epddanmark

ECO PLATFORM EPD VERIFIED

Owner: LITE A/S
No.: MD-25003-EN
Issued: 02-04-2025
Valid to: 02-04-2030

3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025 & EN 15804**

Owner of declaration
LITE A/S
Øster Fælledvej 11
34692432

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

Declared product(s)
This EPD covers four lighting systems:

1. ECOLITE 60
2. ECOLITE 120
3. ECOLITE Pendel
4. ECOLITE Circle

Number of declared datasets/product variations: There are four declared products: 4

Production site
Shenzhen, China

Use of Guarantees of Origin
☒ No certificates used
☐ Electricity covered by GoO
☐ Biogas covered by GoO

Declared/ functional unit
1 piece of lighting system used for 15 years in office buildings.

Year of production site data (A3)
2022

EPD version
Version 1.0.

Issued: 02-04-2025
Valid to: 02-04-2030

Basis of calculation
This EPD is developed and verified in accordance with the European standard EN 15804+A2.

Comparability
EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

Validity
This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

Use
The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

EPD type
☐Cradle-to-gate with modules C1-C4 and D
☐Cradle-to-gate with options, modules C1-C4 and D
☒Cradle-to-grave and module D
☐Cradle-to-gate
☐Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

☐ internal ☒ external

Third party verifier:

Mie Ostenfeldt
Ostenfeldt Consulting

Martha Katrine Sørensen
EPD Danmark

Life cycle stages and modules (MND = module not declared)																
Product			Construction process		Use							End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Product information

Product description

The main product components are shown in the tables below.

ECOLITE 60

Material	Weight-% of declared product
LED board	2,81 %
Back cover	44,15 %
Light holder-outside	12,77 %
Light holder-inside	13,42 %
Reflective sheeting	2,81 %
Screws	0,22 %

ECOLITE 120

Material	Weight-% in percent
LED Board	3,26 %
Back Cover	46,14 %
Light Holder-outside	7,32 %
Light Holder-inside	31,39 %
Reflective sheeting	7,57 %
Screws	4,01 %

ECOLITE Pendel

Material	Weight-% in percent
Driver	4,06 %
LED Board	1,78 %
Lamp Cap cover	2,74 %
Aluminium Profiles	87,31 %
Reflective Sheeting	1,02 %
Wire rope	2,92 %
Screws	0,18 %

ECOLITE Circle

Material	Weight-% in percent
Ring and top cover	92,04 %
Dust cover and transparent screws	1,12 %
LED Board	0,45 %
Fixing plate	2,89 %
Cover cable	1,09 %
Elastic needle	0,01 %
Structural screws and nuts	0,82 %
Reinforced sheet	0,05 %
Input wire	0,80 %
Conductive tape	0,15 %
Magnet	0,32 %
Wire clamp	0,07 %
Flannel tape	0,02 %
Iron sheet	0,15 %

Product packaging:

The composition of the sales- and transport packaging of the product is shown in the table below.

ECOLITE 60

Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	0,25	85,71%
Pallet	0,04	14,29%
Total	0,29	100%

ECOLITE 120

Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	0,21	85,71%
Pallet	0,04	14,29%
Total	0,25	100%

ECOLITE Circle

Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	1,00	100%
Total	1,00	100%

ECOLITE Pendel

Material	Weight of packaging material (kg)	Weight-% of packaging
Cardboard	0,99	73,68%
Pallet	0,35	26,32%
Total	1,35	100%

Representativity

This declaration, including data collection and the modeled foreground system including results, represents the production of ECOLITE 60, 120, Pendel and Circle on the production site located in China. Product specific data are based on average values collected in the year 2022. Background data are based on Ecoinvent 3.10 EN15804 and most data sets are less than 10 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old.

Hazardous substances

The products do not contain substances listed in the "Candidate List of Substances of Very High Concern for authorization" with a content exceeding 0,1 weight % (http://echa.europa.eu/candidate-list-table). Absence of these substances is declared by the producer, LITE and all the suppliers of the components.

(http://echa.europa.eu/candidate-list-table)

Product(s) use

The ECOLITE series products are used as interior lighting mainly in schools and office buildings and are attached to the sealing.

Essential characteristics

The vision with ECOLITE was to create a product based on circular economy, that creates optimal lighting for working. ECOLITE is developed with a 100% indirect lighting output. At the same time, the luminaire gives more light than classical panels and traditional fluorescent lamps. This to ensure that ECOLITE complies with the LUX requirements for school and office areas, thus ensuring the optimal conditions for employees and students. The ECOLITE series are composed of fire products ECOLITE 60, 120, Pendel and Circle

In the table below are displayed some of the technical properties which the ECOLITE series obtain. The properties are based on data from light measurement reports made by the Technical University of Denmark.

