

LM-79-08 Test Report

For

Beyond LED Technology

(Brand Name: Beyond LED Technology)

1939 Parker Court, Stone Mountain, GA 30087

Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Architectural Flood and Spot Luminaires

Model name(s): AST-FLE01-500WB90/75/55DA1-abcdW30/40/50

Remark: "a" can be any two letters for Lamp colors; "b" can be "3RP", "3NP", "5RP", "5NP", "7RP", "7NP" for AC photocontrol provided, blank for no photocontrol provided; "c" can be "10SP", "20SP" or blank for Surge protector type provided or not; "d" can be "AM", "YM", "FM" for Bracket type; "W" for wattage adjustable; "30/40/50" is for CCT 3000K/4000K/5000K.

Representative (Tested) Model:

AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 3000K 55°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 4000K 55°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 5000K 55°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 3000K 75°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 4000K 75°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 5000K 75°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 3000K 90°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 4000K 90°)
AST-FLE01-500WB90/75/55DA1-abcdW30/40/50(Setting at 5000K 90°)

Model Different: All construction and rating are the same, except CCT

Test & Report By:

Winnie Wu

Review By:

Jason Luo



Report No.: UTC2401035E-I

Engineer: Winny Wu

Manager: Jason Luo

Date: 2024-05-22

DRAFT

1.1 Product Information:

Organization Name	Beyond LED Technology	
Brand Name	Beyond LED Technology	
Model Number	AST-FLE01-500WB90/75/55DA1-abcW30/40/50	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Architectural Flood and Spot Luminaires	
Rated Voltage / Frequency	120-277Vac, 50/60 Hz	
Nominal Power	500W(Power adjustable)	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,4000K, 5000K (Color tunable)	
LED Manufacturer	Lumileds Holding B.V.	
LED Model	L128-2880RC35005A1 L128-5780RC35005A1	
Sample Number	UTC2401035E-I1-3	
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	2024-05-06
Date of Test	2024-05-08
Test item	1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	1. IES LM-79-2019 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. 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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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. Goniophotometer far field detector $f1'=1.42\%$, Test distance: 14.14m

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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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. Use 2m diameter integrated sphere (94-98% coating reflectance) and 4π geometry.

Self-absorption:

AST-FLE01-500WB90/75/55DA1-abcdW30/40/50:1.027

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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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.

Laboratory: UTEST TECHNICAL 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

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2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 3000K 55°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.177	500.69	0.999	2.66
5E-II	277.0	60	1.827	493.03	0.974	5.85
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

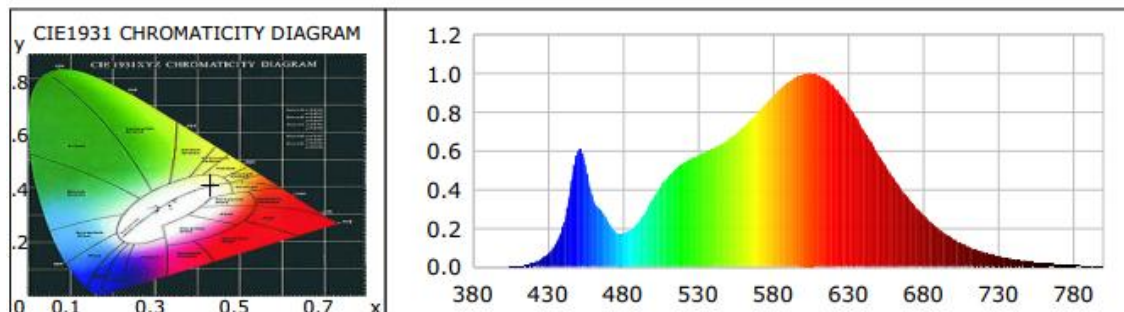
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	82	R9	10
Frequency (Hz)	60	R2	89	R10	76
CCT (K)	3162	R3	97	R11	83
Duv	0.0032	R4	83	R12	66
Chromaticity (x, y)	x=0.4301 y=0.4095	R5	82	R13	83
Chromaticity (u', v')	u(u')=0.2439 v'=0.5225	R6	88	R14	98
Color Rendering Index (CRI)	84	R7	85	R15	74
R9	10	R8	62	--	--
Rf	86	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-11				

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	69312.5	69590.2	>=10000(-10%)
Luminous Efficacy (lm/W)	138.43	141.15	Premium: >= 120(-3%)
Most worst Luminous/Highest	138.43		
Zonal lumens in the 0-90° zone (%)	100	--	Category 1: >=100(-1) Category 2: >=85(-3)
Zonal lumens in the 80-90°zone (%)	0.4	--	<=10(+3)
Beam Angle (°)	56.5	--	--
Center Beam Candle Power (cd)	57716	--	--

Spectral Power Distribution & Chromaticity Diagram

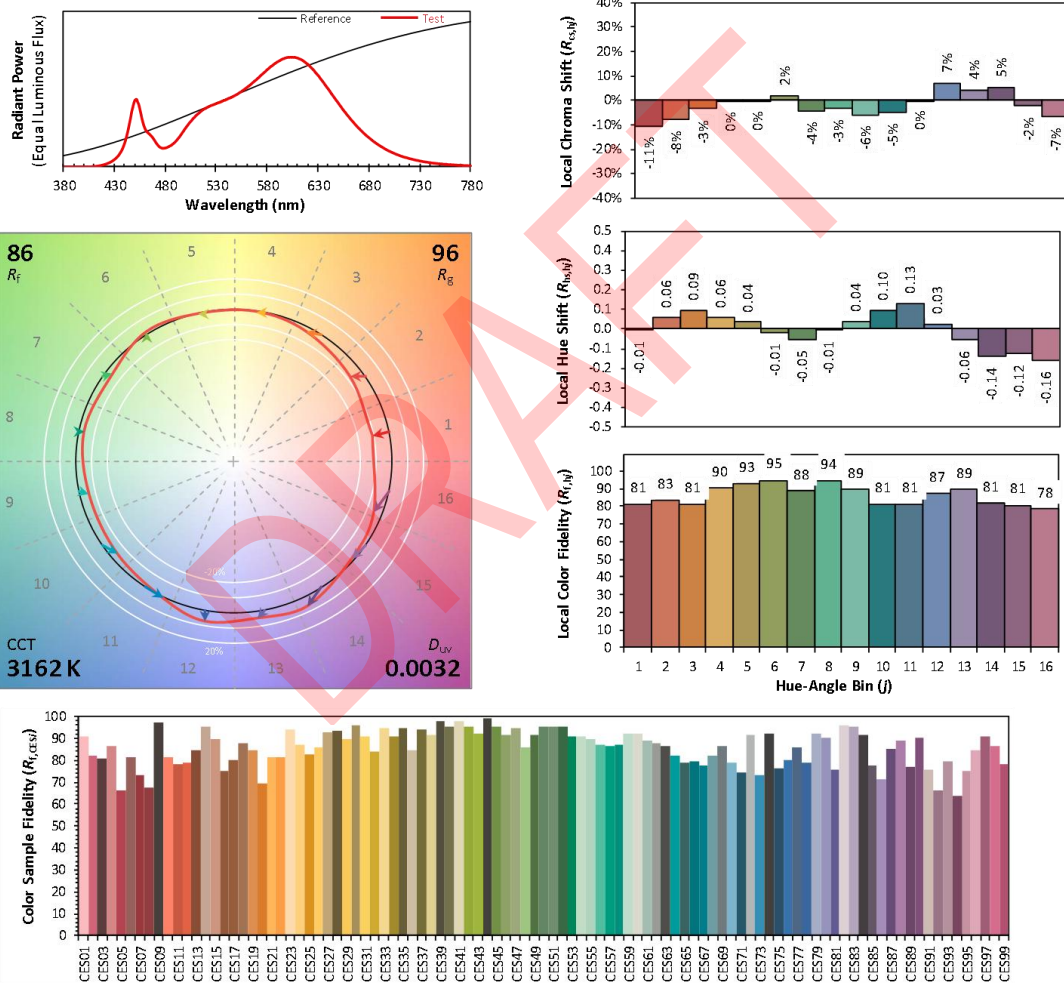


WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.4713	535	0.5594	566.3880	690	0.3546	358.9939
385	0.0004	0.4044	540	0.5765	583.6943	695	0.3088	312.6758
390	0.0004	0.4291	545	0.5935	600.8521	700	0.2684	271.7180
395	0.0002	0.2371	550	0.6139	621.5389	705	0.2303	233.2057
400	0.0008	0.7618	555	0.6335	641.3630	710	0.1983	200.7765
405	0.0020	1.9926	560	0.6587	666.9309	715	0.1705	172.6739
410	0.0050	5.0755	565	0.6877	696.2392	720	0.1447	146.4954
415	0.0108	10.9591	570	0.7221	731.0554	725	0.1241	125.6427
420	0.0212	21.4165	575	0.7594	768.8783	730	0.1052	106.4983
425	0.0383	38.8156	580	0.7985	808.4099	735	0.0899	90.9908
430	0.0667	67.5350	585	0.8419	852.4187	740	0.0763	77.2488
435	0.1157	117.1062	590	0.8853	896.2932	745	0.0655	66.2708
440	0.2112	213.8612	595	0.9208	932.3007	750	0.0554	56.1285
445	0.3996	404.6091	600	0.9563	968.1918	755	0.0470	47.5864
450	0.6017	609.1674	605	0.9812	993.4776	760	0.0404	40.9081
455	0.5324	539.0584	610	0.9979	1010.3334	765	0.0336	34.0216
460	0.3538	358.1755	615	0.9998	1012.2839	770	0.0292	29.5189
465	0.2960	299.6523	620	0.9917	1004.0452	775	0.0250	25.2713
470	0.2359	238.8032	625	0.9706	982.7017	780	0.0213	21.5858
475	0.1787	180.9703	630	0.9366	948.3102	785	0.0179	18.1457
480	0.1727	174.8560	635	0.8905	901.5825	790	0.0155	15.7263
485	0.1928	195.1774	640	0.8358	846.2263	795	0.0134	13.5795
490	0.2292	232.0457	645	0.7759	785.6014	800	0.0104	10.4995
495	0.2866	290.1828	650	0.7124	721.2914			
500	0.3535	357.8868	655	0.6467	654.7634			
505	0.4136	418.7222	660	0.5836	590.9107			
510	0.4664	472.2589	665	0.5190	525.5046			
515	0.5060	512.3001	670	0.4611	466.8055			
520	0.5352	541.8558	675	0.4059	411.0006			
525	0.5594	566.3880	680	0.3546	358.9939			
530	0.5765	583.6943	685	0.3088	312.6758			

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	L128-2880RC35005A1	Manufacturer:	ASMT LIGHT CO., LTD
	L128-5780RC35005A1		
Date:	2024/5/8	Model:	AST-FLE01-500WB90/75/55DA1- abcdW30/40/50 (Setting at 3000K 55°)



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

x 0.4301
 y 0.4095
 u' 0.2439
 v' 0.5225

CIE 13.3-1995
(CRI)
 R_a 84
 R_9 10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Zonal Lumen Tabulation

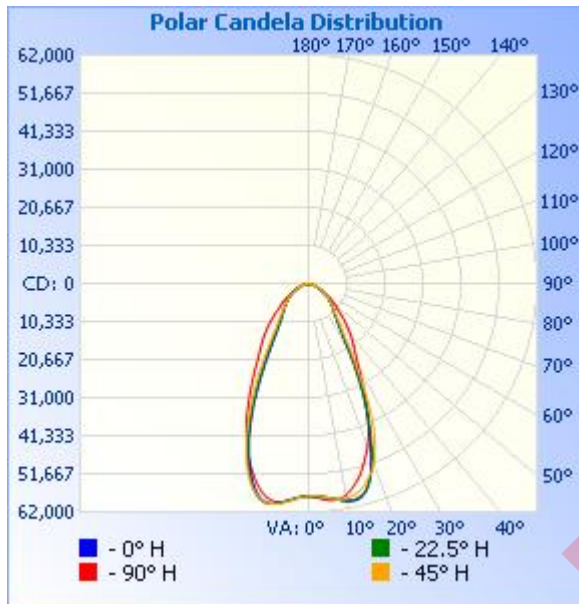
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	38,704.8	55.8%	55.9%
0-40	50,047.8	72.2%	72.2%
0-60	63,956.8	92.3%	92.3%
60-90	5,342.3	7.7%	7.7%
70-100	1,894.3	2.7%	2.7%
90-120	0	0%	0%
0-90	69,299.0	100%	100%
90-180	0	0%	0%
0-180	69,299.0	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	5,658.5	8.2%	90-100	0	0%
10-20	15,810.5	22.8%	100-110	0	0%
20-30	17,235.7	24.9%	110-120	0	0%
30-40	11,343.0	16.4%	120-130	0	0%
40-50	8,138.8	11.7%	130-140	0	0%
50-60	5,770.2	8.3%	140-150	0	0%
60-70	3,448.0	5.0%	150-160	0	0%
70-80	1,599.5	2.3%	160-170	0	0%
80-90	294.8	0.4%	170-180	0	0%

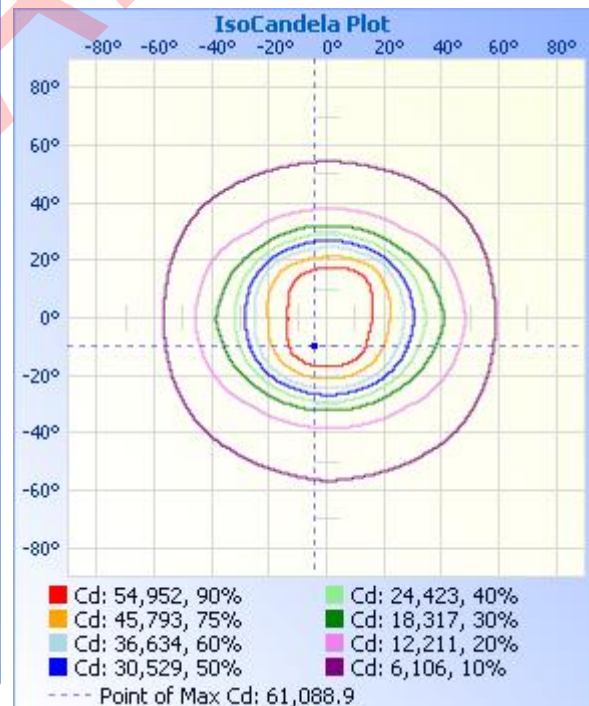
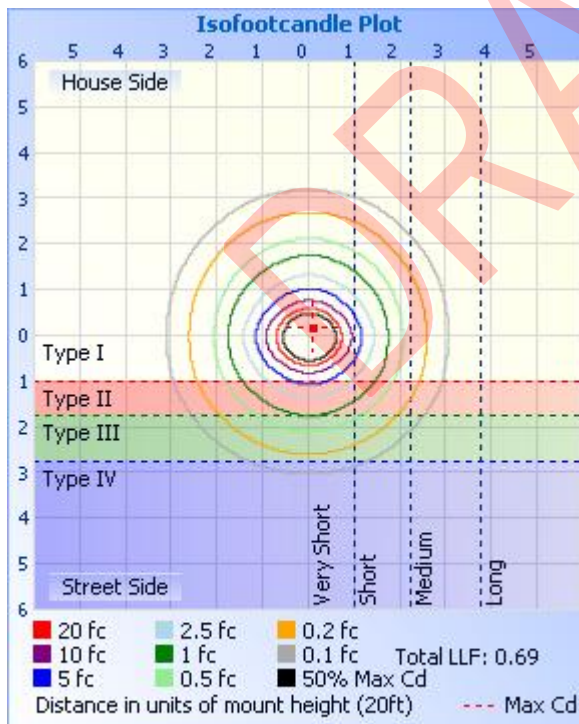
Photometric Data



Illuminance at a Distance

	Center Beam fc	Beam Width
17.0ft	200 fc	17.1 ft 17.6 ft
34.0ft	49.9 fc	34.1 ft 35.1 ft
51.0ft	22.2 fc	51.2 ft 52.7 ft
68.0ft	12.5 fc	68.2 ft 70.2 ft
85.0ft	7.99 fc	85.3 ft 87.8 ft
102.0ft	5.55 fc	102.3 ft 105.3 ft

