



Report No.:  
BLC1811028E-B-PL

## LM-79-08 Test Report

For

# Revolution Lighting Technologies, Inc.

(Brand Name: Revolution Lighting Technologies)

2280 Ward Ave. Simi Valley, CA. 93065

## Outdoor Full-Cutoff Wall-Mounted Area Luminaires

Model name(s): 282402-01X

Remark: The Suffix X represents for CCT, could be 3=4000K, 4=4500K, 5=5000K,  
6=5700K.

Representative (Tested) Model:

282402-013

282402-016

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

Test & Report By:

*Jason Luo*

Engineer: Jason Luo

Date: Dec 03, 2018

Review By:

*Grace Li*

Manager: Grace Li



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### 1.1 Product Information:

Organization Name	Revolution Lighting Technologies, Inc.	
Brand Name	Revolution Lighting Technologies	
Model Number	282402-01X	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Full-Cutoff Wall-Mounted Area Luminaires	
Rated Voltage / Frequency	100-277Vac, 50/60 Hz	
Nominal Power	40W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,4500K,5000K,5700K	
LED Manufacturer	Seoul Semiconductor Co., LTD	
LED Model	3030B	
Sample Number	BLC1811028E-B-PL1(4000K),B-PL2(5700K)	
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	Dec 30,2017
Date of Test	Jan 07,2018
Test item	<ol style="list-style-type: none"><li>1. Total Luminous Flux</li><li>2. Luminous Distribution Intensity</li><li>3. Luminous Efficacy</li><li>4. Correlated Color Temperature</li><li>5. Color Rendering Index</li><li>6. Chromaticity Coordinate</li><li>7. Electrical Parameters</li></ol>
Reference Standard	<ol style="list-style-type: none"><li>1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products</li><li>2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products</li><li>3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources</li><li>4. CIE 15-2004 Technical Report Colorimetry</li><li>5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source</li><li>6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems</li></ol>
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  $1^{\circ}$  vertical intervals and  $22.5^{\circ}$  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)

<b>Test date</b>	2018-1-07	<b>Test Ambient:</b>	25.2 °C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	282402-013		

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC181102	120.0	60	0.3289	39.14	0.9917	8.09
8E-B-PL1	277.0	60	0.1635	40.59	0.8965	17.32
<b>DLC Pass Criteria</b>					<b>&gt;= 0.9(-3%)</b>	<b>&lt;= 20(+5)</b>

### Chromaticity Measurement - Sphere-Spectroradiometer Method:

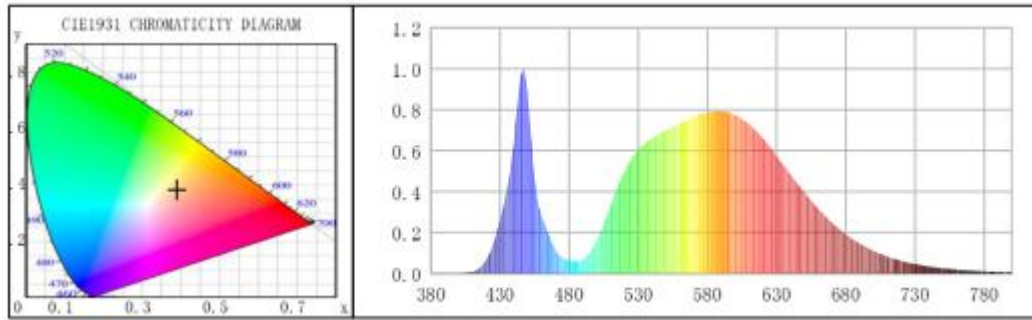
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	71	R9	0
Frequency (Hz)	60	R2	77	R10	45
CCT (K)	3810	R3	81	R11	69
Duv	0.00026	R4	73	R12	39
Chromaticity (x, y)	x=0.3894 y=0.3827	R5	70	R13	72
Chromaticity (u', v')	u(u')=0.2286 v'(v')=0.5055	R6	67	R14	89
Color Rendering Index (CRI)	72.4	R7	81	R15	67
R9	0	R8	58	--	--

