

# Product Environmental Profile of luminaires for indoor lighting Light Shed family

Reference product: Light Shed R918



|                                                                                                                                   |                      |                                     |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------|---------------------------------------------------------------------------------------|
| Registration N°                                                                                                                   | IGUZ-00001-V01.01-EN | Drafting rules                      | PCR-ed3-EN-2015 04 02                                                                 |
|                                                                                                                                   |                      | Supplemented by                     | PSR-0014-ed1.0-EN-2018 07 18                                                          |
| Verifier accreditation N°                                                                                                         | VH23                 | Information and reference documents | www.pep-ecopassport.org                                                               |
| Date of issue                                                                                                                     | xxxx                 | Validity period                     | 5 years                                                                               |
| Independent verification of the declaration and data, in compliance with ISO 14025:2010                                           |                      |                                     |                                                                                       |
| Internal                                                                                                                          |                      | External                            | x                                                                                     |
| The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)                                           |                      |                                     |  |
| PEP is compliant with XP C08-100-1:2016<br>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 »       |                      |                                     |                                                                                       |



## General information

### Reference product

Light Shed R918

The product range is covering indoor lighting luminaires for indoor application from the Light Shed range of luminaires. The luminaires are used for the lighting of indoor environments, such as offices, commercial spaces and museums.

### Company information

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### Functional unit

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

### Homogeneous environmental family

The reference product represents Light Shed luminaires family, which differ in terms of power and useful output flux (lumen) of the integrated LED installed.

| Light Shed family  | Unit  | Value for the reference product |
|--------------------|-------|---------------------------------|
| Electrical power   | W     | 47.8                            |
| Useful output flux | Lumen | 6,930                           |

The present PEP declaration is valid for all the products in this homogenous environmental family. The spreadsheet provided as annex shall be used by the PEP user to extrapolate the impact of a product from the Light Shed range, based on technical parameters of the product considered.

The impacts of raw material depletion can be extrapolated to other products in the homogeneous environmental family by applying a rule of proportionality to the mass of the reference product.

## Description of reference product

The reference product is Light Shed R918 luminaire for indoor lighting. Main technical features are described in the table below.

| Information                              | Unit    | Light Shed Family                                        |
|------------------------------------------|---------|----------------------------------------------------------|
| Product code                             | -       | R918                                                     |
| Light source                             | -       | Integrated LED module                                    |
| LED module code                          |         | 279X279 C/112 LED NEUTRAL WHITE                          |
| Power supply                             |         | 54W LT2 + NFC                                            |
| Colour temperature                       | K       | 4,000                                                    |
| Protection index for water and dust (IP) | -       | IP20/43<br>(20 over the false ceiling, 43 from the room) |
| Impact resistance index (IK)             | -       | IK02                                                     |
| Nominal operating voltage                | V       | 220-240                                                  |
| Assigned and declared lifetime           | hours   | 50,000                                                   |
| Luminaries life time in years            | years   | 10                                                       |
| Useful output flux                       | Lumen   | 6,930                                                    |
| Electrical power                         | W       | 47.8                                                     |
| Luminous efficiency                      | Lumen/W | 145                                                      |
| Dimension                                | mm      | 1,200 x 1,200                                            |

Luminaire R918, 1196 x 1196 mm for lay-on installation on modular panels, in 4000K neutral white color. Body made of ABS material derived from 45% recycled materials and screen in 100% recyclable PMMA. Product with high efficiency LED complete with MPO screen for UGR emission <19 L <3000 cd / m<sup>2</sup> > 65 °, compliant with EN 12464-1, for use in environments with use of video terminals. Possibility of installation on plasterboard ceilings using a frame. The electric cables used are made of "halogen free" PVC material.

