



Report No.: BLC1803017E-A

LM-79-08 Test Report

For

Revolution Lighting Technologies, Inc.

(Brand Name:  Revolution
Lighting)

2280 Ward Ave. Simi Valley, CA. 93065

Outdoor Pole/Arm-Mounted Area and Roadway Luminaires

Model name(s): 1130SD-38T

Remark: S represents Sensor Options, can be 1 = N/A, 2 = 7-Pin Photocell, 9 = 3-Pin Photocell
T represents CCT, can be 2 = 4000K, 4 = 5000K

Representative (Tested) Model: 1130SD-382
1130SD-384

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

Test & Report By:

Grace Li

Engineer: Grace Li

Date: April.09,2018

Review By:

Tommy Liang

Manager: Tommy Liang



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1.1 Product Information:

Organization Name	Revolution Lighting Technologies, Inc.	
Brand Name		
Model Number	1130SD-38T	
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	
Rated Voltage / Frequency	100-277Vac, 50/60 Hz	
Nominal Power	62W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,5000K	
LED Manufacturer	Lumileds	
LED Model	LUXEON 3030 2D	
Sample Number	BLC1803017E-C1(4000K),C2(5000K)	
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	April.04,2018
Date of Test	April.08,2018
Test item	<ol style="list-style-type: none">1. Total Luminous Flux2. Luminous Distribution Intensity3. Luminous Efficacy4. Correlated Color Temperature5. Color Rendering Index6. Chromaticity Coordinate7. Electrical Parameters
Reference Standard	<ol style="list-style-type: none">1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources4. CIE 15-2004 Technical Report Colorimetry5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	BL-QP-033

1.3 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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.

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.

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	2018-4-8	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	1130SD-382		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC180301	120.0	60	0.5179	62.08	0.9989	4.68
7E-C1	277.0	60	0.2286	61.29	0.9679	13.49
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

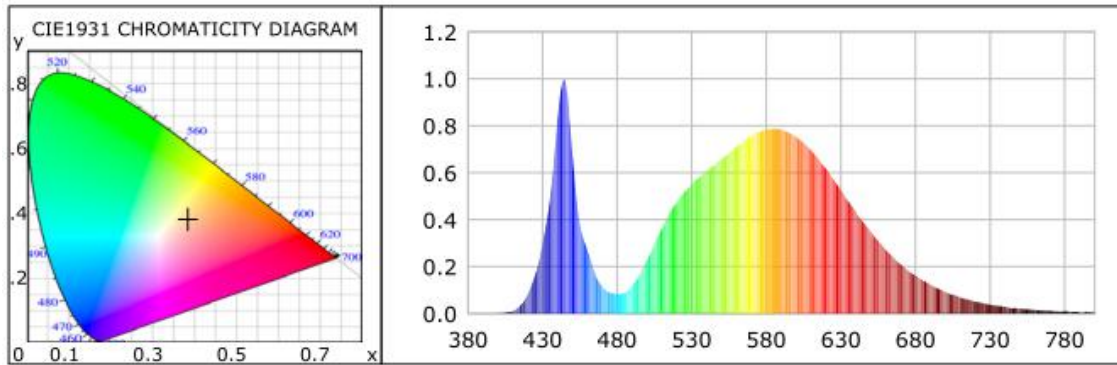
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	70	R9	0
Frequency (Hz)	60	R2	78	R10	48
CCT (K)	3907	R3	84	R11	69
Duv	-0.00035	R4	73	R12	45
Chromaticity (x, y)	x=0.3844 y=0.3784	R5	70	R13	71
Chromaticity (u', v')	u(u')=0.2270 v'(v')=0.5029	R6	69	R14	91
Color Rendering Index (CRI)	72.2	R7	80	R15	64
R9	0	R8	55	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V4.3 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	8498.2	8518.7	5000-10000(-10%)
Luminous Efficacy (lm/W)	136.89	138.99	Premium: >= 115(-3%)
Most worst Luminous/Highest Watts	136.89		
Zonal lumens in the 0-90° zone (%)	99.9	--	>=100(-1)
Zonal lumens in the 80-90° zone (%)	0.2	--	<=10(+3)
Beam Angle (°)	43.1	--	--
Center Beam Candle Power (cd)	7794	--	--



