

TEST REPORT

Application No.....: S202306143996

Applicant's name: Beyond LED Technology

Applicant's address : 1939 Parker Court, Stone Mountain, GA 30087

Sample description: : Parking Garage Luminaires

Model.....: CP02-100WS-3CS-U

Date of receipt of test item 2023.06.14

Test location 163 Ping Yun Rd. West of HuangPu Ave, Guangzhou, P.R. China
Testing perform at: Unit 102, I/F, Building 2, No.2, Fangda Road, Yunpu Industrial Zone, Huangpu District, Guangzhou, Guangdong, China

Test standard.....: IES LM-79-08:Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test date(s) 2023.08.02

Test result See page 3 to page 7.

Date of issue.....: 2023.08.17

Tested by:

Xavier Xiong

Xavier Xiong

Reviewed by:

Bill Luo

Bill Luo

Approved by:

Jinjin Teng (Lite Lab. Manager)

Jinjin Teng

Other aspects: N/A

Abbreviations: P = passed; F = failed; N/A = not applicable

The test result in this test report refers exclusively to the presented test sample.
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1 –DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)

Trade Mark	
Manufacturer	Beyond LED Technology
Address	1939 Parker Court, Stone Mountain, GA 30087
Factory	AGC Lighting Co., Ltd
Address	Building A, Jian'an Road No.3, Fuyong, Bao'an District, Shenzhen, China
Model Number	CP02-100WS-3CS-U
Product Type/ Specification	Lamp Type: Parking Garage Luminaires Input: 100-277V ac, maximum 100W , 50/60Hz CCT: 3000K or 4000K or 5000K; Total amount of light source: 3000K: 180 PCS; 5000K: 180 PCS. Manufacturer Of Light Source: Lumileds Holding B.V. Model Number Of Light Source: L128-3070RB35000G1 for 3000K L128-5070RB35000G1 for 5000K
Remark	1. The model CP02-100WS-3CS-U could be turned to 60/45/30/18W optional. And the CCT could be set to 3000/4000/5000K by the DIP switch. 2. 4000K was mixed by L128-3070RB35000G1 (3000K) and L128-5070RB35000G1 (5000K). 3. The model was operated at lower voltage (120VAC/60Hz) for optical test.

2-GONIOPHOTOMETER TEST

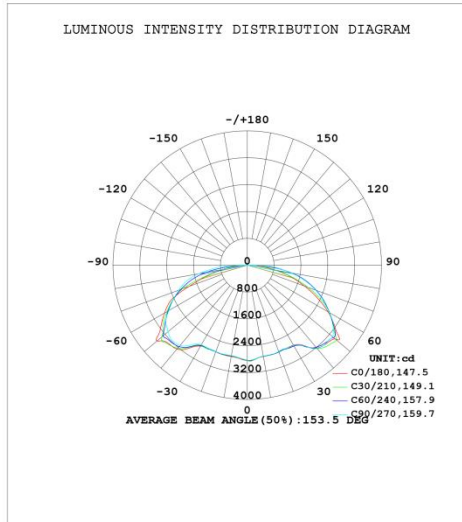
2.1 Test Method & Condition

1. The sample was tested according to the IES LM-79-2008.
2. 0 hour season, Pre-heating the lamp for 30 minutes at least.
3. Ambient : $\leq 60\%$ RH, 25 ± 1 °C.
4. The sample was operated at rated voltage, stabilization time of the sample was 80 minutes, and the total operating time including stabilization was 120 minutes. All test data is for single lamp.
5. The test orientation: the lighting surface faces down.
6. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1 °vertical intervals and 15 °horizontal intervals.

