



Report No.: UTC2309036E-A

LM-79-08 Test Report

For

Beyond LED Technology

(Brand Name: Beyond)

1939 Parker Court, Stone Mountain, GA 30087

Outdoor Pole/Arm-Mounted Area and Roadway Luminaries

Architectural Flood and Spot Luminaries

Model name(s): BLT-S-G12C-150WBT3DA2-BR10SP40/50/57W

Remark: "a" can be any two letters for lamp colors; "b" can be "3RP", "3NP", "5RP", "5NP", "7RP", "7NP" for Photocontrol type provided or blank for no Photocontrol provided; "c" can be "10SP", "20SP" for Surge-Protective Device type provided or blank for no Surge-Protective Device provided; "d" can be "DM", "DM1", "DP", "DP1" or blank for DC Motion Sensor, DC PIR Sensor provided or not; "e" can be "AM", "DM", "DM1", "DM2", "YM", "A&D", "FM" for mounting bracket type; "f" can be any digits for CCT; "W" for wattage adjustable.

Representative (Tested) Model:
BLT-S-G12C-150WBT3DA2-
BR10SP40/50/57W

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

Test & Report By:

Engineer: Winny Wu

Date: 2023-11-02

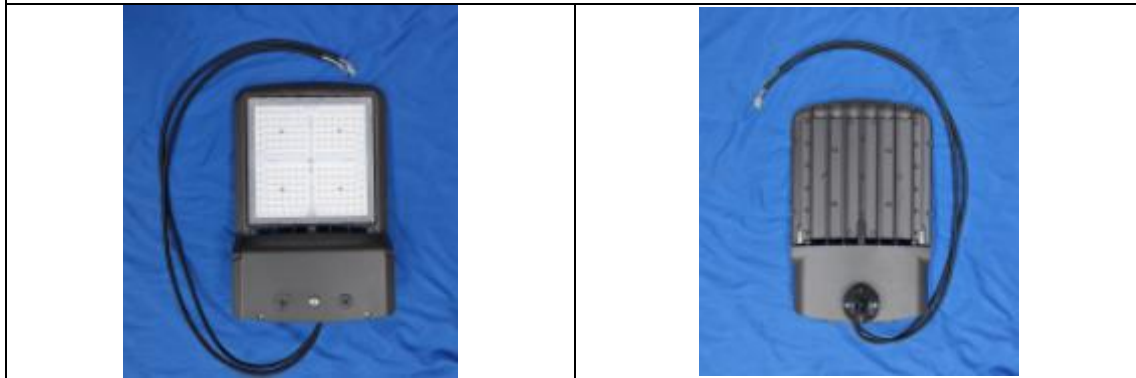
Review By:

Manager: Jason Luo

1.1 Product Information:

Organization Name	Beyond LED Technology	
Brand Name	Beyond LED Technology	
Model Number	BLT-S-G12C-150WBT3DA2-BR10SP40/50/57W	
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	150W(Power adjustable)	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K, 5000K, 5700K(Color tunable)	
LED Manufacturer	Lumileds Holding B.V.	
LED Model	L128-4080RC35005A1 L128-5780RC35005A1	
Sample Number	UTC2309036E-A1-3	
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	2023-10-05
Date of Test	2023-10-06
Test item	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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

<p>1) Photometric and Light Distribution Measurement – Goniophotometer Method:</p> <p>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</p>
<p>2) Chromaticity Measurement – Sphere-Spectroradiometer Method:</p> <p>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.</p> <p>Self-absorption: AST-S-G12C-150WBHT3DA1-abcde40W:1.023 AST-S-G12C-150WBHT3DA1-abcde50W:1.023 AST-S-G12C-150WBHT3DA1-abcde57W:1.023</p>



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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.

2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2023-10-06	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	BLT-S-G12C-150WBT3DA2-BR10SP40/50/57W		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC230903	120.0	60	1.253	150.15	0.999	3.3
6E-A1	277.0	60	0.548	145.41	0.958	8.36
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

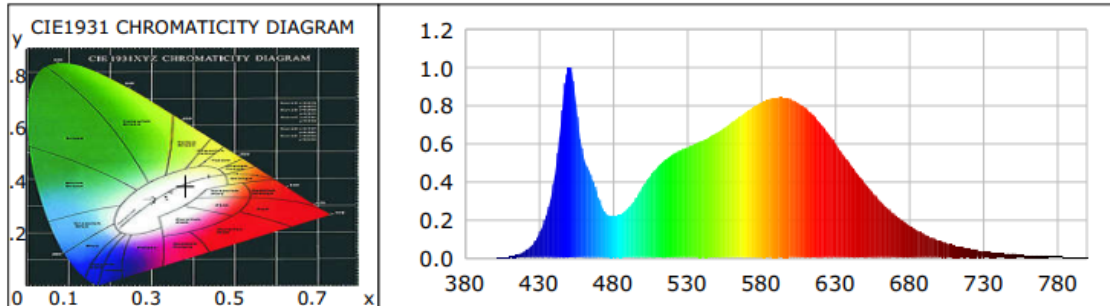
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	79	R9	-2
Frequency (Hz)	60	R2	88	R10	71
CCT (K)	3991	R3	94	R11	79
Duv	-0.0003	R4	80	R12	59
Chromaticity (x, y)	x=0.3806 y=0.3762	R5	80	R13	81
Chromaticity (u', v')	u(u')=0.2254 v'=0.5014	R6	84	R14	97
Color Rendering Index (CRI)	81	R7	84	R15	73
R9	-2	R8	61	--	--
Rf	82	--	--	--	--
Rg	95	--	--	--	--
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)	23668.1	23214.3	>=10000(-10%)
Luminous Efficacy (lm/W)	157.63	159.65	Premium: >= 120(-3%)
Most worst Luminous/Highest	154.61		
Zonal lumens in the 0-90° zone (%)	100	--	Category 1: >=100(-1) Category 2: >=85(-3)
Zonal lumens in the 80-90°zone (%)	3.2	--	<=10(+3)
Beam Angle (°)	126.1	--	--
Center Beam Candle Power (cd)	5220	--	--