### Reference flows:

According to the PSR, the functional unit for the study is defined as:

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

Consequently, the reference flow is calculated as:

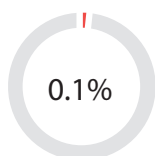
*(1,000/outgoing luminous flux of the analyzed product in lumens) x (50,000/declared product lifetime of the analyzed product in hours)*

The reference factor for the reference product Light Shed R918 corresponds to:

*(1,000/6,930) x (35,000/50,000) = 0.101*

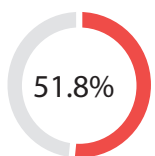


## Constituent materials



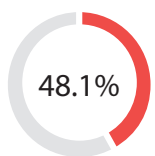
### METALS

|           | kg      | %     |
|-----------|---------|-------|
| Steel     | 0.0076  | 0.1   |
| Aluminium | 0.00080 | < 0.1 |
| Metal     | 0.0084  | 0.1   |



### PLASTICS

|                                       | kg      | %     |
|---------------------------------------|---------|-------|
| Acrylonitrile butadiene styrene (ABS) | 5.8     | 42.6  |
| Polymethyl methacrylate (PMMA)        | 1.2     | 8.8   |
| Polyethylene terephthalate (PET)      | 0.045   | 0.3   |
| Silicone                              | 0.0012  | < 0.1 |
| Nylon                                 | 0.00060 | < 0.1 |
| Plastic                               | 7.05    | 51.8  |



### OTHERS

|                             | kg      | %     |
|-----------------------------|---------|-------|
| Cardboard primary packaging | 5.74    | 42.1  |
| Electronic components       | 0.81    | 6.0   |
| Other primary packaging     | 0.00057 | < 0.1 |
| Others                      | 6.55    | 48.1  |

|                                   |       |      |
|-----------------------------------|-------|------|
| Total including primary packaging | 13.60 | 100  |
| Total without primary packaging   | 7.86  | 57.8 |

The list above includes also materials with a certain amount of recycled content, in order to reduce the impacts linked to production of virgin materials.

In particular:

- the ABS of the main body has 40% of recycled content;
- the external paperboard box of packaging is made of 84% of recycled content;
- the internal paperboard partition is made from 100% recycled material;
- the amount of recycled content of the paper adhesive tape is equal to 65%;
- the amount of recycled content of the LDPE is equal to 100%.



## Manufacture

Product components are manufactured and assembled by iGuzzini S.p.A. in Recanati (Italy) manufacturing site. iGuzzini applies an environmental management system, certified according to ISO 14001:2015 and an energy management system certified according to ISO 50001:2018 (the certificates are available at: <https://www.iguzzini.com/it/certificazioni/>).

In 2021 iGuzzini gained the silver medal in the EcoVadis platform. In the same year, iGuzzini disclosed its sustainability performances within the Fagerhult Group Sustainability Report.

All lighting products manufactured by iGuzzini comply to the European directive "2011/65/EU ROHS 2 - Restriction of dangerous substances in electrical and electronical equipment".



## Distribution

There is no hub for the distribution. Products leaving the production site in Recanati (MC), Italy, are delivered directly to the final clients. The distribution of the final destinations is the following:

| Destination   | Share (%) | Type transport considered |
|---------------|-----------|---------------------------|
| Italy         | 25%       | Local                     |
| France        | 25%       | Intracontinental          |
| Germany       | 25%       | Intracontinental          |
| Great Britain | 25%       | Intracontinental          |



## Installation

Luminaires are provided to the client with the power supply, the fixing elements and the assembly elements, fittings and other electrical connectors needed for installation. Therefore, the installation of the luminaire does not require additional components and the product is easily installed using manual tools. In the installation phase, only the contribution of the end of life (EoL) of the packaging of the final product is included.



## Use

Energy efficient light sources (LED lighting) are integrated (LED module code 279X279 C/112 LED NEUTRAL WHITE, Power supply 54W LT2 + NFC). The use phase consists of electricity use during the whole lifetime of the product. The assigned lifetime of the luminaire is the same as for the integrated LED module (50,000 hours), calculated considering the average annual operating hours by building type, as specified in the PSR-0014-ed1.0-EN-2018 07 18 (Retail = 5,000 hours/year).

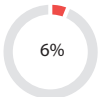
The product is used for indoor lighting, such as offices, commercial spaces or museums. According to the distribution scenario, the use phase is modeled using the average electricity mix of the Countries in which the product is distributed and installed (Italy, France, Germany and Great Britain).

