



Report No.: BLC1803017E-D

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): 1130SE-33T

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: 1130SE-332
1130SE-334

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	1130SE-33T	
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	93W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,5000K	
LED Manufacturer	Lumileds	
LED Model	LUXEON 3030 2D	
Sample Number	BLC1803017E-D1(4000K),D2(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 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-79-2008 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.

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	1130SE-332		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC180301	120.0	60	0.7750	92.48	0.9944	7.79
7E-D1	277.0	60	0.3570	91.6	0.9264	15
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

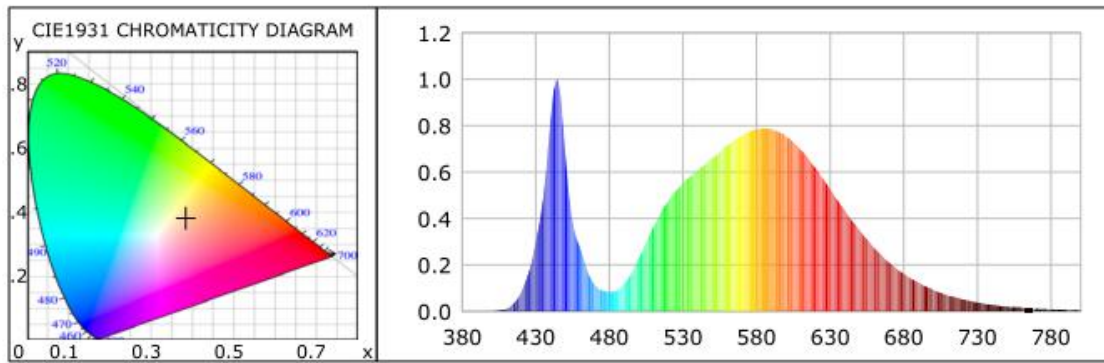
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	70	R9	0
Frequency (Hz)	60	R2	78	R10	48
CCT (K)	3908	R3	84	R11	69
Duv	-0.00036	R4	73	R12	45
Chromaticity (x, y)	x=0.3843 y=0.3784	R5	70	R13	71
Chromaticity (u', v')	u(u')=0.2270 v'(v')=0.5029	R6	69	R14	91
Color Rendering Index (CRI)	72.3	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)	12301.9	12106.3	>=10000(-10%)
Luminous Efficacy (lm/W)	133.02	132.16	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	130.91		
Zonal lumens in the 0-90° zone (%)	99.7	--	>=100(-1)
Zonal lumens in the 80-90° zone (%)	2.0	--	<=10(+3)
Beam Angle (°)	146	--	--
Center Beam Candle Power (cd)	2874	--	--



