



Cat# 71541
80 Watts
Trunion Mount



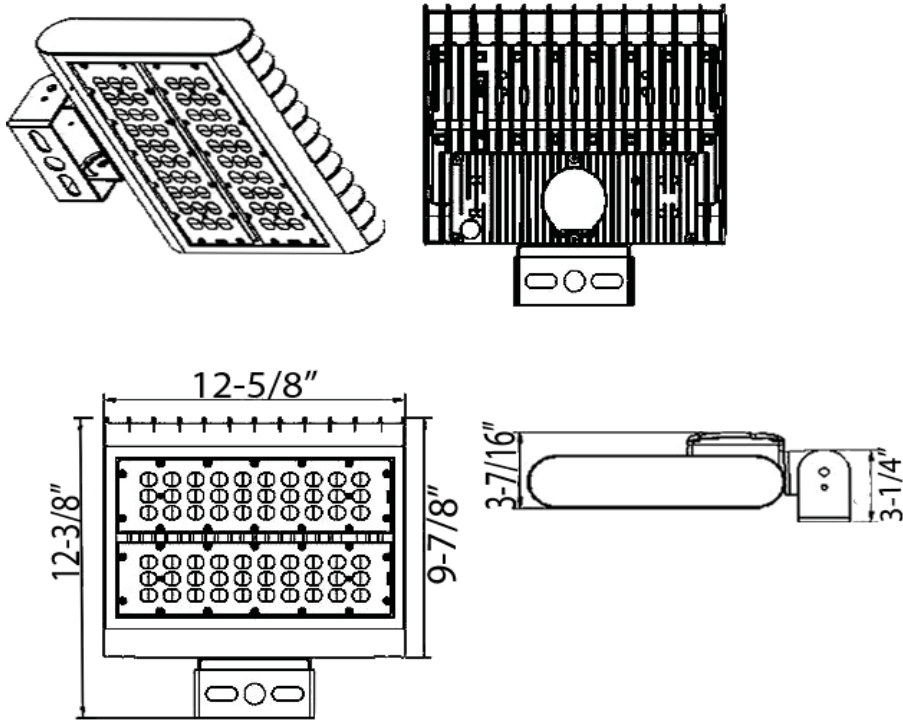
RoHS



Model : 71541		
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC 50/60HZ
	Input Current	0.38A Max
	Input Power	80 W
	Power Factor	PF ≥0.98
	Luminance	9064 LM
	Luminous Efficiency	115.39 LM/W
	CRI	>84
	Beam Angle	90° X 120°
LED DRIVER	Main Structure	Aluminium + Tempered Glass
	Output Voltage	24-45VDC
	Output Current	0.7A
	Driver Efficiency	89%
LED	LED Manufacturer	Phillips LUMILED
	LED Type	LUXEON 3030
	LED Quantity	2PCS
	LED Efficacy	120 LM/W
	Color Temperature	WW/NW/CW (5000K)
Photocell	-	Not Included
LIFESPAN & ENVIRONMENT	Lifespan	50,000 Hrs.
	Warranty	5 Years
	IP Rating	IP65, Wet Locations
	Operating Temperature	-40F to 131F
	Storage Temperature.Humidity	-40°C—+80°C , 10—90% RH
SAFETY&EMC	Safety Norms	UL1598,UL8750, EN60598, EN61347-2-13, EN62031, EN62471
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	≤0.5Ω,OK
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547
OTHERS	Dimension	Pls refer to attached dimensional drawing
	Net Weight	2.3KG
	Gross Weight	2.5KG
	Packing Size	inner box: L 238*W 212*H 145 master carton: 490*440*300
	Q'ty / Carton	1 PCS
	Volume	2.28Cbm/carton

The above info is for reference only.

Dimension :





Report No.: GZE150320-H

LM-79-08 Test Report

For

Morris Products Inc.

