



Report No.: GZE150818-H2

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): 83404

Representative (Tested) Model: 83404

Model Different: N/A

Test & Report By:

*Peeta Cao*

Engineer: Peeta Cao

Date: Sep.09,2015

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

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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.09,2015
Test Report No.	GZE150818-H2
Laboratory Contact Name	Tommy Liang

**Product Information:**

Organization Name	Premium Quality Lighting	
Brand Name	Superior Life®	
Model Number	83404	
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	--	105.0	W
Input Current	--	0.3051	A
Input Voltage (ac)	--	347.0	V
Power Factor	--	0.9965	
Off-State Power	--	0	W

**Photometric Characteristics**

Total Initial Lumen Output	--	14296	lm
Initial Lumen Efficacy	--	136.15	lm/w
Correlated color temperature / CCT	5008	--	K
Color rendering index / CRI	75.5	--	
R9 Value	0	--	
Duv	0.0040	--	
<b>Luminous Intensity Distribution</b>			
Center beam candlepower (if applicable)		5068	cd
Beam angle (if applicable)		114.0	°
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		0.1	%
Zonal lumens in the 120°-180° zone		0.1	%

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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  $1\text{ }^{\circ}$  vertical intervals and  $22.5\text{ }^{\circ}$  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	83404
Luminaire Type	Retrofit Kits for Outdoor Pole/Arm-mounted Area and Roadway Luminaires
Rated Voltage / Frequency	347~ 480V, 50/60 Hz
Nominal Power	105W
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-H21(5000K)

**Photo**



<b>2.1 Electrical, Photometric and Chromaticity Measurements</b> (Refer to Work Instruction QD25)	<b>IES LM-79 2008</b>
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<b>Test date</b>	2015-08-15	<b>Test Ambient:</b>	25.2 °C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	83404		

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE150818	347.0	60	0.3051	105.0	0.9965	7.76
-H21	480.0	60	0.2423	106.2	0.9132	10.65

**Sphere-Spectroradiometer Method in GE M250R2 Roadway Lamp:**

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	347.0	R1	73	R9	0
Frequency (Hz)	60	R2	81	R10	54
Color Rendering Index (CRI)	75.5	R3	86	R11	70
R9	0	R4	74	R12	45
CCT (K)	5008	R5	73	R13	74
Chromaticity (x, y)	x=0.3456y=0.3601	R6	73	R14	92
Chromaticity (u', v')	u'=0.2085v'=0.4888	R7	84	R15	68
Duv	0.0040	R8	59	--	--

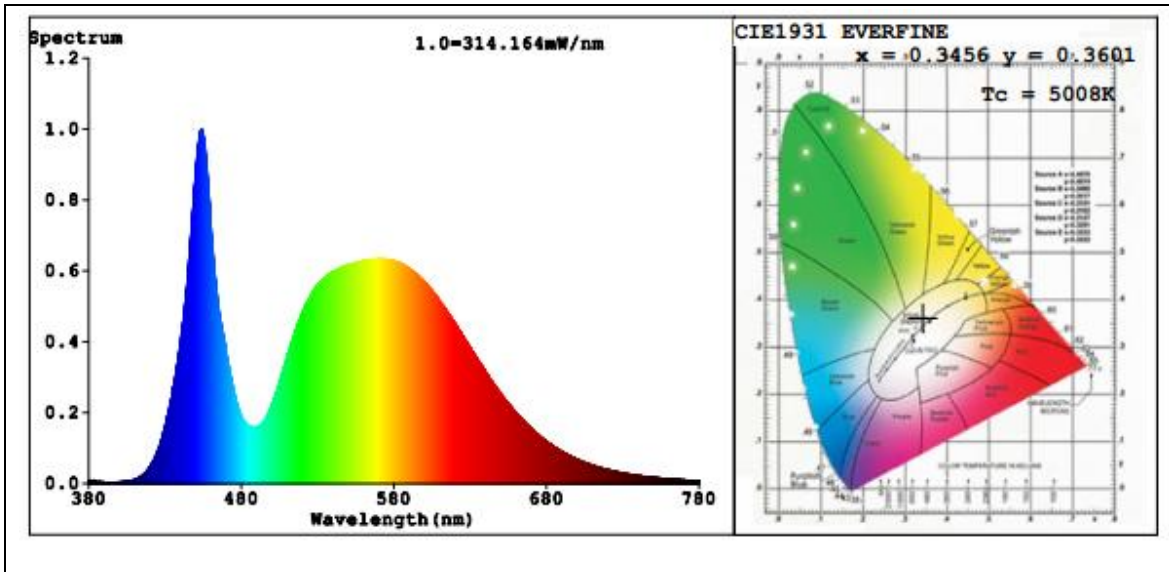
**Goniophotometer Method in GE M250R2 Roadway Lamp:**