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	0.3708	535	0.5637	295.3815	690	0.2267	118.7842
385	0.0008	0.4177	540	0.5801	303.9490	695	0.1973	103.3963
390	0.0004	0.1883	545	0.5972	312.9388	700	0.1690	88.5608
395	0.0006	0.3255	550	0.6144	321.9314	705	0.1461	76.5440
400	0.0010	0.5113	555	0.6341	332.2324	710	0.1252	65.5831
405	0.0028	1.4699	560	0.6569	344.1886	715	0.1064	55.7526
410	0.0065	3.4007	565	0.6823	357.5315	720	0.0893	46.8014
415	0.0146	7.6299	570	0.7123	373.2415	725	0.0770	40.3230
420	0.0312	16.3714	575	0.7409	388.2345	730	0.0661	34.6439
425	0.0633	33.1831	580	0.7677	402.2491	735	0.0556	29.1419
430	0.1214	63.6219	585	0.7948	416.4580	740	0.0472	24.7469
435	0.2204	115.4976	590	0.8182	428.7059	745	0.0413	21.6298
440	0.3893	203.9778	595	0.8321	435.9925	750	0.0339	17.7889
445	0.7089	371.4668	600	0.8412	440.7866	755	0.0297	15.5451
450	0.9990	523.4261	605	0.8429	441.6607	760	0.0250	13.1171
455	0.8150	427.0383	610	0.8355	437.7923	765	0.0213	11.1456
460	0.5379	281.8611	615	0.8153	427.1769	770	0.0180	9.4403
465	0.4381	229.5611	620	0.7872	412.4876	775	0.0157	8.2203
470	0.3240	169.7823	625	0.7512	393.5886	780	0.0132	6.9084
475	0.2366	123.9794	630	0.7069	370.3925	785	0.0115	6.0491
480	0.2180	114.2379	635	0.6560	343.7126	790	0.0102	5.3384
485	0.2288	119.8775	640	0.6030	315.9461	795	0.0084	4.3764
490	0.2580	135.2037	645	0.5477	286.9600	800	0.0069	3.6345
495	0.3113	163.0892	650	0.4933	258.4821			
500	0.3720	194.8990	655	0.4409	231.0451			
505	0.4279	224.2170	660	0.3902	204.4790			
510	0.4760	249.4199	665	0.3446	180.5583			
515	0.5129	268.7474	670	0.3006	157.5313			
520	0.5399	282.9034	675	0.2627	137.6481			
525	0.5637	295.3815	680	0.2267	118.7842			
530	0.5801	303.9490	685	0.1973	103.3963			

TM30

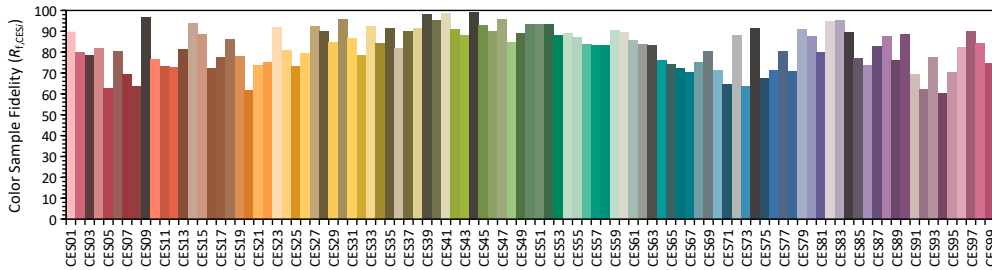
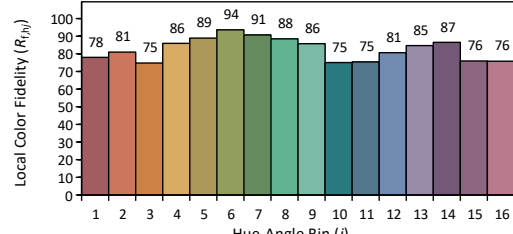
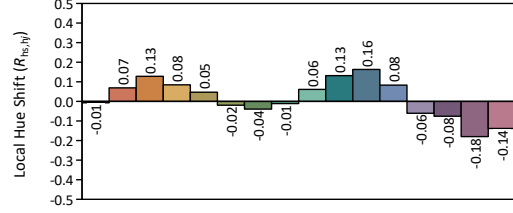
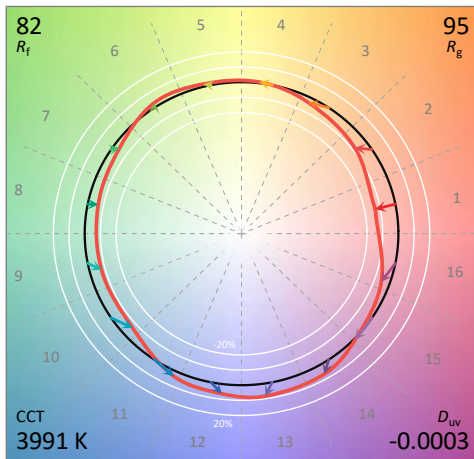
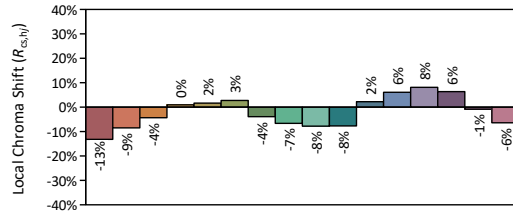
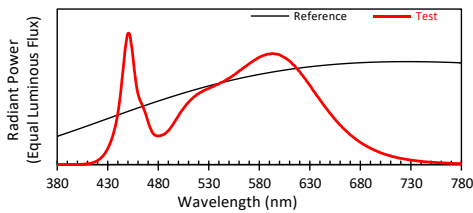
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-4080RC35005A1