Spectral Power Distribution & Chromaticity Diagram

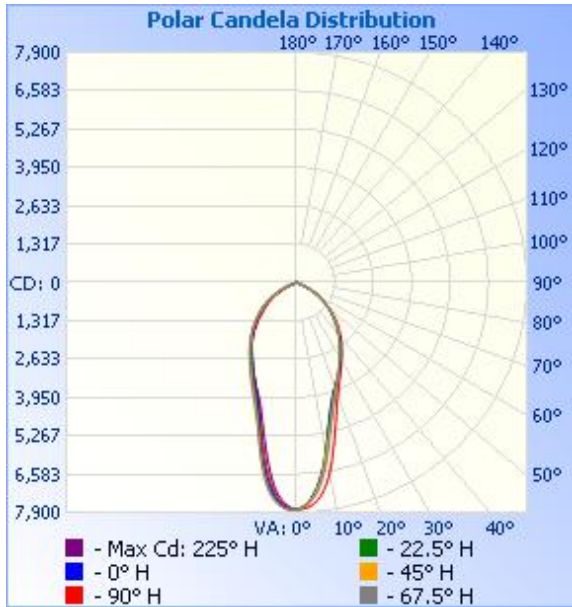


Zonal Lumen Tabulation

Zonal Lumen Summary				Lumens Per Zone					
Zone	Lumens	% Lamp	% Luminaire	Zone	Lumens	% Total	Zone	Lumens	% Total
0-30	3,657.0	43%	43%	0-10	670.8	7.9%	90-100	0.2	0%
0-40	5,327.5	62.7%	62.7%	10-20	1,373.0	16.2%	100-110	0.2	0%
0-60	7,902.7	93%	93%	20-30	1,613.3	19.0%	110-120	0.1	0%
60-90	586.9	6.9%	6.9%	30-40	1,670.4	19.7%	120-130	0.6	0%
70-100	116.6	1.4%	1.4%	40-50	1,493.8	17.6%	130-140	0.8	0%
90-120	0.6	0%	0%	50-60	1,081.5	12.7%	140-150	1.2	0%
0-90	8,489.6	99.9%	99.9%	60-70	470.6	5.5%	150-160	1.4	0%
90-180	6.5	0.1%	0.1%	70-80	100.6	1.2%	160-170	1.4	0%
0-180	8,496.1	100%	100%	80-90	15.7	0.2%	170-180	0.4	0%



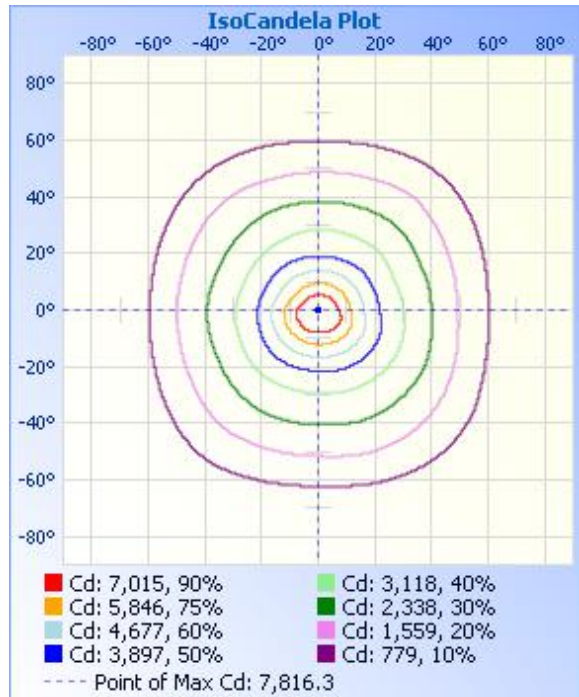
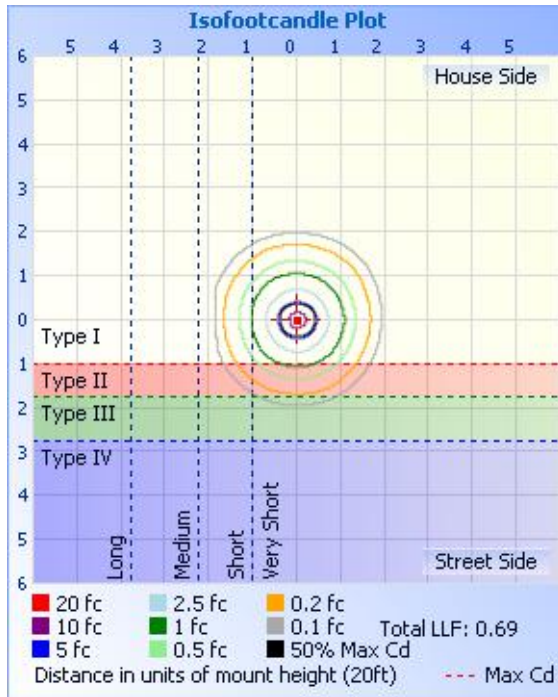
Photometric Data