### 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)	4903.3	5038.9	5000-10000(-10%)
Luminous Efficacy (lm/W)	125.28	124.14	Premium: >= 115(-3%)
Most worst Luminous/Highest	120.8		
Zonal lumens in the 0-90° zone (%)	99.9	--	>=100(-3)
Zonal lumens in the 80-90° zone (%)	0.2	--	<=10(+3)
Beam Angle (°)	65.5	--	--
Center Beam Candle Power (cd)	4292	--	--



## Spectral Power Distribution & Chromaticity Diagram

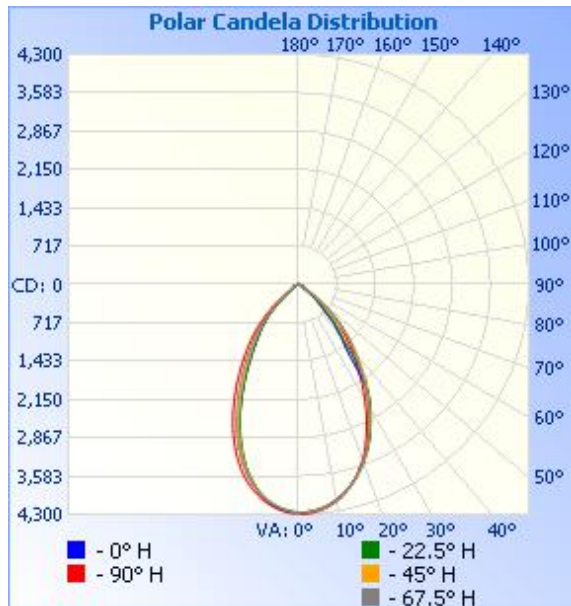


## Zonal Lumen Tabulation

Zonal Lumen Summary				Lumens Per Zone					
Zone	Lumens	% Lamp	% Luminaire	Zone	Lumens	% Total	Zone	Lumens	% Total
0-30	2,773.3	56.5%	56.6%	0-10	397.1	8.1%	90-100	0.4	0%
0-40	3,912.4	79.8%	79.8%	10-20	1,053.6	21.5%	100-110	0.4	0%
0-60	4,799.6	97.9%	97.9%	20-30	1,322.5	27.0%	110-120	0.6	0%
60-90	97.5	2%	2%	30-40	1,139.2	23.2%	120-130	1.1	0%
70-100	35.7	0.7%	0.7%	40-50	690.2	14.1%	130-140	1.4	0%
90-120	1.4	0%	0%	50-60	197.0	4.0%	140-150	1.0	0%
0-90	4,897.1	99.9%	99.9%	60-70	62.3	1.3%	150-160	0.7	0%
90-180	6.2	0.1%	0.1%	70-80	27.8	0.6%	160-170	0.4	0%
0-180	4,903.3	100%	100%	80-90	7.4	0.2%	170-180	0.1	0%



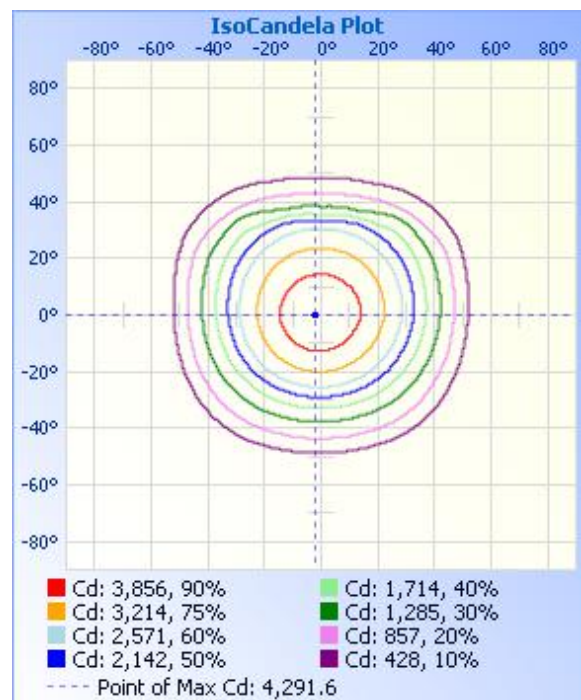
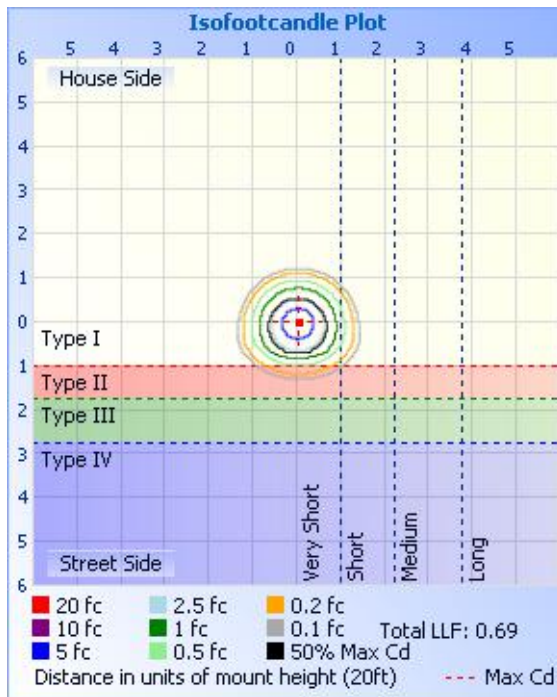
**Photometric Data**



