

ANSI/IES LM-79-19
MEASUREMENT AND TEST REPORT
For

GREEN CREATIVE LTD

Room 3603, Level 36, Tower 1, Enterprise Square Five, 38 Wang Chiu Road, Kowloon Bay, Kowloon,
Hong Kong, China

Test Model:
NYXDM8RD/M9CCT5S/DUALDIM/WD/WBW

Report Type:	Electrical and Photometric tests including: Luminous Flux, Luminous Intensity Distribution, THD
Reviewed By:	Ezer Pan <i>Ezer Pan</i>
Report Number:	KS2231204-72559E-EE-7
Test Date:	2023-12-09
Report Date:	2024-04-18
Approved by:	Blake Zhang / EE Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 5F (B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial Building D Shihua Road, Futian Free Trade Zone Shenzhen 518038 China. Tel: +86-755-33320018 Fax: +86-755-33320008
Test Location:	Test facility was located at No.12, Pulong East 1 st Road, Tangxia Town, Dongguan, Guangdong, China.

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.(Shenzhen). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S. Government. *This report contains data that are not covered by the NVLAP accreditation.

1. Product Description[#]

General Information:

One test sample was in good condition and received on 2023-12-04, and used for testing. All tests and evaluations were performed at the most consumptive white light setting.

Model Tested: NYXDM8RD/M9CCT5S/DUALDIM/WD/WBW
Manufacturer: GREEN CREATIVE LTD
Brand Name: GREEN CREATIVE
Product Designation: LED recessed downlight
Burning Time Before Test: 0hour(For New Products)

Rated Values:

Rated Voltage/Frequency: 120-277V, 50/60Hz
Rated Power: 25/30/41W
Nominal CCT: 2700K/3000K/3500K/4000K/5000K
Nominal Lumen Output: 3895lm(2700K),3936lm(3000K),4100lm(3500K),4100lm(4000K),4100lm(5000K)

2. Standards Used

- ANSI/IES LM-79-19: Approved method :Optical and Electrical Measurements of Solid-State Lighting Products

3. Description of Test Equipment

Device	Manufacture	Model No	Serial No	Calibration date	Calibration due date
AC POWER SUPPLY	EVERFINE	VPS1030 PWM	1012017	2023-09-02	2024-09-01
Digital CC&CV DC Power Supply	EVERFINE	WY12010	1009009	2023-09-02	2024-09-01
Digital power meter	YOKOGAWA	WT-210	91j926132	2023-09-02	2024-09-01
full-field speed goniophotometer	EVERFINE	GO-R5000	YG108492N10120001	2023-09-02	2024-09-01
wireless remote thermohygrometer	N/A	AOK-5017B	N/A	2023-09-02	2024-09-01
Standard Light Source	EVERFINE	D908	N/A	2023-05-12	2025-05-11

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Shenzhen) attested that all calibration has been performed using suitable standards traceable to National Primary Standards and International System of Units (SI).

4. Test Method

Product was tested with no seasoning. All stabilization and measurements were made in compliance with ANSI/IES LM-79-19. The product was operated at rated voltage or at voltage required by manufacturer. The ambient temperature of the sample was maintained at $25^{\circ}\text{C} \pm 1.2^{\circ}\text{C}$ during measurement. And relative humidity is maintained between 10% and 65%.The air flow around the SSL product is less than 0.2m/s.

Goniophotometer System

The goniophotometer system is calibrated by standard light source before measurement.

Type C goniophotometer was used for measuring total luminous flux, luminous intensity distribution, and color spatial uniformity. The product was operated in its intended orientation in application and was recorded in this report. For luminous intensity distribution, The vertical angle (γ) test intervals were set no more than 2.5 degree, The horizontal angle (C plane) test intervals were set no more than 22.5 degree. For color spatial uniformity, The vertical angle (γ) test intervals were set no more than 90 degree, The horizontal angle (C plane) test intervals were set no more than 10 degree

The uncertainty of the luminous intensity is $U=2.00\%$ ($K=2$), at the 95% confidence level.

Additional Test

The Additional Test item may not be covered by ANSI/IES LM-79-2019. Additional test including power factor, off-state power and THD, was measured by Digital Power Meter after stabilized at $25^{\circ}\text{C}\pm 1.2^{\circ}\text{C}$. Test voltage for THD and power factor test would be equal to rated voltage or, in case of a voltage range, maximum value of that range.

The uncertainty of power meter AC current $U=0.19\%$ of rdg, AC Voltage $U=0.15\%$ of rdg, Power $U=0.46\%$ ($K=2$), at the 95% confidence level.