(Brand Name: Morris)

53 Carey RD
Queensbury, NY 12804

LED Flood Light

Model name(s): 71541

Representative (Tested) Model: 71541

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

Test & Report By:

Johnson Sun

Engineer: Johnson Sun

Date: July.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

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	July.09,2015
Test Report No.	GZE150320-H
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	Morris Products Inc.		
Brand Name	Morris		
Model Number	71541		
SKU (if available)	N/A		
Type of Luminaire (for integral lamps, list base type and lamp type)	LED LAMP		
Luminaire Aperture (for downlights)	--	in.	
Luminaire Length	--	mm	
Luminaires Width	--	mm	
Number of Units (modular products)	N/A	s	

Electrical Measurements:

	Integrating Sphere Output	Goniophotometer Output	
Input Wattage	78.55	--	W
Input Current	0.6565	--	A
Input Voltage (ac)	120.0	--	V
Power Factor	0.9974	--	
Off-State Power	0	--	W

Photometric Characteristics

Total Initial Lumen Output	9064	--	lm
Initial Lumen Efficacy	115.39	--	lm/w
Correlated color temperature / CCT	5080	--	K
Color rendering index / CRI	84.5	--	
R9 Value	14	--	
Duv	0.0024	--	

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	: Jun.24,2015
Date of Test	: July.09,2015
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.

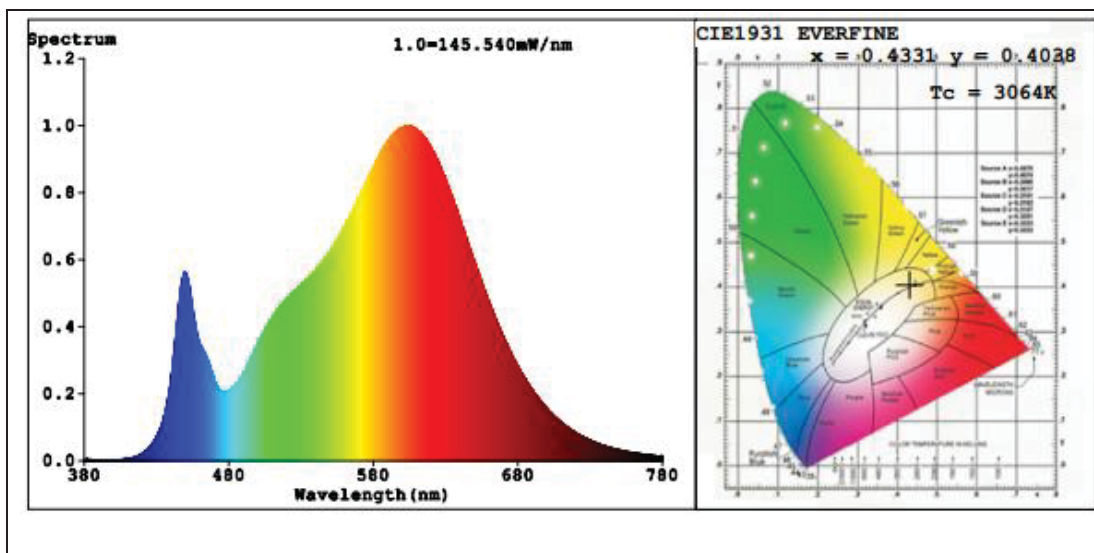
1. Product Information:

Brand Name	Morris
Model Number	71541
Luminaire Type	LED LAMP
Rated Voltage / Frequency	120~ 277Vac, 50/60Hz
Nominal Power	80W
Rated Initial Lamp Lumen	--
Declared CCT	3000K, 4000K, 5000K,
LED Manufacturer	Philips Lumileds
LED Model	LUXEON 3030 2D
Sample Receipt Date	Jun.24,2015
Sample Number	GZE150320-H1(3000K),H2(5000K)

Photo



Spectral Power Distribution & Chromaticity Diagram



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Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	2,158.9	25.1%
0-40	3,615.8	42.1%
0-60	6,751.2	78.6%
60-90	1,819.8	21.2%
70-100	677.2	7.9%
90-120	4.0	0%
0-90	8,571.1	99.8%
90-180	18.7	0.2%
0-180	8,589.8	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	273.1	3.2%	90-100	0.5	0%
10-20	756.0	8.8%	100-110	1.3	0%
20-30	1,129.8	13.2%	110-120	2.2	0%
30-40	1,456.9	17.0%	120-130	3.1	0%
40-50	1,602.2	18.7%	130-140	3.5	0%
50-60	1,533.2	17.8%	140-150	3.1	0%
60-70	1,143.1	13.3%	150-160	2.6	0%
70-80	540.8	6.3%	160-170	1.7	0%
80-90	135.9	1.6%	170-180	0.6	0%

