

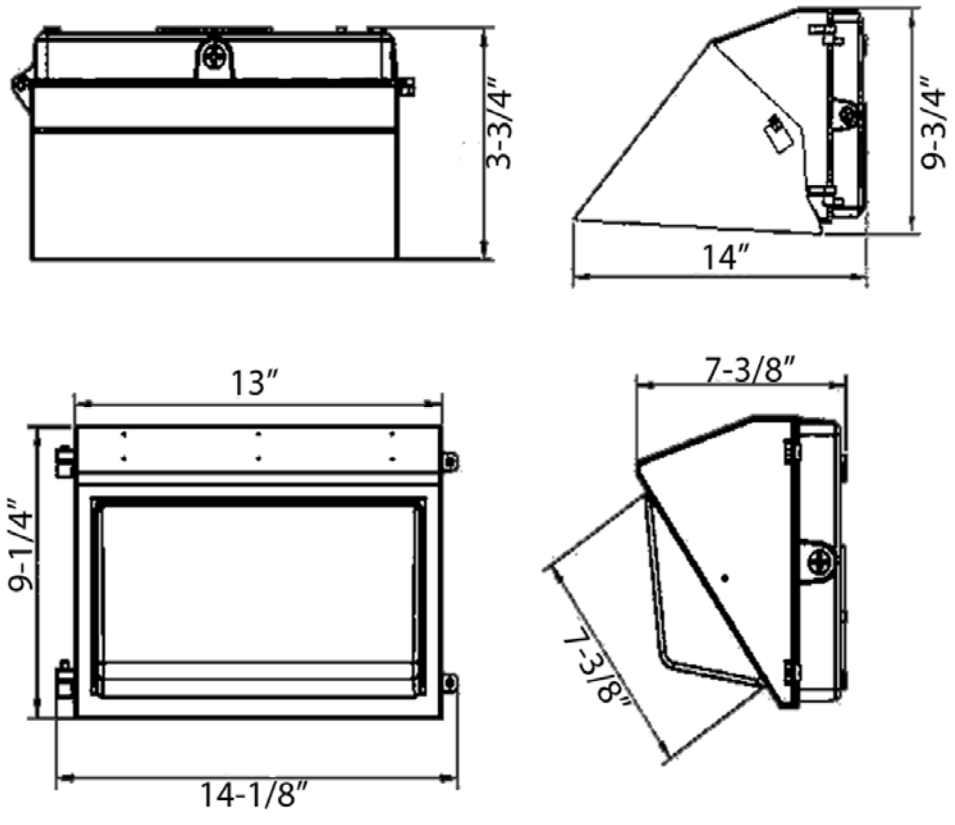


**Cat# 71428**  
**LED Classic Medium Wall-Pack**



Model :		71428
<b>OVERALL LAMP PARAMETERS</b>	Input Voltage	100-277VAC
	Input Current	0.49@120V, .23@277VAC
	Input Power	59 W
	Power Factor	PF≥0.9
	Luminance	5211 LM
	Luminous Efficiency	88 LM/W
	CRI	83
	Beam Angle	120°
	Main Structure	Alluminium + Tempered Glass
	Surface	Baking Varnish
<b>LED DRIVER</b>	Output Voltage	25.2-42VDC
	Output Current	1.2A
	Driver Efficiency	88%
<b>LED</b>	LED Type	SMD
	LED Quantity	70 PCS
	LED Manufacturer	Phillips
	LED Efficacy	140 lm/W
	Color Temperature	5098K
<b>LIFESPAN &amp; ENVIRONMENT</b>	Lifespan	50000 Hrs.
	Warranty	5 Years
	IP Rating	IP65
	Operating Temperature	-40°F—+131°F
	Storage Temperature, Humidity	-40°F—+176°F , 10—90% RH
<b>SAFETY&amp;EMC</b>	Safety Norms	EN60598, EN61347-2-13, EN62031, EN62471, UL1598, UL8750
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	25A 100mΩ
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547
	DLC Listed	DLC Listed
<b>OTHERS</b>	Dimension	Pls refer to attached dimension drawing
	Net Weight(Kg)	4.3
	Gross Weight(Kg)	5.2
	Box Size	--
	Carton Size	390*230*315
	Q'ty / Carton	1

