

## Product Environmental Profile of luminaires for outdoor lighting - Alley Testapalo family

Reference product: UD54



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		Supplemented by	PSR-0014-ed1.0-EN2018 07 18
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Independent verification of the declaration and data, in compliance with ISO 14025: 2006

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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»





## General information

### Company information:

iGuzzini illuminazione S.p.A via Mariano Guzzini, 37 62019, Recanati, Italy

Web Site available at: <https://www.iguzzini.com/it/>

Legal contact: Cristiano Venturini (info.hq@iguzzini.com)

### Reference product:

“Alley Testapalo UD54 (14x3)”

The assessed products range covers outdoor lighting luminaires from the “Alley Testapalo” family. The luminaires are used for professional lighting of outdoor environments, mainly for street and urban applications.

The main technical features of the reference product UD54 are described in the table below.

	Unit	Alley Testapalo family
Product code	-	UD54
Light source	-	Integrated LED module
LED module code	-	W/W BIN1 CEM /CONN
Power supply	-	40W PRE 87500830
Color temperature	K	3000
Protection index for water and dust (IP)	-	IP66
Impact resistance index (IK)	-	IK08
Nominal operating voltage	V	220-240
Assigned lifetime	Hours	100.000
Declaration lifetime of the LED module	Hours	100.000
Useful output flux	Lumen	3788
Electrical power	W	40
Luminous efficiency	Lumen/W	94,7
Dimension	mm	438 (diameter)

#### Functional unit:

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

The reference flow is calculated as:

$(1,000/\text{outgoing luminous flux of the analyzed product in lumens}) \times (35,000/\text{declared product lifetime of the analyzed product in hours})$

The outgoing luminous flux is calculated taking in account the variation of the power (and therefore of the lumens, due to the light management system) during the use of the luminaries.

Consequently, the reference flow factor for the reference product Alley Testapalo UD54 corresponds to:

$$(1,000/2984) \times (35,000/100,000) = 0,117$$

#### Homogeneous environmental family:

The reference product represents the “Alley Testapalo” luminaires family, which differs in terms of power and useful output flux (lumen) of the integrated LED installed in the luminaries.

The range of variations for the products in the same family are the following:

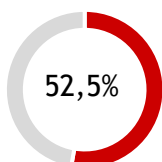
Alley Testapalo family	Unit	Value for the reference product	Minimum value in product range	Maximum value in product range
Electrical power	W	40	14	60
Useful output flux	Lumen	3788	1917	5573
Weight	Kg	10,43	10,23	10,47

The present PEP declaration is valid for all the products in the described homogenous environmental family. The spreadsheet provided as annex shall be used by the PEP user to extrapolate the impact of the other products from the Alley Testapalo family, based on the technical parameters of the considered product, as requested by the PSR.



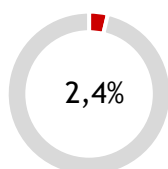
## Constituent materials

### METALS



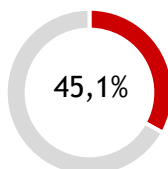
	kg	%
Aluminum	5,96	50,1
Steel	0,25	2,1
Brass	0,036	0,3

### PLASTICS



	kg	%
Silicon product	0,113	1,0
Polymethyl methacrylate (PMMA)	0,113	0,9
Polyamide (PA)	0,026	0,2
Other (PC, PPS, PE ...)	0,034	0,3

### OTHER MATERIALS



	kg	%
Electronical components	2,67	22,5
Glass	0,89	7,5
Chemicals	0,28	2,4
Others	0,045	0,4
Cardboard - Packaging	1,47	12,3
Plastic (PE) - Packaging	0,0011	<0,1

Total reference product	10,43	87,7%
Total packaging	1,47	12,3%
<b>TOTAL</b>	<b>11,90</b>	<b>100%</b>

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 main body of the luminaire is made of 100% of recycled diecast aluminum;
- The paperboard box of packaging is made of 100% of recycled content;
- The plastic used for packaging is made of 100% of recycled content;
- The amount of recycled content of the paper adhesive tape is equal to 100%.



