ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Philips ClearWay gen2

BGP307
Signify N.V.

EPD HUB
Publishing date 2024-02-14

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Signify N.V.
Address	High Tech Campus 48, 5656 AE Eindhoven, The Netherlands
Contact details	sustainability@signify.com
Website	https://www.signify.com/global

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Electrical product
Category of EPD	Pre-verified EPD
Scope of the EPD	Cradle to gate with options, A4-B7, and modules C1-C4, D
EPD author	Sustainability Signify
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☑ Internal certification ☐External verification

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of lighting products may not be comparable if they do not comply with EN 15804 and if they are not compared in a lighting context.

PRODUCT

Product name	Philips ClearWay gen2
Additional labels	BGP307 LED35-4S/730 II DM50 48/60S
Product reference	910925868035
Place of production	Poland
Period for data	2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	%

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of 3500 lumens over 100000 hours
Declared unit mass	5.989 kg
GWP-fossil, A1-A3 (kgCO2e)	1.03E+02
GWP-total, A1-A3 (kgCO2e)	1.02E+02
Secondary material, inputs (%)	5.83
Secondary material, outputs (%)	50.9
Total energy use, A1-A3 (kWh)	308.0
Total water use, A1-A3 (m3e)	4.91E-01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Signify is the world leader in lighting for professionals, consumers and lighting for the Internet of Things. Our energy efficient lighting products, systems and services enable our customers to enjoy a superior quality of light, and make people's lives safer and more comfortable, businesses more productive and cities more liveable.

For more information, please visit: https://www.signify.com/global

PRODUCT DESCRIPTION

ClearWay Gen2 enables you to enjoy the benefits of LED technology for urban lighting right from the start. This new second generation of the luminaire builds on the strengths of its predecessor and is designed to further minimize your Total Cost of Ownership. ClearWay Gen2 significantly improves the most important aspects of the street lighting experience compared to conventional urban lighting. Ideal for new streets and for renovating existing installations, this affordable range of urban ClearWay lighting solutions combines clean design, high-quality light with significant energy and maintenance savings. In short, ClearWay Gen2 means good quality light with all the added benefits of LED - energy savings and long lifetime. Offering more benefits, yet packaged in a thinner and lighter design, which makes it easier to install.

For more information, please visit
https://www.lighting.philips.com/link/BGP307/fam/aa/en

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	65.31	APAC , EU
Minerals	25.69	EU
Fossil materials	8.99	APAC , EU
Bio-based materials	0	Not applicable

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.235

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 Product
Mass per declared unit	5.989 kg
Functional unit	1 unit of 3500 lumens over 100000 hours
Reference service life	100000 hours

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	MNR	MNR	MNR	MNR	MNR	x	MNR	MNR	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, electricity, and waste formed in the production processes at Signify's manufacturing facilities are included in this stage.

The product is made of metals, plastics, and electronic components. All components are transported to Signify's production facility, where the main manufacturing processes primarily are associated with assembly. The finished product is packaged with polyethylene, cardboard, and/or paper as packaging material before being sent to customers. Manufacturing loss, ancillaries and wastes are calculated according to the data that each manufacturing site is sharing with Signify. The total annual amount of waste in kg is allocated to the total annual production in kg at the specific manufacturing site responsible for the production of the studied luminaire.

Thus, it is possible to allocate it according to the weight of the product analysed in this study. Some of the wastes are due to ancillary materials used during manufacturing while the rest is due to material losses.

TRANSPORT AND INSTALLATION (A4-A5)

Transport distances were calculated on the base of the supplier location and manufacturing location and then made a cumulative group choosing the conservative scenario. Environmental impacts from installation include waste packaging materials (A5). The impacts of energy consumption and the used ancillary materials during installation are considered negligible.

PRODUCT USE AND MAINTENANCE (B1-B7)

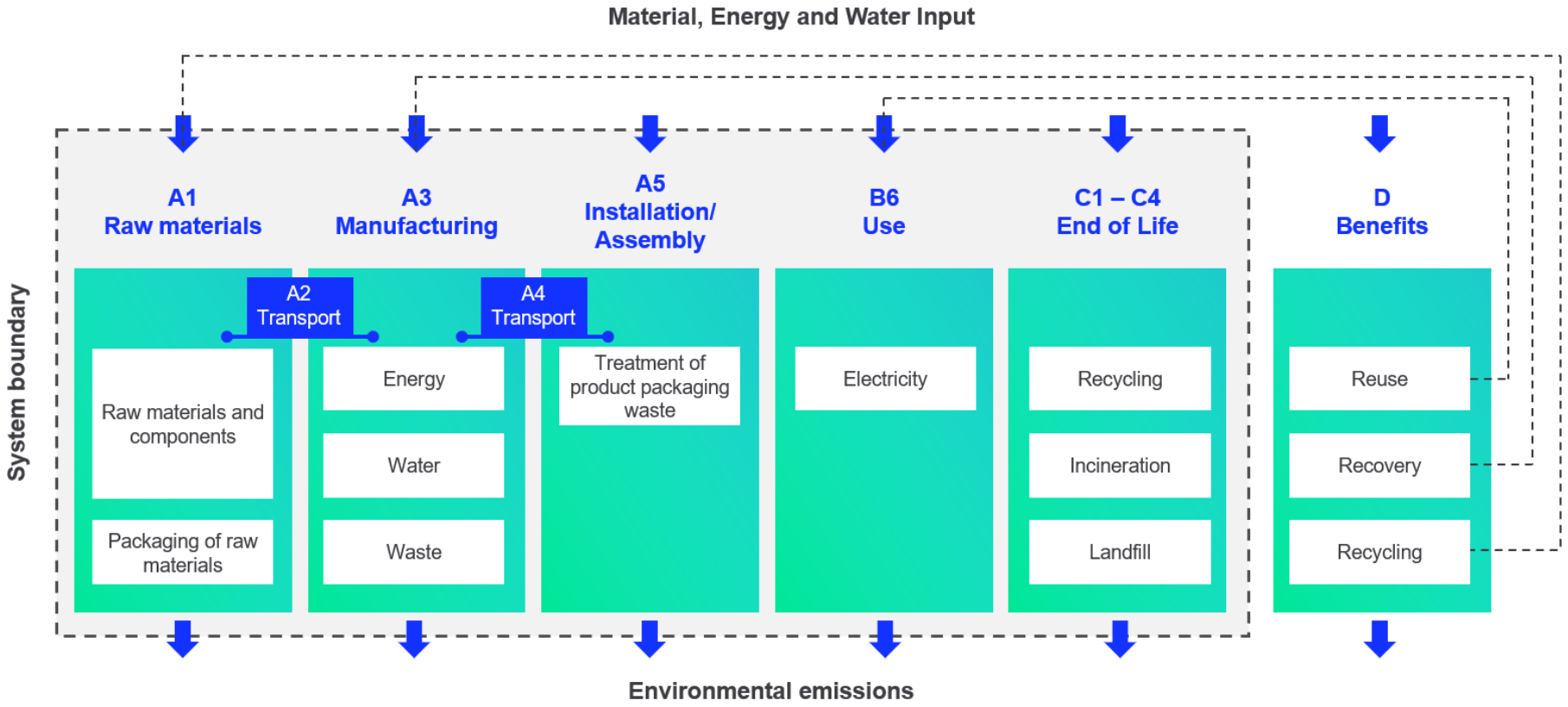
During the use phase, the product consumes electricity from Europe's electricity grid mix (B6). The total power consumption of the reference product is calculated as follows: Wattage x Reference lifetime = kWh consumed throughout the entire use phase B6.

