,46E-04
Eutrophication, freshwater	kg P eq	2,11E-06	3,22E-07	9,68E-09	1,21E-10	1,77E-06	2,57E-09
Eutrophication, marine	kg N eq	1,40E-06	2,32E-07	5,89E-09	5,22E-11	1,16E-06	4,10E-10
Eutrophication, terrestrial	mol N eq	5,02E-08	1,06E-08	6,23E-11	8,27E-13	3,95E-08	9,69E-12
Water use	m ³ depriv.	4,44E-01	3,48E-02	2,47E-03	6,13E-06	4,07E-01	1,15E-04
Abiotic resource depletion, fossils	MJ	6,23E-02	1,89E-03	1,00E-05	7,82E-08	6,04E-02	2,43E-06
Abiotic resource depletion, minerals and metals	kg Sb eq	8,56E-02	4,91E-03	9,00E-04	1,55E-05	7,95E-02	2,36E-04
Climate change - Fossil	kg CO ₂ eq	8,24E-01	5,02E-02	9,85E-03	2,04E-05	7,64E-01	4,20E-04
Climate change - Biogenic	kg CO ₂ eq	1,53E+03	1,78E+02	3,83E+00	4,97E-02	1,34E+03	7,18E-01
Climate change - Land use and LU change	kg CO ₂ eq	5,20E+02	1,74E+01	1,41E+00	1,95E-02	5,00E+02	4,20E-01

Results of mandatory indicators per unit of product (declared unit, 7.627 lumens during 50.000 hours):

Impact category	Unit	Total	Manufacturing	Distribution	Installation	Use	EoL
Climate change	kg CO ₂ eq	1,15E+03	4,79E+01	5,14E+00	2,60E-01	1,10E+03	1,25E+00
Ozone depletion	kg CFC-11 eq	7,82E-05	2,25E-06	1,17E-06	2,54E-09	7,48E-05	5,54E-08
Photochemical ozone formation	kg NMVOC eq	7,20E+02	1,69E+00	3,33E-01	1,03E-03	7,18E+02	2,03E-02
Acidification	mol H ⁺ eq	2,41E+00	1,62E-01	2,82E-02	1,04E-04	2,21E+00	1,59E-03
Eutrophication, freshwater	kg P eq	2,29E-05	3,50E-06	1,05E-07	1,31E-09	1,93E-05	2,80E-08
Eutrophication, marine	kg N eq	1,52E-05	2,52E-06	6,40E-08	5,67E-10	1,26E-05	4,45E-09
Eutrophication, terrestrial	mol N eq	5,46E-07	1,15E-07	6,77E-10	8,99E-12	4,30E-07	1,05E-10
Water use	m ³ depriv.	4,83E+00	3,78E-01	2,68E-02	6,66E-05	4,42E+00	1,24E-03
Abiotic resource depletion, fossils	MJ	6,77E-01	2,05E-02	1,09E-04	8,50E-07	6,57E-01	2,64E-05
Abiotic resource depletion, minerals and metals	kg Sb eq	9,31E-01	5,34E-02	9,78E-03	1,69E-04	8,65E-01	2,56E-03
Climate change - Fossil	kg CO ₂ eq	8,96E+00	5,45E-01	1,07E-01	2,22E-04	8,30E+00	4,56E-03
Climate change - Biogenic	kg CO ₂ eq	1,66E+04	1,93E+03	4,17E+01	5,40E-01	1,46E+04	7,81E+00
Climate change - Land use and LU change	kg CO ₂ eq	5,65E+03	1,89E+02	1,53E+01	2,12E-01	5,44E+03	4,56E+00

Results of mandatory indicators per unit of product - Detail of the use phase with the decomposition of module B (B1-B7) according to EN 15978 and EN 15804:

Impact category	Unit	Total	B1	B2	B3	B4	B5	B6	B7
Climate change	kg CO ₂ eq	1,02E+03	-	-	-	-	-	1,10E+03	-
Ozone depletion	kg CFC-11 eq	3,78E-05	-	-	-	-	-	7,48E-05	-
Photochemical ozone formation	kg NMVOC eq	2,35E+00	-	-	-	-	-	7,18E+02	-
Acidification	mol H ⁺ eq	4,78E+00	-	-	-	-	-	2,21E+00	-
Eutrophication, freshwater	kg P eq	4,59E-01	-	-	-	-	-	1,93E-05	-
Eutrophication, marine	kg N eq	8,68E-01	-	-	-	-	-	1,26E-05	-
Eutrophication, terrestrial	mol N eq	8,73E+00	-	-	-	-	-	4,30E-07	-
Water use	m ³ depriv.	1,92E+02	-	-	-	-	-	4,42E+00	-
Abiotic resource depletion, fossils	MJ	1,49E+04	-	-	-	-	-	6,57E-01	-
Abiotic resource depletion, minerals and metals	kg Sb eq	6,55E-03	-	-	-	-	-	8,65E-01	-
Climate change - Fossil	kg CO ₂ eq	1,00E+03	-	-	-	-	-	8,30E+00	-
Climate change - Biogenic	kg CO ₂ eq	2,02E+01	-	-	-	-	-	1,46E+04	-
Climate change - Land use and LU change	kg CO ₂ eq	2,03E+00	-	-	-	-	-	5,44E+03	-

Within the determination of the impacts of the manufacturing, installation, use and end of life the choice of the dataset relating to electricity consumption fell on low voltage energy (230 V) for all the geographical areas considered in the study. Furthermore, energy mixes were used for each country.

Results of mandatory inventory flow indicators per F.U. (1.000 lumens during 35.000 hours) and declared unit (7.627 lumens during 50.000 hours):

Indicators	Unit	F.U.	D.U.
Renewable primary energy (without raw material)	MJ	4,49E+02	4,88E+03
Renewable primary energy (raw material)	MJ	4,19E+00	4,56E+01
Total use of renewable primary energy	MJ	4,53E+02	4,93E+03
Nonrenewable primary energy (without raw material)	MJ	2,47E+03	2,69E+04
Nonrenewable primary energy (raw material)	MJ	4,50E+01	4,89E+02
Total use of non-renewable primary energy	MJ	2,52E+03	2,74E+04
Use of secondary materials	kg	4,88E-02	5,30E-01
Use of renewable secondary fuels	MJ	-	-
Use of non-renewable secondary fuels	MJ	3,90E+00	4,24E+01
Net use of fresh water	m ³	7,91E-04	8,60E-03
Hazardous waste disposed	kg	1,14E-03	1,24E-02
Non-hazardous waste disposed	kg	5,54E-02	6,02E-01
Radioactive waste disposed	kg	-	-
Components for reuse	kg	1,66E-02	1,80E-01
Materials for recycling	kg	*	*
Materials for energy recovery	kg	*	*
Exported energy	MJ	-	-
Biogenic carbon content of the product	kg	6,82E-03	7,41E-02
Biogenic carbon content of the associated packaging	kg	8,75E-02	9,51E-01

*The use of the symbol * indicates that the value depends on the country where the WEEE is disposed*



Extrapolation rules

Extrapolations rules have been calculated following PCR-ed4-EN-2021 09 06 and PSR-0014-ed1.0-EN-2018 07 18. The defined rules shall be applied using the Extrapolation rules file provided in the following tables.

Parameter	Value for reference product
Lighting output [lumens]	7.627
Weight of light source [kg]	0,0039
Weight of luminaire structure [kg]	2,722
Weight of power equipment [kg]	0,183
Weight of light management system [kg]	-
Weight of product including its light source (no packaging) [kg]	2,909
Weight of product including its packaging [kg]	1,173
Power [W]	62,1

The potential environmental impacts mentioned are applicable to the entire Libera range, including combinations between main body and accessories not listed in the table below. For more information, please refer to the LCA report in section 2.2.6.

