



Report No.: GZE150818-E2

NVLAP LAB CODE 201011-0

LM-79-08 Test Report

For

Premium Quality Lighting, Inc.

(Brand Name: Superior Life®)

2285 Ward Avenue
Simi Valley, CA 93065

Retrofit Kits for Outdoor Pole/Arm-mounted Area and Roadway Luminaires

Model name(s): 83407

Representative (Tested) Model: 83407

Model Different: N/A

Test & Report By:

Peeta Cao

Engineer: Peeta Cao

Date: Sep.08,2015

Review By:

Tommy Liang

Manager: Tommy Liang

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Laboratory: Standard-Tech Co. Ltd Testing Center

NVLAP CODE: 201011-0

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

Tel: 8620-3229 0320

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<http://www.standard-tech.com>

U.S. Department of Energy

Lighting Facts™ Uniform LM-79 Reporting Template
Laboratory Information:

Name of Test Laboratory	Standard-Tech Co., Ltd.
Date of Test Report	Sep.08,2015
Test Report No.	GZE150818-E2
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	Premium Quality Lighting	
Brand Name	Superior Life®	
Model Number	83407	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Retrofit Kits for Outdoor Pole/Arm-mounted Area and Roadway Luminaires	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Integrating Sphere
Goniophotometer
Electrical Measurements:
Output
Output

Input Wattage	--	73.93	W
Input Current	--	0.2167	A
Input Voltage (ac)	--	347.0	V
Power Factor	--	0.9833	
Off-State Power	--	0	W

Photometric Characteristics

Total Initial Lumen Output	--	9997.3	lm
Initial Lumen Efficacy	--	135.22	lm/w
Correlated color temperature / CCT	4918	--	K
Color rendering index / CRI	75.0	--	
R9 Value	0	--	
Duv	0.0044	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)		3519	cd
Beam angle (if applicable)		114.3	°
Zonal lumens in the 0°-60° zone		81.5	%
Zonal lumens in the 60°-90° zone	----	18.3	%
Zonal lumens in the 90°-120° zone		0	%
Zonal lumens in the 120°-180° zone		0.2	%

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Test Specifications:	
Date of Receipt	: Aug.08,2015
Date of Test	: Aug.15,2015
Test item	: Total Luminous Flux, Luminous Distribution Intensity, Luminous Efficacy, Correlated Color Temperature, Color Rendering Index, Chromaticity Coordinate, Electrical parameters
Reference Standard	IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources CIE 15-2004 Technical Report Colorimetry IESNA LM-16-93 Practical Guide to Colorimetry of Light Source IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

Test Methods

1. Photometric and Electrical measurements – Light Distribution Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, 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 347 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. Photometric and Electrical Measurements – Integrating Sphere Method:

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$. 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 347 Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at least 5 nm intervals over the range of 380 to 780 nm.

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1. Product Information:

Brand Name	Superior Life®
Model Number	83407
Luminaire Type	Retrofit Kits for Outdoor Pole/Arm-mounted Area and Roadway Luminaires
Rated Voltage / Frequency	347~ 480V, 50/60 Hz
Nominal Power	75W
Rated Initial Lamp Lumen	--
Declared CCT	5000K
LED Manufacturer	Nichia Corporation
LED Model	NF2L757DR (Nominal CCT: 2700 K)
Sample Receipt Date	Aug.08,2015
Sample Number	GZE150818-E21(5000K)

Photo



2.1 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
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Test date	2015-08-15	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	83407		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE150818	347.0	60	0.2167	73.93	0.9833	7.35
-E21	480.0	60	0.1660	73.74	0.9253	10.56

Sphere-Spectroradiometer Method in GE M250R2 Roadway Lamp:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	347.0	R1	72	R9	0
Frequency (Hz)	60	R2	80	R10	52
Color Rendering Index (CRI)	75.0	R3	85	R11	69
R9	0	R4	74	R12	39
CCT (K)	4918	R5	71	R13	74
Chromaticity (x, y)	x=0.3485 y=0.3633	R6	72	R14	92
Chromaticity (u', v')	u'=0.2092 v'=0.4907	R7	85	R15	67
Duv	0.0044	R8	60	--	--