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy and natural resources in demolition process is assumed to be negligible. It is assumed that the waste is collected separately and transported to the waste treatment centre. Transportation distance to treatment is assumed as 150 km and the transportation method is assumed to be lorry (C2). According to EN 50693:2019, the sequence of treatment operations occurring to the product shall include de-pollution, fractions separation and preparation (dismantling, crushing, shredding, sorting), recycling, other material recovery, energy recovery and disposal. In this study, the default values from table G.4 of EN 50693 is used for treating materials in different waste treatment methods. Due to the material and energy recovery potential of parts in the lighting system, the end-of-life product is converted into recycled raw materials, while the energy recovered from incineration displaces electricity and heat

production (D). The benefits and loads of incineration and recycling are included in Module D.

SYSTEM BOUNDARY



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, ancillary materials, energy & water consumption, material loss and waste generation at the manufacturing site are attributed to the bill of materials of the products, therefore, they are allocated by partitioning the quantities on the base of the total production in kg throughout the year. Thus, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	No allocation
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

This EPD is created with a most conservative scenario in A1-A3 in terms of material composition.

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable

This EPD is product and factory specific and does not contain average calculations. It is created with a most conservative scenario in A1-A3 in terms of material composition.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. EcoInvent 3.8 database was used as the source of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	1.00E+02	1.12E+00	2.52E-02	1.02E+02	1.12E+00	8.91E-01	MNR	MNR	MNR	MNR	MNR	8.52E+02	MNR	MNR	7.65E-02	2.73E-01	3.24E-01	-4.43E+01
GWP – fossil	kg CO_2e	1.01E+02	1.12E+00	8.68E-01	1.03E+02	1.12E+00	4.38E-02	MNR	MNR	MNR	MNR	MNR	8.50E+02	MNR	MNR	7.65E-02	2.73E-01	3.24E-01	-4.43E+01
GWP – biogenic	kg CO_2e	-3.84E-01	0.00E+00	-8.47E-01	-1.23E+00	4.35E-04	8.47E-01	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	0.00E+00	0.00E+00	-4.78E-03
GWP – LULUC	kg CO_2e	1.44E-01	4.62E-04	4.67E-03	1.49E-01	4.15E-04	7.79E-06	MNR	MNR	MNR	MNR	MNR	1.99E+00	MNR	MNR	2.82E-05	9.49E-05	7.60E-05	-3.32E-03
Ozone depletion pot.	kg CFC_{-11}e	4.05E-06	2.55E-07	9.83E-08	4.40E-06	2.59E-07	2.26E-09	MNR	MNR	MNR	MNR	MNR	4.31E-05	MNR	MNR	1.76E-08	7.55E-09	8.15E-09	-1.20E-06
Acidification potential	mol H^+e	7.14E-01	8.47E-03	3.87E-03	7.26E-01	4.76E-03	1.80E-04	MNR	MNR	MNR	MNR	MNR	4.85E+00	MNR	MNR	3.24E-04	7.73E-04	3.71E-04	-4.44E-01
EP-freshwater[2)]	kg Pe	4.36E-03	8.60E-06	4.06E-05	4.41E-03	9.20E-06	2.37E-07	MNR	MNR	MNR	MNR	MNR	9.00E-02	MNR	MNR	6.26E-07	2.90E-06	4.25E-06	-2.77E-03
EP-marine	kg Ne	1.05E-01	2.30E-03	1.71E-03	1.09E-01	1.41E-03	7.66E-05	MNR	MNR	MNR	MNR	MNR	6.44E-01	MNR	MNR	9.63E-05	1.78E-04	8.96E-04	-4.93E-02
EP-terrestrial	mol Ne	1.16E+00	2.54E-02	1.09E-02	1.20E+00	1.56E-02	7.94E-04	MNR	MNR	MNR	MNR	MNR	7.32E+00	MNR	MNR	1.06E-03	2.02E-03	1.17E-03	-5.67E-01
POCP ("smog")[3)]	kg NMVOCe	3.41E-01	7.43E-03	3.13E-03	3.52E-01	4.99E-03	1.98E-04	MNR	MNR	MNR	MNR	MNR	2.00E+00	MNR	MNR	3.40E-04	5.46E-04	4.73E-04	-1.64E-01
ADP-minerals & metals[4)]	kg Sbe	2.50E-03	2.51E-06	4.75E-06	2.51E-03	2.64E-06	7.40E-08	MNR	MNR	MNR	MNR	MNR	7.93E-03	MNR	MNR	1.79E-07	6.94E-06	1.55E-07	-1.94E-04
ADP-fossil resources	MJ	1.01E+03	1.66E+01	1.19E+01	1.04E+03	1.69E+01	1.77E-01	MNR	MNR	MNR	MNR	MNR	1.81E+04	MNR	MNR	1.15E+00	8.46E-01	7.86E-01	-4.33E+02
Water use[5)]	m^3e depr.	2.04E+01	7.16E-02	4.05E-01	2.09E+01	7.55E-02	4.15E-02	MNR	MNR	MNR	MNR	MNR	4.94E+02	MNR	MNR	5.14E-03	2.17E-02	4.09E-02	-2.85E+00

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	7.55E-06	1.19E-07	7.08E-08	7.74E-06	1.30E-07	1.65E-09	MNR	MNR	MNR	MNR	MNR	1.59E-05	MNR	MNR	8.82E-09	1.01E-08	6.46E-09	-2.38E-06
Ionizing radiation[6)]	kBq U235e	3.71E+00	7.86E-02	3.46E-02	3.82E+00	8.04E-02	6.34E-04	MNR	MNR	MNR	MNR	MNR	4.90E+02	MNR	MNR	5.47E-03	5.10E-03	4.22E-03	-2.59E+00

Ecotoxicity (freshwater)	CTUe	3.43E+03	1.45E+01	3.24E+01	3.48E+03	1.52E+01	1.19E+00	MNR	MNR	MNR	MNR	MNR	1.23E+04	MNR	MNR	1.03E+00	3.96E+00	3.07E+02	-8.00E+02
Human toxicity, cancer	CTUh	1.30E-07	4.08E-10	6.19E-10	1.31E-07	3.73E-10	5.58E-11	MNR	MNR	MNR	MNR	MNR	4.03E-07	MNR	MNR	2.54E-11	1.23E-10	3.29E-10	1.86E-09
Human tox. non-cancer	CTUh	2.77E-06	1.40E-08	1.08E-08	2.79E-06	1.50E-08	2.34E-09	MNR	MNR	MNR	MNR	MNR	1.32E-05	MNR	MNR	1.02E-09	5.18E-09	7.90E-09	-8.28E-07
SQP[7)]	-	3.01E+02	1.74E+01	2.75E+01	3.46E+02	1.95E+01	9.72E-02	MNR	MNR	MNR	MNR	MNR	3.27E+03	MNR	MNR	1.32E+00	1.54E+00	1.23E+00	-7.96E+01