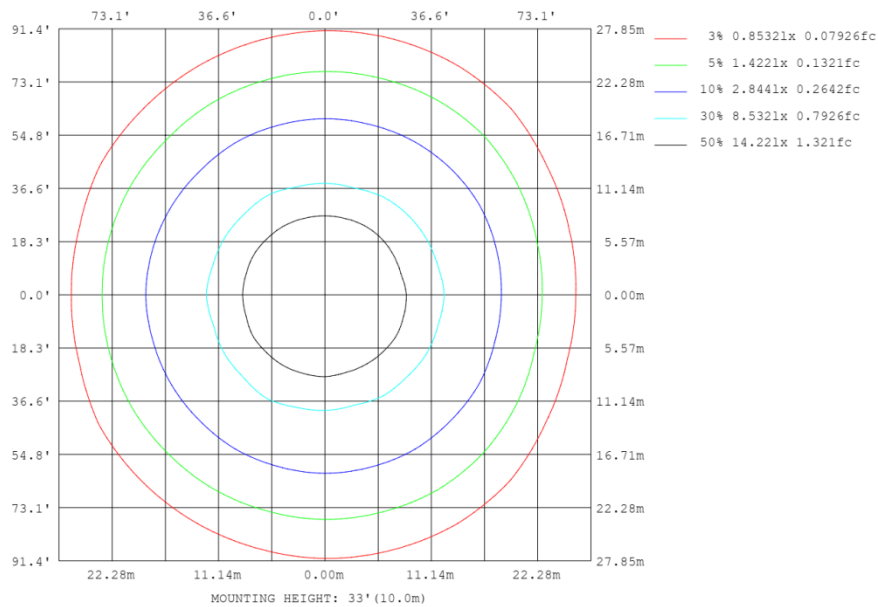
2.2 Test Result

Test Model	CP02-100WS-3CS-U	
Test Status	Maximum Wattage and 3000K	
Input Voltage(V AC)	120.03	277.05
Input Current(A)	0.8422	0.3650
Input Power(W)	100.79	99.42
Frequency(Hz)	60	60
Power Factor	0.9969	0.9832
Current THD (%)	5.74	9.74
Total luminous flux (lm)	14138.6	/
Luminaire Efficacy (lm/W)	140.28	/
Max. Luminous Intensity (cd)	3534	/
Zonal Lumen Result (60-80°)	28.80%	/
Zonal Lumen Result (70-80°)	11.70%	/

