

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/absence detector**




## LEGRAND'S ENVIRONMENTAL COMMITMENTS

- Incorporate environmental management into our industrial sites  
Of all Legrand sites worldwide, over 85% are ISO 14001-certified (sites belonging to the Group for more than five years).
- Offer our customers environmentally friendly solutions  
Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.
- Involve the environment in product design and provide informations in compliance with ISO 14025  
Reduce the environmental impact of products over their whole life cycle.  
Provide our customers with all relevant information (composition, consumption, end of life, etc.).



## REFERENCE PRODUCT

<b>Function</b>	Control presence/absence detection in an application zone by either switching or dimming 230 VA low voltage electrical circuit, using infrared detection of the human body over 360° and regulates brightness through DALI according to IEC 60669-2-1 standards, for tertiary or similar used for 10 years.
<b>Reference Product</b>	
Cat.No CP-130018	
BP-EBDSPIR-DD - DALI/DSI digital dimming, ceiling PIR presence/absence detector	



## PRODUCTS CONCERNED

The environmental data is representative of the following products:

<b>Catalogue Numbers</b>
CP-130018 (BP-EBDSPIR-DD)
CP-110001 (BP-EBDMR-DD)

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/absence detector**



## ■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EU amended by delegated directive (EU) 2015/863, and its amendment 2017/2102/EU.

<b>Total weight of Reference Product</b>	<b>0.17 kg</b> (all packaging included)
--	---

Product alone weight 0.11 kg					
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	22.0 %	Steel	2.8 %	PWB >10 cm2	30.6 %
ABS	4.5 %	Silver	<0.1 %	Various components	6.2 %
Various plastics	1.4 %	Copper	>0.1 %		

Packaging (alone) : 0.05 kg					
PE	0.2 %			Cardboard	12.5 %
				Paper	12.3 %
				Wood	7.4 %
<b>Total plastics : 0.05 kg</b>	<b>28.2 %</b>	<b>Total metals : &lt;0.01 kg</b>	<b>2.8 %</b>	<b>Total others : 0.12 kg</b>	<b>69.0 %</b>

At the date of edition of this document, the content of recycled material(s) is :

- Product alone (excluding packaging): 0 % by mass
- Packaging only: 36 % by mass



## ■ MANUFACTURE

This Reference Product comes from sites that have received ISO14001 certification.



## ■ DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 47.81 Km by plane and 520.28 Km by trucks from our warehouse to the local point of distribution into the market all around the world.



## ■ INSTALLATION

For the installation of the product, only standard tools are needed.



## ■ USE

Under normal conditions of use, this product requires no servicing, no maintenance or additional products.

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/absence detector**



## END OF LIFE

The product end of life factors are taken into account during the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse. This product falls within the scope of the WEEE directive (2012/19/EU). Therefore it must be processed through local WEEE recycling/recovery channels.



## ENVIRONMENTAL IMPACTS

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

For each phase, the following modelling elements were taken in account:

<b>System Limit</b>	<b>Manufacture A1-A3</b>	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
	<b>Distribution A4</b>	Transport between the last Group distribution centre and an average delivery point in the sales area.
	<b>Installation A5</b>	The end of life of the packaging.
	<b>Use B1-B7</b>	<ul style="list-style-type: none"> <li>• Product category: Active Products</li> <li>• Use scenario: Continuous operation (100% of the time) for 10 years at 50% nominal load. This modeling time is not a maximum durability requirement.</li> <li>• Energy model: Electricity Mix_Low voltage_2018_China_CN.</li> </ul>
	<b>End of life C1-C4</b>	The default end of life scenario maximizing the impacts.
<b>D Module</b>	Module D is calculated according to PCR-ed4-EN-2021 09 06 based on the materials recycled and the modelled end-of-life scenario. It expresses the net benefits and burdens beyond the boundaries of the system, and are not to be included in the life cycle totals.	
<b>Software and data-base used</b>	The indicators set used is « Indicators for PEF EF 3.0 (compliance: PEF ed.4, EN15804+A2) v2.0 » EIME V6 and its CODDE-2023-02 database	

Unless otherwise indicated the modelling energetic mix are those integrated in the data modules used from the aforementioned database.