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	7.59E+01	1.79E-01	8.94E+00	8.51E+01	1.90E-01	5.73E-03	MNR	MNR	MNR	MNR	MNR	3.68E+03	MNR	MNR	1.29E-02	1.19E-01	3.30E-02	-5.60E+00
Renew. PER as material	MJ	3.48E+00	0.00E+00	7.46E+00	1.09E+01	0.00E+00	-7.46E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renew. PER	MJ	7.94E+01	1.79E-01	1.64E+01	9.60E+01	1.90E-01	-7.45E+00	MNR	MNR	MNR	MNR	MNR	3.68E+03	MNR	MNR	1.29E-02	1.19E-01	3.30E-02	-5.60E+00
Non-re. PER as energy	MJ	9.94E+02	1.66E+01	1.12E+01	1.02E+03	1.69E+01	1.77E-01	MNR	MNR	MNR	MNR	MNR	1.80E+04	MNR	MNR	1.15E+00	8.46E-01	7.86E-01	-4.33E+02
Non-re. PER as material	MJ	1.05E+01	0.00E+00	5.07E-01	1.10E+01	0.00E+00	-5.07E-01	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	-1.88E+00	-1.88E+00	0.00E+00
Total use of non-re. PER	MJ	1.00E+03	1.66E+01	1.17E+01	1.03E+03	1.69E+01	-3.30E-01	MNR	MNR	MNR	MNR	MNR	1.80E+04	MNR	MNR	1.15E+00	-1.03E+00	-1.09E+00	-4.33E+02
Secondary materials	kg	3.49E-01	4.90E-03	5.53E-01	9.07E-01	4.69E-03	2.10E-04	MNR	MNR	MNR	MNR	MNR	1.86E+00	MNR	MNR	3.19E-04	8.32E-04	1.80E-03	1.82E+00
Renew. secondary fuels	MJ	6.44E-02	4.38E-05	3.95E-02	1.04E-01	4.73E-05	3.37E-06	MNR	MNR	MNR	MNR	MNR	1.51E-02	MNR	MNR	3.22E-06	4.21E-05	1.41E-05	-7.01E-04
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	m^3	4.79E-01	2.04E-03	9.63E-03	4.91E-01	2.19E-03	6.96E-04	MNR	MNR	MNR	MNR	MNR	1.56E+01	MNR	MNR	1.49E-04	7.08E-04	5.13E-04	-1.32E-01

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D

Hazardous waste	kg	1.82E+01	2.20E-02	4.63E-02	1.83E+01	2.24E-02	1.19E-03	MNR	MNR	MNR	MNR	MNR	6.49E+01	MNR	MNR	1.52E-03	5.97E-03	3.45E-03	-6.99E+00
Non-hazardous waste	kg	1.63E+02	3.43E-01	8.34E-01	1.64E+02	3.68E-01	5.65E-01	MNR	MNR	MNR	MNR	MNR	4.11E+03	MNR	MNR	2.50E-02	3.28E-01	2.26E+00	-1.26E+02
Radioactive waste	kg	1.81E-03	1.11E-04	2.05E-05	1.94E-03	1.13E-04	3.00E-07	MNR	MNR	MNR	MNR	MNR	1.32E-01	MNR	MNR	7.69E-06	3.54E-06	0.00E+00	-9.53E-04

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	3.05E+00	0.00E+00	0.00E+00
Materials for energy rec	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	1.85E-01	1.85E-01	0.00E+00	0.00E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	1.91E+00	0.00E+00	0.00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	9.77E+01	1.11E+00	8.96E-01	9.97E+01	1.11E+00	4.28E-02	MNR	MNR	MNR	MNR	MNR	8.41E+02	MNR	MNR	7.57E-02	2.72E-01	6.79E-01	-4.34E+01
Ozone depletion Pot.	kg CFC_{-11}e	3.55E-06	2.02E-07	8.30E-08	3.84E-06	2.05E-07	1.97E-09	MNR	MNR	MNR	MNR	MNR	3.74E-05	MNR	MNR	1.39E-08	6.12E-09	6.54E-09	-1.02E-06
Acidification	kg SO_2e	6.03E-01	6.68E-03	2.85E-03	6.12E-01	3.70E-03	1.31E-04	MNR	MNR	MNR	MNR	MNR	4.12E+00	MNR	MNR	2.52E-04	6.19E-04	2.89E-04	-3.83E-01
Eutrophication	kg PO_4^3e	1.75E-01	1.12E-03	1.98E-03	1.78E-01	8.42E-04	9.79E-05	MNR	MNR	MNR	MNR	MNR	3.17E+00	MNR	MNR	5.73E-05	2.09E-04	2.30E-03	-1.08E-01

POCP (“smog”)	kg C_2H_4e	3.57E-02	2.15E-04	2.33E-04	3.61E-02	1.44E-04	4.03E-06	MNR	MNR	MNR	MNR	MNR	1.68E-01	MNR	MNR	9.83E-06	2.31E-05	9.84E-05	-1.90E-02
ADP-elements	kg Sbe	2.48E-03	2.43E-06	4.20E-06	2.49E-03	2.55E-06	5.82E-08	MNR	MNR	MNR	MNR	MNR	7.92E-03	MNR	MNR	1.74E-07	6.93E-06	1.46E-07	-1.90E-04
ADP-fossil	MJ	1.01E+03	1.66E+01	1.18E+01	1.04E+03	1.69E+01	1.77E-01	MNR	MNR	MNR	MNR	MNR	1.80E+04	MNR	MNR	1.15E+00	8.46E-01	7.85E-01	-4.33E+02

APPENDIX (EPD HUB ALIGNED)

This section represents the scaling method for the **B6 module**, following the PEP EcoPassport PSR for luminaries (PSR-0014-ed2.0-EN-2023 07 13). The GWP results were scaled from a refernce variant of a product family, based on various light management scenarios and power inputs of the luminaires within the same product familiy

To calculate the Scaled Impact (*SI*), we have followed the below methods:

1. Calculate the power scaling factor (PSF), which is the ratio of the power input of the variant in questions P_{in} and the power input of the base variant P_{base}.

$$PSF = \frac{P_{in}}{P_{base}}$$

2. Calculate the Total Scaling factor by multiplying the PSF by the control scaling factor (CSF), where the CSF is determined according the relevant control factor scenario (e.g. if the luminaire has a presence detection system). The presented controls factors values in Table A1 are based on BS EN 15193-1:2017. Please refer to this publication or contact Signify directly for more information.

$$TSF = PSF * CSF$$

Table A1: Light management function (PEP EcoPassport aligned)

Scenario	Abbrev.	CSF
No control	NC	1
Daylight dependency factor	DD	0.75
Presence sensing	PS	0.75
Daylight dependency and presence sensing	DD+PS	0.55

3. Lastly, the GWP of the base variant is then scaled by the TSF.

$$Scaled\ Impact = GWP_{case} * TSF$$

Table A2 Scaled GWP per scaling factor (EPD Hub aligned)

