



Report No.: BLC1812025E-F

LM-79-08 Test Report

For

STRONG LUMEN OPTO CO.,LTD

(Brand Name:N/A)

3/F · Bldg.A,Licheng Tech IND.,Xinhe Road, Shajing,Shenzhen China518104

High Bay Luminaires for Commercial and Industrial Buildings

Model name(s): SL-UFOA00-70Y-R090-C

Remake:Where Y for commercial use, it can be any letter or number.

Where XXXX represent light angle, it can be R060,R090 or R120.

Where C for commercial use, it can be any letter or number.

Representative (Tested) Model:

SL-UFOA00-70Y-R090-C(3000K)

SL-UFOA00-70Y-R090-C(5000K)

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

Test & Report By:

Grace Li

Engineer: Grace Li

Date: Jan 2, 2019

Review By:

Jason Luo

Manager: Jason Luo



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1.1 Product Information:

Organization Name	STRONG LUMEN OPTO CO.,LTD	
Brand Name	N/A	
Model Number	SL-UFOA00-70Y-R090-C	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	High Bay Luminaires for Commercial and Industrial Buildings	
Rated Voltage / Frequency	100-277Vac, 50/60 Hz	
Nominal Power	70W	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,3500K,4000K,4500K,5000K	
LED Manufacturer	Lumileds Holoding B.V.	
LED Model	L128-2780RA35000Q1	
Sample Number	BLC1812025E-F1(3000K),F2(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	Feb 28, 2019
Date of Test	Mar 01, 2019
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

<p>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.</p>
<p>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.</p>
<p>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.</p>

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

Test date	2019-03-01	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	SL-UFOA00-70Y-R090-C(3000K)		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC181202	120.0	60	0.6002	71.73	0.996	3.37
5E-F1	277.0	60	0.2816	69.96	0.897	8.80
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method:

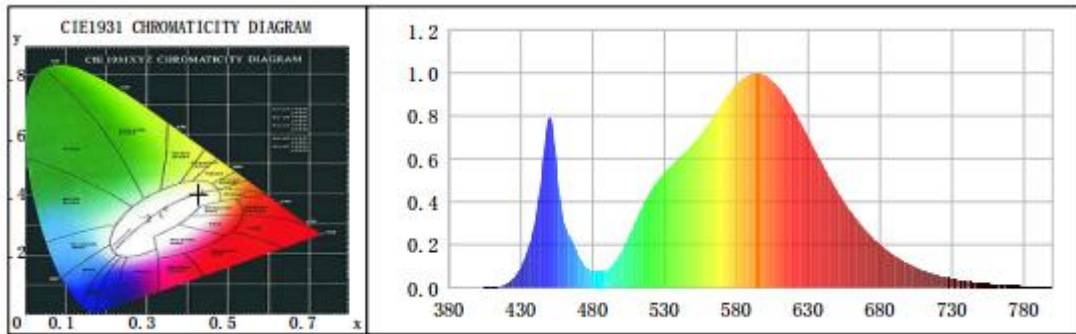
Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	68	R9	0
Frequency (Hz)	60	R2	80	R10	54
CCT (K)	3142	R3	91	R11	63
Duv	0.00033	R4	69	R12	42
Chromaticity (x, y)	x=0.4276 y=0.4014	R5	67	R13	70
Chromaticity (u', v')	u(u')=0.2457 v'(v')=0.5190	R6	73	R14	95
Color Rendering Index (CRI)	71.4	R7	78	R15	61
R9	0	R8	46	--	--

Photometric Measurement – Goniophotometer Method:

Parameter	Result		DLC V4.4 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	12701.5	12645.0	>=5000(-10%)
Luminous Efficacy (lm/W)	177.07	180.75	Premium: >= 130(-3%)
Most worst Luminous/Highest Watts	176.29		
Zonal lumens in the 20-50° zone (%)	62.1	--	>=30(-10)
Beam Angle (°)	70.7	--	--
Center Beam Candle Power (cd)	9274	--	--



