

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	1206.14	45.63
Copper	22.85	0.86
Other Plastics	687.46	26.01
Paint	68.86	2.61
PCB Alu	66.09	2.5
PCB Copper	102.72	3.89
PCB Iron	96.76	3.66
PCB Support	131.4	4.97
PCB Tin	5.72	0.22
PP / PS-High Impact PS / ABS	5.91	0.22
Silica Sand	190.4	7.2
Steel	58.86	2.23

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 ₂ e	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 family.

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

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

$$\text{Scaled Impact} = \text{GWP}_{\text{case}} * \text{TSF}$$

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	BGS010	BGS010 LED6-1Z/727 DM	552	4.7	117.4	0.064	0.064	0.048	0.048	0.035	153.7	115.3	115.3	84.1
2	BGS010	BGS010 LED8-1Z/727 DM	736	5.8	126.9	0.079	0.079	0.059	0.059	0.043	189.7	141.7	141.7	103.3
3	BGS010	BGS010 LED10-1Z/727 DM	920	6.9	133.3	0.095	0.095	0.071	0.071	0.052	228.2	170.5	170.5	124.9
4	BGS010	BGS010 LED16-1Z/727 DM	1456	10.4	140.0	0.142	0.142	0.106	0.106	0.078	341.0	254.6	254.6	187.3
5	BGS010	BGS010 LED20-1Z/727 DM	1820	13.0	140.0	0.178	0.178	0.134	0.134	0.098	427.5	321.8	321.8	235.4
6	BGS010	BGS010 LED27-1Z/727 DM	2430	17.6	138.1	0.241	0.241	0.181	0.181	0.133	578.8	434.7	434.7	319.4
7	BGS010	BGS010 LED30-1Z/727 DM	2700	20.0	135.0	0.274	0.274	0.206	0.206	0.151	658.1	494.8	494.8	362.7
8	BGS010	BGS010 LED35-1Z/727 DM	3115	23.5	132.6	0.322	0.322	0.241	0.241	0.177	773.3	578.8	578.8	425.1
9	BGS010	BGS010 LED40-1Z/727 DM	3560	27.5	129.5	0.377	0.377	0.283	0.283	0.207	905.4	679.7	679.7	497.2
10	BGS010	BGS010 LED45-1Z/727 DM	4005	28.5	140.5	0.39	0.39	0.292	0.292	0.215	936.7	701.3	701.3	516.4

11	BGS010	BGS010 LED50-1Z/727 DM	4400	32.0	137.5	0.438	0.438	0.329	0.329	0.241	1051.9	790.2	790.2	578.8
12	BGS010	BGS010 LED56-1Z/727 DM	4872	36.5	133.5	0.5	0.5	0.375	0.375	0.275	1200.8	900.6	900.6	660.5
13	BGS010	BGS010 LED60-1Z/727 DM	5220	39.5	132.2	0.541	0.541	0.406	0.406	0.298	1299.3	975.1	975.1	715.7
14	BGS010	BGS010 LED65-1Z/727 DM	5760	41.0	140.5	0.562	0.562	0.422	0.422	0.309	1349.8	1013.5	1013.5	742.1
15	BGS010	BGS010 LED70-1Z/727 DM	6230	45.0	138.4	0.616	0.616	0.462	0.462	0.339	1479.4	1109.6	1109.6	814.2
16	BGS010	BGS010 LED74-1Z/727 DM	6586	44.5	148.0	0.61	0.61	0.458	0.458	0.336	1465.0	1100.0	1100.0	807.0
17	BGS010	BGS010 LED80-1Z/727 DM	7120	48.5	146.8	0.664	0.664	0.498	0.498	0.365	1594.7	1196.0	1196.0	876.6
18	BGS010	BGS010 LED89-1Z/727 DM	7832	54.0	145.0	0.74	0.74	0.555	0.555	0.407	1777.3	1332.9	1332.9	977.5
19	BGS010	BGS010 LED94-1Z/727 DM	8366	58.0	144.2	0.795	0.795	0.596	0.596	0.437	1909.4	1431.4	1431.4	1049.5
20	BGS010	BGS010 LED100-1Z/727 DM	8800	62.0	141.9	0.849	0.849	0.637	0.637	0.467	2039.0	1529.9	1529.9	1121.6
21	BGS010	BGS010 LED110-1Z/727 DM	9680	69.0	140.3	0.945	0.945	0.709	0.709	0.52	2269.6	1702.8	1702.8	1248.9
22	BGS010	BGS010 LED120-1Z/727 DM	10440	76.0	137.4	1.041	1.041	0.781	0.781	0.573	2500.2	1875.7	1875.7	1376.2
23	BGS010	BGS010 LED6-1Z/730 DM	552	4.5	122.7	0.062	0.062	0.046	0.046	0.034	148.9	110.5	110.5	81.7
24	BGS010	BGS010 LED8-1Z/730 DM	736	5.5	133.8	0.075	0.075	0.056	0.056	0.041	180.1	134.5	134.5	98.5