**Illuminance at a Distance**

Distance (ft)	Center Beam fc	Beam Width	Beam Width (ft)
17.0ft	14.8 fc	20.6 ft	21.9 ft
34.0ft	3.69 fc	41.2 ft	43.7 ft
51.0ft	1.64 fc	61.8 ft	65.6 ft
68.0ft	0.92 fc	82.4 ft	87.4 ft
85.0ft	0.59 fc	103.0 ft	109.3 ft
102.0ft	0.41 fc	123.6 ft	131.2 ft

■ Vert. Spread: 62.4°  
■ Horiz. Spread: 65.5°





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BLC1811028E-B-PL

**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	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264
1	4264	4263	4262	4256	4292	4281	4275	4265	4261	4256	4250	4250	4281	4274	4272	4268	4264
2	4259	4261	4257	4259	4289	4279	4269	4258	4251	4246	4239	4240	4274	4269	4266	4257	4259
3	4249	4253	4251	4253	4281	4272	4262	4246	4238	4229	4224	4225	4260	4257	4253	4247	4249
4	4237	4242	4241	4244	4270	4260	4249	4230	4221	4209	4204	4205	4242	4240	4237	4234	4237
5	4221	4228	4226	4230	4248	4240	4230	4209	4198	4185	4180	4176	4221	4220	4219	4216	4221
6	4202	4203	4211	4212	4230	4219	4202	4183	4165	4158	4151	4149	4196	4196	4195	4194	4202
7	4178	4180	4190	4186	4205	4193	4174	4153	4131	4122	4115	4116	4167	4162	4167	4170	4178
8	4152	4154	4162	4161	4179	4164	4142	4119	4091	4083	4077	4081	4132	4132	4131	4140	4152
9	4114	4126	4129	4127	4146	4130	4104	4074	4048	4036	4033	4040	4097	4096	4095	4103	4114
10	4079	4092	4094	4091	4110	4085	4059	4027	3998	3976	3981	3991	4055	4055	4057	4066	4079
11	4041	4055	4056	4054	4069	4042	4011	3973	3942	3918	3927	3942	4003	4012	4017	4026	4041
12	4000	4013	4014	4011	4020	3992	3957	3907	3872	3852	3857	3885	3954	3966	3971	3981	4000
13	3955	3960	3969	3967	3970	3939	3888	3841	3803	3784	3793	3827	3902	3915	3923	3935	3955
14	3905	3910	3912	3915	3916	3881	3822	3768	3729	3709	3722	3764	3843	3856	3870	3879	3905
15	3852	3858	3860	3861	3858	3817	3748	3689	3650	3629	3647	3695	3780	3798	3815	3826	3852
16	3797	3800	3804	3804	3789	3740	3671	3602	3559	3545	3560	3612	3712	3736	3747	3770	3797
17	3733	3741	3741	3742	3722	3666	3581	3516	3470	3444	3475	3534	3641	3659	3684	3709	3733
18	3673	3679	3678	3668	3646	3587	3494	3424	3377	3350	3385	3450	3554	3589	3618	3644	3673
19	3608	3615	3611	3599	3571	3497	3401	3314	3268	3241	3278	3357	3474	3514	3547	3578	3608
20	3533	3542	3531	3527	3491	3409	3298	3213	3165	3138	3181	3263	3390	3434	3468	3509	3533
21	3461	3470	3458	3443	3406	3314	3197	3106	3054	3031	3077	3165	3292	3346	3390	3424	3461
22	3387	3396	3381	3363	3315	3216	3094	2997	2941	2922	2973	3066	3198	3259	3310	3349	3387
23	3309	3318	3302	3278	3209	3103	2987	2874	2813	2810	2856	2953	3102	3168	3227	3270	3309
24	3230	3227	3218	3190	3112	2998	2864	2761	2698	2688	2747	2849	3004	3077	3134	3188	3230
25	3142	3144	3126	3089	3004	2892	2752	2645	2580	2574	2634	2744	2905	2971	3046	3099	3142
26	3058	3059	3039	2997	2902	2771	2639	2518	2460	2457	2512	2627	2798	2878	2957	3015	3058
27	2958	2965	2940	2891	2798	2662	2524	2399	2332	2341	2400	2520	2696	2772	2853	2928	2958
28	2868	2874	2848	2794	2694	2552	2401	2283	2213	2214	2290	2413	2580	2677	2760	2828	2868
29	2775	2781	2752	2695	2579	2442	2287	2154	2098	2102	2181	2307	2476	2578	2664	2735	2775