Spectral Power Distribution & Chromaticity Diagram



Zonal Lumen Tabulation

Zonal Lumen Summary

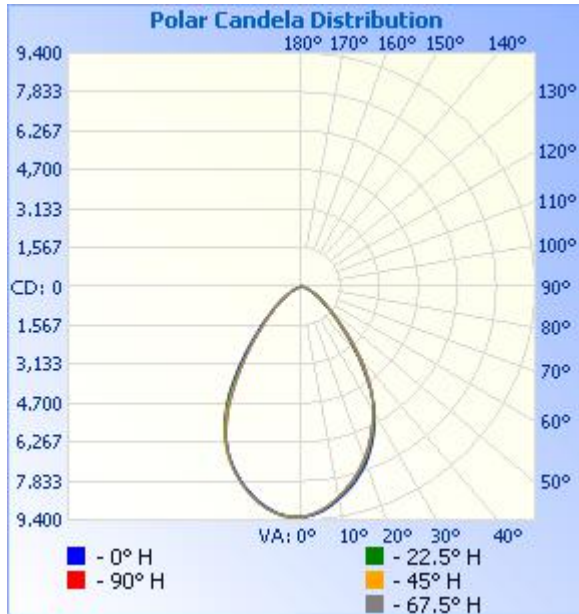
Zone	Lumens	% Lamp	% Luminaire
0-30	6,327.6	49.8%	49.8%
0-40	9,245.4	72.8%	72.8%
0-60	12,010.1	94.6%	94.6%
60-90	624.1	4.9%	4.9%
70-100	188.0	1.5%	1.5%
90-120	20.6	0.2%	0.2%
0-90	12,634.2	99.5%	99.5%
90-180	64.9	0.5%	0.5%
0-180	12,699.1	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	860.5	6.8%	90-100	7.1	0.1%
10-20	2,322.5	18.3%	100-110	6.8	0.1%
20-30	3,144.6	24.8%	110-120	6.7	0.1%
30-40	2,917.8	23.0%	120-130	8.0	0.1%
40-50	1,815.4	14.3%	130-140	9.0	0.1%
50-60	949.3	7.5%	140-150	9.9	0.1%
60-70	443.2	3.5%	150-160	9.1	0.1%
70-80	155.5	1.2%	160-170	6.2	0%
80-90	25.4	0.2%	170-180	2.2	0%

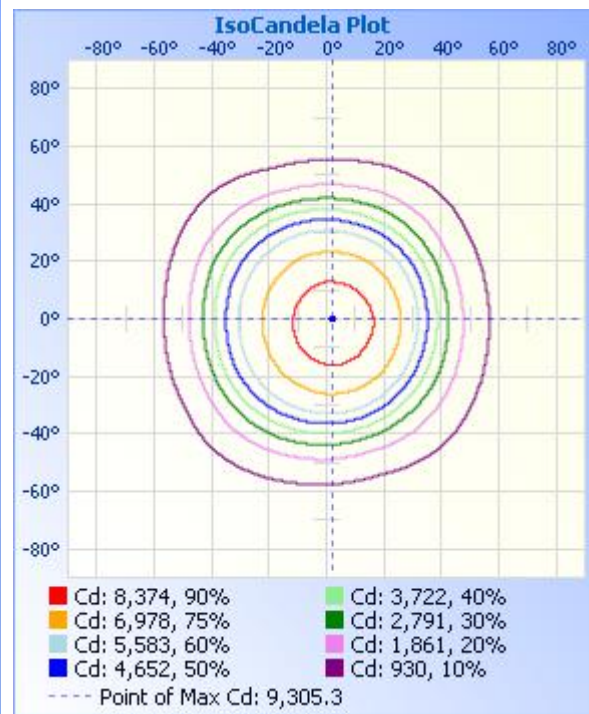
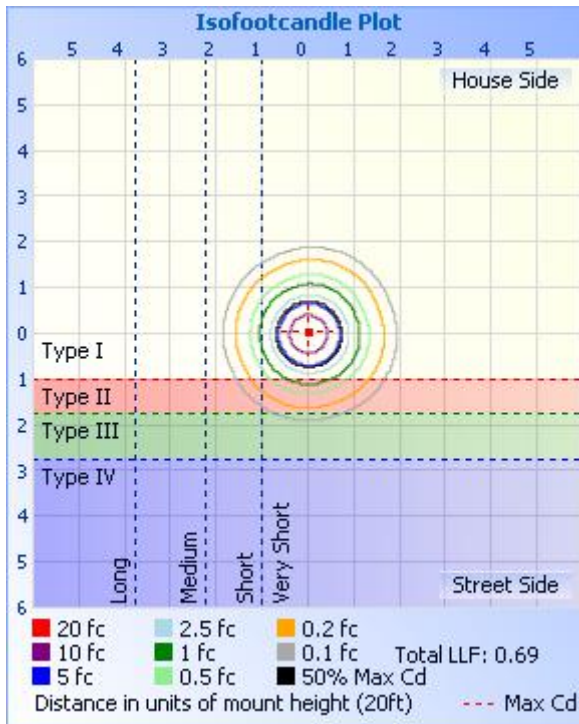


