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## 9 APPENDICES

Appendix 1: LED Lamp test data

Appendix 2: Excel Macro developed to sort out the qualified samples based on efficacy and power factor

Appendix 3: Results of the qualified tested samples under Efficacy  $> 80$  lm/W and the Power factor  $\geq 0.8$  criteria

Appendix 4: Results of the sensitivity analysis

Appendix 5: Wholesale price of a Chinese make LED lamp available at an online store

Appendix 3

Sample No.	Test Current (mA)	Power (W)	Power Factor	THD	Luminous Flux (lm)	CCT (K)	Chromaticity X	Chromaticity Y	CRI	Luminous Efficacy(lm/W)	Price of LED lamp LKR	Annual Capital Cost - LKR	Cost for energy consumption - LKR	Total Cost (Annual) - LKR	Annual Cost per lumen (LKR/lm)	Annual Cost per lumen (LKR/lm) - Normalized to 1000
9	37.2	8	0.94	0.18	745	2838	0.4481	0.4065	79.75	93.13	900	86.51	369.09	455.59	0.612	611.534
14	45.26	8.79	0.84	0.25	920.2	6053	0.3206	0.3368	70.59	104.69	700	67.28	405.54	472.82	0.514	513.820
31	40	8.48	0.9	0.27	787.7	2966.9	0.4395	0.4054	70.9	92.89	900	86.51	391.23	477.74	0.606	606.498
32	42	8.75	0.91	0.29	868.8	5393.6	0.335	0.351	73.7	99.29	900	86.51	403.69	490.20	0.564	564.221
33	32	6.86	0.91	0.23	659.7	2941.2	0.4411	0.4056	70.7	96.17	700	67.28	316.49	383.77	0.582	581.741
34	33	7.04	0.91	0.23	761.1	5413.2	0.3345	0.3503	73.4	108.11	900	86.51	324.80	411.30	0.540	540.405
35	44	8.64	0.85	0.58	753.3	6008.2	0.3216	0.3349	87.9	87.19	900	86.51	398.62	485.12	0.644	643.993
36	46	8.97	0.85	0.57	732.9	2756.3	0.4544	0.408	80.3	81.71	900	86.51	413.84	500.34	0.683	682.692
37	33	7.04	0.91	0.23	761.1	5413.2	0.3345	0.3503	73.4	108.11	900	86.51	324.80	411.30	0.540	540.405
38	32	6.86	0.91	0.23	659.7	2941.2	0.4411	0.4056	70.7	96.17	700	67.28	316.49	383.77	0.582	581.741
39	42	8.75	0.91	0.29	868.7	5393.6	0.335	0.351	73.7	99.29	900	86.51	403.69	490.20	0.564	564.286
40	40	8.48	0.9	0.27	787.7	2966.9	0.4395	0.4054	70.9	92.89	900	86.51	391.23	477.74	0.606	606.498
42	46	8.97	0.85	0.57	732.9	2756.3	0.4544	0.408	80.3	81.71	900	86.51	413.84	500.34	0.683	682.692
43	44	8.64	0.85	0.58	753.3	6008.2	0.3216	0.3349	87.9	87.19	900	86.51	398.62	485.12	0.644	643.993
45	29	6.31	0.94	0.24	683.3	3122.4	0.4247	0.3929	84.5	108.29	700	67.28	291.12	358.40	0.525	524.513
46	32	6.46	0.89	0.28	601.4	5135.9	0.3418	0.3566	75.2	93.1	700	67.28	298.04	365.32	0.607	607.450
47	44	9.67	0.95	0.27	1087	5147.3	0.3413	0.3523	75	112.41	900	86.51	446.14	532.64	0.490	490.009
48	43	9.46	0.95	0.25	890.6	3160.6	0.4235	0.3948	83.2	94.14	900	86.51	436.45	522.95	0.587	587.190
69	32	6.46	0.89	0.28	601.4	5135.9	0.3418	0.3566	75.2	93.1	700	67.28	298.04	365.32	0.607	607.450
70	44	9.67	0.95	0.27	1087	5147.3	0.3413	0.3523	75	112.41	900	86.51	446.14	532.64	0.490	490.009
71	43	9.46	0.95	0.25	890.6	3160.6	0.4325	0.3948	83.2	94.14	900	86.51	436.45	522.95	0.587	587.190
80	32	6.46	0.89	0.28	601.4	5135.9	0.3418	0.3566	75.2	93.1	700	67.28	298.04	365.32	0.607	607.450
82	43	9.46	0.95	0.25	890.6	3160.6	0.4235	0.3948	83.2	94.14	900	86.51	436.45	522.95	0.587	587.190
83	44	9.67	0.95	0.27	1087	5147.3	0.3413	0.3523	75	112.41	900	86.51	446.14	532.64	0.490	490.009
95	39	7.63	0.86	0.24	663.2	6232	0.3176	0.3297	71.1	86.92	900	86.51	352.02	438.52	0.661	661.222

*Annual cost per lumen for each qualified sample under 80 lm/W and PF>=0.8 Criterion*