APPENDIX 1

MATERIAL COMPOSITION

The product material composition is illustrated in the table below. The material weight is given in grams and in percentage on total product weight.

Table 1: Material composition

Material	Weight (g)	Weight-%
Aluminium	4954.0	69.25
Copper	14.31	0.2
Other Plastics	1766.63	24.69
Paint	128.0	1.79
PCB Alu	27.9	0.39
PCB Copper	32.39	0.45
PCB Iron	28.26	0.39
PCB Non-ferrous metal	0.01	0.0
PCB Support	113.3	1.58
PCB Tin	1.71	0.02
Silica Sand	0.5	0.01
Stainless Steel	2.0	0.03

Steel	84.81	1.19

APPENDIX 2

USE PHASE (B6) VALUES FOR DIFFERENT COUNTRY MIX

In this EPD the B6 impact has been calculated using the energy mix of EU. The table in this appendix is useful for conversion and comparison of B6 values with other energy country mix. The Global Warming Potential Total (GWP tot) value is illustrated for each country. The value refers to 1 kwh.

Example on how to use the table:

If for example this EPD was done according to EU energy mix and you want to see how the GWP total changes according to a Finland country energy mix, you can take the original value in the results table here highlighted in yellow:

ENVIRONMENTAL IMPACT DATA, RESULTS PER DECLARED UNIT

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

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	4.44E-01	4.75E-03	2.34E-02	4.72E-01	9.50E-04	8.13E-03	ND	ND	ND	ND	ND	4.06E+02	ND	0.00E+00	5.50E-04	2.23E-03	7.33E-04	-2.82E-02

Divide that value according to the EU value from the following table (EU = 3.30E-01) and then multiplying for the Finland value from the same table (FINLAND = 1.54E-01).

Thus, the calculation of this example would be:

New B6 GWP tot for Finland = (4.06E-02 / 3.30E-01) x 1.54E-01 = 1.89E-02.

Country	GWP tot (kg CO2 eq. per kwh)		
AFRICA	7.30E-01	GERMANY	3.90E-01
APAC	9.50E-01	INDIA	1.50E+00
AUSTRALIA	8.40E-01	ITALY	3.50E-01
AUSTRIA	2.30E-01	LATAM	3.90E-01
BELGIUM	2.00E-01	NAM	4.50E-01
CHINA	1.02E+00	NETHERLANDS	3.90E-01
DENMARK	1.60E-01	NORWAY	4.50E-02
EU	3.30E-01	ROW	7.30E-01
FINLAND	1.54E-01	SPAIN	2.10E-01
FRANCE	8.70E-02	SWEDEN	3.70E-02
		UK	2.60E-01

Source Ecoinvent 3.10.1

APPENDIX 3 - 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 reference 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 1: 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.

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

The following list of product configurations is not exhaustive. Please use the formula defined in point 1 above to calculate the exact power scaling factor (PSF) for any specific configuration.

Table 2: GWP per scaling factor (EPD Hub aligned)

	12NC or Product Family Code	Description	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
1	BDP261	BDP261LED8-4S740DS50 DR	592	5.7	103.9	0.19	0.19	0.143	0.143	0.105	187.5	141.1	141.1	103.6
2	BDP261	BDP261LED10-4S740DS50 DR	740	6.9	107.2	0.23	0.23	0.173	0.173	0.127	227.0	170.8	170.8	125.3
3	BDP261	BDP261LED12-4S740DS50 DR	888	7.9	112.4	0.263	0.263	0.197	0.197	0.145	259.6	194.4	194.4	143.1
4	BDP261	BDP261LED14-4S740DS50 DR	1036	8.9	116.4	0.297	0.297	0.223	0.223	0.163	293.1	220.1	220.1	160.9
5	BDP261	BDP261LED16-4S740DS50 DR	1184	10.0	118.4	0.333	0.333	0.25	0.25	0.183	328.7	246.8	246.8	180.6
6	BDP261	BDP261LED18-4S740DS50 DR	1332	11.2	118.9	0.373	0.373	0.28	0.28	0.205	368.2	276.4	276.4	202.3
7	BDP261	BDP261LED20-4S740DS50 DR	1480	12.4	119.4	0.413	0.413	0.31	0.31	0.227	407.6	306.0	306.0	224.0
8	BDP261	BDP261LED22-4S740DS50 DR	1628	13.4	121.5	0.447	0.447	0.335	0.335	0.246	441.2	330.6	330.6	242.8
9	BDP261	BDP261LED24-4S740DS50 DR	1752	14.8	118.4	0.493	0.493	0.37	0.37	0.271	486.6	365.2	365.2	267.5
10	BDP261	BDP261LED27-4S740DS50 DR	1971	16.6	118.7	0.553	0.553	0.415	0.415	0.304	545.8	409.6	409.6	300.0