The extrapolation coefficients calculation at the functional unit level shall be taken into account with the following formula:

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

Extrapolation coefficients

The reported extrapolation coefficients are intended at product level (declared unit) and not at functional unit.

Product Code	Manufacturing	Distribution	Installation	Use	EoL
RP17+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,23	0,51
RP18+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,23	0,51
RP19+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,22	0,51
RP20+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,22	0,51
RP21+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,32	0,56
RP22+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,32	0,56
RP23+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,30	0,56
RP24+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,30	0,56
RP25+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,40	0,62
RP26+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,40	0,62
RP27+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,38	0,62
RP28+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,38	0,62
RP29+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,66	0,41
RP30+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,66	0,41
RP31+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,63	0,41
RP32+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,63	0,41
RP33+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	1,00	1,02
RP34+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	1,00	1,02
RP35+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	0,96	1,02
RP36+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	0,96	1,02
RP37+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,23	0,51
RP38+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,23	0,51
RP39+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,22	0,51
RP40+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,22	0,51
RP41+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,32	0,56
RP42+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,32	0,56
RP43+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,30	0,56
RP44+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,30	0,56
RP45+PE26+PE60+PE76+PF74	0,64	0,62	0,65	0,40	0,61
RP46+PE26+PE60+PE76+PF74	0,64	0,62	0,65	0,40	0,61
RP47+PE26+PE60+PE76+PF74	0,64	0,62	0,65	0,38	0,61
RP48+PE26+PE60+PE76+PF74	0,64	0,62	0,65	0,38	0,61
RP49+PE30+PE60+PE76+PF74	0,79	0,78	0,83	0,66	0,77
RP50+PE30+PE60+PE76+PF74	0,79	0,78	0,83	0,66	0,77
RP51+PE30+PE60+PE76+PF74	0,79	0,78	0,83	0,63	0,77
RP52+PE30+PE60+PE76+PF74	0,79	0,78	0,83	0,63	0,77
RP53+PE35+PE60+PE76+PF74+PE64	1,00	1,00	1,00	1,00	1,00
RP54+PE35+PE60+PE76+PF74+PE64	1,00	1,00	1,00	1,00	1,00
RP55+PE35+PE60+PE76+PF74+PE64	1,00	1,00	1,00	0,96	1,00
RP56+PE35+PE60+PE76+PF74+PE64	1,00	1,00	1,00	0,96	1,00