Configuration	Flux [lm]	Power [W]	Efficacy [lm/W]	PSF	Total Scaling Factor (TSF)				Scaled Impacts (GWP100 B6 - kg CO2eq.)			
					NC	DD	PS	DD+PS	NC	DD	PS	DD+PS
BGP307 LED10-4S/722	870.0	8.8	98.9	0.409	0.409	0.307	0.307	0.225	348.5	261.6	261.6	191.7
BGP307 LED12-4S/722	1044.0	10.4	100.4	0.484	0.484	0.363	0.363	0.266	412.4	309.3	309.3	226.6
BGP307 LED14-4S/722	1218.0	11.4	106.8	0.53	0.53	0.398	0.398	0.292	451.6	339.1	339.1	248.8
BGP307 LED16-4S/722	1392.0	13.0	107.1	0.605	0.605	0.454	0.454	0.333	515.5	386.8	386.8	283.7
BGP307 LED18-4S/722	1566.0	14.6	107.3	0.679	0.679	0.509	0.509	0.373	578.5	433.7	433.7	317.8
BGP307 LED30-4S/722	2610.0	23.0	113.5	1.07	1.07	0.802	0.802	0.589	911.6	683.3	683.3	501.8
BGP307 LED35-4S/722	3045.0	27.5	110.7	1.279	1.279	0.959	0.959	0.703	1089.7	817.1	817.1	599.0
BGP307 LED40-4S/722	3480.0	31.5	110.5	1.465	1.465	1.099	1.099	0.806	1248.2	936.3	936.3	686.7
BGP307 LED45-4S/722	3915.0	36.0	108.8	1.674	1.674	1.256	1.256	0.921	1426.2	1070.1	1070.1	784.7
BGP307 LED54-4S/722	4698.0	39.5	118.9	1.837	1.837	1.378	1.378	1.01	1565.1	1174.1	1174.1	860.5
BGP307 LED69-4S/722	6090.0	51.0	119.4	2.372	2.372	1.779	1.779	1.305	2020.9	1515.7	1515.7	1111.9
BGP307 LED84-4S/722	7224.0	64.0	112.9	2.977	2.977	2.233	2.233	1.637	2536.4	1902.5	1902.5	1394.7

BGP307 LED8-4S/722	696.0	7.1	98.0	0.33	0.33	0.247	0.247	0.182	281.2	210.4	210.4	155.1
BGP307 LED99-4S/722	8500.0	77.0	110.4	3.581	3.581	2.686	2.686	1.97	3051.0	2288.5	2288.5	1678.4
BGP307 LED10-4S/727	870.0	7.9	110.1	0.367	0.367	0.275	0.275	0.202	312.7	234.3	234.3	172.1
BGP307 LED109-4S/727	9350.0	76.0	123.0	3.535	3.535	2.651	2.651	1.944	3011.8	2258.7	2258.7	1656.3
BGP307 LED12-4S/727	1044.0	9.4	111.1	0.437	0.437	0.328	0.328	0.24	372.3	279.5	279.5	204.5
BGP307 LED14-4S/727	1218.0	10.2	119.4	0.474	0.474	0.355	0.355	0.261	403.8	302.5	302.5	222.4
BGP307 LED16-4S/727	1392.0	11.6	120.0	0.54	0.54	0.405	0.405	0.297	460.1	345.1	345.1	253.0
BGP307 LED18-4S/727	1566.0	13.2	118.6	0.614	0.614	0.461	0.461	0.338	523.1	392.8	392.8	288.0
BGP307 LED25-4S/727	2175.0	18.6	116.9	0.865	0.865	0.649	0.649	0.476	737.0	552.9	552.9	405.6
BGP307 LED30-4S/727	2610.0	20.5	127.3	0.953	0.953	0.715	0.715	0.524	812.0	609.2	609.2	446.4
BGP307 LED35-4S/727	3045.0	24.0	126.9	1.116	1.116	0.837	0.837	0.614	950.8	713.1	713.1	523.1
BGP307 LED40-4S/727	3480.0	28.0	124.3	1.302	1.302	0.977	0.977	0.716	1109.3	832.4	832.4	610.0
BGP307 LED45-4S/727	3915.0	31.5	124.3	1.465	1.465	1.099	1.099	0.806	1248.2	936.3	936.3	686.7
BGP307 LED54-4S/727	4698.0	39.0	120.5	1.814	1.814	1.361	1.361	0.998	1545.5	1159.6	1159.6	850.3
BGP307 LED69-4S/727	6090.0	45.5	133.8	2.116	2.116	1.587	1.587	1.164	1802.8	1352.1	1352.1	991.7
BGP307 LED84-4S/727	7224.0	56.0	129.0	2.605	2.605	1.954	1.954	1.433	2219.5	1664.8	1664.8	1220.9
BGP307 LED8-4S/727	704.0	6.5	108.3	0.302	0.302	0.226	0.226	0.166	257.3	192.6	192.6	141.4
BGP307 LED99-4S/727	8600.0	68.0	126.5	3.163	3.163	2.372	2.372	1.74	2694.9	2020.9	2020.9	1482.5
BGP307 LED10-4S/730	870.0	7.1	122.5	0.33	0.33	0.247	0.247	0.182	281.2	210.4	210.4	155.1
BGP307 LED109-4S/730	9460.0	67.0	141.2	3.116	3.116	2.337	2.337	1.714	2654.8	1991.1	1991.1	1460.3
BGP307 LED120-4S/730	10200.0	74.0	137.8	3.442	3.442	2.582	2.582	1.893	2932.6	2199.9	2199.9	1612.8
BGP307 LED12-4S/730	1044.0	8.4	124.3	0.391	0.391	0.293	0.293	0.215	333.1	249.6	249.6	183.2
BGP307 LED14-4S/730	1232.0	9.4	131.1	0.437	0.437	0.328	0.328	0.24	372.3	279.5	279.5	204.5
BGP307 LED16-4S/730	1392.0	10.6	131.3	0.493	0.493	0.37	0.37	0.271	420.0	315.2	315.2	230.9

BGP307 LED18-4S/730	1566.0	11.6	135.0	0.54	0.54	0.405	0.405	0.297	460.1	345.1	345.1	253.0
BGP307 LED25-4S/730	2175.0	16.4	132.6	0.763	0.763	0.572	0.572	0.42	650.1	487.3	487.3	357.8
BGP307 LED30-4S/730	2610.0	20.0	130.5	0.93	0.93	0.698	0.698	0.512	792.4	594.7	594.7	436.2
BGP307 LED35-4S/730 II DM50 48/60S	3045.0	21.5	141.6	1.0	1.0	0.75	0.75	0.55	852.0	639.0	639.0	468.6
BGP307 LED40-4S/730	3480.0	25.0	139.2	1.163	1.163	0.872	0.872	0.64	990.9	742.9	742.9	545.3
BGP307 LED45-4S/730	3915.0	28.0	139.8	1.302	1.302	0.977	0.977	0.716	1109.3	832.4	832.4	610.0
BGP307 LED54-4S/730	4698.0	34.5	136.2	1.605	1.605	1.204	1.204	0.883	1367.5	1025.8	1025.8	752.3
BGP307 LED69-4S/730	6090.0	40.5	150.4	1.884	1.884	1.413	1.413	1.036	1605.2	1203.9	1203.9	882.7
BGP307 LED84-4S/730	7308.0	50.0	146.2	2.326	2.326	1.744	1.744	1.279	1981.8	1485.9	1485.9	1089.7
BGP307 LED8-4S/730	704.0	5.9	119.3	0.274	0.274	0.206	0.206	0.151	233.4	175.5	175.5	128.7
BGP307 LED99-4S/730	8600.0	60.0	143.3	2.791	2.791	2.093	2.093	1.535	2377.9	1783.2	1783.2	1307.8
BGP307 LED10-4S/740	880.0	6.8	129.4	0.316	0.316	0.237	0.237	0.174	269.2	201.9	201.9	148.2
BGP307 LED109-4S/740	9460.0	62.0	152.6	2.884	2.884	2.163	2.163	1.586	2457.2	1842.9	1842.9	1351.3
BGP307 LED120-4S/740	10200.0	69.0	147.8	3.209	3.209	2.407	2.407	1.765	2734.1	2050.8	2050.8	1503.8
BGP307 LED12-4S/740	1044.0	7.9	132.2	0.367	0.367	0.275	0.275	0.202	312.7	234.3	234.3	172.1
BGP307 LED130-4S/740	11050.0	76.0	145.4	3.535	3.535	2.651	2.651	1.944	3011.8	2258.7	2258.7	1656.3
BGP307 LED14-4S/740	1232.0	8.9	138.4	0.414	0.414	0.31	0.31	0.228	352.7	264.1	264.1	194.3
BGP307 LED16-4S/740	1408.0	10.0	140.8	0.465	0.465	0.349	0.349	0.256	396.2	297.3	297.3	218.1
BGP307 LED18-4S/740	1566.0	11.0	142.4	0.512	0.512	0.384	0.384	0.282	436.2	327.2	327.2	240.3
BGP307 LED25-4S/740	2175.0	15.4	141.2	0.716	0.716	0.537	0.537	0.394	610.0	457.5	457.5	335.7
BGP307 LED30-4S/740	2610.0	18.8	138.8	0.874	0.874	0.655	0.655	0.481	744.6	558.1	558.1	409.8
BGP307 LED35-4S/740	3045.0	20.5	148.5	0.953	0.953	0.715	0.715	0.524	812.0	609.2	609.2	446.4
BGP307 LED40-4S/740	3480.0	23.5	148.1	1.093	1.093	0.82	0.82	0.601	931.2	698.6	698.6	512.1
BGP307 LED45-4S/740	3915.0	26.5	147.7	1.233	1.233	0.925	0.925	0.678	1050.5	788.1	788.1	577.7

