

PRODUCT ENVIRONMENTAL PROFILE



**MEDO® PRO 60 wall- and ceiling-mounted light, round, 3000/4000K,
39W, DALI, Touch, 80°, UGR<19, white**

Holder of the declaration

SLV

SLV GmbH
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PEP directed by
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Reference covered

1007301

Methodology

This PEP has been produced in compliance with the PCR version PCR-ed4-FR-2021 09 06 and the PSR-0014-ed2-EN-2023 07 version of the PEP ecopassport program. For more information, visit the program website www.pep-ecopassport.org

Reference product

Functional unit

Identification of the reference product:
1007301

Provide lighting that delivers an outgoing artificial luminous flux of 1,000 lumens during a reference lifetime of 35,000 hours.

Product category (PSR) :
Family : Luminaire

$$UF = UD * ((1000/4000)*(35000/50000)) = UD * 0.175$$

Declared unit :

A luminaire providing an outgoing luminous flux of 4000 lumens with a reference lifetime of 20 years.

Technical characteristics

Luminaire Application	Office application
Are the degrees of protection considered as specific functions for the product ?	YES
RSL, reference service life of the light source	50000 h
Light source temperature	4000k
Specify the type of lighting control function	-
Does the luminaire have a lighting control function?	NO
Protection ratings against mechanical impacts (IK)	02
Protection ratings against solid objects and liquids (IP)	IP 50
Dimensions	600 mm * 92mm
LOR	-
Luminaire power (if multiple components are present, the total luminaire power is the sum of the power of each component)	39 W
Specify the type of light source	LED
Is the light source replaceable?	YES
Specify the value of the light efficiency	180 lm/W
Operating voltage	230 V
Please indicate the value of the artificial luminous flux output	4000 lm
Do you know the value of the artificial luminous flux output?	YES
Operating lifetime (EN 15193-1:2017)	20 YEARS

Materials and substances

All useful measures have been taken to ensure that the materials used in the composition of the product do not contain substances prohibited by the regulations in force when it was placed on the market. The mass of the reference product is 4.583 kg. The mass of the product packaging is 0.297 kg. The constituent Materials are:

Plastics	%	Metals	%	Others	%
PC	35.9 %	Steel	26,37%	paper	6,07%
PS	8.23 %	Aluminium	17,91%	electronic	2,42%
PA	0.7 %	Stainless steel	0,76%	Polyester	0,69%
PA/PC	0,14 %	Copper	0,55%	Silicone	<0,1%
PVC	0,11 %			Others	<0,1%
PE	<0.1 %				
FEP	<0.1 %				
polyolefin	<0.1 %				
Total mass of the reference product: 4.88 kg					

The masses indicated correspond to the masses modeled within the framework of the PEP, and may present slight variations with the masses indicated in the technical documentation of the products, due to the assumptions made for the study.

Additional environmental information

Manufacturing	Manufactured in a factory in China. The components originate from China. The raw materials, transportation to the production site, component and part manufacturing, assembly, packaging, and waste treatment have all been taken into account.
Distribution	The main market is Europe. Therefore, the current model includes intercontinental transport in accordance with the PEP-PCR-ed4-FR-2021 09 06 rules: - Truck: 1,000 km - Ship: 19,000 km
Installation	The product does not require any specific installation procedure, and its installation does not consume any energy. The switch is modeled by integrating its manufacturing process, assuming it is made of a single material (PC), while considering both the manufacturing process and transportation. The transport and disposal of the product's packaging are included in this stage, in accordance with the French scenarios defined by the PSR-0014-ed2-EN-2023 07 13 rules.
Use	No use or application of the installed product (B1), standard repair (B3, B4), or refurbishment (B5) is planned for this product. The use of the product does not require water (B7). There is no maintenance required (B2), as the luminaire's components have a lifespan exceeding that of the luminaire itself. The use of the product results in electricity consumption (B6): $C = P \times \text{Assigned lifetime} = 39 \times 50,000 = 1,950 \text{ kWh}$ The main market is France, so the French energy mix has been used in this analysis.
End of life	Given the complexity and limited knowledge of the recycling sector and processes for electrical and electronic products, the treatment rates from Annex D of the PCR-ed4-FR-2021 09 06 have been used to account for the product's end-of-life treatment.

Environmental impacts

The environmental impact assessment covers the following stages of the product life cycle: Manufacturing (A1-A3), Distribution (A4), Installation (A5), Use (B1-B7), End of life (C1-C4) and Benefits and burdens across system boundaries (D).

The calculations were carried out with the OpenLCA software version 2.0.2 associated with the Ecoinvent database version 3.91 and the Ecosystem database.

PEP representative of the products covered, installed and marketed in: France

Energy models considered for each phase:

Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B7)	End of life (C1-C4)
China	Internationale (from china to France)	France	France	France

Environmental impact of the reference product calculated for the functional unit

This environmental declaration has been developed considering the following functional unit: Provide lighting that delivers an outgoing artificial luminous flux of 1,000 lumens during a reference lifetime of 35,000 hours.