Manufacturer: ASmart LIGHT CO., LTD

Date: 2023/10/6

Model: AST-S-G12C-150WBHT3DA1-abcde40W



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

x 0.3806
 y 0.3762
 u' 0.2254
 v' 0.5014

CIE 13.3-1995 (CRI)
 R_a 81
 R_g -2

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

Zonal Lumen Tabulation

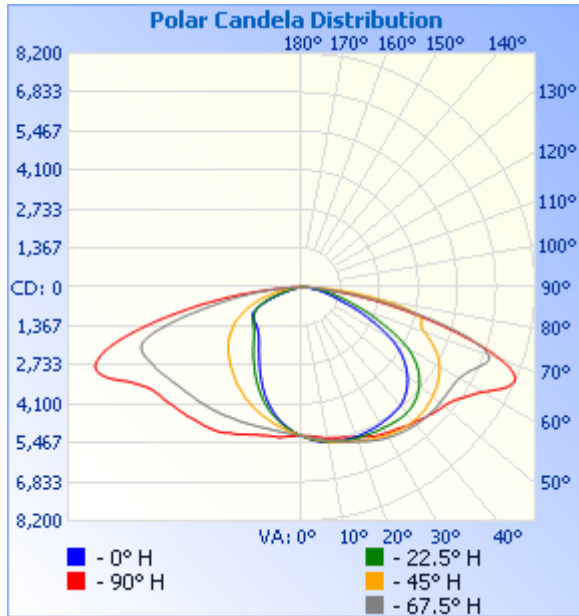
Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	4,337.1	18.3%	18.3%
0-40	7,497.7	31.7%	31.7%
0-60	15,520.4	65.6%	65.6%
60-90	8,146.7	34.4%	34.4%
70-100	3,843.5	16.2%	16.2%
90-120	0	0%	0%
0-90	23,667.1	100%	100%
90-180	0	0%	0%
0-180	23,667.1	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	498.1	2.1%	90-100	0	0%
10-20	1,469.3	6.2%	100-110	0	0%
20-30	2,369.7	10.0%	110-120	0	0%
30-40	3,160.6	13.4%	120-130	0	0%
40-50	3,801.5	16.1%	130-140	0	0%
50-60	4,221.2	17.8%	140-150	0	0%
60-70	4,303.2	18.2%	150-160	0	0%
70-80	3,074.5	13.0%	160-170	0	0%
80-90	769.0	3.2%	170-180	0	0%

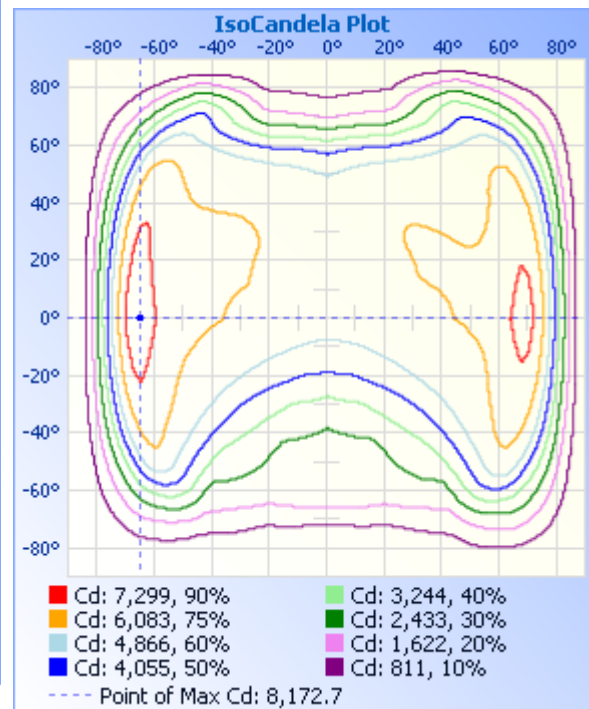
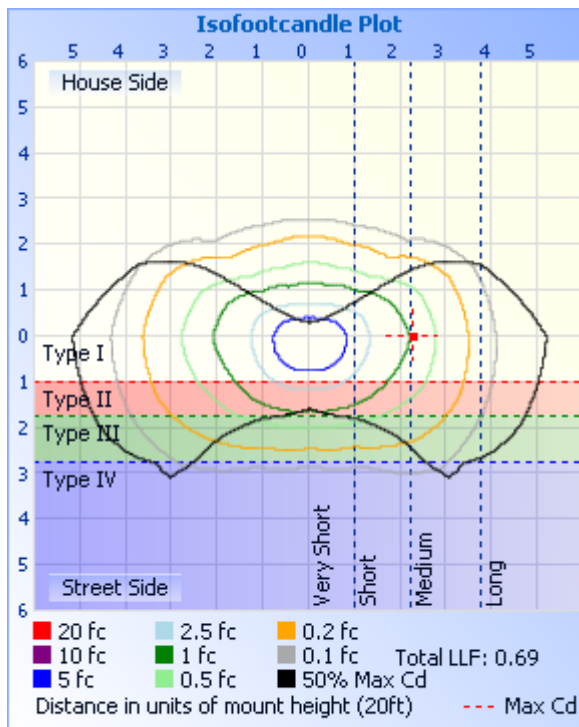
Photometric Data



Illuminance at a Distance

	Center Beam fc	Beam Width	
17.0ft	18.1 fc	49.8 ft	158.9 ft
34.0ft	4.52 fc	99.6 ft	317.8 ft
51.0ft	2.01 fc	149.4 ft	476.8 ft
68.0ft	1.13 fc	199.2 ft	635.7 ft
85.0ft	0.72 fc	249.1 ft	794.6 ft
102.0ft	0.50 fc	298.9 ft	953.5 ft

