ENVIRONMENTAL PRODUCT DECLARATION

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

Philips ClearFlood Large

BVP651
Signify N.V.

signify

GENERAL INFORMATION

MANUFACTURER

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 ClearFlood large
Additional labels	BVP651 LED890-4S/740 OFA52 ALU PSU
Product reference	912300060335
Place of production	Spain
Period for data	2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	%

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of 74700 lumens over 100000 hours
Declared unit mass	24 kg
GWP-fossil, A1-A3 (kgCO2e)	4.47E+02
GWP-total, A1-A3 (kgCO2e)	4.45E+02
Secondary material, inputs (%)	10.1
Secondary material, outputs (%)	53.5
Total energy use, A1-A3 (kWh)	1370.0
Total water use, A1-A3 (m3e)	2.40E+00

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

ClearFlood Large is designed to meet the requirements of a wide range of floodlighting applications from parking lots to tennis courts. One of the key advantages of ClearFlood Large, is that you can choose the exact lumen rating that you need for your specific application. Because ClearFlood incorporates extremely high-efficiency optics and state-of-the-art LEDs, it is a highly competitive solution that offers an outstanding lux/euro ratio and instant energy savings. What's more, thanks to the wide choice of optics, you will always benefit from maximum coverage for your application. ClearFlood BVP651 is also easy to install – simply plug it in and select the option that best suits your needs.

For more information, please visit
https://www.lighting.philips.com/link/BVP651/fam/aa/en

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	78.16	APAC , EU

Minerals	13.32	EU
Fossil materials	8.52	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	0.783

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 Product
Mass per declared unit	24 kg
Functional unit	1 unit of 74700 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).

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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.

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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.
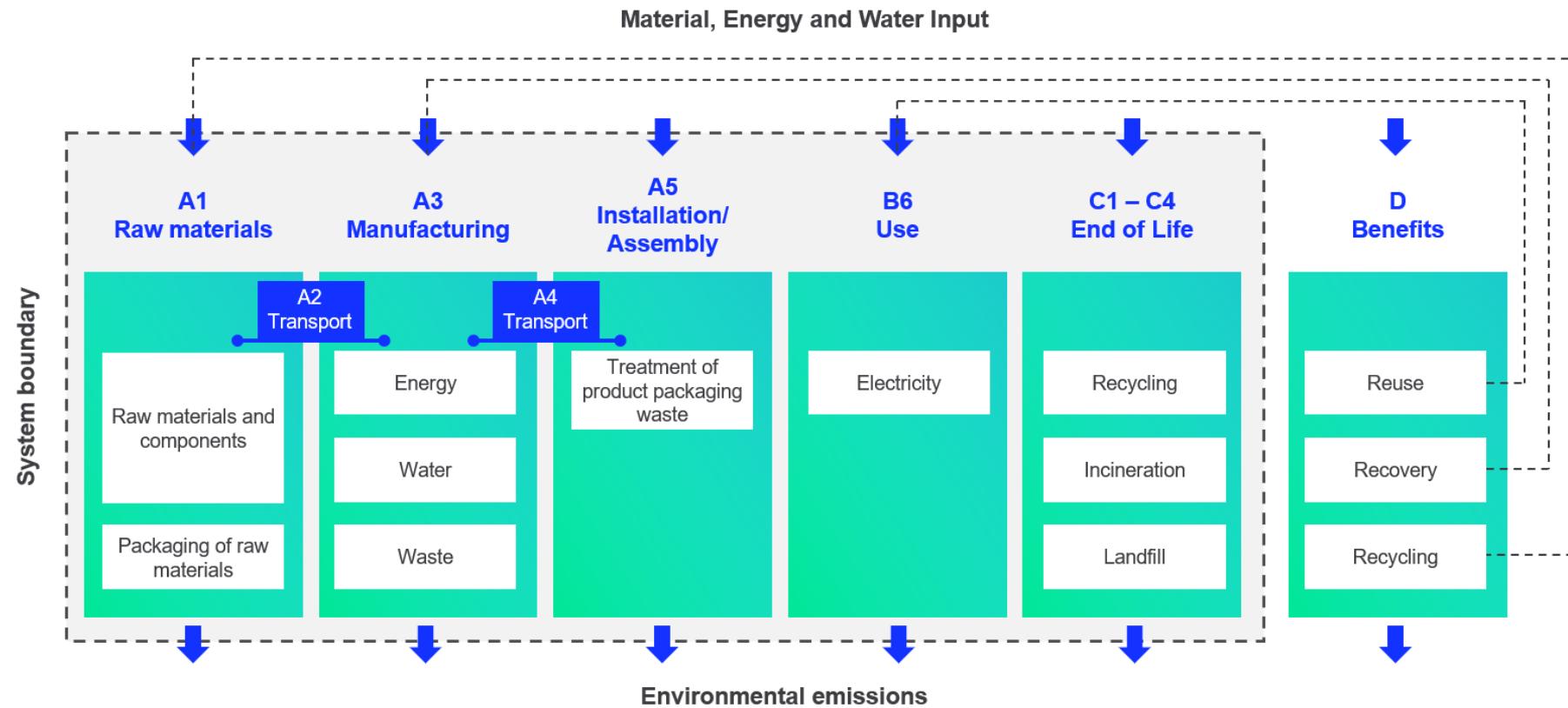
PRODUCT USE AND MAINTENANCE (B1-B7)