25	BGS010	BGS010 LED10-1Z/730 DM	920	6.5	141.5	0.089	0.089	0.067	0.067	0.049	213.8	160.9	160.9	117.7
26	BGS010	BGS010 LED16-1Z/730 DM	1456	9.8	148.6	0.134	0.134	0.101	0.101	0.074	321.8	242.6	242.6	177.7
27	BGS010	BGS010 LED20-1Z/730 DM	1820	12.2	149.2	0.167	0.167	0.125	0.125	0.092	401.1	300.2	300.2	221.0
28	BGS010	BGS010 LED27-1Z/730 DM	2430	16.6	146.4	0.227	0.227	0.17	0.17	0.125	545.2	408.3	408.3	300.2
29	BGS010	BGS010 LED30-1Z/730 DM	2700	18.4	146.7	0.252	0.252	0.189	0.189	0.139	605.2	453.9	453.9	333.8
30	BGS010	BGS010 LED35-1Z/730 DM	3115	22.0	141.6	0.301	0.301	0.226	0.226	0.166	722.9	542.8	542.8	398.7
31	BGS010	BGS010 LED40-1Z/730 DM	3560	25.5	139.6	0.349	0.349	0.262	0.262	0.192	838.2	629.2	629.2	461.1
32	BGS010	BGS010 LED45-1Z/730 DM	4005	27.0	148.3	0.37	0.37	0.277	0.277	0.204	888.6	665.3	665.3	489.9
33	BGS010	BGS010 LED50-1Z/730 DM	4450	30.0	148.3	0.411	0.411	0.308	0.308	0.226	987.1	739.7	739.7	542.8
34	BGS010	BGS010 LED56-1Z/730 DM	4928	34.5	142.8	0.473	0.473	0.355	0.355	0.26	1136.0	852.6	852.6	624.4
35	BGS010	BGS010 LED60-1Z/730 DM	5220	37.0	141.1	0.507	0.507	0.38	0.38	0.279	1217.7	912.6	912.6	670.1
36	BGS010	BGS010 LED65-1Z/730 DM	5940	38.5	154.3	0.527	0.527	0.395	0.395	0.29	1265.7	948.7	948.7	696.5
37	BGS010	BGS010 LED70-1Z/730 DM	6230	42.0	148.3	0.575	0.575	0.431	0.431	0.316	1381.0	1035.1	1035.1	758.9
38	BGS010	BGS010 LED74-1Z/730 DM	6586	42.0	156.8	0.575	0.575	0.431	0.431	0.316	1381.0	1035.1	1035.1	758.9

39	BGS010	BGS010 LED80-1Z/730 DM	7120	45.5	156.5	0.623	0.623	0.467	0.467	0.343	1496.3	1121.6	1121.6	823.8
40	BGS010	BGS010 LED89-1Z/730 DM	8010	51.0	157.1	0.699	0.699	0.524	0.524	0.384	1678.8	1258.5	1258.5	922.3
41	BGS010	BGS010 LED94-1Z/730 DM	8366	54.0	154.9	0.74	0.74	0.555	0.555	0.407	1777.3	1332.9	1332.9	977.5
42	BGS010	BGS010 LED100-1Z/730 DM	8900	58.0	153.4	0.795	0.795	0.596	0.596	0.437	1909.4	1431.4	1431.4	1049.5
43	BGS010	BGS010 LED110-1Z/730 DM	9680	64.0	151.2	0.877	0.877	0.658	0.658	0.482	2106.3	1580.3	1580.3	1157.6
44	BGS010	BGS010 LED120-1Z/730 DM	10440	71.0	147.0	0.973	0.973	0.73	0.73	0.535	2336.9	1753.2	1753.2	1284.9
45	BGS010	BGS010 LED128-1Z/730 DM	11310	76.0	148.8	1.041	1.041	0.781	0.781	0.573	2500.2	1875.7	1875.7	1376.2
46	BGS010	BGS010 LED6-1Z/740 DM	552	4.3	128.4	0.059	0.059	0.044	0.044	0.032	141.7	105.7	105.7	76.9
47	BGS010	BGS010 LED8-1Z/740 DM	736	5.3	138.9	0.073	0.073	0.055	0.055	0.04	175.3	132.1	132.1	96.1
48	BGS010	BGS010 LED10-1Z/740 DM	920	6.2	148.4	0.085	0.085	0.064	0.064	0.047	204.1	153.7	153.7	112.9
49	BGS010	BGS010 LED16-1Z/740 DM	1456	9.3	156.6	0.127	0.127	0.095	0.095	0.07	305.0	228.2	228.2	168.1
50	BGS010	BGS010 LED20-1Z/740 DM	1820	11.4	159.6	0.156	0.156	0.117	0.117	0.086	374.7	281.0	281.0	206.5
51	BGS010	BGS010 LED27-1Z/740 DM	2430	15.6	155.8	0.214	0.214	0.161	0.161	0.118	514.0	386.7	386.7	283.4
52	BGS010	BGS010 LED30-1Z/740 DM	2700	17.4	155.2	0.238	0.238	0.178	0.178	0.131	571.6	427.5	427.5	314.6