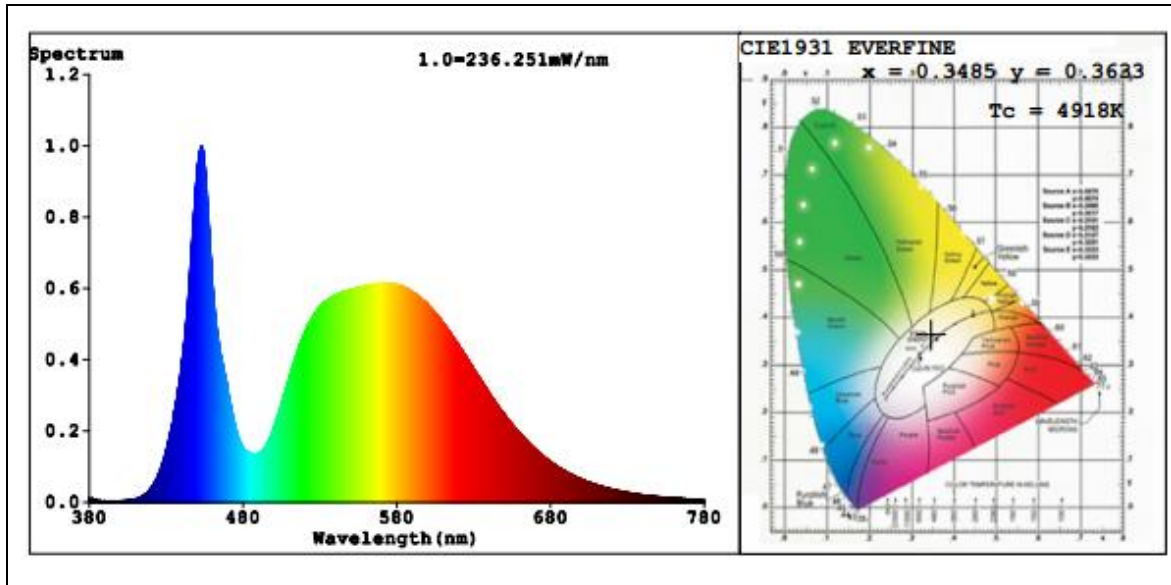
Goniophotometer Method in GE M250R2 Roadway Lamp:

Parameter	Result
Test Voltage (V)	347.0
Frequency (Hz)	60
Total Luminous (lm)	9997.3
Luminous Efficacy (lm/W)	135.22
Beam Angle °	114.3
Center Beam Candle Power (cd)	3519

Goniophotometer Method in GE M250R2 Roadway Lamp:

Parameter	Result
Test Voltage (V)	480.0
Frequency (Hz)	60
Total Luminous (lm)	9981.9
Luminous Efficacy (lm/W)	135.38

Spectral Power Distribution & Chromaticity Diagram



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Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	2,770.2	27.7%
0-40	4,570.3	45.7%
0-60	8,144.8	81.5%
60-90	1,832.4	18.3%
70-100	619.0	6.2%
90-120	4.6	0%
0-90	9,977.2	99.8%
90-180	19.0	0.2%
0-180	9,996.2	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	333.7	3.3%	90-100	0.5	0%
10-20	961.8	9.6%	100-110	1.9	0%
20-30	1,474.8	14.8%	110-120	2.1	0%
30-40	1,800.1	18.0%	120-130	2.8	0%
40-50	1,884.6	18.9%	130-140	3.2	0%
50-60	1,689.9	16.9%	140-150	3.1	0%
60-70	1,213.8	12.1%	150-160	2.7	0%
70-80	552.8	5.5%	160-170	1.8	0%
80-90	65.7	0.7%	170-180	0.7	0%