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

Material, Energy and Water Input

System boundary

A1 Raw materials	A3 Manufacturing	A5 Installation/ Assembly	B6 Use	C1 – C4 End of Life	D Benefits
A2 Transport	A4 Transport				
Raw materials and components	Energy	Treatment of product packaging waste	Electricity	Recycling	Reuse
	Water			Incineration	Recovery
Packaging of raw materials	Waste			Landfill	Recycling

Environmental emissions

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	4.40E+02	4.71E+00	6.88E-02	4.45E+02	4.71E+00	2.91E+00	MNR	MNR	MNR	MNR	MNR	2.18E+04	MNR	MNR	3.34E-01	1.19E+00	1.33E+00	-1.76E+02
GWP – fossil	kg CO_2e	4.40E+02	4.71E+00	2.88E+00	4.47E+02	4.71E+00	7.67E-02	MNR	MNR	MNR	MNR	MNR	2.17E+04	MNR	MNR	3.34E-01	1.19E+00	1.33E+00	-1.76E+02
GWP – biogenic	kg CO_2e	-7.78E-02	0.00E+00	-2.83E+00	-2.91E+00	1.82E-03	2.83E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	0.00E+00	1.95E-20	-2.06E-02
GWP – LULUC	kg CO_2e	6.27E-01	1.78E-03	2.12E-02	6.49E-01	1.74E-03	2.64E-05	MNR	MNR	MNR	MNR	MNR	5.08E+01	MNR	MNR	1.23E-04	4.71E-04	3.13E-04	-1.44E-02
Ozone depletion pot.	kg CFC_{-11}e	2.04E-05	1.08E-06	2.90E-07	2.18E-05	1.08E-06	7.45E-09	MNR	MNR	MNR	MNR	MNR	1.10E-03	MNR	MNR	7.69E-08	3.58E-08	3.48E-08	-4.78E-06
Acidification potential	mol H+e	3.53E+00	2.31E-02	1.41E-02	3.57E+00	1.99E-02	5.96E-04	MNR	MNR	MNR	MNR	MNR	1.24E+02	MNR	MNR	1.41E-03	3.81E-03	1.65E-03	-1.79E+00
EP-freshwater[2]	kg Pe	2.40E-02	3.80E-05	1.59E-04	2.42E-02	3.85E-05	7.87E-07	MNR	MNR	MNR	MNR	MNR	2.30E+00	MNR	MNR	2.74E-06	1.50E-05	2.37E-05	-1.11E-02
EP-marine	kg Ne	4.70E-01	6.69E-03	6.11E-03	4.83E-01	5.92E-03	2.55E-04	MNR	MNR	MNR	MNR	MNR	1.65E+01	MNR	MNR	4.20E-04	8.55E-04	5.17E-03	-1.97E-01
EP-terrestrial	mol Ne	5.89E+00	7.38E-02	3.95E-02	6.00E+00	6.54E-02	2.64E-03	MNR	MNR	MNR	MNR	MNR	1.87E+02	MNR	MNR	4.64E-03	9.73E-03	5.07E-03	-2.27E+00
POCP ("smog")[3]	kg NMVOCe	1.55E+00	2.30E-02	1.36E-02	1.59E+00	2.09E-02	6.59E-04	MNR	MNR	MNR	MNR	MNR	5.13E+01	MNR	MNR	1.48E-03	2.64E-03	2.26E-03	-6.56E-01
ADP-minerals & metals[4]	kg Sbe	2.02E-02	1.09E-05	1.65E-05	2.03E-02	1.10E-05	2.43E-07	MNR	MNR	MNR	MNR	MNR	2.03E-01	MNR	MNR	7.83E-07	3.45E-05	6.84E-07	-2.36E-03
ADP-fossil resources	MJ	4.49E+03	7.04E+01	3.88E+01	4.60E+03	7.07E+01	5.90E-01	MNR	MNR	MNR	MNR	MNR	4.63E+05	MNR	MNR	5.02E+00	4.21E+00	3.40E+00	-1.72E+03
Water use[5]	m³e depr.	9.82E+01	3.13E-01	1.79E+00	1.00E+02	3.16E-01	1.37E-01	MNR	MNR	MNR	MNR	MNR	1.26E+04	MNR	MNR	2.25E-02	1.04E-01	1.61E-01	-1.17E+02