■ Vert. Spread: 111.4°
■ Horiz. Spread: 155.8°



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	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220	5220
1	5258	5257	5246	5238	5214	5207	5185	5182	5180	5185	5187	5206	5227	5234	5249	5252	5258
2	5296	5290	5268	5255	5216	5194	5165	5138	5133	5137	5152	5187	5225	5249	5276	5291	5296
3	5334	5323	5300	5276	5224	5190	5141	5099	5088	5095	5122	5176	5239	5265	5299	5330	5334
4	5372	5356	5326	5297	5242	5177	5118	5063	5039	5045	5102	5165	5246	5288	5327	5355	5372
5	5405	5383	5356	5322	5257	5170	5085	5002	4977	5003	5074	5152	5259	5304	5355	5383	5405
6	5429	5410	5388	5352	5280	5164	5053	4956	4926	4957	5041	5140	5274	5329	5384	5417	5429
7	5459	5440	5420	5376	5303	5157	5024	4913	4866	4907	5010	5132	5293	5357	5414	5443	5459
8	5482	5463	5442	5396	5333	5155	5002	4863	4804	4858	4986	5126	5316	5380	5438	5469	5482
9	5496	5477	5465	5423	5364	5153	4973	4813	4750	4808	4946	5122	5331	5404	5459	5486	5496
10	5517	5506	5497	5459	5373	5156	4941	4755	4683	4750	4919	5120	5324	5428	5480	5509	5517
11	5525	5521	5521	5486	5386	5143	4916	4700	4615	4694	4895	5110	5326	5459	5501	5526	5525
12	5541	5536	5548	5511	5399	5145	4888	4643	4543	4636	4860	5108	5335	5494	5523	5544	5541
13	5558	5558	5575	5542	5419	5149	4857	4582	4474	4582	4824	5105	5344	5517	5547	5559	5558
14	5565	5572	5598	5569	5438	5153	4825	4522	4397	4515	4794	5107	5362	5544	5572	5571	5565
15	5567	5576	5623	5598	5459	5152	4799	4463	4317	4446	4761	5114	5379	5575	5592	5582	5567
16	5567	5588	5646	5635	5473	5152	4767	4396	4229	4382	4731	5111	5399	5609	5616	5591	5567
17	5570	5600	5677	5669	5508	5160	4731	4323	4146	4314	4702	5122	5413	5633	5633	5598	5570
18	5577	5612	5702	5691	5550	5169	4697	4249	4064	4241	4671	5125	5440	5653	5657	5607	5577
19	5579	5622	5725	5718	5572	5176	4668	4176	3982	4170	4634	5131	5474	5684	5684	5616	5579
20	5590	5635	5747	5753	5586	5173	4640	4097	3880	4091	4598	5135	5502	5711	5706	5624	5590
21	5586	5646	5775	5793	5619	5177	4600	4028	3796	4014	4569	5142	5538	5743	5734	5639	5586
22	5580	5654	5797	5836	5660	5192	4561	3945	3697	3937	4536	5147	5568	5778	5757	5649	5580
23	5577	5661	5823	5871	5708	5196	4516	3865	3605	3863	4501	5157	5604	5810	5783	5661	5577
24	5571	5668	5847	5909	5747	5199	4480	3790	3508	3785	4460	5173	5643	5839	5806	5661	5571
25	5566	5683	5875	5945	5779	5212	4449	3709	3422	3706	4417	5180	5671	5870	5836	5668	5566
26	5563	5684	5897	5976	5822	5219	4409	3627	3325	3626	4387	5186	5694	5898	5859	5676	5563
27	5565	5697	5916	6013	5844	5232	4362	3552	3241	3549	4355	5193	5739	5932	5881	5679	5565
28	5553	5700	5943	6037	5865	5239	4311	3477	3149	3471	4311	5205	5785	5961	5904	5688	5553



29	5544	5703	5969	6066	5890	5251	4268	3401	3066	3394	4266	5212	5815	5982	5920	5693	5544
30	5537	5713	6000	6085	5915	5263	4232	3325	2980	3313	4220	5227	5847	6006	5939	5698	5537
31	5522	5720	6016	6109	5929	5277	4188	3251	2899	3236	4186	5249	5867	6023	5962	5706	5522
32	5517	5723	6035	6138	5957	5290	4146	3173	2821	3162	4150	5264	5886	6041	5987	5711	5517
33	5510	5738	6057	6156	5971	5305	4094	3099	2748	3091	4113	5272	5903	6058	6008	5724	5510
34	5501	5742	6072	6176	5998	5315	4048	3032	2678	3024	4068	5279	5921	6071	6026	5736	5501
35	5489	5752	6092	6198	6030	5327	4004	2964	2609	2953	4022	5296	5938	6090	6041	5740	5489
36	5474	5758	6105	6211	6068	5340	3966	2899	2546	2882	3977	5317	5948	6108	6062	5753	5474
37	5464	5759	6117	6225	6103	5355	3927	2832	2480	2816	3937	5320	5956	6129	6076	5754	5464
38	5448	5766	6129	6244	6136	5371	3879	2770	2426	2752	3892	5337	5967	6135	6086	5756	5448
39	5431	5765	6124	6262	6159	5383	3839	2713	2378	2691	3847	5353	5981	6151	6091	5758	5431
40	5411	5753	6131	6273	6184	5402	3798	2657	2335	2625	3804	5356	6002	6155	6095	5756	5411
41	5379	5739	6128	6292	6201	5424	3756	2602	2292	2570	3763	5375	6029	6163	6095	5749	5379
42	5342	5723	6121	6300	6241	5439	3717	2551	2252	2511	3718	5389	6051	6158	6092	5734	5342
43	5295	5701	6105	6309	6289	5462	3678	2502	2226	2458	3672	5404	6063	6152	6085	5717	5295
44	5253	5668	6107	6321	6313	5484	3639	2458	2199	2413	3630	5410	6084	6154	6073	5695	5253
45	5196	5641	6098	6328	6333	5490	3600	2419	2173	2369	3582	5423	6099	6153	6059	5664	5196
46	5141	5603	6082	6331	6379	5508	3563	2385	2145	2327	3543	5440	6114	6152	6046	5630	5141
47	5076	5558	6059	6335	6413	5539	3518	2348	2124	2299	3499	5461	6134	6145	6023	5592	5076
48	5006	5505	6042	6337	6450	5564	3478	2317	2110	2256	3460	5483	6155	6140	5995	5549	5006
49	4933	5453	6020	6336	6473	5587	3437	2287	2094	2221	3407	5497	6183	6130	5972	5496	4933
50	4853	5396	5991	6330	6510	5613	3389	2264	2077	2197	3363	5515	6213	6108	5941	5436	4853
51	4768	5325	5968	6329	6541	5644	3348	2241	2063	2171	3317	5536	6240	6094	5904	5374	4768
52	4672	5246	5940	6329	6592	5667	3301	2216	2062	2149	3273	5561	6249	6081	5868	5302	4672
53	4577	5170	5911	6326	6641	5697	3242	2192	2055	2123	3219	5591	6271	6068	5832	5232	4577
54	4471	5088	5884	6329	6712	5729	3189	2170	2048	2104	3160	5623	6306	6056	5790	5153	4471
55	4360	4984	5834	6332	6807	5765	3127	2150	2024	2082	3103	5644	6344	6041	5754	5055	4360
56	4249	4880	5793	6326	6906	5800	3067	2124	2019	2062	3042	5681	6389	6023	5702	4945	4249
57	4110	4760	5755	6338	7002	5832	3001	2071	2022	2018	2977	5716	6460	6009	5653	4831	4110
58	3970	4624	5703	6346	7106	5867	2940	2039	2027	1990	2912	5756	6554	6000	5604	4710	3970
59	3811	4487	5642	6371	7215	5900	2873	2002	2023	1948	2848	5794	6648	5995	5553	4573	3811

