



Report No.: GZE150406-L

NVLAP LAB CODE 201011-0

LM-79-08 Test Report

For

PREMIUM QUALITY LIGHTING

(Brand Name: SUPERIOR LIFE®)

2285 Ward Avenue, Simi Valley, CA 93065

Parking Garage Luminaires

Model name(s): 83509

Representative (Tested) Model: 83507(3000K), 83509(5000K)

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

Test & Report By:

Sean Zhuo

Engineer: Sean Zhuo

Date: May.20,2015

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 Fax: 8620-32290422 <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	May.20,2015
Test Report No.	GZE150406-L
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	PREMIUM QUALITY LIGHTING	
Brand Name	SUPERIOR LIFE®	
Model Number	83507 (3000K)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Parking Garage 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

	Integrating Sphere	Goniophotometer	
Input Wattage	--	47.39	W
Input Current	--	0.4008	A
Input Voltage (ac)	--	120.1	V
Power Factor	--	0.9846	
Off-State Power	--	0	W

Photometric Characteristics

Total Initial Lumen Output	--	4470.1	lm
Initial Lumen Efficacy	--	94.33	lm/w
Correlated color temperature / CCT	3117	--	K
Color rendering index / CRI	74.2	--	
R9 Value	0	--	
Duv	0.0010	--	

Luminous Intensity Distribution

Center beam candlepower (if applicable)	-----	2862	cd
Beam angle (if applicable)		95.4	°
Zonal lumens in the 0°-60° zone		66.9	%
Zonal lumens in the 60°-90° zone		32.4	%
Zonal lumens in the 90°-120° zone		0.3	%
Zonal lumens in the 120°-180° zone		0.4	%

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Date of Test Report	May.20,2015
Test Report No.	GZE150406-L
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	PREMIUM QUALITY LIGHTING	
Brand Name	SUPERIOR LIFE®	
Model Number	83509 (5000K)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Parking Garage 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	48.25	--	W
Input Current	0.4066	--	A
Input Voltage (ac)	120.1	--	V
Power Factor	0.9880	--	
Off-State Power	0	--	W

Photometric Characteristics

Total Initial Lumen Output	5006	--	lm
Initial Lumen Efficacy	103.75	--	lm/w
Correlated color temperature / CCT	5171	--	K
Color rendering index / CRI	74.9	--	
R9 Value	0	--	
Duv	-0.0003	--	

Luminous Intensity Distribution

Center beam candlepower (if applicable)			cd
Beam angle (if applicable)			°
Zonal lumens in the 0°-60° zone	-----	-----	%
Zonal lumens in the 60°-90° zone			%
Zonal lumens in the 90°-120° zone			%
Zonal lumens in the 120°-180° zone			%

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Test Specifications:	
Date of Receipt	: Apr.14,2015
Date of Test	: Apr.21,2015
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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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 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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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 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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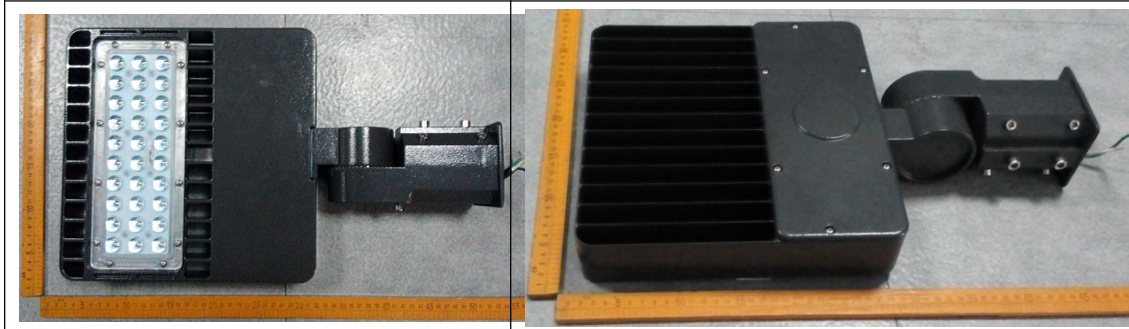
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1. Product Information:

Brand Name	SUPERIOR LIFE®
Model Number	83509
Luminaire Type	Parking Garage Luminaires
Rated Voltage / Frequency	110 ~ 240/277Vac, 50/60Hz
Nominal Power	48W
Rated Initial Lamp Lumen	--
Declared CCT	3000K,3500K,4000K,4500K,5000K
LED Manufacturer	SAMSUNG ELECTRONICS Co.,Ltd
LED Model	LH351B
Sample Receipt Date	Apr.14,2015
Sample Number	GZE150406-L1(3000K),L2(5000K)

Photo


2.1 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
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Test date	2015-04-21	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	83507 (3000K)		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE150406	120.1	60	0.4008	47.39	0.9846	13.27
-L	277.0	60	0.1868	47.00	0.9085	19.54

Sphere-Spectroradiometer Method:

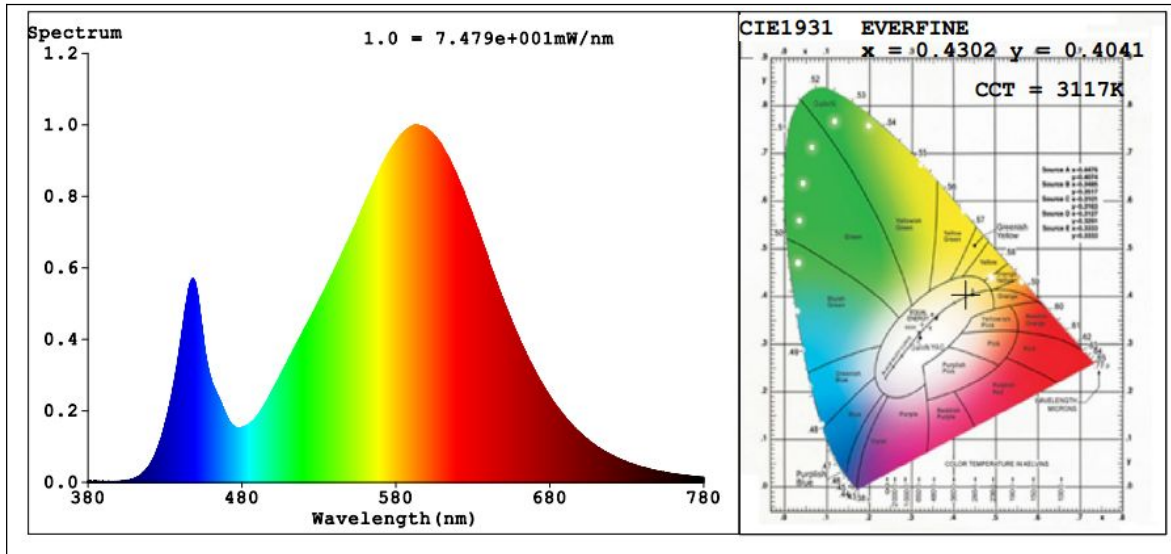
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	74.2
R9	0
CCT (K)	3117
Chromaticity (x, y)	x=0.4302 y=0.4041
Chromaticity (u', v')	u'=0.2462 v'=0.5204
Duv	0.0010

Special Color Rendering Indices			
R1	71	R9	0
R2	83	R10	61
R3	94	R11	65
R4	70	R12	54
R5	70	R13	73
R6	76	R14	96
R7	80	R15	64
R8	49	--	--

Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	4470.1
Luminous Efficacy (lm/W)	94.33
Beam Angle°	95.4
Center Beam Candle Power (cd)	2862
S/MH(C0/180)	0.90
S/MH(C90/270)	1.59

Spectral Power Distribution & Chromaticity Diagram



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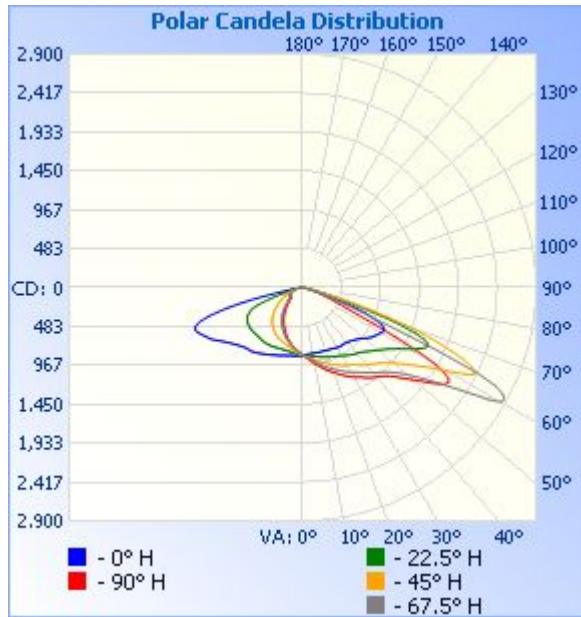
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Zonal Lumen Tabulation