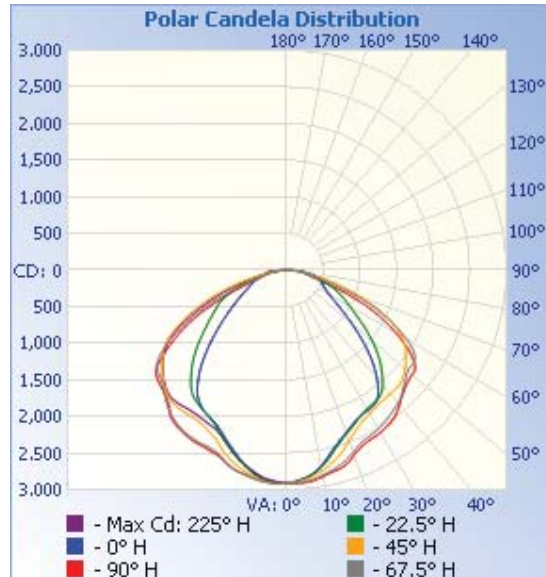
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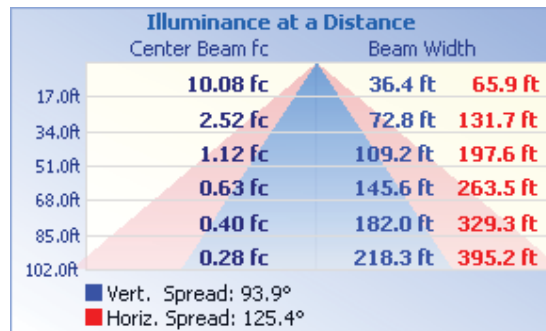
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Photometric Data



Illuminance Plots



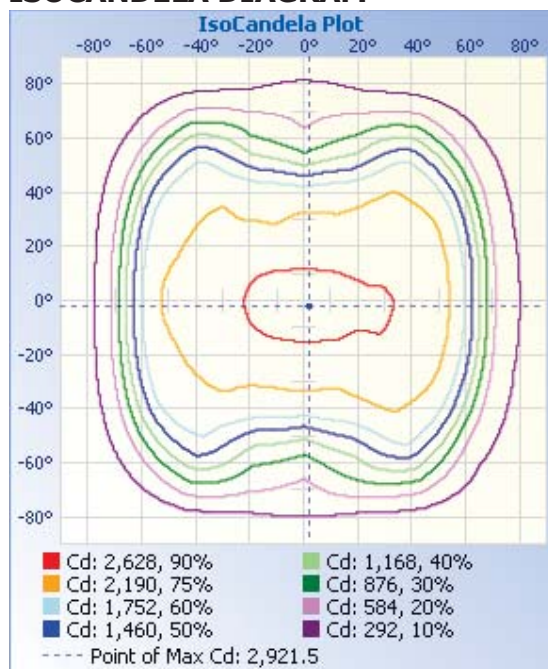
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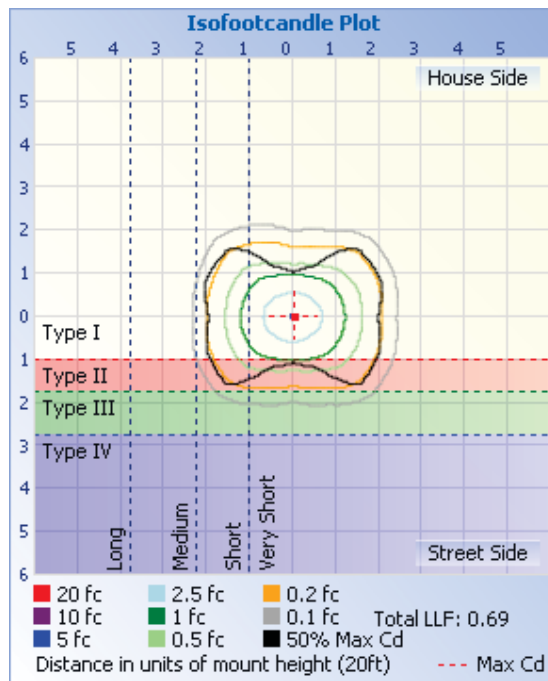
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ISOCANDELA DIAGRAM