## Manufacture

The product components are manufactured or assembled by iGuzzini S.p.A. in Shanghai (China) manufacturing site. iGuzzini applies an environmental management system, certified according to ISO 14001:2015 (the certificate is 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

After the manufacturing phase in the Shanghai plant, the products are sent to the iGuzzini S.p.A. Italy plant (Recanati) from where they are delivered directly to the final clients. The distribution of the final destinations is the following:

Destination	Share (%)	Type transport considered
Italy	45%	Local
Spain	2%	Intracontinental
France	3%	Intracontinental
Germany	20%	Intracontinental
Great Britain	20%	Intracontinental
Ivory Coast	3%	Intercontinental
Kenya	2%	Intercontinental
China	5%	Intercontinental



## Installation

The 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. The installation of the luminaire require only the use of a lifting platform. In this phase the end of life (EoL) of the packaging of the final product is considered as well.



## Use

Energy efficient light sources (LED lighting) are integrated in the luminaires. 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: 100,000 hours.

The Alley Testapalo family luminaires are equipped with a light management system (named “Midnight profile”) capable of reducing electricity consumption by switching the power (from  $P_{max}$  to 70% of  $P_{max}$ ) during the use.

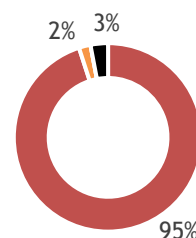


## End of life

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:

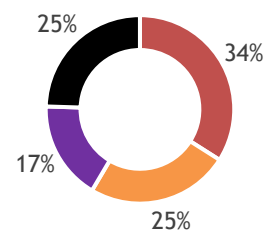
### Italy:

WEEE	Value	Modelling assumptions
Recycling	95%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	2%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	0%	Transport (150km) and treatment of waste based on materials contained in the components
Landfill	3%	Transport (150km) and treatment of waste based on materials contained in the components



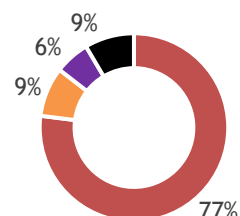
### Spain:

WEEE	Value	Modelling assumptions
Recycling	34%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	24,5%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	17%	Transport (150km) and treatment of waste based on materials contained in the components
Landfill	24,5%	Transport (150km) and treatment of waste based on materials contained in the components



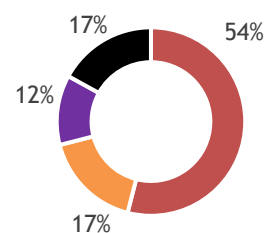
### France:

WEEE	Value	Modelling assumptions
Recycling	77%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	8,5%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	6%	Transport (150km) and treatment of waste based on materials contained in the components
Landfill	8,5%	Transport (150km) and treatment of waste based on materials contained in the components



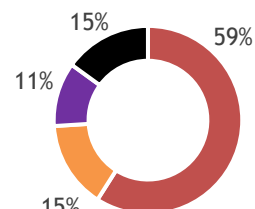
### Germany:

WEEE	Value	Modelling assumptions
Recycling	54%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	17%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	12%	Transport (150km) and treatment of waste based on materials contained in the components
Landfill	17%	Transport (150km) and treatment of waste based on materials contained in the components



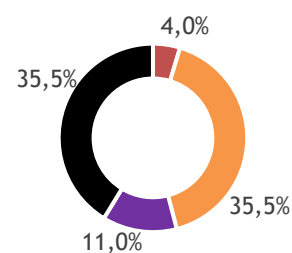
### Great Britain:

WEEE	Value	Modelling assumptions
Recycling	59%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	15%	Transport (150km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	11%	Transport (150km) and treatment of waste based on materials contained in the components
Landfill	15%	Transport (150km) and treatment of waste based on materials contained in the components