--Test Model: CP02-100WS-3CS-U
Luminous Intensity Distribution Diagram



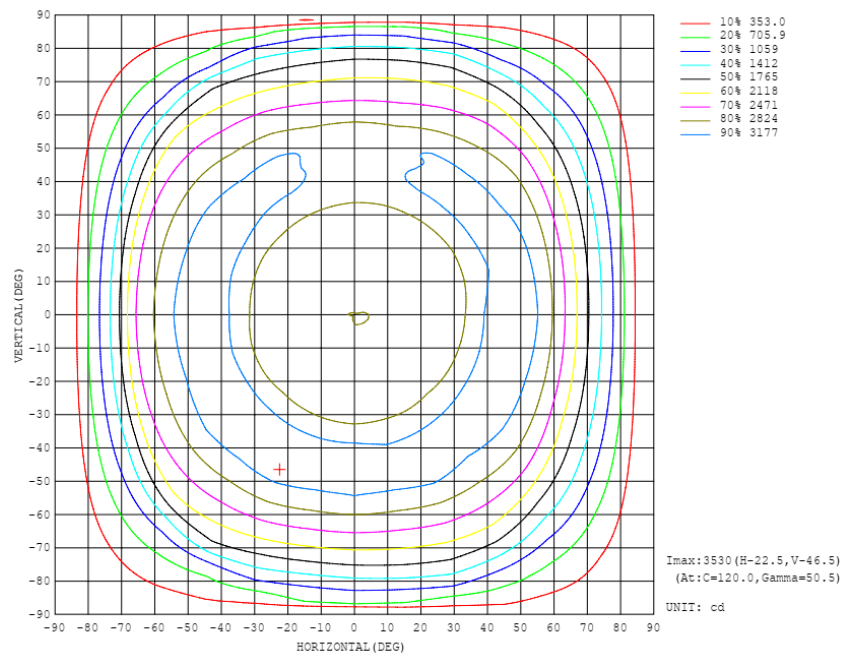
Isolux Diagram



ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2146	2135	2131	2133	2154	2152	2148	2139	0- 10	206.2	206.2	1.84,1.84
20	2131	2119	2112	2116	2122	2127	2126	2117	10- 20	605.1	811.4	7.23,7.23
30	2093	2088	2103	2068	2105	2132	2143	2130	20- 30	970.5	1782	15.9,15.9
40	2572	2478	2478	2479	2525	2545	2633	2592	30- 40	1432	3213	28.6,28.6
50	3055	2983	2924	2987	2919	2626	2678	2855	40- 50	2161	5375	47.9,47.9
60	2329	2369	2297	2310	2283	2256	2265	2260	50- 60	2300	7674	68.4,68.4
70	1550	1622	1569	1599	1311	1666	1660	1618	60- 70	1924	9599	85.6,85.6
80	677.7	796.3	829.0	631.0	545.4	670.5	908.7	708.9	70- 80	1203	10802	96.3,96.3
90	30.31	60.46	84.39	2.316	0.7955	0.8467	0.8429	0.7934	80- 90	400.5	11203	99.9,99.9
100	1.022	1.645	2.597	1.459	1.349	1.581	1.784	1.899	90-100	2.470	11205	99.9,99.9
110	1.436	1.559	1.845	1.540	1.871	1.956	2.409	2.123	100-110	1.874	11207	99.9,99.9
120	1.964	1.930	2.026	1.850	2.233	2.182	2.399	2.176	110-120	1.958	11209	99.9,99.9
130	2.431	2.316	2.224	2.272	2.613	2.526	2.639	2.634	120-130	2.023	11211	99.9,99.9
140	2.705	2.554	2.449	2.472	3.165	2.988	3.018	3.127	130-140	2.043	11213	100,100
150	2.982	2.712	2.404	2.690	3.417	3.512	3.338	3.634	140-150	1.826	11215	100,100
160	3.151	2.728	2.456	2.777	3.696	3.645	3.473	3.508	150-160	1.436	11216	100,100
170	2.944	2.965	2.625	3.080	3.791	3.880	3.273	3.242	160-170	0.9043	11217	100,100
180	3.717	3.543	3.110	3.439	3.646	3.530	3.008	3.145	170-180	0.3091	11217	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Isocandela Diagram



Luminous Intensity Data (unit: cd)

