



Report No.:
BLC2107021E-C-CP

LM-79-08 Test Report

For

ASmart LIGHT CO., LTD

(Brand Name: ASmart)

506 N GARFIELD AVE SUITE#210 ALHAMBRA CA 91801

Parking Garage Luminaires

Model name(s):

AST-PG07-45WBSP1SC1-abce

Remark: "a" can be any letters for Housing colors;
"b" can be "M", "P" or blank for DC Motion Microwave sensor, DC Motion PIR sensor provided or not;
"c" can be "10SP" or "20SP" for Surge-Protective Device type provided or blank for no Surge-Protective Device provided; "e" can be any two digits for CCT.

Representative (Tested) Model:

AST-PG07-45WBSP1SC1-abc30

AST-PG07-45WBSP1SC1-abc65

Test & Report By:

Arvin Qin

Engineer: Arvin Qin

Date: 2021-07-20

Review By:

Jason Luo

Manager: Jason Luo

This report is multiple listed report of BLC2107021E-C, all construction and rating are the same except without wattage adjustable.



Report No.:
BLC2107021E-C-CP

1.1 Product Information:

Organization Name	ASMART LIGHT CO., LTD	
Brand Name	ASMART	
Model Number	AST-PG07-45WBSP1SC1-abce	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Parking Garage Luminaires	
Rated Voltage / Frequency	120-347Vac, 50/60 Hz	
Nominal Power	45W	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,3500K,4000K, 4500K,5000K,5700K,6500K	
LED Manufacturer	Lumileds Holding B.V.	
LED Model	L128-XX80RA35000H1	
Sample Number	BLC2107021E-C1	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Photo





1.2 Test Specifications:

Date of Receipt	2021-07-15
Date of Test	2021-07-20
Test item	<ol style="list-style-type: none">1. Total Luminous Flux2. Luminous Distribution Intensity3. Luminous Efficacy4. Correlated Color Temperature5. Color Rendering Index6. Chromaticity Coordinate7. Electrical Parameters
Reference Premium	<ol style="list-style-type: none">1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources4. CIE 15-2004 Technical Report Colorimetry5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	BL-QP-033

1.3 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1 ° vertical intervals and 22.5 ° horizontal intervals.

2) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.



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Report No.:
BLC2107021E-C-CP**2.1 Electrical, Photometric and Chromaticity Measurements***(Refer to Work Instruction BL-QP-033)*

Test date	2021-07-20	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	AST-PG07-45WBSP1SC1-abc30		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC210702	120.0	60	0.383	45.91	0.998	4.43
1E-C1	347.0	60	0.140	46.19	0.954	11.52
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	3
Frequency (Hz)	60	R2	91	R10	81
CCT (K)	2974	R3	95	R11	81
Duv	-0.0020	R4	81	R12	75
Chromaticity (x, y)	x=0.4358 y=0.3987	R5	82	R13	83
Chromaticity (u', v')	u(u')=0.2522 v'=0.5191	R6	91	R14	98
Color Rendering Index (CRI)	82	R7	80	R15	73
R9	3	R8	56	--	--
Rf	84	--	--	--	--
Rg	97	--	--	--	--
Rcs,h1 (%)	-12	--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	347.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	5849.0	5793.7	5000-10000lm (-10%)
Luminous Efficacy (lm/W)	127.40	125.43	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	125.43		
Zonal lumens in the 60-80 °zone (%)	30.0	--	>=30(-3)
Zonal lumens in the 70-80 °zone (%)	14.7	--	<=25(+3)
Beam Angle (°)	182.7	--	--
Center Beam Candle Power (cd)	681	--	--

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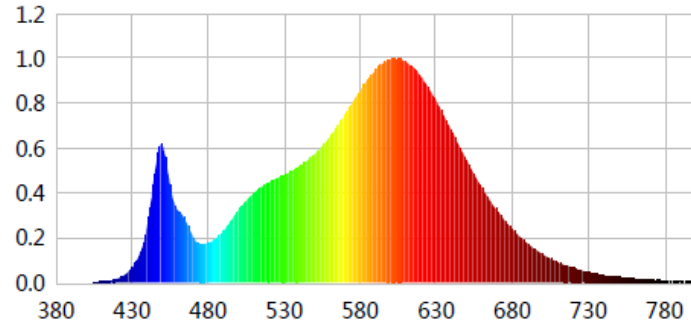
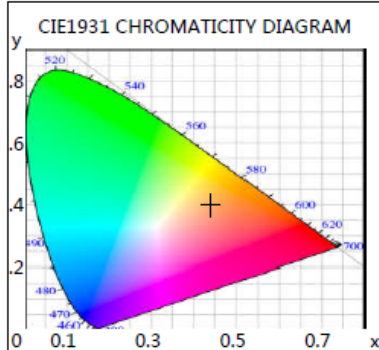
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Spectral Power Distribution & Chromaticity Diagram