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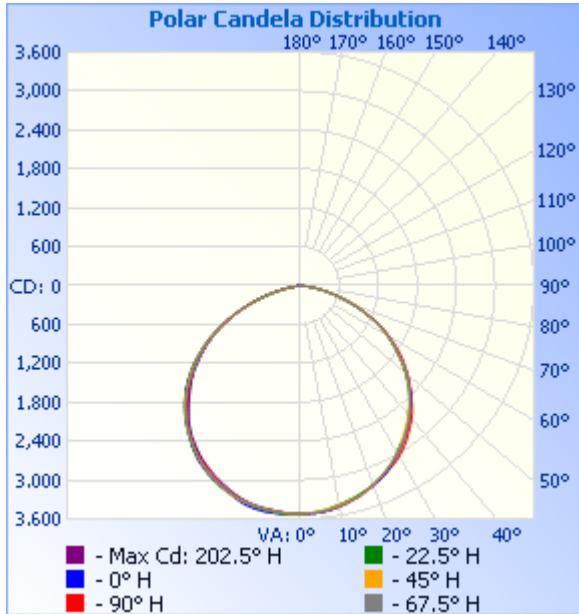
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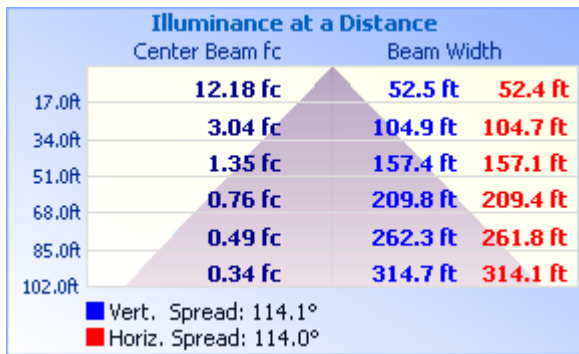
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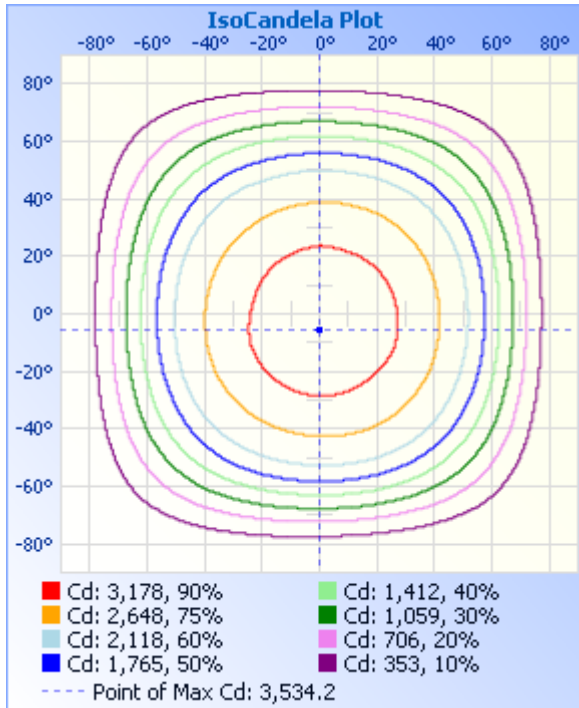
Photometric Data