Mandatory environmental impact indicators

Indicateurs	Unité	A1-A3	A4	A5	B1-B7	C1-C4	Total (hors D)	D
Environment: Abiotic depletion potential (elements) ADPE	kg Sb eq	1,34E-03	6,95E-07	6,81E-07	1,41E-03	2,17E-07	2,75E-03	-4,03E-04
Environment: Abiotic depletion potential (fossils) ADPF	MJ (net calorific)	2,24E+02	4,36E+00	2,05E+00	4,08E+03	5,27E-01	4,31E+03	-3,06E+01
Environment: Acidification potential AP	mol H+ eq	1,20E-01	5,48E-03	5,32E-04	2,10E-01	2,05E-04	3,36E-01	-1,68E-02
Environment: Eutrophication potential (freshwater) EPF	kg P eq	9,33E-03	1,69E-05	2,59E-05	1,25E-02	1,35E-05	2,19E-02	-2,31E-03
Environment: Eutrophication potential (marine) EPM	kg N eq	1,89E-02	1,42E-03	1,23E-04	4,04E-02	6,86E-05	6,09E-02	-2,92E-03
Environment: Eutrophication potential (terrestrial) EPT	mol N eq	1,91E-01	1,56E-02	1,28E-03	3,31E-01	6,44E-04	5,39E-01	-3,12E-02
Environment: Global warming potential (biogenic) GWPB	kg CO2 eq	8,94E-02	1,04E-04	3,68E-03	6,42E-01	9,77E-04	7,36E-01	-9,28E-03
Environment: Global warming potential (fossil) GWPF	kg CO2 eq	1,65E+01	3,29E-01	1,17E-01	2,99E+01	2,19E-01	4,70E+01	-2,42E+00
Environment: Global warming potential (land use) GWPL	kg CO2 eq	2,63E-02	2,08E-04	1,05E-04	2,08E-02	4,94E-05	4,74E-02	-2,31E-02
Environment: Global warming potential (total) GWPT	kg CO2 eq	1,66E+01	3,29E-01	1,21E-01	3,05E+01	2,19E-01	4,77E+01	-2,45E+00
Environment: Ozone depletion potential ODP	kg CFC-11 eq	2,22E-06	6,04E-09	6,13E-09	1,24E-06	1,07E-09	3,47E-06	-8,31E-08
Environment: Photochemical ozone creation potential POCP	kg NMVOC eq	6,48E-02	4,48E-03	5,15E-04	1,13E-01	2,00E-04	1,83E-01	-1,04E-02
Environment: Water deprivation potential WDP	m3 world eq	2,40E+01	1,71E-02	4,41E-02	4,97E+01	1,25E-02	7,37E+01	-1,77E+00

*The details of module B are available in the dedicated tables at the end of this section.

Optional environmental impact indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (exclusing D)	D
Environment: Ecotoxicity potential (freshwater) ETPF	CTUe	2,64E+02	2,14E+00	3,26E+00	2,49E+02	2,24E+00	5,20E+02	-3,68E+01
Environment: Human toxicity (carcinogenic) HTC	CTUh	1,96E-08	1,46E-10	1,08E-10	3,62E-08	4,46E-11	5,61E-08	-5,81E-09
Environment: Human toxicity (non-carcinogenic) HTNC	CTUh	3,96E-07	2,22E-09	1,19E-09	1,58E-06	4,81E-09	1,99E-06	-7,19E-08
Environment: Ionising radiation (human health) IRH	kBq U235 eq	1,77E+00	4,06E-03	5,34E-03	1,84E+02	2,87E-03	1,86E+02	-2,61E-01
Environment: Land use and land use change LULUC	dimensionless	1,17E+02	1,91E+00	7,00E-01	2,78E+02	3,17E-01	3,98E+02	-1,98E+01
Environment: Particulate matter formation PMF	disease incidence	1,04E-06	1,79E-08	6,62E-09	2,05E-06	2,50E-09	3,12E-06	-1,68E-07

*The details of module B are available in the dedicated tables at the end of this section.

Output flow indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (excluding D)	D
Output: Components for reuse CRU	kg (CRU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,63E-24	-8,63E-24	0,00E+00
Output: Exported energy (electrical) EEE	MJ (EEE)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Exported energy (thermal) EET	MJ (EET)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Materials for energy recovery MER	kg (MER)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Materials for recycling MFR	kg (MFR)	6,25E-01	3,55E-03	1,63E-03	5,86E+00	1,75E-02	6,51E+00	-2,07E-01

*The details of module B are available in the dedicated tables at the end of this section.