11	BDP261	BDP261LED30-4S740DS50 DR	2190	18.6	117.7	0.62	0.62	0.465	0.465	0.341	611.9	459.0	459.0	336.6
12	BDP261	BDP261LED35-4S740DS50 DR	2555	22.0	116.1	0.733	0.733	0.55	0.55	0.403	723.5	542.9	542.9	397.8
13	BDP261	BDP261LED39-4S740DS50 DR	2769	23.0	120.4	0.767	0.767	0.575	0.575	0.422	757.0	567.5	567.5	416.5
14	BDP261	BDP261LED45-4S740DS50 DR	3195	27.0	118.3	0.9	0.9	0.675	0.675	0.495	888.3	666.2	666.2	488.6
15	BDP261	BDP261LED50-4S740DS50 DR	3550	30.0	118.3	1.0	1.0	0.75	0.75	0.55	987.0	740.2	740.2	542.9
16	BDP261	BDP261LED55-4S740DS50 DR	3920	33.0	118.8	1.1	1.1	0.825	0.825	0.605	1085.7	814.3	814.3	597.1
17	BDP261	BDP261LED59-4S740DS50 DR	4200	36.0	116.7	1.2	1.2	0.9	0.9	0.66	1184.4	888.3	888.3	651.4
18	BDP261	BDP261LED64-4S740DS50 DR	4480	39.5	113.4	1.317	1.317	0.988	0.988	0.724	1299.9	975.2	975.2	714.6
19	BDP261	BDP261LED69-4S740DS50 DR	4900	38.5	127.3	1.283	1.283	0.962	0.962	0.706	1266.3	949.5	949.5	696.8
20	BDP261	BDP261LED74-4S740DS50 DR	5180	41.5	124.8	1.383	1.383	1.037	1.037	0.761	1365.0	1023.5	1023.5	751.1
21	BDP261	BDP261LED79-4S740DS50 DR	5460	44.5	122.7	1.483	1.483	1.112	1.112	0.816	1463.7	1097.5	1097.5	805.4
22	BDP261	BDP261LED84-4S740DS50 DR	5880	47.5	123.8	1.583	1.583	1.187	1.187	0.871	1562.4	1171.6	1171.6	859.7
23	BDP261	BDP261LED90-4S740DS50 DR	6300	51.0	123.5	1.7	1.7	1.275	1.275	0.935	1677.9	1258.4	1258.4	922.8
24	BDP261	BDP261LED94-4S740DS50 DR	6580	53.0	124.2	1.767	1.767	1.325	1.325	0.972	1744.0	1307.8	1307.8	959.4

25	BDP261	BDP261LED100-4S740DS50 DR	6900	57.0	121.1	1.9	1.9	1.425	1.425	1.045	1875.3	1406.5	1406.5	1031.4
26	BDP261	BDP261LED8-4S730DS50 DR	592	6.0	98.7	0.2	0.2	0.15	0.15	0.11	197.4	148.0	148.0	108.6
27	BDP261	BDP261LED10-4S730DS50 DR	740	7.2	102.8	0.24	0.24	0.18	0.18	0.132	236.9	177.7	177.7	130.3
28	BDP261	BDP261LED12-4S730DS50 DR	888	8.2	108.3	0.273	0.273	0.205	0.205	0.15	269.5	202.3	202.3	148.0
29	BDP261	BDP261LED14-4S730DS50 DR	1036	9.4	110.2	0.313	0.313	0.235	0.235	0.172	308.9	231.9	231.9	169.8
30	BDP261	BDP261LED16-4S730DS50 DR	1184	10.6	111.7	0.353	0.353	0.265	0.265	0.194	348.4	261.6	261.6	191.5
31	BDP261	BDP261LED18-4S730DS50 DR	1332	11.8	112.9	0.393	0.393	0.295	0.295	0.216	387.9	291.2	291.2	213.2
32	BDP261	BDP261LED20-4S730DS50 DR	1480	13.0	113.8	0.433	0.433	0.325	0.325	0.238	427.4	320.8	320.8	234.9
33	BDP261	BDP261LED22-4S730DS50 DR	1628	14.2	114.6	0.473	0.473	0.355	0.355	0.26	466.9	350.4	350.4	256.6
34	BDP261	BDP261LED24-4S730DS50 DR	1752	15.6	112.3	0.52	0.52	0.39	0.39	0.286	513.2	384.9	384.9	282.3
35	BDP261	BDP261LED27-4S730DS50 DR	1971	17.6	112.0	0.587	0.587	0.44	0.44	0.323	579.4	434.3	434.3	318.8
36	BDP261	BDP261LED30-4S730DS50 DR	2190	19.8	110.6	0.66	0.66	0.495	0.495	0.363	651.4	488.6	488.6	358.3
37	BDP261	BDP261LED35-4S730DS50 DR	2555	23.5	108.7	0.783	0.783	0.587	0.587	0.431	772.8	579.4	579.4	425.4
38	BDP261	BDP261LED39-4S730DS50 DR	2769	24.5	113.0	0.817	0.817	0.613	0.613	0.449	806.4	605.0	605.0	443.2