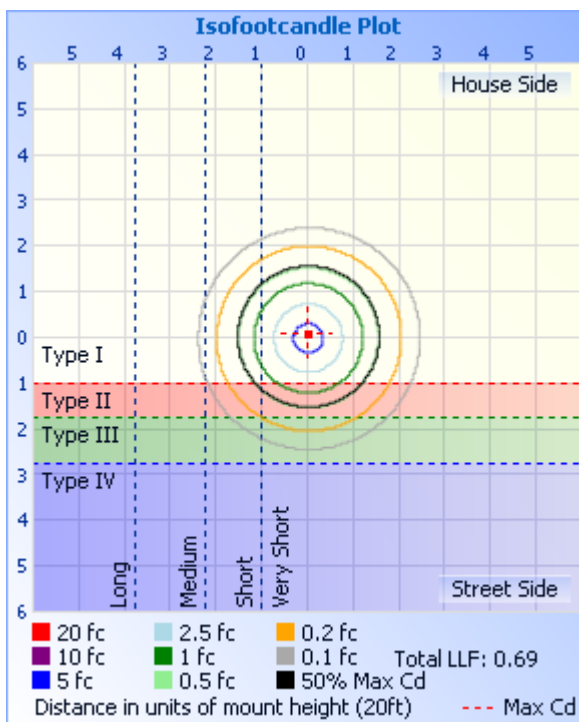
Illuminance Plots



ISOCANDELA DIAGRAM



ISOLUX DIAGRAM



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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	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519	3519
1	3519	3514	3514	3518	3519	3520	3522	3522	3520	3525	3522	3522	3519	3519	3517	3518	3519
2	3517	3509	3511	3516	3518	3522	3523	3522	3523	3531	3520	3522	3517	3517	3514	3514	3517
3	3516	3505	3506	3512	3517	3521	3521	3520	3527	3534	3520	3522	3517	3516	3510	3510	3516
4	3516	3500	3502	3508	3514	3518	3519	3520	3529	3534	3516	3519	3511	3511	3505	3505	3516
5	3511	3493	3494	3502	3509	3514	3514	3518	3531	3531	3512	3515	3506	3504	3502	3499	3511
6	3502	3482	3483	3496	3504	3507	3509	3515	3531	3527	3508	3511	3501	3498	3494	3488	3502
7	3492	3470	3472	3490	3495	3498	3504	3512	3531	3519	3504	3507	3494	3491	3482	3476	3492
8	3482	3454	3460	3479	3486	3490	3499	3505	3530	3512	3498	3500	3490	3485	3470	3466	3482
9	3468	3441	3448	3470	3474	3483	3492	3497	3529	3506	3493	3492	3486	3479	3459	3455	3468
10	3453	3430	3434	3459	3461	3473	3484	3491	3523	3500	3486	3487	3481	3471	3449	3442	3453
11	3438	3415	3422	3443	3447	3461	3475	3482	3515	3491	3478	3478	3475	3463	3439	3426	3438
12	3423	3402	3410	3428	3433	3449	3464	3472	3506	3482	3470	3465	3468	3455	3428	3413	3423
13	3407	3386	3399	3413	3416	3436	3449	3460	3497	3472	3460	3455	3459	3445	3416	3396	3407
14	3391	3373	3387	3395	3399	3421	3432	3444	3486	3459	3452	3443	3447	3432	3401	3379	3391
15	3374	3357	3373	3378	3383	3406	3415	3429	3472	3444	3443	3430	3435	3416	3386	3358	3374
16	3355	3341	3356	3360	3365	3393	3402	3415	3451	3428	3431	3415	3421	3400	3369	3339	3355
17	3335	3323	3338	3340	3344	3381	3386	3399	3427	3414	3416	3398	3406	3380	3349	3318	3335
18	3316	3306	3318	3317	3322	3365	3372	3383	3404	3397	3401	3384	3388	3359	3329	3300	3316
19	3295	3285	3297	3295	3301	3345	3359	3368	3383	3382	3383	3368	3369	3337	3311	3278	3295
20	3274	3263	3271	3270	3280	3325	3341	3350	3367	3364	3364	3352	3349	3315	3293	3256	3274
21	3256	3238	3244	3244	3258	3305	3322	3332	3345	3352	3339	3335	3325	3293	3269	3236	3256
22	3234	3215	3218	3220	3236	3285	3303	3314	3322	3329	3314	3318	3301	3270	3243	3216	3234
23	3209	3189	3191	3192	3215	3265	3278	3295	3300	3306	3289	3300	3276	3247	3218	3194	3209
24	3186	3164	3162	3164	3190	3242	3254	3275	3281	3284	3269	3278	3254	3224	3194	3172	3186
25	3159	3136	3135	3138	3166	3217	3230	3252	3260	3261	3247	3254	3229	3198	3170	3147	3159
26	3129	3108	3107	3110	3141	3190	3202	3227	3236	3235	3223	3229	3202	3171	3146	3120	3129
27	3098	3077	3078	3081	3115	3160	3174	3201	3211	3207	3194	3203	3174	3143	3120	3095	3098
28	3065	3043	3050	3050	3090	3125	3141	3172	3185	3180	3164	3176	3142	3117	3093	3066	3065

