

Product Environmental Profile

LIGHT UP MULTISENSOR DALI 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

| | |
|--------------------------|---|
| Function | Manage light occupancy in a room by switching on or off a 250 VA low voltage electrical circuit. by infrared detection of the body over 360° and regulates brightness through DALI according to IEC 60669-2-1 standards. for tertiary or similar use used for 10 years. Measure indoor air quality. sound level. humidity and temperature of the room. Communicate with the Close Up mobile configuration application via Bluetooth. Communicate with the Gateway and other compatible products in Radio. |
| Reference Product |  |
| | Cat.No LG-048571 |
| | LIGHT UP MULTISENSOR DALI DETECTOR. |



PRODUCTS CONCERNED

The environmental data is representative of the following products:

| |
|--------------------------|
| Catalogue Numbers |
| LG-048573 |

Product Environmental Profile

LIGHT UP MULTISENSOR DALI 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.

| | |
|--|---|
| Total weight of Reference Product | 0.32 kg (all packaging included) |
|--|---|

| Product alone weight 0.21 kg | | | | | |
|------------------------------|--------|-----------------------|-------|----------------------|--------|
| Plastics as % of weight | | Metals as % of weight | | Other as % of weight | |
| PC | 33.5 % | Steel | 7.0 % | PWB | 21.6 % |
| PMMA | 1.3 % | Aluminium | 1.1 % | Various components | 0.1 % |
| PE | 0.1 % | | | | |

| Packaging (alone) : 0.11 kg | | | | | |
|--------------------------------|---------------|-------------------------------|--------------|-------------------------------|---------------|
| PE | 0.2 % | | | Cardboard (Packaging) | 17.6 % |
| | | | | wood(packaging) | 14.7 % |
| | | | | Paper (Packaging) | 2.8 % |
| Total plastics : 0.11kg | 35.0 % | Total metals : 0.03 kg | 8.1 % | Total others : 0.18 kg | 58.9 % |

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

- Product alone (excluding packaging): 2% by mass
- Packaging only: 41% 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 2375.47Km by Plane. 697.01Km by Trucks and 871.28Km by Boat from our warehouse to the local point of distribution into the market all around the world.

Packaging is compliant with european directive 2004/12/EU concerning packaging and packaging waste.



■ 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

LIGHT UP MULTISENSOR DALI 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.

• Elements to process specifically:

In accordance with the requirements of this Directive, the following components must be removed and sent to specific channels for processing which comply with the WEEE Directive 2012/19/EU: PWB > 10cm² : 69.75g



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:

| | | |
|-----------------------------|-------------------|--|
| System Limit | Manufacture A1-A3 | Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing. |
| | Distribution A4 | Transport between the last Group distribution centre and an average delivery point in the sales area. |
| | Installation A5 | The end of life of the packaging. |
| | Use B1-B7 | <ul style="list-style-type: none"> Product category: Active Product. Use scenario: Continuous operation (100% of the time) for 10 years at 40% nominal load. This modeling time is not a maximum durability requirement. Energy model: Electricity Mix_Low voltage_2018_China_CN. |
| | End of life C1-C4 | The default end of life scenario maximizing the impacts. |
| D Module | | 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. |
| Software and data-base used | | EIME V6 and its database CODDE-2023-02 The indicators set used is « Indicators for PEF EF 3.0 (compliance: PEP ed.4. EN15804+A2) v2.0 » |