39	BDP261	BDP261LED45-4S730DS50 DR	3195	28.5	112.1	0.95	0.95	0.712	0.712	0.522	937.6	702.7	702.7	515.2
40	BDP261	BDP261LED50-4S730DS50 DR	3500	32.0	109.4	1.067	1.067	0.8	0.8	0.587	1053.1	789.6	789.6	579.4
41	BDP261	BDP261LED55-4S730DS50 DR	3920	35.5	110.4	1.183	1.183	0.887	0.887	0.651	1167.6	875.5	875.5	642.5
42	BDP261	BDP261LED59-4S730DS50 DR	4200	38.5	109.1	1.283	1.283	0.962	0.962	0.706	1266.3	949.5	949.5	696.8
43	BDP261	BDP261LED64-4S730DS50 DR	4480	38.0	117.9	1.267	1.267	0.95	0.95	0.697	1250.5	937.6	937.6	687.9
44	BDP261	BDP261LED69-4S730DS50 DR	4900	41.0	119.5	1.367	1.367	1.025	1.025	0.752	1349.2	1011.7	1011.7	742.2
45	BDP261	BDP261LED74-4S730DS50 DR	5180	44.0	117.7	1.467	1.467	1.1	1.1	0.807	1447.9	1085.7	1085.7	796.5
46	BDP261	BDP261LED79-4S730DS50 DR	5600	47.5	117.9	1.583	1.583	1.187	1.187	0.871	1562.4	1171.6	1171.6	859.7
47	BDP261	BDP261LED84-4S730DS50 DR	5880	51.0	115.3	1.7	1.7	1.275	1.275	0.935	1677.9	1258.4	1258.4	922.8
48	BDP261	BDP261LED90-4S730DS50 DR	6300	54.0	116.7	1.8	1.8	1.35	1.35	0.99	1776.6	1332.5	1332.5	977.1
49	BDP261	BDP261LED94-4S730DS50 DR	6486	57.0	113.8	1.9	1.9	1.425	1.425	1.045	1875.3	1406.5	1406.5	1031.4
50	BDP261	BDP261LED100-4S730DS50 DR	6900	61.0	113.1	2.033	2.033	1.525	1.525	1.118	2006.6	1505.2	1505.2	1103.5
51	BDP261	BDP261LED7-4S727DS50 DR	518	5.9	87.8	0.197	0.197	0.148	0.148	0.108	194.4	146.1	146.1	106.6
52	BDP261	BDP261LED9-4S727DS50 DR	666	7.2	92.5	0.24	0.24	0.18	0.18	0.132	236.9	177.7	177.7	130.3

53	BDP261	BDP261LED11-4S727DS50 DR	814	8.4	96.9	0.28	0.28	0.21	0.21	0.154	276.4	207.3	207.3	152.0
54	BDP261	BDP261LED13-4S727DS50 DR	962	9.7	99.2	0.323	0.323	0.242	0.242	0.178	318.8	238.9	238.9	175.7
55	BDP261	BDP261LED14-4S727DS50 DR	1036	10.4	99.6	0.347	0.347	0.26	0.26	0.191	342.5	256.6	256.6	188.5
56	BDP261	BDP261LED16-4S727DS50 DR	1184	11.8	100.3	0.393	0.393	0.295	0.295	0.216	387.9	291.2	291.2	213.2
57	BDP261	BDP261LED18-4S727DS50 DR	1332	13.2	100.9	0.44	0.44	0.33	0.33	0.242	434.3	325.7	325.7	238.9
58	BDP261	BDP261LED20-4S727DS50 DR	1460	14.6	100.0	0.487	0.487	0.365	0.365	0.268	480.7	360.3	360.3	264.5
59	BDP261	BDP261LED22-4S727DS50 DR	1606	16.0	100.4	0.533	0.533	0.4	0.4	0.293	526.1	394.8	394.8	289.2
60	BDP261	BDP261LED24-4S727DS50 DR	1752	17.6	99.5	0.587	0.587	0.44	0.44	0.323	579.4	434.3	434.3	318.8
61	BDP261	BDP261LED27-4S727DS50 DR	1971	20.0	98.5	0.667	0.667	0.5	0.5	0.367	658.3	493.5	493.5	362.2
62	BDP261	BDP261LED30-4S727DS50 DR	2190	22.5	97.3	0.75	0.75	0.562	0.562	0.413	740.2	554.7	554.7	407.6
63	BDP261	BDP261LED35-4S727DS50 DR	2520	26.5	95.1	0.883	0.883	0.662	0.662	0.486	871.5	653.4	653.4	479.7
64	BDP261	BDP261LED39-4S727DS50 DR	2769	27.5	100.7	0.917	0.917	0.688	0.688	0.504	905.1	679.1	679.1	497.4
65	BDP261	BDP261LED45-4S727DS50 DR	3150	32.0	98.4	1.067	1.067	0.8	0.8	0.587	1053.1	789.6	789.6	579.4
66	BDP261	BDP261LED50-4S727DS50 DR	3500	36.0	97.2	1.2	1.2	0.9	0.9	0.66	1184.4	888.3	888.3	651.4