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	3.37E-05	5.33E-07	2.71E-07	3.45E-05	5.43E-07	5.50E-09	MNR	MNR	MNR	MNR	MNR	4.08E-04	MNR	MNR	3.85E-08	5.00E-08	2.71E-08	-9.52E-06
Ionizing radiation[6]	kBq U235e	1.99E+01	3.35E-01	1.40E-01	2.03E+01	3.37E-01	2.10E-03	MNR	MNR	MNR	MNR	MNR	1.25E+04	MNR	MNR	2.39E-02	2.68E-02	1.89E-02	-1.03E+01

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Ecotoxicity (freshwater)	CTUe	1.82E+04	6.30E+01	1.15E+02	1.84E+04	6.36E+01	3.83E+00	MNR	MNR	MNR	MNR	MNR	3.15E+05	MNR	MNR	4.51E+00	2.02E+01	1.26E+03	-3.49E+03
Human toxicity, cancer	CTUh	6.39E-07	1.59E-09	2.09E-09	6.43E-07	1.56E-09	1.92E-10	MNR	MNR	MNR	MNR	MNR	1.03E-05	MNR	MNR	1.11E-10	6.06E-10	1.74E-09	1.38E-09
Human tox. non-cancer	CTUh	1.53E-05	6.20E-08	4.19E-08	1.54E-05	6.30E-08	7.88E-09	MNR	MNR	MNR	MNR	MNR	3.39E-04	MNR	MNR	4.47E-09	2.56E-08	6.31E-08	-3.82E-06
SQP[7]	-	1.23E+03	7.97E+01	1.19E+02	1.43E+03	8.15E+01	3.31E-01	MNR	MNR	MNR	MNR	MNR	8.36E+04	MNR	MNR	5.78E+00	7.42E+00	5.35E+00	-3.28E+02

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	3.39E+02	7.87E-01	2.93E+01	3.69E+02	7.97E-01	1.87E-02	MNR	MNR	MNR	MNR	MNR	9.42E+04	MNR	MNR	5.65E-02	6.10E-01	1.50E-01	-2.35E+01
Renew. PER as material	MJ	1.52E+00	0.00E+00	2.52E+01	2.67E+01	0.00E+00	-2.52E+01	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	3.41E+02	7.87E-01	5.46E+01	3.96E+02	7.97E-01	-2.52E+01	MNR	MNR	MNR	MNR	MNR	9.42E+04	MNR	MNR	5.65E-02	6.10E-01	1.50E-01	-2.35E+01
Non-re. PER as energy	MJ	4.45E+03	7.04E+01	3.73E+01	4.56E+03	7.07E+01	5.90E-01	MNR	MNR	MNR	MNR	MNR	4.62E+05	MNR	MNR	5.02E+00	4.22E+00	3.40E+00	-1.72E+03
Non-re. PER as material	MJ	3.59E+01	0.00E+00	2.78E-01	3.62E+01	0.00E+00	-2.78E-01	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	-1.03E+01	-2.27E+01	3.82E-01
Total use of non-re. PER	MJ	4.49E+03	7.04E+01	3.76E+01	4.60E+03	7.07E+01	3.12E-01	MNR	MNR	MNR	MNR	MNR	4.62E+05	MNR	MNR	5.02E+00	-6.11E+00	-1.93E+01	-1.72E+03
Secondary materials	kg	2.43E+00	1.98E-02	1.68E+00	4.13E+00	1.96E-02	6.93E-04	MNR	MNR	MNR	MNR	MNR	4.76E+01	MNR	MNR	1.39E-03	4.10E-03	8.00E-03	7.23E+00
Renew. secondary fuels	MJ	5.60E-02	1.95E-04	1.19E-01	1.75E-01	1.98E-04	1.07E-05	MNR	MNR	MNR	MNR	MNR	3.86E-01	MNR	MNR	1.41E-05	2.18E-04	5.73E-05	-5.03E-03
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	m³	2.35E+00	9.03E-03	4.25E-02	2.40E+00	9.16E-03	2.15E-03	MNR	MNR	MNR	MNR	MNR	3.98E+02	MNR	MNR	6.50E-04	3.28E-03	2.37E-03	-5.43E-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