Resource utilisation indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (excluding D)	D
Primary energy: Non-renewable (energy use) PENRE	MJ (PENRE)	2,14E+02	3,97E+00	1,89E+00	4,06E+03	4,99E-01	4,28E+03	-2,98E+01
Primary energy: Non-renewable (material use) PENRM	MJ (PENRM)	9,12E+00	3,87E-01	1,50E-01	1,98E+01	2,82E-02	2,95E+01	-9,68E-01
Primary energy: Non-renewable (total) PENRT	MJ (PENRT)	2,24E+02	4,36E+00	2,05E+00	4,08E+03	5,27E-01	4,31E+03	-3,06E+01
Primary energy: Renewable (energy use) PERE	MJ (PERE)	7,05E+01	5,01E-02	8,38E-02	3,45E+02	3,59E-02	4,15E+02	-6,74E+00
Primary energy: Renewable (material use) PERM	MJ (PERM)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy: Renewable (total) PERT	MJ (PERT)	7,05E+01	5,01E-02	8,38E-02	3,45E+02	3,59E-02	4,15E+02	-6,74E+00
Resource: Net use of fresh water FW	m3 (FW)	4,88E-01	3,90E-04	9,80E-04	1,16E+00	2,66E-04	1,65E+00	-3,90E-02
Resource: Non-renewable secondary fuels NRSF	MJ (NRSF)	3,15E-01	1,71E-03	2,12E-03	2,35E+00	1,32E-02	2,68E+00	-4,36E-02
Resource: Renewable secondary fuels RSF	MJ (RSF)	7,95E-02	8,00E-04	6,69E-04	3,31E+00	3,73E-04	3,39E+00	-1,79E-02
Resource: Secondary materials SM	kg (SM)	3,17E-01	3,82E-03	1,84E-03	5,99E+00	-1,55E-02	6,29E+00	-1,46E-01

* The details of module B are available in the dedicated tables at the end of this section.

Waste category indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (excluding D)	D
Waste: Hazardous waste disposed HWD	kg (HWD)	1,96E+00	4,20E-03	3,41E-03	1,79E+00	5,23E-03	3,76E+00	-3,87E-01
Waste: Non-hazardous waste disposed NHWD	kg (NHWD)	2,75E+00	1,13E-01	2,92E-02	5,71E+00	5,86E-02	8,65E+00	-8,93E-02
Waste: Radioactive waste disposed RWD	kg (RWD)	4,95E-04	9,70E-07	1,32E-06	5,29E-02	7,02E-07	5,33E-02	-6,60E-05

* The details of module B are available in the dedicated tables at the end of this section.

Biogenic Carbon Inventory Flow

Indicators	Unit	Total
Biogenic carbon content of the product	kg of C	0,00E+00
Biogenic Carbon content of associated packaging	kg of C	1,22E-02

Detailed Module B

Indicator	Unit	B1	B2	B3	B4	B5	B6	B7	B1-B7
Environment: Abiotic depletion potential (elements) ADPE	kg Sb eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,41E-03	0,00E+00	1,41E-03
Environment: Abiotic depletion potential (fossils) ADPF	MJ (net calorific)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,08E+03	0,00E+00	4,08E+03
Environment: Acidification potential AP	mol H+ eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,10E-01	0,00E+00	2,10E-01
Environment: Eutrophication potential (freshwater) EPF	kg P eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,25E-02	0,00E+00	1,25E-02
Environment: Eutrophication potential (marine) EPM	kg N eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,04E-02	0,00E+00	4,04E-02
Environment: Eutrophication potential (terrestrial) EPT	mol N eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,31E-01	0,00E+00	3,31E-01
Environment: Global warming potential (biogenic) GWPB	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,42E-01	0,00E+00	6,42E-01
Environment: Global warming potential (fossil) GWPF	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,99E+01	0,00E+00	2,99E+01
Environment: Global warming potential (land use) GWPL	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,08E-02	0,00E+00	2,08E-02
Environment: Global warming potential (total) GWPT	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,05E+01	0,00E+00	3,05E+01
Environment: Ozone depletion potential ODP	kg CFC-11 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,24E-06	0,00E+00	1,24E-06
Environment: Photochemical ozone creation potential POCP	kg NMVOC eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,13E-01	0,00E+00	1,13E-01
Environment: Water deprivation potential WDP	m3 world eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,97E+01	0,00E+00	4,97E+01
Environment: Ecotoxicity potential (freshwater) ETPF	CTUh	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,49E+02	0,00E+00	2,49E+02
Environment: Human toxicity (carcinogenic) HTC	kBq U235 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,62E-08	0,00E+00	3,62E-08
Environment: Human toxicity (non-carcinogenic) HTNC	dimensionless	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,58E-06	0,00E+00	1,58E-06
Environment: Ionising radiation (human health) IRH	disease incidence	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,84E+02	0,00E+00	1,84E+02
Environment: Land use and land use change LULUC	CTUh	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,78E+02	0,00E+00	2,78E+02
Environment: Particulate matter formation PMF	kBq U235 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,05E-06	0,00E+00	2,05E-06