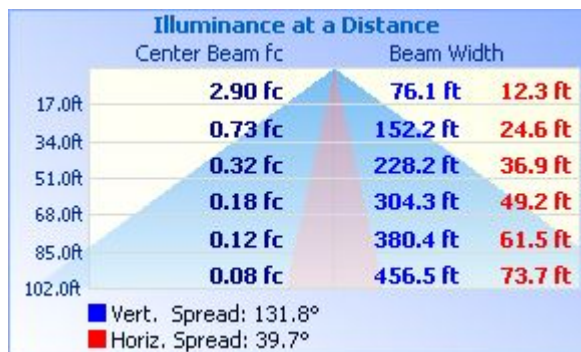
Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Luminaire
0-30	727.7	16.3%	16.3%
0-40	1,292.0	28.9%	28.9%
0-60	2,989.0	66.9%	66.9%
60-90	1,449.1	32.4%	32.4%
70-100	425.3	9.5%	9.5%
90-120	12.1	0.3%	0.3%
0-90	4,438.1	99.3%	99.3%
90-180	31.7	0.7%	0.7%
0-180	4,469.8	100%	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	80.2	1.8%	90-100	2.7	0.1%
10-20	242.0	5.4%	100-110	4.1	0.1%
20-30	405.6	9.1%	110-120	5.4	0.1%
30-40	564.3	12.6%	120-130	5.7	0.1%
40-50	723.4	16.2%	130-140	4.9	0.1%
50-60	973.7	21.8%	140-150	3.8	0.1%
60-70	1,026.5	23.0%	150-160	2.9	0.1%
70-80	382.5	8.6%	160-170	1.7	0%
80-90	40.0	0.9%	170-180	0.6	0%