Parameter	Result
Test Voltage (V)	347.0
Frequency (Hz)	60
Total Luminous (lm)	14296
Luminous Efficacy (lm/W)	136.15
Beam Angle °	114.0
Center Beam Candle Power (cd)	5068

**Goniophotometer Method in GE M250R2 Roadway Lamp:**

Parameter	Result
Test Voltage (V)	480.0
Frequency (Hz)	60
Total Luminous (lm)	14342
Luminous Efficacy (lm/W)	135.04

**Spectral Power Distribution & Chromaticity Diagram**



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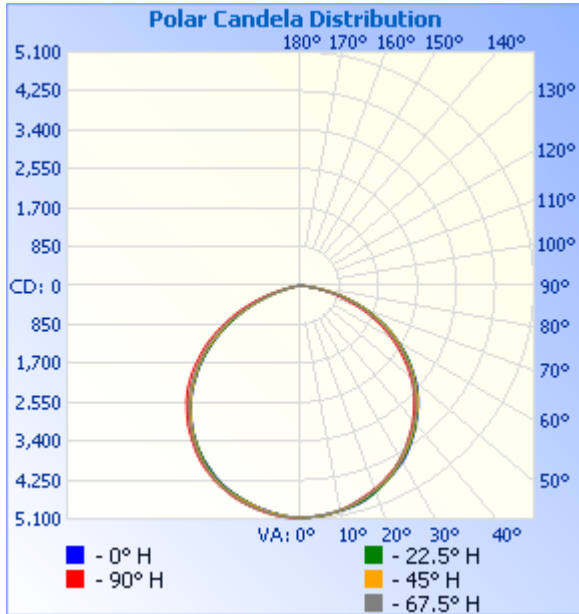
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**Zonal Lumen Tabulation**

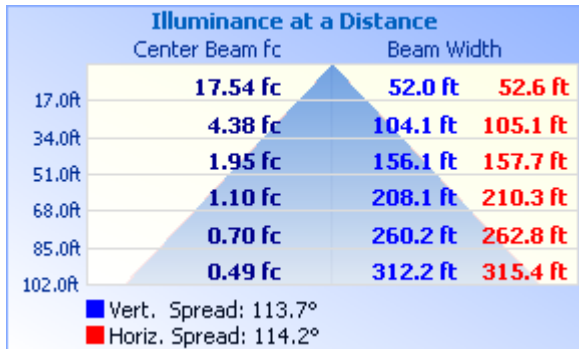
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	3,967.8	27.8%
0-40	6,542.8	45.8%
0-60	11,650.2	81.5%
60-90	2,613.9	18.3%
70-100	888.2	6.2%
90-120	7.7	0.1%
0-90	14,264.1	99.8%
90-180	30.2	0.2%
0-180	14,294.3	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	479.1	3.4%	90-100	1.1	0%
10-20	1,377.8	9.6%	100-110	2.9	0%
20-30	2,110.9	14.8%	110-120	3.6	0%
30-40	2,575.0	18.0%	120-130	4.6	0%
40-50	2,693.9	18.8%	130-140	5.1	0%
50-60	2,413.4	16.9%	140-150	4.9	0%
60-70	1,726.8	12.1%	150-160	4.2	0%
70-80	793.5	5.6%	160-170	2.8	0%
80-90	93.5	0.7%	170-180	1.1	0%

### Photometric Data



### Illuminance Plots



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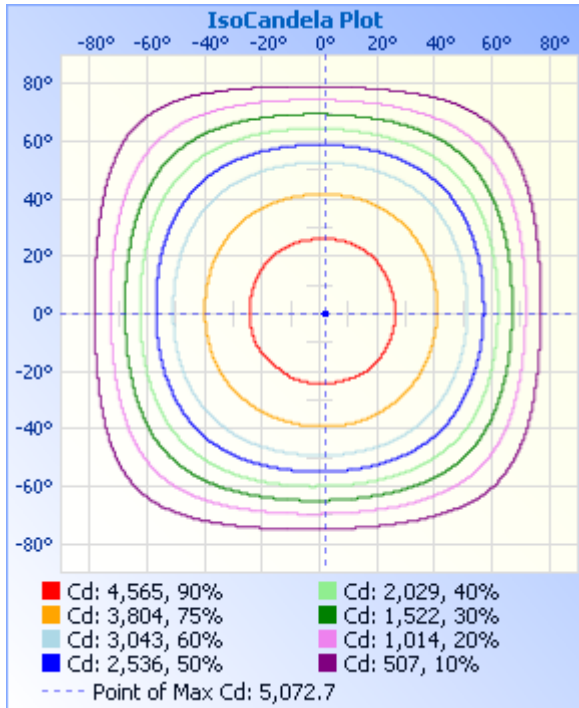
Tel: 8620-3229 0320