Indicator	Unit	B1	B2	B3	B4	B5	B6	B7	B1-B7
Output: Components for reuse CRU	kg (CRU)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	0,00E+00	0,00E +00	0,00E+00
Output: Exported energy (electrical) EEE	MJ (EEE)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	0,00E+00	0,00E +00	0,00E+00
Output: Exported energy (thermal) EET	MJ (EET)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	0,00E+00	0,00E +00	0,00E+00
Output: Materials for energy recovery MER	kg (MER)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	0,00E+00	0,00E +00	0,00E+00
Output: Materials for recycling MFR	kg (MFR)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	5,86E+00	0,00E +00	5,86E+00
Primary energy: Non-renewable (energy use) PENRE	MJ (PENRE)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	4,06E+03	0,00E +00	4,06E+03
Primary energy: Non-renewable (material use) PENRM	MJ (PENR M)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	1,98E+01	0,00E +00	1,98E+01
Primary energy: Non-renewable (total) PENRT	MJ (PENRT)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	4,08E+03	0,00E +00	4,08E+03
Primary energy: Renewable (energy use) PERE	MJ (PERE)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	3,45E+02	0,00E +00	3,45E+02
Primary energy: Renewable (material use) PERM	MJ (PERM)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	0,00E+00	0,00E +00	0,00E+00
Primary energy: Renewable (total) PERT	MJ (PERT)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	3,45E+02	0,00E +00	3,45E+02
Resource: Net use of fresh water FW	m3 (FW)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	1,16E+00	0,00E +00	1,16E+00
Resource: Non-renewable secondary fuels NRSF	MJ (NRSF)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	2,35E+00	0,00E +00	2,35E+00
Resource: Renewable secondary fuels RSF	MJ (RSF)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	3,31E+00	0,00E +00	3,31E+00
Resource: Secondary materials SM	kg (SM)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	5,99E+00	0,00E +00	5,99E+00
Waste: Hazardous waste disposed HWD	kg (HWD)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	1,79E+00	0,00E +00	1,79E+00
Waste: Non-hazardous waste disposed NHWD	kg (NHWD)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	5,71E+00	0,00E +00	5,71E+00
Waste: Radioactive waste disposed RWD	kg (RWD)	0,00E +00	0,00 E+0 0	0,00E +00	0,00E +00	0,00 E+0 0	5,29E-02	0,00E +00	5,29E-02

Environmental impact of the reference product calculated for the declared unit.

This environmental declaration has been developed considering an outgoing artificial luminous flux of 4000 lumens over a reference lifetime of 50,000 hours.

Mandatory environmental impact indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (exluding D)	D
Environment: Abiotic depletion potential (elements) ADPE	kg Sb eq	7,65E-03	3,97E-06	3,89E-06	8,07E-03	1,24E-06	1,57E-02	-2,30E-03
Environment: Abiotic depletion potential (fossils) ADPF	MJ (net calorific)	1,28E+03	2,49E+01	1,17E+01	2,33E+04	3,01E+00	2,46E+04	-1,75E+02
Environment: Acidification potential AP	mol H+ eq	6,85E-01	3,13E-02	3,04E-03	1,20E+00	1,17E-03	1,92E+00	-9,60E-02
Environment: Eutrophication potential (freshwater) EPF	kg P eq	5,33E-02	9,64E-05	1,48E-04	7,17E-02	7,73E-05	1,25E-01	-1,32E-02
Environment: Eutrophication potential (marine) EPM	kg N eq	1,08E-01	8,10E-03	7,00E-04	2,31E-01	3,92E-04	3,48E-01	-1,67E-02
Environment: Eutrophication potential (terrestrial) EPT	mol N eq	1,09E+00	8,91E-02	7,31E-03	1,89E+00	3,68E-03	3,08E+00	-1,78E-01
Environment: Global warming potential (biogenic) GWPB	kg CO2 eq	5,11E-01	5,96E-04	2,10E-02	3,67E+00	5,58E-03	4,21E+00	-5,30E-02
Environment: Global warming potential (fossil) GWPF	kg CO2 eq	9,40E+01	1,88E+00	6,69E-01	1,71E+02	1,25E+00	2,69E+02	-1,38E+01
Environment: Global warming potential (land use) GWPL	kg CO2 eq	1,50E-01	1,19E-03	6,01E-04	1,19E-01	2,82E-04	2,71E-01	-1,32E-01
Environment: Global warming potential (total) GWPT	kg CO2 eq	9,46E+01	1,88E+00	6,90E-01	1,74E+02	1,25E+00	2,72E+02	-1,40E+01
Environment: Ozone depletion potential ODP	kg CFC-11 eq	1,27E-05	3,45E-08	3,50E-08	7,07E-06	6,09E-09	1,98E-05	-4,75E-07
Environment: Photochemical ozone creation potential POCP	kg NMVOC eq	3,70E-01	2,56E-02	2,94E-03	6,44E-01	1,14E-03	1,04E+00	-5,94E-02
Environment: Water deprivation potential WDP	m3 world eq	1,37E+02	9,79E-02	2,52E-01	2,84E+02	7,14E-02	4,21E+02	-1,01E+01

* The details of module B are available in the dedicated tables at the end of this section.