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60	3645	4332	5592	6400	7353	5936	2807	1977	1974	1935	2785	5827	6750	5997	5489	4421	3645
61	3455	4139	5525	6440	7523	5967	2743	1939	1943	1912	2718	5858	6872	5996	5416	4232	3455
62	3237	3954	5459	6493	7674	5989	2673	1875	1929	1847	2646	5876	7017	6009	5347	4041	3237
63	3031	3724	5380	6558	7861	6021	2593	1814	1867	1803	2576	5898	7197	6030	5267	3831	3031
64	2822	3509	5290	6641	8009	6059	2503	1773	1770	1767	2468	5933	7364	6068	5179	3611	2822
65	2618	3284	5188	6737	8110	6097	2400	1671	1699	1703	2381	5971	7520	6124	5085	3365	2618
66	2422	3052	5068	6836	8173	6142	2320	1599	1588	1620	2273	6010	7637	6198	4989	3146	2422
67	2226	2844	4956	6940	8160	6199	2229	1524	1461	1544	2191	6037	7728	6272	4870	2921	2226
68	2015	2659	4836	7027	8026	6198	2138	1410	1347	1435	2097	6039	7779	6347	4749	2709	2015
69	1824	2450	4710	7055	7798	6121	2027	1308	1187	1333	1987	6036	7773	6426	4612	2502	1824
70	1623	2267	4575	6998	7460	5959	1958	1193	1060	1234	1885	5991	7677	6464	4458	2321	1623
71	1464	2065	4479	6842	7059	5712	1863	1083	901	1079	1783	5886	7511	6450	4320	2116	1464
72	1321	1900	4423	6558	6586	5347	1765	947	755	949	1657	5682	7286	6377	4201	1937	1321
73	1201	1735	4397	6217	6027	4963	1678	842	617	820	1566	5402	6976	6249	4089	1764	1201
74	1090	1596	4387	5740	5494	4559	1565	701	523	697	1447	5031	6592	6027	4007	1602	1090
75	981	1449	4349	5227	4960	4092	1432	618	421	600	1344	4643	6135	5712	3954	1451	981
76	885	1319	4256	4703	4420	3621	1302	531	336	499	1206	4213	5635	5331	3906	1332	885
77	800	1201	4096	4173	3858	3185	1142	447	232	419	1079	3750	5156	4862	3828	1200	800
78	713	1084	3876	3674	3359	2786	968	338	145	316	955	3347	4621	4409	3701	1096	713
79	638	980	3565	3158	2879	2407	824	256	83	228	845	2975	4138	3960	3500	984	638
80	556	859	3226	2695	2428	2044	697	176	25	151	753	2625	3644	3490	3245	879	556
81	486	758	2822	2253	1956	1735	563	126	16	98	640	2315	3109	2978	2914	781	486
82	417	669	2450	1855	1565	1421	454	100	17	81	539	1964	2651	2552	2615	681	417
83	362	594	2092	1453	1251	1121	361	82	17	75	432	1660	2196	2133	2301	600	362
84	304	518	1749	1089	939	875	266	63	17	67	353	1304	1706	1703	2012	530	304
85	242	418	1423	810	634	590	185	42	18	54	250	978	1283	1243	1740	425	242
86	181	321	1046	526	356	384	112	27	19	50	154	710	962	930	1365	328	181
87	124	217	614	271	134	177	55	24	17	35	98	401	587	592	929	235	124
88	77	117	263	97	50	40	32	22	18	24	50	186	322	355	480	144	77
89	35	46	57	28	25	21	20	17	19	20	37	75	157	168	192	67	35
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Report No.: UTC2309036E-A

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111	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

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Report No.: UTC2309036E-A

122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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152	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)