5. Test Result

[Goniophotometer System]

Test facility was located at No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The photometric distance: **2.513m**

The Stabilization time: **30 minutes**

Total operating time for luminous intensity distribution: **1.5 hour**

Test orientation: **Downward**

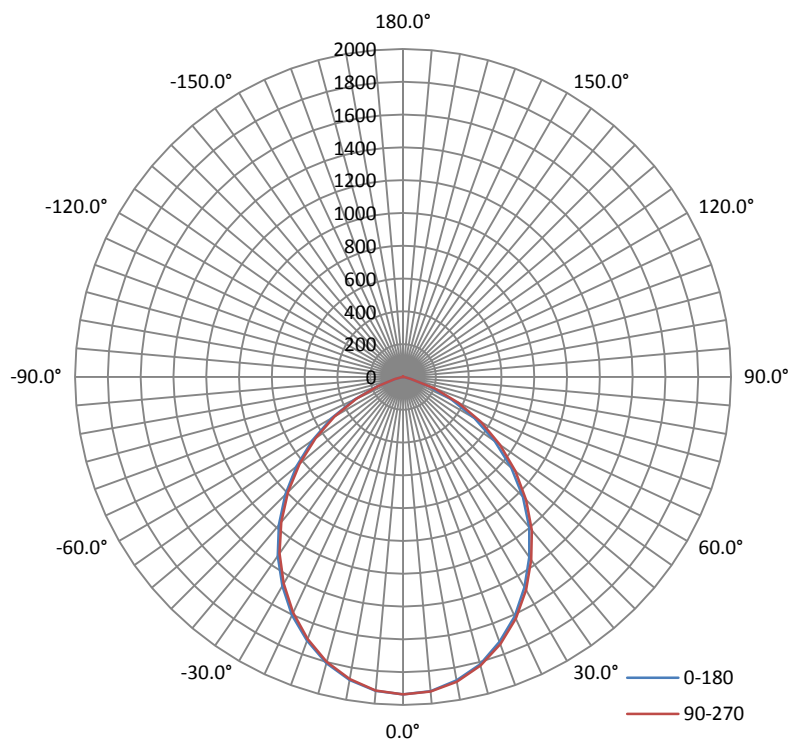
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.07	60	0.3286	38.920	0.9864

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I _{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
4081.99	104.88	1939	1.15	1.16

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I _{max}):	93.3	93.6	93.5	93.4	93.5

Field Angle (10% I_{max}):

138.2	139.3	139.2	139.3	139.0
-------	-------	-------	-------	-------

Luminous Intensity (cd) Distribution Data

C Y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0°	1936	1936	1936	1936	1936	1936	1936	1936
1°	1934	1934	1936	1933	1933	1934	1934	1936
2°	1932	1932	1933	1931	1930	1931	1933	1934
3°	1929	1929	1929	1926	1928	1930	1927	1934
4°	1925	1924	1925	1919	1924	1922	1923	1932
5°	1922	1919	1921	1915	1920	1917	1918	1925
6°	1914	1912	1914	1909	1910	1910	1912	1918
7°	1907	1905	1906	1900	1902	1902	1903	1911
8°	1897	1896	1896	1890	1894	1892	1894	1901
9°	1885	1885	1882	1879	1882	1882	1882	1894
10°	1877	1873	1874	1870	1871	1870	1871	1885
11°	1865	1861	1861	1859	1858	1856	1858	1874
12°	1852	1846	1849	1845	1844	1844	1844	1861
13°	1837	1836	1835	1829	1831	1832	1829	1849
14°	1822	1819	1819	1813	1815	1814	1815	1836
15°	1808	1803	1802	1796	1799	1798	1799	1818
16°	1789	1786	1785	1778	1780	1781	1781	1802
17°	1770	1768	1764	1760	1763	1761	1763	1785
18°	1753	1749	1746	1741	1742	1742	1745	1763
19°	1732	1728	1723	1720	1719	1722	1724	1747
20°	1711	1707	1706	1702	1701	1700	1700	1727
21°	1691	1687	1686	1681	1680	1678	1681	1709
22°	1670	1665	1663	1657	1657	1658	1658	1686
23°	1648	1643	1642	1636	1634	1634	1636	1665
24°	1624	1619	1619	1610	1610	1610	1611	1641
25°	1603	1595	1593	1588	1586	1586	1589	1616
26°	1577	1571	1568	1563	1561	1560	1563	1593
27°	1549	1544	1542	1536	1535	1535	1539	1569
28°	1525	1519	1516	1510	1510	1509	1511	1541
29°	1497	1493	1487	1484	1481	1482	1484	1516
30°	1472	1467	1463	1456	1455	1456	1457	1489
31°	1446	1439	1435	1430	1426	1426	1430	1463
32°	1419	1411	1408	1401	1399	1399	1402	1435
33°	1390	1384	1379	1373	1371	1370	1372	1408
34°	1362	1354	1351	1342	1343	1338	1343	1379
35°	1333	1325	1321	1313	1313	1311	1313	1348
36°	1303	1295	1291	1284	1282	1280	1285	1319
37°	1271	1265	1260	1254	1251	1250	1251	1288
38°	1240	1234	1229	1221	1219	1218	1221	1256
39°	1210	1202	1195	1190	1186	1188	1189	1227
40°	1179	1170	1165	1158	1155	1156	1159	1196
41°	1147	1139	1134	1126	1124	1124	1125	1164
42°	1115	1106	1102	1093	1091	1090	1093	1131
43°	1083	1074	1070	1061	1059	1057	1061	1098
44°	1050	1042	1036	1028	1025	1022	1028	1066
45°	1016	1009	1003	995	993	992	995	1032