Optional environmental impact indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (exluding D)	D
Environment: Ecotoxicity potential (freshwater) ETPF	CTUe	1,51E+03	1,22E+01	1,86E+01	1,42E+03	1,28E+01	2,97E+03	-2,10E+02
Environment: Human toxicity (carcinogenic) HTC	CTUh	1,12E-07	8,33E-10	6,19E-10	2,07E-07	2,55E-10	3,21E-07	-3,32E-08
Environment: Human toxicity (non-carcinogenic) HTNC	CTUh	2,26E-06	1,27E-08	6,79E-09	9,04E-06	2,75E-08	1,13E-05	-4,11E-07
Environment: Ionising radiation (human health) IRH	kBq U235 eq	1,01E+01	2,32E-02	3,05E-02	1,05E+03	1,64E-02	1,06E+03	-1,49E+00
Environment: Land use and land use change LULUC	dimensionless	6,66E+02	1,09E+01	4,00E+00	1,59E+03	1,81E+00	2,27E+03	-1,13E+02
Environment: Particulate matter formation PMF	disease incidence	5,96E-06	1,02E-07	3,78E-08	1,17E-05	1,43E-08	1,78E-05	-9,58E-07

* The details of module B are available in the dedicated tables at the end of this section.

Output flow indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (exluding D)	D
Output: Components for reuse CRU	kg (CRU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,93E-23	-4,93E-23	0,00E+00
Output: Exported energy (electrical) EEE	MJ (EEE)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Exported energy (thermal) EET	MJ (EET)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Materials for energy recovery MER	kg (MER)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Materials for recycling MFR	kg (MFR)	3,57E+00	2,03E-02	9,32E-03	3,35E+01	1,00E-01	3,72E+01	-1,18E+00

* The details of module B are available in the dedicated tables at the end of this section.

Resource utilisation indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (exluding D)	D
Primary energy: Non-renewable (energy use) PENRE	MJ (PENRE)	1,22E+03	2,27E+01	1,08E+01	2,32E+04	2,85E+00	2,45E+04	-1,70E+02
Primary energy: Non-renewable (material use) PENRM	MJ (PENRM)	5,21E+01	2,21E+00	8,59E-01	1,13E+02	1,61E-01	1,68E+02	-5,53E+00
Primary energy: Non-renewable (total) PENRT	MJ (PENRT)	1,28E+03	2,49E+01	1,17E+01	2,33E+04	3,01E+00	2,46E+04	-1,75E+02
Primary energy: Renewable (energy use) PERE	MJ (PERE)	4,03E+02	2,86E-01	4,79E-01	1,97E+03	2,05E-01	2,37E+03	-3,85E+01
Primary energy: Renewable (material use) PERM	MJ (PERM)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy: Renewable (total) PERT	MJ (PERT)	4,03E+02	2,86E-01	4,79E-01	1,97E+03	2,05E-01	2,37E+03	-3,85E+01
Resource: Net use of fresh water FW	m3 (FW)	2,79E+00	2,23E-03	5,60E-03	6,65E+00	1,52E-03	9,45E+00	-2,23E-01
Resource: Non-renewable secondary fuels NRSF	MJ (NRSF)	1,80E+00	9,77E-03	1,21E-02	1,34E+01	7,53E-02	1,53E+01	-2,49E-01
Resource: Renewable secondary fuels RSF	MJ (RSF)	4,54E-01	4,57E-03	3,82E-03	1,89E+01	2,13E-03	1,94E+01	-1,02E-01
Resource: Secondary materials SM	kg (SM)	1,81E+00	2,18E-02	1,05E-02	3,42E+01	-8,83E-02	3,60E+01	-8,32E-01

* The details of module B are available in the dedicated tables at the end of this section.

Waste category indicators

Indicators	Unit	A1-A3	A4	A5	B1-B7	C1-C4	Total (exluding D)	D
Waste: Hazardous waste disposed HWD	kg (HWD)	1,12E+01	2,40E-02	1,95E-02	1,02E+01	2,99E-02	2,15E+01	-2,21E+00
Waste: Non-hazardous waste disposed NHWD	kg (NHWD)	1,57E+01	6,47E-01	1,67E-01	3,26E+01	3,35E-01	4,94E+01	-5,10E-01
Waste: Radioactive waste disposed RWD	kg (RWD)	2,83E-03	5,54E-06	7,55E-06	3,02E-01	4,01E-06	3,05E-01	-3,77E-04

* The details of module B are available in the dedicated tables at the end of this section.