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/  
absence detector**



## ENVIRONMENTAL IMPACTS

	Total Life Cycle		Manufacturing	Distribution	Installation	Use <sup>(1)</sup>			End of Life	Module D
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4	
<b>Climate change - total</b>	<b>6.47E+01</b>	<b>kg CO2 eq.</b>	9.65E+00	1.97E-02	6.89E-02	5.48E+01	0*	5.48E+01	1.82E-01	-1.37E-01
<b>Climate change - fossil fuels</b>	<b>6.46E+01</b>	<b>kg CO2 eq.</b>	9.61E+00	1.97E-02	0*	5.48E+01	0*	5.48E+01	1.82E-01	-1.36E-01
<b>Climate change - biogenics</b>	<b>1.05E-01</b>	<b>kg CO2 eq.</b>	3.34E-02	0*	6.31E-02	7.86E-03	0*	7.86E-03	5.83E-04	-7.46E-04
<b>Climate change - land use and land use transformation</b>	<b>4.77E-05</b>	<b>kg CO2 eq.</b>	4.77E-05	0*	0*	0*	0*	0*	1.18E-08	0.00E+00
<b>Ozone depletion</b>	<b>1.00E-06</b>	<b>kg.equivalent. CFC-11</b>	6.83E-07	0*	0*	3.13E-07	0*	3.13E-07	4.56E-09	-7.59E-09
<b>Acidification (AP)</b>	<b>4.66E-01</b>	<b>mole of H+ equiv</b>	5.55E-02	9.06E-05	0*	4.10E-01	0*	4.10E-01	3.03E-04	-2.56E-03
<b>Freshwater eutrophication</b>	<b>4.13E-05</b>	<b>kg P eq.</b>	1.09E-05	7.03E-09	0*	1.16E-05	0*	1.16E-05	1.88E-05	-5.99E-07
<b>Marine aquatic eutrophication</b>	<b>5.53E-02</b>	<b>kg of N equiv</b>	1.13E-02	4.12E-05	1.42E-05	4.39E-02	0*	4.39E-02	4.33E-05	-1.34E-04
<b>Terrestrial eutrophication</b>	<b>6.20E-01</b>	<b>mole of N equiv</b>	1.23E-01	4.52E-04	1.69E-04	4.97E-01	0*	4.97E-01	5.34E-04	-1.54E-03
<b>Photochemical ozone formation</b>	<b>1.81E-01</b>	<b>kg of NMVOC equiv</b>	3.41E-02	1.11E-04	3.80E-05	1.47E-01	0*	1.47E-01	1.43E-04	-5.64E-04
<b>Depletion of abiotic resources - elements</b>	<b>2.14E-03</b>	<b>kg.equivalent. Sb</b>	2.14E-03	0*	0*	7.03E-07	0*	7.03E-07	0*	-4.95E-04
<b>Depletion of abiotic resources - fossil fuels</b>	<b>1.02E+03</b>	<b>MJ</b>	1.29E+02	2.75E-01	0*	8.86E+02	0*	8.86E+02	1.59E+00	-4.20E+00
<b>Water requirement</b>	<b>4.03E+00</b>	<b>m3 of equiv. deprivation worldwide</b>	1.57E+00	0*	8.87E-03	2.42E+00	0*	2.42E+00	4.22E-02	-1.93E-01
<b>Emission of fine particles</b>	<b>2.56E-06</b>	<b>incidence of diseases</b>	3.21E-07	6.11E-10	0*	2.24E-06	0*	2.24E-06	2.12E-09	-1.49E-08

\* represents less than 0.01% of the total life cycle of the reference flow

(<sup>1</sup>) For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table

In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/absence detector**



	Total Life Cycle		Manufacturing	Distribution	Installation	Use <sup>(1)</sup>			End of Life	Module D
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4	
<b>Ionizing radiation. human health</b>	5.73E+01	kBq of U235 equiv.	5.08E+01	0*	0*	6.51E+00	0*	6.51E+00	5.97E-03	-8.05E-01
<b>Ecotoxicity (fresh water)</b>	1.11E+03	CTUe	7.89E+01	0*	0*	1.03E+03	0*	1.03E+03	1.78E+00	-1.39E+00
<b>Human toxicity. carcinogenic effects</b>	9.56E-08	CTUh	8.83E-08	0*	0*	7.01E-09	0*	7.01E-09	3.13E-10	-6.05E-08
<b>Human toxicity. non-carcinogenic effects</b>	4.76E-07	CTUh	7.44E-08	0*	0*	3.99E-07	0*	3.99E-07	2.59E-09	-5.26E-08
<b>Impacts related to land use/soil quality</b>	3.92E-01	-	1.76E-01	0*	0*	1.59E-01	0*	1.59E-01	5.74E-02	2.46E-07
<b>Use of renewable primary energy. excluding renewable primary energy resources used as raw materials</b>	9.65E+01	MJ	2.74E+00	0*	0*	9.37E+01	0*	9.37E+01	3.00E-02	-4.55E-02
<b>Use of renewable primary energy resources used as raw materials</b>	4.95E-01	MJ	4.95E-01	0*	0*	0*	0*	0*	0*	3.55E-04
<b>Total use of renewable primary energy resources</b> (primary energy and primary energy resources used as raw materials)	9.70E+01	MJ	3.23E+00	0*	0*	9.37E+01	0*	9.37E+01	3.00E-02	-4.51E-02
<b>Use of non-renewable primary energy. excluding non-renewable primary energy resources used as raw materials</b>	1.02E+03	MJ	1.27E+02	2.75E-01	0*	8.86E+02	0*	8.86E+02	1.59E+00	-4.12E+00
<b>Use of non-renewable primary energy resources used as raw materials</b>	2.07E+00	MJ	2.07E+00	0*	0*	0*	0*	0*	0*	-7.26E-02
<b>Total use of non-renewable primary energy resources</b> (primary energy and primary energy resources used as raw materials)	1.02E+03	MJ	1.29E+02	2.75E-01	0*	8.86E+02	0*	8.86E+02	1.59E+00	-4.20E+00