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

Product Environmental Profile

LIGHT UP MULTISENSOR DALI DETECTOR



ENVIRONMENTAL IMPACTS

| | Total Life Cycle | | Manufacturing | Distribution | Installation | Use(*) | | | End of Life | Module D |
|---|------------------|--|---------------|--------------|--------------|-------------|----|----------|-------------|-----------|
| | | | A1-A3 | A4 | A5 | Total B1-B7 | B2 | B6 | C1-C4 | |
| Climate change - total | 1.40E+02 | kg CO ₂ eq. | 1.51E+01 | 1.60E+00 | 1.53E-01 | 1.22E+02 | 0* | 1.22E+02 | 4.46E-01 | -2.76E-01 |
| Climate change - fossil fuels | 1.39E+02 | kg CO ₂ eq. | 1.50E+01 | 1.60E+00 | 0* | 1.22E+02 | 0* | 1.22E+02 | 4.45E-01 | -2.74E-01 |
| Climate change - biogenics | 2.32E-01 | kg CO ₂ eq. | 7.09E-02 | 0* | 1.42E-01 | 1.75E-02 | 0* | 1.75E-02 | 8.97E-04 | -1.89E-03 |
| Climate change - land use and land use transformation | 1.58E-04 | kg CO ₂ eq. | 1.58E-04 | 0* | 0* | 0* | 0* | 0* | 1.59E-08 | 0.00E+00 |
| Ozone depletion | 2.41E-06 | kg CFC-11 eq. | 1.70E-06 | 1.86E-09 | 0* | 6.98E-07 | 0* | 6.98E-07 | 7.15E-09 | -1.63E-08 |
| Acidification (AP) | 1.02E+00 | mole of H ⁺ eq. | 9.32E-02 | 6.82E-03 | 0* | 9.15E-01 | 0* | 9.15E-01 | 5.93E-04 | -4.29E-03 |
| Freshwater eutrophication | 9.06E-05 | kg P eq. | 3.52E-05 | 5.66E-07 | 0* | 2.58E-05 | 0* | 2.58E-05 | 2.90E-05 | -1.02E-06 |
| Marine aquatic eutrophication | 1.13E-01 | kg of N eq. | 1.21E-02 | 3.04E-03 | 2.86E-05 | 9.78E-02 | 0* | 9.78E-02 | 9.03E-05 | -2.45E-04 |
| Terrestrial eutrophication | 1.27E+00 | mole of N eq. | 1.29E-01 | 3.33E-02 | 3.44E-04 | 1.11E+00 | 0* | 1.11E+00 | 1.12E-03 | -2.80E-03 |
| Photochemical ozone formation | 3.76E-01 | kg NMVOC eq. | 4.07E-02 | 8.14E-03 | 7.70E-05 | 3.27E-01 | 0* | 3.27E-01 | 3.11E-04 | -1.03E-03 |
| Depletion of abiotic resources - elements | 4.63E-03 | kg Sb eq. | 4.63E-03 | 0* | 0* | 1.57E-06 | 0* | 1.57E-06 | 0* | -7.63E-04 |
| Depletion of abiotic resources - fossil fuels | 2.20E+03 | MJ | 1.93E+02 | 2.24E+01 | 0* | 1.98E+03 | 0* | 1.98E+03 | 5.00E+00 | -1.05E+01 |
| Water requirement | 9.75E+00 | m ³ deprivation worldwide eq. | 4.25E+00 | 6.36E-03 | 1.87E-02 | 5.39E+00 | 0* | 5.39E+00 | 8.96E-02 | -3.20E-01 |
| Emission of fine particles | 5.56E-06 | incidence of diseases | 5.18E-07 | 4.23E-08 | 0* | 4.99E-06 | 0* | 4.99E-06 | 3.84E-09 | -2.54E-08 |

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

(*) 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

LIGHT UP MULTISENSOR DALI DETECTOR



| Total Life Cycle | | | Manufacturing | Distribution | Installation | Use(*) | | | End of Life | Module D |
|---|----------|-----------------|---------------|--------------|--------------|-------------|----|----------|-------------|-----------|
| | | | A1-A3 | A4 | A5 | Total B1-B7 | B2 | B6 | C1-C4 | |
| Ionizing radiation. human health | 7.72E+01 | kBq of U235 eq. | 6.27E+01 | 0* | 0* | 1.45E+01 | 0* | 1.45E+01 | 1.01E-02 | -1.25E+00 |
| Ecotoxicity (fresh water) | 2.49E+03 | CTUe | 1.81E+02 | 1.04E+00 | 0* | 2.30E+03 | 0* | 2.30E+03 | 2.80E+00 | -4.59E+00 |
| Human toxicity. carcinogenic effects | 1.93E-07 | CTUh | 1.77E-07 | 2.43E-11 | 0* | 1.56E-08 | 0* | 1.56E-08 | 4.87E-10 | -9.28E-08 |
| Human toxicity. non-carcinogenic effects | 1.38E-06 | CTUh | 4.81E-07 | 1.29E-09 | 0* | 8.90E-07 | 0* | 8.90E-07 | 4.83E-09 | -8.23E-08 |
| Impacts related to land use/soil quality | 9.93E-01 | - | 5.54E-01 | 0* | 0* | 3.54E-01 | 0* | 3.54E-01 | 8.49E-02 | 5.69E-07 |
| Use of renewable primary energy, excluding renewable primary energy resources used as raw materials | 2.16E+02 | MJ | 6.44E+00 | 2.52E-02 | 0* | 2.09E+02 | 0* | 2.09E+02 | 4.51E-02 | -8.82E-02 |
| Use of renewable primary energy resources used as raw materials | 1.48E+00 | MJ | 1.48E+00 | 0* | 0* | 0* | 0* | 0* | 0* | 8.22E-04 |
| Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) | 2.17E+02 | MJ | 7.92E+00 | 2.52E-02 | 0* | 2.09E+02 | 0* | 2.09E+02 | 4.51E-02 | -8.73E-02 |
| Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials | 2.19E+03 | MJ | 1.89E+02 | 2.24E+01 | 0* | 1.98E+03 | 0* | 1.98E+03 | 5.00E+00 | -1.05E+01 |
| Use of non-renewable primary energy resources used as raw materials | 4.51E+00 | MJ | 4.51E+00 | 0* | 0* | 0* | 0* | 0* | 0* | 2.69E-06 |
| Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) | 2.20E+03 | MJ | 1.93E+02 | 2.24E+01 | 0* | 1.98E+03 | 0* | 1.98E+03 | 5.00E+00 | -1.05E+01 |