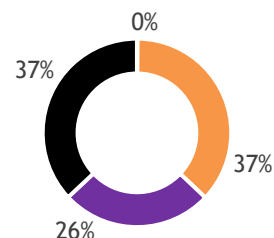
### Ivory Coast:

WEEE	Value	Modelling assumptions
Recycling	4%	Transport (1000km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	35,5%	Transport (1000km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	25%	Transport (1000km) and treatment of waste based on materials contained in the components
Landfill	35,5%	Transport (1000km) and treatment of waste based on materials contained in the components



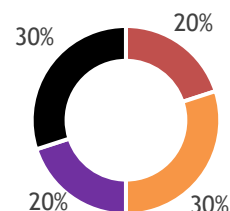
### Kenya:

WEEE	Value	Modelling assumptions
Recycling	<1%	Transport (1000km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	37%	Transport (1000km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	26%	Transport (1000km) and treatment of waste based on materials contained in the components
Landfill	37%	Transport (1000km) and treatment of waste based on materials contained in the components



### China:

WEEE	Value	Modelling assumptions
Recycling	20%	Transport (1000km) and treatment of waste based on materials contained in the components
Incineration (with energy recovery)	30%	Transport (1000km) and treatment of waste based on materials contained in the components
Incineration (without energy recovery)	20%	Transport (1000km) and treatment of waste based on materials contained in the components
Landfill	30%	Transport (1000km) and treatment of waste based on materials contained in the components





## Environmental impacts

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

The environmental impacts assessment of the reference product has been performed using Simapro 9.2.0.2 software. Background datasets have been retrieved from Ecoinvent 3.7.1 libraries. The impact indicators and impact models used are the ones indicated by the PCR-ed4-EN-2021 09 14. 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 Alley Testapalo UD54 luminaire:**

Impact category	Unit	Total	Manufacturing	Distribution	Installation	Use	EoL
Climate change	kg CO <sub>2</sub> eq	2,25E+02	2,05E+01	3,01E+00	1,48E-01	2,00E+02	8,73E-01
Ozone depletion	kg CFC-11 eq	1,57E-04	1,43E-04	6,98E-07	3,24E-09	1,38E-05	7,70E-08
Photochemical ozone formation	kg NMVOC eq	5,22E-01	6,11E-02	2,00E-01	7,81E-05	5,22E+01	2,56E-02
Acidification	mol H <sup>+</sup> eq	1,68E+00	1,36E-01	1,49E-02	6,24E-05	4,44E-01	1,24E-03
Eutrophication, freshwater	kg P eq	1,34E-01	1,58E-02	5,57E-08	9,43E-07	8,53E-06	1,90E-08
Eutrophication, marine	kg N eq	2,11E-01	1,96E-02	1,12E-08	7,61E-05	1,86E-06	1,26E-08
Eutrophication, terrestrial	mol N eq	4,57E+00	1,97E-01	9,99E-10	1,96E-04	6,07E-08	4,27E-10
Water use	m <sup>3</sup> depriv.	7,55E+01	4,73E+00	1,47E-02	3,08E-03	1,53E+00	1,74E-03
Abiotic resource depletion, fossils	MJ	3,17E+03	1,68E+02	6,74E-05	2,11E-01	1,18E-01	2,25E-04
Abiotic resource depletion, minerals and metals	kg Sb eq	7,50E-04	4,78E-04	4,98E-03	1,47E-08	1,86E-01	6,23E-04
Climate change - Fossil	kg CO <sub>2</sub> eq	2,15E+02	2,03E+01	5,46E-02	7,50E-03	4,32E+00	3,78E-03
Climate change - Biogenic	kg CO <sub>2</sub> eq	9,82E+00	2,36E-01	2,27E+01	1,41E-01	2,94E+03	1,62E+01
Climate change - Land use and LU change	kg CO <sub>2</sub> eq	1,64E-01	1,34E-02	7,22E+00	2,73E-06	9,64E+02	1,57E+00