67	BDP261	BDP261LED55-4S727DS50 DR	3920	40.5	96.8	1.35	1.35	1.013	1.013	0.743	1332.5	999.8	999.8	733.3
68	BDP261	BDP261LED59-4S727DS50 DR	4200	39.5	106.3	1.317	1.317	0.988	0.988	0.724	1299.9	975.2	975.2	714.6
69	BDP261	BDP261LED64-4S727DS50 DR	4480	42.5	105.4	1.417	1.417	1.063	1.063	0.779	1398.6	1049.2	1049.2	768.9
70	BDP261	BDP261LED69-4S727DS50 DR	4900	46.5	105.4	1.55	1.55	1.163	1.163	0.853	1529.9	1147.9	1147.9	841.9
71	BDP261	BDP261LED74-4S727DS50 DR	5180	50.0	103.6	1.667	1.667	1.25	1.25	0.917	1645.3	1233.8	1233.8	905.1
72	BDP261	BDP261LED79-4S727DS50 DR	5600	53.0	105.7	1.767	1.767	1.325	1.325	0.972	1744.0	1307.8	1307.8	959.4
73	BDP261	BDP261LED84-4S727DS50 DR	5796	57.0	101.7	1.9	1.9	1.425	1.425	1.045	1875.3	1406.5	1406.5	1031.4
74	BDP261	BDP261LED90-4S727DS50 DR	6210	62.0	100.2	2.067	2.067	1.55	1.55	1.137	2040.1	1529.9	1529.9	1122.2
75	BDP261	BDP261LED94-4S727DS50 DR	6486	65.0	99.8	2.167	2.167	1.625	1.625	1.192	2138.8	1603.9	1603.9	1176.5
76	BDP261	BDP261LED100-4S727DS50 DR	6800	69.0	98.6	2.3	2.3	1.725	1.725	1.265	2270.1	1702.6	1702.6	1248.6
77	BDP261	BDP261LED7-4S722DS50 DR	518	6.5	79.7	0.217	0.217	0.163	0.163	0.119	214.2	160.9	160.9	117.5
78	BDP261	BDP261LED9-4S722DS50 DR	666	7.8	85.4	0.26	0.26	0.195	0.195	0.143	256.6	192.5	192.5	141.1
79	BDP261	BDP261LED11-4S722DS50 DR	814	9.2	88.5	0.307	0.307	0.23	0.23	0.169	303.0	227.0	227.0	166.8
80	BDP261	BDP261LED12-4S722DS50 DR	888	10.0	88.8	0.333	0.333	0.25	0.25	0.183	328.7	246.8	246.8	180.6

81	BDP261	BDP261LED14-4S722DS50 DR	1036	11.6	89.3	0.387	0.387	0.29	0.29	0.213	382.0	286.2	286.2	210.2
82	BDP261	BDP261LED16-4S722DS50 DR	1184	13.0	91.1	0.433	0.433	0.325	0.325	0.238	427.4	320.8	320.8	234.9
83	BDP261	BDP261LED18-4S722DS50 DR	1314	14.6	90.0	0.487	0.487	0.365	0.365	0.268	480.7	360.3	360.3	264.5
84	BDP261	BDP261LED20-4S722DS50 DR	1460	16.4	89.0	0.547	0.547	0.41	0.41	0.301	539.9	404.7	404.7	297.1
85	BDP261	BDP261LED22-4S722DS50 DR	1606	18.0	89.2	0.6	0.6	0.45	0.45	0.33	592.2	444.2	444.2	325.7
86	BDP261	BDP261LED24-4S722DS50 DR	1752	19.8	88.5	0.66	0.66	0.495	0.495	0.363	651.4	488.6	488.6	358.3
87	BDP261	BDP261LED27-4S722DS50 DR	1971	22.5	87.6	0.75	0.75	0.562	0.562	0.413	740.2	554.7	554.7	407.6
88	BDP261	BDP261LED30-4S722DS50 DR	2160	25.5	84.7	0.85	0.85	0.637	0.637	0.468	838.9	628.7	628.7	461.9
89	BDP261	BDP261LED35-4S722DS50 DR	2485	27.5	90.4	0.917	0.917	0.688	0.688	0.504	905.1	679.1	679.1	497.4
90	BDP261	BDP261LED39-4S722DS50 DR	2730	31.0	88.1	1.033	1.033	0.775	0.775	0.568	1019.6	764.9	764.9	560.6
91	BDP261	BDP261LED45-4S722DS50 DR	3150	36.5	86.3	1.217	1.217	0.913	0.913	0.669	1201.2	901.1	901.1	660.3
92	BDP261	BDP261LED50-4S722DS50 DR	3500	37.0	94.6	1.233	1.233	0.925	0.925	0.678	1217.0	913.0	913.0	669.2
93	BDP261	BDP261LED55-4S722DS50 DR	3780	41.0	92.2	1.367	1.367	1.025	1.025	0.752	1349.2	1011.7	1011.7	742.2
94	BDP261	BDP261LED59-4S722DS50 DR	4200	44.0	95.5	1.467	1.467	1.1	1.1	0.807	1447.9	1085.7	1085.7	796.5