\* represents less than 0.01% of the total life cycle of the reference flow

(<sup>1</sup>) For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table

In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/  
absence detector**



	Total Life Cycle		Manufacturing	Distribution	Installation	Use <sup>(1)</sup>			End of Life	Module D
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4	
Use of secondary materials	3.37E-02	kg	3.37E-02	0*	0*	0*	0*	0*	0*	0.00E+00
Use of renewable secondary fuels	0.00E+00	MJ	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Use of non-renewable secondary fuels	0.00E+00	MJ	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Net use of fresh water	9.45E-02	m <sup>3</sup>	3.70E-02	0*	2.07E-04	5.63E-02	0*	5.63E-02	9.82E-04	-4.49E-03
Hazardous waste disposed of	6.28E+00	kg	4.55E+00	0*	0*	1.66E+00	0*	1.66E+00	5.94E-02	-8.26E+00
Non-hazardous waste disposed of	1.17E+01	kg	2.00E+00	0*	5.94E-02	9.54E+00	0*	9.54E+00	5.54E-02	-9.49E-02
Radioactive waste disposed of	1.47E-03	kg	1.03E-03	3.96E-07	9.33E-07	3.91E-04	0*	3.91E-04	4.14E-05	-1.04E-05
Components for re-use	0.00E+00	kg	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Materials for recycling	1.86E-02	kg	3.20E-03	0*	0*	0*	0*	0*	1.54E-02	0.00E+00
Materials for energy recovery	1.20E-08	kg	1.20E-08	0*	0*	0*	0*	0*	0*	0.00E+00
Exported energy	0.00E+00	MJ by energy vector	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Total use of primary energy during the life cycle	1.11E+03	MJ	1.32E+02	2.75E-01	0*	9.80E+02	0*	9.80E+02	1.62E+00	-4.24E+00
Biogenic carbon content of the product	0.00E+00	kg of C.	0*	0*	0*	0*	0*	0*	0*	0.00E+00
Biogenic carbon content of the associated packaging	1.87E-02	kg of C.	1.87E-02	0*	0*	0*	0*	0*	0*	0.00E+00

For biogenic carbon storage, the methodology use is 0/0

\* represents less than 0.01% of the total life cycle of the reference flow

(1) For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table

In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 are available in the digital database of pep-ecopassport.org website.


For all products concerned (see § «products concerned»), take these impacts values.

# Product Environmental Profile

**DALI/DSI digital dimming, mid range, ceiling PIR presence/absence detector**



We consider the reference CP-110001 as the worst case. Because a weight difference of 1.3% of the total mass is present on this reference. The only difference is mainly caused by the Fresnel lens. This difference being insignificant, the case study is based on the highest weight. So for products covered by the PEP other than the Reference product, the environmental impacts of each phase of the lifecycle are assimilated to the impacts of the Reference Product.

Registration number: <b>LGRP-01792-V01.01-EN</b>	Drafting rules: « <b>PEP-PCR-ed4-EN-2021 09 06</b> » <b>Supplemented by «PSR-0005-ed2-2023 06 06»</b>
Verifier accreditation N°: <b>VH02</b>	Information and reference documents : <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
Date of issue: <b>12-2023</b>	Validity period: <b>5 years</b>
<b>Independent verification of the declaration and data, in compliance with ISO 14025 : 2006</b>	
<b>Internal</b> <input checked="" type="checkbox"/> <b>External</b> <input type="checkbox"/>	
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»	

Environmental data in alignment with EN 15804: 2012 + A2 : 2019