Dimension: 71428





Report No.: GZE140709-T

NVLAPLAB CODE 201011-0

## LM-79-08 Test Report

For

**Morris Products Inc.**

**(Brand Name: Morris)**

53 Carey Rd  
Queensbury, NY 12804

## Outdoor Wall-Mounted Area Luminaires

Model name(s): 71428

Representative (Tested) Model: 71428

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

Test & Report By:

*Sean Zhuo*

Engineer: Sean Zhuo

Date: Nov.15,2014

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	Nov.15,2014
Test Report No.	GZE140709-S
Laboratory Contact Name	Tommy Liang

**Product Information:**

Organization Name	Morris Products Inc.	
Brand Name	Morris	
Model Number	71428	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Wall-Mounted Area Luminaires	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

	Integrating Sphere	Goniophotometer	
<b>Electrical Measurements:</b>	<b>Output</b>	<b>Output</b>	
Input Wattage	59.05	--	W
Input Current	0.4947	--	A
Input Voltage (ac)	120.0	--	V
Power Factor	0.9949	--	
Off-State Power	0	--	W

**Photometric Characteristics**

Total Initial Lumen Output	5211	--	lm
Initial Lumen Efficacy	88.24	--	lm/w
Correlated color temperature / CCT	5098	--	K
Color rendering index / CRI	83.1	--	
R9 Value	7	--	
Duv	0.0024	--	

**Luminous Intensity Distribution**

Center beam candlepower (if applicable)		--
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	: Oct.26,2014
Date of Test	: Oct.27,2014
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  $1^{\circ}$  vertical intervals and  $22.5^{\circ}$  horizontal intervals.

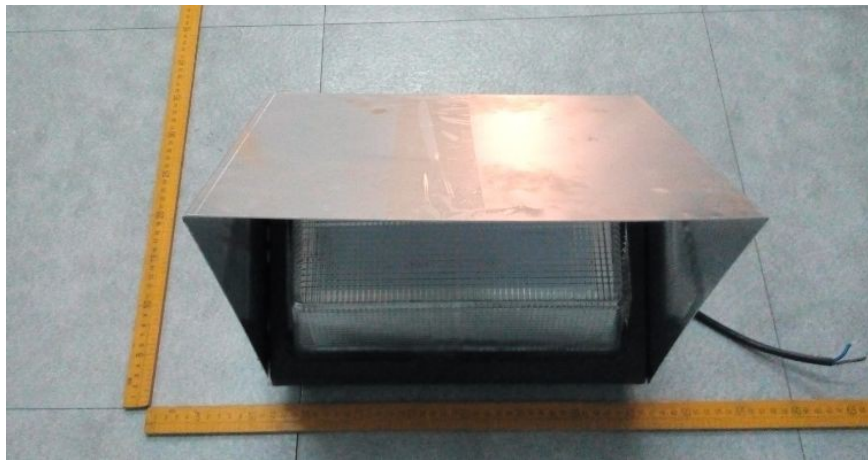
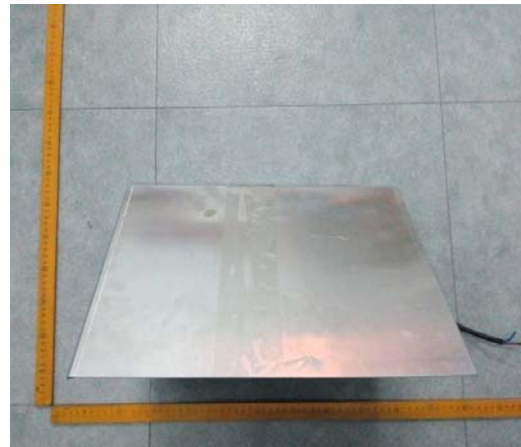
#### 2. Photometric and Electrical Measurements – Integrating Sphere Method:

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ . 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.