95	BDP261	BDP261LED64-4S722DS50 DR	4480	48.0	93.3	1.6	1.6	1.2	1.2	0.88	1579.2	1184.4	1184.4	868.6
96	BDP261	BDP261LED69-4S722DS50 DR	4900	52.0	94.2	1.733	1.733	1.3	1.3	0.953	1710.5	1283.1	1283.1	940.6
97	BDP261	BDP261LED74-4S722DS50 DR	5180	56.0	92.5	1.867	1.867	1.4	1.4	1.027	1842.7	1381.8	1381.8	1013.6
98	BDP261	BDP261LED8-4S840DS50 DR	592	6.4	92.5	0.213	0.213	0.16	0.16	0.117	210.2	157.9	157.9	115.5
99	BDP261	BDP261LED10-4S840DS50 DR	740	7.6	97.4	0.253	0.253	0.19	0.19	0.139	249.7	187.5	187.5	137.2
100	BDP261	BDP261LED12-4S840DS50 DR	888	8.8	100.9	0.293	0.293	0.22	0.22	0.161	289.2	217.1	217.1	158.9

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 3: 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.

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

Table 4: Impact per scaling factor (PEP EcoPassport aligned)

	12NC or Product Family Code	Description	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
1	BDP261	BDP261LED8-4S740DS50 DR	592	5.7	103.9	0.19	0.112	0.084	0.084	0.062	110.5	82.9	82.9	61.2
2	BDP261	BDP261LED10-4S740DS50 DR	740	6.9	107.2	0.23	0.109	0.082	0.082	0.06	107.6	80.9	80.9	59.2
3	BDP261	BDP261LED12-4S740DS50 DR	888	7.9	112.4	0.263	0.104	0.078	0.078	0.057	102.6	77.0	77.0	56.3
4	BDP261	BDP261LED14-4S740DS50 DR	1036	8.9	116.4	0.297	0.1	0.075	0.075	0.055	98.7	74.0	74.0	54.3
5	BDP261	BDP261LED16-4S740DS50 DR	1184	10.0	118.4	0.333	0.099	0.074	0.074	0.054	97.7	73.0	73.0	53.3
6	BDP261	BDP261LED18-4S740DS50 DR	1332	11.2	118.9	0.373	0.098	0.074	0.074	0.054	96.7	73.0	73.0	53.3
7	BDP261	BDP261LED20-4S740DS50 DR	1480	12.4	119.4	0.413	0.097	0.073	0.073	0.053	95.7	72.1	72.1	52.3
8	BDP261	BDP261LED22-4S740DS50 DR	1628	13.4	121.5	0.447	0.096	0.072	0.072	0.053	94.8	71.1	71.1	52.3
9	BDP261	BDP261LED24-4S740DS50 DR	1752	14.8	118.4	0.493	0.099	0.074	0.074	0.054	97.7	73.0	73.0	53.3
10	BDP261	BDP261LED27-4S740DS50 DR	1971	16.6	118.7	0.553	0.098	0.074	0.074	0.054	96.7	73.0	73.0	53.3
11	BDP261	BDP261LED30-4S740DS50 DR	2190	18.6	117.7	0.62	0.099	0.074	0.074	0.054	97.7	73.0	73.0	53.3
12	BDP261	BDP261LED35-4S740DS50 DR	2555	22.0	116.1	0.733	0.1	0.075	0.075	0.055	98.7	74.0	74.0	54.3