RP57+PE38+PE60+PE76+PF74	0,54	0,52	0,54	0,12	0,51
RP58+PE38+PE60+PE76+PF74	0,54	0,52	0,54	0,12	0,51
RP59+PE38+PE60+PE76+PF74	0,54	0,52	0,54	0,12	0,51
RP60+PE38+PE60+PE76+PF74	0,54	0,52	0,54	0,12	0,51
RP61+PE42+PE60+PE76+PF74	0,58	0,56	0,57	0,17	0,56
RP62+PE42+PE60+PE76+PF74	0,58	0,56	0,57	0,17	0,56
RP63+PE42+PE60+PE76+PF74	0,58	0,56	0,57	0,16	0,56
RP64+PE42+PE60+PE76+PF74	0,58	0,56	0,57	0,16	0,56
RP65+PE46+PE60+PE76+PF74	0,64	0,62	0,65	0,22	0,61
RP66+PE46+PE60+PE76+PF74	0,64	0,62	0,65	0,22	0,61
RP67+PE46+PE60+PE76+PF74	0,64	0,62	0,65	0,20	0,61
RP68+PE46+PE60+PE76+PF74	0,64	0,62	0,65	0,20	0,61
RP69+PE50+PE60+PE76+PF74	0,79	0,78	0,83	0,36	0,77
RP70+PE50+PE60+PE76+PF74	0,79	0,78	0,83	0,36	0,77
RP71+PE50+PE60+PE76+PF74	0,79	0,78	0,83	0,34	0,77
RP72+PE50+PE60+PE76+PF74	0,79	0,78	0,83	0,34	0,77
RP73+PE54+PE60+PE76+PF74+PE64	1,00	1,00	1,00	0,54	1,00
RP74+PE54+PE60+PE76+PF74+PE64	1,00	1,00	1,00	0,54	1,00
RP75+PE54+PE60+PE76+PF74+PE64	1,00	1,00	1,00	0,51	1,00
RP76+PE54+PE60+PE76+PF74+PE64	1,00	1,00	1,00	0,51	1,00
RP77+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,27	0,51
RP78+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,27	0,51
RP79+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,25	0,51
RP80+PE18+PE60+PE76+PF74	0,54	0,52	0,54	0,25	0,51
RP81+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,36	0,56
RP82+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,36	0,56
RP83+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,34	0,56
RP84+PE22+PE60+PE76+PF74	0,58	0,57	0,57	0,34	0,56
RP85+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,46	0,62
RP86+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,46	0,62
RP87+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,44	0,62
RP88+PE26+PE60+PE76+PF74	0,64	0,63	0,65	0,44	0,62
RP89+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,75	0,41
RP90+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,75	0,41
RP91+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,71	0,41
RP92+PE30+PE60+PE76+PF74	0,64	0,54	0,83	0,71	0,41
RP93+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	1,14	1,02
RP94+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	1,14	1,02
RP95+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	1,09	1,02
RP96+PE35+PE60+PE76+PF74+PE64	1,01	1,01	1,00	1,09	1,02
RH35+PE18+PE60+PE76+PF74	0,54	0,51	0,54	0,27	0,50
RH36+PE18+PE60+PE76+PF74	0,54	0,51	0,54	0,27	0,50
RH37+PE18+PE60+PE76+PF74	0,54	0,51	0,54	0,25	0,50
RH38+PE18+PE60+PE76+PF74	0,54	0,51	0,54	0,25	0,50
RH39+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,36	0,55
RH40+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,36	0,55
RH41+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,34	0,55
RH42+PE22+PE60+PE76+PF74	0,58	0,56	0,57	0,34	0,55
RH43+PE26+PE60+PE76+PF74	0,63	0,62	0,65	0,46	0,61

RH44+PE26+PE60+PE76+PF74	0,63	0,62	0,65	0,46	0,61
RH45+PE26+PE60+PE76+PF74	0,63	0,62	0,65	0,44	0,61
RH46+PE26+PE60+PE76+PF74	0,63	0,62	0,65	0,44	0,61
RH47+PE30+PE60+PE76+PF74	0,78	0,78	0,83	0,75	0,76
RH48+PE30+PE60+PE76+PF74	0,78	0,78	0,83	0,75	0,76
RH49+PE30+PE60+PE76+PF74	0,78	0,78	0,83	0,71	0,76
RH50+PE30+PE60+PE76+PF74	0,78	0,78	0,83	0,71	0,76
RH51+PE35+PE60+PE76+PF74+PE64	0,99	0,99	1,00	1,14	0,98
RH52+PE35+PE60+PE76+PF74+PE64	0,99	0,99	1,00	1,14	0,98
RH53+PE35+PE60+PE76+PF74+PE64	0,99	0,99	1,00	1,09	0,98
RH54+PE35+PE60+PE76+PF74+PE64	0,99	0,99	1,00	1,09	0,98

The following table reports the information of the products included in the homogeneous environmental family.