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

(*) 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

LIGHT UP MULTISENSOR DALI DETECTOR



| Total Life Cycle | | | Manufacturing | Distribution | Installation | Use(*) | | | End of Life | Module D |
|--|----------|---------------------|---------------|--------------|--------------|-------------|----|----------|-------------|-----------|
| | | | A1-A3 | A4 | A5 | Total B1-B7 | B2 | B6 | C1-C4 | |
| Use of secondary materials | 5.13E-02 | kg | 5.13E-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 | 2.29E-01 | m³ | 1.01E-01 | 1.48E-04 | 4.36E-04 | 1.26E-01 | 0* | 1.26E-01 | 2.09E-03 | -7.45E-03 |
| Hazardous waste disposed of | 8.14E+01 | kg | 7.76E+01 | 0* | 0* | 3.71E+00 | 0* | 3.71E+00 | 1.45E-01 | -1.27E+01 |
| Non-hazardous waste disposed of | 2.58E+01 | kg | 4.26E+00 | 4.75E-02 | 1.22E-01 | 2.13E+01 | 0* | 2.13E+01 | 1.11E-01 | -2.02E-01 |
| Radioactive waste disposed of | 3.19E-03 | kg | 2.23E-03 | 3.03E-05 | 2.43E-06 | 8.71E-04 | 0* | 8.71E-04 | 6.44E-05 | -6.09E-05 |
| Components for re-use | 0.00E+00 | kg | 0* | 0* | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |
| Materials for recycling | 4.46E-02 | kg | 9.21E-03 | 0* | 0* | 0* | 0* | 0* | 3.54E-02 | 0.00E+00 |
| Materials for energy recovery | 5.00E-09 | Kg | 5.00E-09 | 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 | 2.41E+03 | MJ | 2.01E+02 | 2.24E+01 | 0* | 2.19E+03 | 0* | 2.19E+03 | 5.05E+00 | -1.06E+01 |
| 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(*) | 3.76E-02 | kg of C | 3.76E-02 | 0* | 0* | 0* | 0* | 0* | 0* | 0.00E+00 |

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

(*) 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.

(*) For biogenic carbon storage, the methodology use is 0/0.

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

LIGHT UP MULTISENSOR DALI DETECTOR



| Associated references | Coefficient of extrapolation of environmental indicators | | | | | | |
|---|---|------------------|---------------|--------------|--------------|-----|-------------|
| | | Total life Cycle | Manufacturing | Distribution | Installation | Use | End of life |
| 048573 LIGHT UP MULTISENSOR 3 ZONES DETECTOR | Climate change - total | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Climate change - fossil fuels | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 | 1.0 |
| | Climate change - biogenics | 1.3 | 1.0 | 0.0 | 1.5 | 1.0 | 1.0 |
| | Climate change - land use and land use transformation | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| | Ozone depletion | 1.0 | 1.0 | 1.0 | 1.7 | 1.0 | 1.0 |
| | Acidification (AP) | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Freshwater eutrophication | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 | 1.0 |
| | Marine aquatic eutrophication | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 | 1.0 |
| | Terrestrial eutrophication | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 | 1.0 |
| | Photochemical ozone formation | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 | 1.0 |
| | Depletion of abiotic resources - elements | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 |
| | Depletion of abiotic resources - fossil fuels | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Water requirement | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Emission of fine particles | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Ionizing radiation, human health | 1.0 | 1.0 | 1.0 | 1.7 | 1.0 | 1.0 |
| | Ecotoxicity (fresh water) | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 |
| | Human toxicity, carcinogenic effects | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 |
| | Human toxicity, non-carcinogenic effects | 1.0 | 1.0 | 1.0 | 1.8 | 1.0 | 1.0 |
| | Impacts related to land use/soil quality | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| | Use of renewable primary energy, excluding renewable primary energy resources used as raw materials | 1.0 | 1.0 | 1.0 | 0.8 | 1.0 | 1.0 |
| | Use of renewable primary energy resources used as raw materials | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) | 1.0 | 1.1 | 1.0 | 0.8 | 1.0 | 1.0 |
| | Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Use of non-renewable primary energy resources used as raw materials | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Use of secondary materials | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Use of renewable secondary fuels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Use of non-renewable secondary fuels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Net use of fresh water | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Hazardous waste disposed of | 1.0 | 1.0 | 0.0 | 1.1 | 1.0 | 1.0 |
| | Non-hazardous waste disposed of | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 | 1.0 |
| | Radioactive waste disposed of | 1.0 | 1.0 | 1.0 | 1.7 | 1.0 | 1.0 |
| | Components for re-use | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Materials for recycling | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| | Materials for energy recovery | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Exported energy | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Total use of primary energy during the life cycle | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 |
| | Biogenic carbon content of the product | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Biogenic carbon content of the associated packaging | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |

| | |
|--|--|
| Registration number: LGRP-01731-V01.01-EN | Drafting rules: « PEP-PCR-ed4-EN-2021 09 06 » Supplemented by «PSR-0005-ed3-2023 06 06» |
| Verifier accreditation N°: VH18 | Information and reference documents: www.pep-ecopassport.org |
| Date of issue: 09-2023 | Validity period: 5 years |
| Independent verification of the declaration and data, in compliance with ISO 14025 : 2006 | |
| Internal <input type="checkbox"/> External <input checked="" 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