13	BDP261	BDP261LED39-4S740DS50 DR	2769	23.0	120.4	0.767	0.097	0.073	0.073	0.053	95.7	72.1	72.1	52.3
14	BDP261	BDP261LED45-4S740DS50 DR	3195	27.0	118.3	0.9	0.099	0.074	0.074	0.054	97.7	73.0	73.0	53.3
15	BDP261	BDP261LED50-4S740DS50 DR	3550	30.0	118.3	1.0	0.099	0.074	0.074	0.054	97.7	73.0	73.0	53.3
16	BDP261	BDP261LED55-4S740DS50 DR	3920	33.0	118.8	1.1	0.098	0.074	0.074	0.054	96.7	73.0	73.0	53.3
17	BDP261	BDP261LED59-4S740DS50 DR	4200	36.0	116.7	1.2	0.1	0.075	0.075	0.055	98.7	74.0	74.0	54.3
18	BDP261	BDP261LED64-4S740DS50 DR	4480	39.5	113.4	1.317	0.103	0.077	0.077	0.057	101.7	76.0	76.0	56.3
19	BDP261	BDP261LED69-4S740DS50 DR	4900	38.5	127.3	1.283	0.091	0.068	0.068	0.05	89.8	67.1	67.1	49.4
20	BDP261	BDP261LED74-4S740DS50 DR	5180	41.5	124.8	1.383	0.094	0.071	0.071	0.052	92.8	70.1	70.1	51.3
21	BDP261	BDP261LED79-4S740DS50 DR	5460	44.5	122.7	1.483	0.095	0.071	0.071	0.052	93.8	70.1	70.1	51.3
22	BDP261	BDP261LED84-4S740DS50 DR	5880	47.5	123.8	1.583	0.095	0.071	0.071	0.052	93.8	70.1	70.1	51.3
23	BDP261	BDP261LED90-4S740DS50 DR	6300	51.0	123.5	1.7	0.095	0.071	0.071	0.052	93.8	70.1	70.1	51.3
24	BDP261	BDP261LED94-4S740DS50 DR	6580	53.0	124.2	1.767	0.094	0.071	0.071	0.052	92.8	70.1	70.1	51.3
25	BDP261	BDP261LED100-4S740DS50 DR	6900	57.0	121.1	1.9	0.097	0.073	0.073	0.053	95.7	72.1	72.1	52.3
26	BDP261	BDP261LED8-4S730DS50 DR	592	6.0	98.7	0.2	0.118	0.088	0.088	0.065	116.5	86.9	86.9	64.2

27	BDP261	BDP261LED10-4S730DS50 DR	740	7.2	102.8	0.24	0.114	0.086	0.086	0.063	112.5	84.9	84.9	62.2
28	BDP261	BDP261LED12-4S730DS50 DR	888	8.2	108.3	0.273	0.108	0.081	0.081	0.059	106.6	79.9	79.9	58.2
29	BDP261	BDP261LED14-4S730DS50 DR	1036	9.4	110.2	0.313	0.106	0.08	0.08	0.058	104.6	79.0	79.0	57.2
30	BDP261	BDP261LED16-4S730DS50 DR	1184	10.6	111.7	0.353	0.104	0.078	0.078	0.057	102.6	77.0	77.0	56.3
31	BDP261	BDP261LED18-4S730DS50 DR	1332	11.8	112.9	0.393	0.103	0.077	0.077	0.057	101.7	76.0	76.0	56.3
32	BDP261	BDP261LED20-4S730DS50 DR	1480	13.0	113.8	0.433	0.102	0.076	0.076	0.056	100.7	75.0	75.0	55.3
33	BDP261	BDP261LED22-4S730DS50 DR	1628	14.2	114.6	0.473	0.102	0.076	0.076	0.056	100.7	75.0	75.0	55.3
34	BDP261	BDP261LED24-4S730DS50 DR	1752	15.6	112.3	0.52	0.104	0.078	0.078	0.057	102.6	77.0	77.0	56.3
35	BDP261	BDP261LED27-4S730DS50 DR	1971	17.6	112.0	0.587	0.104	0.078	0.078	0.057	102.6	77.0	77.0	56.3
36	BDP261	BDP261LED30-4S730DS50 DR	2190	19.8	110.6	0.66	0.106	0.08	0.08	0.058	104.6	79.0	79.0	57.2
37	BDP261	BDP261LED35-4S730DS50 DR	2555	23.5	108.7	0.783	0.107	0.08	0.08	0.059	105.6	79.0	79.0	58.2
38	BDP261	BDP261LED39-4S730DS50 DR	2769	24.5	113.0	0.817	0.103	0.077	0.077	0.057	101.7	76.0	76.0	56.3
39	BDP261	BDP261LED45-4S730DS50 DR	3195	28.5	112.1	0.95	0.104	0.078	0.078	0.057	102.6	77.0	77.0	56.3
40	BDP261	BDP261LED50-4S730DS50 DR	3500	32.0	109.4	1.067	0.107	0.08	0.08	0.059	105.6	79.0	79.0	58.2