Product Code	System power (Watt)	Total weight (kg)	Luminaries weight (kg)	Structure weight (kg)	Control Gear (kg)	Lighting Source weight (kg)	Packaging (and packing) weight (kg)
RP17+PE18+PE60+PE76+PF74	14,4	2,03	1,4	1,216	0,183	0,0008	0,632
RP18+PE18+PE60+PE76+PF74	14,4	2,03	1,4	1,216	0,183	0,0008	0,632
RP19+PE18+PE60+PE76+PF74	13,7	2,03	1,4	1,216	0,183	0,0008	0,632
RP20+PE18+PE60+PE76+PF74	13,7	2,03	1,4	1,216	0,183	0,0008	0,632
RP21+PE22+PE60+PE76+PF74	19,8	2,21	1,55	1,366	0,183	0,0012	0,662
RP22+PE22+PE60+PE76+PF74	19,8	2,21	1,55	1,366	0,183	0,0012	0,662
RP23+PE22+PE60+PE76+PF74	18,8	2,21	1,55	1,366	0,183	0,0012	0,662
RP24+PE22+PE60+PE76+PF74	18,8	2,21	1,55	1,366	0,183	0,0012	0,662
RP25+PE26+PE60+PE76+PF74	25,1	2,46	1,702	1,517	0,183	0,0015	0,757
RP26+PE26+PE60+PE76+PF74	25,1	2,46	1,702	1,517	0,183	0,0015	0,757
RP27+PE26+PE60+PE76+PF74	23,9	2,46	1,702	1,517	0,183	0,0015	0,757
RP28+PE26+PE60+PE76+PF74	23,9	2,46	1,702	1,517	0,183	0,0015	0,757
RP29+PE30+PE60+PE76+PF74	41,1	2,11	1,138	0,952	0,183	0,0025	0,967
RP30+PE30+PE60+PE76+PF74	41,1	2,11	1,138	0,952	0,183	0,0025	0,967
RP31+PE30+PE60+PE76+PF74	39,2	2,11	1,138	0,952	0,183	0,0025	0,967
RP32+PE30+PE60+PE76+PF74	39,2	2,11	1,138	0,952	0,183	0,0025	0,967
RP33+PE35+PE60+PE76+PF74+PE64	62,1	3,96	2,795	2,608	0,183	0,0039	1,168
RP34+PE35+PE60+PE76+PF74+PE64	62,1	3,96	2,795	2,608	0,183	0,0039	1,168
RP35+PE35+PE60+PE76+PF74+PE64	59,5	3,96	2,795	2,608	0,183	0,0039	1,168
RP36+PE35+PE60+PE76+PF74+PE64	59,5	3,96	2,795	2,608	0,183	0,0039	1,168
RP37+PE18+PE60+PE76+PF74	14,4	2,02	1,388	1,204	0,183	0,0008	0,632
RP38+PE18+PE60+PE76+PF74	14,4	2,02	1,388	1,204	0,183	0,0008	0,632
RP39+PE18+PE60+PE76+PF74	13,7	2,02	1,388	1,204	0,183	0,0008	0,632
RP40+PE18+PE60+PE76+PF74	13,7	2,02	1,388	1,204	0,183	0,0008	0,632
RP41+PE22+PE60+PE76+PF74	19,8	2,20	1,534	1,350	0,183	0,0012	0,662
RP42+PE22+PE60+PE76+PF74	19,8	2,20	1,534	1,350	0,183	0,0012	0,662
RP43+PE22+PE60+PE76+PF74	18,8	2,20	1,534	1,350	0,183	0,0012	0,662
RP44+PE22+PE60+PE76+PF74	18,8	2,20	1,534	1,350	0,183	0,0012	0,662
RP45+PE26+PE60+PE76+PF74	25,1	2,44	1,681	1,496	0,183	0,0015	0,757
RP46+PE26+PE60+PE76+PF74	25,1	2,44	1,681	1,496	0,183	0,0015	0,757
RP47+PE26+PE60+PE76+PF74	23,9	2,44	1,681	1,496	0,183	0,0015	0,757
RP48+PE26+PE60+PE76+PF74	23,9	2,44	1,681	1,496	0,183	0,0015	0,757
RP49+PE30+PE60+PE76+PF74	41,1	3,07	2,105	1,919	0,183	0,0025	0,967
RP50+PE30+PE60+PE76+PF74	41,1	3,07	2,105	1,919	0,183	0,0025	0,967
RP51+PE30+PE60+PE76+PF74	39,2	3,07	2,105	1,919	0,183	0,0025	0,967
RP52+PE30+PE60+PE76+PF74	39,2	3,07	2,105	1,919	0,183	0,0025	0,967
RP53+PE35+PE60+PE76+PF74+PE64	62,1	3,91	2,746	2,559	0,183	0,0039	1,168
RP54+PE35+PE60+PE76+PF74+PE64	62,1	3,91	2,746	2,559	0,183	0,0039	1,168
RP55+PE35+PE60+PE76+PF74+PE64	59,5	3,91	2,746	2,559	0,183	0,0039	1,168
RP56+PE35+PE60+PE76+PF74+PE64	59,5	3,91	2,746	2,559	0,183	0,0039	1,168