■ Vert. Spread: 53.3°
■ Horiz. Spread: 54.6°



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	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716	57716
1	57735	57670	57688	57652	57850	57798	57795	57776	57799	57782	57872	57868	57758	57763	57781	57774	57735
2	57838	57732	57763	57719	58047	58016	57960	57928	57943	57952	58093	58151	57935	57960	57932	57867	57838
3	57943	57853	57867	57894	58352	58311	58233	58139	58151	58198	58370	58510	58251	58290	58178	58051	57943
4	58102	58028	58114	58101	58685	58633	58562	58442	58541	58563	58757	58940	58659	58695	58559	58280	58102
5	58293	58252	58401	58373	58971	58990	58923	58873	58897	58957	59172	59376	59094	59175	58927	58565	58293
6	58569	58532	58632	58580	59152	59200	59342	59349	59362	59356	59619	59699	59472	59598	59410	58935	58569
7	58918	58838	58885	58689	59204	59330	59799	59881	59792	59818	60034	59949	59771	59998	59794	59318	58918
8	59285	59133	59064	58663	59052	59335	60146	60354	60171	60268	60346	59983	59926	60244	60188	59769	59285
9	59654	59517	59164	58516	58790	59175	60406	60761	60460	60545	60556	59856	59852	60337	60476	60212	59654
10	59963	59752	59173	58195	58315	58888	60579	61020	60549	60675	60637	59525	59600	60215	60701	60597	59963
11	60124	59893	59033	57779	57611	58406	60566	61089	60434	60646	60507	59022	59126	59938	60778	60851	60124
12	60184	59897	58767	57167	56816	57810	60353	60861	60038	60382	60162	58336	58499	59452	60753	60960	60184
13	60038	59615	58386	56519	55900	57058	59884	60326	59347	59841	59614	57425	57624	58776	60527	60900	60038
14	59633	59216	57804	55705	54898	56064	59228	59451	58332	58926	58867	56460	56588	58045	60138	60626	59633
15	58908	58639	57107	54818	53744	55130	58248	58275	57059	57735	57859	55317	55428	57105	59568	60147	58908
16	57786	57587	56304	53875	52510	53868	57063	56823	55566	56284	56681	54076	54140	56064	58860	59327	57786
17	56260	56297	55269	52860	51083	52587	55570	54874	53709	54624	55217	52734	52793	54814	57940	58203	56260
18	54440	54673	54264	51765	49708	51235	53816	52897	51831	52737	53519	51333	51434	53633	56889	56670	54440
19	52086	52733	53086	50462	48301	49825	51639	50771	49800	50711	51501	49744	49973	52274	55621	54562	52086
20	49650	50553	51740	49194	46850	48206	49508	48479	47437	48264	49460	48185	48254	50819	54078	52273	49650
21	47026	48134	50174	47807	45245	46578	47218	45942	45338	45860	47272	46514	46664	49283	52331	49721	47026
22	44351	45256	48140	46230	43405	44902	44860	43421	42676	43420	45009	44822	45031	47403	50272	46964	44351
23	41742	42573	45960	44414	41523	43017	42364	40477	39982	40779	42624	42994	43339	45542	47674	44006	41742
24	39232	39712	43463	42218	39545	40997	39866	37734	37192	38107	40257	40950	41579	43505	44925	40992	39232
25	36736	36948	40761	40047	37550	38854	37100	35005	34446	35159	37538	39044	39760	41359	42000	37737	36736
26	34165	34268	37872	37825	35330	36420	34570	32234	31403	32464	35085	37112	37711	39154	38926	34941	34165
27	31441	31614	34882	35512	33346	34123	31992	29510	28677	29785	32629	35049	35853	36919	35760	32203	31441

28	28641	28960	31628	33199	31441	31860	29493	26682	26044	27223	30232	33030	34037	34461	33011	29554	28641
29	25884	26381	28856	30781	29637	29639	26817	24262	23597	24762	27861	30792	32248	32314	30042	27033	25884
30	23316	23895	26177	28632	27955	27522	24511	22074	21412	22537	25352	28799	30534	30279	27042	24391	23316
31	20960	21617	23686	26573	26406	25580	22421	20171	19527	20382	23234	26925	28923	28299	24568	22178	20960
32	18975	19550	21459	24695	24918	23681	20495	18481	17787	18691	21306	25192	27392	26388	22305	20110	18975
33	17343	17776	19481	22928	23688	22116	18771	16868	16386	17177	19499	23534	25960	24595	20288	18266	17343
34	15980	16299	17802	21406	22648	20703	17293	15623	15220	15900	17989	21929	24661	22975	18566	16742	15980
35	14817	15040	16468	20061	21683	19456	15921	14536	14247	14799	16619	20562	23494	21476	17116	15579	14817
36	13887	14077	15271	18905	20820	18327	14790	13708	13460	13797	15359	19392	22456	20208	15858	14526	13887
37	13088	13271	14212	17879	19898	17252	13890	12882	12687	13067	14368	18293	21541	18999	14796	13576	13088
38	12370	12527	13372	16950	19121	16362	13073	12158	12086	12432	13525	17252	20646	17973	13818	12769	12370
39	11764	11886	12590	16043	18269	15448	12337	11612	11562	11800	12796	16352	19780	17004	12986	12088	11764
40	11210	11315	11934	15181	17458	14694	11630	11071	11120	11352	12136	15475	19003	16067	12265	11422	11210
41	10766	10825	11311	14440	16610	13909	11049	10602	10687	10813	11495	14684	18137	15320	11601	10934	10766
42	10324	10352	10818	13696	15760	13092	10507	10190	10353	10458	10994	13974	17219	14514	11038	10415	10324
43	9986	10004	10345	13006	14845	12399	10066	9789	9889	10088	10504	13253	16421	13820	10522	9981	9986
44	9630	9608	9886	12269	14068	11747	9547	9422	9621	9710	10063	12530	15577	13071	10022	9582	9630
45	9284	9341	9419	11582	13273	10990	9132	9041	9307	9375	9577	11838	14737	12371	9579	9241	9284
46	8927	8911	9021	10895	12433	10382	8738	8720	8976	9018	9185	11186	13911	11647	9096	8857	8927
47	8605	8605	8563	10245	11662	9792	8390	8392	8654	8683	8777	10602	13105	11022	8715	8534	8605
48	8293	8254	8222	9638	10909	9228	8030	8089	8366	8357	8417	10011	12265	10332	8373	8190	8293
49	7945	7891	7872	9076	10276	8734	7654	7766	8084	8044	8110	9373	11470	9710	7958	7892	7945
50	7629	7518	7543	8621	9838	8244	7367	7470	7806	7712	7734	8894	10733	9129	7660	7516	7629
51	7331	7183	7225	8127	9413	7805	7086	7178	7551	7409	7405	8446	10119	8601	7340	7198	7331
52	7021	6862	6888	7744	8972	7469	6815	6906	7281	7148	7156	7999	9648	8102	7042	6823	7021
53	6743	6538	6628	7382	8567	7101	6514	6606	7000	6854	6798	7569	9182	7669	6768	6531	6743
54	6390	6233	6317	7047	8045	6758	6192	6329	6745	6562	6554	7213	8765	7323	6461	6228	6390
55	6077	5909	6044	6657	7516	6395	5930	6029	6462	6238	6263	6836	8316	6931	6179	5920	6077
56	5760	5604	5708	6250	6862	6051	5648	5749	6170	5932	5965	6553	7810	6609	5860	5672	5760
57	5537	5245	5419	5938	6204	5686	5394	5501	5903	5660	5694	6130	7148	6181	5580	5293	5537
58	5273	4912	5074	5519	5548	5307	5100	5244	5646	5373	5404	5767	6505	5831	5272	5024	5273

59	4917	4645	4750	5134	4931	4941	4810	4959	5383	5100	5102	5405	5864	5498	4960	4749	4917
60	4671	4396	4508	4754	4424	4531	4576	4722	5115	4872	4815	5012	5248	5085	4629	4488	4671
61	4428	4117	4191	4400	4036	4261	4331	4511	4896	4647	4575	4691	4665	4672	4392	4181	4428
62	4098	3883	3945	4073	3786	3918	4092	4292	4675	4378	4313	4314	4211	4359	4086	3950	4098
63	3843	3617	3716	3830	3540	3681	3905	4049	4450	4160	4077	4041	3905	4001	3907	3724	3843
64	3588	3406	3498	3563	3358	3432	3693	3842	4218	3963	3816	3763	3664	3714	3646	3502	3588
65	3428	3163	3288	3351	3114	3273	3495	3642	3930	3749	3670	3555	3471	3516	3405	3274	3428
66	3155	2995	3036	3130	2889	2996	3291	3473	3726	3580	3459	3372	3222	3342	3215	3062	3155
67	2876	2775	2842	2925	2702	2827	3068	3277	3485	3373	3237	3141	3026	3107	2945	2818	2876
68	2644	2590	2592	2703	2532	2660	2883	3091	3326	3184	2998	2928	2824	2853	2754	2633	2644
69	2382	2311	2393	2514	2301	2456	2621	2865	3034	2945	2795	2691	2626	2699	2528	2410	2382
70	2184	2176	2196	2318	2154	2289	2505	2703	2777	2764	2678	2573	2443	2477	2324	2218	2184
71	1945	1971	1934	2191	1991	2148	2248	2493	2577	2619	2471	2357	2236	2287	2129	2035	1945
72	1704	1741	1775	1921	1781	1978	2085	2314	2398	2340	2242	2158	2075	2106	1960	1817	1704
73	1513	1572	1594	1782	1645	1780	1914	2125	2140	2217	2064	2045	1918	1965	1683	1639	1513
74	1365	1373	1406	1564	1501	1632	1693	1965	1984	2008	1910	1908	1769	1723	1543	1413	1365
75	1128	1246	1201	1381	1354	1452	1533	1775	1761	1888	1666	1642	1564	1614	1371	1268	1128
76	955	1055	1098	1221	1247	1261	1369	1623	1548	1731	1523	1452	1419	1410	1190	1147	955
77	786	897	885	1043	1218	1070	1219	1424	1292	1526	1376	1312	1348	1253	1034	935	786
78	640	707	756	890	1154	919	1043	1274	1139	1301	1189	1165	1254	1033	868	825	640
79	499	577	591	783	919	794	913	1012	939	1155	1046	994	1200	849	716	632	499
80	367	476	508	632	661	650	742	898	773	997	874	835	1099	694	630	507	367
81	226	332	410	525	478	507	632	704	617	823	768	687	746	580	493	370	226
82	167	244	309	364	402	368	511	575	463	661	641	591	557	365	319	220	167
83	94	171	244	273	302	298	415	456	448	521	511	432	493	365	316	192	94
84	127	151	169	260	217	274	296	280	273	399	382	388	292	253	225	150	127
85	133	132	133	182	204	141	254	269	236	279	312	261	278	230	168	125	133
86	145	148	133	153	124	135	176	178	185	220	239	289	221	125	153	158	145
87	159	138	107	179	92	115	153	166	156	160	203	175	176	143	156	125	159
88	133	121	107	120	92	107	116	98	149	103	137	166	121	112	119	122	133
89	153	122	107	146	0	94	111	134	151	145	138	114	94	88	168	148	153

90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BUG Rating

Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	19667.7	28.4	28.4
FM (30-60)	12746.3	18.4	18.4
FH (60-80)	2385.0	3.4	3.4
FVH (80-90)	119.7	0.2	0.2
BL (0-30)	19043.1	27.5	27.5
BM (30-60)	12513.3	18.1	18.1
BH (60-80)	2662.3	3.8	3.8
BVH (80-90)	175.1	0.3	0.3
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	69312.5	100.1	100.0
BUG Rating	B5-U0-G2		

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 4000K 55°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.074	488.44	0.999	2.6
5E-I2	277.0	60	1.782	480.87	0.974	5.96
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

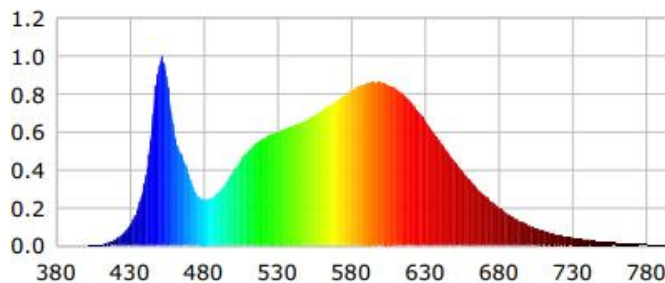
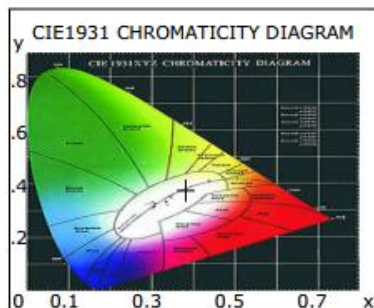
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	83	R9	12
Frequency (Hz)	60	R2	90	R10	77
CCT (K)	3920	R3	95	R11	82
Duv	-0.0008	R4	83	R12	63
Chromaticity (x, y)	x=0.3834 y=0.3768	R5	83	R13	85
Chromaticity (u', v')	u(u')=0.2270 v'=0.5020	R6	87	R14	98
Color Rendering Index (CRI)	84	R7	85	R15	77
R9	12	R8	65	--	--
Rf	84	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-11				

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	72670.1	72856.6	>=10000(-10%)
Luminous Efficacy (lm/W)	148.78	151.51	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	148.78		

Spectral Power Distribution & Chromaticity Diagram

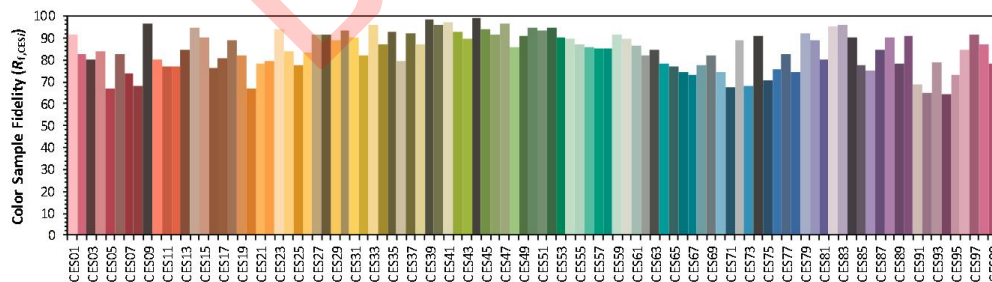
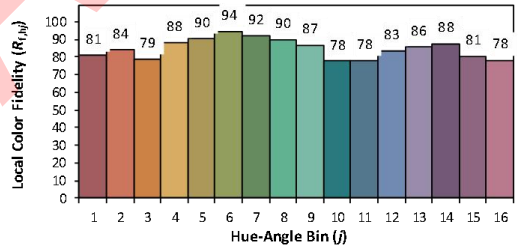
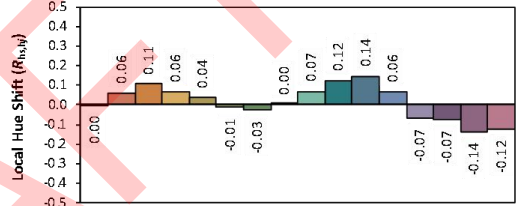
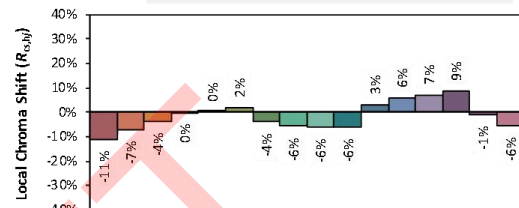
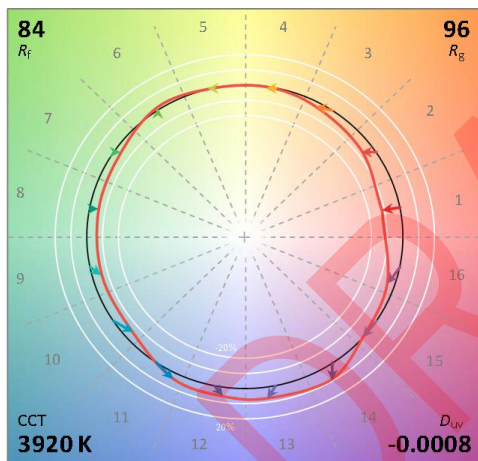
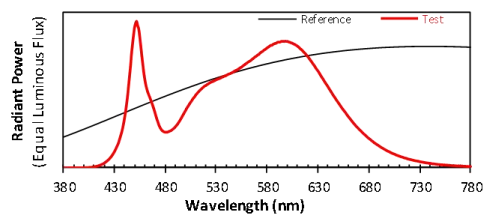


WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0008	0.8618	535	0.5847	652.8811	690	0.2670	298.1231
385	0.0004	0.4004	540	0.6004	670.4143	695	0.2326	259.6767
390	0.0003	0.3020	545	0.6152	686.9158	700	0.2015	224.9819
395	0.0004	0.4316	550	0.6312	704.8054	705	0.1730	193.1922
400	0.0014	1.6190	555	0.6474	722.9204	710	0.1495	166.9597
405	0.0026	2.9258	560	0.6667	744.4291	715	0.1283	143.2792
410	0.0069	7.6678	565	0.6871	767.2262	720	0.1102	123.0739
415	0.0157	17.5315	570	0.7132	796.3924	725	0.0939	104.8856
420	0.0318	35.5386	575	0.7385	824.6783	730	0.0797	89.0188
425	0.0598	66.7671	580	0.7647	853.9383	735	0.0677	75.6344
430	0.1083	120.9518	585	0.7926	885.0125	740	0.0584	65.2453
435	0.1896	211.6648	590	0.8185	913.9752	745	0.0495	55.2712
440	0.3353	374.3794	595	0.8370	934.6101	750	0.0419	46.8187
445	0.6256	698.5376	600	0.8562	956.1130	755	0.0363	40.4987
450	0.9605	1072.5297	605	0.8632	963.8588	760	0.0311	34.6893
455	0.8964	1000.9958	610	0.8633	963.9580	765	0.0262	29.2995
460	0.6036	673.9804	615	0.8509	950.1596	770	0.0220	24.5732
465	0.4788	534.6505	620	0.8302	926.9990	775	0.0193	21.5382
470	0.3756	419.3890	625	0.7993	892.5042	780	0.0164	18.3538
475	0.2744	306.4448	630	0.7594	847.9909	785	0.0142	15.8865
480	0.2429	271.2130	635	0.7122	795.2304	790	0.0114	12.6871
485	0.2520	281.4341	640	0.6617	738.8954	795	0.0106	11.7955
490	0.2800	312.6693	645	0.6073	678.0840	800	0.0089	9.9495
495	0.3296	368.0758	650	0.5529	617.3989			
500	0.3910	436.6352	655	0.4962	554.0594			
505	0.4476	499.7635	660	0.4451	497.0309			
510	0.4971	555.0646	665	0.3956	441.7149			
515	0.5345	596.8953	670	0.3490	389.6553			
520	0.5620	627.5113	675	0.3051	340.6768			
525	0.5847	652.8811	680	0.2670	298.1231			
530	0.6004	670.4143	685	0.2326	259.6767			

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	L128-2880RC35005A1 L128-5780RC35005A1	Manufacturer:	ASMART LIGHT CO., LTD
Date:	2024/5/8	Model:	AST-FLE01-500WB90/75/55DA1- abcdW30/40/50 (Setting at 4000K 55°)



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

x 0.3834
 y 0.3768
 u' 0.2270
 v' 0.5020

CIE 13.3-1995
(CRI)
 R_a 84
 R_9 12

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.3 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 5000K 55°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.190	501.8	0.998	2.63
5E-I3	277.0	60	1.833	494.52	0.974	5.96
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

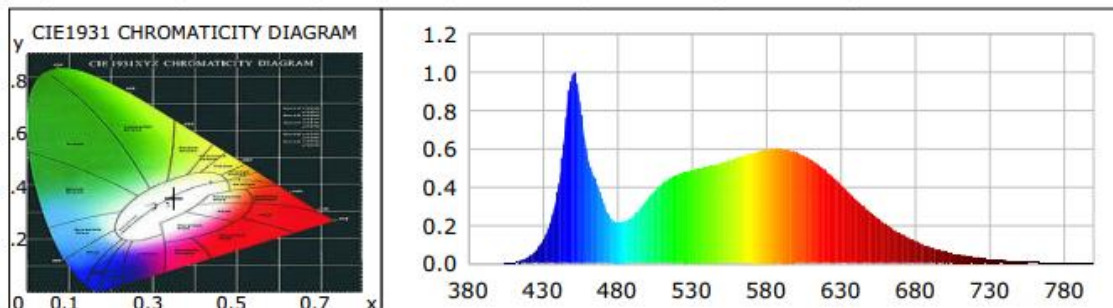
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	7
Frequency (Hz)	60	R2	89	R10	73
CCT (K)	4844	R3	93	R11	81
Duv	-0.0003	R4	82	R12	57
Chromaticity (x, y)	x=0.3495 y=0.3545	R5	82	R13	84
Chromaticity (u', v')	u(u')=0.2133 v'=0.4867	R6	84	R14	96
Color Rendering Index (CRI)	83	R7	86	R15	76
R9	7	R8	67	--	--
Rf	83	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-13				

Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	72058.5	72427.4	>=10000(-10%)
Luminous Efficacy (lm/W)	143.60	146.46	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	143.60		

Spectral Power Distribution & Chromaticity Diagram

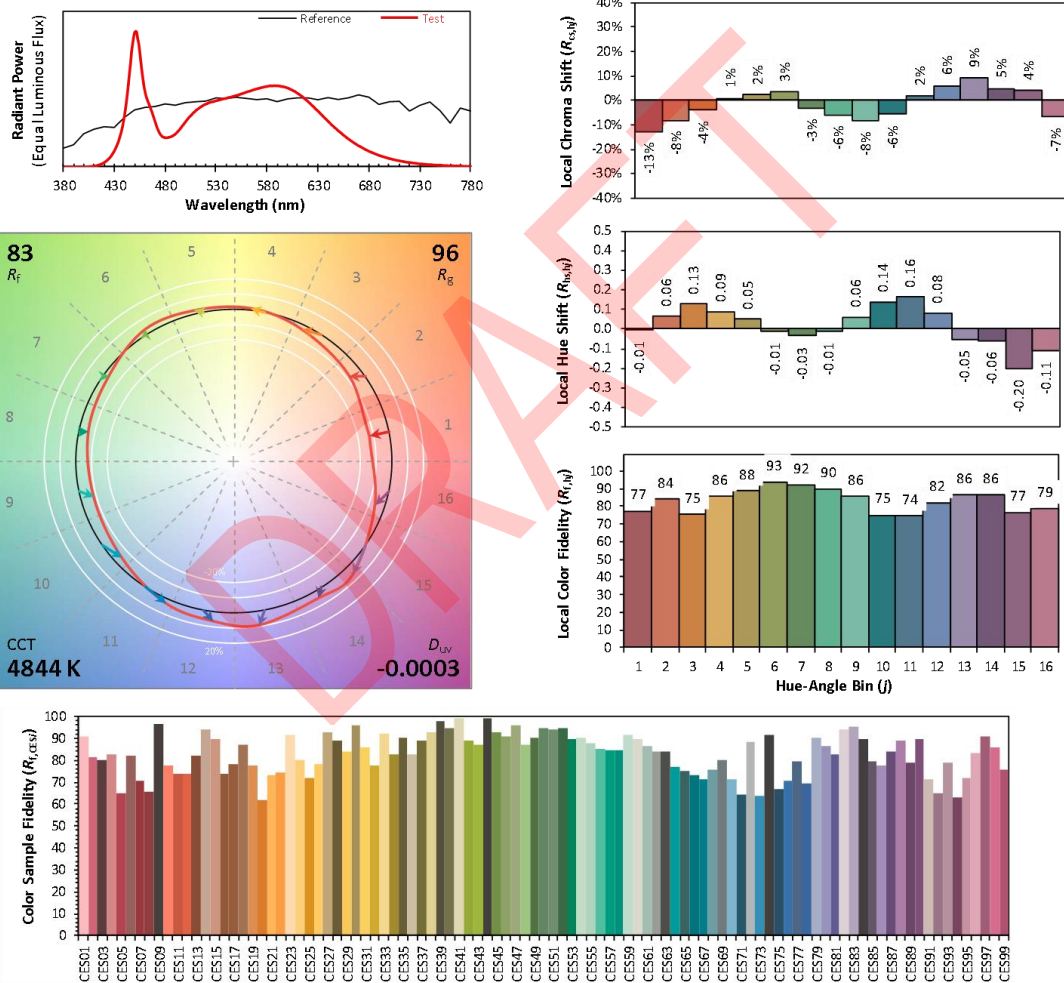


WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0006	0.8720	535	0.4781	712.0089	690	0.1565	233.0014
385	0.0004	0.6581	540	0.4879	726.5349	695	0.1363	202.8912
390	0.0004	0.5787	545	0.4975	740.8055	700	0.1164	173.3742
395	0.0006	0.9550	550	0.5066	754.4538	705	0.1009	150.3002
400	0.0008	1.2161	555	0.5163	768.8677	710	0.0856	127.4834
405	0.0025	3.7951	560	0.5275	785.4561	715	0.0741	110.3764
410	0.0066	9.8511	565	0.5388	802.2846	720	0.0630	93.8249
415	0.0149	22.1647	570	0.5522	822.2305	725	0.0530	78.9174
420	0.0323	48.1463	575	0.5641	839.9441	730	0.0460	68.5181
425	0.0634	94.3348	580	0.5754	856.8451	735	0.0390	58.1483
430	0.1176	175.1182	585	0.5858	872.3504	740	0.0335	49.8792
435	0.2095	311.9448	590	0.5942	884.7899	745	0.0282	41.9523
440	0.3775	562.0754	595	0.5974	889.5200	750	0.0233	34.6866
445	0.6958	1036.0984	600	0.5993	892.4300	755	0.0201	29.9416
450	0.9900	1474.2225	605	0.5935	883.7398	760	0.0164	24.4094
455	0.8494	1264.8760	610	0.5824	867.2533	765	0.0135	20.1360
460	0.5630	838.4317	615	0.5664	843.4449	770	0.0126	18.7974
465	0.4460	664.2110	620	0.5434	809.1405	775	0.0103	15.3870
470	0.3362	500.6880	625	0.5172	770.2015	780	0.0090	13.4707
475	0.2430	361.8487	630	0.4855	722.9871	785	0.0077	11.4086
480	0.2158	321.3940	635	0.4491	668.7320	790	0.0067	9.9128
485	0.2209	328.9741	640	0.4122	613.8722	795	0.0058	8.5901
490	0.2421	360.5049	645	0.3739	556.8433	800	0.0044	6.5681
495	0.2843	423.3794	650	0.3372	502.1015			
500	0.3327	495.3507	655	0.3012	448.5887			
505	0.3772	561.6449	660	0.2671	397.7654			
510	0.4153	618.3518	665	0.2360	351.4302			
515	0.4432	659.9286	670	0.2074	308.9078			
520	0.4629	689.3026	675	0.1801	268.1228			
525	0.4781	712.0089	680	0.1565	233.0014			
530	0.4879	726.5349	685	0.1363	202.8912			

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	L128-2880RC35005A1	Manufacturer: ASMART LIGHT CO., LTD
	L128-5780RC35005A1	
Date:	2024/5/8	Model: AST-FLE01-500WB90/75/55DA1- abcdW30/40/50 (Setting at 5000K 55°)



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

x 0.3495
 y 0.3545
 u' 0.2133
 v' 0.4867

CIE 13.3-1995
(CRI)
 R_a 83
 R_g 7

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.4 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 3000K 75°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.200	503.48	0.999	2.94
5E-II	277.0	60	1.830	493.71	0.974	5.88
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	10
Frequency (Hz)	60	R2	90	R10	76
CCT (K)	3165	R3	97	R11	83
Duv	0.0031	R4	83	R12	66
Chromaticity (x, y)	x=0.4297 y=0.4090	R5	82	R13	83
Chromaticity (u', v')	u(u')=0.2439 v'=0.5222	R6	88	R14	98
Color Rendering Index (CRI)	84	R7	85	R15	74
R9	10	R8	62	--	--
Rf	86	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-11				

Photometric Measurement – Goniophotometer Method:

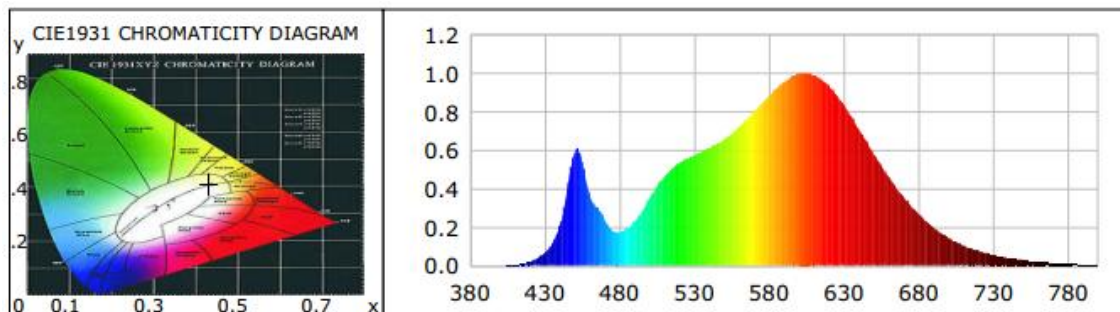
Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	73898.1	74226.0	>=10000(-10%)
Luminous Efficacy (lm/W)	146.77	150.34	Premium: >= 120(-3%)
Most worst Luminous/Highest	146.77		
Zonal lumens in the 0-90° zone (%)	100	--	Category 1: >=100(-1) Category 2: >=85(-3)
Zonal lumens in the 80-90°zone (%)	0.3	--	<=10(+3)
Beam Angle (°)	73.5	--	--
Center Beam Candle Power (cd)	48834	--	--

Laboratory: UTEST TECHNICAL 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

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	0.4706	535	0.5578	561.6591	690	0.3543	356.8010
385	0.0004	0.4524	540	0.5762	580.1862	695	0.3095	311.6739
390	0.0005	0.5447	545	0.5942	598.3709	700	0.2688	270.6716
395	0.0006	0.6096	550	0.6136	617.8840	705	0.2313	232.9217
400	0.0009	0.8859	555	0.6331	637.4872	710	0.1991	200.4649
405	0.0022	2.2425	560	0.6586	663.1983	715	0.1704	171.5899
410	0.0057	5.6994	565	0.6873	692.1137	720	0.1459	146.8969
415	0.0118	11.8612	570	0.7226	727.6647	725	0.1244	125.2435
420	0.0222	22.3837	575	0.7596	764.8847	730	0.1060	106.6895
425	0.0399	40.2190	580	0.7990	804.5791	735	0.0913	91.9829
430	0.0686	69.0899	585	0.8440	849.8418	740	0.0781	78.6076
435	0.1169	117.7531	590	0.8856	891.7512	745	0.0663	66.7193
440	0.2090	210.4695	595	0.9225	928.8602	750	0.0557	56.0947
445	0.3915	394.2281	600	0.9572	963.8695	755	0.0485	48.8384
450	0.5940	598.1190	605	0.9824	989.2225	760	0.0402	40.5280
455	0.5446	548.3557	610	0.9990	1005.9057	765	0.0352	35.4748
460	0.3650	367.5345	615	0.9992	1006.1681	770	0.0290	29.2064
465	0.3024	304.5105	620	0.9923	999.2340	775	0.0252	25.3951
470	0.2425	244.1924	625	0.9697	976.3877	780	0.0215	21.6741
475	0.1847	185.9517	630	0.9350	941.4662	785	0.0185	18.6774
480	0.1758	177.0461	635	0.8886	894.8205	790	0.0160	16.0732
485	0.1946	195.9895	640	0.8347	840.4598	795	0.0126	12.6699
490	0.2310	232.6426	645	0.7754	780.7435	800	0.0106	10.6907
495	0.2864	288.3621	650	0.7099	714.8650			
500	0.3516	353.9956	655	0.6466	651.0453			
505	0.4121	414.9972	660	0.5824	586.4632			
510	0.4648	468.0234	665	0.5189	522.5480			
515	0.5034	506.9355	670	0.4600	463.1804			
520	0.5342	537.9393	675	0.4052	407.9870			
525	0.5578	561.6591	680	0.3543	356.8010			
530	0.5762	580.1862	685	0.3095	311.6739			