Spectral Power Distribution & Chromaticity Diagram

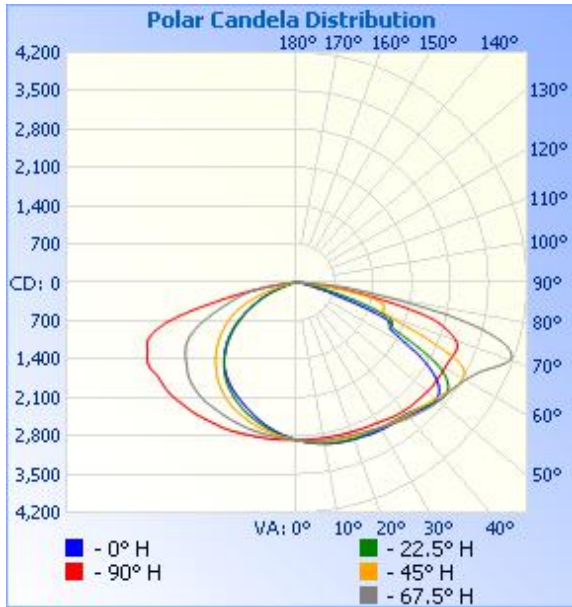


Zonal Lumen Tabulation

Zonal Lumen Summary				Lumens Per Zone					
Zone	Lumens	% Lamp	% Luminaire	Zone	Lumens	% Total	Zone	Lumens	% Total
0-30	2,389.0	19.4%	19.4%	0-10	274.0	2.2%	90-100	10.0	0.1%
0-40	4,141.2	33.7%	33.7%	10-20	808.6	6.6%	100-110	7.5	0.1%
0-60	8,607.4	70%	70%	20-30	1,306.4	10.6%	110-120	6.3	0.1%
60-90	3,652.3	29.7%	29.7%	30-40	1,752.2	14.2%	120-130	5.1	0%
70-100	1,564.9	12.7%	12.7%	40-50	2,124.9	17.3%	130-140	4.2	0%
90-120	23.8	0.2%	0.2%	50-60	2,341.3	19.0%	140-150	3.5	0%
0-90	12,259.7	99.7%	99.7%	60-70	2,097.3	17.0%	150-160	2.7	0%
90-180	41.5	0.3%	0.3%	70-80	1,310.0	10.6%	160-170	1.7	0%
0-180	12,301.2	100%	100%	80-90	245.0	2.0%	170-180	0.5	0%



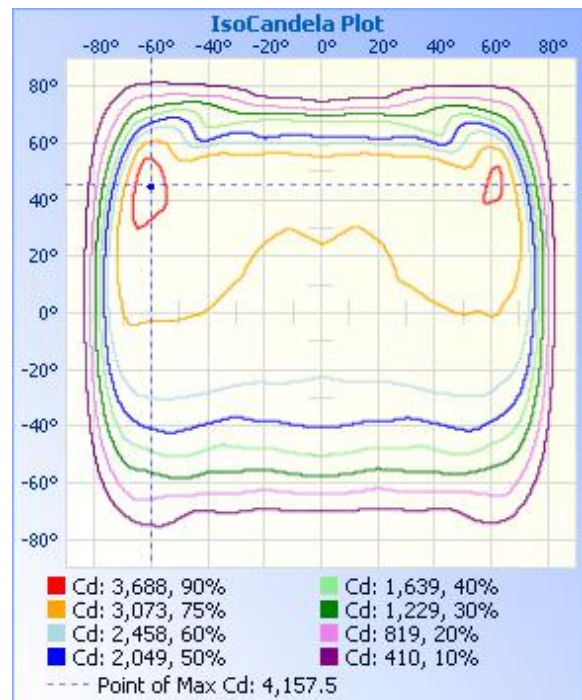
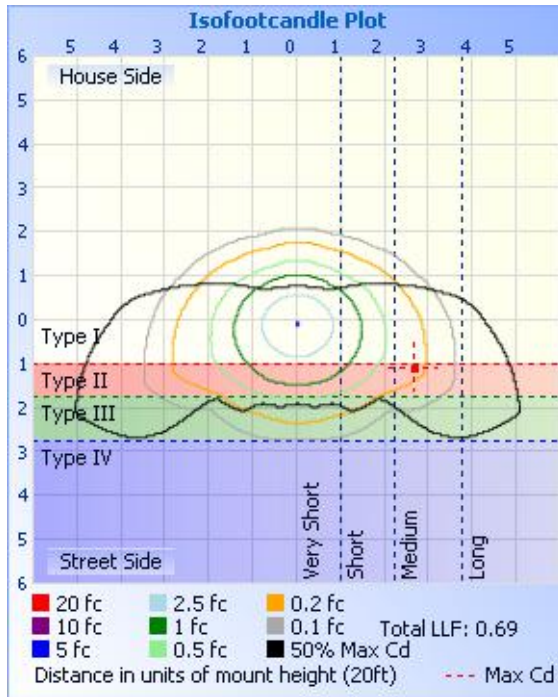
Photometric Data



Illuminance at a Distance

Distance (ft)	Center Beam fc	Beam Width
17.0ft	9.94 fc	47.0 ft 111.3 ft
34.0ft	2.49 fc	94.0 ft 222.5 ft
51.0ft	1.10 fc	141.0 ft 333.8 ft
68.0ft	0.62 fc	188.0 ft 445.1 ft
85.0ft	0.40 fc	235.0 ft 556.4 ft
102.0ft	0.28 fc	282.0 ft 667.6 ft