Photometric Data



	Center Beam fc	Beam Width	
17.0ft	32.1 fc	24.1 ft	24.0 ft
34.0ft	8.0 fc	48.2 ft	47.9 ft
51.0ft	3.6 fc	72.3 ft	71.9 ft
68.0ft	2.0 fc	96.4 ft	95.8 ft
85.0ft	1.3 fc	120.5 ft	119.8 ft
102.0ft	0.9 fc	144.6 ft	143.7 ft

■ Vert. Spread: 70.7°
■ Horiz. Spread: 70.3°





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	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274	9274
1	9270	9246	9238	9239	9247	9243	9261	9270	9275	9279	9284	9297	9305	9274	9281	9260	9270
2	9242	9205	9195	9202	9212	9214	9241	9248	9274	9279	9285	9298	9303	9275	9266	9242	9242
3	9199	9157	9149	9145	9159	9172	9207	9220	9275	9279	9284	9297	9305	9257	9240	9209	9199
4	9153	9106	9093	9093	9100	9118	9164	9186	9241	9251	9271	9285	9274	9230	9212	9170	9153
5	9100	9046	9025	9031	9035	9058	9113	9144	9210	9222	9250	9262	9242	9193	9165	9122	9100
6	9032	8977	8944	8954	8960	8986	9053	9093	9173	9187	9206	9218	9203	9147	9122	9058	9032
7	8955	8894	8858	8867	8872	8908	8978	9031	9112	9136	9157	9165	9155	9090	9063	8988	8955
8	8870	8813	8771	8772	8784	8822	8903	8966	9049	9086	9098	9110	9097	9029	8991	8905	8870
9	8779	8720	8674	8677	8695	8737	8826	8892	8983	9023	9038	9046	9031	8952	8915	8815	8779
10	8684	8631	8575	8575	8594	8642	8738	8812	8908	8957	8974	8968	8953	8876	8820	8726	8684
11	8595	8537	8473	8474	8489	8537	8638	8730	8835	8880	8895	8884	8870	8789	8724	8633	8595
12	8507	8433	8363	8364	8381	8423	8537	8623	8741	8789	8803	8797	8794	8691	8634	8527	8507
13	8413	8331	8262	8253	8261	8312	8432	8526	8637	8698	8708	8706	8699	8595	8536	8434	8413
14	8305	8224	8155	8144	8151	8198	8314	8429	8541	8600	8611	8608	8602	8493	8435	8333	8305
15	8198	8112	8043	8030	8033	8081	8203	8318	8437	8493	8506	8500	8487	8395	8318	8228	8198
16	8080	7995	7924	7906	7913	7959	8088	8209	8332	8390	8400	8383	8393	8291	8207	8117	8080
17	7950	7879	7809	7775	7786	7835	7966	8090	8226	8275	8270	8271	8266	8181	8089	8001	7950
18	7828	7744	7681	7648	7650	7691	7840	7962	8097	8152	8161	8150	8144	8050	7973	7871	7828
19	7699	7619	7541	7500	7513	7563	7695	7836	7975	8032	8038	8034	8020	7921	7852	7746	7699
20	7568	7480	7404	7366	7379	7434	7567	7702	7855	7912	7913	7906	7886	7794	7726	7611	7568
21	7426	7349	7263	7227	7238	7291	7434	7574	7724	7777	7781	7762	7747	7652	7589	7472	7426
22	7267	7199	7114	7082	7083	7136	7285	7432	7591	7641	7644	7613	7589	7505	7433	7328	7267
23	7108	7032	6954	6922	6920	6978	7130	7279	7445	7499	7494	7445	7438	7334	7277	7163	7108
24	6946	6872	6784	6759	6767	6798	6964	7103	7286	7329	7321	7283	7271	7166	7112	7001	6946
25	6781	6703	6633	6585	6589	6640	6782	6944	7108	7164	7149	7112	7096	6988	6932	6828	6781
26	6610	6543	6467	6422	6428	6479	6616	6779	6934	6989	6969	6905	6908	6797	6748	6649	6610
27	6419	6375	6307	6258	6266	6313	6445	6599	6751	6803	6754	6698	6681	6594	6534	6458	6419
28	6237	6182	6144	6090	6109	6127	6275	6425	6567	6611	6551	6466	6469	6363	6327	6248	6237
29	6047	6003	5958	5926	5939	5957	6094	6215	6367	6385	6326	6225	6241	6142	6121	6049	6047