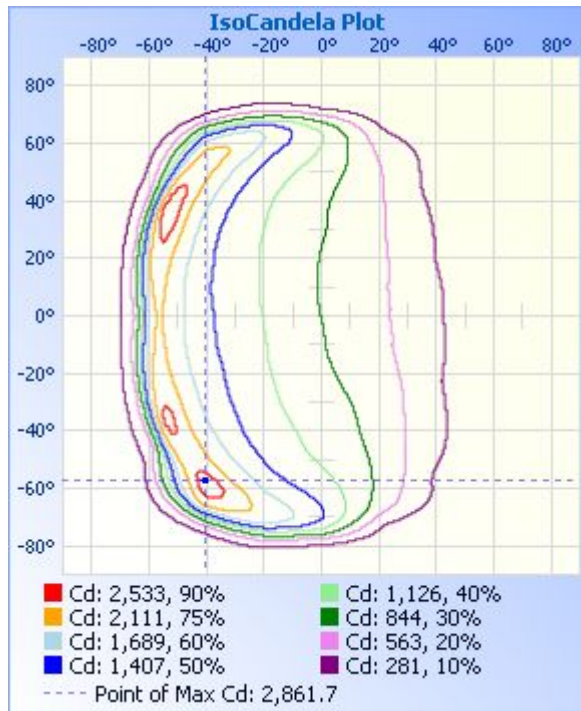
Photometric Data



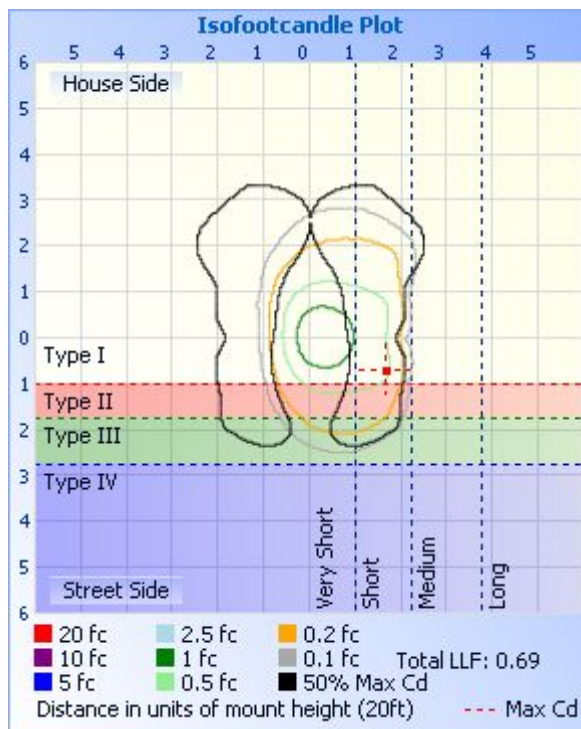
Illuminance Plots



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	839	839	838	830	837	838	837	839	839	839	838	830	837	838	837	839	839
1	837	841	844	839	848	849	846	845	841	837	832	821	826	827	827	832	837
2	834	844	850	848	858	859	855	851	844	834	826	811	815	816	818	826	834
3	832	846	857	857	870	871	864	857	846	832	819	802	804	805	808	819	832
4	830	848	864	868	883	883	874	863	848	830	813	793	794	794	799	813	830
5	828	850	871	878	895	896	885	869	850	827	807	784	783	783	789	807	828
6	826	852	878	889	910	910	896	876	852	824	800	775	773	772	781	802	826
7	825	855	886	901	925	924	906	883	853	821	793	765	762	761	773	797	825
8	825	859	894	915	939	938	918	889	854	818	786	756	752	750	765	792	825
9	825	863	903	927	953	952	930	896	855	816	779	747	741	740	757	788	825
10	825	867	912	939	967	966	941	902	857	813	773	737	731	730	750	785	825
11	825	872	921	953	982	980	952	909	859	811	766	728	720	719	742	781	825
12	826	876	929	965	997	993	963	915	861	808	759	718	709	710	735	778	826
13	826	881	939	977	1012	1007	974	921	864	807	753	709	698	700	728	775	826
14	826	886	949	989	1028	1022	984	928	868	806	748	699	686	689	721	771	826
15	826	891	959	1003	1045	1038	994	936	871	805	742	689	675	679	714	768	826
16	826	896	968	1018	1060	1053	1005	943	876	805	737	679	663	668	707	765	826
17	827	901	978	1033	1076	1068	1016	950	880	805	732	669	650	656	700	762	827
18	828	906	988	1045	1091	1083	1028	958	885	805	728	658	637	645	693	759	828
19	829	911	999	1059	1106	1097	1040	967	890	807	723	647	623	633	685	757	829
20	830	915	1010	1072	1120	1112	1052	975	894	808	719	636	609	621	678	754	830
21	832	920	1021	1085	1135	1127	1064	985	900	809	713	625	596	609	670	753	832
22	834	925	1033	1098	1151	1142	1077	993	905	810	708	614	582	597	662	751	834
23	836	931	1044	1111	1168	1158	1089	1002	910	811	703	602	568	585	654	749	836
24	839	937	1054	1124	1184	1175	1102	1011	915	813	699	591	554	572	646	747	839
25	841	941	1064	1142	1202	1191	1117	1021	921	814	693	578	540	559	637	745	841
26	844	947	1074	1156	1218	1207	1131	1030	927	816	688	566	526	545	628	742	844
27	847	953	1084	1172	1235	1223	1145	1040	933	818	683	554	512	532	619	740	847
28	851	960	1095	1187	1252	1239	1159	1050	939	820	678	541	498	518	610	737	851
29	855	967	1104	1201	1269	1256	1173	1060	945	822	672	528	484	504	600	734	855