Fax: 8620-32290422

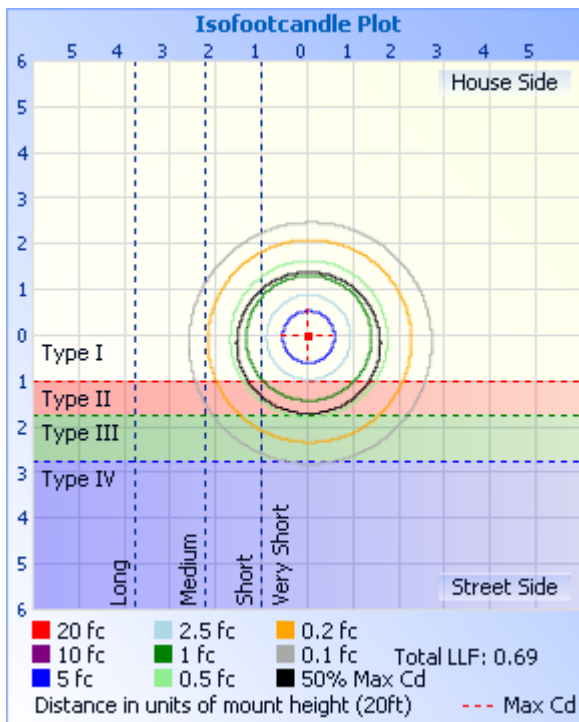
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### ISOCANDELA DIAGRAM



### 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	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068	5068
1	5066	5066	5065	5065	5065	5064	5061	5062	5066	5066	5066	5068	5070	5068	5070	5071	5066
2	5062	5064	5060	5061	5063	5059	5054	5055	5061	5059	5061	5065	5071	5062	5067	5072	5062
3	5056	5060	5056	5056	5058	5048	5044	5045	5055	5050	5054	5064	5073	5059	5062	5070	5056
4	5049	5056	5049	5049	5054	5036	5034	5035	5045	5038	5046	5061	5068	5057	5056	5065	5049
5	5042	5054	5041	5039	5046	5021	5019	5021	5030	5026	5035	5055	5060	5053	5049	5059	5042
6	5033	5047	5031	5029	5036	5009	5000	5008	5013	5018	5021	5046	5051	5052	5043	5050	5033
7	5023	5032	5023	5016	5025	4995	4987	4997	4996	5009	5007	5033	5037	5041	5032	5040	5023
8	5013	5019	5012	5006	5011	4980	4975	4986	4976	4996	4992	5019	5025	5026	5024	5027	5013
9	5005	5005	5001	4992	4995	4962	4965	4975	4960	4978	4974	5004	5010	5013	5014	5014	5005
10	4996	4992	4985	4977	4978	4943	4948	4962	4944	4959	4959	4987	4995	4998	5005	5000	4996
11	4987	4979	4968	4959	4958	4923	4930	4944	4928	4936	4937	4972	4977	4979	4994	4986	4987
12	4976	4966	4951	4939	4933	4904	4911	4921	4910	4911	4918	4953	4959	4960	4979	4971	4976
13	4963	4952	4933	4916	4909	4884	4892	4896	4887	4886	4897	4934	4940	4943	4961	4955	4963
14	4946	4938	4912	4894	4883	4865	4867	4870	4865	4859	4877	4916	4920	4926	4937	4934	4946
15	4928	4921	4890	4872	4856	4847	4840	4845	4840	4836	4854	4893	4901	4908	4915	4911	4928
16	4909	4900	4863	4846	4830	4826	4809	4818	4816	4815	4833	4869	4879	4888	4888	4886	4909
17	4886	4880	4837	4821	4805	4809	4782	4789	4789	4791	4812	4843	4859	4865	4863	4863	4886
18	4858	4855	4810	4796	4779	4784	4755	4758	4762	4768	4789	4815	4832	4838	4837	4839	4858
19	4824	4829	4782	4769	4751	4754	4725	4725	4732	4740	4763	4786	4804	4813	4813	4810	4824
20	4788	4799	4755	4741	4724	4722	4693	4692	4707	4715	4738	4757	4772	4784	4785	4781	4788
21	4752	4766	4729	4712	4695	4689	4655	4659	4677	4687	4710	4730	4744	4753	4757	4752	4752
22	4717	4730	4702	4681	4664	4657	4615	4628	4644	4653	4678	4701	4714	4720	4726	4724	4717
23	4683	4693	4674	4648	4629	4624	4578	4596	4605	4615	4643	4665	4682	4685	4692	4696	4683
24	4649	4659	4642	4611	4592	4586	4540	4563	4565	4575	4606	4628	4647	4651	4661	4665	4649
25	4614	4623	4605	4575	4557	4545	4507	4531	4523	4533	4568	4588	4607	4613	4627	4632	4614
26	4584	4586	4567	4538	4524	4504	4470	4494	4479	4488	4528	4546	4568	4574	4594	4599	4584
27	4552	4544	4526	4498	4489	4459	4436	4457	4437	4442	4485	4501	4529	4532	4557	4569	4552
28	4517	4505	4482	4456	4447	4415	4395	4413	4397	4403	4440	4458	4487	4490	4522	4532	4517