Biogenic Carbon Inventory Flow

Indicators	Unit	Total
Biogenic carbon content of the product	kg of C	0,00E+00
Biogenic Carbon content of associated packaging	kg of C	6,95E-02

Detailed Module B

Indicators	Unit	B1	B2	B3	B4	B5	B6	B7	B1-B7
Environment: Abiotic depletion potential (elements) ADPE	kg Sb eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,07E-03	0,00E+00	8,07E-03
Environment: Abiotic depletion potential (fossils) ADPF	MJ (net calorific)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,33E+04	0,00E+00	2,33E+04
Environment: Acidification potential AP	mol H+ eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,20E+00	0,00E+00	1,20E+00
Environment: Eutrophication potential (freshwater) EPF	kg P eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,17E-02	0,00E+00	7,17E-02
Environment: Eutrophication potential (marine) EPM	kg N eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,31E-01	0,00E+00	2,31E-01
Environment: Eutrophication potential (terrestrial) EPT	mol N eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,89E+00	0,00E+00	1,89E+00
Environment: Global warming potential (biogenic) GWPB	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,67E+00	0,00E+00	3,67E+00
Environment: Global warming potential (fossil) GWPF	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,71E+02	0,00E+00	1,71E+02
Environment: Global warming potential (land use) GWPL	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,19E-01	0,00E+00	1,19E-01
Environment: Global warming potential (total) GWPT	kg CO2 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,74E+02	0,00E+00	1,74E+02
Environment: Ozone depletion potential ODP	kg CFC-11 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,07E-06	0,00E+00	7,07E-06
Environment: Photochemical ozone creation potential POCP	kg NMVOC eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,44E-01	0,00E+00	6,44E-01
Environment: Water deprivation potential WDP	m3 world eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,84E+02	0,00E+00	2,84E+02
Environment: Ecotoxicity potential (freshwater) ETPF	CTUe	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,42E+03	0,00E+00	1,42E+03
Environment: Human toxicity (carcinogenic) HTC	CTUh	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,07E-07	0,00E+00	2,07E-07
Environment: Human toxicity (non-carcinogenic) HTNC	CTUh	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,04E-06	0,00E+00	9,04E-06
Environment: Ionising radiation (human health) IRH	kBq U235 eq	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,05E+03	0,00E+00	1,05E+03
Environment: Land use and land use change LULUC	dimensionless	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,59E+03	0,00E+00	1,59E+03
Environment: Particulate matter formation PMF	disease incidence	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,17E-05	0,00E+00	1,17E-05

Indicators	Unit	B1	B2	B3	B4	B5	B6	B7	B1-B7
Output: Components for reuse CRU	kg (CRU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Exported energy (electrical) EEE	MJ (EEE)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Exported energy (thermal) EET	MJ (EET)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Materials for energy recovery MER	kg (MER)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Output: Materials for recycling MFR	kg (MFR)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,35E+01	0,00E+00	3,35E+01
Primary energy: Non-renewable (energy use) PENRE	MJ (PENRE)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,32E+04	0,00E+00	2,32E+04
Primary energy: Non-renewable (material use) PENRM	MJ (PENRM)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,13E+02	0,00E+00	1,13E+02
Primary energy: Non-renewable (total) PENRT	MJ (PENRT)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,33E+04	0,00E+00	2,33E+04
Primary energy: Renewable (energy use) PERE	MJ (PERE)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,97E+03	0,00E+00	1,97E+03
Primary energy: Renewable (material use) PERM	MJ (PERM)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy: Renewable (total) PERT	MJ (PERT)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,97E+03	0,00E+00	1,97E+03
Resource: Net use of fresh water FW	m3 (FW)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,65E+00	0,00E+00	6,65E+00
Resource: Non-renewable secondary fuels NRSF	MJ (NRSF)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,34E+01	0,00E+00	1,34E+01
Resource: Renewable secondary fuels RSF	MJ (RSF)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,89E+01	0,00E+00	1,89E+01
Resource: Secondary materials SM	kg (SM)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,42E+01	0,00E+00	3,42E+01
Waste: Hazardous waste disposed HWD	kg (HWD)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E+01	0,00E+00	1,02E+01
Waste: Non-hazardous waste disposed NHWD	kg (NHWD)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,26E+01	0,00E+00	3,26E+01
Waste: Radioactive waste disposed RWD	kg (RWD)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,02E-01	0,00E+00	3,02E-01