Technical properties	ECOLITE 60	ECOLITE 120	ECOLITE Pendel	ECOLITE Circle
Colour temperature	4000K	4000K	4000K	CCT (2700K-6500K) RGB (3000K-4000K)
Glare value	UGR 15	UGR 15	UGR<19	UGR 17
Protection class	IP20	IP20	IP20	IP20
Isolation class	Class II	Class II	Class I	Class II
Dimable	Yes	Yes	Yes	Yes

Further information can be obtained by contacting the manufacturer or on the manufacturers website: https://lite-led.dk/

Reference Service Life (RSL)

The reference Service Life for ECOLITE are set to 15 years, as described in the reference PCR 'PCR Part B: Requirements on the EPD for Luminaires, lamps and components for luminaires, version 7'

This EPD follows additional requirements for construction products considered as Electronic or Electric Equipment, EN15804+A2/EN 50693

Figure 2 ECOLITE 120

Figure 1 ECOLITE 60

Figure 4 ECOLITE Pendel

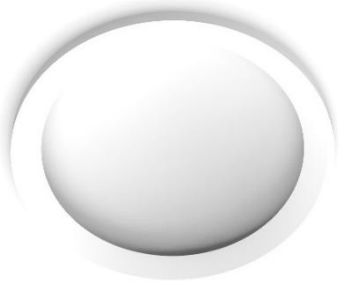

Figure 3 ECOLITE Circle

LCA background

Declared unit

The LCI and LCIA results in this EPD relates to one Light system for indoor office use.

Name	ECOLITE 60	ECOLITE 120	ECOLITE Circle	ECOLITE pendel	Unit
Declared unit	1	1	1	1	Lighting system used for 15 years
Density	Not relevant	Not relevant	Not relevant	Not relevant	NA
Conversion factor to 1 kg	0,38	0,45	0,2	0,2	Light system / kg

Functional unit

The declared unit for the ECOLITE series is defined as 1 lighting system used in an office building in Denmark for 15 years.

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804, and PCR Part B: Requirements on the EPD for Luminaires, lamps and components for luminaires, version 7.

Energy modelling principles

LITE does not purchase guarantees of origin. The LCA study is modelled as flowed:

The foreground system is modeled by using the Chinese southern power market mix and the Danish residual mix for Denmark. The background system, which is the energy used in module B6, is modeled by using the Danish market mix, since the product is sold on the Danish market. For information about both energy mixes see table below:

Dataset	EF	Unit
Electricity, market mix 2021 (CN)	0,68	kg CO_2e/kWh
Electricity, residual mix 2022 (DK)	0,65	kg CO_2e/kWh
Electricity, market mix 2020 (DK)	0,156	kg CO_2e/kWh


Flowdiagram: LITE A/S
Product
Construction process
Use
End of life
Beyond system boundery
A1
Raw material supply
Extraction of LED board, metals, plastics and screws for ECOLITE 60, 120, pendel, circle and NIGHTLITE
A2
Transport
Transport of raw materials to production facility in China
A3
Manufacturing
Input of salespackaging, electricity, naturalgas and output of rawmaterial packaging waste and products
A4
Transport
Distribution to LITE warehouse in denmark, and to customers
A5
Construction installation
Intallation of product and input of LED driver
B1-B7
Use
Energy consumption in use phase
C1
De-construction/demoliation
Uninstallation of products ready for waste treatment
C2
Transport
Transport of product components to waste treatment
C3
Waste processing
Waste processing of electronic components, plastics and metals
C4
Disposal
Landfill of metals
D
Reuse- recovery- recycling potential
Energy recovery from plastics and replacement of virgin materials
Included in Scope
Excluded in Scope
Description
Phase transition

System boundary

This EPD is based on a cradle-to-grave LCA, in which 100 weight-% has been accounted for.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

For production of ECOLITE 60, 120, Pendel and Circle raw materials are purchased from various but mostly Chinese suppliers and are transported to the production facility in Shenzhen. The transport is mostly done by lorry but some raw materials are transported overseas by ship. At the production facility in China, the components are assembled and tested to make sure the ECOLITE products function as intended. After the quality test, the products are packed and prepared for shipment. The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

Construction process stage (A4-A5) includes:

When the ECOLITE products are leaving the production facility they are first transported to LITE's warehouse in Nørresundby, Denmark, before transported to its customers. This transportation is done by ship from China and from lorry in Danish port. The distance to the customer from the warehouse in Nørresundby, is depended on the specific product. Data from LITE was used to estimate the average distance to customers based on 2022 sales data. The module A5 which account for the installation of the products consist of waste handling the sales packaging, and input of the driver which shall be connected to the products in order for them to operate. The energy use for the installation is not included due cut-off rules.

Use stage (B1-B7) includes:

In the use stage nothing is declared in module B1-B5 and module B7, but the energy use (B6) are accounted for, for each ECOLITE product. The total energy use, are defined by specifications from LITE and from mandatory values from PCR Part B: Requirements on the EPD for Luminaires, lamps and components for luminaires, version 7

The electricity use in module B6 are set to correspond 15 years of use based on conditions from indoor office buildings.

End of Life (C1-C4) includes:

C1- De-construction

C2- Transport

C3- Waste processing

C4- Final disposal

The end-of-life modules consist of the transportation of the different product to waste handling. Since the ECOLITE products are build for disassembly it is assumed that the different material components are separated and sorted accordingly. It is estimated that 98% of the metals will be sent to recycling whereas the last 2% are lost to landfill. 100% of the electronics will be sent to sorting but 20% are recycled and the 80% are landfilled. 100% of the plastic are estimated to be incinerated. The estimations are based on data from Danish Environmental Agency and research articles about waste management.

Re-use, recovery and recycling potential (D) includes:

The module D accounts for any credit obtained by the waste handling method which for this system means that the recycled metals can substitute virgin metals, the recycled electronic can substitute new electronic devices and the incinerated plastic will generate heat and electricity which can substitute natural gas can fossil energy in the Danish energy mix.