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29	4482	4463	4439	4411	4405	4370	4350	4367	4356	4357	4393	4411	4444	4446	4482	4494	4482
30	4445	4422	4395	4364	4360	4327	4302	4313	4310	4305	4341	4364	4398	4404	4443	4456	4445
31	4403	4379	4350	4316	4312	4279	4249	4257	4259	4256	4287	4315	4350	4360	4401	4410	4403
32	4356	4336	4301	4265	4263	4231	4195	4201	4207	4203	4233	4261	4297	4316	4354	4366	4356
33	4305	4287	4254	4210	4212	4184	4143	4140	4153	4149	4177	4206	4244	4267	4306	4318	4305
34	4251	4238	4208	4163	4158	4135	4092	4081	4098	4098	4119	4152	4188	4221	4256	4270	4251
35	4195	4188	4156	4116	4102	4083	4041	4021	4039	4045	4064	4099	4131	4172	4203	4214	4195
36	4141	4136	4105	4067	4045	4030	3982	3959	3980	3987	4005	4037	4077	4122	4152	4165	4141
37	4088	4086	4052	4017	3993	3975	3919	3897	3919	3928	3940	3975	4022	4071	4097	4117	4088
38	4032	4033	3996	3967	3939	3911	3858	3835	3857	3868	3874	3911	3968	4012	4042	4062	4032
39	3976	3975	3940	3914	3883	3846	3793	3775	3790	3806	3805	3849	3909	3952	3982	4003	3976
40	3918	3916	3888	3861	3822	3781	3730	3713	3722	3742	3736	3783	3842	3890	3917	3940	3918
41	3859	3853	3834	3805	3760	3714	3668	3647	3654	3676	3667	3717	3779	3825	3854	3879	3859
42	3803	3793	3779	3743	3696	3640	3602	3578	3587	3605	3604	3647	3713	3756	3786	3814	3803
43	3750	3729	3725	3680	3636	3568	3541	3512	3521	3532	3540	3584	3649	3686	3722	3749	3750
44	3696	3670	3668	3612	3573	3498	3471	3442	3443	3455	3465	3517	3586	3617	3655	3687	3696
45	3636	3610	3606	3543	3510	3427	3402	3372	3366	3379	3389	3441	3522	3549	3584	3622	3636
46	3569	3547	3541	3473	3442	3357	3332	3302	3289	3303	3314	3365	3452	3479	3516	3557	3569
47	3502	3480	3473	3403	3374	3286	3256	3223	3204	3218	3237	3289	3383	3406	3450	3487	3502
48	3435	3414	3397	3333	3305	3220	3180	3139	3115	3131	3157	3207	3304	3336	3383	3416	3435
49	3365	3342	3319	3264	3234	3155	3098	3056	3026	3042	3073	3127	3226	3264	3313	3337	3365
50	3295	3270	3244	3193	3153	3087	3012	2973	2940	2959	2989	3043	3142	3191	3242	3255	3295
51	3216	3195	3170	3124	3079	3015	2924	2886	2859	2876	2906	2956	3061	3108	3166	3176	3216
52	3133	3120	3096	3053	2999	2938	2838	2797	2775	2788	2820	2865	2969	3027	3087	3103	3133
53	3053	3045	3022	2977	2916	2853	2756	2711	2682	2694	2733	2777	2878	2941	3014	3037	3053
54	2975	2970	2946	2898	2827	2763	2671	2619	2586	2595	2640	2680	2789	2857	2933	2966	2975
55	2895	2896	2862	2818	2744	2663	2585	2521	2487	2497	2546	2589	2695	2774	2848	2892	2895
56	2812	2820	2779	2737	2658	2564	2498	2419	2386	2393	2447	2504	2606	2686	2761	2813	2812
57	2730	2740	2694	2654	2576	2465	2404	2324	2285	2293	2345	2417	2518	2596	2674	2729	2730
58	2646	2650	2612	2563	2484	2372	2308	2232	2182	2194	2238	2330	2425	2505	2586	2633	2646
59	2557	2556	2534	2469	2396	2280	2211	2137	2081	2091	2135	2233	2326	2410	2488	2539	2557
60	2474	2467	2453	2375	2304	2193	2114	2041	1978	1987	2027	2133	2219	2316	2382	2454	2474