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0001	0.0131	525	0.4647	60.5369	670	0.3198	41.6590
385	0.0006	0.0734	530	0.4794	62.4581	675	0.2763	35.9971
390	0.0004	0.0457	535	0.4973	64.7902	680	0.2381	31.0237
395	0.0005	0.0623	540	0.5189	67.6031	685	0.2046	26.6554
400	0.0006	0.0837	545	0.5430	70.7365	690	0.1740	22.6678
405	0.0014	0.1871	550	0.5731	74.6604	695	0.1477	19.2467
410	0.0030	0.3921	555	0.6081	79.2161	700	0.1255	16.3470
415	0.0073	0.9496	560	0.6512	84.8377	705	0.1062	13.8374
420	0.0161	2.0942	565	0.6968	90.7733	710	0.0896	11.6701
425	0.0329	4.2873	570	0.7476	97.3970	715	0.0760	9.9025
430	0.0653	8.5112	575	0.8046	104.8171	720	0.0655	8.5307
435	0.1253	16.3249	580	0.8586	111.8540	725	0.0552	7.1936
440	0.2497	32.5328	585	0.9051	117.9136	730	0.0460	5.9974
445	0.4921	64.1119	590	0.9495	123.7012	735	0.0381	4.9631
450	0.6161	80.2564	595	0.9793	127.5795	740	0.0335	4.3611
455	0.4345	56.6071	600	0.9975	129.9452	745	0.0291	3.7918
460	0.3235	42.1387	605	0.9990	130.1388	750	0.0244	3.1802
465	0.2797	36.4418	610	0.9871	128.5946	755	0.0211	2.7493
470	0.2048	26.6746	615	0.9603	125.0963	760	0.0174	2.2670
475	0.1702	22.1713	620	0.9200	119.8565	765	0.0148	1.9307
480	0.1767	23.0251	625	0.8686	113.1581	770	0.0128	1.6667
485	0.1956	25.4795	630	0.8100	105.5185	775	0.0106	1.3801
490	0.2287	29.7962	635	0.7446	96.9965	780	0.0079	1.0267
495	0.2761	35.9749	640	0.6786	88.4052	785	0.0055	0.7185
500	0.3234	42.1268	645	0.6109	79.5847	790	0.0075	0.9753
505	0.3642	47.4484	650	0.5448	70.9786	795	0.0063	0.8171
510	0.4002	52.1342	655	0.4829	62.9042	800	0.0036	0.4752
515	0.4272	55.6513	660	0.4235	55.1701			
520	0.4460	58.1082	665	0.3693	48.1139			

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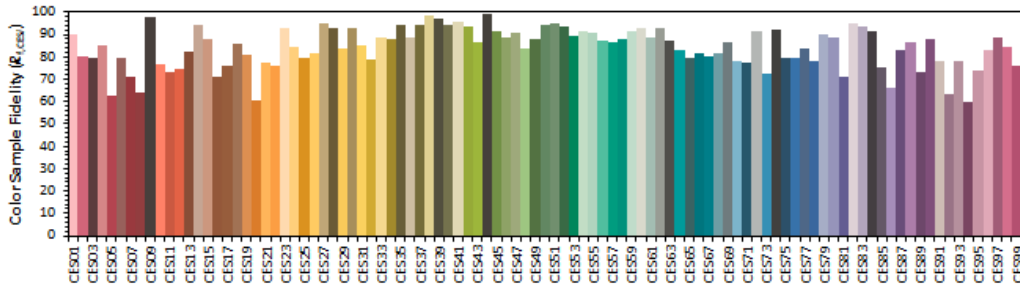
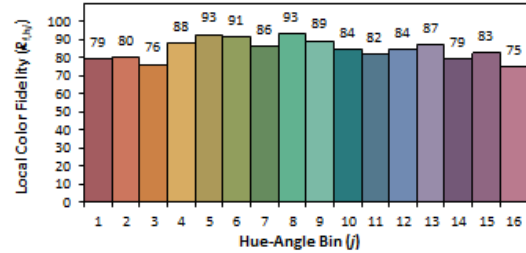
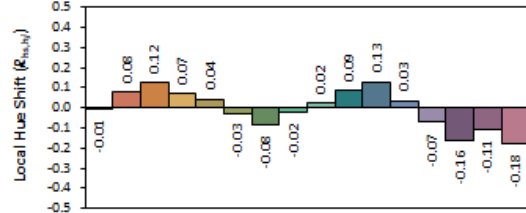
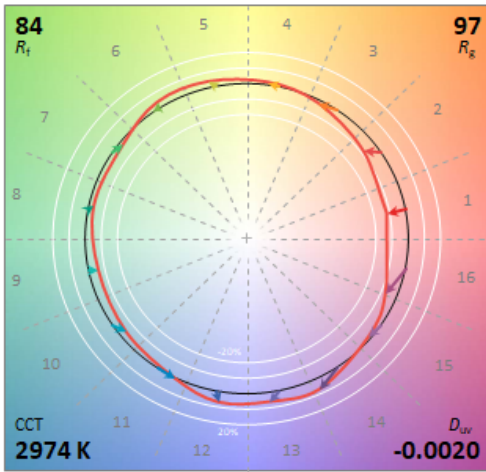
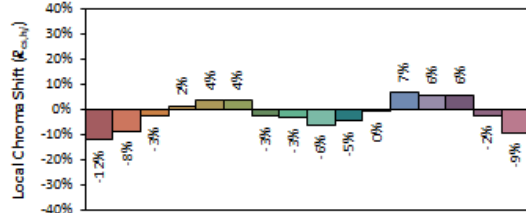
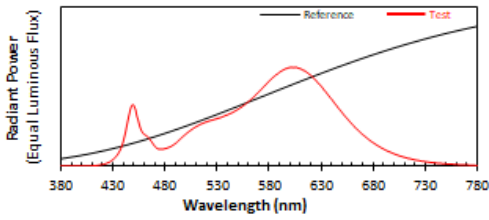
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TM30