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30	859	976	1112	1214	1284	1272	1188	1070	952	823	665	515	470	490	591	730	859
31	862	985	1121	1226	1297	1287	1202	1079	958	825	659	502	456	475	580	726	862
32	865	994	1129	1239	1312	1300	1214	1089	965	826	652	489	442	459	569	722	865
33	866	1003	1142	1253	1327	1311	1225	1099	973	827	644	475	427	444	557	717	866
34	865	1011	1154	1268	1344	1323	1236	1109	981	827	637	462	411	429	544	712	865
35	864	1019	1170	1285	1362	1338	1246	1121	988	827	629	447	395	413	532	707	864
36	864	1029	1188	1304	1382	1357	1257	1132	996	827	620	433	379	398	520	702	864
37	867	1039	1203	1323	1400	1379	1271	1143	1003	825	611	419	362	382	509	698	867
38	870	1047	1219	1342	1417	1404	1289	1154	1009	824	602	404	344	366	497	695	870
39	874	1052	1234	1360	1431	1427	1311	1165	1014	822	593	388	328	349	484	690	874
40	879	1059	1249	1377	1444	1449	1332	1178	1019	821	584	373	312	332	471	686	879
41	885	1068	1263	1395	1461	1469	1352	1193	1019	820	574	356	296	315	456	683	885
42	892	1080	1278	1413	1481	1487	1369	1208	1022	820	565	340	279	299	441	679	892
43	899	1093	1294	1433	1501	1506	1386	1223	1027	819	554	323	264	283	426	676	899
44	908	1106	1311	1454	1529	1529	1402	1234	1033	819	543	307	249	268	410	672	908
45	916	1121	1329	1480	1560	1553	1418	1242	1041	820	531	291	235	253	394	668	916
46	926	1138	1349	1510	1593	1582	1434	1251	1050	820	519	275	225	240	378	663	926
47	937	1154	1369	1544	1633	1610	1455	1261	1060	822	505	260	214	226	362	659	937
48	949	1172	1395	1582	1678	1643	1477	1273	1070	822	492	247	206	216	348	655	949
49	962	1190	1423	1624	1726	1680	1502	1288	1082	823	475	235	199	207	335	649	962
50	978	1208	1456	1675	1779	1727	1530	1305	1095	823	459	224	193	198	321	643	978
51	996	1229	1492	1734	1833	1779	1558	1323	1109	823	444	215	189	191	308	636	996
52	1014	1251	1531	1802	1889	1841	1590	1342	1123	822	428	206	185	185	297	628	1014
53	1032	1273	1577	1880	1952	1913	1629	1363	1139	821	413	199	181	179	286	620	1032
54	1049	1299	1628	1972	2022	1993	1674	1386	1156	820	398	192	178	174	274	612	1049
55	1064	1328	1681	2077	2088	2078	1722	1412	1174	818	383	185	178	171	262	602	1064
56	1076	1359	1736	2200	2139	2169	1775	1438	1194	815	370	179	183	170	251	589	1076
57	1086	1392	1804	2333	2161	2271	1836	1466	1216	811	356	175	188	176	238	575	1086
58	1097	1431	1881	2497	2138	2380	1907	1499	1240	805	342	175	184	178	225	559	1097
59	1109	1475	1970	2700	2053	2513	1984	1534	1265	801	327	178	179	172	212	541	1109
60	1122	1521	2070	2843	1903	2635	2076	1573	1288	795	312	177	177	166	205	520	1122
61	1134	1569	2177	2862	1657	2679	2183	1612	1309	788	297	170	174	161	202	497	1134

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62	1141	1617	2289	2817	1318	2643	2306	1655	1326	779	279	166	172	157	205	464	1141
63	1136	1661	2384	2695	1001	2517	2448	1707	1343	766	260	162	169	154	194	430	1136
64	1116	1698	2378	2406	757	2258	2617	1763	1360	749	242	157	167	152	182	382	1116
65	1077	1714	2310	1855	605	1769	2770	1822	1379	730	226	156	166	150	173	345	1077
66	1016	1698	2183	1297	516	1268	2844	1874	1399	707	224	156	166	146	152	321	1016
67	934	1638	2013	925	427	900	2827	1923	1417	680	233	152	166	140	140	278	934
68	832	1521	1810	689	368	654	2751	1964	1429	642	221	145	165	135	134	238	832
69	720	1346	1596	549	325	502	2641	1996	1435	592	201	138	162	129	127	210	720
70	596	1134	1363	409	287	405	2490	2011	1421	523	182	131	159	124	120	187	596
71	459	909	1112	331	252	343	2304	1985	1382	447	160	124	156	118	112	155	459
72	322	711	870	276	220	298	2052	1900	1317	371	145	118	154	114	104	112	322
73	238	560	662	234	193	263	1708	1750	1225	301	136	113	152	110	96	90	238
74	155	408	487	200	169	234	1317	1556	1103	245	124	109	151	105	90	79	155
75	116	310	319	174	149	209	976	1324	953	203	114	104	149	98	84	70	116
76	92	235	225	152	132	188	719	1077	775	161	104	98	142	92	75	62	92
77	73	179	131	134	115	171	537	852	587	136	94	91	135	84	66	53	73
78	57	127	98	117	99	155	355	657	401	118	86	85	131	78	57	45	57
79	43	83	77	101	85	141	231	500	272	100	80	77	129	70	50	39	43
80	31	55	62	86	70	124	158	368	193	84	73	70	127	63	43	32	31
81	22	39	49	70	56	108	120	269	142	70	65	63	123	56	35	27	22
82	16	30	38	54	46	83	95	198	107	59	57	56	116	48	29	22	16
83	12	24	27	43	37	62	77	126	81	50	49	49	107	38	21	18	12
84	8	19	20	33	26	51	61	82	60	42	42	41	91	29	14	13	8
85	6	14	12	20	10	41	49	55	43	35	36	31	73	20	8	8	6
86	3	8	5	7	3	25	37	42	31	28	31	23	52	13	4	4	3
87	1	4	2	3	2	9	27	34	22	22	24	15	39	5	2	2	1
88	2	2	1	2	1	2	18	27	16	18	18	9	17	2	2	2	2
89	2	2	1	1	1	2	11	20	12	15	12	4	2	1	2	2	2
90	2	2	1	1	1	1	5	13	9	11	8	3	1	1	2	2	2
91	2	2	1	1	1	1	2	7	6	7	5	3	1	1	2	2	2
92	2	2	1	1	1	1	1	3	4	5	4	3	0	1	2	3	2
93	2	2	1	1	1	1	1	2	3	4	4	3	0	1	3	3	2