		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	7.98E+01	9.35E-02	1.74E-01	8.01E+01	9.38E-02	1.08E-02	MNR	MNR	MNR	MNR	MNR	1.66E+03	MNR	MNR	6.65E-03	3.05E-02	4.05E-02	-2.78E+01
Non-hazardous waste	kg	8.17E+02	1.52E+00	3.55E+00	8.22E+02	1.54E+00	1.69E+00	MNR	MNR	MNR	MNR	MNR	1.05E+05	MNR	MNR	1.09E-01	1.30E+00	9.89E+00	-5.10E+02
Radioactive waste	kg	8.80E-03	4.72E-04	8.34E-05	9.35E-03	4.73E-04	1.11E-06	MNR	MNR	MNR	MNR	MNR	3.37E+00	MNR	MNR	3.36E-05	1.74E-05	0.00E+00	-3.81E-03

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	1.28E+01	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	1.28E+00	1.28E+00	0.00E+00	0.00E+00	MNR	MNR	MNR	MNR	MNR	0.00E+00	MNR	MNR	0.00E+00	7.95E+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	4.27E+02	4.66E+00	2.98E+00	4.35E+02	4.66E+00	7.31E-02	MNR	MNR	MNR	MNR	MNR	2.15E+04	MNR	MNR	3.31E-01	1.18E+00	3.45E+00	-1.72E+02
Ozone depletion Pot.	kg CFC_{-11}e	1.77E-05	8.55E-07	2.41E-07	1.88E-05	8.58E-07	6.48E-09	MNR	MNR	MNR	MNR	MNR	9.57E-04	MNR	MNR	6.09E-08	2.91E-08	2.79E-08	-4.06E-06
Acidification	kg SO_2e	2.94E+00	1.81E-02	1.05E-02	2.97E+00	1.55E-02	4.34E-04	MNR	MNR	MNR	MNR	MNR	1.05E+02	MNR	MNR	1.10E-03	3.06E-03	1.29E-03	-1.54E+00
Eutrophication	kg PO_4^3e	9.00E-01	3.77E-03	7.01E-03	9.11E-01	3.53E-03	3.26E-04	MNR	MNR	MNR	MNR	MNR	8.10E+01	MNR	MNR	2.50E-04	1.04E-03	1.32E-02	-4.34E-01

POCP ("smog")	kg C_2H_4e	1.70E-01	6.66E-04	1.02E-03	1.72E-01	6.05E-04	1.33E-05	MNR	MNR	MNR	MNR	MNR	4.31E+00	MNR	MNR	4.29E-05	1.15E-04	5.60E-04	-7.62E-02
ADP-elements	kg Sbe	2.01E-02	1.06E-05	1.47E-05	2.01E-02	1.07E-05	1.91E-07	MNR	MNR	MNR	MNR	MNR	2.02E-01	MNR	MNR	7.59E-07	3.44E-05	6.44E-07	-2.35E-03
ADP-fossil	MJ	4.49E+03	7.04E+01	3.86E+01	4.60E+03	7.07E+01	5.90E-01	MNR	MNR	MNR	MNR	MNR	4.62E+05	MNR	MNR	5.02E+00	4.21E+00	3.40E+00	-1.72E+03

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
BVP651 LED310-4S/722	26350.0	265.0	99.4	0.482	0.482	0.361	0.361	0.265	10507.6	7869.8	7869.8	5777.0
BVP651 LED360-4S/722	30600.0	300.0	102.0	0.545	0.545	0.409	0.409	0.3	11881.0	8916.2	8916.2	6540.0
BVP651 LED400-4S/722	34000.0	335.0	101.5	0.609	0.609	0.457	0.457	0.335	13276.2	9962.6	9962.6	7303.0
BVP651 LED440-4S/722	36960.0	375.0	98.6	0.682	0.682	0.512	0.512	0.375	14867.6	11161.6	11161.6	8175.0
BVP651 LED490-4S/722	41160.0	410.0	100.4	0.745	0.745	0.559	0.559	0.41	16241.0	12186.2	12186.2	8938.0
BVP651 LED530-4S/722	44820.0	445.0	100.7	0.809	0.809	0.607	0.607	0.445	17636.2	13232.6	13232.6	9701.0
BVP651 LED570-4S/722	48140.0	495.0	97.3	0.9	0.9	0.675	0.675	0.495	19620.0	14715.0	14715.0	10791.0
BVP651 LED600-4S/722	49800.0	530.0	94.0	0.964	0.964	0.723	0.723	0.53	21015.2	15761.4	15761.4	11554.0
BVP651 LED650-4S/722	54780.0	550.0	99.6	1.0	1.0	0.75	0.75	0.55	21800.0	16350.0	16350.0	11990.0
BVP651 LED350-4S/727	29750.0	255.0	116.7	0.464	0.464	0.348	0.348	0.255	10115.2	7586.4	7586.4	5559.0
BVP651 LED400-4S/727	34000.0	285.0	119.3	0.518	0.518	0.389	0.389	0.285	11292.4	8480.2	8480.2	6213.0
BVP651 LED450-4S/727	37800.0	325.0	116.3	0.591	0.591	0.443	0.443	0.325	12883.8	9657.4	9657.4	7085.0

