

Product Environmental Profile

Lighting Management sensors for working areas with natural light



LEGRAND'S ENVIRONMENTAL COMMITMENTS

- Incorporate environmental management into our industrial sites**

Of all Legrand sites worldwide, over 80% are ISO 14001-certified (sites belonging to the Group for more than five years).

- Involve the environment in product design**

Provide our customers with all relevant information (composition, consumption, end of life, etc.).


Reduce the environmental impact of products over their whole life cycle.

- Offer our customers environmentally friendly solutions**

Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.



REFERENCE PRODUCT

Function	Independently manage the opening and closing of a low voltage electrical circuit to 250 V at a maximum current of 8.5 A, by infrared detection of a body through 360 ° and the brightness, according to IEC 60669-2-1 for commercial or similar purposes. This function is provided for 10 years.
Reference Product	
	Cat.No 0 489 32
	LIGHTING MANAGEMENT - TRAFFIC DETECTION - SURFACE MOUNTING - IR - 360 °- DIAMETER: 20 M.

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.



PRODUCTS CONCERNED

The environmental data refers to the following catalog numbers:

Catalogue Numbers
• 0 489 32

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■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It does not contain substances covered by the RoHS Directive (2002/95/EC and its revision 2011/65/EC). It contains none of the 138 candidate list of the REACH regulation dated 19/12/2012.

Total weight of Reference Product		309 g (with unit packaging)			
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	33,2 %	Copper alloys	3,6%	Electronic card	16,8 %
PC-ABS	21,4 %	Steel	0,8%		
PE	3,7 %				
PA	3,5 %				
Various plastics	1,6 %				
SBS	0,8 %			Packaging as % of weight	
PS	0,5 %			Paper (packaging)	14,1 %
Total plastics	64,7 %	Total metals	4,4 %	Total other and packaging	30,8 %

Estimated recycled material content: 14 % by mass.



■ MANUFACTURE

This Reference Product comes from a site 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 780 km by truck from our warehouse to the local point of distribution into the market in Europe. Packaging is compliant with European directive 2004/12/EC concerning packaging and packaging waste. At their end of life the recyclability rate is 100 % (in % of packaging weight).



■ INSTALLATION

Installation components not delivered with the product are not taken into account.



■ USE

Servicing and maintenance:

under normal conditions of use, this type of product requires no servicing or maintenance.

Consumable:

no consumables are necessary to use this type of product.



END OF LIFE

Development teams integrate product end-of-life factors in 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.

• **Elements to process specifically:**

This product enters into the field of application of WEEE (2002/96/EC). It must therefore be processed through local WEEE end-of-life channels. In accordance with the stipulations of this directive, the following components must be extracted and processed via specific channels in compliance with the WEEE Directive 2008/98/EC:

- electronic card > 10 cm² : 52 g
- plastic parts with brominated flame retardant : 66 g

• **End of life channels:**

The sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end-of-life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.

• **Recyclability rate:**

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 87 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life electrical and electronic products.

Separated into:

- plastic materials (excluding packaging) : 59 %
- metal materials (excluding packaging) : 4 %
- other materials (excluding packaging) : 10 %
- packaging (all types of materials) : 14 %



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end-of-life. It is representative from products marketed and used in Europe, in compliance with the local current standards.

The following modelling elements were taken into account:

Manufacture	Unit packaging taken into account. As required by the "PEP ecopassport" programme all transport for the manufacturing of the Reference Product, including materials and components, has been taken into account.
Distribution	Transport between the last Group distribution centre and an average delivery to the sales area.
Installation	Installation components not delivered with the product are not taken into account.
Use	<ul style="list-style-type: none"> • Under normal conditions of use, this type of product requires no servicing or maintenance. • No consumables are necessary to use this type of product. • Product category: active product. • Use scenario: for a 10 years working life, the active product annually consumes 1.2 W 20 % of time and 0.6 W the rest of the time. This modelling duration does not constitute a minimum durability requirement. • Energy model: Europe-EU 27 ; electricity mixte AC, final consumer - 2002
End of life	In view of the data available on the date of creation of the document, and in accordance with the requirements of the PCR of the «PEP ecopassport» programme, transport of the Reference Product by road only once, over a distance of 1000 km, to a processing site at end of life was counted.
Software used	EIME V5 and its database: Legrand_2012_10_31_version_3, made from the database CODDE-2012-07

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ENVIRONMENTAL IMPACTS (continued)

		Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Mandatory indicators	Global warming	4,14E+04	g~CO ₂ eq.	4,12E+03	10 %	2,90E+01	< 1 %	0,00E+00	0 %	3,73E+04	90 %	2,39E+01	< 1 %
	Ozone depletion	9,18E-03	g~CFC-11 eq.	6,49E-04	7 %	2,05E-05	< 1 %	0,00E+00	0 %	8,49E-03	93 %	1,69E-05	< 1 %
	Water eutrophication	3,51E+02	g~PO ₄ ³⁻ eq.	3,51E+02	100 %	4,82E-04	< 1 %	0,00E+00	0 %	3,54E-01	< 1 %	3,98E-04	< 1 %
	Photochemical ozone creation	3,78E+00	g~C ₂ H ₄ eq.	1,44E+00	38 %	2,51E-02	< 1 %	0,00E+00	0 %	2,30E+00	61 %	2,08E-02	< 1 %
	Air acidification	8,71E+00	g~H+ eq.	6,54E-01	8 %	3,69E-03	< 1 %	0,00E+00	0 %	8,05E+00	92 %	3,16E-03	< 1 %
	Total energy depletion	8,26E+02	MJ	7,12E+01	9 %	3,66E-01	< 1 %	0,00E+00	0 %	7,54E+02	91 %	3,02E-01	< 1 %
	Water depletion	1,23E+02	dm ³	2,57E+01	21 %	3,47E-02	< 1 %	0,00E+00	0 %	9,71E+01	79 %	2,87E-02	< 1 %

Optional indicators	Raw material depletion	4,82E-14	year ⁻¹	4,77E-14	99 %	4,99E-19	< 1 %	0,00E+00	0 %	5,03E-16	1 %	4,12E-19	< 1 %
	Air toxicity	1,03E+07	m ³	9,32E+05	9 %	5,45E+03	< 1 %	0,00E+00	0 %	9,33E+06	91 %	4,67E+03	< 1 %
	Water toxicity	1,02E+03	m ³	1,00E+03	98 %	4,03E-03	< 1 %	0,00E+00	0 %	1,66E+01	2 %	3,33E-03	< 1 %
	Hazardous waste production	1,02E-01	kg	9,53E-02	94 %	1,08E-05	< 1 %	0,00E+00	0 %	6,39E-03	6 %	8,90E-06	< 1 %

The environmental impacts of the Reference Product are representative of the products covered by the PEP.

The values of these impacts are valid for the context specified in this document. They must not be used directly to draw up the environmental balance sheet for the installation.

Registration number: LGRP-2015-247-V1-EN	Drafting rule: PCR : PEP-PCR-ed 2.1-FR-2012 12 11 supplemented by PSR : PSR-0005-ed1-FR-2012 12 11
Authorisation number of checker: VH23	Programme information: www.pep-ecopassport.org
Date of issue: 09-2015	Validity period: 4 years
Independent verification of the declaration and data, in accordance with ISO 14025:2006 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
In accordance with ISO 14025:2006 Type III environmental declaration	
The critical review of the PCR was conducted by a panel of experts chaired by J.Chevalier (CSTB)	
The elements of the present PEP cannot be compared with elements from another programme	