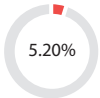
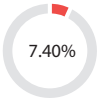
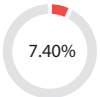


## End of life

The company is affiliated to a WEEE (Waste Electrical and Electronic Equipment) Italian consortium (Ecolight, <https://ecolight.it/>). The product at its end of life is managed as prescribed by the current legislation about EEE waste (Directive 2012/19/EU) and the waste treatment scenarios of the Countries in which the product is distributed. According to the most recent data available, waste treatment scenarios are the following:

| Proportion of luminaire                                                             | Italy WEEE waste scenario (for electronic components) | Modelling assumption                                                                    |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------|
|    | Recycling                                             | Transport (150km) and treatment of waste based on materials contained in the components |
|   | Incineration with energy recovery                     | Transport (150km) and treatment of waste based on materials contained in the components |
|  | Landfill                                              | Transport (150km) and landfilling of materials contained in the components              |
| Proportion of luminaire                                                             | Italy WEEE waste scenario (for LED)                   | Modelling assumption                                                                    |
|  | Recycling                                             | Transport (150km) and treatment of waste based on materials contained in the components |
|  | Incineration with energy recovery                     | Transport (150km) and treatment of waste based on materials contained in the components |
|  | Landfill                                              | Transport (150km) and landfilling of materials contained in the components              |

| Proportion of luminaire                                                           | France WEEE waste scenario           | Modelling assumption                                                                                 |
|-----------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------|
|  | Recycling                            | Transport (1,000km) and treatment of waste based on materials contained in the components            |
|  | Incineration with energy recovery    | Transport (1,000km) and treatment of waste based on materials contained in the components            |
|  | Incineration without energy recovery | Transport (1,000km) and incineration without energy recover of materials contained in the components |
|  | Landfill                             | Transport (1,000km) and landfilling of materials contained in the components                         |

| Proportion of luminaire                                                             | Germany and Great Britain WEEE waste scenario | Modelling assumption                                                                                 |
|-------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------|
|  | Recycling                                     | Transport (1,000km) and treatment of waste based on materials contained in the components            |
|  | Incineration with energy recovery             | Transport (1,000km) and treatment of waste based on materials contained in the components            |
|  | Incineration without energy recovery          | Transport (1,000km) and incineration without energy recover of materials contained in the components |
|  | Landfill                                      | Transport (1,000km) and landfilling of materials contained in the components                         |

In addition, it is worth to mention that the product can be easily disassembled, as the low number of components are assembled using mainly screws and clips. No use of glues or welding is required.



## 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.

Environmental impact assessment of the reference product has been performed using Simapro 9.1.1.1 software. Background datasets have been retrieved from Ecoinvent 3.7 and ELCD 3.2 libraries. The impact indicators and impact models used are the ones indicated by the PCR-ed3-EN-2015 04 02. This environmental declaration has been developed considering an outgoing artificial luminous flux of 1,000 lumens over a reference lifetime of 35,000 hours (Functional Unit).