TM30

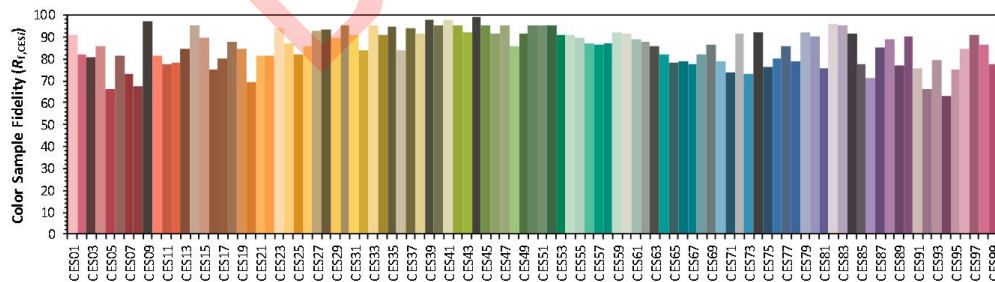
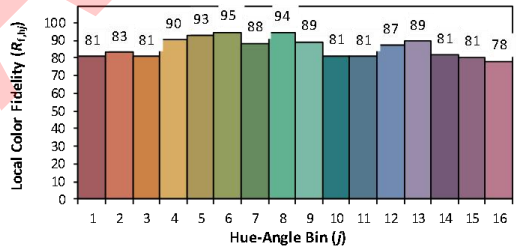
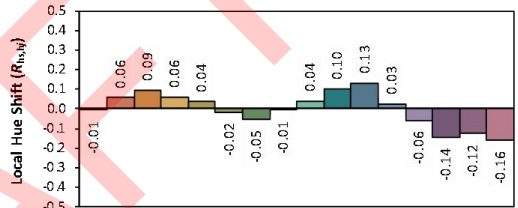
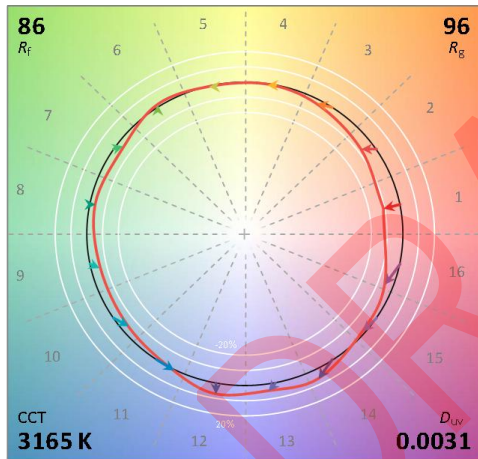
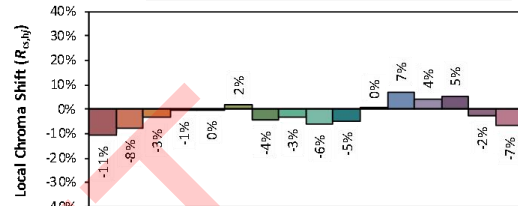
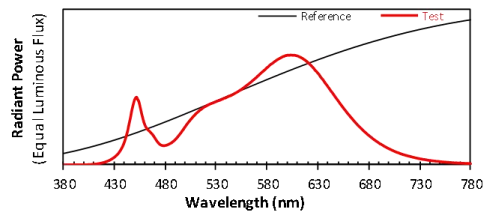
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-2880RC35005A1
L128-5780RC35005A1

Manufacturer: ASmart LIGHT CO., LTD

Date: 2024/5/8

Model: AST-FLE01-500WB90/75/55DA1-
abcdW30/40/50 (Setting at 3000K
75°)



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

x 0.4297
 y 0.4090
 u' 0.2439
 v' 0.5222

CIE 13.3-1995
(CRI)

R_a 84
 R_g 10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Zonal Lumen Tabulation

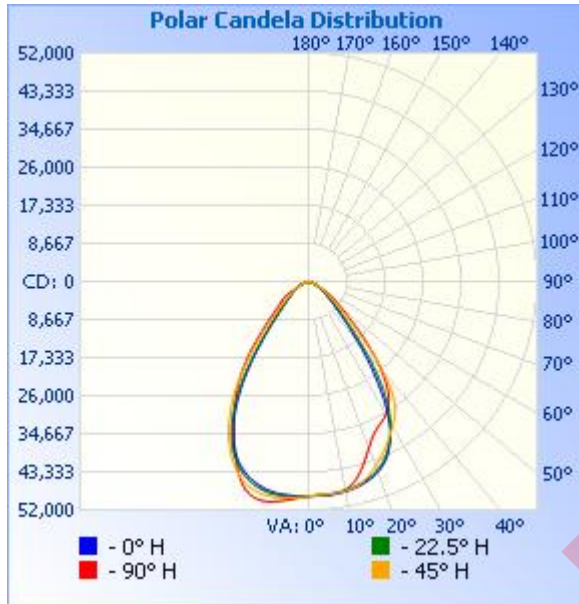
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	37,024.0	50.1%	50.1%
0-40	55,044.5	74.5%	74.5%
0-60	70,324.5	95.2%	95.2%
60-90	3,561.1	4.8%	4.8%
70-100	1,134.8	1.5%	1.5%
90-120	0	0%	0%
0-90	73,885.5	100%	100%
90-180	0	0%	0%
0-180	73,885.5	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	4,687.1	6.3%	90-100	0	0%
10-20	13,465.0	18.2%	100-110	0	0%
20-30	18,872.0	25.5%	110-120	0	0%
30-40	18,020.5	24.4%	120-130	0	0%
40-50	10,181.5	13.8%	130-140	0	0%
50-60	5,098.5	6.9%	140-150	0	0%
60-70	2,426.3	3.3%	150-160	0	0%
70-80	928.7	1.3%	160-170	0	0%
80-90	206.0	0.3%	170-180	0	0%

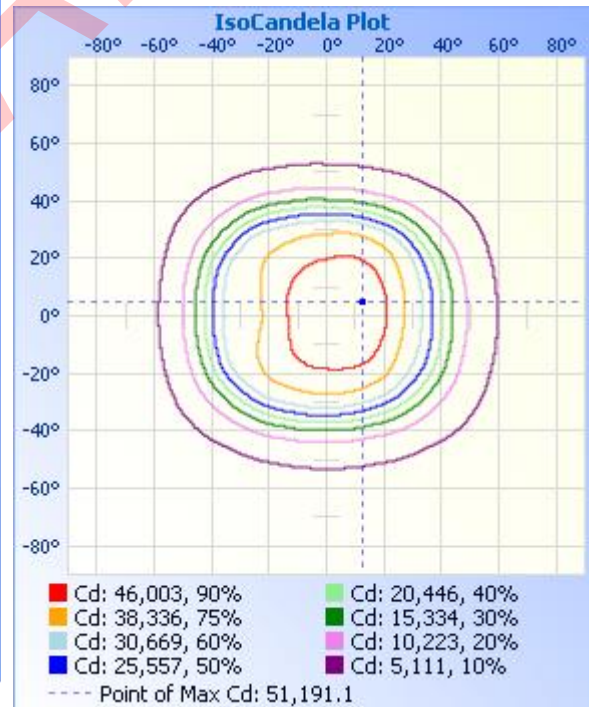
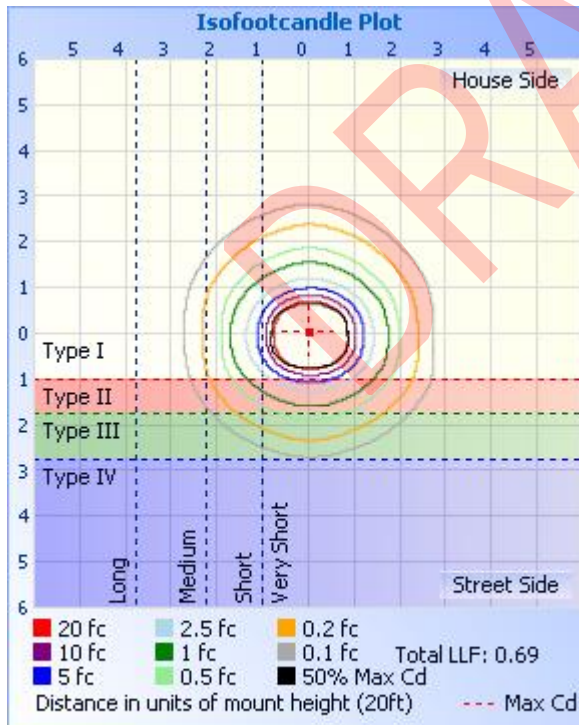
Photometric Data



Illuminance at a Distance

	Center Beam fc	Beam Width	
17.0ft	169 fc	22.5 ft	26.8 ft
34.0ft	42.2 fc	45.0 ft	53.6 ft
51.0ft	18.8 fc	67.6 ft	80.4 ft
68.0ft	10.6 fc	90.1 ft	107.2 ft
85.0ft	6.76 fc	112.6 ft	134.0 ft
102.0ft	4.69 fc	135.1 ft	160.8 ft

■ Vert. Spread: 67.0°
■ Horiz. Spread: 76.5°



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	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834	48834
1	48818	48785	48762	48733	48729	48748	48805	48810	48823	48883	48965	48982	49008	49001	48977	48914	48818
2	48794	48709	48681	48650	48647	48693	48735	48761	48849	48965	49075	49157	49181	49163	49109	48959	48794
3	48802	48663	48611	48603	48605	48692	48702	48745	48841	48999	49162	49320	49386	49391	49276	49072	48802
4	48816	48616	48562	48567	48587	48664	48696	48728	48836	49040	49281	49477	49586	49639	49473	49192	48816
5	48810	48552	48537	48580	48587	48684	48696	48717	48836	49062	49403	49640	49835	49880	49670	49243	48810
6	48766	48518	48518	48606	48626	48684	48746	48684	48815	49084	49484	49804	50050	50118	49873	49334	48766
7	48743	48467	48518	48625	48608	48693	48724	48668	48790	49100	49587	49963	50263	50362	50029	49419	48743
8	48703	48387	48467	48619	48552	48627	48698	48618	48748	49085	49628	50117	50505	50584	50167	49448	48703
9	48589	48312	48451	48573	48391	48497	48654	48533	48669	49053	49649	50238	50680	50791	50284	49466	48589
10	48513	48185	48386	48506	48158	48266	48559	48448	48514	48971	49643	50359	50869	50984	50367	49451	48513
11	48391	48043	48254	48273	47699	47953	48408	48338	48352	48872	49616	50382	50938	51113	50411	49414	48391
12	48245	47919	48132	47945	47207	47505	48205	48132	48156	48669	49555	50387	50979	51185	50436	49340	48245
13	48082	47718	47895	47525	46596	47024	47941	47918	47884	48449	49400	50272	50897	51191	50369	49235	48082
14	47899	47539	47631	47003	45878	46382	47610	47638	47625	48170	49224	50095	50718	51053	50255	49106	47899
15	47673	47312	47250	46352	45037	45755	47200	47333	47274	47898	49002	49767	50405	50856	50083	48914	47673
16	47415	47020	46818	45610	44151	44985	46772	46955	46876	47515	48665	49364	49960	50488	49855	48706	47415
17	47139	46746	46339	44822	43111	44242	46268	46522	46488	47082	48306	48828	49347	49958	49541	48463	47139
18	46875	46453	45796	43952	42110	43487	45714	46070	46005	46603	47840	48154	48610	49354	49156	48176	46875
19	46462	46074	45214	42973	41142	42720	45091	45560	45493	46071	47243	47300	47688	48629	48711	47779	46462
20	46074	45655	44627	42081	40202	41889	44465	44966	44862	45429	46632	46404	46514	47730	48187	47421	46074
21	45605	45146	44008	41197	39344	41158	43817	44320	44180	44758	45889	45374	45296	46770	47616	46916	45605
22	45086	44608	43397	40349	38501	40486	43168	43631	43414	44026	45118	44288	44059	45587	46950	46443	45086
23	44453	43982	42745	39596	37832	39864	42517	42752	42534	43176	44260	43110	42750	44462	46207	45889	44453
24	43742	43271	42133	38883	37313	39338	41891	41873	41561	42233	43343	41822	41418	43264	45410	45199	43742
25	42899	42458	41504	38306	36885	38893	41179	40921	40454	41203	42228	40664	40136	42116	44584	44475	42899
26	41871	41592	40839	37843	36501	38547	40589	39926	39164	39957	41186	39560	38711	40967	43703	43669	41871
27	40777	40663	40135	37496	36172	38271	39965	38739	37836	38675	40065	38410	37471	39811	42730	42764	40777
28	39696	39637	39491	37147	35806	37995	39254	37375	36389	37318	38824	37290	36253	38683	41776	41850	39696
29	38328	38534	38821	36809	35466	37697	38445	36019	34828	35832	37516	36033	35044	37571	40744	40639	38328

30	36670	37229	38198	36463	35034	37365	37606	34549	33152	34207	36019	34859	33878	36295	39584	39308	36670
31	34951	35926	37520	36039	34602	36857	36615	33025	31453	32346	34583	33686	32554	35105	38440	37748	34951
32	33096	34481	36851	35612	34026	36356	35531	31430	29482	30608	33102	32509	31315	33867	37134	35941	33096
33	31094	32888	36078	35097	33413	35668	34271	29524	27534	28676	31493	31242	30061	32517	35695	33944	31094
34	28902	31113	35255	34505	32676	34887	32835	27692	25565	26758	29833	29960	28940	31094	34082	31710	28902
35	26725	29265	34267	33854	31809	33886	31039	25760	23505	24775	28063	28513	27679	29637	32287	29379	26725
36	24615	27288	32965	33089	30745	32740	29255	23751	21492	22531	26076	27166	26283	28162	30157	26725	24615
37	22518	25193	31535	32152	29445	31280	27340	21713	19347	20564	24285	25808	24906	26658	28084	24225	22518
38	20422	23118	29812	30950	28126	29687	25353	19563	17489	18625	22445	24368	23377	25090	25915	22029	20422
39	18375	20950	27780	29480	26663	27924	23320	17645	15737	16762	20645	22649	21945	23461	23902	19688	18375
40	16497	18889	25783	27837	25135	26082	21067	15867	14125	15121	18875	21054	20336	21797	21729	17612	16497
41	14841	16963	23555	26069	23524	24102	19100	14280	12737	13588	17023	19424	18822	20167	19646	15836	14841
42	13381	15224	21115	24037	21871	21936	17215	12836	11502	12123	15495	17883	17264	18559	17789	14134	13381
43	11945	13617	18960	22168	20083	20073	15505	11609	10375	11042	14099	16422	15950	17026	15932	12786	11945
44	10954	12221	16913	20273	18518	18312	13835	10511	9502	10062	12852	14982	14676	15584	14329	11535	10954
45	9953	11022	15041	18445	16946	16512	12463	9590	8714	9124	11602	13718	13505	14232	12915	10419	9953
46	9045	9998	13434	16746	15446	14984	11279	8799	8063	8405	10562	12599	12481	12997	11716	9533	9045
47	8261	9091	12142	15262	14026	13629	10242	8109	7446	7757	9680	11595	11536	11973	10637	8690	8261
48	7622	8281	10859	13865	12720	12377	9281	7440	6927	7180	8861	10624	10712	10993	9712	7969	7622
49	7013	7636	9889	12454	11584	11272	8429	6883	6472	6730	8176	9786	9977	10142	8874	7300	7013
50	6487	7043	8950	11422	10633	10171	7734	6390	6071	6268	7438	9064	9296	9366	8095	6723	6487
51	6039	6457	8148	10367	9693	9268	7082	5932	5653	5847	6892	8395	8735	8639	7416	6245	6039
52	5588	5979	7475	9395	8880	8494	6489	5559	5355	5492	6365	7829	8255	8087	6795	5734	5588
53	5221	5514	6846	8584	8232	7773	5980	5152	5005	5147	5910	7304	7860	7501	6151	5304	5221
54	4831	5164	6282	7906	7666	7142	5484	4801	4701	4821	5483	6816	7556	7064	5683	4905	4831
55	4424	4771	5796	7296	7145	6545	5045	4472	4398	4482	5040	6430	7208	6634	5283	4579	4424
56	4136	4414	5297	6712	6655	6083	4670	4164	4169	4166	4720	6019	6790	6240	4850	4179	4136
57	3857	4040	4882	6238	6184	5593	4330	3889	3925	3929	4359	5615	6336	5849	4488	3840	3857
58	3591	3733	4445	5701	5726	5156	4005	3640	3718	3642	4093	5212	5904	5470	4144	3567	3591
59	3391	3464	4117	5230	5113	4762	3653	3425	3511	3370	3778	4827	5338	5077	3805	3362	3391
60	3190	3200	3744	4840	4501	4324	3406	3191	3331	3146	3548	4357	4717	4628	3522	3041	3190
61	2953	2962	3469	4387	3841	3903	3132	2979	3125	2906	3249	3956	3899	4241	3252	2803	2953