ANSI/IES TM-30-18 Color Rendition Report

Source: L128-XX80RA35000H1
Date: 2021/7/20

Manufacturer: AS MART LIGHT CO., LTD
Model: AST-PG07-45WBSP1SC1-abc30



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4358
y 0.3987
z' 0.2522
v' 0.5191

CIE 13.3-1995 (CRI)
Ra 82
R9 3



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Zonal Lumen Tabulation

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	647.5	11.1%	11.1%
0-40	1,190.3	20.4%	20.3%
0-60	2,595.0	44.4%	44.4%
60-90	2,453.8	42%	42%
70-100	2,012.9	34.4%	34.4%
90-120	748.2	12.8%	12.8%
0-90	5,048.8	86.3%	86.3%
90-180	800.5	13.7%	13.7%
0-180	5,849.3	100%	100%

Lumens Per Zone

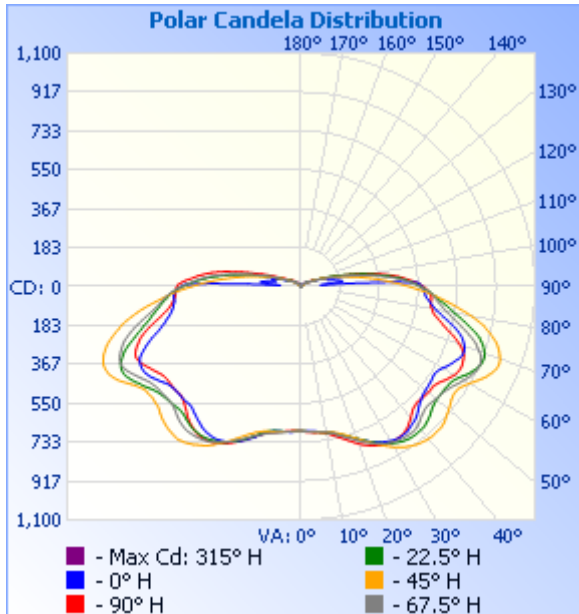
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	65.8	1.1%	90-100	455.8	7.8%
10-20	206.1	3.5%	100-110	212.4	3.6%
20-30	375.7	6.4%	110-120	80.0	1.4%
30-40	542.7	9.3%	120-130	35.4	0.6%
40-50	652.0	11.1%	130-140	13.1	0.2%
50-60	752.7	12.9%	140-150	1.7	0%
60-70	896.7	15.3%	150-160	1.1	0%
70-80	861.7	14.7%	160-170	0.7	0%
80-90	695.4	11.9%	170-180	0.2	0%



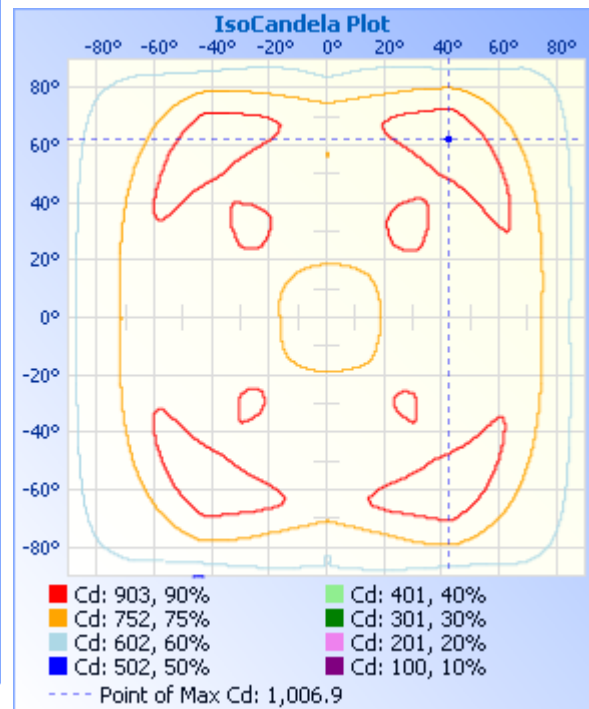
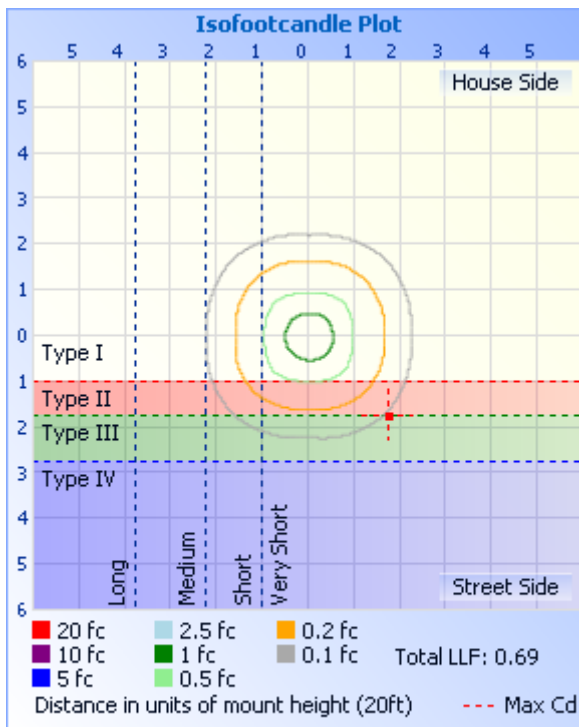
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Photometric Data



