

# Product Environmental Profile

## Wattstopper® - Passive Infrared Fixture Integrated Outdoor Sensor operating at 277 V



### COMPANY OVERVIEW

**• Designed to Be Better – Our Commitment to Sustainability**

At Legrand®, our sustainability commitment translates into greater benefits and tangible value for our customers, business partners, employees, and the broader community.

**• Better Performance**

We provide building solutions to meet many building performance goals from sustainability and energy efficiency to productivity and occupant well being. The right choice in network and electrical infrastructure can play a key role in many facets of building performance. Our products help ensure electrical safety. They offer choice and flexibility in space design. They are designed to reduce installation time and material waste on site. Because we know buildings consume a great deal of energy, we offer a range of products and solutions that reduce energy consumption from lighting to plug load to data centers.

**• Better Solutions**

We offer a wide range of innovative solutions for the building, while constantly evolving our design and development processes to improve the environmental profile of our products. Through active monitoring and research, we serve as an expert resource for market trends and building and product performance standards to keep our customers at the top of their game.

**• Better Operations**

We focus on operational excellence because we believe optimizing the way we manage energy, water and waste is not only good for the environment, it's good for business. As part of the Department of Energy's Better Building, Better Plants Challenge (BBBP) Legrand has reduced its energy intensity by over 30% across 14 sites in the United States in just three years. Integrating sustainability into the way we run our operations makes us more competitive – and a better business partner.



For information on Legrand PEP's and our sustainability initiatives, scan the QR code to be brought to our High Performance Buildings page.



### 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 Legrand 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**

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>	Multi-level light control based on occupancy and daylight detection in an area between 40 ft and 100 ft in diameter for outdoor environments for a period of 10 years.
<b>Reference Product</b>	 <p>Part Number: FSP-211 Passive Infrared Fixture Integrated Outdoor Sensor, operating at 277 V</p>

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.

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### PRODUCTS CONCERNED

The environmental data is representative of the following products operating at 277 V:

FSP-211-x, FSP-211B-x, FSP-221B-x, and FSP-212-x

Where “-x” is any combination of numbers or letters that specify:

- Made in USA
- Mounting style
- Lenses
- Color



### 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/EC.

<b>Total weight of Reference Product (with unit packaging)</b>		<b>107 g</b>			
Plastics as % of weight		Metals as % of weight		Other as % of weight	
Polycarbonate (PC)	<b>26.1%</b>	Steel	<b>1.0%</b>	Printed Circuit Boards	<b>42.1%</b>
Ethylene-Propylene-Diene Monomer (EPDM)	<b>1.0%</b>				
				<b>Packaging as % of weight</b>	
				Cardboard	<b>21.4%</b>
				Paper	<b>4.9%</b>
				Polyethylene	<b>3.5%</b>
<b>Total plastics</b>	<b>27.1%</b>	<b>Total metals</b>	<b>1.0%</b>	<b>Total other and packaging</b>	<b>71.9%</b>

Estimated recycled material content: 18% of weight.



### MANUFACTURING

The Reference Product comes from sites that have received ISO 14001 certification.



### DISTRIBUTION

Products are distributed from logistics centers located to optimize transport efficiency using EPA SmartWay® certified carriers to reduce greenhouse gases emissions. Information on the distance of distribution is not available so the PCR hypothesis for “Intercontinental transport”, 2175 miles (3500 km) by heavy truck, was used. This represents transportation of the Reference Product from our warehouse to the local point of distribution in the North American market.

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### INSTALLATION

No required components, products, parts, nor processes for installation. No electricity is required for installing the Reference Product.



### 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

• **Hazardous waste\* contained in the product:** no hazardous waste  
 (\*) Hazardous waste as defined by European Commission decision 2000/532/EC.

#### Recycling rate:

Calculated using the method described in the IEC/TR 62635 technical report, the recyclability rate of the Reference Product without packaging is estimated as 12%. This value is based on data collected from a technological channel using industrial procedures. It does not pre-validate the effective use of this channel for end-of-life electrical and electronic products.