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29	3031	3010	3018	3020	3065	3091	3106	3142	3160	3151	3137	3147	3110	3088	3064	3035	3031
30	2997	2973	2983	2985	3037	3056	3073	3111	3132	3121	3110	3113	3080	3061	3032	3004	2997
31	2961	2933	2945	2952	3007	3022	3039	3079	3099	3089	3078	3078	3047	3030	3002	2973	2961
32	2924	2896	2909	2918	2973	2989	3004	3044	3062	3055	3043	3041	3014	2997	2968	2938	2924
33	2887	2866	2869	2888	2939	2956	2968	3010	3024	3021	3005	3003	2978	2964	2932	2906	2887
34	2851	2836	2829	2855	2903	2923	2930	2976	2987	2985	2970	2965	2942	2930	2897	2870	2851
35	2813	2801	2786	2820	2864	2887	2893	2941	2949	2942	2933	2925	2908	2893	2857	2835	2813
36	2775	2764	2744	2780	2822	2850	2856	2903	2910	2906	2898	2889	2873	2856	2816	2798	2775
37	2738	2726	2704	2740	2784	2814	2817	2862	2869	2869	2860	2850	2836	2818	2774	2756	2738
38	2697	2684	2668	2699	2744	2774	2776	2818	2826	2830	2824	2810	2795	2776	2731	2711	2697
39	2655	2642	2631	2658	2705	2732	2739	2771	2787	2790	2781	2769	2756	2733	2689	2668	2655
40	2608	2595	2593	2615	2662	2688	2699	2724	2746	2749	2737	2729	2714	2684	2646	2626	2608
41	2565	2550	2552	2575	2618	2643	2656	2676	2700	2710	2694	2686	2669	2633	2608	2586	2565
42	2527	2506	2510	2531	2571	2598	2609	2628	2651	2668	2649	2640	2619	2580	2566	2546	2527
43	2487	2461	2469	2485	2520	2549	2564	2583	2603	2625	2606	2593	2569	2532	2517	2500	2487
44	2446	2416	2426	2440	2469	2500	2518	2543	2558	2579	2563	2546	2518	2483	2468	2453	2446
45	2401	2368	2380	2392	2418	2444	2471	2496	2515	2532	2517	2497	2463	2430	2419	2404	2401
46	2353	2320	2330	2343	2367	2394	2423	2445	2470	2479	2468	2446	2411	2380	2364	2351	2353
47	2300	2271	2285	2294	2315	2344	2373	2393	2425	2425	2412	2393	2354	2330	2309	2301	2300
48	2248	2221	2237	2242	2262	2296	2324	2343	2378	2368	2355	2338	2299	2281	2259	2247	2248
49	2193	2170	2185	2193	2213	2247	2269	2289	2323	2314	2297	2277	2241	2233	2209	2193	2193
50	2139	2118	2136	2143	2160	2197	2214	2238	2264	2261	2238	2216	2186	2179	2162	2142	2139
51	2083	2061	2078	2091	2109	2143	2156	2183	2200	2207	2182	2156	2135	2125	2110	2090	2083
52	2020	2007	2016	2039	2056	2087	2096	2129	2135	2147	2121	2094	2082	2063	2053	2036	2020
53	1953	1951	1955	1982	2002	2031	2037	2071	2073	2087	2057	2036	2027	2001	1991	1980	1953
54	1891	1894	1900	1919	1948	1972	1976	2007	2012	2023	1990	1975	1966	1943	1931	1919	1891
55	1836	1834	1844	1853	1891	1910	1916	1939	1950	1955	1927	1915	1903	1887	1866	1854	1836
56	1783	1776	1789	1788	1830	1844	1858	1877	1887	1885	1869	1853	1838	1827	1806	1790	1783
57	1727	1719	1731	1730	1772	1777	1806	1818	1820	1818	1808	1790	1773	1761	1741	1734	1727
58	1672	1662	1673	1673	1711	1706	1745	1754	1752	1753	1741	1718	1713	1695	1676	1677	1672
59	1612	1604	1615	1616	1649	1639	1675	1684	1683	1686	1669	1645	1652	1629	1612	1621	1612
60	1554	1547	1553	1562	1588	1577	1603	1611	1610	1615	1596	1574	1581	1563	1545	1562	1554