53	BGS010	BGS010 LED35-1Z/740 DM	3150	20.5	153.7	0.281	0.281	0.211	0.211	0.155	674.9	506.8	506.8	372.3
54	BGS010	BGS010 LED40-1Z/740 DM	3560	24.0	148.3	0.329	0.329	0.247	0.247	0.181	790.2	593.2	593.2	434.7
55	BGS010	BGS010 LED45-1Z/740 DM	4005	27.5	145.6	0.377	0.377	0.283	0.283	0.207	905.4	679.7	679.7	497.2
56	BGS010	BGS010 LED50-1Z/740 DM	4450	28.5	156.1	0.39	0.39	0.292	0.292	0.215	936.7	701.3	701.3	516.4
57	BGS010	BGS010 LED56-1Z/740 DM	4928	32.0	154.0	0.438	0.438	0.329	0.329	0.241	1051.9	790.2	790.2	578.8
58	BGS010	BGS010 LED60-1Z/740 DM	5280	34.5	153.0	0.473	0.473	0.355	0.355	0.26	1136.0	852.6	852.6	624.4
59	BGS010	BGS010 LED65-1Z/740 DM	5940	36.0	165.0	0.493	0.493	0.37	0.37	0.271	1184.0	888.6	888.6	650.9
60	BGS010	BGS010 LED70-1Z/740 DM	6300	39.0	161.5	0.534	0.534	0.401	0.401	0.294	1282.5	963.1	963.1	706.1
61	BGS010	BGS010 LED74-1Z/740 DM	6660	39.5	168.6	0.541	0.541	0.406	0.406	0.298	1299.3	975.1	975.1	715.7
62	BGS010	BGS010 LED80-1Z/740 DM	7120	43.0	165.6	0.589	0.589	0.442	0.442	0.324	1414.6	1061.6	1061.6	778.2
63	BGS010	BGS010 LED89-1Z/740 DM	8010	48.0	166.9	0.658	0.658	0.494	0.494	0.362	1580.3	1186.4	1186.4	869.4
64	BGS010	BGS010 LED94-1Z/740 DM	8366	51.0	164.0	0.699	0.699	0.524	0.524	0.384	1678.8	1258.5	1258.5	922.3
65	BGS010	BGS010 LED100-1Z/740 DM	8900	54.0	164.8	0.74	0.74	0.555	0.555	0.407	1777.3	1332.9	1332.9	977.5
66	BGS010	BGS010 LED110-1Z/740 DM	9680	60.0	161.3	0.822	0.822	0.616	0.616	0.452	1974.2	1479.4	1479.4	1085.6

67	BGS010	BGS010 LED120-1Z/740 DM	10560	67.0	157.6	0.918	0.918	0.689	0.689	0.505	2204.8	1654.8	1654.8	1212.9
68	BGS010	BGS010 LED130-1Z/740 DM	11310	73.0	154.9	1.0	1.0	0.75	0.75	0.55	2401.7	1801.3	1801.3	1320.9
69	BGS010	BGS010 LED135-1Z/740 DM	11745	76.0	154.5	1.041	1.041	0.781	0.781	0.573	2500.2	1875.7	1875.7	1376.2

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 reference 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 family.