■ Vert. Spread: 108.2°
■ Horiz. Spread: 146.0°





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Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874	2874
1	2888	2885	2883	2879	2873	2867	2863	2860	2859	2862	2865	2869	2875	2881	2886	2886	2888
2	2901	2897	2892	2884	2873	2861	2853	2848	2844	2850	2854	2865	2877	2887	2896	2897	2901
3	2914	2908	2900	2890	2873	2855	2842	2835	2828	2838	2845	2861	2879	2894	2906	2909	2914
4	2926	2919	2908	2895	2872	2848	2830	2822	2812	2823	2836	2857	2880	2902	2916	2921	2926
5	2937	2929	2916	2899	2873	2842	2821	2808	2796	2811	2827	2853	2882	2908	2925	2932	2937
6	2948	2938	2925	2905	2875	2837	2809	2794	2777	2797	2817	2849	2884	2915	2934	2943	2948
7	2958	2947	2933	2910	2875	2831	2799	2778	2760	2783	2807	2846	2887	2923	2943	2952	2958
8	2969	2956	2940	2915	2877	2825	2790	2763	2742	2768	2798	2842	2889	2930	2950	2961	2969
9	2979	2965	2947	2920	2877	2821	2780	2747	2724	2752	2788	2839	2892	2938	2957	2970	2979
10	2989	2974	2953	2924	2878	2817	2770	2730	2705	2735	2779	2835	2895	2943	2964	2978	2989
11	2998	2983	2959	2927	2880	2811	2760	2715	2686	2720	2769	2832	2897	2947	2970	2984	2998
12	3005	2991	2965	2930	2882	2806	2749	2700	2666	2704	2759	2828	2899	2950	2975	2991	3005
13	3012	2999	2970	2934	2884	2803	2739	2683	2644	2688	2748	2824	2902	2952	2981	2997	3012
14	3018	3005	2974	2937	2886	2800	2728	2667	2625	2672	2738	2821	2906	2956	2984	3002	3018
15	3023	3011	2978	2941	2889	2797	2718	2651	2604	2655	2728	2818	2910	2961	2988	3008	3023
16	3029	3016	2981	2945	2893	2794	2706	2633	2584	2637	2716	2814	2912	2965	2992	3014	3029
17	3034	3021	2985	2949	2896	2790	2695	2616	2562	2620	2704	2811	2916	2969	2995	3019	3034
18	3039	3026	2987	2953	2899	2787	2683	2599	2539	2603	2691	2808	2921	2973	2998	3024	3039
19	3044	3030	2992	2958	2902	2783	2671	2582	2517	2583	2676	2804	2927	2979	3001	3028	3044
20	3048	3034	2995	2963	2905	2780	2658	2564	2495	2566	2661	2799	2932	2985	3004	3032	3048
21	3053	3038	2999	2971	2908	2775	2646	2546	2474	2548	2646	2795	2936	2990	3007	3034	3053
22	3056	3042	3003	2978	2913	2770	2632	2528	2453	2528	2632	2791	2944	2997	3010	3038	3056
23	3061	3045	3007	2986	2918	2766	2618	2510	2432	2509	2618	2786	2954	3006	3014	3042	3061
24	3068	3048	3010	2995	2924	2762	2602	2489	2410	2489	2601	2782	2960	3016	3018	3046	3068
25	3075	3050	3014	3003	2930	2759	2587	2470	2392	2467	2585	2780	2964	3027	3023	3049	3075
26	3081	3052	3020	3013	2935	2758	2571	2450	2371	2446	2570	2775	2969	3039	3028	3051	3081
27	3086	3054	3027	3024	2939	2756	2555	2429	2351	2424	2553	2771	2974	3050	3034	3052	3086
28	3091	3057	3034	3036	2945	2753	2538	2405	2331	2401	2535	2767	2976	3062	3042	3054	3091
29	3096	3060	3044	3048	2948	2753	2519	2381	2310	2377	2516	2762	2978	3072	3049	3057	3096