BGP307 LED54-4S/740	4698.0	32.0	146.8	1.488	1.488	1.116	1.116	0.818	1267.8	950.8	950.8	696.9
BGP307 LED69-4S/740	6090.0	38.0	160.3	1.767	1.767	1.325	1.325	0.972	1505.5	1128.9	1128.9	828.1
BGP307 LED84-4S/740	7308.0	46.5	157.2	2.163	2.163	1.622	1.622	1.19	1842.9	1381.9	1381.9	1013.9
BGP307 LED8-4S/740	704.0	5.6	125.7	0.26	0.26	0.195	0.195	0.143	221.5	166.1	166.1	121.8
BGP307 LED99-4S/740	8700.0	56.0	155.4	2.605	2.605	1.954	1.954	1.433	2219.5	1664.8	1664.8	1220.9
BGP307 LED10-4S/757	880.0	6.8	129.4	0.316	0.316	0.237	0.237	0.174	269.2	201.9	201.9	148.2
BGP307 LED109-4S/757	9460.0	62.0	152.6	2.884	2.884	2.163	2.163	1.586	2457.2	1842.9	1842.9	1351.3
BGP307 LED120-4S/757	10200.0	69.0	147.8	3.209	3.209	2.407	2.407	1.765	2734.1	2050.8	2050.8	1503.8
BGP307 LED12-4S/757	1044.0	7.9	132.2	0.367	0.367	0.275	0.275	0.202	312.7	234.3	234.3	172.1
BGP307 LED130-4S/757	11050.0	76.0	145.4	3.535	3.535	2.651	2.651	1.944	3011.8	2258.7	2258.7	1656.3
BGP307 LED14-4S/757	1232.0	8.9	138.4	0.414	0.414	0.31	0.31	0.228	352.7	264.1	264.1	194.3
BGP307 LED16-4S/757	1408.0	10.0	140.8	0.465	0.465	0.349	0.349	0.256	396.2	297.3	297.3	218.1
BGP307 LED18-4S/757	1566.0	11.0	142.4	0.512	0.512	0.384	0.384	0.282	436.2	327.2	327.2	240.3
BGP307 LED25-4S/757	2175.0	15.4	141.2	0.716	0.716	0.537	0.537	0.394	610.0	457.5	457.5	335.7
BGP307 LED30-4S/757	2610.0	18.8	138.8	0.874	0.874	0.655	0.655	0.481	744.6	558.1	558.1	409.8
BGP307 LED35-4S/757	3045.0	20.5	148.5	0.953	0.953	0.715	0.715	0.524	812.0	609.2	609.2	446.4
BGP307 LED40-4S/757	3480.0	23.5	148.1	1.093	1.093	0.82	0.82	0.601	931.2	698.6	698.6	512.1
BGP307 LED45-4S/757	3915.0	26.5	147.7	1.233	1.233	0.925	0.925	0.678	1050.5	788.1	788.1	577.7
BGP307 LED54-4S/757	4698.0	32.0	146.8	1.488	1.488	1.116	1.116	0.818	1267.8	950.8	950.8	696.9
BGP307 LED69-4S/757	6090.0	38.0	160.3	1.767	1.767	1.325	1.325	0.972	1505.5	1128.9	1128.9	828.1
BGP307 LED84-4S/757	7308.0	46.5	157.2	2.163	2.163	1.622	1.622	1.19	1842.9	1381.9	1381.9	1013.9
BGP307 LED8-4S/757	704.0	5.6	125.7	0.26	0.26	0.195	0.195	0.143	221.5	166.1	166.1	121.8
BGP307 LED99-4S/757	8700.0	56.0	155.4	2.605	2.605	1.954	1.954	1.433	2219.5	1664.8	1664.8	1220.9
BGP307 LED10-4S/827	870.0	8.4	103.6	0.391	0.391	0.293	0.293	0.215	333.1	249.6	249.6	183.2