RP57+PE38+PE60+PE76+PF74	7,7	2,02	1,388	1,204	0,183	0,0008	0,632
RP58+PE38+PE60+PE76+PF74	7,7	2,02	1,388	1,204	0,183	0,0008	0,632
RP59+PE38+PE60+PE76+PF74	7,3	2,02	1,388	1,204	0,183	0,0008	0,632
RP60+PE38+PE60+PE76+PF74	7,3	2,02	1,388	1,204	0,183	0,0008	0,632
RP61+PE42+PE60+PE76+PF74	10,7	2,20	1,534	1,350	0,183	0,0012	0,662
RP62+PE42+PE60+PE76+PF74	10,7	2,20	1,534	1,350	0,183	0,0012	0,662
RP63+PE42+PE60+PE76+PF74	10	2,20	1,534	1,350	0,183	0,0012	0,662
RP64+PE42+PE60+PE76+PF74	10	2,20	1,534	1,350	0,183	0,0012	0,662
RP65+PE46+PE60+PE76+PF74	13,5	2,44	1,681	1,496	0,183	0,0015	0,757
RP66+PE46+PE60+PE76+PF74	13,5	2,44	1,681	1,496	0,183	0,0015	0,757
RP67+PE46+PE60+PE76+PF74	12,7	2,44	1,681	1,496	0,183	0,0015	0,757
RP68+PE46+PE60+PE76+PF74	12,7	2,44	1,681	1,496	0,183	0,0015	0,757
RP69+PE50+PE60+PE76+PF74	22,1	3,07	2,105	1,919	0,183	0,0025	0,967
RP70+PE50+PE60+PE76+PF74	22,1	3,07	2,105	1,919	0,183	0,0025	0,967
RP71+PE50+PE60+PE76+PF74	20,9	3,07	2,105	1,919	0,183	0,0025	0,967
RP72+PE50+PE60+PE76+PF74	20,9	3,07	2,105	1,919	0,183	0,0025	0,967
RP73+PE54+PE60+PE76+PF74+PE64	33,7	3,91	2,746	2,559	0,183	0,0039	1,168
RP74+PE54+PE60+PE76+PF74+PE64	33,7	3,91	2,746	2,559	0,183	0,0039	1,168
RP75+PE54+PE60+PE76+PF74+PE64	31,8	3,91	2,746	2,559	0,183	0,0039	1,168
RP76+PE54+PE60+PE76+PF74+PE64	31,8	3,91	2,746	2,559	0,183	0,0039	1,168
RP77+PE18+PE60+PE76+PF74	16,6	2,03	1,4	1,216	0,183	0,0013	0,632
RP78+PE18+PE60+PE76+PF74	16,6	2,03	1,4	1,216	0,183	0,0013	0,632
RP79+PE18+PE60+PE76+PF74	15,7	2,03	1,4	1,216	0,183	0,0013	0,632
RP80+PE18+PE60+PE76+PF74	15,7	2,03	1,4	1,216	0,183	0,0013	0,632
RP81+PE22+PE60+PE76+PF74	22,6	2,21	1,55	1,365	0,183	0,0018	0,662
RP82+PE22+PE60+PE76+PF74	22,6	2,21	1,55	1,365	0,183	0,0018	0,662
RP83+PE22+PE60+PE76+PF74	21,4	2,21	1,55	1,365	0,183	0,0018	0,662
RP84+PE22+PE60+PE76+PF74	21,4	2,21	1,55	1,365	0,183	0,0018	0,662
RP85+PE26+PE60+PE76+PF74	28,7	2,46	1,702	1,517	0,183	0,0020	0,757
RP86+PE26+PE60+PE76+PF74	28,7	2,46	1,702	1,517	0,183	0,0024	0,757
RP87+PE26+PE60+PE76+PF74	27,2	2,46	1,702	1,517	0,183	0,0024	0,757
RP88+PE26+PE60+PE76+PF74	27,2	2,46	1,702	1,517	0,183	0,0024	0,757
RP89+PE30+PE60+PE76+PF74	46,8	2,11	1,138	0,951	0,183	0,0039	0,967
RP90+PE30+PE60+PE76+PF74	46,8	2,11	1,138	0,951	0,183	0,0039	0,967
RP91+PE30+PE60+PE76+PF74	44,4	2,11	1,138	0,951	0,183	0,0039	0,967
RP92+PE30+PE60+PE76+PF74	44,4	2,11	1,138	0,951	0,183	0,0039	0,967
RP93+PE35+PE60+PE76+PF74+PE64	71	3,96	2,795	2,606	0,183	0,0059	1,168
RP94+PE35+PE60+PE76+PF74+PE64	71	3,96	2,795	2,606	0,183	0,0059	1,168
RP95+PE35+PE60+PE76+PF74+PE64	67,4	3,96	2,795	2,606	0,183	0,0059	1,168
RP96+PE35+PE60+PE76+PF74+PE64	67,4	3,96	2,795	2,606	0,183	0,0059	1,168
RH35+PE18+PE60+PE76+PF74	16,6	2,01	1,376	1,192	0,183	0,0013	0,632
RH36+PE18+PE60+PE76+PF74	16,6	2,01	1,376	1,192	0,183	0,0013	0,632
RH37+PE18+PE60+PE76+PF74	15,7	2,01	1,376	1,192	0,183	0,0013	0,632
RH38+PE18+PE60+PE76+PF74	15,7	2,01	1,376	1,192	0,183	0,0013	0,632
RH39+PE22+PE60+PE76+PF74	22,6	2,18	1,519	1,334	0,183	0,0018	0,662
RH40+PE22+PE60+PE76+PF74	22,6	2,18	1,519	1,334	0,183	0,0018	0,662
RH41+PE22+PE60+PE76+PF74	21,4	2,18	1,519	1,334	0,183	0,0018	0,662
RH42+PE22+PE60+PE76+PF74	21,4	2,18	1,519	1,334	0,183	0,0018	0,662
RH43+PE26+PE60+PE76+PF74	28,7	2,42	1,662	1,477	0,183	0,0020	0,757