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Certificate#4810.01

30	5853	5823	5774	5743	5752	5783	5896	6026	6147	6162	6091	5966	5993	5914	5900	5842	5853
31	5645	5627	5589	5572	5576	5604	5705	5825	5930	5936	5840	5701	5746	5677	5669	5622	5645
32	5424	5424	5393	5393	5392	5417	5509	5618	5707	5703	5577	5395	5475	5416	5388	5392	5424
33	5162	5208	5185	5198	5199	5220	5300	5390	5462	5437	5255	5102	5162	5149	5124	5132	5162
34	4907	4948	4971	4995	5004	5003	5083	5133	5211	5138	4965	4824	4879	4850	4851	4860	4907
35	4646	4702	4727	4763	4762	4783	4852	4876	4916	4844	4659	4537	4610	4579	4586	4563	4646
36	4373	4432	4483	4535	4542	4560	4587	4625	4648	4557	4372	4272	4324	4292	4308	4296	4373
37	4105	4166	4242	4325	4306	4325	4343	4363	4379	4262	4082	3991	4040	4015	4023	4015	4105
38	3844	3899	3976	4083	4074	4062	4091	4080	4104	3953	3792	3753	3790	3741	3749	3770	3844
39	3579	3639	3718	3846	3825	3812	3834	3827	3812	3679	3530	3510	3515	3486	3482	3510	3579
40	3337	3381	3465	3610	3559	3575	3587	3581	3555	3418	3277	3283	3251	3208	3247	3268	3337
41	3090	3121	3226	3371	3318	3328	3318	3348	3303	3163	3039	3049	3009	2979	3010	3042	3090
42	2849	2876	2997	3145	3085	3092	3086	3125	3068	2927	2819	2829	2795	2751	2781	2828	2849
43	2647	2663	2777	2935	2859	2842	2868	2914	2853	2697	2588	2600	2574	2527	2574	2628	2647
44	2430	2453	2549	2710	2628	2619	2640	2689	2626	2468	2404	2413	2392	2313	2382	2415	2430
45	2224	2234	2340	2514	2424	2402	2441	2484	2435	2262	2225	2241	2210	2134	2186	2227	2224
46	2064	2039	2157	2305	2239	2197	2257	2305	2253	2084	2066	2074	2054	1948	2027	2058	2064
47	1892	1867	1999	2124	2066	2006	2087	2135	2089	1919	1918	1892	1905	1789	1875	1916	1892
48	1759	1719	1839	1963	1910	1818	1930	1972	1936	1764	1771	1752	1773	1642	1744	1766	1759
49	1630	1559	1688	1793	1757	1666	1782	1811	1780	1608	1647	1620	1637	1521	1611	1631	1630
50	1492	1438	1565	1654	1624	1540	1644	1682	1654	1485	1527	1498	1527	1404	1502	1517	1492
51	1377	1307	1447	1512	1498	1409	1526	1559	1530	1370	1419	1389	1408	1281	1393	1399	1377
52	1275	1198	1334	1395	1390	1295	1415	1448	1422	1274	1309	1283	1299	1190	1286	1288	1275
53	1182	1103	1244	1299	1291	1183	1305	1330	1312	1170	1200	1191	1206	1097	1185	1191	1182
54	1092	1022	1155	1197	1182	1093	1207	1230	1202	1079	1110	1101	1115	1020	1097	1102	1092
55	999	941	1066	1108	1096	1009	1110	1143	1109	1000	1034	1022	1037	941	1017	1023	999
56	925	875	989	1020	1013	939	1028	1056	1028	929	956	941	952	873	938	949	925
57	852	808	909	943	938	866	951	970	945	852	869	860	878	808	860	873	852
58	780	745	837	869	867	804	877	896	870	781	805	798	810	745	792	803	780
59	720	692	769	807	796	744	807	824	799	722	738	735	745	691	731	738	720
60	663	641	712	739	731	688	737	757	730	666	675	670	684	628	663	677	663
61	604	586	655	676	670	637	686	696	669	604	617	613	620	577	615	617	604