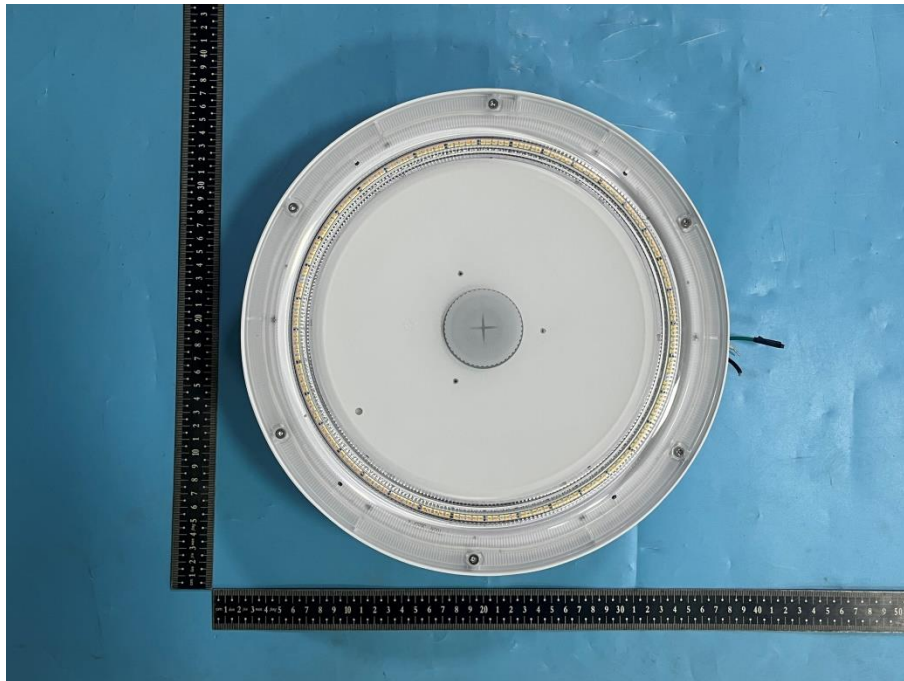
Table--1		UNIT: cd																		
γ (DEG)	C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
	0	2844	2842	2840	2837	2834	2831	2829	2827	2824	2822	2820	2818	2844	2842	2840	2837	2834	2831	2829
	5	2810	2813	2807	2807	2802	2800	2800	2791	2783	2781	2778	2769	2785	2780	2775	2773	2770	2767	2770
	10	2762	2757	2754	2753	2750	2747	2749	2749	2748	2748	2745	2762	2755	2748	2743	2743	2744	2737	2736
	15	2761	2760	2758	2759	2757	2754	2750	2752	2750	2754	2751	2749	2764	2760	2756	2751	2749	2744	2742
	20	2748	2752	2752	2752	2747	2745	2735	2733	2731	2730	2723	2720	2743	2743	2739	2742	2743	2744	2737
	25	2732	2731	2731	2735	2748	2746	2736	2735	2736	2723	2709	2704	2737	2737	2754	2748	2745	2737	2737
	30	2751	2760	2776	2797	2782	2779	2763	2760	2780	2792	2774	2761	2782	2783	2768	2780	2762	2753	2737
	35	2913	2929	2935	2948	2945	2947	2929	2964	3006	3026	3010	3005	3015	2991	2979	2965	2957	2924	2893
	40	3221	3220	3247	3212	3190	3177	3234	3225	3247	3253	3285	3231	3259	3222	3226	3181	3163	3125	3119
	45	3316	3306	3392	3298	3277	3215	3302	3266	3335	3289	3376	3282	3307	3282	3329	3238	3227	3140	3165
	50	3427	3394	3461	3339	3353	3225	3320	3316	3526	3351	3397	3315	3511	3340	3314	3228	3275	3090	3082
	55	3185	3110	3115	3042	3143	3078	3159	3072	3128	3065	3138	3073	3136	3070	3066	2961	2986	2930	2962
	60	2779	2762	2819	2796	2835	2808	2827	2801	2824	2781	2808	2804	2847	2807	2762	2707	2727	2690	2705
	65	2304	2299	2420	2478	2524	2498	2501	2477	2489	2461	2472	2484	2532	2490	2444	2402	2432	2423	2435
	70	1810	1809	1925	2130	2187	2172	2165	2130	2117	2102	2084	1883	1850	1880	2048	2067	2105	2138	2173
	75	1351	1337	1397	1670	1816	1811	1781	1722	1690	1663	1334	1237	1233	1234	1309	1630	1737	1815	1891
	80	829	822	880	1104	1353	1358	1328	1239	1175	895	772	727	714	717	769	907	1267	1383	1471
	85	299	377	520	637	735	853	874	809	569	485	409	289	241	271	375	505	642	903	956
	90	34.0	28.7	5.45	2.59	1.74	2.35	0.98	0.95	0.89	0.81	8.61	17.9	1.00	1.01	1.09	1.17	1.23	1.26	1.24
	95	1.12	1.09	1.18	1.03	0.99	1.07	1.11	1.07	1.06	1.14	1.29	1.12	1.39	1.47	1.70	1.80	1.48	1.50	1.53
	100	1.46	1.61	1.91	2.06	2.35	2.53	2.19	2.33	2.15	2.05	1.93	1.57	1.81	1.96	2.26	2.39	2.46	2.40	2.57
	105	1.78	1.87	2.01	2.20	2.45	2.77	2.55	2.72	2.50	2.31	2.07	1.85	2.30	2.36	2.50	2.72	2.88	3.08	3.19
	110	2.06	2.10	2.18	2.27	2.49	2.77	2.77	2.76	2.59	2.36	2.23	2.17	2.64	2.68	2.73	2.87	3.04	3.24	3.46
	115	2.42	2.39	2.42	2.49	2.54	2.85	2.96	2.81	2.75	2.53	2.52	2.40	2.85	2.84	2.90	2.96	3.26	3.36	3.46
	120	2.73	2.65	2.72	2.66	2.96	2.91	3.02	2.96	3.00	2.78	2.79	2.66	3.16	3.09	3.18	3.16	3.33	3.28	3.63
	125	3.01	2.91	2.85	2.83	3.20	3.06	3.13	3.11	3.16	3.02	3.17	3.04	3.16	3.04	3.12	3.03	3.34	3.31	3.50
	130	3.28	3.13	3.16	3.20	3.12	3.25	3.32	3.32	3.14	3.31	3.34	3.32	3.58	3.43	3.52	3.45	3.44	3.58	3.78
	135	3.74	3.35	3.55	3.22	3.45	3.27	3.21	3.26	3.38	3.45	3.61	3.62	4.04	3.70	3.95	3.79	3.85	3.75	3.87
	140	3.75	3.37	3.58	3.41	3.43	3.36	3.49	3.37	3.35	3.31	3.80	3.48	4.35	4.00	4.26	4.05	4.02	4.04	4.22
	145	3.59	3.52	3.79	3.62	3.33	3.17	3.39	3.23	3.19	3.54	3.80	3.45	4.64	4.44	4.42	4.35	4.29	4.16	4.48
	150	4.08	3.92	3.76	3.70	3.50	3.19	3.34	3.27	3.35	3.68	3.81	3.47	4.56	4.50	4.44	4.65	4.48	4.35	4.52
	155	4.19	4.16	3.73	3.84	3.60	3.34	3.40	3.37	3.44	3.77	3.71	3.69	4.92	4.86	4.69	4.87	4.63	4.53	4.63
	160	4.41	4.39	3.90	3.76	3.53	3.35	3.49	3.57	3.56	3.78	3.76	4.04	5.07	5.07	5.03	4.82	4.75	4.52	4.71
	165	4.48	4.46	4.23	3.87	3.43	3.32	3.53	3.49	3.51	3.84	4.02	4.28	5.34	5.36	5.29	5.07	4.82	4.48	4.48
	170	4.17	4.20	4.16	4.00	3.53	3.32	3.57	3.33	3.73	4.12	4.27	4.32	5.17	5.19	5.29	5.25	5.22	4.77	4.42
	175	4.48	4.50	4.46	4.40	4.13	3.81	3.91	3.88	4.21	4.39	4.39	4.41	4.91	4.91	4.97	5.01	5.00	4.86	4.50
	180	5.00	5.05	4.90	4.78	4.49	4.25	4.42	4.06	4.26	4.46	4.51	4.81	4.96	4.95	4.94	4.85	4.74	4.44	4.23