RH44+PE26+PE60+PE76+PF74	28,7	2,42	1,662	1,477	0,183	0,0024	0,757
RH45+PE26+PE60+PE76+PF74	27,2	2,42	1,662	1,477	0,183	0,0024	0,757
RH46+PE26+PE60+PE76+PF74	27,2	2,42	1,662	1,477	0,183	0,0024	0,757
RH47+PE30+PE60+PE76+PF74	46,8	3,04	2,075	1,888	0,183	0,0039	0,967
RH48+PE30+PE60+PE76+PF74	46,8	3,04	2,075	1,888	0,183	0,0039	0,967
RH49+PE30+PE60+PE76+PF74	44,4	3,04	2,075	1,888	0,183	0,0039	0,967
RH50+PE30+PE60+PE76+PF74	44,4	3,04	2,075	1,888	0,183	0,0039	0,967
RH51+PE35+PE60+PE76+PF74+PE64	71	3,87	2,7	2,511	0,183	0,0059	1,168
RH52+PE35+PE60+PE76+PF74+PE64	71	3,87	2,7	2,511	0,183	0,0059	1,168
RH53+PE35+PE60+PE76+PF74+PE64	67,4	3,87	2,7	2,511	0,183	0,0059	1,168
RH54+PE35+PE60+PE76+PF74+PE64	67,4	3,87	2,7	2,511	0,183	0,0059	1,168