BVP651 LED500-4S/727	41500.0	365.0	113.7	0.664	0.664	0.498	0.498	0.365	14475.2	10856.4	10856.4	7957.0
BVP651 LED550-4S/727	46480.0	395.0	117.7	0.718	0.718	0.538	0.538	0.395	15652.4	11728.4	11728.4	8611.0
BVP651 LED600-4S/727	49200.0	435.0	113.1	0.791	0.791	0.593	0.593	0.435	17243.8	12927.4	12927.4	9483.0
BVP651 LED650-4S/727	54120.0	490.0	110.4	0.891	0.891	0.668	0.668	0.49	19423.8	14562.4	14562.4	10682.0
BVP651 LED700-4S/727	57400.0	540.0	106.3	0.982	0.982	0.736	0.736	0.54	21407.6	16044.8	16044.8	11772.0
BVP651 LED350-4S/730	30100.0	225.0	133.8	0.409	0.409	0.307	0.307	0.225	8916.2	6692.6	6692.6	4905.0
BVP651 LED400-4S/730	34000.0	265.0	128.3	0.482	0.482	0.361	0.361	0.265	10507.6	7869.8	7869.8	5777.0
BVP651 LED450-4S/730	38250.0	290.0	131.9	0.527	0.527	0.395	0.395	0.29	11488.6	8611.0	8611.0	6322.0
BVP651 LED500-4S/730	42500.0	325.0	130.8	0.591	0.591	0.443	0.443	0.325	12883.8	9657.4	9657.4	7085.0
BVP651 LED550-4S/730	47040.0	360.0	130.7	0.655	0.655	0.491	0.491	0.36	14279.0	10703.8	10703.8	7848.0
BVP651 LED600-4S/730	50400.0	385.0	130.9	0.7	0.7	0.525	0.525	0.385	15260.0	11445.0	11445.0	8393.0
BVP651 LED650-4S/730	55440.0	420.0	132.0	0.764	0.764	0.573	0.573	0.42	16655.2	12491.4	12491.4	9156.0
BVP651 LED700-4S/730	58800.0	470.0	125.1	0.855	0.855	0.641	0.641	0.47	18639.0	13973.8	13973.8	10246.0
BVP651 LED750-4S/730	63080.0	510.0	123.7	0.927	0.927	0.695	0.695	0.51	20208.6	15151.0	15151.0	11118.0
BVP651 LED800-4S/730	66400.0	520.0	127.7	0.945	0.945	0.709	0.709	0.52	20601.0	15456.2	15456.2	11336.0
BVP651 LED840-4S/730	69720.0	550.0	126.8	1.0	1.0	0.75	0.75	0.55	21800.0	16350.0	16350.0	11990.0
BVP651 LED350-4S/740	30100.0	210.0	143.3	0.382	0.382	0.286	0.286	0.21	8327.6	6234.8	6234.8	4578.0
BVP651 LED400-4S/740	34400.0	245.0	140.4	0.445	0.445	0.334	0.334	0.245	9701.0	7281.2	7281.2	5341.0
BVP651 LED450-4S/740	38250.0	280.0	136.6	0.509	0.509	0.382	0.382	0.28	11096.2	8327.6	8327.6	6104.0
BVP651 LED500-4S/740	42500.0	300.0	141.7	0.545	0.545	0.409	0.409	0.3	11881.0	8916.2	8916.2	6540.0
BVP651 LED550-4S/740	47600.0	335.0	142.1	0.609	0.609	0.457	0.457	0.335	13276.2	9962.6	9962.6	7303.0
BVP651 LED600-4S/740	50400.0	370.0	136.2	0.673	0.673	0.505	0.505	0.37	14671.4	11009.0	11009.0	8066.0
BVP651 LED650-4S/740	55440.0	395.0	140.4	0.718	0.718	0.538	0.538	0.395	15652.4	11728.4	11728.4	8611.0
BVP651 LED700-4S/740	58800.0	430.0	136.7	0.782	0.782	0.587	0.587	0.43	17047.6	12796.6	12796.6	9374.0