### Results of mandatory indicators per F.U. (for 1,000 lumens during 35,000 hours) of Light Shed R918 luminaire

| Indicator                                 | Unit                                   | Total/FU |      | Manufacturing |       | Distribution |       | Installation |      | Use      |       | End of Life |      |
|-------------------------------------------|----------------------------------------|----------|------|---------------|-------|--------------|-------|--------------|------|----------|-------|-------------|------|
| Depletion of abiotic resources - elements | kg Sb <sub>eq</sub>                    | 1.12E-03 | 100% | 1.43E-04      | 12.8% | 1.28E-04     | 11.5% | 2.61E-05     | 2.3% | 7.97E-04 | 71.5% | 2.10E-05    | 1.9% |
| Global Warming                            | kg CO <sub>2</sub> eq                  | 9.76E+01 | 100% | 5.58E+00      | 5.7%  | 2.56E+00     | 2.6%  | 6.70E-01     | 0.7% | 8.82E+01 | 90.4% | 5.22E-01    | 0.5% |
| Ozone depletion                           | kg CFC-11 eq                           | 1.44E-05 | 100% | 2.92E-07      | 2.0%  | 4.47E-07     | 3.1%  | 9.19E-08     | 0.6% | 1.35E-05 | 93.7% | 7.16E-08    | 0.5% |
| Photochemical ozone creation              | kg C <sub>2</sub> H <sub>4</sub> eq    | 1.50E-02 | 100% | 1.62E-03      | 10.9% | 3.76E-04     | 2.5%  | 1.09E-04     | 0.7% | 1.28E-02 | 85.4% | 7.21E-05    | 0.5% |
| Acidification of soil and water           | kg SO <sub>2</sub> eq                  | 3.30E-01 | 100% | 2.86E-02      | 8.7%  | 9.59E-03     | 2.9%  | 2.01E-03     | 0.6% | 2.88E-01 | 87.3% | 1.63E-03    | 0.5% |
| Eutrophication                            | kg (PO <sub>4</sub> ) <sup>3-</sup> eq | 2.43E-01 | 100% | 8.24E-03      | 3.4%  | 2.41E-03     | 1.0%  | 7.86E-04     | 0.3% | 2.30E-01 | 94.7% | 1.49E-03    | 0.6% |
| Total use of primary energy               | MJ (lthv)                              | 2.68E+03 | 100% | 1.11E+02      | 4.2%  | 3.93E+01     | 1.5%  | 8.11E+00     | 0.3% | 2.52E+03 | 93.8% | 6.47E+00    | 0.2% |
| Net fresh water use                       | m <sup>3</sup>                         | 2.15E+01 | 100% | 2.17E+00      | 10.1% | 1.38E-01     | 0.6%  | 2.93E-02     | 0.1% | 1.91E+01 | 89.0% | 3.21E-02    | 0.1% |



Results of mandatory indicators at the product level (for 1 luminaire of 6,930 lumens during 50,000 hours) of Light Shed R918 luminaire

| Indicator                                 | Unit                                   | Total/Product |      | Manufacturing |       | Distribution |       | Installation |      | Use      |       | End of Life |      |
|-------------------------------------------|----------------------------------------|---------------|------|---------------|-------|--------------|-------|--------------|------|----------|-------|-------------|------|
| Depletion of abiotic resources - elements | kg Sb <sub>eq</sub>                    | 1.10E-02      | 100% | 1.42E-03      | 12.8% | 1.27E-03     | 11.5% | 2.58E-04     | 2.3% | 7.89E-03 | 71.5% | 2.08E-04    | 1.9% |
| Global Warming                            | kg CO <sub>2</sub> eq                  | 9.66E+02      | 100% | 5.53E+01      | 5.7%  | 2.53E+01     | 2.6%  | 6.63E+00     | 0.7% | 8.74E+02 | 90.4% | 5.17E+00    | 0.5% |
| Ozone depletion                           | kg CFC-11 eq                           | 1.43E-04      | 100% | 2.89E-06      | 2.0%  | 4.42E-06     | 3.1%  | 9.10E-07     | 0.6% | 1.34E-04 | 93.7% | 7.09E-07    | 0.5% |
| Photochemical ozone creation              | kg C <sub>2</sub> H <sub>4</sub> eq    | 1.48E-01      | 100% | 1.61E-02      | 10.9% | 3.72E-03     | 2.5%  | 1.07E-03     | 0.7% | 1.26E-01 | 85.4% | 7.14E-04    | 0.5% |
| Acidification of soil and water           | kg SO <sub>2</sub> eq                  | 3.27E+00      | 100% | 2.83E-01      | 8.7%  | 9.49E-02     | 2.9%  | 1.99E-02     | 0.6% | 2.86E+00 | 87.3% | 1.62E-02    | 0.5% |
| Eutrophication                            | kg (PO <sub>4</sub> ) <sup>3-</sup> eq | 2.40E+00      | 100% | 8.16E-02      | 3.4%  | 2.39E-02     | 1.0%  | 7.79E-03     | 0.3% | 2.27E+00 | 94.7% | 1.47E-02    | 0.6% |
| Total use of primary energy               | MJ (lHV)                               | 2.65E+04      | 100% | 1.10E+03      | 4.2%  | 3.89E+02     | 1.5%  | 8.03E+01     | 0.3% | 2.49E+04 | 93.8% | 6.40E+01    | 0.2% |
| Net fresh water use                       | m <sup>3</sup>                         | 2.13E+02      | 100% | 2.15E+01      | 10.1% | 1.37E+00     | 0.6%  | 2.90E-01     | 0.1% | 1.89E+02 | 89.0% | 3.18E-01    | 0.1% |