**Results of mandatory indicators per unit of product (declared unit, 3788 lumens during 100,000 hours) of Alley Testapalo UD54 luminaire:**

Impact category	Unit	Total	Manufacturing	Distribution	Installation	Use	EoL
Climate change	kg CO <sub>2</sub> eq	1,92E+03	1,75E+02	2,57E+01	1,27E+00	1,71E+03	7,46E+00
Ozone depletion	kg CFC-11 eq	1,34E-03	1,22E-03	5,96E-06	2,77E-08	1,18E-04	6,58E-07
Photochemical ozone formation	kg NMVOC eq	4,46E+00	5,22E-01	1,28E-01	6,68E-04	3,80E+00	1,06E-02
Acidification	mol H <sup>+</sup> eq	1,44E+01	1,16E+00	1,26E-01	5,33E-04	1,31E+01	1,49E-02
Eutrophication, freshwater	kg P eq	1,15E+00	1,35E-01	5,76E-04	8,06E-06	1,01E+00	1,93E-03
Eutrophication, marine	kg N eq	1,81E+00	1,68E-01	4,26E-02	6,51E-04	1,59E+00	5,33E-03
Eutrophication, terrestrial	mol N eq	3,19E+04	6,43E+03	4,67E-01	1,68E-03	3,69E+01	3,23E-02
Water use	m <sup>3</sup> depriv.	6,45E+02	4,04E+01	1,75E+00	2,63E-02	6,02E+02	8,52E-01
Abiotic resource depletion, fossils	MJ	2,71E+04	1,44E+03	3,72E+02	1,80E+00	2,53E+04	3,59E+01
Abiotic resource depletion, minerals and metals	kg Sb eq	6,41E-03	4,09E-03	7,76E-06	1,26E-07	2,31E-03	6,36E-06
Climate change - Fossil	kg CO <sub>2</sub> eq	1,83E+03	1,73E+02	2,57E+01	6,41E-02	1,63E+03	6,36E+00
Climate change - Biogenic	kg CO <sub>2</sub> eq	8,39E+01	2,02E+00	6,07E-03	1,20E+00	7,96E+01	1,10E+00
Climate change - Land use and LU change	kg CO <sub>2</sub> eq	1,40E+00	1,14E-01	1,92E-03	2,33E-05	1,29E+00	1,70E-03

**Results of mandatory indicators per unit of product (of Alley Testapalo UD54 luminaire) - Detail of the use phase with the decomposition of module B (B1-B7) according to EN 15978 and EN 15804**

Impact category	Unit	Total	B1	B2	B3	B4	B5	B6	B7
Climate change	kg CO <sub>2</sub> eq	1,71E+03	-	-	-	-	-	1,71E+03	-
Ozone depletion	kg CFC-11 eq	1,18E-04	-	-	-	-	-	1,18E-04	-
Photochemical ozone formation	kg NMVOC eq	3,80E+00	-	-	-	-	-	3,80E+00	-
Acidification	mol H <sup>+</sup> eq	1,31E+01	-	-	-	-	-	1,31E+01	-
Eutrophication, freshwater	kg P eq	1,01E+00	-	-	-	-	-	1,01E+00	-
Eutrophication, marine	kg N eq	1,59E+00	-	-	-	-	-	1,59E+00	-
Eutrophication, terrestrial	mol N eq	3,69E+01	-	-	-	-	-	3,69E+01	-
Water use	m <sup>3</sup> depriv.	6,02E+02	-	-	-	-	-	6,02E+02	-
Abiotic resource depletion, fossils	MJ	2,53E+04	-	-	-	-	-	2,53E+04	-
Abiotic resource depletion, minerals and metals	kg Sb eq	2,31E-03	-	-	-	-	-	2,31E-03	-
Climate change - Fossil	kg CO <sub>2</sub> eq	1,63E+03	-	-	-	-	-	1,63E+03	-
Climate change - Biogenic	kg CO <sub>2</sub> eq	7,96E+01	-	-	-	-	-	7,96E+01	-
Climate change - Land use and LU change	kg CO <sub>2</sub> eq	1,29E+00	-	-	-	-	-	1,29E+00	-

Within the determination of the impacts of the manufacturing, installation, use and end of life the choice of the dataset relating to electricity consumption fell on low voltage energy (230 V) for all the geographical areas considered in the study. Furthermore, energy mixes were used for each country.