62	2724	2703	3152	3946	3436	3553	2857	2777	2946	2717	3048	3524	3180	3738	2990	2613	2724
63	2529	2456	2879	3535	3096	3205	2730	2603	2818	2556	2792	3157	2799	3272	2707	2365	2529
64	2318	2234	2626	3196	2780	2865	2444	2398	2653	2402	2588	2816	2483	2865	2527	2159	2318
65	2167	2053	2378	2854	2435	2627	2297	2271	2455	2251	2375	2565	2279	2556	2289	2002	2167
66	2006	1902	2179	2642	2183	2376	2099	2147	2310	2071	2225	2379	2045	2300	2083	1867	2006
67	1774	1690	1966	2440	1943	2171	1953	1962	2133	1969	2020	2113	1861	2111	1928	1695	1774
68	1614	1585	1801	2144	1721	1923	1764	1843	1976	1815	1892	1972	1708	1865	1684	1545	1614
69	1464	1399	1607	1960	1504	1748	1605	1711	1836	1682	1751	1805	1542	1669	1543	1387	1464
70	1304	1267	1451	1693	1311	1601	1499	1532	1701	1580	1625	1626	1425	1561	1397	1273	1304
71	1188	1135	1278	1549	1182	1407	1315	1442	1534	1478	1465	1471	1280	1399	1239	1169	1188
72	1088	992	1144	1362	1063	1290	1250	1296	1396	1323	1330	1339	1161	1289	1114	1021	1088
73	862	925	1007	1212	909	1081	1096	1169	1255	1209	1221	1182	1042	1119	967	941	862
74	805	801	882	1045	809	987	980	1039	1093	1137	1087	1140	937	1031	873	796	805
75	739	696	787	907	672	851	855	954	987	992	975	980	845	905	772	648	739
76	599	584	716	786	624	733	808	851	916	926	893	879	743	754	676	588	599
77	524	501	588	740	489	644	644	728	719	788	764	796	671	673	567	555	524
78	414	473	452	546	443	495	629	537	648	682	688	595	584	560	465	407	414
79	373	338	425	507	360	471	467	596	565	621	637	571	500	484	457	357	373
80	247	308	333	421	332	296	450	495	472	519	528	502	431	422	335	293	247
81	216	228	295	369	243	308	353	409	390	453	494	492	295	277	293	262	216
82	157	183	236	201	158	238	281	306	232	374	447	448	264	277	267	197	157
83	161	148	225	225	135	176	255	283	297	325	373	326	216	209	236	158	161
84	183	175	192	223	76	144	220	220	252	272	290	235	205	157	180	151	183
85	182	170	171	150	69	131	164	208	149	235	256	183	137	115	154	145	182
86	153	140	165	173	0	97	135	174	146	207	230	215	84	92	132	169	153
87	164	148	187	163	0	0	115	148	141	171	161	197	92	136	132	147	164
88	138	148	148	150	0	0	117	117	136	160	168	160	0	0	102	169	138
89	149	144	142	152	0	66	117	112	166	117	132	152	0	105	111	101	149
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BUG Rating

Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	18718.6	25.3	25.3
FM (30-60)	17348.8	23.5	23.5
FH (60-80)	1630.2	2.2	2.2
FVH (80-90)	91.1	0.1	0.1
BL (0-30)	18307.4	24.8	24.8
BM (30-60)	15962.2	21.6	21.6
BH (60-80)	1724.9	2.3	2.3
BVH (80-90)	114.9	0.2	0.2
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	73898.1	100.0	100.0
BUG Rating	B5-U0-G2		

2.5 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 4000K 75°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.096	490.97	0.999	2.97
5E-I2	277.0	60	1.784	481.29	0.974	5.92
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

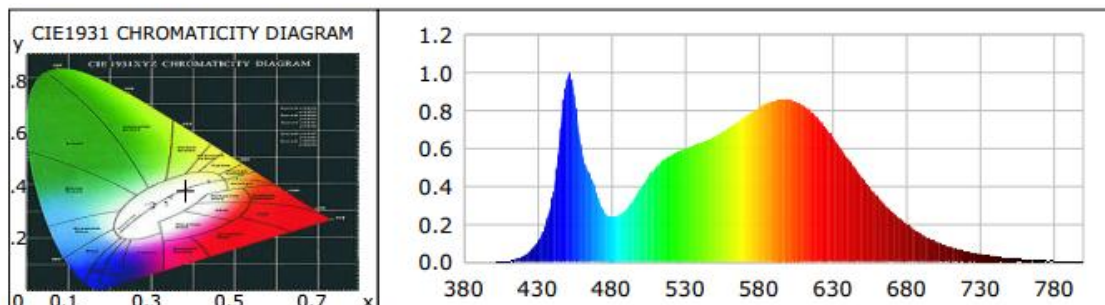
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	83	R9	12
Frequency (Hz)	60	R2	90	R10	77
CCT (K)	3916	R3	95	R11	82
Duv	-0.0007	R4	83	R12	63
Chromaticity (x, y)	x=0.3837 y=0.3772	R5	83	R13	85
Chromaticity (u', v')	u(u')=0.2271 v'=0.5023	R6	87	R14	98
Color Rendering Index (CRI)	84	R7	85	R15	77
R9	12	R8	65	--	--
Rf	84	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-11	--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	77126.5	77468.4	>=10000(-10%)
Luminous Efficacy (lm/W)	157.09	160.96	Premium: >= 120(-3%)
Most worst Luminous/Highest	157.09		

Spectral Power Distribution & Chromaticity Diagram



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0007	0.7556	535	0.5843	657.2817	690	0.2665	299.7477
385	0.0004	0.4705	540	0.5985	673.2560	695	0.2313	260.2494
390	0.0005	0.5550	545	0.6134	690.0015	700	0.2011	226.2554
395	0.0005	0.5366	550	0.6299	708.6559	705	0.1721	193.6318
400	0.0010	1.1809	555	0.6445	725.0083	710	0.1486	167.1282
405	0.0023	2.6341	560	0.6635	746.3545	715	0.1284	144.4336
410	0.0065	7.3243	565	0.6855	771.1883	720	0.1089	122.5610
415	0.0147	16.5298	570	0.7107	799.5094	725	0.0928	104.3648
420	0.0305	34.2620	575	0.7375	829.6282	730	0.0790	88.8808
425	0.0581	65.3546	580	0.7637	859.0758	735	0.0680	76.4543
430	0.1062	119.4944	585	0.7894	887.9774	740	0.0580	65.2836
435	0.1871	210.5020	590	0.8149	916.7442	745	0.0501	56.3966
440	0.3368	378.9367	595	0.8352	939.5063	750	0.0414	46.5896
445	0.6365	715.9800	600	0.8523	958.7874	755	0.0358	40.2918
450	0.9691	1090.1405	605	0.8601	967.5128	760	0.0303	34.0485
455	0.8813	991.3900	610	0.8605	967.9817	765	0.0250	28.1708
460	0.5890	662.5646	615	0.8469	952.7519	770	0.0221	24.8269
465	0.4693	527.9474	620	0.8268	930.0535	775	0.0194	21.8522
470	0.3652	410.8217	625	0.7970	896.5670	780	0.0158	17.8252
475	0.2674	300.8141	630	0.7583	853.0580	785	0.0145	16.2773
480	0.2386	268.4447	635	0.7110	799.8795	790	0.0119	13.4102
485	0.2489	280.0236	640	0.6600	742.4953	795	0.0096	10.7671
490	0.2771	311.7734	645	0.6054	681.0739	800	0.0084	9.3996
495	0.3284	369.3863	650	0.5501	618.7874			
500	0.3909	439.7010	655	0.4965	558.4905			
505	0.4479	503.9032	660	0.4435	498.9133			
510	0.4968	558.8347	665	0.3954	444.8195			
515	0.5334	600.0868	670	0.3494	393.0533			
520	0.5613	631.4559	675	0.3051	343.1756			
525	0.5843	657.2817	680	0.2665	299.7477			
530	0.5985	673.2560	685	0.2313	260.2494			

TM30

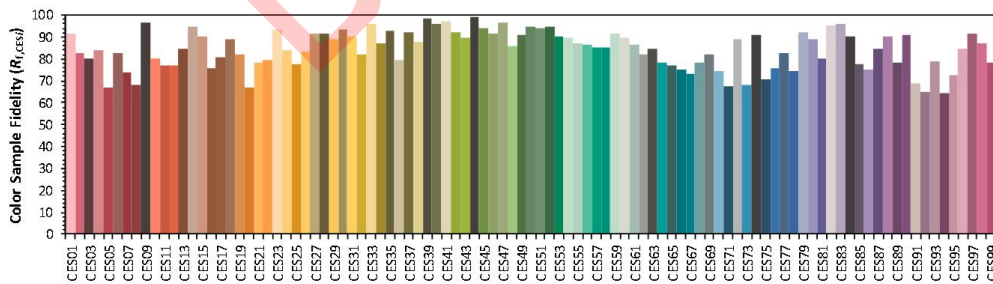
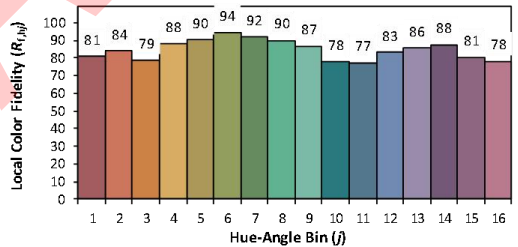
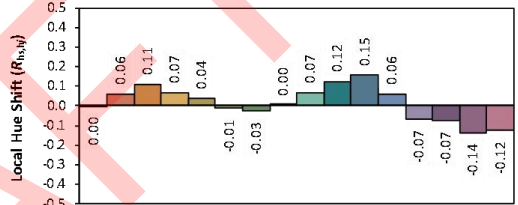
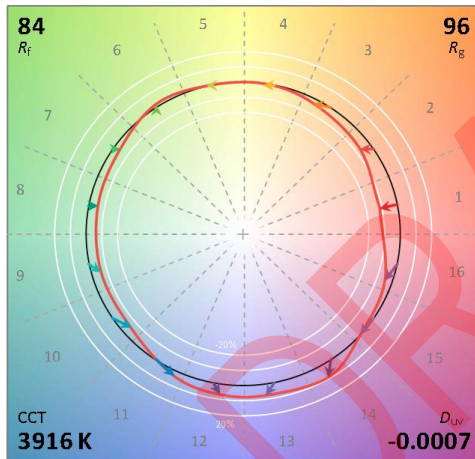
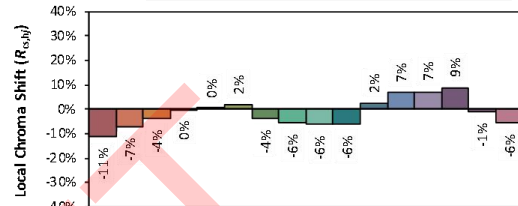
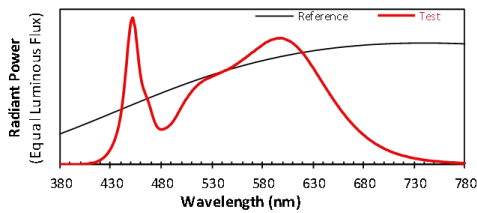
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-2880RC35005A1
L128-5780RC35005A1

Manufacturer: ASmart LIGHT CO., LTD

Date: 2024/5/8

Model: AST-FLE01-500WB90/75/55DA1-
abcdW30/40/50 (Setting at 4000K
75°)



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

x 0.3837
 y 0.3772
 u' 0.2271
 v' 0.5023

CIE 13.3-1995
(CRI)

R_a 84
 R_g 12

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.6 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 5000K 75°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.208	504.49	0.999	2.88
5E-I3	277.0	60	1.835	495.09	0.974	5.76
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

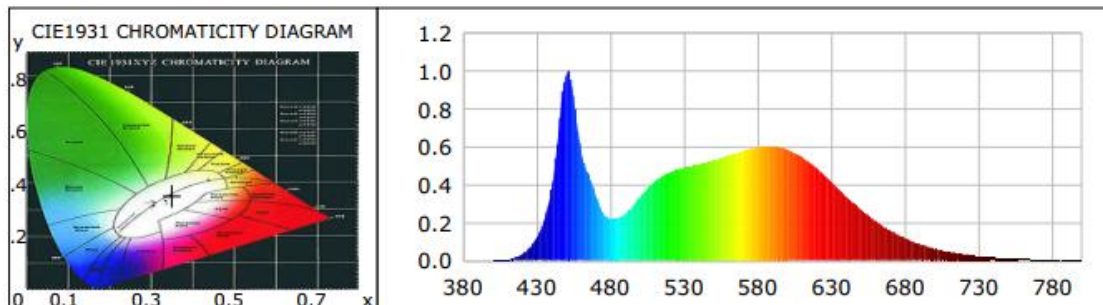
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	82	R9	8
Frequency (Hz)	60	R2	89	R10	73
CCT (K)	4857	R3	93	R11	81
Duv	-0.0005	R4	82	R12	58
Chromaticity (x, y)	x=0.3491 y=0.3539	R5	82	R13	84
Chromaticity (u', v')	u(u')=0.2133 v'=0.4864	R6	84	R14	97
Color Rendering Index (CRI)	83	R7	86	R15	77
R9	8	R8	67	--	--
Rf	83	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-13	--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	77005.4	77263.7	>=10000(-10%)
Luminous Efficacy (lm/W)	152.64	156.06	Premium: >= 120(-3%)
Most worst Luminous/Highest	152.64		

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	0.7566	535	0.4800	706.8119	690	0.1581	232.7711
385	0.0006	0.9460	540	0.4892	720.3823	695	0.1371	201.8759
390	0.0007	1.0135	545	0.4995	735.5627	700	0.1182	174.0572
395	0.0005	0.8070	550	0.5092	749.7872	705	0.1018	149.9483
400	0.0009	1.2989	555	0.5186	763.6672	710	0.0870	128.0657
405	0.0026	3.7953	560	0.5297	779.9752	715	0.0746	109.8158
410	0.0069	10.2081	565	0.5413	797.0977	720	0.0637	93.8154
415	0.0163	24.0200	570	0.5555	817.9736	725	0.0545	80.2890
420	0.0344	50.6268	575	0.5685	837.1135	730	0.0467	68.8138
425	0.0659	97.0786	580	0.5789	852.4435	735	0.0397	58.4859
430	0.1209	178.1014	585	0.5898	868.4675	740	0.0332	48.9176
435	0.2122	312.4787	590	0.5978	880.2689	745	0.0290	42.6942
440	0.3744	551.3301	595	0.6014	885.5520	750	0.0244	35.9721
445	0.6845	1007.9286	600	0.6030	887.9176	755	0.0212	31.2802
450	0.9847	1449.9934	605	0.5972	879.3458	760	0.0182	26.7913
455	0.8692	1279.8903	610	0.5860	862.8456	765	0.0151	22.1624
460	0.5825	857.6984	615	0.5682	836.6581	770	0.0133	19.6076
465	0.4574	673.4946	620	0.5477	806.4529	775	0.0110	16.1429
470	0.3479	512.2458	625	0.5195	764.9863	780	0.0097	14.2295
475	0.2517	370.6533	630	0.4872	717.4198	785	0.0094	13.8202
480	0.2211	325.5488	635	0.4518	665.2825	790	0.0079	11.6105
485	0.2254	331.9230	640	0.4154	611.6589	795	0.0053	7.8234
490	0.2459	362.1037	645	0.3773	555.6176	800	0.0058	8.5968
495	0.2866	421.9662	650	0.3398	500.3425			
500	0.3337	491.3425	655	0.3031	446.3394			
505	0.3785	557.4154	660	0.2697	397.1191			
510	0.4165	613.2562	665	0.2379	350.2795			
515	0.4437	653.3312	670	0.2079	306.0814			
520	0.4650	684.7500	675	0.1815	267.3141			
525	0.4800	706.8119	680	0.1581	232.7711			
530	0.4892	720.3823	685	0.1371	201.8759			