LCA results

ECOLITE 60

Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq,	4,06E+01	6,65E-01	5,15E+00	0,00E+00	1,69E+02	0,00E+00	0,00E+00	1,57E-01	9,93E-01	1,87E-03	-4,50E+01
GWP-fossil	kg CO_2 eq,	4,10E+01	6,64E-01	4,66E+00	0,00E+00	1,58E+02	0,00E+00	0,00E+00	1,57E-01	9,93E-01	1,86E-03	-4,52E+01
GWP-biogenic	kg CO_2 eq,	-4,87E-01	-2,17E-05	4,87E-01	0,00E+00	9,89E+00	0,00E+00	0,00E+00	1,06E-04	0,00E+00	2,35E-07	2,59E-01
GWP-luluc	kg CO_2 eq,	4,08E-02	3,10E-04	2,47E-03	0,00E+00	6,72E-01	0,00E+00	0,00E+00	5,23E-05	6,90E-05	9,48E-07	-7,94E-02
ODP	kg CFC 11 eq,	2,27E-06	1,05E-08	8,14E-08	0,00E+00	3,39E-06	0,00E+00	0,00E+00	3,13E-09	1,56E-09	5,28E-11	-3,44E-07
AP	mol H^+ eq,	2,61E-01	1,39E-02	3,59E-02	0,00E+00	9,51E-01	0,00E+00	0,00E+00	3,27E-04	6,64E-04	1,29E-05	-3,81E-01
EP-freshwater	kg P eq,	3,37E-02	2,87E-05	1,95E-03	0,00E+00	1,16E-01	0,00E+00	0,00E+00	1,06E-05	4,90E-05	1,52E-07	-1,21E-01
EP-marine	kg N eq,	5,04E-02	3,46E-03	5,19E-03	0,00E+00	1,71E-01	0,00E+00	0,00E+00	7,86E-05	2,67E-04	5,45E-06	-8,94E-02
EP-terrestrial	mol N eq,	5,35E-01	3,84E-02	5,71E-02	0,00E+00	2,06E+00	0,00E+00	0,00E+00	8,48E-04	2,06E-03	5,39E-05	-1,04E+00
POCP	kg NMVOC eq,	1,59E-01	1,08E-02	1,76E-02	0,00E+00	5,14E-01	0,00E+00	0,00E+00	5,44E-04	5,68E-04	1,93E-05	-2,63E-01
ADPm[1]	kg Sb eq,	8,02E-03	1,11E-06	2,69E-04	0,00E+00	4,97E-03	0,00E+00	0,00E+00	5,11E-07	1,03E-06	2,84E-09	-4,31E-02
ADPf[1]	MJ	4,74E+02	8,51E+00	6,01E+01	0,00E+00	2,55E+03	0,00E+00	0,00E+00	2,21E+00	1,55E+00	4,48E-02	-5,49E+02
WDP[1]	m^3 world eq, deprived	9,95E+00	3,31E-02	1,99E+00	0,00E+00	3,85E+02	0,00E+00	0,00E+00	1,24E-02	1,08E-01	1,99E-03	-1,37E+01
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use											
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator,											

ECOLITE 120

Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	4,09E+01	6,15E-01	5,07E+00	0,00E+00	1,69E+02	0,00E+00	0,00E+00	1,39E-01	6,84E-01	1,78E-03	-4,58E+01
GWP-fossil	kg CO_2 eq.	4,13E+01	6,15E-01	4,66E+00	0,00E+00	1,58E+02	0,00E+00	0,00E+00	1,39E-01	6,42E-01	1,78E-03	-4,59E+01
GWP-biogenic	kg CO_2 eq.	-4,12E-01	-2,64E-05	4,12E-01	0,00E+00	9,89E+00	0,00E+00	0,00E+00	9,40E-05	4,25E-02	0,00E+00	2,20E-01
GWP-luluc	kg CO_2 eq.	3,90E-02	2,88E-04	2,47E-03	0,00E+00	6,72E-01	0,00E+00	0,00E+00	4,63E-05	6,19E-05	9,25E-07	-8,28E-02
ODP	kg CFC 11 eq.	3,71E-06	9,72E-09	8,13E-08	0,00E+00	3,39E-06	0,00E+00	0,00E+00	2,77E-09	1,27E-09	5,15E-11	-3,48E-07
AP	mol H^+ eq.	2,67E-01	1,30E-02	3,59E-02	0,00E+00	9,51E-01	0,00E+00	0,00E+00	2,90E-04	5,36E-04	1,26E-05	-3,87E-01
EP-freshwater	kg P eq.	3,35E-02	2,64E-05	1,95E-03	0,00E+00	1,16E-01	0,00E+00	0,00E+00	9,43E-06	4,27E-05	1,48E-07	-1,21E-01
EP-marine	kg N eq.	5,11E-02	3,25E-03	5,19E-03	0,00E+00	1,71E-01	0,00E+00	0,00E+00	6,97E-05	2,00E-04	4,81E-06	-9,04E-02
EP-terrestrial	mol N eq.	5,43E-01	3,60E-02	5,71E-02	0,00E+00	2,06E+00	0,00E+00	0,00E+00	7,52E-04	1,56E-03	5,25E-05	-1,05E+00
POCP	kg NMVOC eq.	1,59E-01	1,01E-02	1,76E-02	0,00E+00	5,14E-01	0,00E+00	0,00E+00	4,82E-04	4,35E-04	1,88E-05	-2,66E-01
ADPm[1]	kg Sb eq.	8,01E-03	1,01E-06	2,69E-04	0,00E+00	4,97E-03	0,00E+00	0,00E+00	4,53E-07	9,15E-07	2,77E-09	-4,30E-02
ADPf[1]	MJ	4,67E+02	7,86E+00	6,01E+01	0,00E+00	2,55E+03	0,00E+00	0,00E+00	1,96E+00	1,32E+00	4,37E-02	-5,56E+02

WDP[1]	m^3 world eq. deprived	9,68E+00	3,03E-02	1,99E+00	0,00E+00	3,85E+02	0,00E+00	0,00E+00	1,10E-02	8,33E-02	1,94E-03	-1,39E+01
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use											
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.											