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61	1493	1487	1491	1505	1526	1517	1534	1539	1533	1540	1519	1504	1504	1495	1483	1499	1493
62	1427	1428	1424	1442	1464	1461	1469	1464	1455	1462	1442	1431	1430	1430	1416	1430	1427
63	1359	1364	1356	1375	1393	1404	1405	1382	1382	1379	1368	1361	1353	1368	1342	1357	1359
64	1297	1301	1291	1309	1316	1339	1337	1308	1308	1299	1305	1294	1273	1304	1275	1287	1297
65	1226	1231	1222	1239	1242	1262	1272	1241	1233	1224	1233	1223	1197	1232	1216	1221	1226
66	1148	1156	1158	1166	1174	1183	1201	1165	1162	1149	1155	1142	1130	1148	1151	1155	1148
67	1080	1084	1095	1096	1103	1113	1122	1090	1092	1069	1075	1068	1062	1070	1083	1079	1080
68	1007	1015	1032	1027	1039	1045	1042	1023	1010	991	987	995	981	997	1010	996	1007
69	938	948	965	963	976	971	962	953	922	915	903	917	903	922	932	925	938
70	871	877	894	896	913	895	893	871	854	833	828	839	832	844	859	856	871
71	806	812	820	833	841	830	822	795	775	755	746	763	755	774	790	790	806
72	741	744	755	761	765	771	746	722	691	683	671	688	685	697	710	727	741
73	676	684	687	692	688	694	680	646	627	603	598	606	612	628	637	661	676
74	611	622	621	623	625	620	605	576	561	529	526	532	540	560	569	595	611
75	538	554	562	558	561	555	533	512	488	467	455	464	472	492	504	528	538
76	471	492	497	493	504	490	473	448	415	400	389	398	409	431	452	461	471
77	418	427	440	441	432	430	403	385	353	332	325	339	346	368	389	398	418
78	362	370	382	376	378	362	344	324	293	272	267	273	285	311	329	349	362
79	306	317	325	325	321	307	287	265	231	215	207	212	231	256	271	291	306
80	255	264	270	270	268	249	228	202	172	158	152	154	175	206	222	238	255
81	208	217	226	225	219	194	171	146	115	107	102	106	124	160	178	193	208
82	163	175	183	184	169	139	119	95	74	66	63	66	82	118	137	150	163
83	119	135	144	144	119	92	73	56	41	37	35	37	49	79	103	111	119
84	79	94	111	103	78	53	38	26	19	18	18	20	26	48	74	75	79
85	47	59	80	68	46	28	17	12	8	7	8	12	16	27	45	45	47
86	24	32	49	41	25	14	8	4	2	2	3	5	10	15	24	23	24
87	12	14	24	21	14	7	3	2	1	1	1	1	3	9	11	10	12
88	5	7	10	11	6	2	1	1	1	1	0	0	1	3	5	4	5
89	2	2	3	2	2	0	0	1	0	1	0	0	0	1	1	1	2
90	1	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	1
91	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
92	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0

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93	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
94	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
95	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0
96	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
97	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
98	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
99	0	0	0	0	1	1	1	1	3	1	1	1	0	0	0	0	0
100	0	0	0	0	1	1	1	1	15	1	1	1	0	0	0	0	0
101	0	0	0	0	1	1	1	1	28	1	1	1	0	0	0	0	0
102	0	0	0	0	1	1	1	1	37	1	1	1	0	1	0	0	0
103	0	0	0	0	1	1	1	1	31	1	1	1	1	1	1	0	0
104	1	0	0	0	1	1	1	1	10	1	1	1	1	1	1	1	1
105	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	1
106	1	1	1	1	2	2	2	1	2	2	2	2	1	1	1	1	1
107	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1
108	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1
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111	2	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2
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116	2	2	2	2	3	2	2	2	2	2	3	3	2	2	2	2	2
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121	3	3	2	2	3	3	3	3	3	3	3	3	3	3	2	3	3
122	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
123	4	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	4
124	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4