Results of mandatory indicators per unit of product (of Light Shed R918 luminaire) – Detail of the use phase with the decomposition of module B (B1-B7) according to EN 15978 and EN 15804.

| Indicator                                 | Unit                                   | Total/product | B1 Use | B2 Maintenance | B3 Repair | B4 Replacement | B5 Refurbishment | B6 Operational energy use | B7 Operational water use |
|-------------------------------------------|----------------------------------------|---------------|--------|----------------|-----------|----------------|------------------|---------------------------|--------------------------|
| Depletion of abiotic resources - elements | kg Sb <sub>eq</sub>                    | 7.89E-03      | -      | -              | -         | -              | -                | 7.89E-03                  | -                        |
| Global Warming                            | kg CO <sub>2</sub> eq                  | 8.74E+02      | -      | -              | -         | -              | -                | 8.74E+02                  | -                        |
| Ozone depletion                           | kg CFC-11 eq                           | 1.34E-04      | -      | -              | -         | -              | -                | 1.34E-04                  | -                        |
| Photochemical ozone creation              | kg C <sub>2</sub> H <sub>4</sub> eq    | 1.26E-01      | -      | -              | -         | -              | -                | 1.26E-01                  | -                        |
| Acidification of soil and water           | kg SO <sub>2</sub> eq                  | 2.86E+00      | -      | -              | -         | -              | -                | 2.86E+00                  | -                        |
| Eutrophication                            | kg (PO <sub>4</sub> ) <sup>3-</sup> eq | 2.27E+00      | -      | -              | -         | -              | -                | 2.27E+00                  | -                        |
| Total use of primary energy               | MJ (lHV)                               | 2.49E+04      | -      | -              | -         | -              | -                | 2.49E+04                  | -                        |
| Net fresh water use                       | m <sup>3</sup>                         | 1.89E+02      | -      | -              | -         | -              | -                | 1.89E+02                  | -                        |



## Extrapolation rules

Extrapolations rules have been calculated following PCR-ed3-EN-2015 04 02 and PSR-0014-ed1.0-EN-2018 07 18. The rules defined shall be applied using the extrapolation coefficients provided in the following tables. The outgoing artificial luminous flux of each product is covered by the PEP intended for the product range.

| Parameter for reference product<br>(Light Shed R918) | Values<br>(Light Shed R918) |
|------------------------------------------------------|-----------------------------|
| Lighting output [lumens]                             | 6,930                       |
| Weight of light source [kg]                          | 0.52                        |
| Weight of luminaire structure [kg]                   | 7.15                        |
| Weight of power equipment [kg]                       | 0.18                        |
| Weight of product including its light source [kg]    | 7.86                        |
| Weight of product including its packaging [kg]       | 13.60                       |
| Power [W]                                            | 47.8                        |

### Extrapolation coefficients

The reported extrapolation coefficients are intended at product level (declared unit) and not at functional unit.

| Products                                               | Manufacturing | Distribution | Installation | Use  | End of Life |
|--------------------------------------------------------|---------------|--------------|--------------|------|-------------|
| R868 - R869 - R870 - R871<br>R872 - R873 - R874 - R875 | 0.45          | 0.25         | 0.28         | 0.49 | 0.23        |
| R896 - R897 - R898 - R899<br>R900 - R901 - R902 - R903 | 0.45          | 0.25         | 0.28         | 0.61 | 0.23        |
| R879 - R880 - R881 - R882                              | 0.43          | 0.38         | 0.58         | 0.53 | 0.23        |
| R883 - R884 - R885 - R886                              | 0.43          | 0.38         | 0.58         | 0.54 | 0.23        |
| R907 - R908 - R909 - R910<br>R911 - R912 - R913 - R914 | 0.43          | 0.38         | 0.58         | 0.69 | 0.23        |
| R890 - R891 - R892 - R893                              | 1             | 1            | 1            | 0.85 | 1           |
| <b>R918</b> - R919 - R920 - R921                       | 1             | 1            | 1            | 1    | 1           |