Illuminance at a Distance

	Center Beam fc	Beam Width	
17.0ft	27.0 fc	12.5 ft	13.4 ft
34.0ft	6.74 fc	24.9 ft	26.8 ft
51.0ft	3.00 fc	37.4 ft	40.3 ft
68.0ft	1.69 fc	49.8 ft	53.7 ft
85.0ft	1.08 fc	62.3 ft	67.1 ft
102.0ft	0.75 fc	74.7 ft	80.5 ft

■ Vert. Spread: 40.2°
■ Horiz. Spread: 43.1°





Report No.: BLC1803017E-A

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	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794	7794
1	7748	7751	7757	7761	7792	7797	7802	7801	7802	7810	7816	7805	7775	7765	7763	7753	7748
2	7670	7684	7683	7698	7767	7773	7785	7787	7780	7795	7807	7798	7732	7710	7705	7675	7670
3	7557	7580	7579	7617	7731	7729	7732	7731	7728	7752	7774	7768	7667	7627	7605	7567	7557
4	7400	7433	7440	7501	7668	7651	7653	7651	7642	7680	7702	7695	7563	7513	7474	7419	7400
5	7211	7249	7271	7353	7581	7556	7547	7536	7512	7576	7604	7602	7426	7356	7308	7240	7211
6	6997	7017	7060	7163	7447	7418	7398	7377	7344	7442	7480	7480	7234	7161	7104	7033	6997
7	6729	6773	6820	6931	7285	7258	7232	7200	7151	7254	7316	7321	7028	6909	6831	6757	6729
8	6456	6488	6535	6663	7082	7073	7043	6993	6927	7035	7110	7124	6775	6624	6546	6477	6456
9	6152	6149	6201	6372	6859	6860	6817	6755	6672	6774	6847	6871	6502	6316	6239	6180	6152
10	5821	5793	5870	6071	6592	6608	6506	6476	6393	6486	6568	6595	6208	6015	5942	5874	5821
11	5483	5479	5590	5762	6310	6308	6212	6177	6105	6183	6269	6304	5907	5724	5651	5579	5483
12	5179	5222	5337	5447	5991	6017	5904	5833	5819	5883	5966	6005	5615	5426	5372	5300	5179
13	4919	4969	5112	5200	5695	5727	5607	5528	5492	5540	5666	5681	5318	5167	5122	5045	4919
14	4682	4767	4873	4956	5413	5437	5327	5243	5205	5250	5373	5426	5069	4930	4874	4811	4682
15	4497	4573	4669	4757	5152	5170	5073	4991	4949	5005	5103	5153	4837	4722	4665	4583	4497
16	4329	4387	4482	4560	4900	4890	4818	4762	4709	4789	4878	4933	4626	4536	4461	4402	4329
17	4167	4237	4313	4387	4684	4678	4612	4544	4500	4603	4689	4746	4450	4368	4301	4238	4167
18	4040	4100	4166	4248	4461	4484	4429	4366	4297	4435	4513	4579	4290	4228	4176	4097	4040
19	3931	3977	4039	4104	4288	4319	4280	4210	4141	4271	4361	4415	4154	4099	4061	3965	3931
20	3829	3866	3910	3968	4132	4167	4142	4072	3998	4133	4211	4273	4037	3974	3949	3859	3829
21	3739	3755	3792	3845	3999	4030	4018	3944	3877	4009	4088	4144	3919	3856	3857	3759	3739
22	3651	3660	3690	3732	3869	3889	3901	3824	3769	3886	3966	4015	3811	3745	3756	3675	3651
23	3572	3575	3587	3619	3752	3774	3800	3695	3665	3775	3857	3899	3708	3643	3665	3589	3572
24	3496	3481	3486	3507	3633	3673	3702	3594	3560	3659	3747	3795	3611	3542	3575	3508	3496
25	3414	3393	3390	3410	3540	3572	3606	3498	3469	3556	3635	3680	3523	3436	3484	3426	3414
26	3347	3311	3287	3310	3443	3457	3495	3397	3375	3459	3537	3579	3436	3345	3399	3346	3347
27	3267	3231	3197	3223	3357	3363	3402	3294	3279	3363	3439	3484	3353	3250	3317	3260	3267
28	3195	3146	3109	3120	3259	3267	3308	3205	3195	3270	3339	3388	3268	3169	3236	3194	3195
29	3120	3076	3023	3038	3171	3168	3205	3121	3099	3182	3252	3300	3180	3078	3149	3110	3120