Separated into:	(% mass of Reference Product without packaging)
- plastic materials (excluding packaging):	1%
- metal materials (excluding packaging):	1%
- other materials (excluding packaging):	10%

Recycling rate of packaging (all types of materials): 60% (% mass of packaging)



### 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 of products marketed and used in North America.

The following modelling elements were taken into account:

<b>Manufacturing</b>	Primary packaging taken into account, including pallet. As required by the PEP ecopassport program, all transport for the manufacturing of the Reference Product, including materials and components, has been taken into account. International transport, as defined by the PCR, was used to take into account transportation from the production site to the final distribution center. The waste generated during manufacturing phase has been taken into account.
<b>Distribution</b>	Transport between the last distribution center and an average delivery to the sales area. The default scenario modelled maximizes the environmental impact.
<b>Installation</b>	The end of life of the packaging (29.2 g) is taken into account at this phase. Transport of packaging to end of life treatment.
<b>Use</b>	<ul style="list-style-type: none"> <li>• Under normal conditions of use, this type of product requires no servicing or maintenance.</li> <li>• No consumables are necessary to use this type of product.</li> <li>• Product category: Other equipment - Category 2, Active product.</li> <li>• Use scenario: Active sensing mode (0.331 W) in continuous operation (100% of the time) for 10 years. Wattage is based on operation at 277 V. This modeling duration does not constitute a minimum durability requirement.</li> <li>• Energy model: Electricity (US) - 2009.</li> </ul>
<b>End of life</b>	The default end of life scenario modeled maximizes the environmental impact.
<b>Software used</b>	EIME V5 and its database "CODDE-2015-04" and the indicators defined in the PCR ed 3 in alignment with the EN15804 standard

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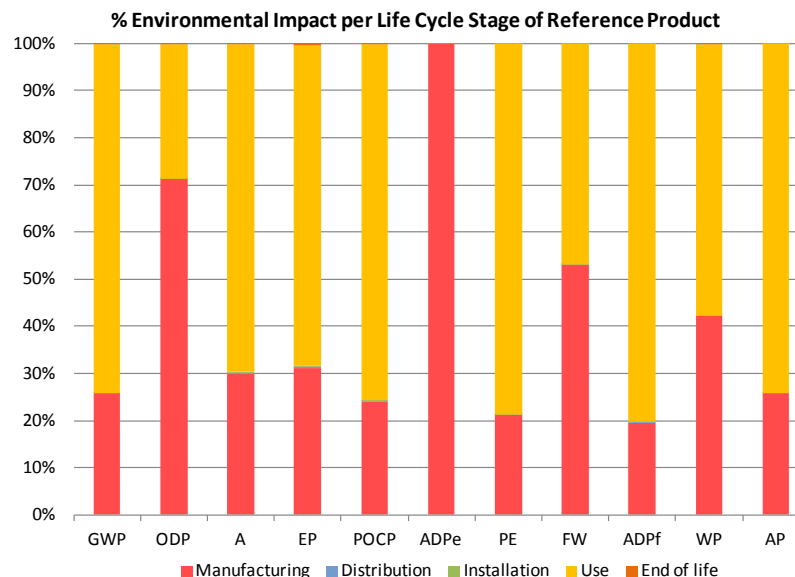
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## ENVIRONMENTAL IMPACTS (continued)