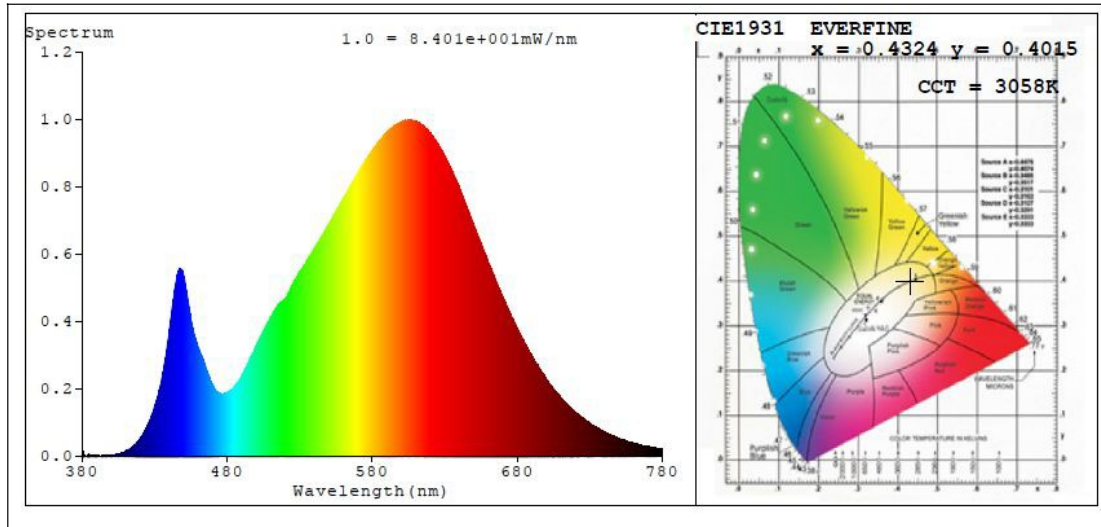
**1. Product Information:**

Brand Name	Morris
Model Number	71428
Luminaire Type	Outdoor Wall-Mounted Area Luminaires
Rated Voltage / Frequency	120 ~ 277 Vac, 50/60 Hz
Nominal Power	60W
Rated Initial Lamp Lumen	--
Declared CCT	3000K,3500K,4000K,4500K,5000K
LED Manufacturer	PHILIPS
LED Model	LUXEON 3535 2D
Sample Receipt Date	Oct.26,2014
Sample Number	140709-47(3000K),48(5000K)

**Photo**



**Spectral Power Distribution and Chromaticity Diagram**



**Laboratory: Standard-Tech Co. Ltd Testing Center**  
**NVLAP CODE: 201011-0**

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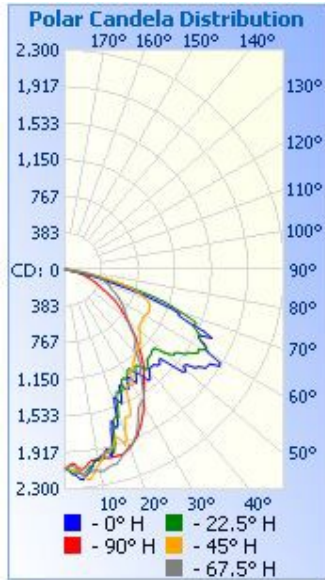
**Zonal Lumen Tabulation**

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Luminaire
0-30	1,385.5	33.8%	33.8%
0-40	2,062.7	50.3%	50.3%
0-60	3,284.0	80%	80.1%
60-90	813.6	19.8%	19.8%
70-100	285.0	6.9%	6.9%
90-120	1.0	0%	0%
0-90	4,097.6	99.9%	99.9%
90-180	4.4	0.1%	0.1%
0-180	4,102.0	100%	100%