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Building No3 3rd floor, room 303, No 2-10 south Jinlong avenue, Sand Lake community, Biling street, Pingshan district, Shenzhen, Guangdong,CN. Website: <http://www.blst.com>

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Report No.: BLC1803017E-A

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31	2969	2913	2861	2870	3002	2994	3012	2971	2954	3019	3069	3126	3023	2915	2987	2956	2969
32	2893	2835	2779	2791	2923	2893	2924	2891	2878	2946	2986	3043	2945	2834	2903	2880	2893
33	2816	2769	2706	2709	2845	2810	2835	2818	2812	2874	2913	2967	2869	2762	2826	2804	2816
34	2732	2694	2634	2630	2764	2722	2758	2753	2746	2809	2835	2888	2803	2688	2755	2733	2732
35	2641	2615	2564	2567	2701	2640	2681	2688	2668	2734	2757	2811	2728	2607	2676	2653	2641
36	2560	2552	2492	2488	2633	2558	2606	2627	2613	2666	2676	2733	2645	2538	2604	2578	2560
37	2474	2470	2418	2410	2551	2476	2538	2561	2539	2603	2609	2664	2563	2460	2531	2503	2474
38	2397	2393	2356	2344	2474	2409	2472	2484	2473	2535	2544	2597	2501	2394	2465	2428	2397
39	2307	2320	2292	2268	2398	2332	2400	2419	2406	2478	2473	2519	2417	2328	2395	2344	2307
40	2222	2232	2225	2202	2321	2270	2332	2345	2331	2404	2410	2440	2310	2264	2327	2262	2222
41	2148	2156	2160	2130	2258	2192	2267	2281	2259	2338	2343	2369	2217	2183	2257	2196	2148
42	2071	2083	2097	2055	2178	2120	2193	2206	2193	2278	2278	2293	2110	2115	2180	2102	2071
43	2005	2001	2028	1987	2106	2054	2131	2142	2126	2211	2208	2216	2025	2029	2107	2028	2005
44	1929	1930	1958	1909	2035	1990	2062	2071	2050	2142	2140	2119	1949	1944	2033	1951	1929
45	1854	1855	1899	1845	1948	1921	2005	1992	1981	2073	2070	2024	1877	1848	1957	1871	1854
46	1784	1783	1818	1766	1892	1843	1924	1920	1907	2007	1999	1942	1798	1766	1874	1807	1784
47	1709	1703	1738	1704	1810	1774	1850	1847	1842	1930	1925	1878	1699	1697	1798	1729	1709
48	1643	1633	1670	1650	1731	1701	1786	1773	1764	1866	1854	1810	1611	1638	1731	1670	1643
49	1574	1561	1595	1580	1663	1637	1719	1709	1699	1791	1787	1722	1541	1555	1660	1598	1574
50	1512	1493	1520	1518	1589	1564	1647	1639	1634	1718	1698	1634	1485	1467	1587	1530	1512
51	1446	1428	1446	1433	1498	1500	1579	1573	1574	1644	1616	1546	1418	1396	1509	1461	1446
52	1368	1357	1372	1336	1380	1434	1505	1495	1512	1586	1532	1474	1345	1324	1424	1399	1368
53	1296	1300	1295	1239	1297	1366	1439	1428	1441	1510	1460	1411	1289	1276	1339	1318	1296
54	1222	1235	1225	1178	1234	1272	1376	1362	1369	1431	1390	1330	1225	1207	1272	1248	1222
55	1159	1159	1156	1095	1136	1183	1300	1288	1299	1367	1318	1268	1160	1149	1192	1175	1159
56	1092	1084	1079	1011	1055	1111	1239	1214	1233	1296	1242	1201	1082	1077	1123	1107	1092
57	1022	1023	1006	934	983	1047	1169	1141	1154	1228	1170	1134	1014	1015	1061	1031	1022
58	945	948	929	870	921	962	1109	1069	1082	1145	1094	1058	938	944	988	962	945
59	859	878	846	805	849	883	1032	995	1004	1071	1019	979	857	884	904	891	859
60	781	803	761	730	779	823	965	932	932	991	948	911	764	798	834	806	781
61	695	724	697	651	696	752	884	848	851	915	885	839	648	731	755	722	695