BVP651 LED750-4S/740	63840.0	475.0	134.4	0.864	0.864	0.648	0.648	0.475	18835.2	14126.4	14126.4	10355.0
BVP651 LED800-4S/740	66400.0	510.0	130.2	0.927	0.927	0.695	0.695	0.51	20208.6	15151.0	15151.0	11118.0
BVP651 LED850-4S/740	71380.0	520.0	137.3	0.945	0.945	0.709	0.709	0.52	20601.0	15456.2	15456.2	11336.0
BVP651 LED890-4S/740 OFA52 ALU PSU	74700.0	550.0	135.8	1.0	1.0	0.75	0.75	0.55	21800.0	16350.0	16350.0	11990.0
BVP651 LED350-4S/757	30100.0	210.0	143.3	0.382	0.382	0.286	0.286	0.21	8327.6	6234.8	6234.8	4578.0
BVP651 LED400-4S/757	34400.0	245.0	140.4	0.445	0.445	0.334	0.334	0.245	9701.0	7281.2	7281.2	5341.0
BVP651 LED450-4S/757	38250.0	280.0	136.6	0.509	0.509	0.382	0.382	0.28	11096.2	8327.6	8327.6	6104.0
BVP651 LED500-4S/757	42500.0	300.0	141.7	0.545	0.545	0.409	0.409	0.3	11881.0	8916.2	8916.2	6540.0
BVP651 LED550-4S/757	47600.0	335.0	142.1	0.609	0.609	0.457	0.457	0.335	13276.2	9962.6	9962.6	7303.0
BVP651 LED600-4S/757	50400.0	370.0	136.2	0.673	0.673	0.505	0.505	0.37	14671.4	11009.0	11009.0	8066.0
BVP651 LED650-4S/757	55440.0	395.0	140.4	0.718	0.718	0.538	0.538	0.395	15652.4	11728.4	11728.4	8611.0
BVP651 LED700-4S/757	58800.0	430.0	136.7	0.782	0.782	0.587	0.587	0.43	17047.6	12796.6	12796.6	9374.0
BVP651 LED750-4S/757	63840.0	475.0	134.4	0.864	0.864	0.648	0.648	0.475	18835.2	14126.4	14126.4	10355.0
BVP651 LED800-4S/757	66400.0	510.0	130.2	0.927	0.927	0.695	0.695	0.51	20208.6	15151.0	15151.0	11118.0
BVP651 LED850-4S/757	71380.0	520.0	137.3	0.945	0.945	0.709	0.709	0.52	20601.0	15456.2	15456.2	11336.0
BVP651 LED890-4S/757	74700.0	550.0	135.8	1.0	1.0	0.75	0.75	0.55	21800.0	16350.0	16350.0	11990.0
BVP651 LED310-4S/827	26350.0	265.0	99.4	0.482	0.482	0.361	0.361	0.265	10507.6	7869.8	7869.8	5777.0
BVP651 LED360-4S/827	30600.0	300.0	102.0	0.545	0.545	0.409	0.409	0.3	11881.0	8916.2	8916.2	6540.0
BVP651 LED400-4S/827	34000.0	335.0	101.5	0.609	0.609	0.457	0.457	0.335	13276.2	9962.6	9962.6	7303.0
BVP651 LED440-4S/827	36960.0	375.0	98.6	0.682	0.682	0.512	0.512	0.375	14867.6	11161.6	11161.6	8175.0
BVP651 LED490-4S/827	41160.0	410.0	100.4	0.745	0.745	0.559	0.559	0.41	16241.0	12186.2	12186.2	8938.0
BVP651 LED530-4S/827	44820.0	445.0	100.7	0.809	0.809	0.607	0.607	0.445	17636.2	13232.6	13232.6	9701.0
BVP651 LED570-4S/827	48140.0	495.0	97.3	0.9	0.9	0.675	0.675	0.495	19620.0	14715.0	14715.0	10791.0
BVP651 LED600-4S/827	49800.0	500.0	99.6	0.909	0.909	0.682	0.682	0.5	19816.2	14867.6	14867.6	10900.0