	Center Beam fc	Beam Width
17.0ft	2.36 fc	
34.0ft	0.59 fc	
51.0ft	0.26 fc	
68.0ft	0.15 fc	
85.0ft	0.09 fc	
102.0ft	0.07 fc	



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Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	681	681	681	681	681	681	681	681	681	681	681	681	681	681	681	681	681
1	681	682	682	683	682	683	683	682	681	682	680	681	681	680	681	681	681
2	681	682	682	684	685	684	684	684	683	682	681	681	680	680	680	681	681
3	682	683	684	685	686	686	686	686	685	684	683	682	680	680	680	681	682
4	683	684	685	687	688	689	688	688	686	685	684	683	681	681	681	681	683
5	684	686	687	688	690	690	690	689	687	686	686	686	683	682	681	682	684
6	686	688	688	689	690	692	692	690	688	686	687	689	685	684	683	684	686
7	688	690	691	690	692	694	694	692	688	687	689	692	688	686	685	685	688
8	690	691	693	691	694	696	695	692	688	688	691	694	690	689	687	687	690
9	692	694	695	694	698	699	696	692	690	689	692	697	693	691	690	689	692
10	695	698	697	697	703	703	696	694	690	690	694	700	696	693	692	692	695
11	698	700	700	701	708	708	698	696	693	692	695	703	698	696	695	695	698
12	703	704	702	706	716	713	700	700	698	695	697	706	702	699	698	699	703
13	709	709	706	713	723	720	703	704	704	700	700	710	707	703	700	705	709
14	715	717	711	720	731	727	708	710	712	708	703	715	713	709	705	712	715
15	722	722	718	727	739	734	714	717	720	715	706	721	720	715	709	718	722
16	730	729	725	736	748	741	721	726	730	724	711	728	729	722	715	725	730
17	738	735	732	744	758	749	730	736	741	734	717	736	737	731	721	732	738
18	746	744	742	752	767	757	739	745	750	743	726	742	747	740	728	740	746
19	754	753	752	761	777	765	749	755	759	753	734	752	757	749	738	748	754
20	763	761	761	771	788	774	759	764	769	763	743	761	766	759	746	756	763
21	771	771	772	781	797	783	771	774	777	772	754	770	776	769	756	765	771
22	782	780	782	790	805	792	782	783	785	782	765	778	787	779	767	774	782
23	790	790	794	799	813	799	794	793	792	791	777	788	796	789	777	782	790
24	799	800	805	807	820	806	808	801	800	799	791	797	805	800	789	792	799
25	808	810	816	815	827	814	820	808	807	807	803	806	814	810	799	802	808
26	815	820	828	823	834	821	831	816	812	815	814	814	822	820	811	810	815
27	822	828	839	830	840	828	845	824	817	822	827	822	830	830	823	817	822
28	828	837	850	837	844	834	856	830	819	827	838	830	837	838	836	826	828
29	834	844	862	843	846	839	867	837	822	832	852	838	841	846	849	832	834