Laboratory: Shenzhen Belling Test Laboratory A2LA Certificate# 4810.01
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62	635	639	628	598	620	690	802	779	758	832	801	760	492	650	679	649	635
63	553	572	548	526	490	625	711	696	678	741	738	683	381	584	612	574	553
64	467	493	495	450	382	559	645	628	601	658	658	625	237	509	544	498	467
65	406	425	431	394	253	499	570	557	551	580	581	557	134	444	480	431	406
66	338	347	369	340	158	430	487	487	488	500	515	497	94	402	415	372	338
67	264	305	323	284	72	374	429	421	427	414	450	423	60	348	349	310	264
68	195	246	271	233	53	325	360	372	370	363	387	361	55	295	295	249	195
69	129	194	237	187	52	283	311	312	247	309	334	305	45	253	259	195	129
70	95	155	209	156	46	241	260	230	154	268	298	247	46	193	220	138	95
71	66	99	178	129	51	206	222	138	125	174	255	193	49	162	196	99	66
72	64	103	174	107	46	175	197	113	107	124	216	163	50	144	170	90	64
73	48	88	157	109	44	140	166	94	94	93	196	136	44	126	147	83	48
74	44	90	152	104	44	130	146	67	60	66	172	131	39	123	154	76	44
75	46	83	148	95	43	124	120	74	56	70	160	108	43	105	130	54	46
76	39	72	135	89	36	102	109	58	41	64	143	109	26	102	124	61	39
77	38	65	122	85	26	108	87	45	35	61	113	96	25	86	102	56	38
78	36	59	106	64	23	103	72	45	28	44	92	87	15	85	69	45	36
79	25	49	89	60	0	97	51	42	28	41	61	68	20	61	64	41	25
80	28	41	72	51	16	83	55	33	30	41	62	71	11	66	52	39	28
81	20	40	57	41	13	73	52	22	26	24	58	51	12	49	40	23	20
82	17	23	54	42	0	67	33	11	14	16	55	57	0	44	18	24	17
83	16	29	29	31	12	40	24	13	16	12	42	49	0	24	18	0	16
84	17	0	22	34	0	28	16	0	14	0	19	34	0	15	12	0	17
85	11	12	23	21	0	0	15	0	11	0	16	18	0	0	16	12	11
86	0	0	11	16	0	0	0	0	12	0	0	12	0	0	0	0	0
87	0	0	0	12	0	0	0	0	0	0	0	15	0	0	0	0	0
88	12	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	12
89	15	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	15
90	11	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	11
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
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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94	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0
121	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
122	0	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	0
124	0	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	14	0	0	0	0	0	0	0	0	0

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Report Format Number BL-FM-SA-012



Report No.: BLC1803017E-A

126	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
127	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
128	12	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	12
129	14	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	14
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	14	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	14
133	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0
134	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
135	14	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	14
136	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
137	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
138	14	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	14
139	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
140	18	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	18
141	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
142	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
143	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
144	11	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	11
145	17	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	17
146	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
147	17	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	17
148	25	12	0	0	0	0	0	0	11	11	0	0	0	0	12	0	25
149	14	0	12	11	0	0	0	0	0	0	0	12	0	0	0	0	14
150	16	12	12	0	0	0	0	0	15	0	0	0	0	0	0	13	16
151	21	0	18	11	0	0	0	0	13	0	0	0	0	0	0	0	21
152	26	12	0	14	0	0	0	0	0	0	16	0	0	0	12	0	26
153	18	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	18
154	16	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	16
155	22	12	0	0	0	0	0	0	13	0	0	12	0	0	13	0	22
156	17	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	17
157	18	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	18