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	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912	2912
1	2901	2906	2907	2908	2911	2911	2916	2915	2918	2918	2916	2914	2912	2909	2907	2905	2901
2	2890	2897	2900	2904	2912	2911	2916	2914	2918	2921	2920	2916	2910	2905	2900	2895	2890
3	2878	2885	2890	2901	2913	2912	2913	2907	2909	2917	2921	2916	2908	2901	2890	2882	2878
4	2864	2870	2881	2900	2913	2913	2906	2896	2896	2908	2919	2916	2906	2896	2881	2867	2864
5	2850	2855	2871	2898	2911	2912	2900	2886	2886	2898	2910	2914	2904	2889	2871	2852	2850
6	2831	2835	2860	2893	2907	2904	2893	2873	2873	2886	2900	2911	2901	2879	2858	2833	2831
7	2808	2814	2843	2885	2899	2894	2882	2859	2857	2872	2890	2904	2895	2868	2842	2813	2808
8	2782	2790	2825	2871	2889	2879	2865	2839	2838	2851	2876	2895	2886	2855	2819	2789	2782
9	2750	2763	2803	2855	2876	2861	2846	2816	2813	2826	2860	2884	2877	2840	2796	2762	2750
10	2712	2731	2782	2840	2861	2845	2824	2790	2785	2799	2842	2872	2866	2825	2771	2730	2712
11	2674	2695	2760	2827	2846	2833	2801	2760	2753	2771	2822	2861	2856	2812	2748	2693	2674
12	2630	2659	2736	2813	2834	2824	2778	2729	2723	2741	2804	2851	2845	2800	2725	2655	2630
13	2588	2617	2710	2798	2824	2813	2753	2699	2692	2710	2783	2840	2834	2786	2699	2613	2588
14	2547	2576	2681	2783	2816	2801	2729	2668	2657	2681	2762	2830	2822	2769	2673	2574	2547
15	2511	2538	2653	2765	2807	2788	2705	2634	2621	2648	2742	2816	2811	2751	2646	2534	2511
16	2475	2499	2623	2745	2792	2770	2682	2600	2586	2611	2718	2796	2794	2729	2616	2500	2475
17	2445	2465	2591	2725	2773	2750	2659	2568	2553	2577	2692	2772	2775	2708	2582	2466	2445
18	2418	2435	2557	2699	2751	2725	2633	2536	2518	2546	2663	2741	2750	2684	2547	2435	2418
19	2391	2406	2520	2674	2720	2698	2602	2503	2484	2516	2634	2711	2726	2661	2513	2407	2391
20	2363	2382	2484	2647	2686	2669	2568	2471	2452	2483	2599	2685	2707	2642	2480	2382	2363
21	2341	2357	2450	2619	2659	2638	2537	2440	2417	2449	2563	2668	2695	2626	2450	2358	2341
22	2318	2334	2419	2592	2638	2611	2509	2411	2385	2417	2530	2658	2689	2614	2424	2336	2318
23	2297	2312	2390	2573	2619	2591	2480	2384	2357	2383	2500	2650	2681	2605	2402	2313	2297
24	2275	2290	2363	2559	2603	2576	2453	2359	2333	2352	2478	2644	2675	2598	2384	2292	2275
25	2256	2269	2340	2548	2592	2564	2426	2335	2313	2327	2462	2643	2667	2595	2373	2273	2256
26	2241	2249	2322	2539	2583	2554	2401	2313	2295	2303	2447	2643	2662	2594	2365	2255	2241
27	2230	2230	2306	2534	2577	2547	2376	2294	2280	2284	2430	2643	2663	2594	2357	2240	2230
28	2221	2215	2291	2524	2575	2535	2354	2278	2267	2267	2417	2637	2665	2593	2351	2229	2221
29	2215	2202	2276	2512	2568	2522	2333	2262	2254	2254	2406	2634	2662	2592	2342	2222	2215