BGP307 LED12-4S/827	1044.0	10.2	102.4	0.474	0.474	0.355	0.355	0.261	403.8	302.5	302.5	222.4
BGP307 LED14-4S/827	1218.0	11.0	110.7	0.512	0.512	0.384	0.384	0.282	436.2	327.2	327.2	240.3
BGP307 LED16-4S/827	1392.0	12.6	110.5	0.586	0.586	0.44	0.44	0.322	499.3	374.9	374.9	274.3
BGP307 LED18-4S/827	1566.0	14.2	110.3	0.66	0.66	0.495	0.495	0.363	562.3	421.7	421.7	309.3
BGP307 LED25-4S/827	2175.0	20.0	108.8	0.93	0.93	0.698	0.698	0.512	792.4	594.7	594.7	436.2
BGP307 LED30-4S/827	2610.0	22.0	118.6	1.023	1.023	0.767	0.767	0.563	871.6	653.5	653.5	479.7
BGP307 LED35-4S/827	3045.0	26.0	117.1	1.209	1.209	0.907	0.907	0.665	1030.1	772.8	772.8	566.6
BGP307 LED40-4S/827	3480.0	30.0	116.0	1.395	1.395	1.046	1.046	0.767	1188.5	891.2	891.2	653.5
BGP307 LED45-4S/827	3915.0	34.5	113.5	1.605	1.605	1.204	1.204	0.883	1367.5	1025.8	1025.8	752.3
BGP307 LED54-4S/827	4698.0	38.0	123.6	1.767	1.767	1.325	1.325	0.972	1505.5	1128.9	1128.9	828.1
BGP307 LED69-4S/827	6090.0	49.0	124.3	2.279	2.279	1.709	1.709	1.253	1941.7	1456.1	1456.1	1067.6
BGP307 LED84-4S/827	7224.0	61.0	118.4	2.837	2.837	2.128	2.128	1.56	2417.1	1813.1	1813.1	1329.1
BGP307 LED8-4S/827	696.0	6.9	100.9	0.321	0.321	0.241	0.241	0.177	273.5	205.3	205.3	150.8
BGP307 LED10-4S/830	870.0	7.9	110.1	0.367	0.367	0.275	0.275	0.202	312.7	234.3	234.3	172.1
BGP307 LED12-4S/830	1044.0	9.4	111.1	0.437	0.437	0.328	0.328	0.24	372.3	279.5	279.5	204.5
BGP307 LED14-4S/830	1218.0	10.2	119.4	0.474	0.474	0.355	0.355	0.261	403.8	302.5	302.5	222.4
BGP307 LED16-4S/830	1392.0	11.6	120.0	0.54	0.54	0.405	0.405	0.297	460.1	345.1	345.1	253.0
BGP307 LED18-4S/830	1566.0	13.2	118.6	0.614	0.614	0.461	0.461	0.338	523.1	392.8	392.8	288.0
BGP307 LED25-4S/830	2175.0	18.6	116.9	0.865	0.865	0.649	0.649	0.476	737.0	552.9	552.9	405.6
BGP307 LED30-4S/830	2610.0	20.5	127.3	0.953	0.953	0.715	0.715	0.524	812.0	609.2	609.2	446.4
BGP307 LED35-4S/830	3045.0	24.0	126.9	1.116	1.116	0.837	0.837	0.614	950.8	713.1	713.1	523.1
BGP307 LED40-4S/830	3480.0	28.0	124.3	1.302	1.302	0.977	0.977	0.716	1109.3	832.4	832.4	610.0
BGP307 LED45-4S/830	3915.0	31.5	124.3	1.465	1.465	1.099	1.099	0.806	1248.2	936.3	936.3	686.7
BGP307 LED54-4S/830	4698.0	35.0	134.2	1.628	1.628	1.221	1.221	0.895	1387.1	1040.3	1040.3	762.5

BGP307 LED69-4S/830	6090.0	45.5	133.8	2.116	2.116	1.587	1.587	1.164	1802.8	1352.1	1352.1	991.7
BGP307 LED84-4S/830	7308.0	56.0	130.5	2.605	2.605	1.954	1.954	1.433	2219.5	1664.8	1664.8	1220.9
BGP307 LED8-4S/830	704.0	6.5	108.3	0.302	0.302	0.226	0.226	0.166	257.3	192.6	192.6	141.4
BGP307 LED99-4S/830	8600.0	68.0	126.5	3.163	3.163	2.372	2.372	1.74	2694.9	2020.9	2020.9	1482.5

** Note that if the product is non-dimmable, only the values for "NC (No Control)" are valid; if the driver type is PSU, only the values for "NC (No Control)"and "PS (presence sensing)" for are valid.*

APPENDIX (PEP ECOPASSPORT ALIGNED)

This section represents the scaling method for the **B6 module**, following the PEP EcoPassport PSR for luminaries (PSR-0014-ed2.0-EN-2023 07 13). The GWP results were scaled from a refernce variant of a product family, based on various light management functions, the lumen output (O_{lum}) and reference service life (*RSL*) of each product within the same product familiy.

To calculate the Scaled Impact (SI_{pep}), we have followed the below methods:

1. Calculate the power scaling factor (PSF), which is the ratio of the power input of the variant in questions P_{in} and the power input of the base variant P_{base}.

$$PSF = \frac{P_{in}}{P_{base}}$$

2. Using this scaled GWP, we then can apply the PEP Ecopassport method for calculating the environmental impact of the functional unit for a luminary (1000 lumens over 35000 hours), applied to B6, where the Functional Unit application considers the lumen output (Olum) and reference service lifetime (RSL) of the product to estimate the final environmental impact. The scaled impact (SIpep) is presented in Table A4.

$$GSF = \frac{FU_{pep}}{FU_p} = \frac{1{,}000}{O_{lum}} * \frac{35{,}000}{RSL}$$

3. Calculate the GWP scaling factor (P*GSF*), by multiplying the PSF by the GSF.

$$PGSF = PSF * GSF$$

4. Calculate the Total Scaling factor by multiplying the PSF by the control scaling factor (CSF), where the CSF is determined according the relevant control factor scenario (e.g. if the luminaire has a presence detection system), as presented in Table A1.

$$TSF = PGSF * CSF$$

Table A3: Light management functions (PEP EcoPassport aligned)

Scenario	Abbrev.	CSF
No control	NC	1
Daylight dependency factor	DD	0.75
Presence sensing	PS	0.75
Daylight dependency and presence sensing	DD+PS	0.55

5. Lastly, the GWP of the base variant is then scaled by the TSF.

$$Scaled\ GWP = GWP_{case} * TSF$$

As described in the EPD, calculations are made based on dataset describing electricity available on the low voltage level in Europe for year 2022 (source Ecoinvent 3.8 database). This value should be adjusted depending on specific project requirements. Presented controls factors and functional unit conversion values are based on the PEP EcoPassport PSR for luminaries (PSR-0014-ed2.0-EN-2023 07 13). Please refer to this publication or contact Signify directly for more information.

Table A4 Scale impact per scaling factor (PEP EcoPassport aligned)

Configuration	Flux [lm]	Power [W]	Efficacy [lm/W]	PSF	Total Scaling Factor (TSF)				Scaled Impacts (GWP100 B6 - kg CO2eq.)			
					NC	DD	PS	DD+PS	NC	DD	PS	DD+PS
BGP307 LED10-4S/722	870.0	8.8	98.9	0.409	0.164	0.123	0.123	0.09	139.7	104.8	104.8	76.7
BGP307 LED12-4S/722	1044.0	10.4	100.4	0.484	0.162	0.121	0.121	0.089	138.0	103.1	103.1	75.8
BGP307 LED14-4S/722	1218.0	11.4	106.8	0.53	0.152	0.114	0.114	0.084	129.5	97.1	97.1	71.6
BGP307 LED16-4S/722	1392.0	13.0	107.1	0.605	0.152	0.114	0.114	0.084	129.5	97.1	97.1	71.6
BGP307 LED18-4S/722	1566.0	14.6	107.3	0.679	0.151	0.113	0.113	0.083	128.7	96.3	96.3	70.7
BGP307 LED30-4S/722	2610.0	23.0	113.5	1.07	0.143	0.107	0.107	0.079	121.8	91.2	91.2	67.3
BGP307 LED35-4S/722	3045.0	27.5	110.7	1.279	0.147	0.11	0.11	0.081	125.2	93.7	93.7	69.0
BGP307 LED40-4S/722	3480.0	31.5	110.5	1.465	0.148	0.111	0.111	0.081	126.1	94.6	94.6	69.0
BGP307 LED45-4S/722	3915.0	36.0	108.8	1.674	0.149	0.112	0.112	0.082	126.9	95.4	95.4	69.9
BGP307 LED54-4S/722	4698.0	39.5	118.9	1.837	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED69-4S/722	6090.0	51.0	119.4	2.372	0.135	0.101	0.101	0.074	115.0	86.1	86.1	63.0
BGP307 LED84-4S/722	7224.0	64.0	112.9	2.977	0.143	0.107	0.107	0.079	121.8	91.2	91.2	67.3