ECOLITE CIRCLE

Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq,	1,01E+02	1,44E+00	6,20E+00	0,00E+00	2,08E+02	0,00E+00	0,00E+00	3,04E-01	5,60E-01	1,76E-03	-1,02E+02
GWP-fossil	kg CO_2 eq,	1,03E+02	1,44E+00	4,69E+00	0,00E+00	1,95E+02	0,00E+00	0,00E+00	3,03E-01	4,85E-01	1,76E-03	-1,03E+02
GWP-biogenic	kg CO_2 eq,	-2,18E+00	-1,87E-05	1,51E+00	0,00E+00	1,22E+01	0,00E+00	0,00E+00	2,05E-04	7,45E-02	2,26E-07	1,25E+00
GWP-luluc	kg CO_2 eq,	6,48E-02	6,65E-04	2,48E-03	0,00E+00	8,29E-01	0,00E+00	0,00E+00	1,01E-04	9,37E-05	9,14E-07	-2,62E-01
ODP	kg CFC 11 eq,	1,34E-06	2,29E-08	8,19E-08	0,00E+00	4,18E-06	0,00E+00	0,00E+00	6,03E-09	2,07E-09	5,09E-11	-6,44E-07
AP	mol H^+ eq,	6,65E-01	2,93E-02	3,59E-02	0,00E+00	1,17E+00	0,00E+00	0,00E+00	6,32E-04	8,01E-04	1,25E-05	-7,69E-01
EP-freshwater	kg P eq,	3,65E-02	6,31E-05	1,95E-03	0,00E+00	1,43E-01	0,00E+00	0,00E+00	2,05E-05	7,43E-05	1,46E-07	-1,22E-01
EP-marine	kg N eq,	1,32E-01	7,30E-03	5,20E-03	0,00E+00	2,11E-01	0,00E+00	0,00E+00	1,52E-04	2,56E-04	4,75E-06	-1,47E-01
EP-terrestrial	mol N eq,	1,28E+00	8,09E-02	5,72E-02	0,00E+00	2,54E+00	0,00E+00	0,00E+00	1,64E-03	2,06E-03	5,19E-05	-1,62E+00
POCP	kg NMVOC eq,	3,76E-01	2,29E-02	1,77E-02	0,00E+00	6,35E-01	0,00E+00	0,00E+00	1,05E-03	5,86E-04	1,86E-05	-4,54E-01
ADPm[1]	kg Sb eq,	5,53E-03	2,46E-06	2,69E-04	0,00E+00	6,13E-03	0,00E+00	0,00E+00	9,86E-07	1,97E-06	2,74E-09	-3,65E-02
ADPf[1]	MJ	9,54E+02	1,84E+01	6,05E+01	0,00E+00	3,14E+03	0,00E+00	0,00E+00	4,27E+00	2,16E+00	4,32E-02	-1,08E+03
WDP[1]	m^3 world eq, deprived	1,15E+01	7,27E-02	1,99E+00	0,00E+00	4,75E+02	0,00E+00	0,00E+00	2,40E-02	1,25E-01	1,92E-03	-2,55E+01
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use											
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator,											

ECOLITE PENDEL

Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq,	1,08E+02	1,30E+00	6,97E+00	0,00E+00	1,92E+02	0,00E+00	0,00E+00	2,68E-01	2,61E-01	1,99E-03	-9,45E+01
GWP-fossil	kg CO_2 eq,	1,10E+02	1,30E+00	4,70E+00	0,00E+00	1,80E+02	0,00E+00	0,00E+00	2,67E-01	2,61E-01	1,99E-03	-9,54E+01
GWP-biogenic	kg CO_2 eq,	-2,27E+00	-1,29E-04	2,27E+00	0,00E+00	1,12E+01	0,00E+00	0,00E+00	1,81E-04	0,00E+00	2,56E-07	1,20E+00
GWP-luluc	kg CO_2 eq,	7,39E-02	6,26E-04	2,48E-03	0,00E+00	7,62E-01	0,00E+00	0,00E+00	8,89E-05	9,65E-05	1,03E-06	-2,33E-01
ODP	kg CFC 11 eq,	2,14E-06	2,02E-08	8,21E-08	0,00E+00	3,84E-06	0,00E+00	0,00E+00	5,32E-09	1,89E-09	5,76E-11	-6,19E-07
AP	mol H^+ eq,	7,20E-01	2,96E-02	3,60E-02	0,00E+00	1,08E+00	0,00E+00	0,00E+00	5,57E-04	7,27E-04	1,41E-05	-7,22E-01
EP-freshwater	kg P eq,	4,91E-02	5,34E-05	1,95E-03	0,00E+00	1,32E-01	0,00E+00	0,00E+00	1,81E-05	7,08E-05	1,65E-07	-1,37E-01
EP-marine	kg N eq,	1,31E-01	7,37E-03	5,24E-03	0,00E+00	1,94E-01	0,00E+00	0,00E+00	1,34E-04	2,05E-04	5,38E-06	-1,45E-01
EP-terrestrial	mol N eq,	1,38E+00	8,18E-02	5,76E-02	0,00E+00	2,33E+00	0,00E+00	0,00E+00	1,44E-03	1,73E-03	5,87E-05	-1,62E+00