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30	2211	2191	2263	2500	2559	2510	2316	2245	2240	2242	2399	2629	2655	2588	2337	2213	2211
31	2208	2183	2252	2487	2550	2499	2298	2231	2224	2228	2394	2624	2647	2581	2332	2204	2208
32	2202	2177	2241	2474	2541	2488	2282	2219	2206	2215	2389	2618	2638	2573	2328	2204	2202
33	2192	2170	2234	2461	2534	2478	2270	2204	2180	2202	2389	2610	2629	2564	2327	2202	2192
34	2177	2164	2226	2449	2522	2469	2261	2184	2153	2189	2390	2598	2621	2556	2326	2194	2177
35	2153	2157	2219	2436	2509	2461	2253	2161	2124	2175	2391	2589	2611	2547	2328	2183	2153
36	2119	2145	2216	2421	2493	2453	2247	2134	2086	2157	2392	2576	2598	2536	2331	2171	2119
37	2078	2129	2212	2409	2473	2442	2244	2102	2042	2136	2395	2560	2582	2521	2336	2153	2078
38	2027	2109	2208	2393	2450	2429	2239	2066	1986	2112	2396	2543	2564	2506	2344	2126	2027
39	1971	2078	2206	2383	2425	2415	2231	2025	1928	2080	2396	2524	2541	2491	2350	2092	1971
40	1911	2038	2203	2373	2398	2398	2226	1978	1872	2043	2394	2504	2490	2478	2352	2053	1911
41	1851	1997	2205	2354	2371	2380	2216	1929	1814	2003	2391	2481	2460	2459	2354	2008	1851
42	1784	1951	2205	2332	2343	2356	2204	1880	1750	1959	2382	2454	2431	2437	2356	1962	1784
43	1719	1908	2202	2307	2320	2330	2191	1830	1681	1918	2371	2426	2408	2415	2349	1918	1719
44	1644	1858	2196	2281	2299	2306	2176	1778	1614	1875	2357	2398	2385	2393	2338	1868	1644
45	1570	1813	2191	2256	2280	2278	2157	1725	1543	1829	2337	2370	2370	2369	2323	1820	1570
46	1494	1766	2181	2236	2264	2248	2134	1670	1477	1784	2317	2344	2358	2348	2306	1770	1494
47	1413	1707	2166	2211	2252	2221	2109	1614	1409	1736	2297	2319	2347	2327	2284	1714	1413
48	1340	1655	2150	2190	2243	2195	2082	1557	1343	1688	2272	2296	2337	2311	2263	1657	1340
49	1264	1598	2131	2170	2235	2172	2052	1499	1279	1638	2244	2277	2324	2292	2240	1596	1264
50	1190	1537	2110	2154	2230	2154	2019	1442	1218	1588	2216	2260	2311	2277	2213	1534	1190
51	1121	1477	2086	2145	2228	2140	1987	1386	1158	1538	2187	2249	2293	2262	2182	1472	1121
52	1055	1419	2062	2143	2220	2133	1957	1331	1102	1488	2158	2241	2276	2252	2153	1417	1055
53	988	1359	2035	2147	2198	2131	1926	1280	1049	1439	2128	2231	2232	2235	2124	1360	988
54	930	1301	2008	2147	2157	2131	1895	1230	997	1394	2099	2204	2169	2218	2095	1302	930
55	878	1243	1983	2136	2104	2128	1866	1179	949	1350	2072	2157	2095	2185	2065	1248	878
56	826	1186	1956	2113	2040	2112	1842	1130	902	1307	2044	2099	2014	2131	2029	1195	826
57	782	1134	1929	2078	1969	2082	1817	1087	859	1267	2014	2034	1936	2066	1989	1145	782
58	741	1083	1897	2029	1894	2039	1791	1046	819	1226	1974	1959	1850	1992	1942	1099	741
59	703	1035	1860	1966	1813	1985	1763	1007	781	1188	1926	1878	1763	1916	1887	1052	703
60	674	994	1816	1900	1735	1924	1731	970	745	1154	1873	1791	1675	1836	1826	1013	674