TM30

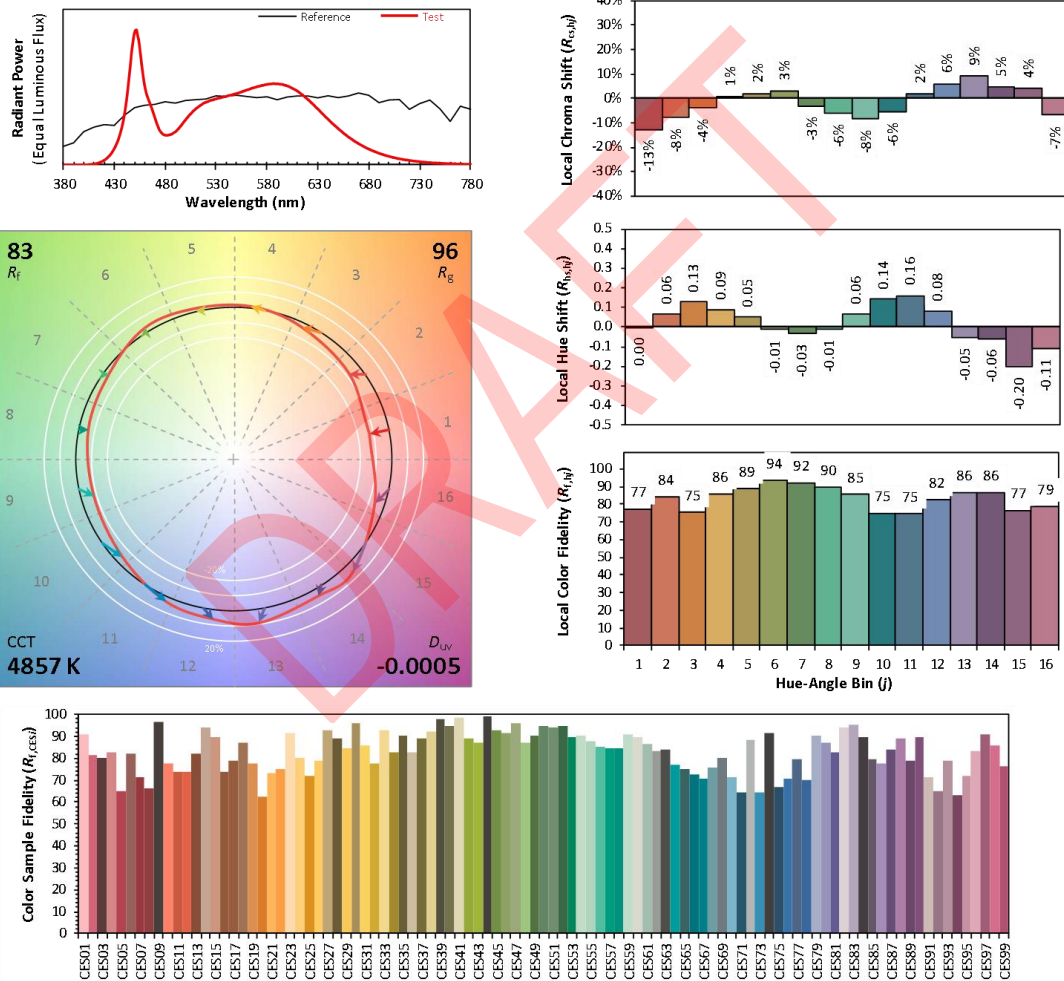
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-2880RC35005A1
L128-5780RC35005A1

Manufacturer: ASmart LIGHT CO., LTD

Date: 2024/5/8

Model: AST-FLE01-500WB90/75/55DA1-
abcdW30/40/50 (Setting at 5000K
75°)



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

x 0.3491
 y 0.3539
 u' 0.2133
 v' 0.4864

CIE 13.3-1995
(CRI)
 R_a 83
 R_g 8

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.7 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 3000K 90°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC24010	120.0	60	4.170	499.93	0.999	2.81
35E-II	277.0	60	1.827	492.82	0.974	5.99
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	10
Frequency (Hz)	60	R2	90	R10	76
CCT (K)	3167	R3	97	R11	83
Duv	0.0029	R4	83	R12	66
Chromaticity (x, y)	x=0.4294 y=0.4086	R5	82	R13	83
Chromaticity (u', v')	u(u')=0.2438 v'=0.5220	R6	88	R14	98
Color Rendering Index (CRI)	83	R7	85	R15	74
R9	10	R8	62	--	--
Rf	86	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1 (%)	-11	--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	74066.7	74903.7	>=10000(-10%)
Luminous Efficacy (lm/W)	148.15	151.99	Premium: >= 120(-3%)
Most worst Luminous/Highest	148.15		
Zonal lumens in the 0-90° zone (%)	100	--	Category 1: >=100(-1) Category 2: >=85(-3)
Zonal lumens in the 80-90°zone (%)	0.3	--	<=10(+3)
Beam Angle (°)	86.7	--	--
Center Beam Candle Power (cd)	38274	--	--

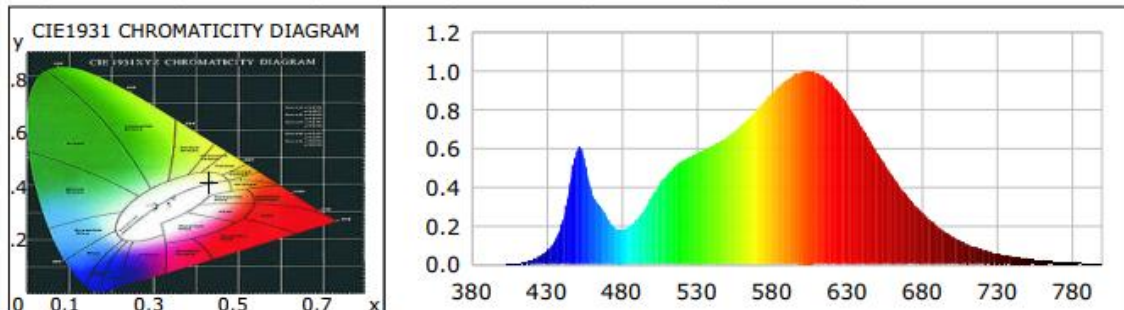
Laboratory: UTEST TECHNICAL LABORATORY CO.LTD A2LA Certificate# 4810.01

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

Spectral Power Distribution & Chromaticity Diagram

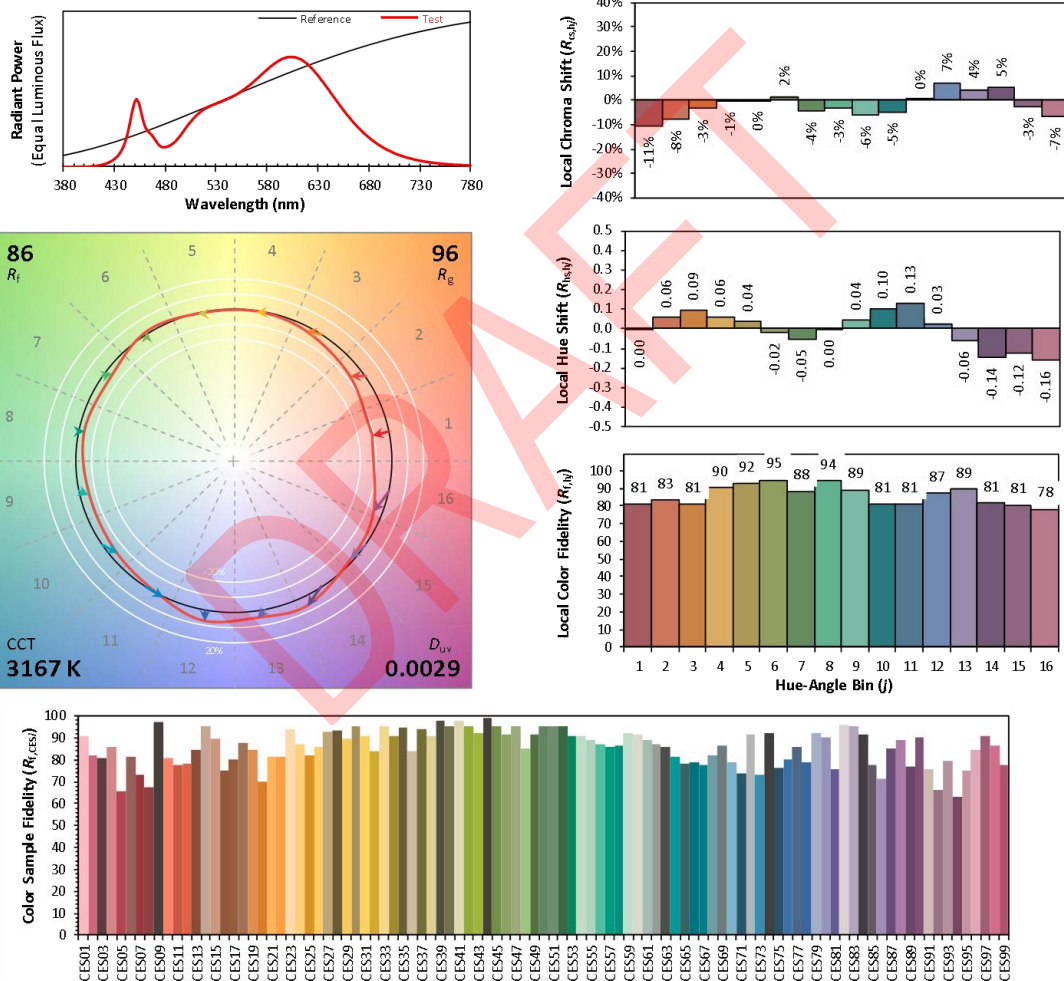


WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.3979	535	0.5573	559.2121	690	0.3546	355.7614
385	0.0003	0.3079	540	0.5750	576.9120	695	0.3091	310.1248
390	0.0003	0.2850	545	0.5932	595.1978	700	0.2681	268.9791
395	0.0005	0.5123	550	0.6131	615.1788	705	0.2318	232.5926
400	0.0012	1.2001	555	0.6341	636.2473	710	0.1990	199.7032
405	0.0023	2.3067	560	0.6592	661.4316	715	0.1702	170.7964
410	0.0059	5.9067	565	0.6884	690.7218	720	0.1459	146.3476
415	0.0124	12.4538	570	0.7231	725.5989	725	0.1248	125.2652
420	0.0235	23.5916	575	0.7595	762.1291	730	0.1061	106.4510
425	0.0413	41.4680	580	0.7999	802.5681	735	0.0918	92.1327
430	0.0700	70.2173	585	0.8428	845.6921	740	0.0787	78.9311
435	0.1176	118.0105	590	0.8847	887.6892	745	0.0662	66.4076
440	0.2078	208.5523	595	0.9222	925.3103	750	0.0564	56.5923
445	0.3841	385.4527	600	0.9574	960.6293	755	0.0482	48.3879
450	0.5894	591.3886	605	0.9829	986.2454	760	0.0406	40.7089
455	0.5526	554.4535	610	0.9984	1001.7803	765	0.0347	34.8148
460	0.3734	374.6838	615	0.9998	1003.1924	770	0.0302	30.2943
465	0.3070	308.0662	620	0.9906	994.0000	775	0.0256	25.6450
470	0.2483	249.1440	625	0.9696	972.8956	780	0.0218	21.9237
475	0.1896	190.2864	630	0.9352	938.3526	785	0.0177	17.7664
480	0.1784	179.0436	635	0.8874	890.3860	790	0.0158	15.8098
485	0.1965	197.1799	640	0.8316	834.4246	795	0.0131	13.1233
490	0.2314	232.1659	645	0.7741	776.7798	800	0.0113	11.2947
495	0.2860	286.9575	650	0.7085	710.9185			
500	0.3498	350.9918	655	0.6438	646.0169			
505	0.4099	411.3238	660	0.5811	583.1238			
510	0.4618	463.4046	665	0.5185	520.2694			
515	0.5023	503.9630	670	0.4599	461.5045			
520	0.5325	534.2927	675	0.4039	405.3069			
525	0.5573	559.2121	680	0.3546	355.7614			
530	0.5750	576.9120	685	0.3091	310.1248			

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	L128-2880RC35005A1	Manufacturer:	ASMT LIGHT CO., LTD
	L128-5780RC35005A1		
Date:	2024/5/8	Model:	AST-FLE01-500WB90/75/55DA1-
			abcdW30/40/50 (Setting at 3000K 90°)



Notes:	This is a recommended method for displaying ANSI/IES TM-30-18 information.	x	0.4294	CIE 13.3-1995 (CRI) R_a 83 R_9 10
		y	0.4086	
		u'	0.2438	
		v'	0.5220	

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Zonal Lumen Tabulation

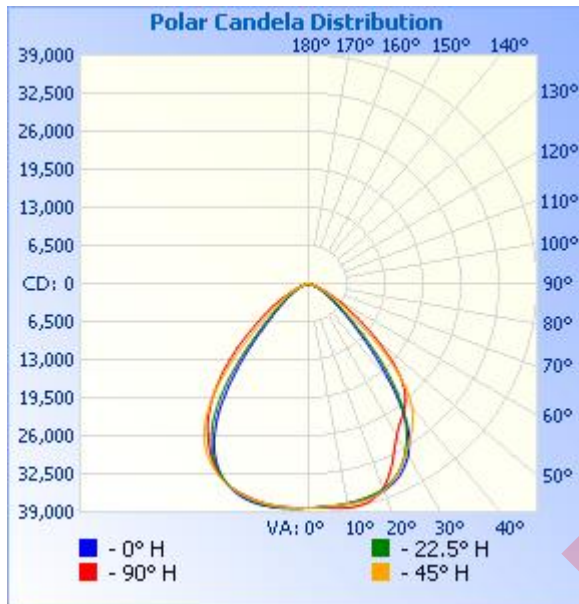
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	30,907.8	41.7%	41.7%
0-40	49,322.1	66.6%	66.6%
0-60	70,164.2	94.7%	94.7%
60-90	3,891.2	5.3%	5.3%
70-100	1,101.4	1.5%	1.5%
90-120	0	0%	0%
0-90	74,055.4	100%	100%
90-180	0	0%	0%
0-180	74,055.4	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	3,664.0	4.9%	90-100	0	0%
10-20	10,811.1	14.6%	100-110	0	0%
20-30	16,432.7	22.2%	110-120	0	0%
30-40	18,414.4	24.9%	120-130	0	0%
40-50	13,998.2	18.9%	130-140	0	0%
50-60	6,843.9	9.2%	140-150	0	0%
60-70	2,789.8	3.8%	150-160	0	0%
70-80	872.4	1.2%	160-170	0	0%
80-90	229.0	0.3%	170-180	0	0%