**Results of mandatory inventory flows indicators per F.U. (for 1,000 lumens during 35,000 hours) of Tesatapalo UD54 luminaire:**

Indicators	Unit	Value
Renewable primary energy (without raw material)	MJ	6,00E+02
Renewable primary energy (raw material)	MJ	8,82E+00
Total use of renewable primary energy	MJ	6,09E+02
Non renewable primary energy (without raw material)	MJ	3,21E+03
Non renewable primary energy (raw material)	MJ	8,87E+01
Total use of non-renewable primary energy	MJ	3,29E+03
Use of secondary materials	kg	7,52E-01
Use of renewable secondary fuels	MJ	-
Use of non-renewable secondary fuels	MJ	-
Net use of fresh water	m <sup>3</sup>	3,17E-02
Hazardous waste disposed	kg	2,75E-01
Non-hazardous waste disposed	kg	7,51E-02
Radioactive waste disposed	kg	-
Components for reuse	kg	-
Materials for recycling	kg	*
Materials for energy recovery	kg	*
Exported energy	MJ	-
Biogenic carbon content of the product	kg	-
Biogenic carbon content of the associated packaging	kg	-

*The use of the symbol \* indicates that the value depends on the country where the WEEE is disposed*

Results of mandatory inventory flows indicators per unit of product (declared unit, 3788 lumens during 100,000 hours) of Alley Testapalo UD54 luminaire:

Indicators	Unit	Value
Renewable primary energy (without raw material)	MJ	5,13E+03
Renewable primary energy (raw material)	MJ	7,54E+01
Total use of renewable primary energy	MJ	5,20E+03
Non renewable primary energy (without raw material)	MJ	2,74E+04
Non renewable primary energy (raw material)	MJ	7,58E+02
Total use of non-renewable primary energy	MJ	2,82E+04
Use of secondary materials	kg	6,43E+00
Use of renewable secondary fuels	MJ	-
Use of non-renewable secondary fuels	MJ	-
Net use of fresh water	m <sup>3</sup>	2,71E-01
Hazardous waste disposed	kg	2,35E+00
Non-hazardous waste disposed	kg	6,42E-01
Radioactive waste disposed	kg	-
Components for reuse	kg	-
Materials for recycling	kg	*
Materials for energy recovery	kg	*
Exported energy	MJ	-
Biogenic carbon content of the product	kg	-
Biogenic carbon content of the associated packaging	kg	-

*The use of the symbol \* indicates that the value depends on the country where the WEEE is disposed*



## Extrapolation rules

Extrapolations rules have been calculated following PCR-ed4-EN-2021 09 14 and PSR-0014-ed1.0-EN-2018 07 18. The defined rules shall be applied using the Extrapolation rules file provided in the following tables.

Parameter	Value for reference product (Alley Testapalo UD54)
Lighting output [lumens]	3788
Weight of light source [kg]	0,051
Weight of luminaire structure [kg]	10,007
Weight of power equipment [kg]	0,294
Weight of light management system [kg]	0,078
Weight of product including its light source [kg]	10,4
Weight of product including its packaging [kg]	11,9
Power [W]	40