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61	2382	2381	2367	2286	2214	2101	2015	1941	1876	1876	1919	2029	2114	2218	2279	2353	2382
62	2291	2302	2277	2197	2122	2011	1906	1834	1772	1764	1821	1921	2002	2120	2183	2255	2291
63	2205	2216	2188	2105	2030	1917	1797	1727	1667	1657	1725	1807	1890	2018	2097	2159	2205
64	2110	2126	2094	2014	1928	1827	1698	1619	1564	1560	1620	1693	1791	1912	2008	2059	2110
65	2015	2033	1991	1912	1825	1728	1605	1506	1467	1456	1507	1587	1691	1804	1907	1960	2015
66	1914	1934	1889	1813	1729	1628	1505	1407	1358	1349	1397	1489	1592	1703	1805	1872	1914
67	1817	1833	1791	1714	1634	1521	1400	1315	1246	1245	1284	1376	1489	1602	1707	1774	1817
68	1720	1733	1693	1616	1539	1423	1294	1202	1143	1130	1164	1268	1383	1489	1608	1676	1720
69	1623	1633	1595	1518	1434	1324	1199	1096	1040	1021	1048	1160	1273	1382	1502	1579	1623
70	1522	1532	1499	1424	1336	1217	1087	992	935	919	946	1053	1165	1279	1396	1472	1522
71	1421	1428	1399	1328	1228	1105	988	889	834	817	853	945	1058	1181	1290	1370	1421
72	1317	1336	1295	1223	1126	1006	880	786	738	724	758	836	950	1079	1187	1270	1317
73	1219	1237	1202	1119	1027	904	789	701	642	630	664	748	849	971	1078	1170	1219
74	1118	1129	1101	1017	932	806	692	602	544	545	567	650	750	860	972	1066	1118
75	1008	1033	1003	920	839	717	610	519	463	450	483	556	647	763	873	963	1008
76	898	935	908	832	749	630	523	437	382	372	403	467	559	672	779	860	898
77	776	837	815	744	650	544	440	365	313	302	327	385	469	578	688	758	776
78	667	716	719	649	567	464	366	296	251	238	260	309	388	486	593	649	667
79	545	604	627	565	483	385	298	236	197	185	200	245	312	408	501	539	545
80	428	480	535	482	403	314	234	184	148	137	147	180	242	332	414	427	428
81	330	377	441	404	326	235	169	133	102	96	97	119	173	262	330	327	330
82	245	287	349	331	245	161	110	83	62	60	57	71	110	196	245	241	245
83	168	200	254	254	172	101	63	43	37	35	33	40	63	134	172	163	168
84	106	131	178	179	110	55	31	25	22	20	22	25	34	83	112	103	106
85	54	73	115	115	61	26	18	13	10	10	12	17	22	44	67	56	54
86	21	30	62	64	29	15	8	7	6	6	5	7	14	23	33	22	21
87	7	9	24	28	14	6	4	5	5	4	3	3	5	12	12	7	7
88	3	3	6	7	5	3	2	4	1	3	2	2	1	2	3	2	3
89	1	2	2	2	2	1	1	1	1	1	2	1	1	1	1	1	1
90	1	0	1	0	1	1	1	1	1	1	2	1	0	0	1	0	1
91	1	0	0	0	1	1	1	1	1	1	2	1	0	0	0	0	1
92	0	0	0	0	1	1	1	2	1	1	2	1	0	0	0	0	0