The following table reports the informations of the products included in the homogeneous enviromental family.

| Product code | Dimensions (mm x mm) | Wattage (W) | Lumen (lm) | Product weight (kg) | Packaging weight (kg) | Structure weight (kg) | Weight of power equipment (kg) | Weight of light source (kg) |
|--------------|----------------------|-------------|------------|---------------------|-----------------------|-----------------------|--------------------------------|-----------------------------|
| R868         | 600x600              | 23,2        | 3290       | 23,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R869         | 600x600              | 23,2        | 2670       | 23,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R870         | 600x600              | 23,2        | 2960       | 23,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R871         | 600x600              | 23,2        | 2550       | 23,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R872         | 600x600              | 23,4        | 3290       | 23,4                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R873         | 600x600              | 23,4        | 2670       | 23,4                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R874         | 600x600              | 23,4        | 2960       | 23,4                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R875         | 600x600              | 23,4        | 2550       | 23,4                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R896         | 600x600              | 29,3        | 3990       | 29,3                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R897         | 600x600              | 29,3        | 3240       | 29,3                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R898         | 600x600              | 29,3        | 3590       | 29,3                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R899         | 600x600              | 29,3        | 3090       | 29,3                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R900         | 600x600              | 29,2        | 3990       | 29,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R901         | 600x600              | 29,2        | 3240       | 29,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R902         | 600x600              | 29,2        | 3590       | 29,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R903         | 600x600              | 29,2        | 3090       | 29,2                | 1,59                  | 1,50                  | 0,15                           | 0,18                        |
| R879         | 1200x300             | 25,4        | 3420       | 25,4                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R880         | 1200x300             | 25,4        | 2780       | 25,4                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R881         | 1200x300             | 25,4        | 3080       | 25,4                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R882         | 1200x300             | 25,4        | 2650       | 25,4                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R883         | 1200x300             | 25,7        | 3420       | 25,7                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R884         | 1200x300             | 25,7        | 2780       | 25,7                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R885         | 1200x300             | 25,7        | 3080       | 25,7                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R886         | 1200x300             | 25,7        | 2650       | 25,7                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R907         | 1200x300             | 33,0        | 4335       | 33,0                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R908         | 1200x300             | 33,0        | 3530       | 33,0                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R909         | 1200x300             | 33,0        | 3910       | 33,0                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R910         | 1200x300             | 33,0        | 3370       | 33,0                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R911         | 1200x300             | 33,2        | 4335       | 33,2                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R912         | 1200x300             | 33,2        | 3530       | 33,2                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R913         | 1200x300             | 33,2        | 3910       | 33,2                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R914         | 1200x300             | 33,2        | 3370       | 33,2                | 3,35                  | 1,56                  | 0,15                           | 0,13                        |
| R890         | 1200X1200            | 40,4        | 6000       | 40,4                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |
| R891         | 1200X1200            | 40,4        | 4880       | 40,4                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |
| R892         | 1200X1200            | 40,4        | 5400       | 40,4                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |
| R893         | 1200X1200            | 40,4        | 4650       | 40,4                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |

| Product code | Dimensions (mm x mm) | Wattage (W) | Lumen (lm) | Product weight (kg) | Packaging weight (kg) | Structure weight (kg) | Weight of power equipment (kg) | Weight of light source (kg) |
|--------------|----------------------|-------------|------------|---------------------|-----------------------|-----------------------|--------------------------------|-----------------------------|
| R918         | 1200X1200            | 47,8        | 6930       | 47,8                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |
| R919         | 1200X1200            | 47,8        | 5630       | 47,8                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |
| R920         | 1200X1200            | 47,8        | 6230       | 47,8                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |
| R921         | 1200X1200            | 47,8        | 5370       | 47,8                | 5,74                  | 7,15                  | 0,18                           | 0,52                        |

The extrapolation coefficients calculation at the functional unit level shall be taken into account with the following formula:

$$\text{Extrapolation coefficient at the product level} \times \left( \frac{\text{Lighting output of reference product (lumens)}}{\text{Lighting output of concerned product (lumens)}} \right)$$