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

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

### Extrapolation coefficients

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

Product code	Manufacturing	Distribution	Installation	Use	EoL
UD03	0,982	0,982	1,000	0,440	0,979
UD43	0,983	0,983	1,000	0,425	0,981
UD07	0,982	0,982	1,000	0,440	0,979
UD47	0,983	0,983	1,000	0,425	0,981
UC99	0,982	0,982	1,000	0,443	0,979
UD39	0,983	0,983	1,000	0,425	0,981
UD15	0,982	0,982	1,000	0,363	0,979
UD55	0,983	0,983	1,000	0,378	0,981
UD19	0,982	0,982	1,000	0,363	0,979
UD59	0,983	0,983	1,000	0,378	0,981
UD11	0,982	0,982	1,000	0,363	0,979
UD51	0,983	0,983	1,000	0,350	0,981
UD30	0,998	0,998	1,000	0,390	0,998
UD31	0,998	0,998	1,000	0,473	0,998
UD32	0,998	0,998	1,000	0,645	0,998
UD70	1,000	1,000	1,000	0,395	1,000
UD71	1,000	1,000	1,000	0,480	1,000
UD72	1,000	1,000	1,000	0,658	1,000
UD34	0,998	0,998	1,000	0,390	0,998
UD35	0,998	0,998	1,000	0,473	0,998
UD36	0,998	0,998	1,000	0,648	0,998
UD74	1,000	1,000	1,000	0,395	1,000
UD75	1,000	1,000	1,000	0,480	1,000
UD76	1,000	1,000	1,000	0,658	1,000
UD26	0,998	0,998	1,000	0,390	0,998
UD27	0,998	0,998	1,000	0,473	0,998
UD28	0,998	0,998	1,000	0,648	0,998
UD66	1,000	1,000	1,000	0,395	1,000
UD67	1,000	1,000	1,000	0,480	1,000
UD68	1,000	1,000	1,000	0,658	1,000
UD04	0,998	0,998	1,000	0,475	0,998
UD05	0,998	0,998	1,000	0,575	0,998
UD06	0,998	0,998	1,000	0,793	0,998
UD44	1,000	1,000	1,000	0,480	1,000
UD45	1,000	1,000	1,000	0,583	1,000
UD46	1,000	1,000	1,000	0,803	1,000
UD08	0,998	0,998	1,000	0,475	0,998
UD09	0,998	0,998	1,000	0,575	0,998
UD10	0,998	0,998	1,000	0,790	0,998
UD48	1,000	1,000	1,000	0,480	1,000
UD49	1,000	1,000	1,000	0,583	1,000

UD50	1,000	1,000	1,000	0,803	1,000
UD00	0,998	0,998	1,000	0,475	0,998
UD01	0,998	0,998	1,000	0,575	0,998
UD02	0,998	0,998	1,000	0,790	0,998
UD40	1,000	1,000	1,000	0,480	1,000
UD41	1,000	1,000	1,000	0,583	1,000
UD42	1,000	1,000	1,000	0,803	1,000
UD16	0,998	0,998	1,000	0,413	0,998
UD17	0,998	0,998	1,000	0,498	0,998
UD18	0,998	0,998	1,000	0,673	0,998
UD56	1,000	1,000	1,000	0,418	1,000
UD57	1,000	1,000	1,000	0,500	1,000
UD58	1,000	1,000	1,000	0,680	1,000
UD20	0,998	0,998	1,000	0,413	0,998
UD21	0,998	0,998	1,000	0,495	0,998
UD22	0,998	0,998	1,000	0,673	0,998
UD60	1,000	1,000	1,000	0,418	1,000
UD61	1,000	1,000	1,000	0,500	1,000
UD62	1,000	1,000	1,000	0,680	1,000
UD12	0,998	0,998	1,000	0,413	0,998
UD13	0,998	0,998	1,000	0,498	0,998
UD14	0,998	0,998	1,000	0,673	0,998
UD52	1,000	1,000	1,000	0,418	1,000
UD53	1,000	1,000	1,000	0,500	1,000
<b>UD54</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>
UD23	1,002	1,002	1,000	0,803	1,002
UD24	1,002	1,002	1,000	0,973	1,002
UD63	1,003	1,003	1,000	0,823	1,004
UD64	1,003	1,003	1,000	1,500	1,004
UD37	1,002	1,002	1,000	0,763	1,002
UD38	1,002	1,002	1,000	0,923	1,002
UD77	1,003	1,003	1,000	0,783	1,004
UD78	1,003	1,003	1,000	0,953	1,004
UD29	1,002	1,002	1,000	0,345	1,002
UD69	0,983	0,983	1,000	0,353	0,981
UD33	0,982	0,982	1,000	0,343	0,979
UD73	0,983	0,983	1,000	0,353	0,981
UD25	0,982	0,982	1,000	0,343	0,979
UD65	0,983	0,983	1,000	0,353	0,981