BGP307 LED8-4S/722	696.0	7.1	98.0	0.33	0.166	0.124	0.124	0.091	141.4	105.6	105.6	77.5
BGP307 LED99-4S/722	8500.0	77.0	110.4	3.581	0.147	0.11	0.11	0.081	125.2	93.7	93.7	69.0
BGP307 LED10-4S/727	870.0	7.9	110.1	0.367	0.148	0.111	0.111	0.081	126.1	94.6	94.6	69.0
BGP307 LED109-4S/727	9350.0	76.0	123.0	3.535	0.131	0.098	0.098	0.072	111.6	83.5	83.5	61.3
BGP307 LED12-4S/727	1044.0	9.4	111.1	0.437	0.146	0.109	0.109	0.08	124.4	92.9	92.9	68.2
BGP307 LED14-4S/727	1218.0	10.2	119.4	0.474	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED16-4S/727	1392.0	11.6	120.0	0.54	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED18-4S/727	1566.0	13.2	118.6	0.614	0.137	0.103	0.103	0.075	116.7	87.8	87.8	63.9
BGP307 LED25-4S/727	2175.0	18.6	116.9	0.865	0.139	0.104	0.104	0.076	118.4	88.6	88.6	64.8
BGP307 LED30-4S/727	2610.0	20.5	127.3	0.953	0.128	0.096	0.096	0.07	109.1	81.8	81.8	59.6
BGP307 LED35-4S/727	3045.0	24.0	126.9	1.116	0.128	0.096	0.096	0.07	109.1	81.8	81.8	59.6
BGP307 LED40-4S/727	3480.0	28.0	124.3	1.302	0.132	0.099	0.099	0.073	112.5	84.3	84.3	62.2
BGP307 LED45-4S/727	3915.0	31.5	124.3	1.465	0.13	0.098	0.098	0.072	110.8	83.5	83.5	61.3
BGP307 LED54-4S/727	4698.0	39.0	120.5	1.814	0.134	0.101	0.101	0.074	114.2	86.1	86.1	63.0
BGP307 LED69-4S/727	6090.0	45.5	133.8	2.116	0.121	0.091	0.091	0.067	103.1	77.5	77.5	57.1
BGP307 LED84-4S/727	7224.0	56.0	129.0	2.605	0.125	0.094	0.094	0.069	106.5	80.1	80.1	58.8
BGP307 LED8-4S/727	704.0	6.5	108.3	0.302	0.15	0.112	0.112	0.083	127.8	95.4	95.4	70.7
BGP307 LED99-4S/727	8600.0	68.0	126.5	3.163	0.13	0.098	0.098	0.072	110.8	83.5	83.5	61.3
BGP307 LED10-4S/730	870.0	7.1	122.5	0.33	0.133	0.1	0.1	0.073	113.3	85.2	85.2	62.2
BGP307 LED109-4S/730	9460.0	67.0	141.2	3.116	0.115	0.086	0.086	0.063	98.0	73.3	73.3	53.7
BGP307 LED120-4S/730	10200.0	74.0	137.8	3.442	0.117	0.088	0.088	0.064	99.7	75.0	75.0	54.5
BGP307 LED12-4S/730	1044.0	8.4	124.3	0.391	0.131	0.098	0.098	0.072	111.6	83.5	83.5	61.3
BGP307 LED14-4S/730	1232.0	9.4	131.1	0.437	0.124	0.093	0.093	0.068	105.6	79.2	79.2	57.9
BGP307 LED16-4S/730	1392.0	10.6	131.3	0.493	0.124	0.093	0.093	0.068	105.6	79.2	79.2	57.9

BGP307 LED18-4S/730	1566.0	11.6	135.0	0.54	0.12	0.09	0.09	0.066	102.2	76.7	76.7	56.2
BGP307 LED25-4S/730	2175.0	16.4	132.6	0.763	0.123	0.092	0.092	0.068	104.8	78.4	78.4	57.9
BGP307 LED30-4S/730	2610.0	20.0	130.5	0.93	0.125	0.094	0.094	0.069	106.5	80.1	80.1	58.8
BGP307 LED35-4S/730 II DM50 48/60S	3045.0	21.5	141.6	1.0	0.115	0.086	0.086	0.063	98.0	73.3	73.3	53.7
BGP307 LED40-4S/730	3480.0	25.0	139.2	1.163	0.117	0.088	0.088	0.064	99.7	75.0	75.0	54.5
BGP307 LED45-4S/730	3915.0	28.0	139.8	1.302	0.116	0.087	0.087	0.064	98.8	74.1	74.1	54.5
BGP307 LED54-4S/730	4698.0	34.5	136.2	1.605	0.119	0.089	0.089	0.065	101.4	75.8	75.8	55.4
BGP307 LED69-4S/730	6090.0	40.5	150.4	1.884	0.107	0.08	0.08	0.059	91.2	68.2	68.2	50.3
BGP307 LED84-4S/730	7308.0	50.0	146.2	2.326	0.112	0.084	0.084	0.062	95.4	71.6	71.6	52.8
BGP307 LED8-4S/730	704.0	5.9	119.3	0.274	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED99-4S/730	8600.0	60.0	143.3	2.791	0.114	0.086	0.086	0.063	97.1	73.3	73.3	53.7
BGP307 LED10-4S/740	880.0	6.8	129.4	0.316	0.126	0.095	0.095	0.069	107.4	80.9	80.9	58.8
BGP307 LED109-4S/740	9460.0	62.0	152.6	2.884	0.107	0.08	0.08	0.059	91.2	68.2	68.2	50.3
BGP307 LED120-4S/740	10200.0	69.0	147.8	3.209	0.109	0.082	0.082	0.06	92.9	69.9	69.9	51.1
BGP307 LED12-4S/740	1044.0	7.9	132.2	0.367	0.123	0.092	0.092	0.068	104.8	78.4	78.4	57.9
BGP307 LED130-4S/740	11050.0	76.0	145.4	3.535	0.113	0.085	0.085	0.062	96.3	72.4	72.4	52.8
BGP307 LED14-4S/740	1232.0	8.9	138.4	0.414	0.118	0.088	0.088	0.065	100.5	75.0	75.0	55.4
BGP307 LED16-4S/740	1408.0	10.0	140.8	0.465	0.116	0.087	0.087	0.064	98.8	74.1	74.1	54.5
BGP307 LED18-4S/740	1566.0	11.0	142.4	0.512	0.114	0.086	0.086	0.063	97.1	73.3	73.3	53.7
BGP307 LED25-4S/740	2175.0	15.4	141.2	0.716	0.115	0.086	0.086	0.063	98.0	73.3	73.3	53.7
BGP307 LED30-4S/740	2610.0	18.8	138.8	0.874	0.117	0.088	0.088	0.064	99.7	75.0	75.0	54.5
BGP307 LED35-4S/740	3045.0	20.5	148.5	0.953	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED40-4S/740	3480.0	23.5	148.1	1.093	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED45-4S/740	3915.0	26.5	147.7	1.233	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0