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Report No.: BLC1803017E-A

158	17	0	0	0	0	0	0	0	0	0	15	12	0	0	0	0	17
159	20	0	0	0	0	0	0	0	12	11	0	0	0	0	0	0	20
160	20	0	11	0	0	0	0	0	14	0	11	0	0	0	0	0	20
161	21	0	16	0	0	0	0	0	14	0	0	12	0	0	12	0	21
162	16	0	0	13	0	0	15	15	18	0	0	11	0	0	0	0	16
163	25	0	11	11	0	0	0	0	17	0	0	16	0	0	0	0	25
164	24	12	0	15	0	0	0	13	13	0	12	12	0	0	0	0	24
165	20	0	0	0	0	0	0	0	0	0	0	11	0	0	12	0	20
166	18	0	13	12	0	0	0	15	13	0	12	14	0	0	15	0	18
167	23	0	13	0	0	0	0	0	20	15	11	13	0	0	0	14	23
168	14	0	11	0	0	0	0	0	14	0	0	0	0	0	12	0	14
169	17	0	0	0	0	0	0	0	17	12	12	16	0	0	12	0	17
170	18	11	12	13	0	0	0	0	0	0	15	0	0	0	0	0	18
171	21	16	14	12	0	0	0	14	0	0	0	0	0	0	0	0	21
172	26	15	13	11	0	0	0	0	0	0	14	0	0	0	0	0	26
173	23	0	0	11	0	0	0	0	14	16	0	13	0	0	0	12	23
174	23	0	14	0	0	0	0	0	12	0	0	0	0	0	0	0	23
175	0	0	14	11	0	0	0	0	19	0	0	0	0	0	0	0	0
176	16	0	12	13	0	0	0	0	0	0	0	12	0	0	0	0	16
177	15	0	12	0	0	0	0	0	13	0	0	0	0	0	13	0	15
178	12	12	14	11	0	0	0	0	16	11	0	17	0	0	15	0	12
179	0	12	15	0	0	0	0	0	18	0	0	0	0	0	0	13	0
180	15	0	17	0	0	0	0	0	17	0	15	11	0	0	14	0	15

**2.2 Electrical, Photometric and Chromaticity Measurements***(Refer to Work Instruction BL-QP-033)*

Test date	2018-4-8	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	1130SD-384		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC180301	120.0	60	0.5143	61.57	0.9976	5.09
7E-C2	277.0	60	0.2286	60.95	0.9624	13.27
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	72	R9	0
Frequency (Hz)	60	R2	78	R10	48
CCT (K)	4891	R3	83	R11	72
Duv	0.00108	R4	75	R12	44
Chromaticity (x, y)	x=0.3485 y=0.3565	R5	72	R13	72
Chromaticity (u', v')	u(u')=0.2118 v'(v')=0.4875	R6	70	R14	90
Color Rendering Index (CRI)	74	R7	82	R15	67
R9	0	R8	60	--	--

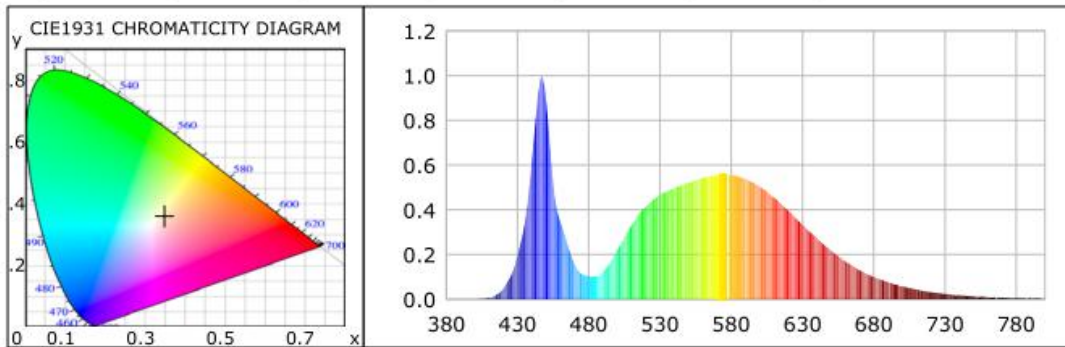
Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.3 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	8531.75	8568.96	5000-10000(-10%)
Luminous Efficacy (lm/W)	138.57	140.59	Premium: >= 115(-3%)
Most worst Luminous/Highest Watts	138.57		



Report No.: BLC1803017E-A

Spectral Power Distribution & Chromaticity Diagram





Report No.: BLC1803017E-A

3. Test Equipment

Equipment Name	Model No.	Serial No.	Next Calibration Date
Goniophotometric System	GPM-3000	DYHXF120001	2019-01-15
AC Power Source	CHP-500C	N/A	2019-01-14
Total Luminous Flux Standard Lamp	24V/150W	DYJYR040040	2019-01-22
Digital Power Meter	WT500	DYDWQ200006	2019-01-14
Integral Sphere (2M)	2M	DYJCE120067	2019-01-15
Digital Power Meter	WT500	DYDWQ200006	2019-01-14
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2019-01-15

Expand Uncertainty:
Photometric Measurement (Sphere): 2.04%, k=2
Chromaticity Measurement(Sphere):28.8K, k=2
Photometric Measurement(Goniophotometer):2.7%, k=2

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