BVP651 LED650-4S/827	54780.0	550.0	99.6	1.0	1.0	0.75	0.75	0.55	21800.0	16350.0	16350.0	11990.0
BVP651 LED310-4S/830	26660.0	240.0	111.1	0.436	0.436	0.327	0.327	0.24	9504.8	7128.6	7128.6	5232.0
BVP651 LED360-4S/830	30600.0	285.0	107.4	0.518	0.518	0.389	0.389	0.285	11292.4	8480.2	8480.2	6213.0
BVP651 LED400-4S/830	34000.0	310.0	109.7	0.564	0.564	0.423	0.423	0.31	12295.2	9221.4	9221.4	6758.0
BVP651 LED440-4S/830	36960.0	345.0	107.1	0.627	0.627	0.47	0.47	0.345	13668.6	10246.0	10246.0	7521.0
BVP651 LED490-4S/830	41160.0	375.0	109.8	0.682	0.682	0.512	0.512	0.375	14867.6	11161.6	11161.6	8175.0
BVP651 LED530-4S/830	45360.0	410.0	110.6	0.745	0.745	0.559	0.559	0.41	16241.0	12186.2	12186.2	8938.0
BVP651 LED570-4S/830	48140.0	445.0	108.2	0.809	0.809	0.607	0.607	0.445	17636.2	13232.6	13232.6	9701.0
BVP651 LED600-4S/830	49800.0	485.0	102.7	0.882	0.882	0.661	0.661	0.485	19227.6	14409.8	14409.8	10573.0
BVP651 LED650-4S/830	54780.0	530.0	103.4	0.964	0.964	0.723	0.723	0.53	21015.2	15761.4	15761.4	11554.0
BVP651 LED700-4S/830	58100.0	550.0	105.6	1.0	1.0	0.75	0.75	0.55	21800.0	16350.0	16350.0	11990.0
BVP651 LED310-4S/840	26660.0	235.0	113.4	0.427	0.427	0.32	0.32	0.235	9308.6	6976.0	6976.0	5123.0
BVP651 LED360-4S/840	30600.0	275.0	111.3	0.5	0.5	0.375	0.375	0.275	10900.0	8175.0	8175.0	5995.0
BVP651 LED400-4S/840	34000.0	300.0	113.3	0.545	0.545	0.409	0.409	0.3	11881.0	8916.2	8916.2	6540.0
BVP651 LED440-4S/840	37400.0	330.0	113.3	0.6	0.6	0.45	0.45	0.33	13080.0	9810.0	9810.0	7194.0
BVP651 LED490-4S/840	41160.0	375.0	109.8	0.682	0.682	0.512	0.512	0.375	14867.6	11161.6	11161.6	8175.0
BVP651 LED530-4S/840	45360.0	395.0	114.8	0.718	0.718	0.538	0.538	0.395	15652.4	11728.4	11728.4	8611.0
BVP651 LED570-4S/840	48140.0	430.0	112.0	0.782	0.782	0.587	0.587	0.43	17047.6	12796.6	12796.6	9374.0
BVP651 LED600-4S/840	50400.0	465.0	108.4	0.845	0.845	0.634	0.634	0.465	18421.0	13821.2	13821.2	10137.0
BVP651 LED650-4S/840	54780.0	510.0	107.4	0.927	0.927	0.695	0.695	0.51	20208.6	15151.0	15151.0	11118.0
BVP651 LED700-4S/840	58100.0	530.0	109.6	0.964	0.964	0.723	0.723	0.53	21015.2	15761.4	15761.4	11554.0

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
BVP651 LED310-4S/722	26350.0	265.0	99.4	0.482	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED360-4S/722	30600.0	300.0	102.0	0.545	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED400-4S/722	34000.0	335.0	101.5	0.609	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED440-4S/722	36960.0	375.0	98.6	0.682	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED490-4S/722	41160.0	410.0	100.4	0.745	0.007	0.005	0.005	0.004	152.6	109.0	109.0	87.2
BVP651 LED530-4S/722	44820.0	445.0	100.7	0.809	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED570-4S/722	48140.0	495.0	97.3	0.9	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED600-4S/722	49800.0	530.0	94.0	0.964	0.007	0.005	0.005	0.004	152.6	109.0	109.0	87.2
BVP651 LED650-4S/722	54780.0	550.0	99.6	1.0	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED350-4S/727	29750.0	255.0	116.7	0.464	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED400-4S/727	34000.0	285.0	119.3	0.518	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED450-4S/727	37800.0	325.0	116.3	0.591	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED500-4S/727	41500.0	365.0	113.7	0.664	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED550-4S/727	46480.0	395.0	117.7	0.718	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED600-4S/727	49200.0	435.0	113.1	0.791	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED650-4S/727	54120.0	490.0	110.4	0.891	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED700-4S/727	57400.0	540.0	106.3	0.982	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED350-4S/730	30100.0	225.0	133.8	0.409	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED400-4S/730	34000.0	265.0	128.3	0.482	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED450-4S/730	38250.0	290.0	131.9	0.527	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4