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

Product code	Wattage (W)	Lumen (lm)	Product weight (kg)	Packaging weight (kg)	Structure weight (kg)	Weight of power equipment (kg)	Weight of light source (kg)	Weight of light management system (kg)
UD03	17,6	1975	11,68	1,47	9,856	0,210	0,066	0,078
UD43	17	1975	11,7	1,47	9,792	0,294	0,066	0,078
UD07	17,6	2044	11,68	1,47	9,856	0,210	0,066	0,078
UD47	17	2044	11,7	1,47	9,792	0,294	0,066	0,078
UC99	17,7	2037	11,68	1,47	9,856	0,210	0,066	0,078
UD39	17	2037	11,7	1,47	9,792	0,294	0,066	0,078
UD15	14,5	1925	11,68	1,47	9,918	0,148	0,066	0,078
UD55	15,1	1925	11,7	1,47	9,852	0,234	0,066	0,078
UD19	14,5	1983	11,68	1,47	9,918	0,148	0,066	0,078
UD59	15,1	1983	11,7	1,47	9,852	0,234	0,066	0,078
UD11	14,5	1970	11,68	1,47	9,918	0,148	0,066	0,078
UD51	14	1970	11,7	1,47	9,852	0,234	0,066	0,078
UD30	15,6	2270	11,88	1,47	10,092	0,204	0,036	0,078
UD31	18,9	2718	11,88	1,47	10,092	0,204	0,036	0,078
UD32	25,8	3618	11,88	1,47	10,092	0,204	0,036	0,078
UD70	15,8	2270	11,9	1,47	10,022	0,294	0,036	0,078
UD71	19,2	2718	11,9	1,47	10,022	0,294	0,036	0,078
UD72	26,3	3618	11,9	1,47	10,022	0,294	0,036	0,078
UD34	15,6	2320	11,88	1,47	10,092	0,204	0,036	0,078
UD35	18,9	2788	11,88	1,47	10,092	0,204	0,036	0,078
UD36	25,9	3689	11,88	1,47	10,092	0,204	0,036	0,078
UD74	15,8	2320	11,9	1,47	10,022	0,294	0,036	0,078
UD75	19,2	2788	11,9	1,47	10,022	0,294	0,036	0,078
UD76	26,3	3689	11,9	1,47	10,022	0,294	0,036	0,078
UD26	15,6	2340	11,88	1,47	10,092	0,204	0,036	0,078
UD27	18,9	2803	11,88	1,47	10,092	0,204	0,036	0,078
UD28	25,9	3710	11,88	1,47	10,092	0,204	0,036	0,078
UD66	15,8	2340	11,9	1,47	10,022	0,294	0,036	0,078
UD67	19,2	2803	11,9	1,47	10,022	0,294	0,036	0,078
UD68	26,3	3710	11,9	1,47	10,022	0,294	0,036	0,078
UD04	19	2350	11,88	1,47	10,077	0,204	0,051	0,078
UD05	23	2817	11,88	1,47	10,077	0,204	0,051	0,078
UD06	31,7	3756	11,88	1,47	10,077	0,204	0,051	0,078
UD44	19,2	2350	11,9	1,47	10,007	0,294	0,051	0,078
UD45	23,3	2817	11,9	1,47	10,007	0,294	0,051	0,078
UD46	32,1	3756	11,9	1,47	10,007	0,294	0,051	0,078
UD08	19	2427	11,88	1,47	10,077	0,204	0,051	0,078
UD09	23	2910	11,88	1,47	10,077	0,204	0,051	0,078
UD10	31,6	3874	11,88	1,47	10,077	0,204	0,051	0,078
UD48	19,2	2427	11,9	1,47	10,007	0,294	0,051	0,078