Report No.:
BLC2107021E-C-CP

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30	840	852	874	848	847	843	880	842	822	836	863	845	846	852	862	839	840
31	845	858	881	853	848	847	883	845	823	840	875	850	849	858	875	846	845
32	848	865	891	856	847	850	893	849	820	842	881	855	849	864	883	852	848
33	849	870	901	858	846	852	901	851	818	844	889	858	851	867	896	856	849
34	848	875	908	860	845	854	908	853	814	845	899	861	851	869	905	861	848
35	847	877	914	862	842	856	914	852	810	844	905	863	850	871	913	864	847
36	847	880	920	863	837	857	918	851	804	842	912	865	846	871	920	867	847
37	842	880	925	863	831	858	923	850	798	842	917	864	840	871	927	869	842
38	837	881	928	862	822	857	925	846	792	839	921	865	834	873	932	870	837
39	831	880	932	859	813	854	928	842	786	835	924	864	829	870	936	870	831
40	827	880	935	853	803	851	927	836	779	830	923	862	821	868	939	868	827
41	822	878	936	848	793	845	926	830	774	825	921	858	814	862	941	866	822
42	815	874	936	839	784	838	922	826	767	820	919	853	804	859	941	863	815
43	805	869	935	831	778	832	919	823	765	816	916	848	793	852	942	859	805
44	795	864	935	826	774	827	914	820	763	814	913	842	786	846	941	854	795
45	786	858	934	821	772	823	910	820	766	814	909	835	778	839	942	849	786
46	781	850	931	818	772	822	904	821	766	816	905	828	772	834	940	843	781
47	774	842	925	818	773	822	897	824	766	819	899	824	765	830	936	836	774
48	768	838	918	820	774	823	887	824	765	821	892	821	763	828	930	829	768
49	764	834	911	823	777	825	880	827	765	823	885	820	763	828	924	825	764
50	763	832	906	825	778	828	880	828	766	825	878	820	765	828	917	822	763
51	761	831	899	828	778	830	877	830	767	827	878	822	767	831	909	820	761
52	759	831	892	830	778	833	877	832	769	830	875	824	767	834	901	820	759
53	757	830	885	832	779	834	877	837	773	835	874	826	767	836	895	820	757
54	755	830	881	837	783	839	880	843	779	841	875	827	767	839	891	821	755
55	753	831	878	843	790	846	880	850	787	848	878	829	767	840	885	821	753
56	751	833	879	849	798	855	890	859	798	857	878	833	768	842	882	822	751
57	750	834	883	856	809	867	900	869	807	868	885	838	771	846	880	823	750
58	754	840	890	866	816	879	912	876	815	880	895	845	778	853	883	826	754
59	760	848	901	875	824	884	927	888	826	886	907	854	785	861	890	832	760
60	767	858	913	882	833	895	942	899	832	900	921	865	795	873	900	841	767
61	778	869	927	892	838	904	955	910	839	909	937	875	803	884	914	852	778

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62	787	883	941	901	843	911	969	919	842	918	954	887	812	895	928	865	787
63	796	893	955	907	843	917	979	924	843	926	968	898	822	906	944	876	796
64	803	903	968	914	843	922	990	929	841	930	980	908	831	918	960	885	803
65	812	912	979	917	840	924	996	928	838	931	990	917	839	927	974	897	812
66	820	919	989	918	836	922	999	922	830	928	996	921	843	932	985	904	820
67	824	923	995	917	832	919	1000	914	818	922	999	923	845	937	995	909	824
68	825	924	1000	913	823	911	997	905	799	911	1001	920	841	936	1002	912	825
69	824	924	999	905	810	900	990	888	782	897	998	914	833	932	1007	912	824
70	818	918	996	893	794	884	981	873	763	883	991	904	822	925	1007	909	818
71	808	910	988	877	775	873	968	851	743	862	983	894	809	915	1006	904	808
72	799	901	979	864	754	853	954	830	719	841	970	882	798	904	1000	895	799
73	786	886	968	845	730	834	939	811	699	820	958	869	780	886	991	881	786
74	769	874	955	822	709	814	920	789	682	800	941	850	761	872	978	872	769
75	751	852	936	802	691	792	901	771	666	780	922	830	740	851	960	848	751
76	728	829	917	778	674	770	880	755	654	763	902	809	718	828	942	828	728
77	707	806	896	757	658	747	859	739	642	743	880	788	696	805	923	806	707
78	685	784	878	735	643	726	833	721	631	727	861	765	676	782	900	785	685
79	667	760	848	716	632	710	804	706	622	714	837	744	658	759	879	759	667
80	649	737	820	699	626	696	778	693	614	700	809	724	641	739	853	737	649
81	633	718	787	683	620	680	751	680	609	687	782	704	628	720	820	717	633
82	622	701	756	669	616	667	723	665	606	674	753	688	619	704	788	699	622
83	612	683	725	656	615	656	695	653	600	661	723	673	610	688	757	679	612
84	602	663	693	645	615	647	666	640	599	649	690	661	603	673	721	660	602
85	591	647	664	634	615	637	641	628	601	636	661	647	597	659	689	644	591
86	586	632	633	625	612	627	616	616	601	625	634	634	593	646	656	628	586
87	584	616	604	615	606	615	586	601	596	613	608	620	591	633	625	614	584
88	581	600	574	600	599	600	557	586	588	597	578	604	589	619	595	598	581
89	576	581	540	583	589	580	526	567	579	582	549	586	588	602	563	583	576
90	569	562	512	564	577	560	498	547	565	559	519	562	585	581	532	562	569
91	562	546	482	544	562	542	471	525	550	540	491	542	578	562	502	544	562
92	549	525	455	524	545	522	442	506	430	519	465	524	564	541	473	525	549
93	433	506	425	502	523	498	416	484	248	496	436	506	546	521	446	504	433

Laboratory: Belling Test Laboratory Co., LTD A2LA Certificate# 4810.01
 Unit 401, No. 309 Xinxin Seven Road, Zengcheng District,
 Guangzhou, People's Republic of China engineer@etk-utest.com