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62	553	533	595	619	611	580	626	626	610	550	557	554	562	523	559	568	553
63	503	485	542	568	560	537	570	579	553	505	503	503	511	478	504	514	503
64	453	440	485	513	510	487	520	529	500	456	457	458	457	433	461	467	453
65	417	405	445	470	463	449	471	474	454	417	423	412	418	396	416	425	417
66	378	363	408	428	423	404	429	434	415	384	381	375	382	359	384	394	378
67	348	335	375	386	382	369	391	394	369	343	340	341	343	326	348	352	348
68	308	307	341	347	345	333	356	355	340	312	306	303	307	297	311	316	308
69	278	274	304	316	313	300	320	319	303	277	276	272	274	262	277	288	278
70	249	246	275	290	279	271	288	287	278	247	251	245	245	239	247	254	249
71	225	221	245	257	247	245	261	252	246	222	217	219	220	213	225	231	225
72	198	195	217	227	222	220	232	230	215	196	191	190	193	185	196	199	198
73	174	175	192	200	189	195	205	196	192	176	169	171	165	166	171	174	174
74	155	154	173	178	170	170	176	176	167	156	151	148	147	142	149	156	155
75	139	136	148	156	142	153	157	153	146	134	130	128	128	129	134	132	139
76	123	119	130	133	124	130	138	136	128	115	116	113	111	105	117	116	123
77	104	100	117	119	109	114	118	115	110	103	100	90	94	95	98	103	104
78	89	82	97	102	97	93	105	97	95	87	86	69	79	81	83	85	89
79	72	73	82	86	79	81	89	85	83	69	72	55	62	68	72	68	72
80	67	66	73	73	51	69	72	73	69	62	62	56	54	49	56	62	67
81	56	51	62	62	49	54	66	59	59	48	45	47	34	44	49	35	56
82	43	45	46	50	40	50	44	49	47	37	39	32	32	37	35	20	43
83	28	28	40	40	29	37	40	39	34	31	29	29	20	24	28	27	28
84	30	23	32	29	17	28	30	27	28	21	25	20	11	17	21	19	30
85	19	21	25	22	10	20	24	18	17	14	18	13	0	9	14	18	19
86	17	15	18	16	0	11	22	13	14	0	10	9	0	10	13	11	17
87	7	13	13	15	0	11	10	8	9	7	13	8	0	7	10	8	7
88	10	0	10	11	0	8	7	10	12	8	12	9	0	7	10	10	10
89	10	8	13	10	0	8	0	8	10	0	16	9	8	7	12	0	10
90	10	9	7	10	0	7	10	11	7	0	13	8	0	9	10	0	10
91	15	9	10	10	0	0	9	10	8	0	0	9	0	0	9	0	15
92	11	10	14	12	0	8	10	0	10	9	10	0	0	9	9	7	11
93	12	8	13	16	0	0	9	8	9	9	11	11	0	8	0	0	12