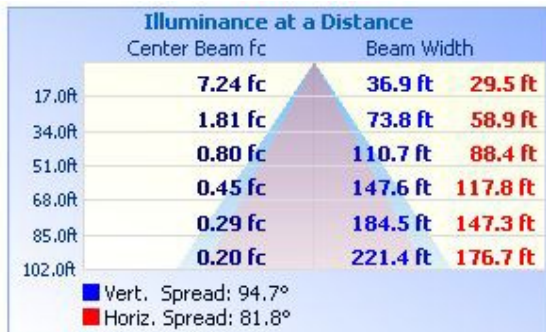
Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	194.4	4.7%	90-100	0.1	0%
10-20	519.0	12.7%	100-110	0.4	0%
20-30	672.1	16.4%	110-120	0.6	0%
30-40	677.2	16.5%	120-130	0.5	0%
40-50	618.0	15.1%	130-140	0.5	0%
50-60	603.3	14.7%	140-150	0.7	0%
60-70	528.6	12.9%	150-160	0.8	0%
70-80	258.1	6.3%	160-170	0.6	0%
80-90	26.8	0.7%	170-180	0.2	0%



### Photometric Data



### Illuminance Plots



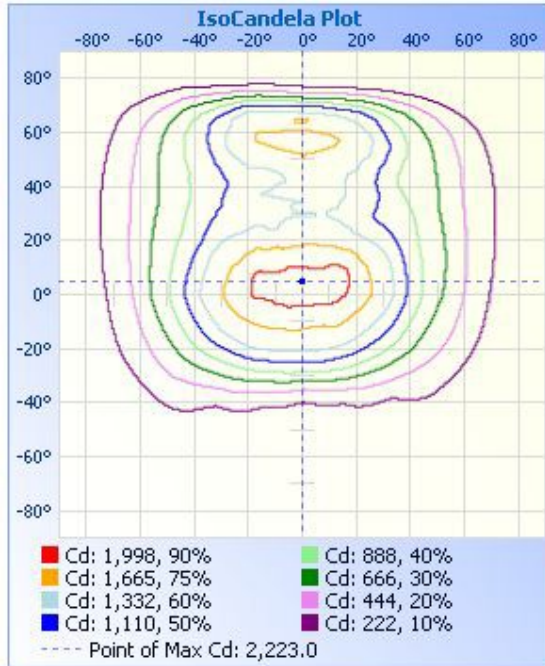
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### ISOCANDELA DIAGRAM