Laboratory: Shenzhen Belling Test Laboratory A2LA Certificate# 4810.01
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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31	3107	3067	3065	3074	2966	2748	2482	2333	2270	2326	2479	2751	2985	3091	3067	3063	3107
32	3110	3071	3075	3088	2977	2742	2462	2306	2249	2302	2459	2747	2988	3100	3074	3066	3110
33	3112	3075	3085	3102	2991	2738	2442	2280	2227	2277	2438	2745	2994	3115	3080	3071	3112
34	3116	3081	3096	3114	3001	2735	2417	2252	2201	2249	2416	2743	3000	3128	3087	3076	3116
35	3122	3087	3105	3127	3012	2733	2392	2220	2178	2221	2389	2742	3005	3139	3097	3082	3122
36	3129	3094	3116	3145	3023	2732	2366	2190	2153	2189	2364	2741	3014	3153	3106	3087	3129
37	3137	3100	3125	3162	3031	2729	2337	2160	2128	2160	2338	2739	3020	3166	3114	3093	3137
38	3146	3106	3134	3182	3040	2726	2305	2128	2098	2128	2311	2734	3027	3184	3123	3099	3146
39	3157	3115	3143	3200	3049	2723	2277	2095	2071	2092	2284	2728	3032	3200	3133	3107	3157
40	3171	3126	3154	3216	3054	2717	2246	2058	2041	2056	2250	2720	3036	3215	3145	3121	3171
41	3186	3142	3166	3229	3061	2709	2213	2022	2007	2017	2218	2711	3038	3231	3156	3136	3186
42	3203	3157	3174	3245	3070	2700	2182	1985	1975	1976	2188	2704	3043	3245	3167	3153	3203
43	3222	3176	3187	3259	3074	2692	2147	1943	1937	1937	2154	2696	3046	3258	3180	3176	3222
44	3244	3198	3200	3277	3077	2683	2113	1903	1900	1895	2123	2685	3050	3274	3192	3201	3244
45	3263	3224	3214	3296	3078	2674	2079	1859	1860	1848	2090	2672	3056	3287	3206	3225	3263
46	3283	3254	3230	3313	3085	2664	2046	1817	1819	1804	2057	2660	3061	3305	3215	3254	3283
47	3303	3282	3246	3331	3092	2648	2011	1773	1778	1758	2021	2645	3066	3322	3226	3282	3303
48	3320	3312	3262	3350	3100	2633	1971	1728	1730	1712	1982	2631	3071	3337	3233	3315	3320
49	3329	3340	3284	3362	3103	2615	1935	1678	1684	1660	1945	2614	3075	3349	3242	3343	3329
50	3330	3364	3307	3371	3109	2595	1897	1629	1637	1610	1907	2590	3075	3364	3255	3370	3330
51	3319	3385	3329	3384	3114	2574	1856	1579	1586	1558	1868	2565	3074	3375	3271	3393	3319
52	3296	3400	3352	3396	3120	2552	1809	1527	1529	1505	1824	2535	3071	3383	3287	3407	3296
53	3261	3406	3377	3408	3122	2531	1765	1470	1475	1448	1783	2511	3065	3394	3306	3414	3261
54	3206	3397	3405	3422	3118	2509	1721	1408	1418	1388	1742	2488	3064	3407	3326	3409	3206
55	3139	3379	3430	3438	3116	2485	1676	1352	1362	1329	1700	2466	3059	3420	3346	3390	3139
56	3039	3335	3453	3457	3119	2458	1632	1294	1297	1269	1656	2441	3061	3431	3362	3349	3039
57	2922	3275	3472	3480	3122	2433	1585	1233	1238	1207	1605	2416	3066	3445	3374	3278	2922
58	2792	3198	3489	3505	3122	2410	1533	1167	1169	1147	1558	2393	3074	3457	3385	3184	2792
59	2634	3074	3499	3529	3124	2384	1486	1103	1104	1084	1508	2363	3087	3474	3389	3052	2634
60	2456	2933	3506	3557	3125	2359	1439	1042	1042	1018	1461	2332	3097	3494	3386	2897	2456
61	2265	2736	3500	3588	3122	2319	1386	981	973	956	1403	2291	3093	3523	3364	2702	2265