41	BDP261	BDP261LED55-4S730DS50 DR	3920	35.5	110.4	1.183	0.105	0.079	0.079	0.058	103.6	78.0	78.0	57.2
42	BDP261	BDP261LED59-4S730DS50 DR	4200	38.5	109.1	1.283	0.106	0.08	0.08	0.058	104.6	79.0	79.0	57.2
43	BDP261	BDP261LED64-4S730DS50 DR	4480	38.0	117.9	1.267	0.099	0.074	0.074	0.054	97.7	73.0	73.0	53.3
44	BDP261	BDP261LED69-4S730DS50 DR	4900	41.0	119.5	1.367	0.097	0.073	0.073	0.053	95.7	72.1	72.1	52.3
45	BDP261	BDP261LED74-4S730DS50 DR	5180	44.0	117.7	1.467	0.1	0.075	0.075	0.055	98.7	74.0	74.0	54.3
46	BDP261	BDP261LED79-4S730DS50 DR	5600	47.5	117.9	1.583	0.098	0.074	0.074	0.054	96.7	73.0	73.0	53.3
47	BDP261	BDP261LED84-4S730DS50 DR	5880	51.0	115.3	1.7	0.102	0.076	0.076	0.056	100.7	75.0	75.0	55.3
48	BDP261	BDP261LED90-4S730DS50 DR	6300	54.0	116.7	1.8	0.101	0.076	0.076	0.056	99.7	75.0	75.0	55.3
49	BDP261	BDP261LED94-4S730DS50 DR	6486	57.0	113.8	1.9	0.103	0.077	0.077	0.057	101.7	76.0	76.0	56.3
50	BDP261	BDP261LED100-4S730DS50 DR	6900	61.0	113.1	2.033	0.104	0.078	0.078	0.057	102.6	77.0	77.0	56.3
51	BDP261	BDP261LED7-4S727DS50 DR	518	5.9	87.8	0.197	0.133	0.1	0.1	0.073	131.3	98.7	98.7	72.1
52	BDP261	BDP261LED9-4S727DS50 DR	666	7.2	92.5	0.24	0.126	0.095	0.095	0.069	124.4	93.8	93.8	68.1
53	BDP261	BDP261LED11-4S727DS50 DR	814	8.4	96.9	0.28	0.12	0.09	0.09	0.066	118.4	88.8	88.8	65.1
54	BDP261	BDP261LED13-4S727DS50 DR	962	9.7	99.2	0.323	0.118	0.088	0.088	0.065	116.5	86.9	86.9	64.2

55	BDP261	BDP261LED14-4S727DS50 DR	1036	10.4	99.6	0.347	0.117	0.088	0.088	0.064	115.5	86.9	86.9	63.2
56	BDP261	BDP261LED16-4S727DS50 DR	1184	11.8	100.3	0.393	0.116	0.087	0.087	0.064	114.5	85.9	85.9	63.2
57	BDP261	BDP261LED18-4S727DS50 DR	1332	13.2	100.9	0.44	0.116	0.087	0.087	0.064	114.5	85.9	85.9	63.2
58	BDP261	BDP261LED20-4S727DS50 DR	1460	14.6	100.0	0.487	0.117	0.088	0.088	0.064	115.5	86.9	86.9	63.2
59	BDP261	BDP261LED22-4S727DS50 DR	1606	16.0	100.4	0.533	0.116	0.087	0.087	0.064	114.5	85.9	85.9	63.2
60	BDP261	BDP261LED24-4S727DS50 DR	1752	17.6	99.5	0.587	0.117	0.088	0.088	0.064	115.5	86.9	86.9	63.2
61	BDP261	BDP261LED27-4S727DS50 DR	1971	20.0	98.5	0.667	0.119	0.089	0.089	0.065	117.5	87.8	87.8	64.2
62	BDP261	BDP261LED30-4S727DS50 DR	2190	22.5	97.3	0.75	0.12	0.09	0.09	0.066	118.4	88.8	88.8	65.1
63	BDP261	BDP261LED35-4S727DS50 DR	2520	26.5	95.1	0.883	0.123	0.092	0.092	0.068	121.4	90.8	90.8	67.1
64	BDP261	BDP261LED39-4S727DS50 DR	2769	27.5	100.7	0.917	0.116	0.087	0.087	0.064	114.5	85.9	85.9	63.2
65	BDP261	BDP261LED45-4S727DS50 DR	3150	32.0	98.4	1.067	0.118	0.088	0.088	0.065	116.5	86.9	86.9	64.2
66	BDP261	BDP261LED50-4S727DS50 DR	3500	36.0	97.2	1.2	0.12	0.09	0.09	0.066	118.4	88.8	88.8	65.1
67	BDP261	BDP261LED55-4S727DS50 DR	3920	40.5	96.8	1.35	0.12	0.09	0.09	0.066	118.4	88.8	88.8	65.1
68	BDP261	BDP261LED59-4S727DS50 DR	4200	39.5	106.3	1.317	0.109	0.082	0.082	0.06	107.6	80.9	80.9	59.2