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 (O_{lum}) and reference service lifetime (RSL) of the product to estimate the final environmental impact. The scaled impact (SI_{pep}) 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 ($PGSF$), 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	BGS010	BGS010 LED6-1Z/727 DM	552	4.7	117.4	0.064	0.041	0.031	0.031	0.023	98.5	74.5	74.5	55.2
2	BGS010	BGS010 LED8-1Z/727 DM	736	5.8	126.9	0.079	0.038	0.028	0.028	0.021	91.3	67.2	67.2	50.4
3	BGS010	BGS010 LED10-1Z/727 DM	920	6.9	133.3	0.095	0.036	0.027	0.027	0.02	86.5	64.8	64.8	48.0
4	BGS010	BGS010 LED16-1Z/727 DM	1456	10.4	140.0	0.142	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
5	BGS010	BGS010 LED20-1Z/727 DM	1820	13.0	140.0	0.178	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
6	BGS010	BGS010 LED27-1Z/727 DM	2430	17.6	138.1	0.241	0.035	0.026	0.026	0.019	84.1	62.4	62.4	45.6
7	BGS010	BGS010 LED30-1Z/727 DM	2700	20.0	135.0	0.274	0.036	0.027	0.027	0.02	86.5	64.8	64.8	48.0
8	BGS010	BGS010 LED35-1Z/727 DM	3115	23.5	132.6	0.322	0.036	0.027	0.027	0.02	86.5	64.8	64.8	48.0
9	BGS010	BGS010 LED40-1Z/727 DM	3560	27.5	129.5	0.377	0.037	0.028	0.028	0.02	88.9	67.2	67.2	48.0
10	BGS010	BGS010 LED45-1Z/727 DM	4005	28.5	140.5	0.39	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
11	BGS010	BGS010 LED50-1Z/727 DM	4400	32.0	137.5	0.438	0.035	0.026	0.026	0.019	84.1	62.4	62.4	45.6
12	BGS010	BGS010 LED56-1Z/727 DM	4872	36.5	133.5	0.5	0.036	0.027	0.027	0.02	86.5	64.8	64.8	48.0

13	BGS010	BGS010 LED60-1Z/727 DM	5220	39.5	132.2	0.541	0.036	0.027	0.027	0.02	86.5	64.8	64.8	48.0
14	BGS010	BGS010 LED65-1Z/727 DM	5760	41.0	140.5	0.562	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
15	BGS010	BGS010 LED70-1Z/727 DM	6230	45.0	138.4	0.616	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
16	BGS010	BGS010 LED74-1Z/727 DM	6586	44.5	148.0	0.61	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
17	BGS010	BGS010 LED80-1Z/727 DM	7120	48.5	146.8	0.664	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
18	BGS010	BGS010 LED89-1Z/727 DM	7832	54.0	145.0	0.74	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
19	BGS010	BGS010 LED94-1Z/727 DM	8366	58.0	144.2	0.795	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
20	BGS010	BGS010 LED100-1Z/727 DM	8800	62.0	141.9	0.849	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
21	BGS010	BGS010 LED110-1Z/727 DM	9680	69.0	140.3	0.945	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
22	BGS010	BGS010 LED120-1Z/727 DM	10440	76.0	137.4	1.041	0.035	0.026	0.026	0.019	84.1	62.4	62.4	45.6
23	BGS010	BGS010 LED6-1Z/730 DM	552	4.5	122.7	0.062	0.039	0.029	0.029	0.021	93.7	69.6	69.6	50.4
24	BGS010	BGS010 LED8-1Z/730 DM	736	5.5	133.8	0.075	0.036	0.027	0.027	0.02	86.5	64.8	64.8	48.0
25	BGS010	BGS010 LED10-1Z/730 DM	920	6.5	141.5	0.089	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
26	BGS010	BGS010 LED16-1Z/730 DM	1456	9.8	148.6	0.134	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2

27	BGS010	BGS010 LED20-1Z/730 DM	1820	12.2	149.2	0.167	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
28	BGS010	BGS010 LED27-1Z/730 DM	2430	16.6	146.4	0.227	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
29	BGS010	BGS010 LED30-1Z/730 DM	2700	18.4	146.7	0.252	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
30	BGS010	BGS010 LED35-1Z/730 DM	3115	22.0	141.6	0.301	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
31	BGS010	BGS010 LED40-1Z/730 DM	3560	25.5	139.6	0.349	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
32	BGS010	BGS010 LED45-1Z/730 DM	4005	27.0	148.3	0.37	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
33	BGS010	BGS010 LED50-1Z/730 DM	4450	30.0	148.3	0.411	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
34	BGS010	BGS010 LED56-1Z/730 DM	4928	34.5	142.8	0.473	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
35	BGS010	BGS010 LED60-1Z/730 DM	5220	37.0	141.1	0.507	0.034	0.026	0.026	0.019	81.7	62.4	62.4	45.6
36	BGS010	BGS010 LED65-1Z/730 DM	5940	38.5	154.3	0.527	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
37	BGS010	BGS010 LED70-1Z/730 DM	6230	42.0	148.3	0.575	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
38	BGS010	BGS010 LED74-1Z/730 DM	6586	42.0	156.8	0.575	0.03	0.022	0.022	0.017	72.1	52.8	52.8	40.8
39	BGS010	BGS010 LED80-1Z/730 DM	7120	45.5	156.5	0.623	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
40	BGS010	BGS010 LED89-1Z/730 DM	8010	51.0	157.1	0.699	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8