Report Format Number BL-FM-SA-012



Certificate#4810.01

94	234	486	399	477	501	475	390	462	98	474	409	484	525	500	420	483	234
95	92	464	375	451	481	448	366	436	121	452	384	464	505	479	395	461	92
96	122	438	352	424	459	421	340	412	189	428	360	442	488	454	370	439	122
97	197	414	327	395	436	394	319	386	190	401	335	418	467	429	348	413	197
98	194	385	305	367	407	363	299	362	180	375	314	390	446	400	325	387	194
99	184	359	285	337	381	336	277	334	169	349	293	364	424	372	304	362	184
100	173	336	265	307	353	309	259	309	157	320	274	337	398	346	285	337	173
101	163	310	246	281	324	282	241	284	145	294	256	311	372	317	266	314	163
102	151	285	229	256	293	254	223	261	132	270	238	283	343	292	248	291	151
103	138	260	213	232	264	229	205	238	123	245	220	259	314	267	232	267	138
104	128	238	196	210	237	207	187	215	133	223	201	237	286	244	214	246	128
105	132	215	181	187	210	183	172	196	143	200	184	216	259	221	198	224	132
106	132	196	165	167	188	164	157	175	138	181	168	195	233	203	181	202	132
107	132	178	152	151	168	147	144	157	118	164	154	176	212	184	168	183	132
108	130	162	139	136	150	131	133	143	124	147	143	160	192	168	153	164	130
109	125	146	129	122	137	117	123	128	112	133	132	142	171	152	142	148	125
110	113	130	118	110	123	105	114	116	102	121	122	128	154	136	130	133	113
111	102	116	109	99	111	95	107	106	93	109	113	115	138	121	121	119	102
112	92	104	100	89	100	86	99	97	85	99	105	104	124	109	111	107	92
113	83	93	92	81	90	77	92	90	78	90	98	93	112	97	103	96	83
114	75	84	85	74	83	70	85	82	72	83	91	83	103	88	94	87	75
115	68	76	79	68	77	65	78	76	68	76	83	76	94	79	86	78	68
116	63	69	71	63	71	60	70	71	64	71	76	68	87	71	78	70	63
117	57	63	64	58	67	57	64	67	60	68	69	62	81	65	70	64	57
118	53	58	57	53	63	54	58	64	57	64	62	58	74	60	63	59	53
119	49	54	51	50	60	50	53	61	55	61	56	54	70	55	57	54	49
120	46	51	47	47	56	47	50	58	53	58	51	51	66	52	51	50	46
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124	39	40	33	39	45	38	35	46	46	47	37	40	50	41	35	40	39
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Report No.:
BLC2107021E-C-CP

Certificate#4810.01

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132	31	27	6	29	31	26	6	27	30	27	6	26	32	29	6	26	31
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Laboratory: Belling Test Laboratory Co., LTD A2LA Certificate# 4810.01
Unit 401, No. 309 Xinxin Seven Road, Zengcheng District,
Guangzhou, People' s Republic of China engineer@etk-utest.com

Report Format Number BL-FM-SA-012



Report No.:
BLC2107021E-C-CP

Certificate#4810.01

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Report No.:
BLC2107021E-C-CP

BUG

Lum. Classification System (LCS)

<u>LCS Zone</u>	<u>Lumens</u>	<u>%Lamp</u>	<u>%Lum</u>
FL (0-30)	323.7	5.5	5.5
FM (30-60)	977.0	16.7	16.7
FH (60-80)	886.5	15.2	15.2
FVH(80-90)	351.2	6.0	6.0
BL (0-30)	323.8	5.5	5.5
BM (30-60)	970.7	16.6	16.6
BH (60-80)	871.6	14.9	14.9
BVH(80-90)	344.1	5.9	5.9
UL (90-100)	455.7	7.8	7.8
UH (100-180)	344.6	5.9	5.9
Total	5848.9	100.0	100.0
BUG Rating	B2-U3-G3		



Certificate#4810.01

Report No.:
BLC2107021E-C-CP**2.2 Electrical, Photometric and Chromaticity Measurements***(Refer to Work Instruction BL-QP-033)*

Test date	2021-07-20	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	AST-PG07-45WBSP1SC1-abc65		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC210702	120.0	60	0.378	45.29	0.998	4.52
1E-C2	347.0	60	0.138	45.85	0.955	11.47
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

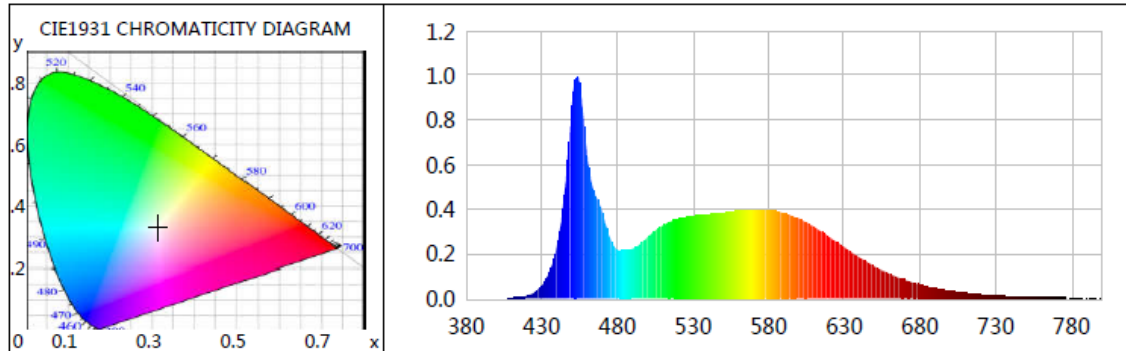
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	3
Frequency (Hz)	60	R2	90	R10	75
CCT (K)	6493	R3	93	R11	80
Duv	0.0036	R4	80	R12	55
Chromaticity (x, y)	x=0.3128 y=0.3298	R5	81	R13	85
Chromaticity (u', v')	u(u')=0.1976 v'=0.4688	R6	84	R14	97
Color Rendering Index (CRI)	83	R7	86	R15	76
R9	3	R8	67	--	--
Rf	82	--	--	--	--
Rg	92	--	--	--	--
Rcs,h1 (%)	-14	--	--	--	--