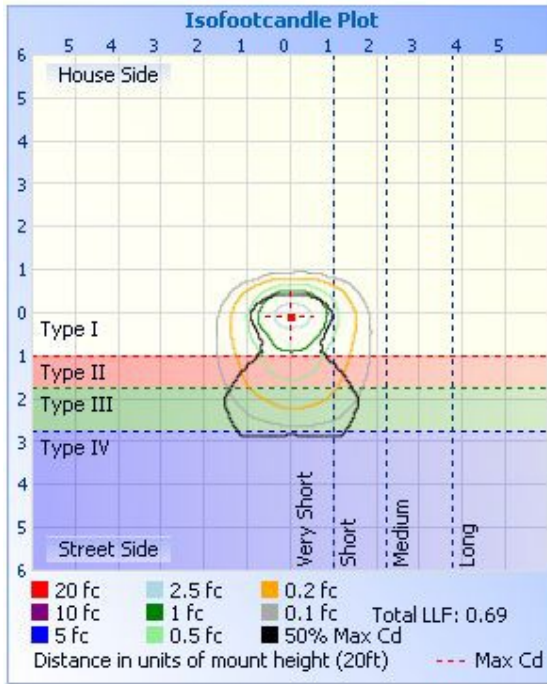
### ISOLUX DIAGRAM

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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	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093
1	2109	2107	2096	2084	2068	2078	2092	2102	2107	2109	2103	2093	2097	2096	2097	2103	2109
2	2155	2144	2110	2068	2043	2063	2067	2085	2097	2103	2101	2094	2091	2095	2113	2143	2155
3	2164	2141	2116	2085	2057	2073	2056	2072	2092	2094	2083	2081	2078	2101	2135	2154	2164
4	2205	2144	2118	2137	2098	2108	2060	2036	2048	2069	2063	2044	2046	2097	2149	2175	2205
5	2220	2167	2153	2177	2113	2122	2071	1954	1943	1980	2036	2017	2028	2086	2153	2202	2220
6	2174	2138	2220	2174	2089	2105	2052	1847	1855	1877	1976	2024	2045	2101	2155	2176	2174
7	2136	2095	2223	2154	2048	2065	1973	1813	1843	1837	1900	2035	2060	2125	2145	2129	2136
8	2087	2082	2175	2138	2031	2034	1882	1815	1796	1813	1844	2033	2067	2154	2125	2096	2087
9	2029	2040	2111	2140	2033	2030	1830	1763	1738	1746	1820	2029	2069	2179	2114	2033	2029
10	2022	2027	2080	2157	2037	2013	1815	1734	1734	1704	1803	2003	2062	2210	2098	2000	2022
11	2000	2029	2032	2158	2032	1985	1781	1750	1720	1694	1763	1965	2060	2218	2064	1980	2000
12	1976	2001	1981	2139	2026	1949	1733	1740	1672	1673	1724	1944	2064	2196	2032	1955	1976
13	1938	1956	1967	2123	2035	1913	1705	1695	1637	1634	1710	1920	2053	2193	2044	1923	1938
14	2028	1939	1960	2115	2037	1883	1700	1650	1598	1602	1696	1886	2029	2158	2036	1866	2028
15	1949	1997	1941	2115	2039	1860	1695	1613	1545	1568	1683	1839	2007	2119	2014	1931	1949

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16	1762	1909	1887	2087	2036	1838	1679	1561	1488	1529	1669	1799	1987	2073	1985	1911	1762
17	1668	1741	1840	2055	2039	1826	1657	1501	1454	1486	1647	1748	1956	2035	1973	1769	1668
18	1753	1657	1878	2037	2029	1804	1631	1460	1440	1448	1599	1708	1940	2014	1991	1702	1753
19	1719	1636	1952	2018	2004	1776	1603	1437	1399	1422	1557	1668	1892	1983	2013	1709	1719
20	1547	1646	1891	2002	1980	1745	1564	1411	1349	1387	1506	1617	1864	1951	1955	1703	1547
21	1443	1553	1753	1976	1967	1714	1524	1361	1294	1341	1453	1573	1827	1901	1804	1576	1443
22	1488	1444	1683	1945	1945	1683	1487	1312	1249	1296	1405	1531	1789	1857	1695	1462	1488
23	1530	1398	1680	1906	1928	1653	1451	1267	1193	1255	1362	1490	1746	1802	1663	1440	1530
24	1452	1410	1688	1863	1893	1635	1418	1228	1130	1211	1320	1452	1712	1752	1669	1461	1452
25	1352	1419	1630	1807	1852	1603	1384	1175	1063	1154	1274	1411	1674	1705	1598	1441	1352
26	1345	1377	1521	1755	1820	1564	1347	1116	993	1093	1219	1375	1641	1655	1474	1395	1345
27	1416	1306	1432	1697	1778	1527	1305	1056	945	1029	1170	1343	1598	1610	1391	1347	1416
28	1422	1297	1379	1651	1743	1485	1258	989	898	965	1123	1309	1554	1574	1332	1349	1422
29	1365	1316	1384	1626	1701	1447	1212	936	833	912	1074	1261	1520	1534	1337	1352	1365
30	1312	1303	1409	1609	1652	1412	1160	892	763	861	1025	1223	1458	1526	1347	1344	1312
31	1331	1283	1380	1602	1605	1379	1104	841	690	806	970	1190	1422	1504	1292	1338	1331
32	1408	1246	1321	1570	1563	1340	1052	781	612	746	918	1152	1387	1465	1235	1298	1408
33	1378	1242	1274	1509	1527	1298	999	718	536	682	866	1115	1341	1407	1179	1310	1378
34	1331	1301	1252	1453	1493	1259	947	654	474	615	817	1072	1298	1344	1140	1339	1331
35	1325	1298	1252	1406	1450	1216	895	587	417	548	769	1028	1259	1279	1139	1334	1325
36	1382	1256	1224	1352	1414	1177	843	529	363	491	720	984	1214	1229	1146	1338	1382
37	1460	1262	1204	1320	1382	1141	793	474	311	437	674	935	1172	1205	1113	1346	1460
38	1459	1303	1192	1295	1345	1100	744	419	264	383	627	893	1122	1176	1099	1347	1459
39	1413	1348	1169	1243	1314	1056	696	367	227	333	581	849	1078	1126	1088	1378	1413
40	1379	1362	1174	1185	1277	1012	648	320	204	287	536	808	1027	1085	1088	1367	1379
41	1368	1332	1169	1131	1231	972	599	281	187	252	492	769	988	1044	1109	1347	1368
42	1368	1291	1145	1100	1196	926	554	250	171	226	447	730	956	993	1086	1337	1368
43	1370	1274	1118	1084	1151	886	507	228	158	206	403	691	922	968	1086	1355	1370
44	1402	1282	1104	1064	1112	847	454	207	148	189	356	655	887	947	1073	1333	1402
45	1412	1272	1112	1055	1068	811	407	188	140	172	316	619	854	925	1076	1336	1412
46	1383	1265	1107	1034	1034	773	364	172	132	158	279	586	820	901	1057	1326	1383
47	1373	1252	1084	974	997	731	326	160	123	148	247	553	790	881	1019	1333	1373