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32	2479	2482	2451	2389	2268	2109	1944	1822	1751	1768	1851	1982	2172	2277	2369	2436	2479
33	2365	2383	2353	2290	2168	2005	1839	1718	1647	1667	1752	1881	2062	2178	2272	2338	2365
34	2163	2276	2256	2194	2057	1903	1740	1611	1548	1572	1650	1772	1963	2084	2167	2240	2163
35	1845	2177	2152	2097	1959	1792	1634	1518	1450	1475	1561	1680	1864	1978	2073	2124	1845
36	1597	2025	2057	1990	1852	1697	1543	1430	1365	1392	1479	1591	1762	1886	1981	1902	1597
37	1456	1780	1963	1897	1758	1597	1460	1341	1282	1307	1392	1501	1673	1794	1891	1638	1456
38	1363	1509	1860	1807	1667	1510	1375	1266	1211	1236	1316	1422	1588	1707	1794	1421	1363
39	1259	1337	1768	1708	1578	1428	1300	1196	1146	1167	1245	1345	1496	1614	1704	1285	1259
40	1152	1251	1680	1622	1494	1350	1228	1127	1079	1097	1174	1267	1416	1534	1619	1208	1152
41	1067	1166	1595	1538	1402	1267	1157	1051	1003	1029	1096	1182	1333	1454	1536	1115	1067
42	998	1070	1513	1460	1322	1194	1077	980	932	952	1025	1103	1249	1376	1441	1020	998
43	869	971	1425	1374	1234	1119	1006	907	859	879	952	1025	1165	1289	1308	938	869
44	735	909	1321	1299	1152	1042	933	824	782	802	876	944	1075	1212	1134	876	735
45	669	829	1163	1222	1069	956	858	747	695	714	790	854	993	1131	953	774	669
46	612	705	981	1136	987	874	773	667	616	632	707	771	904	1041	849	640	612
47	548	607	858	1055	897	791	693	588	537	550	622	688	819	957	779	572	548
48	487	558	785	971	813	698	609	498	453	460	525	596	733	873	706	520	487
49	439	494	717	888	727	613	516	421	376	381	439	510	645	790	617	458	439
50	354	432	629	797	638	527	430	343	304	308	357	425	556	702	544	391	354
51	269	379	552	714	539	442	350	274	236	245	285	344	456	618	481	344	269
52	228	333	488	631	452	361	281	212	174	197	228	275	373	538	408	280	228
53	187	244	426	548	374	286	220	171	143	161	185	216	301	456	324	209	187
54	148	195	338	460	305	232	181	142	130	140	160	180	243	370	257	169	148
55	114	159	264	384	246	189	158	128	121	127	143	154	196	300	211	134	114
56	51	121	214	319	205	164	141	118	114	117	133	139	168	242	165	102	51
57	22	92	177	257	174	148	132	111	108	109	124	129	150	192	127	74	22
58	16	53	142	213	154	138	124	105	102	103	117	121	138	160	100	38	16
59	9	25	115	181	140	130	118	100	97	98	110	114	131	138	78	19	9
60	6	18	93	157	131	122	111	94	92	93	104	107	124	122	62	14	6
61	5	10	71	140	124	115	105	91	89	88	99	100	117	109	51	8	5