69	BDP261	BDP261LED64-4S727DS50 DR	4480	42.5	105.4	1.417	0.111	0.083	0.083	0.061	109.6	81.9	81.9	60.2
70	BDP261	BDP261LED69-4S727DS50 DR	4900	46.5	105.4	1.55	0.11	0.083	0.083	0.061	108.6	81.9	81.9	60.2
71	BDP261	BDP261LED74-4S727DS50 DR	5180	50.0	103.6	1.667	0.113	0.085	0.085	0.062	111.5	83.9	83.9	61.2
72	BDP261	BDP261LED79-4S727DS50 DR	5600	53.0	105.7	1.767	0.11	0.083	0.083	0.061	108.6	81.9	81.9	60.2
73	BDP261	BDP261LED84-4S727DS50 DR	5796	57.0	101.7	1.9	0.114	0.086	0.086	0.063	112.5	84.9	84.9	62.2
74	BDP261	BDP261LED90-4S727DS50 DR	6210	62.0	100.2	2.067	0.116	0.087	0.087	0.064	114.5	85.9	85.9	63.2
75	BDP261	BDP261LED94-4S727DS50 DR	6486	65.0	99.8	2.167	0.117	0.088	0.088	0.064	115.5	86.9	86.9	63.2
76	BDP261	BDP261LED100-4S727DS50 DR	6800	69.0	98.6	2.3	0.117	0.088	0.088	0.064	115.5	86.9	86.9	63.2
77	BDP261	BDP261LED7-4S722DS50 DR	518	6.5	79.7	0.217	0.147	0.11	0.11	0.081	145.1	108.6	108.6	79.9
78	BDP261	BDP261LED9-4S722DS50 DR	666	7.8	85.4	0.26	0.137	0.103	0.103	0.075	135.2	101.7	101.7	74.0
79	BDP261	BDP261LED11-4S722DS50 DR	814	9.2	88.5	0.307	0.132	0.099	0.099	0.073	130.3	97.7	97.7	72.1
80	BDP261	BDP261LED12-4S722DS50 DR	888	10.0	88.8	0.333	0.131	0.098	0.098	0.072	129.3	96.7	96.7	71.1
81	BDP261	BDP261LED14-4S722DS50 DR	1036	11.6	89.3	0.387	0.131	0.098	0.098	0.072	129.3	96.7	96.7	71.1
82	BDP261	BDP261LED16-4S722DS50 DR	1184	13.0	91.1	0.433	0.128	0.096	0.096	0.07	126.3	94.8	94.8	69.1

83	BDP261	BDP261LED18-4S722DS50 DR	1314	14.6	90.0	0.487	0.13	0.098	0.098	0.072	128.3	96.7	96.7	71.1
84	BDP261	BDP261LED20-4S722DS50 DR	1460	16.4	89.0	0.547	0.131	0.098	0.098	0.072	129.3	96.7	96.7	71.1
85	BDP261	BDP261LED22-4S722DS50 DR	1606	18.0	89.2	0.6	0.131	0.098	0.098	0.072	129.3	96.7	96.7	71.1
86	BDP261	BDP261LED24-4S722DS50 DR	1752	19.8	88.5	0.66	0.132	0.099	0.099	0.073	130.3	97.7	97.7	72.1
87	BDP261	BDP261LED27-4S722DS50 DR	1971	22.5	87.6	0.75	0.134	0.101	0.101	0.074	132.3	99.7	99.7	73.0
88	BDP261	BDP261LED30-4S722DS50 DR	2160	25.5	84.7	0.85	0.138	0.104	0.104	0.076	136.2	102.6	102.6	75.0
89	BDP261	BDP261LED35-4S722DS50 DR	2485	27.5	90.4	0.917	0.129	0.097	0.097	0.071	127.3	95.7	95.7	70.1
90	BDP261	BDP261LED39-4S722DS50 DR	2730	31.0	88.1	1.033	0.132	0.099	0.099	0.073	130.3	97.7	97.7	72.1
91	BDP261	BDP261LED45-4S722DS50 DR	3150	36.5	86.3	1.217	0.135	0.101	0.101	0.074	133.2	99.7	99.7	73.0
92	BDP261	BDP261LED50-4S722DS50 DR	3500	37.0	94.6	1.233	0.123	0.092	0.092	0.068	121.4	90.8	90.8	67.1
93	BDP261	BDP261LED55-4S722DS50 DR	3780	41.0	92.2	1.367	0.127	0.095	0.095	0.07	125.3	93.8	93.8	69.1
94	BDP261	BDP261LED59-4S722DS50 DR	4200	44.0	95.5	1.467	0.122	0.091	0.091	0.067	120.4	89.8	89.8	66.1
95	BDP261	BDP261LED64-4S722DS50 DR	4480	48.0	93.3	1.6	0.125	0.094	0.094	0.069	123.4	92.8	92.8	68.1
96	BDP261	BDP261LED69-4S722DS50 DR	4900	52.0	94.2	1.733	0.123	0.092	0.092	0.068	121.4	90.8	90.8	67.1

97	BDP261	BDP261LED74-4S722DS50 DR	5180	56.0	92.5	1.867	0.127	0.095	0.095	0.07	125.3	93.8	93.8	69.1
98	BDP261	BDP261LED8-4S840DS50 DR	592	6.4	92.5	0.213	0.126	0.095	0.095	0.069	124.4	93.8	93.8	68.1
99	BDP261	BDP261LED10-4S840DS50 DR	740	7.6	97.4	0.253	0.12	0.09	0.09	0.066	118.4	88.8	88.8	65.1
100	BDP261	BDP261LED12-4S840DS50 DR	888	8.8	100.9	0.293	0.115	0.086	0.086	0.063	113.5	84.9	84.9	62.2