POCP	kg NMVOC eq,	4,03E-01	2,28E-02	1,78E-02	0,00E+00	5,83E-01	0,00E+00	0,00E+00	9,26E-04	4,99E-04	2,10E-05	-4,42E-01
ADPm[1]	kg Sb eq,	8,63E-03	1,99E-06	2,69E-04	0,00E+00	5,63E-03	0,00E+00	0,00E+00	8,69E-07	1,72E-06	3,10E-09	-4,38E-02
ADPf[1]	MJ	1,05E+03	1,65E+01	6,06E+01	0,00E+00	2,89E+03	0,00E+00	0,00E+00	3,76E+00	2,08E+00	4,89E-02	-1,03E+03
WDP[1]	m^3 world eq, deprived	1,51E+01	6,13E-02	1,99E+00	0,00E+00	4,36E+02	0,00E+00	0,00E+00	2,12E-02	1,09E-01	2,17E-03	-2,44E+01
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use											
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator,											

ECOLITE 60

Additional Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	2,86E-06	2,89E-08	3,12E-07	0,00E+00	6,24E-06	0,00E+00	0,00E+00	1,16E-08	5,86E-09	2,94E-10	-3,30E-06
IRP[2]	[kBq U235 eq,]	2,73E+00	6,16E-03	4,52E-01	0,00E+00	5,65E+01	0,00E+00	0,00E+00	2,87E-03	1,43E-02	2,85E-05	-3,98E+00
ETP-fw[1]	[CTUe]	8,32E+02	1,75E+00	5,62E+01	0,00E+00	1,08E+03	0,00E+00	0,00E+00	6,02E-01	2,54E+00	6,23E-03	-3,12E+03
HTP-c[1]	[CTUh]	3,81E-07	3,35E-09	1,68E-08	0,00E+00	7,37E-07	0,00E+00	0,00E+00	1,12E-09	7,19E-10	8,25E-12	-6,90E-07
HTP-nc[1]	[CTUh]	9,17E-07	3,31E-09	1,63E-07	0,00E+00	5,29E-06	0,00E+00	0,00E+00	1,43E-09	4,78E-09	8,13E-12	-2,35E-06
SQP[1]	-	1,72E+02	2,19E+00	1,36E+01	0,00E+00	4,43E+03	0,00E+00	0,00E+00	1,34E+00	1,83E+00	8,82E-02	-3,58E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality											
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator, [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle, It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator,											

ECOLITE 120

Additional Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	2,92E-06	2,64E-08	3,12E-07	0,00E+00	6,24E-06	0,00E+00	0,00E+00	1,03E-08	4,89E-09	2,87E-10	-3,37E-06
IRP[2]	[kBq U235 eq.]	2,69E+00	5,62E-03	4,52E-01	0,00E+00	5,65E+01	0,00E+00	0,00E+00	2,54E-03	1,26E-02	2,78E-05	-3,99E+00
ETP-fw[1]	[CTUe]	7,70E+02	1,61E+00	5,62E+01	0,00E+00	1,08E+03	0,00E+00	0,00E+00	5,34E-01	1,76E+00	5,97E-03	-3,09E+03
HTP-c[1]	[CTUh]	3,08E-07	3,08E-09	1,68E-08	0,00E+00	7,37E-07	0,00E+00	0,00E+00	9,89E-10	5,80E-10	8,04E-12	-5,65E-07
HTP-nc[1]	[CTUh]	9,11E-07	3,03E-09	1,63E-07	0,00E+00	5,29E-06	0,00E+00	0,00E+00	1,27E-09	3,54E-09	7,84E-12	-2,35E-06
SQP[1]	-	1,67E+02	1,98E+00	1,36E+01	0,00E+00	4,43E+03	0,00E+00	0,00E+00	1,18E+00	1,61E+00	8,59E-02	-3,57E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality											
Disclaimers	1 The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. 2 This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.											

ECOLITE CIRCLE

Additional Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	9,18E-06	6,36E-08	3,14E-07	0,00E+00	7,70E-06	0,00E+00	0,00E+00	2,23E-08	7,99E-09	2,84E-10	-8,27E-06
IRP[2]	[kBq U235 eq,]	2,03E+00	1,37E-02	4,53E-01	0,00E+00	6,97E+01	0,00E+00	0,00E+00	5,54E-03	2,33E-02	2,75E-05	-4,50E+00
ETP-fw[1]	[CTUe]	7,27E+02	3,82E+00	5,63E+01	0,00E+00	1,33E+03	0,00E+00	0,00E+00	1,16E+00	1,86E+00	5,90E-03	-2,72E+03
HTP-c[1]	[CTUh]	2,06E-07	7,32E-09	1,70E-08	0,00E+00	9,10E-07	0,00E+00	0,00E+00	2,15E-09	1,09E-09	7,95E-12	-3,32E-07
HTP-nc[1]	[CTUh]	1,01E-06	7,32E-09	1,63E-07	0,00E+00	6,53E-06	0,00E+00	0,00E+00	2,76E-09	4,16E-09	7,75E-12	-2,55E-06
SQP[1]	-	4,04E+02	4,93E+00	1,39E+01	0,00E+00	5,47E+03	0,00E+00	0,00E+00	2,58E+00	3,98E+00	8,49E-02	-5,01E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality											
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator, [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle, It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator,											