Homogeneous environmental family and extrapolation coefficients

Covered references

Commercial reference	Power (W)	Artificial luminous flux output (lm)	Product structure mass (g)	Packaging mass (g)	LED module mass (g)	LED driver mass (g)
Reference product						
MEDO® PRO 60 : 1007301	39	4000	5040	2343	270	118
Products						
MEDO® 60, RL, frame : 1008633	33	4000	5056	3268	270	118
MEDO® 60, RL, frameless : 1008634	33	4000	5154	3066	270	118
MEDO® PRO 60, CW, DALI, UGR<19 : 1007300	39	4000	5101	2274	270	118
MEDO® PRO 60, CW, DALI : 1007302	39	4000	5109	1996	270	118
MEDO® PRO 60, CW, DALI : 1007303	39	4000	5173	2025	270	118
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007304	37	4000	5088	2273	270	118
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007305	37	4000	5108	2232	270	118
MEDO® PRO 60, CW, PHASE : 1007307	37	4000	5095	2021	270	118
MEDO® PRO 60, CW, PHASE : 1007306	37	4000	5153	2280	270	118
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006418	39	4000	5034	2349	270	118
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006417	39	4000	5040	2343	270	118
MEDO® PRO 60 : 1007301	39	3000	5040	2343	270	118
MEDO® 60, RL, frame : 1008633	33	3000	5056	3268	270	118
MEDO® 60, RL, frameless : 1008634	33	3000	5154	3066	270	118
MEDO® PRO 60, CW, DALI, UGR<19 : 1007300	39	3000	5101	2274	270	118
MEDO® PRO 60, CW, DALI : 1007302	39	3000	5109	1996	270	118
MEDO® PRO 60, CW, DALI : 1007303	39	3000	5173	2025	270	118
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007304	37	3000	5088	2273	270	118
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007305	37	3000	5108	2232	270	118
MEDO® PRO 60, CW, PHASE : 1007307	37	3000	5095	2021	270	118
MEDO® PRO 60, CW, PHASE : 1007306	37	3000	5153	2280	270	118
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006418	39	3000	5034	2349	270	118

To assess the environmental impact of other products included in the PEP, multiply the impact values by the appropriate factors.

Extrapolation coefficient to the functional unit

Commercial reference	A1-A3: mass of the structure	A1-A3: Production of packaging	A1-A3: LED module	A1-A3 : LED Driver	A4	A5	B2	B6	C1-C4
Reference product									
MEDO® PRO 60 : 1007301	1	1	1	1	1	1	1	1	1
Products									
MEDO® 60, RL, frame : 1008633	1,003174603	1,394793	1	1,00	1,127454964	1,394793	1,003354298	0,846153846	1,003174603
MEDO® 60, RL, frameless : 1008634	1,022619048	1,308578745	1	1,00	1,113368549	1,308578745	1,023899371	0,846153846	1,022619048
MEDO® PRO 60, CW, DALI, UGR<19 : 1007300	1,012103175	0,970550576	1	1,00	0,99891643	0,970550576	1,01278826	1	1,012103175
MEDO® PRO 60, CW, DALI : 1007302	1,013690476	0,851899274	1	1,00	0,96234593	0,851899274	1,014465409	1	1,013690476
MEDO® PRO 60, CW, DALI : 1007303	1,026388889	0,864276569	1	1,00	0,974942435	0,864276569	1,0278826	1	1,026388889
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007304	1,00952381	0,970123773	1	1,00	0,997020181	0,970123773	1,010062893	0,948717949	1,00952381
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007305	1,013492063	0,95262484	1	1,00	0,994175809	0,95262484	1,014255765	0,948717949	1,013492063
MEDO® PRO 60, CW, PHASE : 1007307	1,010912698	0,862569356	1	1,00	0,963835839	0,862569356	1,011530398	0,948717949	1,010912698
MEDO® PRO 60, CW, PHASE : 1007306	1,022420635	0,973111396	1	1,00	1,006772315	0,973111396	1,023689727	0,948717949	1,022420635
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006418	0,998809524	1,002560819	1	1,00	1	1,002560819	0,998742138	1	0,998809524
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006417	1	1	1	1,00	1	1	1	1	1
MEDO® PRO 60 : 1007301	1,333333333	0,75	0,75	0,75	0,75	0,75	0,75	0,75	0,75
MEDO® 60, RL, frame : 1008633	1,337566138	1,04609475	0,75	0,75	0,845591223	1,04609475	0,752515723	0,634615385	0,752380952
MEDO® 60, RL, frameless : 1008634	1,363492063	0,981434059	0,75	0,75	0,835026412	0,981434059	0,767924528	0,634615385	0,766964286
MEDO® PRO 60, CW, DALI, UGR<19 : 1007300	1,349470899	0,727912932	0,75	0,75	0,749187322	0,727912932	0,759591195	0,75	0,759077381
MEDO® PRO 60, CW, DALI : 1007302	1,351587302	0,638924456	0,75	0,75	0,721759447	0,638924456	0,760849057	0,75	0,760267857
MEDO® PRO 60, CW, DALI : 1007303	1,368518519	0,648207426	0,75	0,75	0,731206826	0,648207426	0,77091195	0,75	0,769791667
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007304	1,346031746	0,72759283	0,75	0,75	0,747765136	0,72759283	0,75754717	0,711538462	0,757142857
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007305	1,351322751	0,71446863	0,75	0,75	0,745631857	0,71446863	0,760691824	0,711538462	0,760119048
MEDO® PRO 60, CW, PHASE : 1007307	1,347883598	0,646927017	0,75	0,75	0,722876879	0,646927017	0,758647799	0,711538462	0,758184524
MEDO® PRO 60, CW, PHASE : 1007306	1,363227513	0,729833547	0,75	0,75	0,755079236	0,729833547	0,767767296	0,711538462	0,766815476
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006418	1,331746032	0,751920615	0,75	0,75	0,75	0,751920615	0,749056604	0,75	0,749107143