UD49	23,3	2910	11,9	1,47	10,007	0,294	0,051	0,078
UD50	32,1	3874	11,9	1,47	10,007	0,294	0,051	0,078
UD00	19	2432	11,88	1,47	10,077	0,204	0,051	0,078
UD01	23	2919	11,88	1,47	10,077	0,204	0,051	0,078
UD02	31,6	3873	11,88	1,47	10,077	0,204	0,051	0,078
UD40	19,2	2432	11,9	1,47	10,007	0,294	0,051	0,078
UD41	23,3	2919	11,9	1,47	10,007	0,294	0,051	0,078
UD42	32,1	3873	11,9	1,47	10,007	0,294	0,051	0,078
UD16	16,5	2323	11,88	1,47	10,077	0,204	0,051	0,078
UD17	19,9	2784	11,88	1,47	10,077	0,204	0,051	0,078
UD18	26,9	3693	11,88	1,47	10,077	0,204	0,051	0,078
UD56	16,7	2323	11,9	1,47	10,007	0,294	0,051	0,078
UD57	20	2784	11,9	1,47	10,007	0,294	0,051	0,078
UD58	27,2	3693	11,9	1,47	10,007	0,294	0,051	0,078
UD20	16,5	2404	11,88	1,47	10,077	0,204	0,051	0,078
UD21	19,8	2874	11,88	1,47	10,077	0,204	0,051	0,078
UD22	26,9	3814	11,88	1,47	10,077	0,204	0,051	0,078
UD60	16,7	2404	11,9	1,47	10,007	0,294	0,051	0,078
UD61	20	2874	11,9	1,47	10,007	0,294	0,051	0,078
UD62	27,2	3814	11,9	1,47	10,007	0,294	0,051	0,078
UD12	16,5	2387	11,88	1,47	10,077	0,204	0,051	0,078
UD13	19,9	2856	11,88	1,47	10,077	0,204	0,051	0,078
UD14	26,9	3788	11,88	1,47	10,077	0,204	0,051	0,078
UD52	16,7	2387	11,9	1,47	10,007	0,294	0,051	0,078
UD53	20	2856	11,9	1,47	10,007	0,294	0,051	0,078
<b>UD54</b>	<b>40</b>	<b>3788</b>	<b>11,9</b>	<b>1,47</b>	<b>10,007</b>	<b>0,294</b>	<b>0,051</b>	<b>0,078</b>
UD23	32,1	4660	11,92	1,47	10,029	0,232	0,111	0,078
UD24	38,9	5573	11,92	1,47	10,029	0,232	0,111	0,078
UD63	32,9	4660	11,94	1,47	9,978	0,303	0,111	0,078
UD64	60	5573	11,94	1,47	9,978	0,303	0,111	0,078
UD37	30,5	4619	11,92	1,47	10,078	0,232	0,062	0,078
UD38	36,9	5530	11,92	1,47	10,078	0,232	0,062	0,078
UD77	31,3	4619	11,94	1,47	10,027	0,303	0,062	0,078
UD78	38,1	5530	11,94	1,47	10,027	0,303	0,062	0,078
UD29	13,8	1917	11,92	1,47	10,162	0,148	0,062	0,078
UD69	14,1	1917	11,7	1,47	9,897	0,234	0,021	0,078
UD33	13,7	1967	11,68	1,47	9,963	0,148	0,021	0,078
UD73	14,1	1967	11,7	1,47	9,897	0,234	0,021	0,078
UD25	13,7	1955	11,68	1,47	9,963	0,148	0,021	0,078
UD65	14,1	1955	11,7	1,47	9,897	0,234	0,021	0,078