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94	2	2	1	1	1	1	1	2	3	4	4	4	0	1	3	3	2
95	3	2	1	1	1	1	1	2	3	4	4	4	1	1	3	4	3
96	3	2	1	1	1	1	1	2	3	5	5	4	1	2	4	4	3
97	3	2	1	1	1	1	1	2	3	5	5	4	1	2	4	4	3
98	3	2	1	1	1	1	1	2	3	5	5	5	1	2	4	5	3
99	4	3	1	1	1	1	1	2	3	5	5	5	1	3	5	5	4
100	4	3	1	1	1	1	1	2	3	5	6	5	1	3	5	5	4
101	4	3	1	1	1	1	1	2	4	6	6	5	2	4	5	6	4
102	4	3	1	1	1	1	1	2	4	6	6	6	2	4	6	6	4
103	4	3	1	1	1	1	1	2	4	6	6	6	2	4	6	6	4
104	5	3	1	1	1	1	1	3	4	6	7	6	3	5	6	6	5
105	5	3	1	1	1	1	1	3	4	7	7	7	3	5	7	6	5
106	5	3	1	1	1	1	2	3	4	7	7	7	4	5	7	7	5
107	5	4	1	1	1	1	2	3	4	7	7	7	4	6	7	7	5
108	5	4	2	1	1	1	2	3	5	7	8	7	4	6	7	7	5
109	6	4	2	1	1	1	2	3	5	8	8	8	5	6	7	7	6
110	6	4	2	1	1	1	2	3	5	8	8	8	5	7	8	7	6
111	6	4	2	1	1	1	2	3	5	8	8	8	6	7	8	8	6
112	6	4	2	1	2	1	2	3	5	8	8	8	6	7	8	8	6
113	6	4	2	1	2	2	2	3	5	8	8	9	6	7	8	8	6
114	6	4	2	1	2	2	2	4	5	8	9	9	7	8	8	8	6
115	6	5	2	1	2	2	2	4	5	8	9	9	7	8	8	8	6
116	7	5	2	1	2	2	2	4	6	8	9	9	7	8	8	9	7
117	7	5	2	2	2	2	2	4	6	8	9	9	8	8	9	9	7
118	7	5	2	2	2	2	2	4	6	9	9	9	8	8	9	9	7
119	7	5	2	2	2	2	2	4	6	9	9	9	8	8	9	9	7
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124	7	6	3	2	2	2	3	4	6	9	10	10	9	9	9	9	7
125	7	6	3	2	2	2	3	5	6	9	10	10	9	9	9	9	7

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126	7	6	3	2	3	2	3	5	6	9	10	10	9	9	9	9	7
127	7	6	3	2	3	3	3	5	6	9	10	10	9	9	9	9	7
128	7	6	3	2	3	3	3	5	6	9	10	10	10	9	9	9	7
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130	7	6	3	2	3	3	3	5	6	9	9	10	10	9	9	9	7
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157	6	7	5	4	5	5	5	6	5	6	7	7	9	9	8	7	6