Laboratory: Shenzhen Belling Test Laboratory A2LA Certificate# 4810.01
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Certificate#4810.01

62	2098	2516	3469	3630	3129	2282	1341	915	912	890	1356	2247	3078	3559	3309	2464	2098
63	1960	2263	3405	3667	3131	2237	1288	853	849	835	1299	2194	3059	3601	3224	2195	1960
64	1890	2051	3270	3722	3141	2189	1236	793	790	771	1240	2130	3031	3648	3062	1970	1890
65	1888	1884	3053	3785	3148	2132	1181	734	728	712	1176	2050	2999	3690	2826	1822	1888
66	1915	1830	2778	3862	3160	2062	1124	678	669	655	1105	1973	2979	3727	2521	1783	1915
67	1880	1855	2496	3945	3169	1991	1059	614	601	597	1035	1886	2963	3756	2236	1810	1880
68	1731	1874	2202	4021	3163	1917	993	558	528	535	961	1782	2941	3796	1968	1824	1731
69	1492	1822	1946	4094	3138	1832	923	495	438	473	881	1685	2902	3832	1753	1763	1492
70	1261	1681	1790	4148	3096	1734	843	425	366	403	787	1589	2834	3872	1615	1620	1261
71	1025	1511	1697	4158	3023	1636	762	346	318	333	694	1490	2731	3899	1548	1432	1025
72	825	1309	1661	4111	2930	1531	681	300	269	285	610	1397	2611	3880	1524	1230	825
73	653	1101	1653	4020	2828	1410	597	259	228	245	528	1308	2469	3797	1515	1027	653
74	526	929	1656	3887	2716	1317	500	219	195	207	442	1230	2230	3647	1506	865	526
75	410	751	1652	3681	2561	1228	390	185	172	178	348	1154	1972	3446	1488	700	410
76	325	612	1622	3444	2328	1149	310	163	152	157	281	1083	1686	3170	1447	565	325
77	260	487	1555	3118	2022	1074	254	145	136	137	232	1013	1406	2813	1378	447	260
78	218	376	1438	2765	1742	1001	205	128	119	121	186	932	1186	2403	1281	345	218
79	186	303	1270	2351	1480	918	163	113	95	106	150	854	984	1999	1124	281	186
80	156	251	1057	1957	1238	840	137	89	75	86	127	743	792	1643	917	235	156
81	128	201	820	1636	1022	749	116	72	62	68	109	627	553	1314	740	191	128
82	99	161	654	1342	803	613	98	59	51	56	92	540	365	1096	598	148	99
83	77	114	504	1134	577	453	74	47	39	47	69	394	246	914	460	106	77
84	62	85	344	940	382	348	55	39	29	39	54	283	173	784	288	80	62
85	43	62	190	757	248	242	42	30	21	30	42	188	117	569	171	59	43
86	26	37	116	511	170	145	29	18	13	19	31	101	74	396	103	35	26
87	18	20	58	286	114	74	20	8	8	12	22	56	42	206	43	22	18
88	14	13	28	107	72	39	10	8	8	10	16	33	19	61	23	15	14
89	12	12	16	24	40	21	8	7	7	10	14	21	11	17	14	14	12
90	12	11	14	18	16	12	7	7	7	9	13	18	10	13	12	12	12
91	11	10	13	17	11	10	7	6	7	8	13	16	9	12	12	12	11
92	11	10	11	14	11	10	7	6	7	8	12	16	8	11	11	11	11
93	10	10	10	14	10	10	5	5	6	8	12	15	8	10	10	10	10