<u>LCS Zone</u>	<u>Lumens</u>	<u>%Lamp</u>	<u>%Lum</u>
FL (0-30)	2383.7	10.1	10.1
FM (30-60)	6658.0	28.1	28.1
FH (60-80)	4337.6	18.3	18.3
FVH (80-90)	521.4	2.2	2.2
BL (0-30)	1953.3	8.3	8.3
BM (30-60)	4527.1	19.1	19.1
BH (60-80)	3039.4	12.8	12.8
BVH (80-90)	247.4	1.0	1.0
UL (90-100)	0.0	0.0	0.0
UH (100-180)	0.0	0.0	0.0
Total	23667.9	99.9	100.0
BUG Rating	B4-U0-G4		

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

Test date	2023-10-06	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	BLT-S-G12C-150WBT3DA2-BR10SP40/50/57W de50W		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC230903	120.0	60	1.210	144.86	0.998	3.3
6E-A2	277.0	60	0.528	140.32	0.959	8.28
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

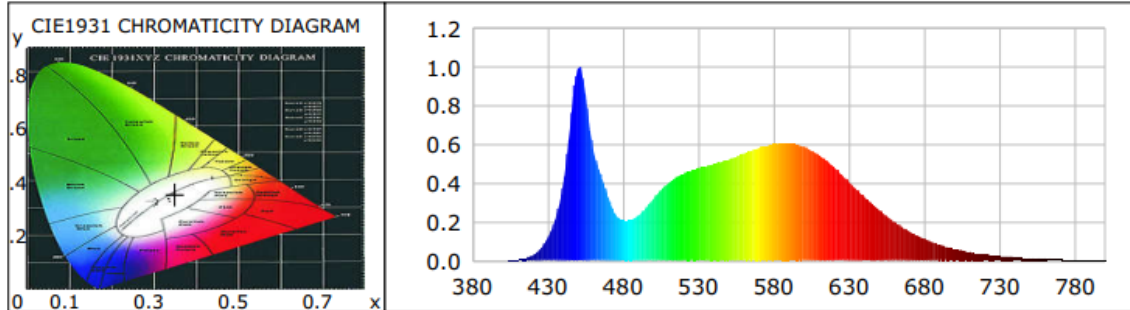
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	4
Frequency (Hz)	60	R2	88	R10	72
CCT (K)	4804	R3	93	R11	80
Duv	-0.0015	R4	81	R12	57
Chromaticity (x, y)	x=0.3504 y=0.3528	R5	81	R13	83
Chromaticity (u', v')	u(u')=0.2146 v'=0.4860	R6	83	R14	96
Color Rendering Index (CRI)	82	R7	86	R15	76
R9	4	R8	65	--	--
Rf	82	--	--	--	--
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)	24663.9	24206.6	>=10000(-10%)
Luminous Efficacy (lm/W)	170.26	172.51	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	167.10		

Spectral Power Distribution & Chromaticity Diagram



WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0003	0.1829	535	0.4646	327.0486	690	0.1510	106.3077
385	0.0003	0.2012	540	0.4765	335.4329	695	0.1303	91.7555
390	0.0006	0.3896	545	0.4873	343.0527	700	0.1126	79.2538
395	0.0007	0.4702	550	0.4993	351.5190	705	0.0968	68.1202
400	0.0008	0.5660	555	0.5102	359.1886	710	0.0826	58.1462
405	0.0019	1.3458	560	0.5229	368.0993	715	0.0707	49.7782
410	0.0053	3.7456	565	0.5370	378.0169	720	0.0604	42.5156
415	0.0133	9.3806	570	0.5529	389.2420	725	0.0514	36.1549
420	0.0284	19.9645	575	0.5680	399.8890	730	0.0440	30.9579
425	0.0590	41.5048	580	0.5816	409.4534	735	0.0378	26.6054
430	0.1158	81.5226	585	0.5944	418.4528	740	0.0322	22.6765
435	0.2141	150.6955	590	0.6026	424.1975	745	0.0271	19.0458
440	0.3820	268.8942	595	0.6055	426.2801	750	0.0232	16.3575
445	0.6996	492.4988	600	0.6064	426.8700	755	0.0193	13.6112
450	0.9922	698.4731	605	0.6013	423.3049	760	0.0168	11.8055
455	0.8595	605.0814	610	0.5891	414.6878	765	0.0142	10.0158
460	0.5797	408.1137	615	0.5698	401.0947	770	0.0121	8.5127
465	0.4491	316.1398	620	0.5458	384.2225	775	0.0104	7.2943
470	0.3324	233.9734	625	0.5169	363.9156	780	0.0096	6.7464
475	0.2394	168.5538	630	0.4831	340.0624	785	0.0077	5.3957
480	0.2093	147.3280	635	0.4454	313.5427	790	0.0058	4.0667
485	0.2123	149.4703	640	0.4067	286.2744	795	0.0056	3.9651
490	0.2317	163.1220	645	0.3688	259.5939	800	0.0038	2.6943
495	0.2710	190.7862	650	0.3312	233.1460			
500	0.3190	224.5688	655	0.2953	207.8531			
505	0.3617	254.6408	660	0.2615	184.0888			
510	0.4001	281.6421	665	0.2289	161.1238			
515	0.4274	300.8942	670	0.2001	140.8386			
520	0.4483	315.5730	675	0.1738	122.3246			
525	0.4646	327.0486	680	0.1510	106.3077			
530	0.4765	335.4329	685	0.1303	91.7555			