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62	4	6	62	127	117	108	99	86	85	84	94	95	111	98	42	5	4
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67	1	2	25	77	91	81	74	65	63	63	70	73	88	63	14	2	1
68	0	2	20	72	87	77	69	60	58	58	65	68	84	58	13	1	0
69	0	1	18	65	83	72	64	55	52	54	61	64	80	54	11	0	0
70	1	1	17	61	79	68	60	51	46	49	56	61	76	50	10	1	1
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77	3	3	13	37	48	40	25	2	2	3	23	35	44	29	9	1	3
78	5	4	12	35	42	37	15	2	2	2	15	32	38	28	7	1	5
79	5	4	11	32	38	33	7	1	2	1	8	29	35	28	8	3	5
80	7	5	11	32	33	30	5	1	2	2	5	25	31	27	7	4	7
81	7	7	11	30	29	25	3	1	2	1	4	21	27	26	8	4	7
82	8	7	10	28	27	22	3	1	1	2	3	18	24	23	8	5	8
83	7	8	11	25	24	17	2	1	2	1	3	12	19	20	7	5	7
84	5	7	10	22	22	12	2	1	2	2	2	5	11	13	8	4	5
85	5	6	10	19	18	8	2	1	1	1	1	3	3	9	8	4	5
86	5	4	8	15	7	6	1	1	1	1	1	3	0	9	6	4	5
87	4	5	6	12	0	2	2	1	0	1	1	1	0	7	5	3	4
88	2	3	5	8	0	2	1	0	1	0	1	0	0	5	4	3	2
89	3	3	3	4	0	1	0	0	0	1	1	1	0	2	4	2	3
90	1	2	3	3	0	1	1	0	0	0	0	0	0	1	2	2	1
91	1	2	1	2	0	1	1	0	0	0	1	0	0	0	1	1	1
92	0	1	1	1	0	1	1	0	0	0	0	1	0	0	1	1	0
93	0	1	1	0	0	1	1	0	0	0	0	1	0	0	1	0	0

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94	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0
95	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0
96	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0
97	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0
99	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0
101	0	0	0	2	0	1	0	0	0	0	0	1	0	1	0	0	0
102	0	0	0	2	1	0	0	0	0	0	0	1	0	1	0	0	0
103	0	0	0	2	0	0	1	0	0	0	0	0	0	1	0	0	0
104	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0
105	0	0	0	2	0	1	0	0	0	0	0	0	0	2	0	0	0
106	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0
107	0	0	1	2	0	1	0	0	0	0	0	0	0	2	0	0	0
108	0	0	0	2	0	0	1	0	1	0	0	1	0	2	1	0	0
109	0	0	0	2	0	0	0	0	0	0	0	0	0	2	1	0	0
110	1	0	0	2	1	1	1	0	0	0	0	1	0	2	0	0	1
111	0	0	0	2	1	0	1	0	0	0	0	1	0	1	0	0	0
112	0	0	1	1	0	1	1	0	0	0	0	1	0	2	1	0	0
113	0	0	1	2	0	0	1	0	0	0	0	1	0	1	1	0	0
114	0	0	1	2	0	0	1	1	0	0	1	1	0	1	1	0	0
115	0	0	1	1	1	1	1	0	0	1	0	1	0	1	1	0	0
116	0	0	1	2	1	1	1	1	1	0	0	1	0	1	1	0	0
117	0	0	1	2	1	0	1	1	0	0	0	1	0	1	2	0	0
118	0	0	1	1	1	1	1	1	1	0	1	1	0	1	1	0	0
119	0	0	2	2	1	1	1	0	1	1	0	1	0	1	2	0	0
120	0	0	1	1	1	1	1	0	1	1	0	1	0	1	2	0	0
121	0	0	3	1	1	1	1	1	1	1	0	1	0	0	2	0	0
122	0	1	2	1	1	1	1	1	1	1	1	1	0	1	3	0	0
123	0	2	3	1	1	1	1	0	1	1	1	1	0	0	2	0	0
124	1	2	4	1	1	1	1	1	1	1	1	1	0	1	2	1	1
125	1	1	4	1	1	1	1	1	1	1	1	1	0	0	3	0	1