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158	6	6	5	4	5	5	5	6	5	6	7	7	9	9	8	7	6
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164	6	6	6	4	5	5	5	6	5	6	6	6	7	7	7	7	6
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180	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

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Test Voltage:277V

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE150406 -L	277.0	60	0.1868	47.00	0.9085	19.54

Goniophotometer Method:

Parameter	Result
Test Voltage (V)	277.0
Frequency (Hz)	60
Total Luminous (lm)	4465.5
Luminous Efficacy (lm/W)	95.01
Beam Angle°	95.4
Center Beam Candle Power (cd)	2859
S/MH(C0/180)	0.90
S/MH(C90/270)	1.59

2.2 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
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Test date	2015-04-21	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	83509		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE150406	120.1	60	0.4066	48.25	0.9880	13.05
-L2	277.0	60	0.1914	47.96	0.9048	19.23

Sphere-Spectroradiometer Method:

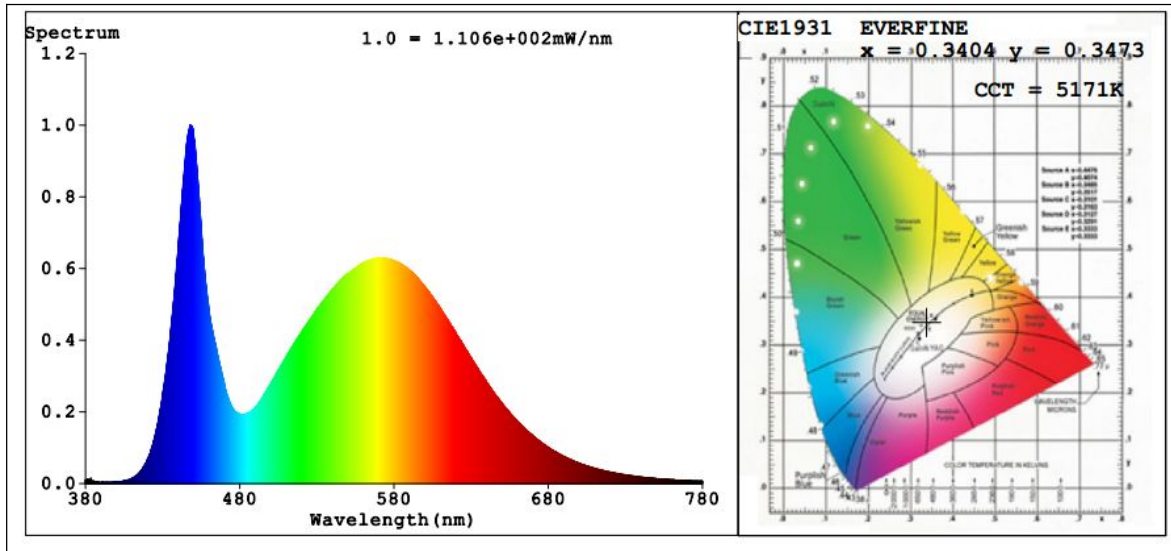
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	74
R9	0
CCT (K)	5171
Chromaticity (x, y)	x=0.3404 y=0.3473
Chromaticity (u', v')	u'=0.2099 v'=0.4818
Duv	-0.0003
Total Luminous (lm)	5006
Luminous Efficacy (lm/W)	103.75

Special Color Rendering Indices			
R1	72	R9	0
R2	81	R10	53
R3	86	R11	71
R4	75	R12	52
R5	74	R13	73
R6	73	R14	92
R7	82	R15	67
R8	58	--	--

Sphere-Spectroradiometer Method for Bare Lamp(277V):

Parameter	Result
Test Voltage (V)	277.0
Frequency (Hz)	60
Total Initial Lumen Output(lm)	4986
Initial Lumen Efficacy(lm/w)	103.96

Spectral Power Distribution & Chromaticity Diagram



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3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2014-07-01	2015-06-30
ST-R-331	Spectral analysis system HAAS-2000	2014-07-01	2015-06-30
D204	Standard Lamp	2014-07-01	2015-06-30
PF2010	Power Meter for Integrating Sphere	2014-07-01	2015-06-30
EE-09	Goniophotometer system	2014-07-01	2015-06-30
D908S	Standard Lamp	2014-07-01	2015-06-30
PF210	Power Meter for Goniophotometer	2014-07-01	2015-06-30
ST-R-181A	Temperature Tester	2014-07-01	2015-06-30
Uncertainty Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

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