BGP307 LED54-4S/740	4698.0	32.0	146.8	1.488	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED69-4S/740	6090.0	38.0	160.3	1.767	0.101	0.076	0.076	0.056	86.1	64.8	64.8	47.7
BGP307 LED84-4S/740	7308.0	46.5	157.2	2.163	0.104	0.078	0.078	0.057	88.6	66.5	66.5	48.6
BGP307 LED8-4S/740	704.0	5.6	125.7	0.26	0.129	0.097	0.097	0.071	109.9	82.6	82.6	60.5
BGP307 LED99-4S/740	8700.0	56.0	155.4	2.605	0.104	0.078	0.078	0.057	88.6	66.5	66.5	48.6
BGP307 LED10-4S/757	880.0	6.8	129.4	0.316	0.126	0.095	0.095	0.069	107.4	80.9	80.9	58.8
BGP307 LED109-4S/757	9460.0	62.0	152.6	2.884	0.107	0.08	0.08	0.059	91.2	68.2	68.2	50.3
BGP307 LED120-4S/757	10200.0	69.0	147.8	3.209	0.109	0.082	0.082	0.06	92.9	69.9	69.9	51.1
BGP307 LED12-4S/757	1044.0	7.9	132.2	0.367	0.123	0.092	0.092	0.068	104.8	78.4	78.4	57.9
BGP307 LED130-4S/757	11050.0	76.0	145.4	3.535	0.113	0.085	0.085	0.062	96.3	72.4	72.4	52.8
BGP307 LED14-4S/757	1232.0	8.9	138.4	0.414	0.118	0.088	0.088	0.065	100.5	75.0	75.0	55.4
BGP307 LED16-4S/757	1408.0	10.0	140.8	0.465	0.116	0.087	0.087	0.064	98.8	74.1	74.1	54.5
BGP307 LED18-4S/757	1566.0	11.0	142.4	0.512	0.114	0.086	0.086	0.063	97.1	73.3	73.3	53.7
BGP307 LED25-4S/757	2175.0	15.4	141.2	0.716	0.115	0.086	0.086	0.063	98.0	73.3	73.3	53.7
BGP307 LED30-4S/757	2610.0	18.8	138.8	0.874	0.117	0.088	0.088	0.064	99.7	75.0	75.0	54.5
BGP307 LED35-4S/757	3045.0	20.5	148.5	0.953	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED40-4S/757	3480.0	23.5	148.1	1.093	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED45-4S/757	3915.0	26.5	147.7	1.233	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED54-4S/757	4698.0	32.0	146.8	1.488	0.11	0.083	0.083	0.061	93.7	70.7	70.7	52.0
BGP307 LED69-4S/757	6090.0	38.0	160.3	1.767	0.101	0.076	0.076	0.056	86.1	64.8	64.8	47.7
BGP307 LED84-4S/757	7308.0	46.5	157.2	2.163	0.104	0.078	0.078	0.057	88.6	66.5	66.5	48.6
BGP307 LED8-4S/757	704.0	5.6	125.7	0.26	0.129	0.097	0.097	0.071	109.9	82.6	82.6	60.5
BGP307 LED99-4S/757	8700.0	56.0	155.4	2.605	0.104	0.078	0.078	0.057	88.6	66.5	66.5	48.6
BGP307 LED10-4S/827	870.0	8.4	103.6	0.391	0.157	0.118	0.118	0.086	133.8	100.5	100.5	73.3

BGP307 LED12-4S/827	1044.0	10.2	102.4	0.474	0.159	0.119	0.119	0.087	135.5	101.4	101.4	74.1
BGP307 LED14-4S/827	1218.0	11.0	110.7	0.512	0.147	0.11	0.11	0.081	125.2	93.7	93.7	69.0
BGP307 LED16-4S/827	1392.0	12.6	110.5	0.586	0.147	0.11	0.11	0.081	125.2	93.7	93.7	69.0
BGP307 LED18-4S/827	1566.0	14.2	110.3	0.66	0.147	0.11	0.11	0.081	125.2	93.7	93.7	69.0
BGP307 LED25-4S/827	2175.0	20.0	108.8	0.93	0.15	0.112	0.112	0.083	127.8	95.4	95.4	70.7
BGP307 LED30-4S/827	2610.0	22.0	118.6	1.023	0.137	0.103	0.103	0.075	116.7	87.8	87.8	63.9
BGP307 LED35-4S/827	3045.0	26.0	117.1	1.209	0.139	0.104	0.104	0.076	118.4	88.6	88.6	64.8
BGP307 LED40-4S/827	3480.0	30.0	116.0	1.395	0.141	0.106	0.106	0.078	120.1	90.3	90.3	66.5
BGP307 LED45-4S/827	3915.0	34.5	113.5	1.605	0.143	0.107	0.107	0.079	121.8	91.2	91.2	67.3
BGP307 LED54-4S/827	4698.0	38.0	123.6	1.767	0.131	0.098	0.098	0.072	111.6	83.5	83.5	61.3
BGP307 LED69-4S/827	6090.0	49.0	124.3	2.279	0.13	0.098	0.098	0.072	110.8	83.5	83.5	61.3
BGP307 LED84-4S/827	7224.0	61.0	118.4	2.837	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED8-4S/827	696.0	6.9	100.9	0.321	0.161	0.121	0.121	0.089	137.2	103.1	103.1	75.8
BGP307 LED10-4S/830	870.0	7.9	110.1	0.367	0.148	0.111	0.111	0.081	126.1	94.6	94.6	69.0
BGP307 LED12-4S/830	1044.0	9.4	111.1	0.437	0.146	0.109	0.109	0.08	124.4	92.9	92.9	68.2
BGP307 LED14-4S/830	1218.0	10.2	119.4	0.474	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED16-4S/830	1392.0	11.6	120.0	0.54	0.136	0.102	0.102	0.075	115.9	86.9	86.9	63.9
BGP307 LED18-4S/830	1566.0	13.2	118.6	0.614	0.137	0.103	0.103	0.075	116.7	87.8	87.8	63.9
BGP307 LED25-4S/830	2175.0	18.6	116.9	0.865	0.139	0.104	0.104	0.076	118.4	88.6	88.6	64.8
BGP307 LED30-4S/830	2610.0	20.5	127.3	0.953	0.128	0.096	0.096	0.07	109.1	81.8	81.8	59.6
BGP307 LED35-4S/830	3045.0	24.0	126.9	1.116	0.128	0.096	0.096	0.07	109.1	81.8	81.8	59.6
BGP307 LED40-4S/830	3480.0	28.0	124.3	1.302	0.132	0.099	0.099	0.073	112.5	84.3	84.3	62.2
BGP307 LED45-4S/830	3915.0	31.5	124.3	1.465	0.13	0.098	0.098	0.072	110.8	83.5	83.5	61.3
BGP307 LED54-4S/830	4698.0	35.0	134.2	1.628	0.12	0.09	0.09	0.066	102.2	76.7	76.7	56.2

BGP307 LED69-4S/830	6090.0	45.5	133.8	2.116	0.121	0.091	0.091	0.067	103.1	77.5	77.5	57.1
BGP307 LED84-4S/830	7308.0	56.0	130.5	2.605	0.125	0.094	0.094	0.069	106.5	80.1	80.1	58.8
BGP307 LED8-4S/830	704.0	6.5	108.3	0.302	0.15	0.112	0.112	0.083	127.8	95.4	95.4	70.7
BGP307 LED99-4S/830	8600.0	68.0	126.5	3.163	0.13	0.098	0.098	0.072	110.8	83.5	83.5	61.3

** Note that if the product is non-dimmable, only the values for "NC (No Control)" are valid; if the driver type is PSU, only the values for "NC (No Control)"and "PS (presence sensing)" for are valid.*