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61	647	955	1765	1817	1647	1854	1695	933	711	1122	1809	1696	1578	1745	1761	976	647
62	623	919	1710	1743	1559	1776	1652	899	679	1090	1743	1600	1485	1659	1683	938	623
63	601	886	1646	1652	1467	1696	1602	867	648	1059	1673	1503	1375	1562	1601	901	601
64	582	853	1580	1569	1376	1608	1545	835	621	1026	1594	1408	1272	1472	1520	862	582
65	566	817	1505	1474	1274	1518	1485	805	595	992	1515	1307	1147	1365	1428	820	566
66	553	783	1427	1385	1167	1425	1419	775	569	954	1432	1199	1037	1271	1341	781	553
67	540	750	1342	1288	1054	1332	1348	742	547	915	1350	1088	920	1157	1253	740	540
68	529	715	1256	1187	938	1235	1272	710	526	872	1267	975	816	1055	1163	700	529
69	518	678	1170	1085	824	1138	1194	677	508	826	1184	863	716	942	1074	660	518
70	509	640	1083	976	715	1033	1115	644	491	775	1101	762	627	839	987	619	509
71	501	601	998	877	619	927	1036	610	475	724	1016	665	551	737	903	576	501
72	496	562	914	770	535	822	956	575	461	673	930	582	487	643	819	538	496
73	489	523	832	672	465	719	877	536	446	617	844	506	437	562	741	500	489
74	482	483	752	578	410	623	799	496	430	557	760	443	396	488	661	464	482
75	475	446	675	494	364	533	722	456	404	503	675	390	365	428	590	431	475
76	467	410	601	427	331	459	647	403	375	439	595	349	340	380	519	398	467
77	448	377	529	367	304	393	574	352	359	365	519	315	319	338	455	368	448
78	403	340	461	321	285	340	500	321	345	323	445	288	305	304	394	325	403
79	384	288	398	282	270	295	412	290	328	287	379	267	296	275	340	279	384
80	370	252	339	255	259	258	323	253	280	248	306	248	291	251	288	253	370
81	342	228	283	232	250	228	269	204	257	193	245	230	288	229	230	230	342
82	289	195	225	210	243	203	217	180	223	166	197	215	283	214	183	187	289
83	258	157	176	190	236	181	156	138	188	126	152	202	278	199	147	162	258
84	208	126	136	173	224	152	116	123	176	106	112	190	267	182	108	125	208
85	190	102	96	160	208	127	78	104	150	91	77	161	250	162	76	109	190
86	130	90	63	144	176	100	60	53	50	49	59	138	226	139	53	86	130
87	18	35	44	114	99	62	23	5	6	5	20	65	172	110	36	19	18
88	4	4	16	66	17	15	3	2	2	2	3	6	75	61	5	3	4
89	1	1	2	14	1	1	1	1	1	1	1	1	4	4	1	0	1
90	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
91	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0

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92	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
93	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
94	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0
95	0	0	0	0	1	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	1	1	1	1	0	0	0	0	0
100	0	0	0	0	1	1	1	1	0	1	1	1	0	1	1	0	0
101	0	0	0	0	1	2	2	1	0	1	2	2	0	1	1	0	0
102	0	0	1	0	1	2	2	1	1	1	2	2	0	1	1	0	0
103	0	0	1	1	2	2	2	1	1	1	2	2	1	1	1	0	0
104	0	0	1	1	2	2	2	1	1	1	2	2	1	1	1	0	0
105	0	0	1	1	2	2	2	1	1	1	2	2	1	1	1	0	0
106	0	0	1	1	2	2	2	1	1	1	2	2	1	1	1	0	0
107	0	0	1	1	2	2	2	1	1	1	2	3	1	2	1	0	0
108	0	1	2	2	2	2	2	1	1	1	2	3	2	2	2	1	0
109	0	1	2	2	3	3	2	1	1	1	3	3	2	2	2	1	0
110	0	1	2	2	3	3	2	1	1	1	3	3	2	2	2	1	0
111	0	1	2	2	3	3	2	1	1	1	3	3	2	2	2	1	0
112	1	1	2	2	3	3	2	1	1	2	3	3	2	2	2	1	1
113	1	1	2	2	3	3	3	1	1	1	3	3	2	3	2	1	1
114	1	1	2	2	3	3	3	1	1	2	3	3	3	3	2	1	1
115	1	1	2	3	3	3	3	1	1	2	3	3	3	3	2	1	1
116	1	1	2	3	4	3	3	1	1	2	3	3	3	3	2	1	1
117	1	1	2	3	4	4	3	1	1	2	3	3	3	3	3	1	1
118	1	1	3	3	4	4	3	1	1	2	3	3	3	3	3	1	1
119	2	1	3	3	4	4	3	2	1	2	3	3	3	3	3	1	2
120	1	1	3	3	4	4	3	2	2	2	3	3	3	3	3	1	1
121	1	1	3	3	4	4	3	2	2	2	3	4	3	3	3	2	1
122	2	2	3	3	4	4	3	2	2	2	3	4	3	3	3	2	2