TM30

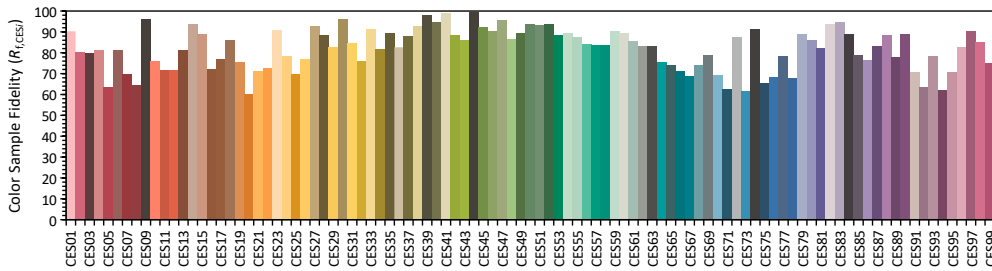
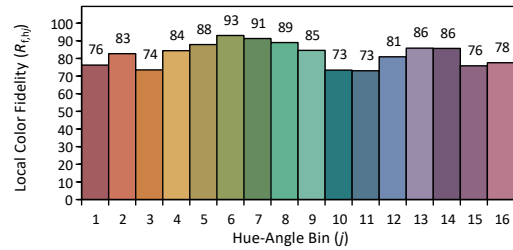
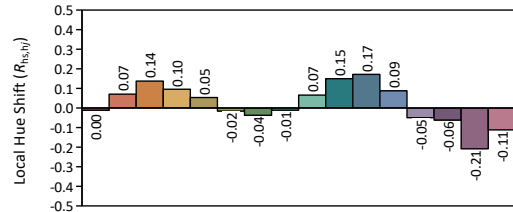
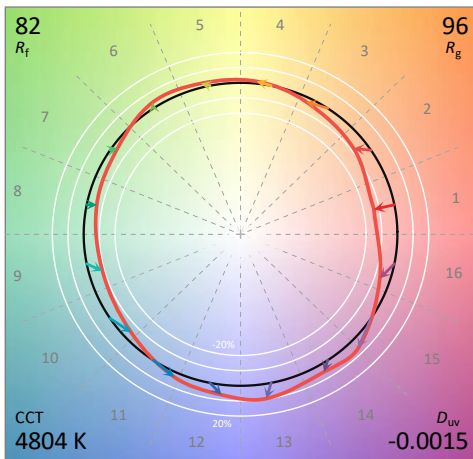
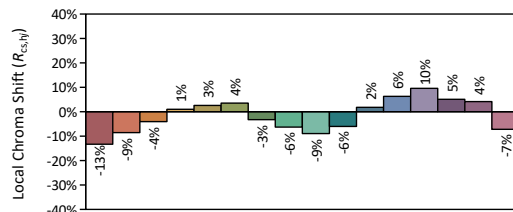
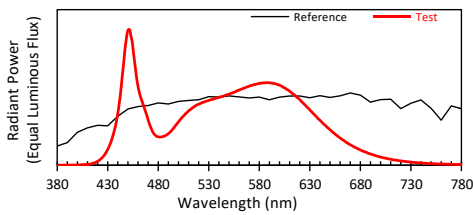
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-4080RC35005A1
L128-5780RC35005A1

Date: 2023/10/6

Manufacturer: SMART LIGHT CO., LTD

Model: AST-S-G12C-150WBHT3DA1-abcde50W



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

x 0.3504
 y 0.3528
 u' 0.2146
 v' 0.4860

CIE 13.3-1995 (CRI)
 R_a 82
 R_9 4

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	2023-10-06	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	BLT-S-G12C-150WBT3DA2-BR10SP40/50/57W 7W		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
UTC230903	120.0	60	1.254	150.23	0.998	3.43
6E-A3	277.0	60	0.547	145.27	0.958	8.31
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

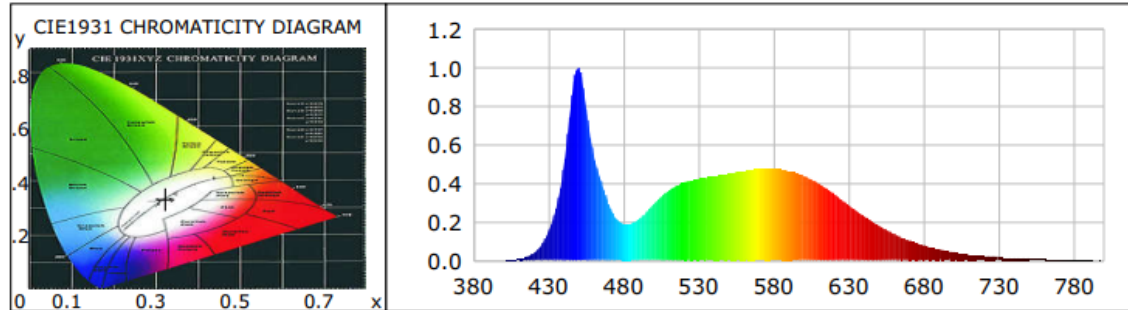
Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	2
Frequency (Hz)	60	R2	86	R10	67
CCT (K)	5921	R3	89	R11	82
Duv	-0.0006	R4	83	R12	59
Chromaticity (x, y)	x=0.3236 y=0.3321	R5	82	R13	82
Chromaticity (u', v')	u(u')=0.2042 v'=0.4716	R6	81	R14	94
Color Rendering Index (CRI)	82	R7	86	R15	76
R9	2	R8	68	--	--
Rf	81	--	--	--	--
Rg	96	--	--	--	--
Rcs,h1(%)	-14				

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)	23803.9	23282.4	>=10000(-10%)
Luminous Efficacy (lm/W)	158.45	160.27	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	154.98		