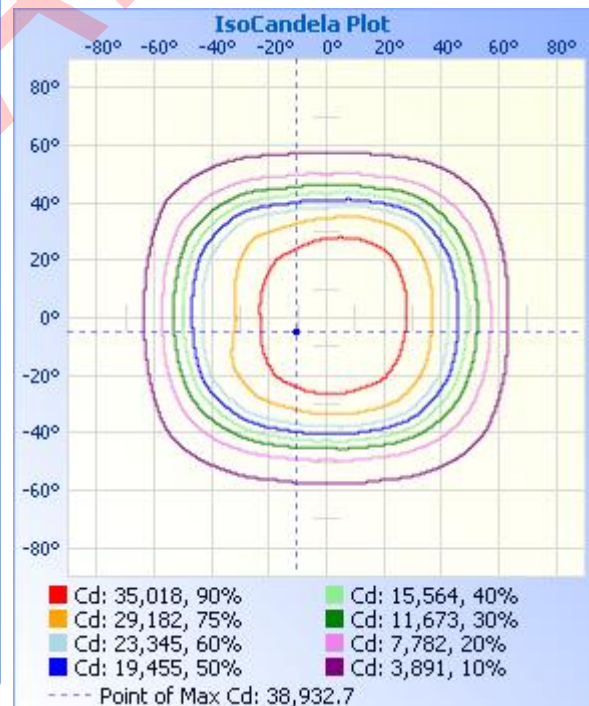
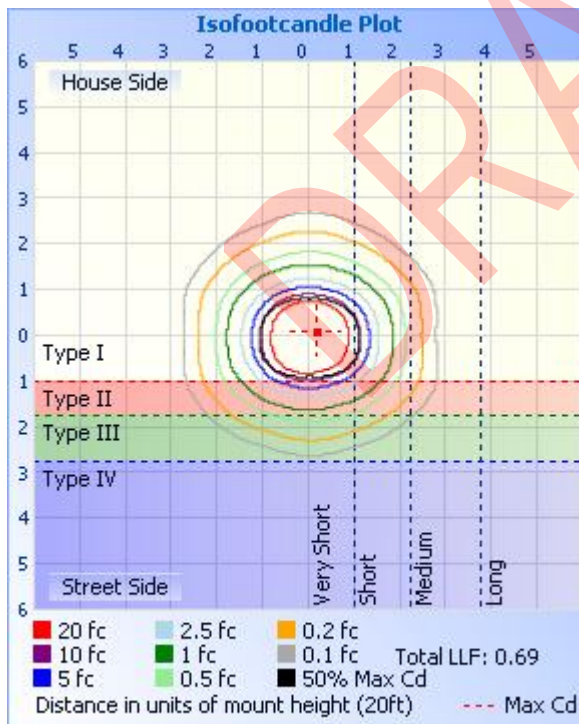
Photometric Data



Illuminance at a Distance

	Center Beam fc	Beam Width	
17.0ft	132 fc	28.6 ft	35.4 ft
34.0ft	33.1 fc	57.1 ft	70.7 ft
51.0ft	14.7 fc	85.7 ft	106.1 ft
68.0ft	8.28 fc	114.3 ft	141.4 ft
85.0ft	5.30 fc	142.8 ft	176.8 ft
102.0ft	3.68 fc	171.4 ft	212.1 ft

■ Vert. Spread: 80.1°
■ Horiz. Spread: 92.2°



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	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274	38274
1	38248	38253	38229	38242	38260	38278	38305	38294	38294	38322	38297	38284	38292	38271	38274	38250	38248
2	38258	38234	38209	38183	38255	38299	38322	38327	38356	38375	38305	38309	38328	38286	38261	38235	38258
3	38218	38188	38195	38195	38257	38320	38354	38366	38391	38392	38326	38309	38325	38287	38309	38227	38218
4	38205	38172	38188	38214	38271	38390	38401	38436	38419	38432	38335	38287	38334	38326	38315	38258	38205
5	38201	38129	38162	38222	38316	38417	38468	38481	38471	38462	38385	38297	38352	38333	38351	38281	38201
6	38200	38144	38151	38252	38384	38532	38561	38532	38541	38475	38377	38265	38349	38344	38362	38310	38200
7	38195	38136	38157	38291	38472	38607	38597	38587	38591	38498	38383	38252	38357	38388	38403	38322	38195
8	38221	38139	38175	38378	38604	38698	38688	38641	38625	38524	38398	38245	38370	38424	38398	38322	38221
9	38188	38108	38166	38440	38696	38790	38773	38678	38643	38534	38380	38206	38331	38406	38410	38323	38188
10	38177	38087	38193	38492	38821	38878	38825	38724	38638	38524	38348	38183	38305	38370	38388	38353	38177
11	38143	38045	38257	38575	38873	38915	38860	38721	38628	38519	38304	38154	38258	38386	38387	38359	38143
12	38123	37999	38265	38612	38902	38933	38891	38719	38622	38494	38263	38104	38210	38338	38367	38322	38123
13	38107	37976	38286	38629	38882	38908	38901	38691	38593	38436	38175	38032	38140	38300	38330	38286	38107
14	38086	37909	38235	38594	38806	38840	38882	38636	38511	38369	38149	37989	38055	38240	38276	38268	38086
15	38041	37862	38227	38562	38735	38720	38790	38535	38460	38263	38057	37868	37943	38182	38209	38209	38041
16	37989	37789	38151	38450	38566	38560	38701	38463	38331	38146	37967	37746	37869	38083	38128	38169	37989
17	37959	37685	38057	38323	38321	38370	38546	38291	38203	38004	37839	37657	37738	37965	38063	38115	37959
18	37851	37572	37912	38118	38011	38117	38338	38107	38041	37826	37720	37527	37629	37840	37941	38068	37851
19	37755	37443	37756	37894	37663	37845	38086	37879	37831	37639	37570	37370	37511	37710	37802	37957	37755
20	37602	37263	37554	37571	37217	37444	37824	37625	37576	37411	37405	37225	37324	37542	37685	37848	37602
21	37446	37054	37297	37199	36654	37013	37514	37319	37308	37158	37162	37025	37130	37375	37524	37727	37446
22	37255	36806	37026	36767	35993	36585	37135	36970	37010	36867	36954	36822	36890	37172	37373	37551	37255
23	37016	36546	36714	36224	35306	36042	36723	36532	36627	36547	36728	36552	36645	36948	37169	37362	37016
24	36745	36202	36336	35622	34586	35453	36295	36065	36195	36203	36465	36304	36324	36710	37002	37125	36745
25	36437	35819	35892	34876	33813	34876	35755	35568	35725	35808	36179	36010	35972	36415	36790	36869	36437
26	36052	35386	35423	34186	32950	34205	35248	35022	35126	35306	35850	35690	35543	36125	36533	36555	36052
27	35592	34898	34935	33474	32162	33604	34697	34350	34543	34801	35507	35294	35128	35802	36310	36208	35592
28	35084	34330	34481	32842	31417	32989	34140	33654	33863	34263	35141	34892	34660	35431	36054	35887	35084

29	34565	33719	33884	32051	30700	32363	33572	32899	33100	33662	34688	34439	34106	35029	35727	35413	34565
30	33962	33052	33353	31427	30060	31822	32973	32091	32283	32982	34228	33913	33553	34606	35398	34975	33962
31	33209	32309	32813	30825	29489	31240	32382	31233	31390	32150	33748	33401	32854	34132	35034	34457	33209
32	32386	31571	32262	30310	28977	30802	31812	30363	30298	31348	33177	32826	32204	33532	34650	33837	32386
33	31491	30725	31730	29780	28547	30347	31195	29282	29205	30432	32559	32200	31523	33007	34204	33198	31491
34	30514	29815	31179	29372	28173	29970	30577	28280	27971	29440	31870	31544	30804	32402	33715	32518	30514
35	29272	28917	30646	29033	27824	29633	29880	27204	26659	28330	31037	30859	30084	31788	33176	31705	29272
36	27836	27833	30107	28718	27491	29262	29206	26061	25211	27002	30172	30167	29307	31053	32545	30803	27836
37	26291	26742	29478	28385	27061	28936	28451	24826	23591	25676	29215	29395	28435	30340	31780	29692	26291
38	24615	25476	28847	28040	26674	28550	27614	23384	22089	24252	28195	28479	27517	29520	31002	28313	24615
39	22821	24110	28208	27727	26210	28095	26667	22006	20506	22725	26904	27553	26567	28652	30095	26737	22821
40	21089	22645	27425	27265	25735	27545	25516	20566	18933	21166	25623	26601	25629	27673	29042	25180	21089
41	19376	21197	26514	26721	25114	26840	24300	19055	17320	19404	24243	25496	24517	26616	27833	23403	19376
42	17812	19714	25452	26133	24507	25888	22959	17514	15768	17821	22766	24310	23319	25496	26501	21408	17812
43	16260	18194	24345	25426	23712	24925	21536	15844	14198	16216	21279	22990	22187	24273	25087	19526	16260
44	14755	16644	23030	24613	22868	23875	19868	14383	12862	14731	19606	21724	21162	22928	23433	17627	14755
45	13310	15085	21532	23618	21904	22514	18304	12997	11425	13170	18064	20441	19973	21532	21745	15835	13310
46	12003	13602	19984	22436	20775	21216	16635	11725	10344	11875	16495	19158	18680	20116	19892	14165	12003
47	10928	12339	18423	21326	19685	19781	15120	10601	9357	10708	15064	17702	17509	18774	18213	12691	10928
48	9810	11018	16851	20121	18435	18357	13678	9460	8470	9666	13630	16378	16353	17307	16551	11486	9810
49	8881	9975	15150	18683	17247	16970	12257	8620	7710	8768	12240	15184	15077	15977	14973	10326	8881
50	8040	9027	13713	17436	15881	15527	11069	7864	7029	7960	11074	14014	13905	14685	13414	9380	8040
51	7316	8157	12247	16026	14629	14205	9991	7204	6449	7285	10003	12866	12740	13427	11978	8512	7316
52	6720	7450	10943	14614	13466	12960	9034	6534	5918	6651	9076	11743	11710	12339	10627	7638	6720
53	6088	6795	9908	13382	12331	11786	8215	5986	5441	6097	8133	10666	10784	11200	9599	6986	6088
54	5522	6177	8900	12127	11241	10731	7400	5501	4983	5615	7396	9731	9894	10237	8655	6376	5522
55	4954	5644	8081	10983	10237	9624	6708	5050	4577	5100	6793	8940	9149	9359	7789	5809	4954
56	4554	5090	7252	9945	9198	8750	6177	4597	4163	4667	6219	8124	8415	8538	7025	5263	4554
57	4176	4587	6596	8962	8355	7970	5617	4148	3838	4240	5592	7416	7711	7805	6433	4700	4176
58	3796	4142	6005	8166	7540	7260	5127	3803	3552	3888	5122	6816	7063	7155	5816	4232	3796
59	3481	3783	5419	7338	6901	6504	4649	3544	3362	3541	4691	6217	6500	6543	5305	3846	3481
60	3220	3506	4961	6706	6180	5890	4191	3213	3077	3225	4268	5655	5829	6005	4829	3501	3220

61	2875	3168	4429	6058	5495	5344	3771	2969	2861	2925	3863	5109	5145	5457	4279	3148	2875
62	2611	2848	3972	5484	4903	4873	3408	2663	2674	2677	3536	4618	4398	4920	3911	2811	2611
63	2369	2570	3549	4906	4321	4356	3088	2441	2452	2467	3252	4138	3806	4366	3478	2593	2369
64	2177	2266	3127	4423	3798	3915	2757	2272	2315	2221	2925	3688	3360	3873	3153	2270	2177
65	1991	2069	2805	3944	3315	3523	2479	2055	2109	2022	2610	3316	2922	3450	2779	2013	1991
66	1802	1822	2520	3561	2844	3194	2225	1816	1939	1862	2364	2918	2537	3035	2487	1757	1802
67	1614	1553	2249	3169	2430	2847	1989	1655	1766	1664	2112	2643	2215	2685	2246	1526	1614
68	1450	1378	1990	2818	2024	2518	1776	1542	1650	1523	1920	2380	1894	2409	2004	1407	1450
69	1271	1238	1725	2450	1670	2234	1579	1387	1508	1372	1696	2120	1656	2130	1758	1197	1271
70	1141	1080	1514	2193	1446	1952	1439	1257	1401	1246	1561	1855	1395	1868	1504	1062	1141
71	1013	940	1330	1899	1231	1707	1247	1094	1286	1137	1351	1665	1235	1626	1315	909	1013
72	921	839	1145	1636	1070	1469	1135	992	1114	1072	1244	1441	1082	1438	1167	813	921
73	779	732	1008	1361	883	1274	1012	858	1020	932	1122	1300	964	1255	988	705	779
74	641	640	867	1188	775	1111	942	831	912	813	1000	1163	841	1078	872	651	641
75	572	556	696	1032	679	955	762	725	792	764	876	1001	736	924	781	529	572
76	489	461	634	882	577	811	728	671	719	689	798	885	690	798	619	428	489
77	438	383	550	749	496	692	601	588	651	645	711	765	621	670	591	334	438
78	336	391	489	582	446	589	555	495	528	559	642	671	420	462	503	357	336
79	307	303	353	502	364	503	477	462	399	477	488	612	372	545	368	298	307
80	247	275	345	348	344	422	438	404	409	391	478	499	278	426	363	298	247
81	203	217	304	369	268	316	350	311	213	358	356	432	367	366	228	179	203
82	200	205	254	291	218	256	303	303	299	336	356	419	331	334	203	192	200
83	166	184	249	289	178	217	286	290	281	301	267	353	278	263	236	192	166
84	157	166	156	188	144	204	254	264	266	279	250	275	215	227	215	210	157
85	170	129	174	206	103	178	247	220	195	251	216	276	179	177	203	187	170
86	151	189	158	213	108	173	173	205	187	213	208	253	154	183	195	173	151
87	180	153	171	208	87	139	173	199	167	169	202	211	163	177	168	134	180
88	153	160	205	169	70	148	155	199	190	204	202	195	84	148	146	169	153
89	170	192	211	167	78	112	163	160	162	166	132	188	92	149	132	179	170
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BUG Rating

Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	15491.3	20.9	20.9
FM (30-60)	20369.5	27.5	27.5
FH (60-80)	1839.9	2.5	2.5
FVH (80-90)	104.6	0.1	0.1
BL (0-30)	15416.9	20.8	20.8
BM (30-60)	18897.6	25.5	25.5
BH (60-80)	1822.6	2.5	2.5
BVH (80-90)	124.3	0.2	0.2
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	74066.7	100.0	100.0
BUG Rating	B5-U0-G2		

2.8 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 4000K 90°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC240103	120.0	60	4.074	487.91	0.998	2.79
5E-I2	277.0	60	1.783	480.69	0.973	6.08
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

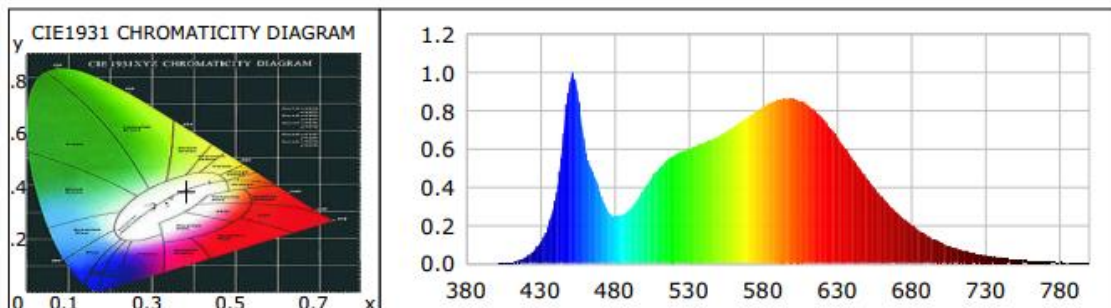
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	83	R9	12
Frequency (Hz)	60	R2	91	R10	77
CCT (K)	3923	R3	95	R11	82
Duv	-0.0009	R4	83	R12	63
Chromaticity (x, y)	x=0.3832 y=0.3765	R5	83	R13	85
Chromaticity (u', v')	u(u')=0.2270v'=0.5019	R6	87	R14	98
Color Rendering Index (CRI)	84	R7	85	R15	77
R9	12	R8	65	--	--
Rf	84	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-11	--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	77260.5	77867.0	>=10000(-10%)
Luminous Efficacy (lm/W)	158.35	161.99	Premium: >= 120(-3%)
Most worst Luminous/Highest	158.35		