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123	3	2	3	3	4	4	3	2	2	3	3	4	3	3	3	2	3
124	3	2	3	3	4	4	4	2	2	3	3	4	4	4	3	3	3
125	7	2	3	4	5	4	4	3	3	3	3	4	4	4	3	3	7
126	8	2	3	4	5	4	4	3	3	3	3	4	4	4	3	3	8
127	9	3	3	4	5	4	4	3	3	3	3	4	4	4	3	3	9
128	10	3	3	4	5	5	4	3	3	3	4	4	4	4	3	3	10
129	10	3	3	4	5	4	4	3	3	3	4	4	4	4	3	4	10
130	10	3	3	4	5	4	4	3	4	4	4	4	4	4	3	4	10
131	11	3	3	4	5	5	4	3	4	4	4	4	4	4	3	4	11
132	11	3	3	4	5	5	4	4	4	4	4	4	4	4	3	4	11
133	11	3	3	4	5	5	4	4	4	4	4	4	4	4	3	4	11
134	7	4	3	4	5	5	4	4	4	4	4	4	4	4	3	4	7
135	7	4	3	4	5	5	4	4	4	4	4	4	4	4	3	4	7
136	11	4	3	4	5	5	4	4	4	4	4	4	4	4	3	4	11
137	11	4	3	4	5	5	4	4	4	4	4	4	4	4	3	4	11
138	11	4	3	4	6	5	4	5	5	4	4	5	4	4	3	4	11
139	11	4	3	4	6	5	4	5	5	4	4	5	4	4	3	4	11
140	8	4	3	4	6	5	4	5	5	4	4	5	4	4	3	4	8
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142	8	4	3	4	6	5	4	5	5	5	4	5	4	4	4	5	8
143	9	4	3	4	6	5	4	5	5	5	4	5	4	4	4	5	9
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145	9	5	3	4	6	5	5	5	5	5	5	5	4	4	4	5	9
146	9	5	4	4	6	6	5	5	5	5	5	5	5	4	4	5	9
147	9	5	4	4	6	6	5	6	5	5	5	5	5	4	4	5	9
148	9	5	4	4	6	6	5	6	6	5	5	5	5	4	4	5	9
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150	9	5	4	5	6	5	5	6	6	6	6	5	5	4	5	5	9
151	8	5	4	5	6	4	5	6	7	6	6	6	5	4	5	6	8
152	8	6	5	5	6	6	6	6	7	6	6	6	5	4	5	6	8
153	8	6	5	5	6	6	6	6	6	6	6	6	5	4	5	6	8

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154	8	6	5	5	6	6	6	6	6	6	6	6	5	4	5	6	8
155	8	6	5	5	6	6	6	6	6	6	6	6	5	5	5	6	8
156	7	6	5	5	6	6	6	6	6	6	6	6	5	5	5	6	7
157	7	6	5	5	6	6	6	6	6	6	6	6	4	5	5	6	7
158	7	6	5	5	6	6	6	6	7	6	6	6	4	5	5	6	7
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162	7	6	6	5	6	6	6	7	7	7	6	6	5	5	6	6	7
163	6	6	6	5	6	6	6	7	7	7	6	6	5	5	6	6	6
164	6	6	6	5	6	6	6	7	6	7	7	6	5	5	6	6	6
165	6	6	6	5	6	6	6	7	6	7	7	6	5	5	6	6	6
166	6	6	6	5	6	6	6	7	6	7	7	6	5	5	6	6	6
167	6	6	6	5	6	6	6	7	7	7	7	4	5	5	6	6	6
168	6	6	6	5	6	6	7	7	7	7	7	6	5	5	6	6	6
169	6	6	6	5	6	6	7	7	7	7	7	7	5	5	7	6	6
170	6	6	6	5	7	6	7	7	7	8	7	7	5	5	7	7	6
171	6	6	7	5	6	6	7	8	7	8	7	7	5	5	7	7	6
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174	7	7	7	6	7	6	7	8	7	8	7	7	6	6	7	7	7
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176	7	7	7	6	6	6	7	7	7	8	7	7	6	6	7	7	7
177	7	7	7	6	6	6	7	7	7	7	7	7	6	6	7	7	7
178	7	7	7	6	6	6	7	7	7	7	7	7	6	6	7	7	7
179	7	7	7	6	6	6	7	7	7	7	7	7	6	7	7	7	7
180	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