ECOLITE PENDEL

Additional Environmental Impacts per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	9,34E-06	5,30E-08	3,15E-07	0,00E+00	7,08E-06	0,00E+00	0,00E+00	1,97E-08	7,09E-09	3,21E-10	-7,51E-06
IRP[2]	[kBq U235 eq,]	3,22E+00	1,10E-02	4,53E-01	0,00E+00	6,40E+01	0,00E+00	0,00E+00	4,88E-03	2,22E-02	3,11E-05	-4,90E+00
ETP-fw[1]	[CTUe]	9,04E+02	3,28E+00	5,64E+01	0,00E+00	1,22E+03	0,00E+00	0,00E+00	1,02E+00	1,26E+00	6,68E-03	-3,17E+03
HTP-c[1]	[CTUh]	2,08E-07	6,32E-09	1,71E-08	0,00E+00	8,36E-07	0,00E+00	0,00E+00	1,90E-09	8,89E-10	9,00E-12	-2,59E-07
HTP-nc[1]	[CTUh]	1,39E-06	6,00E-09	1,64E-07	0,00E+00	6,00E-06	0,00E+00	0,00E+00	2,44E-09	3,40E-09	8,77E-12	-2,73E-06
SQP[1]	-	4,33E+02	3,65E+00	1,40E+01	0,00E+00	5,03E+03	0,00E+00	0,00E+00	2,27E+00	3,26E+00	9,61E-02	-5,28E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality											
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator, [2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle, It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator,											

ECOLITE 60

Resource Use per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	4,65E+01	9,00E-02	8,24E+00	0,00E+00	3,92E+03	0,00E+00	0,00E+00	3,79E-02	1,48E-01	4,15E-04	-5,98E+01
PERM	[MJ]	3,99E+00	0,00E+00	-3,99E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	5,05E+01	9,00E-02	4,25E+00	0,00E+00	3,92E+03	0,00E+00	0,00E+00	3,79E-02	1,48E-01	4,15E-04	-5,98E+01
PENRE	[MJ]	4,74E+02	8,51E+00	6,01E+01	0,00E+00	2,55E+03	0,00E+00	0,00E+00	2,21E+00	1,55E+00	4,48E-02	-5,49E+02
PENRM	[MJ]	1,07E+01	0,00E+00	-7,76E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,07E+01	0,00E+00	0,00E+00
PENRT	[MJ]	4,84E+02	8,51E+00	6,01E+01	0,00E+00	2,55E+03	0,00E+00	0,00E+00	2,21E+00	-9,11E+00	4,48E-02	-5,49E+02
SM	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	5,52E-02	2,28E-05	1,25E-03	0,00E+00	9,80E-03	0,00E+00	0,00E+00	1,30E-05	5,95E-05	2,33E-07	-3,95E-03

NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m3]	2,56E-01	8,12E-04	5,43E-02	0,00E+00	9,33E+00	0,00E+00	0,00E+00	3,07E-04	2,55E-03	4,66E-05	-3,50E-01
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											

ECOLITE 120

Resource Use per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	4,56E+01	8,23E-02	8,24E+00	0,00E+00	3,92E+03	0,00E+00	0,00E+00	3,36E-02	1,31E-01	4,05E-04	-6,09E+01
PERM	[MJ]	3,38E+00	0,00E+00	-3,38E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	4,90E+01	8,23E-02	4,86E+00	0,00E+00	3,92E+03	0,00E+00	0,00E+00	3,36E-02	1,31E-01	4,05E-04	-6,09E+01
PENRE	[MJ]	4,67E+02	7,86E+00	6,01E+01	0,00E+00	2,55E+03	0,00E+00	0,00E+00	1,96E+00	1,32E+00	4,37E-02	-5,56E+02
PENRM	[MJ]	6,31E+00	0,00E+00	-6,57E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,30E+00	0,00E+00	0,00E+00
PENRT	[MJ]	4,73E+02	7,86E+00	6,01E+01	0,00E+00	2,55E+03	0,00E+00	0,00E+00	1,96E+00	-4,98E+00	4,37E-02	-5,56E+02
SM	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	4,79E-02	2,07E-05	1,25E-03	0,00E+00	9,80E-03	0,00E+00	0,00E+00	1,15E-05	5,23E-05	2,27E-07	-3,70E-03
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	2,50E-01	7,45E-04	5,43E-02	0,00E+00	9,33E+00	0,00E+00	0,00E+00	2,72E-04	1,98E-03	4,54E-05	-3,55E-01
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											