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Report Format Number BL-FM-SA-012



Report No.:  
BLC1811028E-B-PL

126	1	2	4	1	1	1	0	1	1	1	1	1	0	0	4	2	1
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128	2	3	3	1	1	1	1	1	1	2	1	1	0	0	4	2	2
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131	3	3	4	1	1	1	2	1	1	1	1	2	0	0	4	3	3
132	3	4	4	0	2	1	1	1	1	1	1	1	0	1	4	3	3
133	3	4	4	1	2	1	1	1	1	1	1	1	0	0	3	3	3
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136	5	5	2	1	2	1	1	1	2	1	2	2	0	0	3	4	5
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152	2	2	1	1	2	2	2	2	2	2	1	1	1	1	1	1	2
153	1	1	1	2	2	1	2	1	2	1	1	2	1	1	1	1	1
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156	2	2	1	1	2	2	1	1	1	2	2	2	1	1	1	1	2
157	1	1	1	1	2	2	2	1	2	2	1	2	1	1	1	1	1

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Report Format Number BL-FM-SA-012



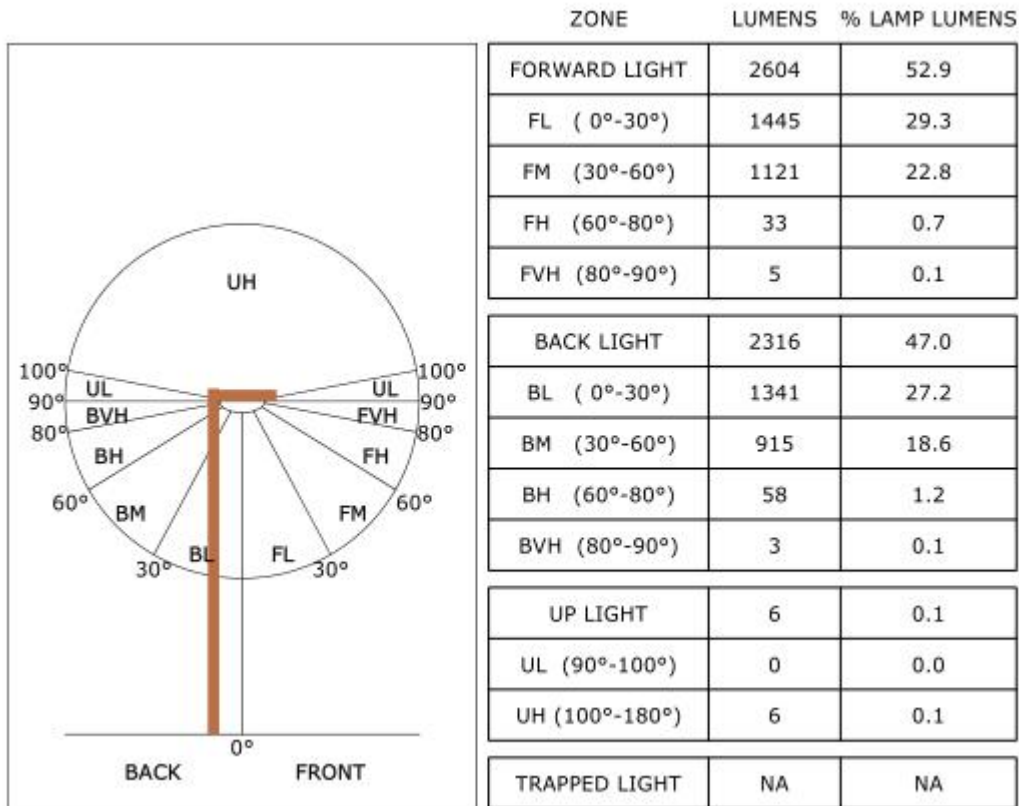
Report No.:  
BLC1811028E-B-PL

158	1	1	1	1	2	1	2	1	1	2	2	2	1	1	1	1	1
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160	1	2	1	1	2	2	2	1	2	1	1	2	1	1	1	1	1
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163	1	1	1	2	1	2	2	2	2	2	2	2	1	1	1	1	1
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165	2	1	1	1	2	1	1	2	1	2	1	2	1	1	1	1	2
166	1	1	1	1	1	2	2	1	2	2	1	2	1	1	1	1	1
167	1	2	1	2	2	2	2	1	1	2	1	2	1	1	1	1	1
168	1	1	1	2	2	2	1	1	1	1	1	2	1	1	1	2	1
169	2	1	0	2	2	2	1	2	1	2	1	2	1	1	1	1	2
170	1	2	1	2	2	1	1	2	1	2	1	2	1	1	1	1	1
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177	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
178	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1
179	1	1	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1
180	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1



Certificate#4810.01

Report No.:  
BLC1811028E-B-PL