BUG Rating: B3-U2-G2

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1069.3	12.4
FM - Front-Medium(30-60)	2300.9	26.8
FH - Front-High(60-80)	827.46	9.6
FVH - Front-Very High(80-90)	73.307	0.9
Total Forward Light	4279.7	49.8

BL - Back-Low(0-30)	1089.7	12.7
BM - Back-Medium(30-60)	2292.6	26.7
BH - Back-High(60-80)	856.4	10.0
BVH - Back-Very High(80-90)	63.536	0.7
Total Back Light	4313	50.2

UL - Uplight-Low(90-100)	1.2997	0.0
UH - Uplight-High(100-180)	18.23	0.2
Total Up Light	19.53	0.2

BUG(Back,Up,Glare) Rating	B3-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	4271	8.713	4279.7
Street Side	4302.2	10.817	4313

2.2 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
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Test date	2015-07-03	Test Ambient:	25.2 ° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	71541		

Electrical Measurement:

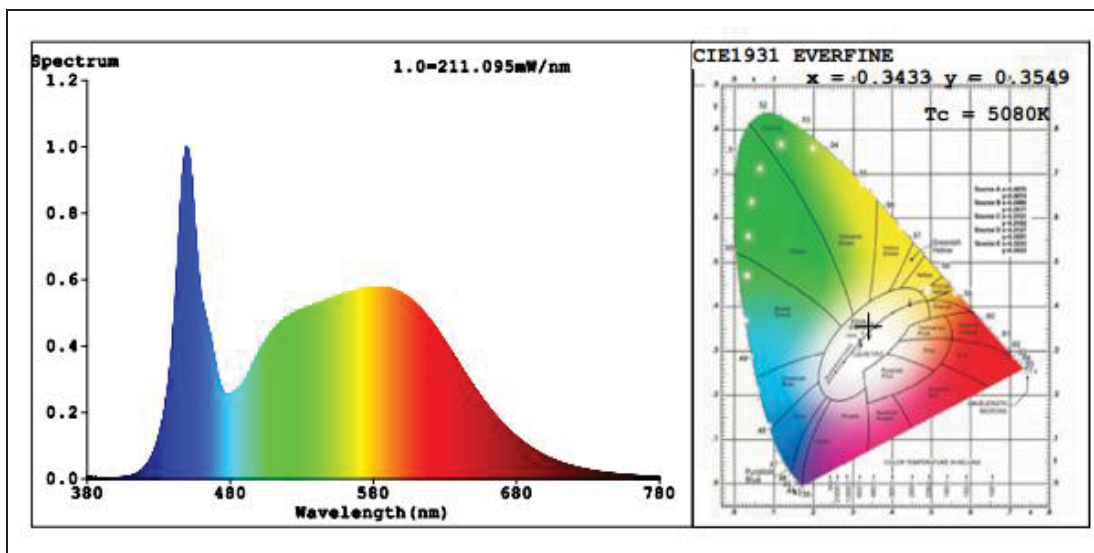
Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE150320	120.0	60	0.6565	78.55	0.9974	15.62
-H2	277.0	60	0.3108	78.02	0.9062	18.95

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	84.5
R9	14
CCT (K)	5080
Chromaticity (x, y)	x=0.3433 y=0.3549
Chromaticity (u', v')	u'=0.2089 v'=0.4860
Duv	0.0024
Total Luminous (lm)	9064
Luminous Efficacy (lm/W)	115.39

Special Color Rendering Indices			
R1	83	R9	14
R2	89	R10	74
R3	93	R11	84
R4	85	R12	65
R5	84	R13	84
R6	85	R14	96
R7	88	R15	78
R8	69	--	--

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	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 *****