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94	10	8	11	11	0	8	9	0	11	11	10	10	0	0	10	0	10
95	9	9	12	11	0	8	9	9	8	8	14	10	0	0	9	10	9
96	11	0	9	10	0	8	8	8	11	0	12	11	0	0	8	10	11
97	10	0	11	8	0	0	8	11	0	7	10	10	0	0	0	7	10
98	11	9	15	10	0	0	0	8	0	8	8	0	0	8	10	8	11
99	9	8	14	9	0	0	10	9	10	9	11	8	0	0	8	0	9
100	11	0	11	9	0	0	0	0	9	9	11	0	0	0	7	0	11
101	8	0	13	13	0	0	9	0	8	7	10	8	0	0	11	8	8
102	8	0	13	14	0	0	9	8	10	8	14	10	0	8	9	11	8
103	10	0	9	10	0	9	0	8	9	9	8	9	0	7	11	9	10
104	9	0	13	10	0	10	0	8	13	7	11	11	0	0	8	0	9
105	15	8	11	10	0	0	9	0	9	0	13	9	8	0	9	8	15
106	11	0	14	12	0	0	11	0	9	9	11	9	0	11	0	0	11
107	13	0	0	14	0	11	7	0	10	0	12	10	0	10	9	9	13
108	8	8	14	9	0	9	0	8	8	0	10	0	0	11	11	8	8
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110	9	0	14	11	0	8	12	0	0	8	13	9	0	10	9	0	9
111	11	0	10	12	0	8	7	0	14	0	12	0	0	8	8	0	11
112	8	8	9	7	0	0	9	7	10	0	10	7	0	8	8	8	8
113	9	10	13	7	0	0	0	8	8	0	10	0	0	8	12	11	9
114	9	8	10	7	0	7	9	0	9	8	12	9	8	0	10	8	9
115	10	10	16	10	0	0	8	9	11	8	8	14	0	13	10	8	10
116	13	0	10	10	0	0	9	10	12	0	13	8	0	8	8	13	13
117	8	10	15	0	0	0	0	9	12	9	11	8	0	10	9	9	8
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119	11	0	13	11	0	0	0	8	13	8	13	12	0	0	7	12	11
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121	16	11	10	8	0	0	9	8	13	10	13	9	0	0	9	10	16
122	12	10	14	11	0	8	10	7	0	8	14	7	7	9	10	7	12
123	11	0	10	9	0	10	9	0	8	11	13	10	8	8	14	10	11
124	16	9	10	11	0	0	11	11	12	9	12	9	0	11	9	9	16
125	12	9	8	15	0	11	11	14	10	9	13	9	0	8	7	12	12

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126	13	8	15	9	0	0	13	0	15	11	18	8	7	12	0	10	13
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128	15	12	13	11	0	11	10	8	10	9	11	13	0	9	12	10	15
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146	17	16	18	20	0	19	17	17	18	14	17	18	16	17	16	18	17
147	21	14	20	21	8	16	20	17	21	18	19	20	17	17	16	23	21
148	18	16	21	19	0	17	16	17	18	18	18	14	11	14	15	13	18
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158	23	21	18	22	11	18	22	19	24	20	24	19	21	18	23	22	23
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168	21	24	28	20	13	19	21	24	24	19	20	28	20	21	22	21	21
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171	26	24	19	24	14	21	20	23	25	23	23	27	23	24	14	24	26
172	27	17	24	26	17	23	21	23	26	25	30	24	18	16	24	23	27
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179	25	24	25	24	13	19	19	21	24	22	24	26	23	21	23	23	25
180	24	17	20	24	17	21	23	24	28	21	23	20	26	23	25	22	24