C (DEG) γ (DEG)	285	300	315	330	345														
0	2827	2824	2822	2820	2818														
5	2777	2776	2777	2785	2790														
10	2735	2734	2736	2742	2741														
15	2746	2742	2747	2748	2745														
20	2738	2737	2741	2741	2734														
25	2740	2728	2723	2706	2702														
30	2731	2745	2726	2727	2719														
35	2882	2884	2875	2844	2855														
40	3117	3148	3151	3135	3118														
45	3137	3215	3221	3238	3219														
50	3035	3210	3278	3334	3362														
55	2933	3019	3022	3093	3139														
60	2708	2757	2798	2847	2813														
65	2439	2485	2507	2465	2362														
70	2188	2196	2156	1965	1864														
75	1900	1867	1683	1453	1387														
80	1469	1400	1107	938	871														
85	956	731	627	509	376														
90	1.22	1.16	1.12	1.16	1.31														
95	1.49	1.41	1.42	1.52	1.39														
100	2.93	2.98	2.67	2.50	2.03														
105	3.28	3.19	3.06	2.81	2.46														
110	3.38	3.14	3.17	2.93	2.67														
115	3.35	3.23	3.13	2.91	2.91														
120	3.53	3.45	3.12	3.10	3.16														
125	3.33	3.28	3.20	3.12	3.14														
130	3.63	3.52	3.59	3.60	3.50														
135	3.74	3.87	3.87	3.87	3.78														
140	4.02	4.19	4.09	4.13	3.87														
145	4.09	4.31	4.48	4.53	4.17														
150	4.17	4.45	4.73	4.71	4.59														
155	4.38	4.60	4.80	4.76	4.87														
160	4.56	4.49	4.65	4.71	5.03														
165	4.43	4.19	4.33	4.72	5.15														
170	4.43	4.16	4.21	4.52	4.73														
175	4.50	4.19	4.36	4.65	4.75														
180	4.39	4.06	4.27	4.48	4.56														

4-TEST EQUIPMENT LIST AND DETAILS

Equipment	Model	Number	Technical data	Due date of cal.	Used
Goniophotometer (with mirror)	GO-R5000	FGZGDB-2016-059	Uncertainty Wavelength:0.2nm Lux:2.2%	2024.01.13	√
Digital power meter	PF210	FGZGDB-2016-064	0-600V/0-10A/0- 100Hz	2024.02.09	√
Power supply	DPS1060	FGZGDB-2016-061	0-300V, 1000VA	2023.09.18	√
Hygro/thermograph	JR900	FGZDA-2016-091	10-99%RH, -10- 50℃	2024.05.20	√

5-EUT PHOTOS



Front view of CP02-100WS-3CS-U



Bottom view of CP02-100WS-3CS-U

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