ECOLITE CIRCLE

Resource Use per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	8,45E+01	1,99E-01	8,25E+00	0,00E+00	4,84E+03	0,00E+00	0,00E+00	7,32E-02	2,38E-01	4,00E-04	-1,35E+02
PERM	[MJ]	1,29E+01	0,00E+00	-1,29E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	9,74E+01	1,99E-01	-4,61E+00	0,00E+00	4,84E+03	0,00E+00	0,00E+00	7,32E-02	2,38E-01	4,00E-04	-1,35E+02
PENRE	[MJ]	9,54E+02	1,84E+01	6,05E+01	0,00E+00	3,14E+03	0,00E+00	0,00E+00	4,27E+00	2,16E+00	4,32E-02	-1,08E+03
PENRM	[MJ]	2,79E+00	0,00E+00	-7,22E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,72E+00	0,00E+00	0,00E+00
PENRT	[MJ]	9,57E+02	1,84E+01	6,04E+01	0,00E+00	3,14E+03	0,00E+00	0,00E+00	4,27E+00	-5,58E-01	4,32E-02	-1,08E+03
SM	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	1,13E-01	5,12E-05	1,25E-03	0,00E+00	1,21E-02	0,00E+00	0,00E+00	2,50E-05	1,12E-04	2,24E-07	-9,02E-03
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	3,11E-01	1,78E-03	5,43E-02	0,00E+00	1,15E+01	0,00E+00	0,00E+00	5,92E-04	2,96E-03	4,49E-05	-6,58E-01
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											

ECOLITE PENDEL

Resource Use per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	9,61E+01	1,64E-01	8,25E+00	0,00E+00	4,45E+03	0,00E+00	0,00E+00	6,46E-02	2,26E-01	4,53E-04	-1,28E+02
PERM	[MJ]	1,83E+01	0,00E+00	-1,83E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	1,14E+02	1,64E-01	-1,01E+01	0,00E+00	4,45E+03	0,00E+00	0,00E+00	6,46E-02	2,26E-01	4,53E-04	-1,28E+02
PENRE	[MJ]	1,06E+03	1,65E+01	6,06E+01	0,00E+00	2,89E+03	0,00E+00	0,00E+00	3,76E+00	2,08E+00	4,89E-02	-1,03E+03
PENRM	[MJ]	9,49E-01	0,00E+00	-3,07E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,18E-01	0,00E+00	0,00E+00
PENRT	[MJ]	1,06E+03	1,65E+01	6,06E+01	0,00E+00	2,89E+03	0,00E+00	0,00E+00	3,76E+00	1,16E+00	4,89E-02	-1,03E+03
SM	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	2,67E-01	3,88E-05	1,25E-03	0,00E+00	1,11E-02	0,00E+00	0,00E+00	2,21E-05	9,69E-05	2,54E-07	-8,98E-03
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	4,02E-01	1,50E-03	5,44E-02	0,00E+00	1,06E+01	0,00E+00	0,00E+00	5,22E-04	2,60E-03	5,09E-05	-6,29E-01
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water											

ECOLITE 60

Waste Categories and Ouput Flows per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	6,17E+00	1,18E-02	5,36E-01	0,00E+00	1,55E+01	0,00E+00	0,00E+00	3,23E-03	2,70E-02	4,97E-05	-6,00E+00
NHWD	[kg]	8,49E+01	1,91E-01	9,39E+00	0,00E+00	5,67E+02	0,00E+00	0,00E+00	6,81E-02	8,14E-01	1,39E-03	-9,44E+01
RWD	[kg]	6,70E-04	1,52E-06	1,09E-04	0,00E+00	1,29E-02	0,00E+00	0,00E+00	7,13E-07	3,56E-06	6,96E-09	-9,87E-04
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,70E-02	0,00E+00	2,51E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,98E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	5,50E-02	0,00E+00	7,29E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,48E+00	0,00E+00	0,00E+00
EET	[MJ]	1,07E-01	0,00E+00	1,47E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,88E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											

ECOLITE 120

Waste Categories and Ouput Flows per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	6,19E+00	1,09E-02	5,36E-01	0,00E+00	1,55E+01	0,00E+00	0,00E+00	2,86E-03	1,98E-02	4,85E-05	-6,04E+00
NHWD	[kg]	8,34E+01	1,75E-01	9,38E+00	0,00E+00	5,67E+02	0,00E+00	0,00E+00	6,04E-02	5,96E-01	1,11E-03	-9,48E+01
RWD	[kg]	6,60E-04	1,38E-06	1,09E-04	0,00E+00	1,29E-02	0,00E+00	0,00E+00	6,32E-07	3,14E-06	6,79E-09	-9,89E-04
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	7,50E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,76E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	4,96E-02	0,00E+00	6,17E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,08E-01	0,00E+00	0,00E+00
EET	[MJ]	1,14E-01	0,00E+00	1,24E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											

ECOLITE CIRCLE

Waste Categories and Ouput Flows per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	1,97E+01	2,56E-02	5,36E-01	0,00E+00	1,92E+01	0,00E+00	0,00E+00	6,23E-03	2,40E-02	4,79E-05	-1,84E+01
NHWD	[kg]	1,12E+02	4,18E-01	9,35E+00	0,00E+00	7,00E+02	0,00E+00	0,00E+00	1,31E-01	7,35E-01	1,10E-03	-1,69E+02
RWD	[kg]	7,73E-04	3,37E-06	1,09E-04	0,00E+00	1,59E-02	0,00E+00	0,00E+00	1,38E-06	5,84E-06	6,71E-09	-1,12E-03
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	8,00E-03	0,00E+00	1,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,84E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	2,66E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,23E-01	0,00E+00	0,00E+00
EET	[MJ]	5,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											