41	BGS010	BGS010 LED94-1Z/730 DM	8366	54.0	154.9	0.74	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
42	BGS010	BGS010 LED100-1Z/730 DM	8900	58.0	153.4	0.795	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
43	BGS010	BGS010 LED110-1Z/730 DM	9680	64.0	151.2	0.877	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
44	BGS010	BGS010 LED120-1Z/730 DM	10440	71.0	147.0	0.973	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
45	BGS010	BGS010 LED128-1Z/730 DM	11310	76.0	148.8	1.041	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
46	BGS010	BGS010 LED6-1Z/740 DM	552	4.3	128.4	0.059	0.037	0.028	0.028	0.02	88.9	67.2	67.2	48.0
47	BGS010	BGS010 LED8-1Z/740 DM	736	5.3	138.9	0.073	0.035	0.026	0.026	0.019	84.1	62.4	62.4	45.6
48	BGS010	BGS010 LED10-1Z/740 DM	920	6.2	148.4	0.085	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2
49	BGS010	BGS010 LED16-1Z/740 DM	1456	9.3	156.6	0.127	0.03	0.022	0.022	0.017	72.1	52.8	52.8	40.8
50	BGS010	BGS010 LED20-1Z/740 DM	1820	11.4	159.6	0.156	0.03	0.022	0.022	0.017	72.1	52.8	52.8	40.8
51	BGS010	BGS010 LED27-1Z/740 DM	2430	15.6	155.8	0.214	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
52	BGS010	BGS010 LED30-1Z/740 DM	2700	17.4	155.2	0.238	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
53	BGS010	BGS010 LED35-1Z/740 DM	3150	20.5	153.7	0.281	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
54	BGS010	BGS010 LED40-1Z/740 DM	3560	24.0	148.3	0.329	0.032	0.024	0.024	0.018	76.9	57.6	57.6	43.2

55	BGS010	BGS010 LED45-1Z/740 DM	4005	27.5	145.6	0.377	0.033	0.025	0.025	0.018	79.3	60.0	60.0	43.2
56	BGS010	BGS010 LED50-1Z/740 DM	4450	28.5	156.1	0.39	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
57	BGS010	BGS010 LED56-1Z/740 DM	4928	32.0	154.0	0.438	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
58	BGS010	BGS010 LED60-1Z/740 DM	5280	34.5	153.0	0.473	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
59	BGS010	BGS010 LED65-1Z/740 DM	5940	36.0	165.0	0.493	0.029	0.022	0.022	0.016	69.6	52.8	52.8	38.4
60	BGS010	BGS010 LED70-1Z/740 DM	6300	39.0	161.5	0.534	0.03	0.022	0.022	0.017	72.1	52.8	52.8	40.8
61	BGS010	BGS010 LED74-1Z/740 DM	6660	39.5	168.6	0.541	0.029	0.022	0.022	0.016	69.6	52.8	52.8	38.4
62	BGS010	BGS010 LED80-1Z/740 DM	7120	43.0	165.6	0.589	0.029	0.022	0.022	0.016	69.6	52.8	52.8	38.4
63	BGS010	BGS010 LED89-1Z/740 DM	8010	48.0	166.9	0.658	0.029	0.022	0.022	0.016	69.6	52.8	52.8	38.4
64	BGS010	BGS010 LED94-1Z/740 DM	8366	51.0	164.0	0.699	0.029	0.022	0.022	0.016	69.6	52.8	52.8	38.4
65	BGS010	BGS010 LED100-1Z/740 DM	8900	54.0	164.8	0.74	0.029	0.022	0.022	0.016	69.6	52.8	52.8	38.4
66	BGS010	BGS010 LED110-1Z/740 DM	9680	60.0	161.3	0.822	0.03	0.022	0.022	0.017	72.1	52.8	52.8	40.8
67	BGS010	BGS010 LED120-1Z/740 DM	10560	67.0	157.6	0.918	0.03	0.022	0.022	0.017	72.1	52.8	52.8	40.8
68	BGS010	BGS010 LED130-1Z/740 DM	11310	73.0	154.9	1.0	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8

69	BGS010	BGS010 LED135-1Z/740 DM	11745	76.0	154.5	1.041	0.031	0.023	0.023	0.017	74.5	55.2	55.2	40.8
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