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	347.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	6177.1	6106.6	5000-10000(-10%)
Luminous Efficacy (lm/W)	136.39	133.19	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	133.19		



Spectral Power Distribution & Chromaticity Diagram



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.1242	525	0.3645	97.8976	670	0.0826	22.1896
385	0.0003	0.0678	530	0.3684	98.9511	675	0.0711	19.0876
390	0.0004	0.1154	535	0.3726	100.0900	680	0.0613	16.4610
395	0.0004	0.0974	540	0.3776	101.4216	685	0.0529	14.1976
400	0.0005	0.1311	545	0.3802	102.1143	690	0.0450	12.0847
405	0.0008	0.2038	550	0.3837	103.0595	695	0.0388	10.4222
410	0.0019	0.5053	555	0.3886	104.3638	700	0.0339	9.1016
415	0.0044	1.1791	560	0.3920	105.2828	705	0.0280	7.5325
420	0.0110	2.9577	565	0.3947	106.0267	710	0.0235	6.3130
425	0.0262	7.0305	570	0.3956	106.2530	715	0.0200	5.3786
430	0.0572	15.3759	575	0.3977	106.8323	720	0.0173	4.6570
435	0.1185	31.8247	580	0.3942	105.8917	725	0.0144	3.8684
440	0.2309	62.0086	585	0.3903	104.8231	730	0.0119	3.2045
445	0.4681	125.7393	590	0.3822	102.6617	735	0.0106	2.8529
450	0.8689	233.3725	595	0.3704	99.4980	740	0.0088	2.3593
455	0.9674	259.8301	600	0.3585	96.2956	745	0.0072	1.9350
460	0.6428	172.6458	605	0.3408	91.5335	750	0.0069	1.8655
465	0.4707	126.4235	610	0.3213	86.2945	755	0.0060	1.6228
470	0.3831	102.9088	615	0.2997	80.5025	760	0.0048	1.2947
475	0.2729	73.3119	620	0.2752	73.9284	765	0.0045	1.2104
480	0.2179	58.5271	625	0.2527	67.8786	770	0.0028	0.7528
485	0.2157	57.9386	630	0.2290	61.5145	775	0.0029	0.7870
490	0.2229	59.8609	635	0.2053	55.1547	780	0.0019	0.5027
495	0.2436	65.4336	640	0.1842	49.4672	785	0.0017	0.4686
500	0.2744	73.6983	645	0.1635	43.9266	790	0.0034	0.9065
505	0.3032	81.4387	650	0.1430	38.3957	795	0.0025	0.6833
510	0.3283	88.1685	655	0.1253	33.6466	800	0.0021	0.5748
515	0.3448	92.6067	660	0.1096	29.4292			
520	0.3562	95.6732	665	0.0951	25.5483			