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48	1497	1247	1055	937	955	691	290	148	115	137	217	520	757	861	987	1333	1497
49	1636	1265	1039	902	917	654	259	137	108	126	192	489	727	848	955	1392	1636
50	1663	1361	1027	876	879	617	230	127	102	116	170	460	702	834	931	1429	1663
51	1610	1412	1009	857	842	581	207	118	97	108	154	432	679	814	906	1443	1610
52	1624	1458	993	827	807	549	188	111	97	101	139	407	654	785	895	1440	1624
53	1721	1451	977	806	775	517	169	106	95	97	124	383	630	764	889	1446	1721
54	1736	1487	973	790	743	487	153	102	91	94	112	359	603	742	881	1494	1736
55	1808	1556	973	770	712	460	138	100	86	92	103	333	575	711	879	1536	1808
56	1813	1560	976	753	682	432	126	96	81	88	95	307	549	681	879	1571	1813
57	1821	1620	982	741	652	401	115	91	76	80	89	279	520	659	880	1568	1821
58	1919	1651	963	722	620	368	106	86	71	77	83	251	489	640	873	1556	1919
59	1904	1637	963	701	586	334	99	82	65	72	78	225	457	619	881	1562	1904
60	1734	1686	974	678	551	301	93	76	61	66	73	200	427	597	890	1598	1734
61	1695	1705	980	659	514	273	88	71	60	61	68	176	402	569	890	1570	1695
62	1661	1631	977	646	478	247	83	66	57	57	64	154	377	540	886	1478	1661
63	1575	1582	984	628	449	221	80	62	52	53	62	133	353	514	875	1438	1575
64	1578	1580	991	608	422	194	77	58	47	51	59	116	328	491	854	1404	1578
65	1709	1538	985	584	395	168	73	54	43	47	55	102	305	474	832	1337	1709
66	1601	1484	978	558	369	144	69	49	39	42	50	90	282	463	816	1293	1601
67	1397	1490	970	537	345	124	64	45	34	38	44	79	260	451	793	1290	1397
68	1294	1486	958	520	322	108	58	41	29	34	39	69	240	437	758	1251	1294
69	1284	1391	939	508	299	95	52	36	24	29	35	60	221	419	738	1164	1284
70	1179	1275	907	497	278	83	46	31	20	24	30	53	201	401	695	1041	1179
71	1016	1194	869	483	257	73	40	25	14	20	26	47	183	383	652	942	1016
72	881	1098	839	467	238	63	35	19	9	14	23	42	164	366	614	870	881
73	701	969	795	450	220	55	31	13	5	9	19	37	147	351	570	708	701
74	549	815	740	434	201	48	26	7	4	4	16	32	130	337	509	597	549
75	422	683	675	418	182	42	21	5	3	3	12	28	115	318	437	493	422
76	364	552	607	404	163	37	17	4	3	3	9	24	102	290	365	391	364
77	240	423	530	385	146	32	12	4	2	2	5	20	89	256	291	293	240
78	206	326	435	358	130	28	7	3	2	2	3	16	77	220	226	172	206
79	68	197	343	318	114	23	5	3	1	1	2	13	65	183	175	109	68