Spectral Power Distribution & Chromaticity Diagram

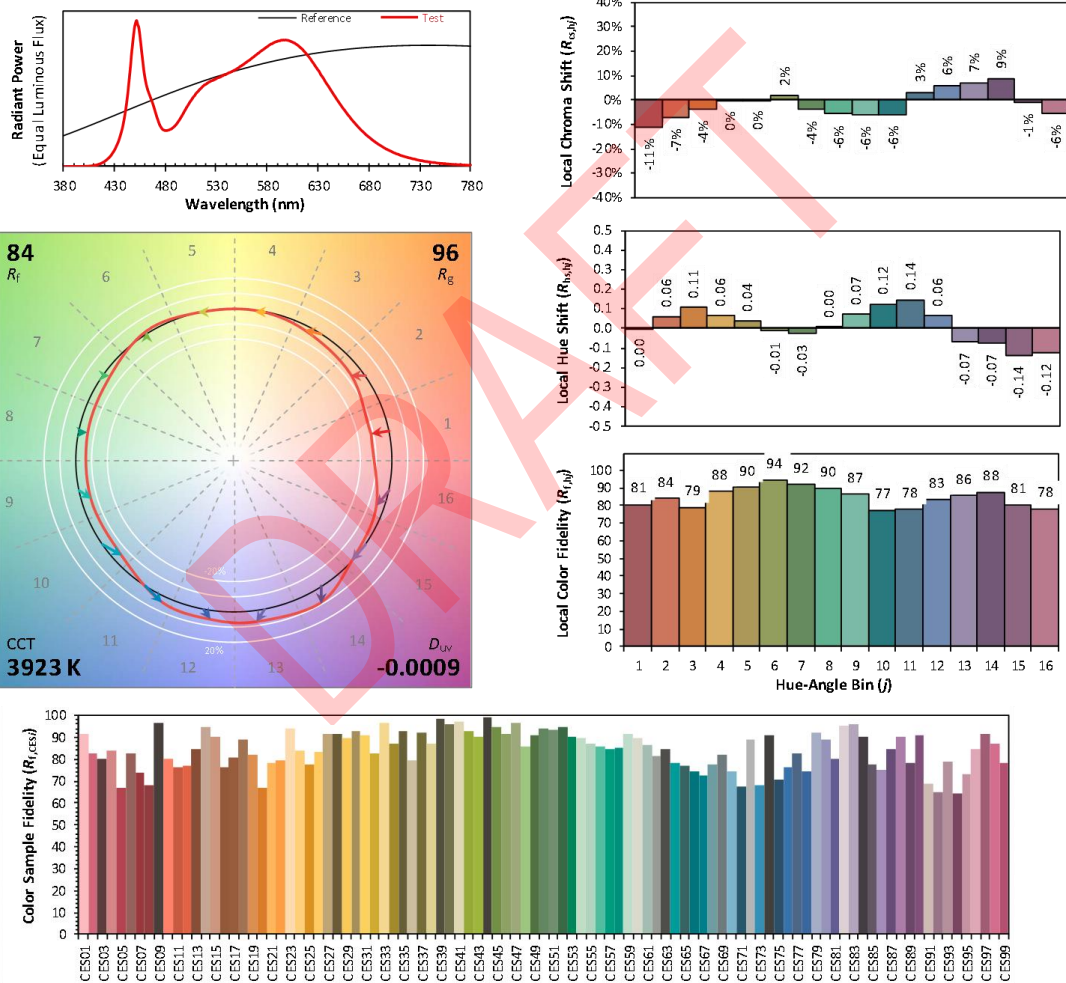


WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0006	0.7219	535	0.5857	650.5334	690	0.2681	297.7742
385	0.0004	0.4620	540	0.6009	667.4559	695	0.2336	259.5031
390	0.0004	0.4782	545	0.6164	684.6380	700	0.2021	224.4530
395	0.0004	0.4839	550	0.6326	702.6365	705	0.1741	193.3898
400	0.0017	1.8394	555	0.6485	720.2795	710	0.1504	167.0286
405	0.0026	2.9264	560	0.6675	741.3868	715	0.1287	142.9162
410	0.0073	8.0885	565	0.6898	766.1702	720	0.1106	122.8890
415	0.0163	18.1209	570	0.7148	793.9787	725	0.0937	104.0207
420	0.0323	35.8650	575	0.7410	823.0513	730	0.0801	89.0001
425	0.0614	68.1905	580	0.7674	852.3175	735	0.0686	76.2434
430	0.1101	122.3129	585	0.7948	882.7642	740	0.0588	65.2711
435	0.1904	211.4271	590	0.8199	910.7255	745	0.0512	56.9194
440	0.3352	372.2890	595	0.8404	933.3901	750	0.0421	46.8076
445	0.6194	687.9679	600	0.8569	951.7313	755	0.0354	39.2911
450	0.9565	1062.3805	605	0.8644	960.0797	760	0.0312	34.6359
455	0.9064	1006.7578	610	0.8650	960.7932	765	0.0269	29.8895
460	0.6144	682.4031	615	0.8529	947.2719	770	0.0219	24.3371
465	0.4838	537.3137	620	0.8320	924.1347	775	0.0202	22.4909
470	0.3810	423.1659	625	0.8022	890.9747	780	0.0159	17.6788
475	0.2798	310.7487	630	0.7607	844.9274	785	0.0144	16.0048
480	0.2461	273.3156	635	0.7134	792.4147	790	0.0119	13.2480
485	0.2548	283.0086	640	0.6617	734.9127	795	0.0098	10.9054
490	0.2811	312.2741	645	0.6084	675.7958	800	0.0102	11.3787
495	0.3308	367.3785	650	0.5540	615.3699			
500	0.3913	434.6460	655	0.4990	554.2580			
505	0.4481	497.7277	660	0.4464	495.8158			
510	0.4978	552.9630	665	0.3957	439.5436			
515	0.5346	593.7324	670	0.3500	388.7784			
520	0.5629	625.2297	675	0.3068	340.7256			
525	0.5857	650.5334	680	0.2681	297.7742			
530	0.6009	667.4559	685	0.2336	259.5031			

TM30

ANSI/IES TM-30-18 Color Rendition Report

Source:	L128-2880RC35005A1	Manufacturer:	ASMT LIGHT CO., LTD
	L128-5780RC35005A1		
Date:	2024/5/8	Model:	AST-FLE01-500WB90/75/55DA1- abcdW30/40/50 (Setting at 4000K 90°)



Notes:	This is a recommended method for displaying ANSI/IES TM-30-18 information.	x	0.3832	CIE 13.3-1995 (CRI)
		y	0.3765	
		u'	0.2270	
		v'	0.5019	
		R_a	84	
		R_9	12	

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

2.9 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2024-05-08	Test Ambient:	25.2 ° C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	AST-FLE01-500WB90/75/55DA1-abc dW30/40/50(Setting at 5000K 90°)	Operation time(min)	110

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC24010	120.0	60	4.162	498.89	0.999	2.83
35E-I3	277.0	60	1.825	491.97	0.973	5.96
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

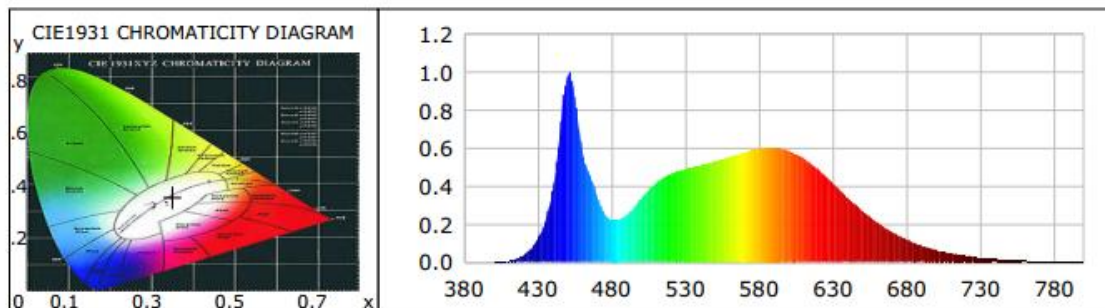
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	82	R9	8
Frequency (Hz)	60	R2	89	R10	73
CCT (K)	4854	R3	93	R11	81
Duv	-0.0005	R4	82	R12	58
Chromaticity (x, y)	x=0.3489 y=0.3535	R5	82	R13	84
Chromaticity (u', v')	u(u')=0.2132 v'=0.4862	R6	84	R14	97
Color Rendering Index (CRI)	83	R7	86	R15	77
R9	8	R8	67	--	--
Rf	83	--	-	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-13	--	--	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V5.1 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	77158.3	78070.7	>=10000(-10%)
Luminous Efficacy (lm/W)	154.66	158.69	Premium: >= 120(-3%)
Most worst Luminous/Highest	154.66		

Spectral Power Distribution & Chromaticity Diagram



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0010	1.5065	535	0.4792	702.6008	690	0.1580	231.6421
385	0.0003	0.3689	540	0.4901	718.5406	695	0.1377	201.8603
390	0.0004	0.6488	545	0.4996	732.5816	700	0.1192	174.8316
395	0.0004	0.5542	550	0.5107	748.8601	705	0.1021	149.6385
400	0.0010	1.4100	555	0.5193	761.3849	710	0.0873	128.0695
405	0.0026	3.8433	560	0.5294	776.2287	715	0.0751	110.0440
410	0.0073	10.6383	565	0.5419	794.5457	720	0.0642	94.0935
415	0.0168	24.6600	570	0.5551	813.8499	725	0.0546	80.0113
420	0.0351	51.5361	575	0.5683	833.2998	730	0.0466	68.3363
425	0.0674	98.8498	580	0.5789	848.8628	735	0.0396	58.0659
430	0.1221	179.0734	585	0.5901	865.2473	740	0.0349	51.1958
435	0.2139	313.6035	590	0.5977	876.3195	745	0.0282	41.4017
440	0.3736	547.7416	595	0.6020	882.6110	750	0.0251	36.8010
445	0.6737	987.7635	600	0.6030	884.1330	755	0.0209	30.5746
450	0.9785	1434.7551	605	0.5972	875.6489	760	0.0172	25.2513
455	0.8779	1287.2464	610	0.5864	859.7322	765	0.0146	21.3749
460	0.5929	869.2735	615	0.5692	834.5844	770	0.0121	17.7105
465	0.4619	677.2759	620	0.5479	803.3413	775	0.0108	15.7934
470	0.3534	518.0959	625	0.5198	762.1743	780	0.0108	15.7671
475	0.2571	376.9066	630	0.4880	715.5825	785	0.0075	10.9607
480	0.2240	328.3741	635	0.4519	662.6421	790	0.0067	9.7991
485	0.2271	332.9460	640	0.4138	606.6938	795	0.0052	7.6894
490	0.2478	363.3184	645	0.3765	551.9675	800	0.0043	6.2467
495	0.2870	420.8478	650	0.3396	497.9574			
500	0.3344	490.3060	655	0.3042	446.0617			
505	0.3782	554.5115	660	0.2697	395.4407			
510	0.4163	610.4400	665	0.2386	349.8163			
515	0.4434	650.0823	670	0.2082	305.3325			
520	0.4639	680.1095	675	0.1824	267.4905			
525	0.4792	702.6008	680	0.1580	231.6421			
530	0.4901	718.5406	685	0.1377	201.8603			

TM30

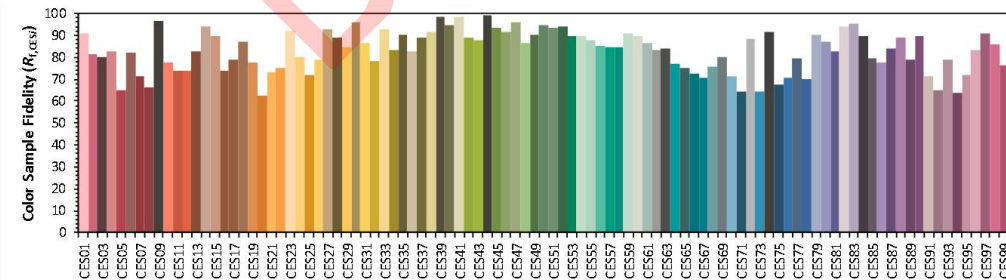
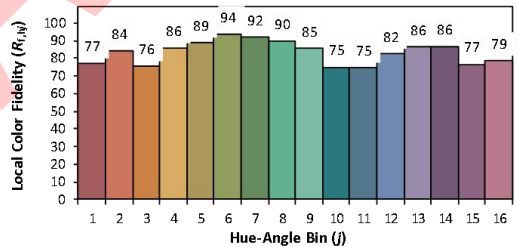
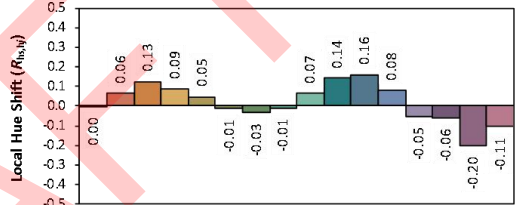
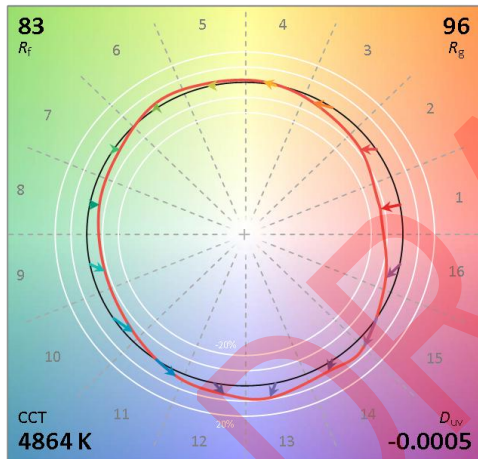
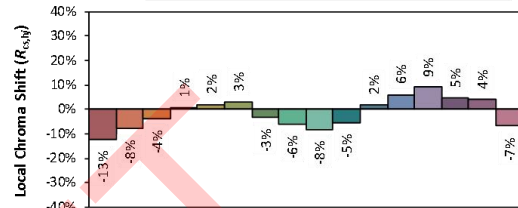
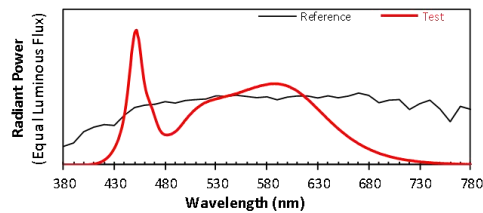
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-2880RC35005A1
L128-5780RC35005A1

Manufacturer: ASmart LIGHT CO., LTD

Date: 2024/5/8

Model: AST-FLE01-500WB90/75/55DA1-
abcdW30/40/50 (Setting at 5000K
90°)



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

x 0.3489
 y 0.3535
 u' 0.2132
 v' 0.4862

CIE 13.3-1995
(CRI)

R_a 83
 R_g 8

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3. Test Equipment

Equipment Name	Model No.	Serial No.	Calibration Date
Goniophotometric System	GPM-3000	DYHXF120001	2024-01-09
AC Power Source	CHP-500C	DYBWD010159	2024-01-08
Standard Lamp*	24V/150W	DYJYR040040	2024-01-17
Standard Lamp**	24V/100W	DYBWR030014	2024-01-17
Digital Power Meter	WT500	DYDWQ20010	2024-01-08
Integral Sphere (2M)	2M	DYJCE120067	2024-01-09
Digital Power Meter	WT500	DYDWQ200006	2024-01-08
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2024-01-09

* Reference standard lamp (150W incandescent directional lamp) calibrated by Guangzhou Institute of Measurement and Testing Technology.

** Reference standard lamp (100W incandescent omni-directional lamp) calibrated by Guangzhou Institute of Measurement and Testing Technology.

Expand Uncertainty:

Photometric Measurement (Sphere): 2.02%, k=2

Chromaticity Measurement(Sphere):24.8K, k=2

Photometric Measurement(Goniophotometer):2.88%, k=2

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