Certificate#4810.01

Report No.: BLC2107021E-C-CP

TM30

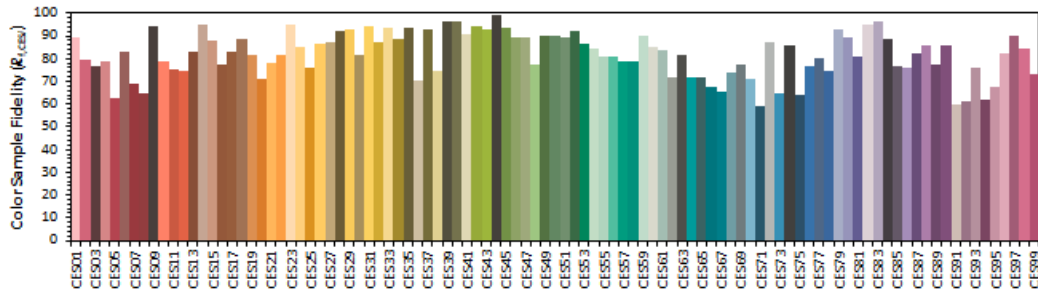
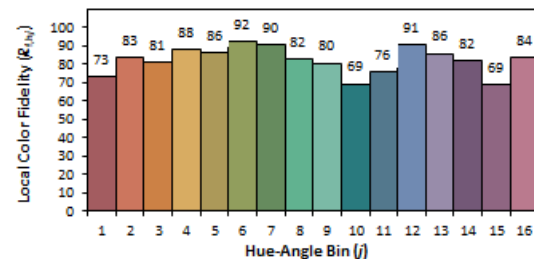
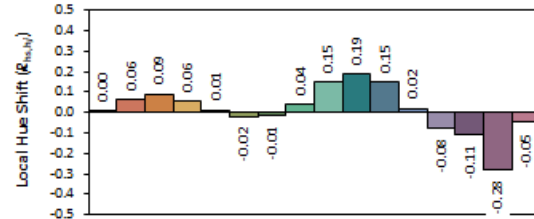
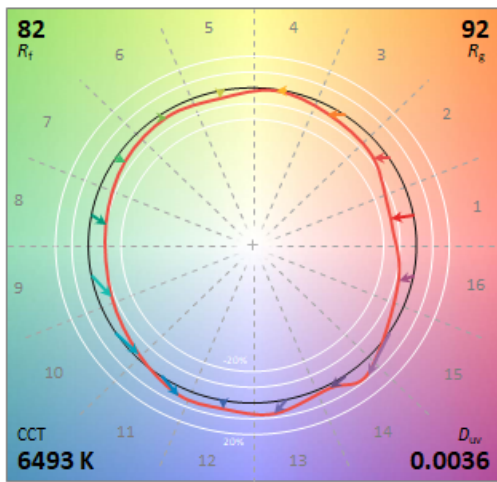
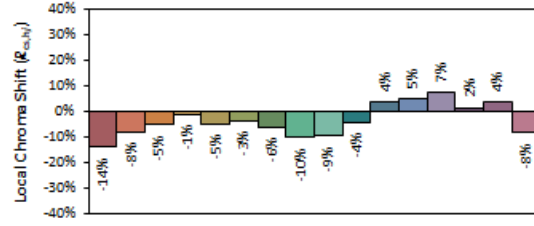
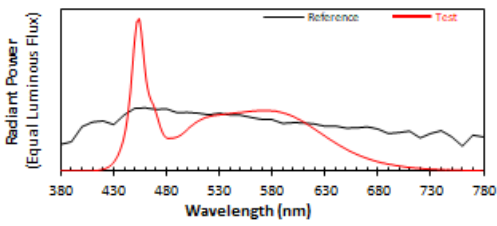
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-XX80RA35000H1

Date: 2021/7/20

Manufacturer: ASMART LIGHT CO., LTD

Model: AST-PG07-45WBSP1SC1-abc65



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3128	CIE 13.3-1995 (CRI)
y	0.3298	
u'	0.1976	
v'	0.4688	
		R_9 3



Certificate#4810.01

Report No.:
BLC2107021E-C-CP

Calculated Efficacy Data for family models:

Model Number	Luminous Flux (lm)	Power (W)	Efficacy (lm/W)
AST-PG07-45WBSP1SC1-abc30	5849	45.91	127.40
AST-PG07-45WBSP1SC1-abc35	5903.7	45.81	128.88
AST-PG07-45WBSP1SC1-abc40	5958.4	45.70	130.37
AST-PG07-45WBSP1SC1-abc45	6013.1	45.60	131.87
AST-PG07-45WBSP1SC1-abc50	6067.7	45.50	133.37
AST-PG07-45WBSP1SC1-abc57	6122.4	45.39	134.87
AST-PG07-45WBSP1SC1-abc65	6177.1	45.29	136.39

*1: This value is calculated and the calculation formula is as below:

$$5903.7 = (6122.4 - 5849.0) / 6 + 5849.0$$

$$5958.4 = (6122.4 - 5849.0) / 6 + 5903.7$$

$$6013.1 = (6122.4 - 5849.0) / 6 + 5958.4$$

$$6067.7 = (6122.4 - 5849.0) / 6 + 6013.1$$

$$6177.1 = (6122.4 - 5849.0) / 6 + 6067.7$$

*2: This value is calculated and the calculation formula is as below:

$$45.81 = (45.29 - 45.91) / 6 + 45.91$$

$$45.70 = (45.29 - 45.91) / 6 + 45.81$$

$$45.60 = (45.29 - 45.91) / 6 + 45.70$$

$$45.50 = (45.29 - 45.91) / 6 + 45.60$$

$$45.39 = (45.29 - 45.91) / 6 + 45.50$$

*3: This value is calculated and the calculation formula is as below:

$$127.40 = 5849.0 / 45.91$$

$$128.88 = 5903.7 / 45.81$$

$$130.37 = 5958.4 / 45.70$$

$$131.87 = 6013.1 / 45.60$$

$$133.37 = 6067.7 / 45.50$$

$$134.87 = 6122.4 / 45.39$$

$$136.39 = 6177.1 / 45.29$$



Report No.:
BLC2107021E-C-CP

3. Test Equipment

Equipment Name	Model No.	Serial No.	Next Calibration Date
Goniophotometric System	GPM-3000	DYHXF120001	2022-01-18
AC Power Source	CHP-500	DYBWD010159	2022-01-25
Total Luminous Flux Standard Lamp	24V/150W	DYJYR040040	2022-01-24
Digital Power Meter	WT500	DYDWQ20010	2022-01-25
Integral Sphere (2M)	2M	DYJCE120067	2022-01-18
Digital Power Meter	WT500	DYDWQ20006	2022-01-25
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2022-01-18

Expand Uncertainty:
Photometric Measurement (Sphere): 2.08%, k=2
Chromaticity Measurement(Sphere):25.6K, k=2
Photometric Measurement(Goniophotometer):2.645%, k=2

***** END OF REPORT *****