## 2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction BL-QP-033)

<b>Test date</b>	2018-1-07	<b>Test Ambient:</b>	25.2 ° C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	282402-016		

### Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC181102	120.0	60	0.3290	39.29	0.9951	9.12
8E-B-PL2	277.0	60	0.1619	40.27	0.8978	17.24
<b>DLC Pass Criteria</b>					$\geq 0.9(-3\%)$	$\leq 20(+5)$

### Chromaticity Measurement - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	71	R9	0
Frequency (Hz)	60	R2	75	R10	40
CCT (K)	5486	R3	77	R11	70
Duv	0.0029	R4	74	R12	37
Chromaticity (x, y)	x=0.3328 y=0.3471	R5	71	R13	71
Chromaticity (u', v')	u(u')=0.2048 v'(v')=0.4806	R6	66	R14	87
Color Rendering Index (CRI)	72.2	R7	81	R15	68
R9	0	R8	63	--	--

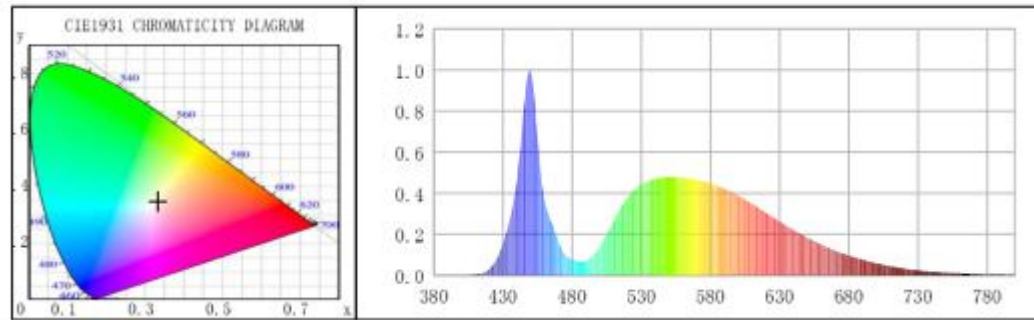
### Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.3 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	5099	5176.31	5000-10000(-10%)
Luminous Efficacy (lm/W)	129.78	128.54	Premium: $\geq 115(-3\%)$
Most worst Luminous/Highest Watts	126.62		



Report No.:  
BLC1811028E-B-PL

## Spectral Power Distribution & Chromaticity Diagram





Report No.:  
BLC1811028E-B-PL

**Calculated Efficacy Data for family models (4500K and 5000K):**

Model Number	Luminous Flux (lm)	Power (W)	Efficacy (lm/W)
282402-013	4903.3	39.14	125.28
282402-014	4952.2	39.18	126.40
282402-015	5001.2	39.22	127.53
282402-016	5099	39.29	129.78

Remark: This is a multiple listing test report, and the tested data is referred to report No.BL18010003-2 issued by Shenzhen Belling Efficiency Testing Laboratory (NVLAP accreditation no. 600102-0). The test data and report were reviewed, confirmed and accepted.

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Report Format Number BL-FM-SA-012





Report No.:  
BLC1811028E-B-PL

### 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 \*\*\*\*\*