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94	10	8	9	12	10	8	6	5	6	8	12	16	7	9	9	10	10
95	8	8	8	13	10	9	5	4	5	7	11	14	6	9	9	9	8
96	9	8	8	12	10	9	6	6	6	8	11	15	6	8	9	9	9
97	9	6	7	11	8	9	6	6	6	8	11	14	4	8	8	8	9
98	10	8	7	11	8	10	7	6	6	7	12	15	6	8	8	9	10
99	8	7	8	10	8	9	6	6	6	7	11	14	4	7	7	8	8
100	8	7	7	9	7	9	6	6	5	6	11	14	5	7	7	9	8
101	8	6	7	9	8	9	6	6	7	7	10	13	5	5	6	8	8
102	7	6	7	7	8	8	7	6	5	8	11	13	5	6	7	8	7
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104	7	6	6	7	7	9	6	6	5	7	10	13	5	6	6	7	7
105	7	6	6	8	7	9	7	5	7	8	10	13	5	5	7	7	7
106	8	6	7	6	6	8	6	7	7	8	9	13	3	4	6	5	8
107	6	5	4	7	7	9	7	6	6	8	11	13	5	4	5	6	6
108	7	6	7	7	8	9	6	7	6	7	9	12	4	4	5	5	7
109	6	5	6	7	7	9	8	7	7	8	10	11	4	4	5	7	6
110	6	5	6	7	7	9	7	6	4	8	11	11	4	4	5	6	6
111	6	5	5	7	7	8	8	6	7	8	11	10	4	4	4	6	6
112	6	4	4	7	7	9	8	8	7	8	10	11	3	4	5	6	6
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124	5	4	5	5	5	6	7	7	7	7	8	9	3	3	4	5	5
125	4	5	5	6	6	6	7	7	8	7	8	9	4	4	4	5	4

Laboratory: Shenzhen Belling Test Laboratory A2LA Certificate# 4810.01
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126	6	5	5	5	5	6	7	7	8	6	9	9	4	2	4	4	6
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128	5	5	4	6	5	6	7	8	6	8	7	8	4	4	4	5	5
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134	5	4	5	5	4	5	6	6	6	6	8	7	4	4	4	6	5
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139	5	5	5	5	4	5	6	7	7	7	6	5	4	4	4	5	5
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156	6	6	5	6	5	5	5	6	6	6	7	7	4	5	6	6	6
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158	5	6	6	6	5	5	5	6	5	7	7	7	5	5	5	6	5
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161	5	7	6	6	3	5	5	7	6	7	7	6	5	5	6	5	5
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163	6	6	6	6	4	6	4	7	7	6	7	7	5	5	6	6	6
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179	5	6	5	6	4	5	5	5	6	6	6	5	6	5	5	6	5
180	5	6	5	5	5	5	5	6	5	6	5	4	6	5	5	6	5

**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	1130SE-334		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC180301	120.0	60	0.7810	93.05	0.9929	8.14
7E-D2	277.0	60	0.3585	92.41	0.9305	15.34
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)	4892	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	--	--

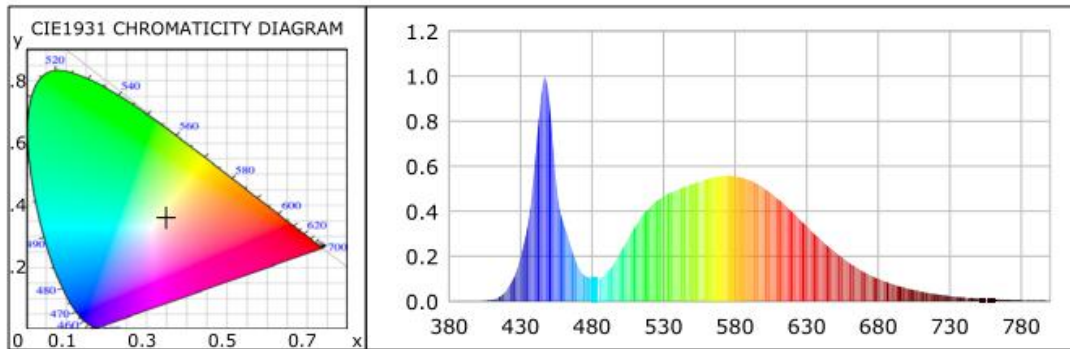
Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.3 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	12614.79	12477.20	>=10000(-10%)
Luminous Efficacy (lm/W)	135.57	135.02	Premium: >= 120(-3%)
Most worst Luminous/Highest Watts	134.09		



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Spectral Power Distribution & Chromaticity Diagram





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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 *****