Extrapolation coefficient to the declaration unit

Commercial reference	A1-A3: mass of the structure	A1-A3: Production of packaging	A1-A3: Module LED	A1-A3 : LED Driver	A4	A5	B2	B6	C1-C4
Reference product									
MEDO® PRO 60 : 1007301	1	1	1	1	1	1	1	1	1
Products									
MEDO® 60, RL, frame : 1008633	1,003174603	1,394793	1	1,00	1,127454964	1,394793	1,003354298	0,846153846	1,003174603
MEDO® 60, RL, frameless : 1008634	1,022619048	1,308578745	1	1,00	1,113368549	1,308578745	1,023899371	0,846153846	1,022619048
MEDO® PRO 60, CW, DALI, UGR<19 : 1007300	1,012103175	0,970550576	1	1,00	0,99891643	0,970550576	1,01278826	1	1,012103175
MEDO® PRO 60, CW, DALI : 1007302	1,013690476	0,851899274	1	1,00	0,96234593	0,851899274	1,014465409	1	1,013690476
MEDO® PRO 60, CW, DALI : 1007303	1,026388889	0,864276569	1	1,00	0,974942435	0,864276569	1,0278826	1	1,026388889
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007304	1,00952381	0,970123773	1	1,00	0,997020181	0,970123773	1,010062893	0,948717949	1,00952381
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007305	1,013492063	0,95262484	1	1,00	0,994175809	0,95262484	1,014255765	0,948717949	1,013492063
MEDO® PRO 60, CW, PHASE : 1007307	1,010912698	0,862569356	1	1,00	0,963835839	0,862569356	1,011530398	0,948717949	1,010912698
MEDO® PRO 60, CW, PHASE : 1007306	1,022420635	0,973111396	1	1,00	1,006772315	0,973111396	1,023689727	0,948717949	1,022420635
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006418	0,998809524	1,002560819	1	1,00	1	1,002560819	0,998742138	1	0,998809524
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006417	1	1	1	1,00	1	1	1	1	1
MEDO® PRO 60 : 1007301	1	1	1	1,00	1	1	1	1	1
MEDO® 60, RL, frame : 1008633	1,003174603	1,394793	1	1,00	1,127454964	1,394793	1,003354298	0,846153846	1,003174603
MEDO® 60, RL, frameless : 1008634	1,022619048	1,308578745	1	1,00	1,113368549	1,308578745	1,023899371	0,846153846	1,022619048
MEDO® PRO 60, CW, DALI, UGR<19 : 1007300	1,012103175	0,970550576	1	1,00	0,99891643	0,970550576	1,01278826	1	1,012103175
MEDO® PRO 60, CW, DALI : 1007302	1,013690476	0,851899274	1	1,00	0,96234593	0,851899274	1,014465409	1	1,013690476
MEDO® PRO 60, CW, DALI : 1007303	1,026388889	0,864276569	1	1,00	0,974942435	0,864276569	1,0278826	1	1,026388889
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007304	1,00952381	0,970123773	1	1,00	0,997020181	0,970123773	1,010062893	0,948717949	1,00952381
MEDO® PRO 60, CW, PHASE, UGR<19 : 1007305	1,013492063	0,95262484	1	1,00	0,994175809	0,95262484	1,014255765	0,948717949	1,013492063

MEDO® PRO 60, CW, PHASE : 1007307	1,01091 2698	0,86256935 6	1	1,00	0,963 83583 9	0,8625693 56	1,0115303 98	0,948717 949	1,0109126 98
MEDO® PRO 60, CW, PHASE : 1007306	1,02242 0635	0,97311139 6	1	1,00	1,006 77231 5	0,9731113 96	1,0236897 27	0,948717 949	1,0224206 35
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006418	0,99880 9524	1,00256081 9	1	1,00	1	1,0025608 19	0,9987421 38	1	0,9988095 24
MEDO® PRO 60, CW, DALI, UGR<19, DC : 1006417	1	1	1	1,00	1	1	1	1	1

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Critical review of the PCR conducted by a panel of experts chaired by Julie ORGELET (DDemain) PEPs comply with standards NF Co8-100-1:2016 and EN 50693:2019. PEP elements cannot be compared with elements from another program Document compliant with standard ISO 14025: 2006 "Environmental markings and declarations. Type III Environmental Declarations »	