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

Test date	2019-03-01	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	SL-UFOA00-70Y-R090-C(5000K)		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
BLC181202	120.0	60	0.6017	71.84	0.995	3.41
5E-F2	277.0	60	0.2811	70.16	0.901	8.92
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	68	R9	0
Frequency (Hz)	60	R2	77	R10	45
CCT (K)	4987	R3	83	R11	67
Duv	0.00749	R4	71	R12	35
Chromaticity (x, y)	x=0.3470 y=0.3685	R5	68	R13	70
Chromaticity (u', v')	u(u')=0.2063 v'(v')=0.4929	R6	68	R14	91
Color Rendering Index (CRI)	72.2	R7	84	R15	63
R9	0	R8	57	--	--

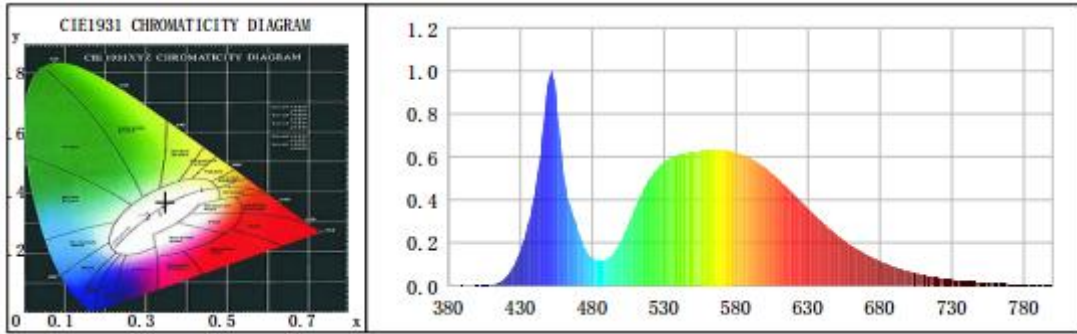
Photometric Measurement – Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.4 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	13472.5	13348.3	>=5000(-10%)
Luminous Efficacy (lm/W)	187.54	190.26	Premium: >= 130(-3%)
Most worst Luminous/Highest Watts	185.81		



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Spectral Power Distribution & Chromaticity Diagram





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Calculated Efficacy Data for family models (3500K, 4000K, 4500K and 5000K):

Model Number	Luminous Flux (lm)	Power (W)	Efficacy (lm/W)
SL-UFOA00-70Y-R090-C(3000K)	12701.5	71.73	177.07
SL-UFOA00-70Y-R090-C(3500K)	12894.3	71.79	179.61
SL-UFOA00-70Y-R090-C(4000K)	13087.0	71.79	182.30
SL-UFOA00-70Y-R090-C(4500K)	13279.8	71.79	184.98
SL-UFOA00-70Y-R090-C(5000K)	13472.5	71.84	187.54



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3. Test Equipment

Equipment Name	Model No.	Serial No.	Next Calibration Date
Goniophotometric System	GPM-3000	DYHXF120001	2020-01-14
AC Power Source	CHP-500C	N/A	2020-01-13
Total Luminous Flux Standard Lamp	24V/150W	DYJYR040040	2020-01-21
Digital Power Meter	WT500	DYDWQ200006	2020-01-13
Integral Sphere (2M)	2M	DYJCE120067	2020-01-14
Digital Power Meter	WT500	DYDWQ200006	2020-01-13
Optical Color and Electrical Measurement System	CMS-3000S	DYJCE120067	2020-01-14

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 *****