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	0.4860	535	0.4147	339.0542	690	0.1031	84.3090
385	0.0005	0.3717	540	0.4238	346.5139	695	0.0899	73.5418
390	0.0003	0.2682	545	0.4302	351.7857	700	0.0768	62.7982
395	0.0008	0.6200	550	0.4370	357.2773	705	0.0660	53.9887
400	0.0010	0.8080	555	0.4424	361.7236	710	0.0569	46.5379
405	0.0026	2.1504	560	0.4497	367.7292	715	0.0491	40.1121
410	0.0070	5.7304	565	0.4577	374.2255	720	0.0419	34.2270
415	0.0170	13.9154	570	0.4647	379.9397	725	0.0356	29.1282
420	0.0371	30.3489	575	0.4708	384.9108	730	0.0293	23.9958
425	0.0765	62.5634	580	0.4750	388.3557	735	0.0256	20.9348
430	0.1477	120.7884	585	0.4770	390.0533	740	0.0220	17.9959
435	0.2669	218.2568	590	0.4772	390.1585	745	0.0185	15.0918
440	0.4712	385.3184	595	0.4725	386.3180	750	0.0156	12.7199
445	0.8070	659.8564	600	0.4644	379.7283	755	0.0137	11.1665
450	1.0000	817.6534	605	0.4539	371.1012	760	0.0109	8.8735
455	0.7971	651.7397	610	0.4396	359.4449	765	0.0096	7.8282
460	0.5509	450.4484	615	0.4203	343.6418	770	0.0086	7.0646
465	0.4125	337.3181	620	0.3971	324.6603	775	0.0070	5.7318
470	0.2961	242.1176	625	0.3732	305.1316	780	0.0058	4.7312
475	0.2182	178.3730	630	0.3457	282.6494	785	0.0045	3.6776
480	0.1906	155.8543	635	0.3162	258.5526	790	0.0043	3.4923
485	0.1920	156.9693	640	0.2877	235.2594	795	0.0043	3.4819
490	0.2125	173.7210	645	0.2581	211.0370	800	0.0033	2.7170
495	0.2488	203.4096	650	0.2306	188.5835			
500	0.2916	238.4433	655	0.2059	168.3199			
505	0.3300	269.8072	660	0.1802	147.3338			
510	0.3621	296.1074	665	0.1586	129.6720			
515	0.3865	315.9932	670	0.1378	112.6997			
520	0.4022	328.8994	675	0.1190	97.3014			
525	0.4147	339.0542	680	0.1031	84.3090			
530	0.4238	346.5139	685	0.0899	73.5418			

TM30

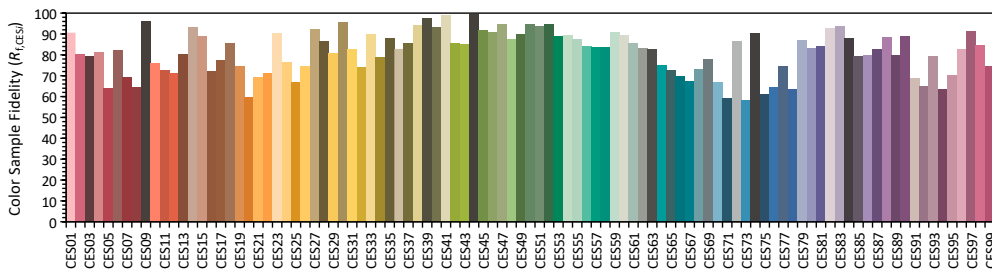
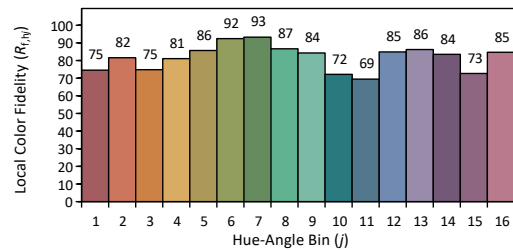
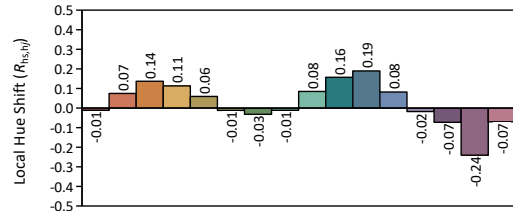
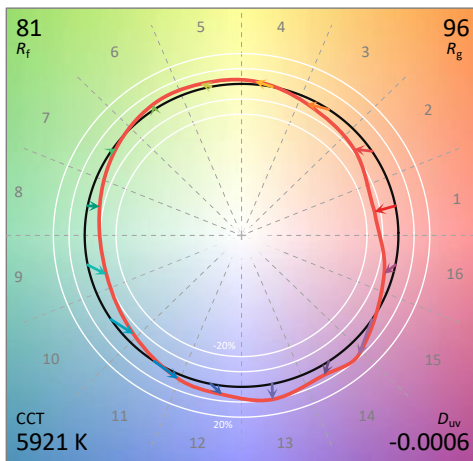
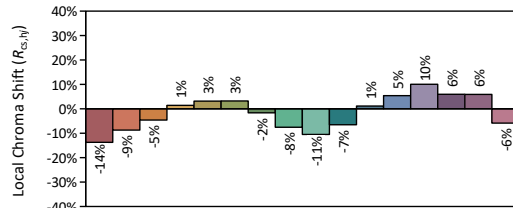
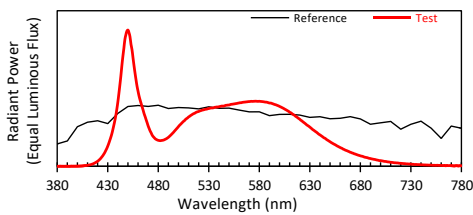
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-5780RC35005A1

Manufacturer: ASmart LIGHT CO., LTD

Date: 2023/10/6

Model: AST-S-G12C-150WBHT3DA1-abcde57W



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

x 0.3236
 y 0.3321
 u' 0.2043
 v' 0.4716

CIE 13.3-1995 (CRI)
 R_a 82
 R_9 2

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	2023-01-17
AC Power Source	CHP-500C	DYBWD010159	2023-01-18
Total Luminous Flux Standard Lamp	24V/150W	DYJYR040040	2023-02-01
Digital Power Meter	WT500	DYDWQ20010	2023-01-18
Integral Sphere (2M)	2M	DYJCE120067	2023-01-17
Digital Power Meter	WT500	DYDWQ200006	2023-01-18
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2023-01-17

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 *****