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93	0	0	0	0	1	1	1	2	2	1	1	1	0	0	0	0	0
94	0	0	0	0	1	1	1	2	2	1	1	1	0	0	0	0	0
95	0	0	0	0	1	1	1	2	2	1	2	1	0	0	0	0	0
96	0	0	0	0	1	1	2	2	2	2	2	2	1	0	0	0	0
97	0	0	0	0	1	1	2	2	2	2	2	2	1	0	0	0	0
98	0	0	0	0	1	2	2	2	3	2	2	2	1	1	1	0	0
99	0	0	0	0	1	2	2	2	6	2	2	2	1	1	1	0	0
100	0	0	0	1	1	2	2	3	17	3	2	2	1	1	1	1	0
101	0	1	1	1	2	2	3	3	31	3	3	2	1	1	1	1	0
102	1	1	1	1	2	2	3	3	37	3	3	3	2	1	1	1	1
103	1	1	1	1	2	2	3	3	15	3	3	3	2	1	1	1	1
104	1	1	1	1	2	3	3	3	3	3	3	3	2	2	1	1	1
105	1	1	1	1	2	3	3	3	3	3	3	3	2	2	1	1	1
106	1	1	2	2	3	3	3	3	3	3	3	3	2	2	2	1	1
107	1	2	2	2	3	3	3	3	3	3	4	3	3	2	2	2	1
108	2	2	2	2	3	3	4	3	4	3	4	3	3	2	2	2	2
109	2	2	2	2	3	3	4	3	4	3	4	4	3	3	2	2	2
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111	2	2	2	3	4	4	4	4	4	3	4	4	3	3	3	2	2
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123	5	5	4	5	5	5	5	5	5	5	5	5	5	5	4	5	5
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125	6	5	4	5	5	5	5	5	6	5	5	5	5	5	4	5	6
126	6	5	4	5	5	6	5	5	6	5	5	5	5	5	4	5	6
127	6	6	5	6	5	6	5	5	6	5	6	5	6	5	4	6	6
128	6	6	5	6	6	6	6	5	6	6	6	6	6	5	4	6	6
129	6	6	5	6	6	6	6	6	6	6	6	6	6	5	4	6	6
130	6	6	5	6	6	6	6	6	6	6	6	6	6	6	5	6	6
131	6	6	5	6	6	6	6	6	6	6	6	6	6	6	5	6	6
132	6	7	6	6	7	6	6	7	6	7	6	6	6	6	5	6	6
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141	7	8	6	7	8	8	7	9	7	8	7	8	7	6	6	7	7
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145	8	8	7	7	9	8	8	9	8	8	8	9	7	6	6	8	8
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147	8	8	7	7	9	8	8	9	8	8	9	9	8	7	7	9	8
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157	9	9	9	8	10	10	10	10	9	9	10	10	7	8	9	9	9
158	9	9	9	8	10	10	10	10	9	9	10	10	8	8	9	9	9
159	9	9	9	8	10	10	10	10	9	9	10	10	8	8	9	9	9
160	10	9	9	8	10	10	10	10	9	9	10	10	9	8	9	10	10
161	9	9	9	8	10	10	10	10	10	9	10	10	9	8	9	10	9
162	9	10	9	8	10	10	10	10	10	9	10	10	9	8	9	10	9
163	10	10	9	8	10	10	10	10	10	9	10	11	9	8	9	10	10
164	10	10	9	8	11	10	10	11	10	9	10	11	9	8	10	10	10
165	10	10	9	9	11	10	10	11	10	9	10	11	9	8	10	10	10
166	10	10	10	9	11	10	10	11	10	9	10	11	9	8	10	10	10
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168	10	11	10	9	11	11	10	11	11	10	10	11	10	9	10	10	10
169	10	11	11	9	11	11	11	11	11	10	11	12	10	9	11	10	10
170	10	11	11	9	12	12	11	11	11	11	11	12	10	9	11	10	10
171	10	11	11	9	12	12	11	11	12	11	12	12	10	9	11	11	10
172	11	11	11	10	12	12	11	11	12	11	12	12	10	10	11	11	11
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174	11	11	11	10	12	12	11	11	12	11	12	12	11	10	11	11	11
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176	11	11	12	11	12	12	11	11	12	11	12	12	11	11	11	11	11
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179	11	11	12	10	11	11	11	11	11	11	11	12	11	11	11	11	11
180	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

**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 \*\*\*\*\***