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80	51	117	268	279	99	20	4	2	1	1	2	10	55	149	129	61	51
81	42	67	201	241	84	16	3	1	1	0	1	7	44	117	90	44	42
82	33	48	153	196	71	13	2	1	0	0	1	5	34	89	59	33	33
83	24	37	105	154	58	10	2	0	0	0	0	3	25	66	40	25	24
84	19	28	70	120	47	8	1	0	0	0	0	2	17	46	28	19	19
85	13	22	43	91	36	6	1	0	0	0	0	1	10	29	19	14	13
86	8	16	30	62	26	4	0	0	0	0	0	0	6	16	13	9	8
87	5	11	20	37	18	3	0	0	0	0	0	0	2	6	7	5	5
88	1	5	12	21	12	2	0	0	0	0	0	0	0	1	1	1	1
89	0	1	5	10	7	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0

<b>2.2 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>	2014-10-27	<b>Test Ambient:</b>	25.2 °C
<b>Test Orientation</b>	As intended	<b>Stabilization Time (min)</b>	90
<b>Model Number</b>	71428		

**Electrical Measurement:**

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
140709-48	120.0	60	0.4947	59.05	0.9949	5.18
	277.1	60	0.2295	59.63	0.9377	11.34

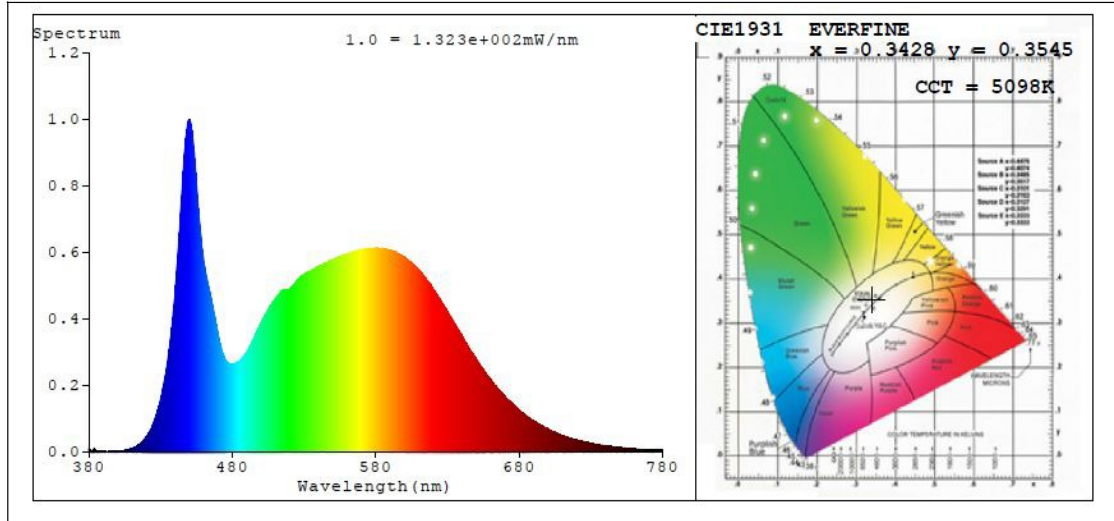
**Sphere-Spectroradiometer Method:**

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	83.1
R9	7
CCT (K)	5098
Chromaticity (x, y)	x=0.3428 y=0.3545
Chromaticity (u', v')	u'=0.2087 v'=0.4857
Duv	0.0024
Total Luminous (lm)	5211
Luminous Efficacy (lm/W)	88.24

Special Color Rendering Indices			
R1	81	R9	7
R2	88	R10	71
R3	93	R11	82
R4	83	R12	64
R5	82	R13	83
R6	84	R14	96
R7	87	R15	76
R8	67	--	--

**Spectral Power Distribution and Chromaticity Diagram**

Spectral Power Distribution:



Laboratory: Standard-Tech Co. Ltd Testing Center  
NVLAP CODE: 201011-0

Report Format Number STD/QR4909-A/2

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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

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