ECOLITE PENDEL

Waste Categories and Ouput Flows per Light System												
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	1,98E+01	2,28E-02	5,38E-01	0,00E+00	1,76E+01	0,00E+00	0,00E+00	5,49E-03	1,93E-02	5,43E-05	-1,59E+01
NHWD	[kg]	1,44E+02	3,57E-01	9,75E+00	0,00E+00	6,43E+02	0,00E+00	0,00E+00	1,16E-01	5,65E-01	1,24E-03	-1,60E+02
RWD	[kg]	7,86E-04	2,70E-06	1,09E-04	0,00E+00	1,46E-02	0,00E+00	0,00E+00	1,21E-06	5,53E-06	7,59E-09	-1,22E-03
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	2,58E-02	0,00E+00	9,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,66E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	1,18E-03	0,00E+00	6,17E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,57E-01	0,00E+00	0,00E+00

EET	[MJ]	2,31E-03	0,00E+00	1,24E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,07E-01	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy											

ECOLITE 60

BIOGENIC CARBON CONTENT PER LIGHT SYSTEM		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0
Biogenic carbon content in accompanying packagaing	[kg C]	0,67
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

ECOLITE 120

BIOGENIC CARBON CONTENT PER LIGHT SYSTEM		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0
Biogenic carbon content in accompanying packagaing	[kg C]	0,12
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

ECOLITE CIRCLE

BIOGENIC CARBON CONTENT PER LIGHT SYSTEM		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0
Biogenic carbon content in accompanying packagaing	[kg C]	0,58
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

ECOLITE PENDEL

BIOGENIC CARBON CONTENT PER LIGHT SYSTEM		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0
Biogenic carbon centent in accompanying packagaing	[kg C]	0,59
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

Additional information

LCA interpretation

The most contributing process to the result is the energy use in module B6, This is due to the energy demand over a 15 year period, which ranges between 1021-1260 kWh for the products, The most important and contributing raw materials are the electronics and the aluminum parts for the products,

Technical information on scenarios

Transport to the building site (A4)

Scenario information	Value	Unit
Fuel type	Diesel	-
Vehicle type	0,0013	L/tkm
Transport distance	135,12* 154 49,23 216,65	km
Capacity utilisation (including empty runs)	50	%
Gross density of products transported	N/A	kg/m^3
Capacity utilisation volume factor	N/A	-

*In order of appearance: ECOLITE 60, ECOLITE 120, ECOLITE Pendel, ECOLITE Circle

Installation of the product in the building (A5)

Scenario information	Value	Unit
Ancillary materials	0,167	kg
Water use	-	m^3
Other resource use	-	kg
Energy type and consumption	-	kWh
Waste materials	0,29* 0,25 0,14 0,1	kg
Output materials	-	kg
Direct emissions to air, soil or water	-	kg

*In order of appearance: ECOLITE 60, ECOLITE 120, ECLOTE Pendel, ECOLITE Circle

Reference service life

RSL information		Unit
Reference service Life	15	Years
Declared product properties		As appropriate
Design application parameters		As appropriate
Assumed quality of work		As appropriate
Outdoor environment		As appropriate
Indoor environment		As appropriate
Usage conditions		As appropriate
Maintenance		As appropriate

Use (B1-B7)

Scenario information	Value	Unit
B6 – Use of energy		
Type of energy carrier	1021,2* 1021,2 1157,7 1260,1	kWh
Power output of equipment	28* 28 28 35	kW
Characteristic performance		As appropriate
Further assumptions for scenario development		As appropriate

*in order of appearance: ECOLITE 60, ECOLITE 120, ECLOTE Pendel, ECOLITE Circle

End of life (C1-C4)

Scenario information	Value	Unit
Collected separately		kg
Collected with mixed waste		kg
For reuse		kg
For recycling	2,16* 1,91 4,59 4,78	kg
For energy recovery	0,42* 0,27 0,40 0,13	kg
For final disposal	0,29* 0,29 0,32 0,28	kg
Assumptions for scenario development		As appropriate

*in order of appearance: ECOLITE 60, ECOLITE 120, ECLOTE Pendel, ECOLITE Circle

Re-use, recovery and recycling potential (D)

Scenario information/Materiel	Value	Unit
Displaced material	1,93* 1,70 4,18 5,00	kg
Energy recovery from waste incineration	4,74* 3,03 2,33 1,62	MJ

*In order of appearance: ECOLITE 60, ECOLITE 120, ECOLITE Pendel, ECOLITE Circle

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available, Read more in EN15804+A1 chapter 7.4.1.

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.

References

Publisher	www.epddanmark.dk Template version 2024.1
Programme operator	Danish Technological Institute Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA-practitioner	*Jón Jacobsen and Lasse Langstrup Hägerstrand* *Transition ApS* *Regnbuepladsen 7, 5.sal 1550 København V*
LCA software /background data	*SimaPro 9.6.0.0* *Ecoinvent 3.10 + EN 15804 reference package 3.1*
3rd party verifier	Mie Ostenfeldt Ostenfeldt Consulting, mie@ostenfeldtconsulting.dk

General programme instructions
General Programme Instructions, version 2.0, spring 2020
www.epddanmark.dk

EN 15804
DS/EN 15804 + A2:2019 - "Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products"

PCR Part B:
Requirements on the EPD for Luminaires, lamps and components for luminaires, version 7

EN 15942
DS/EN 15942:2011 – " Sustainability of construction works – Environmental product declarations – Communication format business-to-business"

ISO 14025
DS/EN ISO 14025:2010 – " Environmental labels and declarations – Type III environmental declarations – Principles and procedures"

ISO 14040

DS/EN ISO 14040:2008 – ” Environmental management – Life cycle assessment – Principles and framework”

ISO 14044
DS/EN ISO 14044:2008 – ” Environmental management – Life cycle assessment – Requirements and guidelines”