	Total for Life cycle		Raw material and manufacturing		Distribution		Installation		Use		End of life	
	Value	Unit	Value	%	Value	%	Value	%	Value	%	Value	%
<b>Global warming (GWP)</b>	2.72E+01	kg CO <sub>2</sub> eq.	7.01E+00	26%	1.87E-02	<1%	2.38E-02	<1%	2.01E+01	74%	8.01E-02	<1%
<b>Ozone depletion (ODP)</b>	1.28E-06	kg CFC-11 eq.	9.14E-07	71%	3.78E-11	<1%	8.94E-11	<1%	3.64E-07	28%	2.57E-09	<1%
<b>Acidification of soil and water (A)</b>	2.77E-02	kg SO <sub>2</sub> eq.	8.26E-03	30%	8.38E-05	<1%	1.70E-05	<1%	1.92E-02	70%	6.53E-05	<1%
<b>Water eutrophication (EP)</b>	7.53E-03	kg PO <sub>4</sub> <sup>3-</sup> eq.	2.35E-03	31%	1.93E-05	<1%	2.06E-05	<1%	5.11E-03	68%	2.83E-05	<1%
<b>Photochemical ozone creation (POCP)</b>	4.07E-03	kg C <sub>2</sub> H <sub>4</sub> eq.	9.78E-04	24%	5.96E-06	<1%	5.43E-06	<1%	3.08E-03	76%	5.00E-06	<1%
<b>Depletion of abiotic resources - elements (ADPe)</b>	1.82E-03	kg Sb eq.	1.82E-03	100%	7.47E-10	<1%	2.25E-10	<1%	1.97E-07	0%	5.13E-10	<1%
<b>Total use of primary energy (PE)</b>	4.38E+02	MJ	9.34E+01	21%	2.64E-01	<1%	5.41E-02	<1%	3.44E+02	79%	2.71E-01	<1%
<b>Net use of fresh water (FW)</b>	7.58E-02	m <sup>3</sup>	4.03E-02	53%	1.67E-06	<1%	7.93E-06	<1%	3.55E-02	47%	3.72E-05	<1%
<b>Depletion of abiotic resources - fossil fuels (ADPf)</b>	3.96E+02	MJ	7.76E+01	20%	2.62E-01	<1%	5.00E-02	<1%	3.18E+02	80%	2.38E-01	<1%
<b>Water pollution (WP)</b>	1.72E+03	m <sup>3</sup>	7.27E+02	42%	3.07E+00	<1%	3.73E-01	<1%	9.90E+02	57%	3.89E+00	<1%
<b>Air pollution (AP)</b>	2.31E+03	m <sup>3</sup>	5.98E+02	26%	7.65E-01	<1%	7.05E-01	<1%	1.71E+03	74%	1.52E+00	<1%

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website. The environmental impacts of the Reference Product are representative of the products covered by the PEP, which therefore constitute a homogeneous environmental family.



The environmental impact of the Reference Product occurs predominantly during the manufacturing and use phases.

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## ENVIRONMENTAL IMPACTS (continued)

For products other than the Reference Product, the environmental impacts can be determined for each life cycle phase by multiplying the Reference Product impacts by the factors listed below. Values are generally consistent within a life cycle phase for each product.

**Factor Ratio to calculate factor**

- A Wattage of product energy use / Wattage of reference product energy use
- B Mass of product without packaging / Mass of reference product without packaging
- C Mass of product packaging / Mass of reference product packaging
- D Total mass of product with packaging / Total mass of reference product with packaging

Part Number	Manufacturing	Distribution	Installation	Use	End of Life
FSP-211B FSP-221B	0.6*B	D	C	A	D
FSP-212	B	D	C	A	B

Registration number: LGRP-00259-V01.01-EN	Drafting rules: "PCR-ed3-EN-2015 04" Supplemented by "PSR-0005-ed2-EN-2016 03 29"
Verifier's accreditation number: VH08	Information and reference documents: <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
Date of issue: 09-2016	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2010 Internal <input type="checkbox"/> External <input checked="" type="checkbox"/>	
The PCR Review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN).	
The elements of the present PEP cannot be compared with elements from another program.	
Document in compliance with ISO 14025:2010: "Environmental labels and declarations - Type III environmental declarations"	
In compliance with ISO 14040:2006: "Environmental management - LCA - Principles and framework"	
In compliance with ISO 14044:2006: "Environmental management - LCA - Requirements and guidelines"	
In alignment with EN 15804:2012+A1:2013: "Sustainability of construction works - EPD's - Core rules for the product category of construction products"	