BVP651 LED500-4S/730	42500.0	325.0	130.8	0.591	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED550-4S/730	47040.0	360.0	130.7	0.655	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED600-4S/730	50400.0	385.0	130.9	0.7	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED650-4S/730	55440.0	420.0	132.0	0.764	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED700-4S/730	58800.0	470.0	125.1	0.855	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED750-4S/730	63080.0	510.0	123.7	0.927	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED800-4S/730	66400.0	520.0	127.7	0.945	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED840-4S/730	69720.0	550.0	126.8	1.0	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED350-4S/740	30100.0	210.0	143.3	0.382	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED400-4S/740	34400.0	245.0	140.4	0.445	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED450-4S/740	38250.0	280.0	136.6	0.509	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED500-4S/740	42500.0	300.0	141.7	0.545	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED550-4S/740	47600.0	335.0	142.1	0.609	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED600-4S/740	50400.0	370.0	136.2	0.673	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED650-4S/740	55440.0	395.0	140.4	0.718	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED700-4S/740	58800.0	430.0	136.7	0.782	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED750-4S/740	63840.0	475.0	134.4	0.864	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED800-4S/740	66400.0	510.0	130.2	0.927	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED850-4S/740	71380.0	520.0	137.3	0.945	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED890-4S/740 OFA52 ALU PSU	74700.0	550.0	135.8	1.0	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED350-4S/757	30100.0	210.0	143.3	0.382	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED400-4S/757	34400.0	245.0	140.4	0.445	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED450-4S/757	38250.0	280.0	136.6	0.509	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED500-4S/757	42500.0	300.0	141.7	0.545	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6

BVP651 LED550-4S/757	47600.0	335.0	142.1	0.609	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED600-4S/757	50400.0	370.0	136.2	0.673	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED650-4S/757	55440.0	395.0	140.4	0.718	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED700-4S/757	58800.0	430.0	136.7	0.782	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED750-4S/757	63840.0	475.0	134.4	0.864	0.004	0.003	0.003	0.002	87.2	65.4	65.4	43.6
BVP651 LED800-4S/757	66400.0	510.0	130.2	0.927	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED850-4S/757	71380.0	520.0	137.3	0.945	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED890-4S/757	74700.0	550.0	135.8	1.0	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED310-4S/827	26350.0	265.0	99.4	0.482	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED360-4S/827	30600.0	300.0	102.0	0.545	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED400-4S/827	34000.0	335.0	101.5	0.609	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED440-4S/827	36960.0	375.0	98.6	0.682	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED490-4S/827	41160.0	410.0	100.4	0.745	0.007	0.005	0.005	0.004	152.6	109.0	109.0	87.2
BVP651 LED530-4S/827	44820.0	445.0	100.7	0.809	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED570-4S/827	48140.0	495.0	97.3	0.9	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED600-4S/827	49800.0	500.0	99.6	0.909	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED650-4S/827	54780.0	550.0	99.6	1.0	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED310-4S/830	26660.0	240.0	111.1	0.436	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED360-4S/830	30600.0	285.0	107.4	0.518	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED400-4S/830	34000.0	310.0	109.7	0.564	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED440-4S/830	36960.0	345.0	107.1	0.627	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED490-4S/830	41160.0	375.0	109.8	0.682	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED530-4S/830	45360.0	410.0	110.6	0.745	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED570-4S/830	48140.0	445.0	108.2	0.809	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4

BVP651 LED600-4S/830	49800.0	485.0	102.7	0.882	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED650-4S/830	54780.0	530.0	103.4	0.964	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED700-4S/830	58100.0	550.0	105.6	1.0	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED310-4S/840	26660.0	235.0	113.4	0.427	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED360-4S/840	30600.0	275.0	111.3	0.5	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED400-4S/840	34000.0	300.0	113.3	0.545	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED440-4S/840	37400.0	330.0	113.3	0.6	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED490-4S/840	41160.0	375.0	109.8	0.682	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED530-4S/840	45360.0	395.0	114.8	0.718	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED570-4S/840	48140.0	430.0	112.0	0.782	0.005	0.004	0.004	0.003	109.0	87.2	87.2	65.4
BVP651 LED600-4S/840	50400.0	465.0	108.4	0.845	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED650-4S/840	54780.0	510.0	107.4	0.927	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4
BVP651 LED700-4S/840	58100.0	530.0	109.6	0.964	0.006	0.005	0.005	0.003	130.8	109.0	109.0	65.4

*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.