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125	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
126	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4
127	4	4	3	3	4	4	3	3	4	3	3	3	3	3	3	4	4
128	4	4	3	3	4	4	3	3	4	4	4	3	4	4	3	4	4
129	4	4	3	4	4	4	3	3	4	4	4	4	4	4	3	4	4
130	4	4	3	4	4	4	4	3	4	4	4	4	4	4	3	4	4
131	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4
132	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4
133	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4
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138	5	5	4	4	5	5	4	5	4	5	4	5	4	4	3	5	5
139	5	5	4	4	5	5	4	5	4	5	4	5	4	4	3	5	5
140	5	5	4	4	5	5	4	5	4	5	4	5	4	4	3	5	5
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145	5	5	4	4	6	5	5	6	5	5	5	6	5	4	4	6	5
146	5	6	4	4	6	5	5	6	5	5	5	6	5	4	4	6	5
147	5	6	5	5	6	6	5	6	5	6	6	6	5	4	4	6	5
148	5	6	5	5	6	6	5	6	5	6	6	6	5	4	5	6	5
149	6	6	5	5	6	6	5	6	5	6	6	6	5	4	5	6	6
150	6	6	5	5	6	6	6	6	5	6	6	6	5	4	5	6	6
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154	6	6	6	5	6	6	6	7	6	6	7	6	5	5	6	6	6
155	6	6	6	5	6	6	7	7	6	6	7	7	5	5	6	6	6
156	6	6	6	5	6	7	7	7	6	6	7	7	5	5	6	6	6

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157	6	6	6	5	6	7	7	7	6	6	7	7	5	5	6	6	6
158	6	6	6	5	6	7	7	7	6	6	7	7	5	5	6	6	6
159	6	6	6	5	7	7	7	7	6	6	7	7	5	5	6	6	6
160	6	6	6	5	7	7	7	7	6	6	7	7	6	5	6	6	6
161	6	6	6	5	7	7	7	6	6	6	7	7	6	5	6	6	6
162	6	6	6	6	7	7	7	6	6	6	7	7	6	5	6	6	6
163	6	6	6	6	7	7	7	6	6	6	7	7	6	5	6	7	6
164	6	6	6	6	7	7	7	7	6	6	7	7	6	5	6	7	6
165	6	6	6	6	7	7	7	7	6	6	7	7	6	5	6	7	6
166	6	6	6	6	7	7	7	7	6	6	7	7	6	5	6	7	6
167	6	7	6	6	7	7	7	7	6	6	7	7	6	6	7	7	6
168	7	7	7	6	7	7	7	7	7	6	7	8	7	6	7	7	7
169	6	7	7	6	7	7	7	8	7	7	7	8	7	6	7	7	6
170	7	7	7	6	8	8	7	8	7	7	8	8	7	6	7	7	7
171	7	7	7	6	8	8	7	8	8	7	8	8	7	7	7	7	7
172	7	7	7	7	8	8	7	8	8	7	8	8	7	7	7	7	7
173	7	7	8	7	8	8	7	8	8	8	8	8	7	7	7	7	7
174	7	7	7	7	8	8	7	8	8	8	8	8	7	7	8	7	7
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176	7	8	8	7	8	8	7	8	8	7	8	8	8	7	8	7	7
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178	7	7	8	7	8	8	7	7	7	7	8	8	8	7	8	7	7
179	7	7	8	7	8	8	7	7	7	7	7	8	8	7	7	7	7
180	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2015-07-01	2016-06-30
ST-R-331	Spectral analysis system HAAS-2000	2015-07-01	2016-06-30
D204	Standard Lamp	2015-07-01	2016-06-30
PF2010	Power Meter for Integrating Sphere	2015-07-01	2016-06-30
EE-09	Goniophotometer system	2015-07-01	2016-06-30
D908S	Standard Lamp	2015-07-01	2016-06-30
PF210	Power Meter for Goniophotometer	2015-07-01	2016-06-30
ST-R-181A	Temperature Tester	2015-07-01	2016-06-30
Uncertainty: Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

******* END OF DATASHEET PACKAGE *******