Luminous Intensity (cd) Distribution Data

$\begin{matrix} \text{C} \\ \backslash \\ \gamma \end{matrix}$	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
46°	984	976	970	962	960	959	962	999
47°	950	943	936	928	924	926	927	965
48°	916	910	902	894	892	892	894	930
49°	882	875	868	859	857	858	858	897
50°	849	841	834	825	823	823	825	863
51°	814	807	800	791	789	790	791	829
52°	780	773	765	756	753	755	757	794
53°	746	739	732	722	719	721	722	758
54°	711	704	698	689	685	685	687	724
55°	676	669	664	654	651	652	654	688
56°	640	634	628	620	613	618	619	654
57°	606	600	595	586	582	585	585	616
58°	573	567	561	552	551	552	552	583
59°	539	533	528	518	517	519	519	550
60°	503	498	494	483	482	484	484	516
61°	467	463	459	448	447	449	450	481
62°	432	428	425	413	413	415	415	446
63°	397	393	390	379	379	382	381	411
64°	362	359	356	345	345	348	348	377
65°	328	324	323	312	312	315	315	342
66°	294	291	290	279	280	283	282	309
67°	260	258	257	247	248	251	250	276
68°	228	226	227	216	218	220	219	244
69°	197	196	197	186	189	191	189	213
70°	166	166	167	157	160	162	161	183
71°	138	139	140	130	134	136	134	154
72°	111	113	115	105	108	111	109	126
73°	86	89	91	83	86	89	86	101
74°	65	69	71	63	65	69	66	78
75°	51	54	56	50	51	54	48	58
76°	37	39	41	36	37	40	37	43
77°	22	24	27	22	23	25	26	28
78°	13	16	18	15	16	17	15	19
79°	8	9	11	9	10	10	9	12
80°	6	7	6	7	8	8	7	7
81°	5	6	5	5	6	6	5	6
82°	4	4	4	4	4	4	4	4
83°	3	3	3	3	3	3	3	4
84°	3	3	3	3	2	3	3	3
85°	2	2	2	2	2	2	2	2
86°	2	2	1	2	2	2	2	2
87°	1	1	1	1	1	1	1	1
88°	1	1	1	1	0	1	1	1
89°	0	0	0	0	0	0	0	1
90°	0	0	0	0	0	0	0	0
91°	0	0	0	0	0	0	0	0
92°	0	0	0	0	0	0	0	0
93°	0	0	0	0	0	0	0	0
94°	0	0	0	0	0	0	0	0

Luminous Intensity (cd) Distribution Data

C y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
95°	0	0	0	0	0	0	0	0
96°	0	0	0	0	0	0	0	0
97°	0	0	0	0	0	0	0	0
98°	0	0	0	0	0	0	0	0
99°	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0
101°	0	0	0	0	0	0	0	0
102°	0	0	0	0	0	0	0	0
103°	0	0	0	0	0	0	0	0
104°	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0
106°	0	0	0	0	0	0	0	0
107°	0	0	0	0	0	0	0	0
108°	0	0	0	0	0	0	0	0
109°	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0
111°	0	0	0	0	0	0	0	0
112°	0	0	0	1	0	0	0	0
113°	0	0	0	1	0	0	0	0
114°	0	0	0	1	0	0	0	1
115°	0	0	0	1	0	0	1	1
116°	0	0	1	1	1	1	1	1
117°	1	1	1	1	1	1	1	1
118°	1	1	1	1	1	1	1	1
119°	1	1	1	1	1	1	1	1
120°	1	1	1	1	1	1	1	1
121°	1	1	1	1	1	1	1	1
122°	1	1	1	1	1	1	1	1
123°	1	1	1	1	1	1	1	1
124°	1	1	1	1	1	1	1	1
125°	1	1	1	1	1	1	1	1
126°	1	1	1	1	1	1	1	1
127°	1	1	1	1	1	1	1	1
128°	1	1	1	1	1	1	1	1
129°	1	1	1	1	1	1	1	1
130°	1	1	1	1	1	1	1	1
131°	1	1	1	1	1	1	1	1
132°	1	1	1	1	1	1	1	1
133°	1	1	1	1	1	1	1	1
134°	1	1	1	1	1	1	1	1
135°	1	1	1	1	1	1	1	1
136°	1	1	1	1	2	2	1	1
137°	1	1	1	2	2	2	2	1
138°	1	2	2	2	2	2	2	1
139°	2	2	2	2	2	2	2	2
140°	2	2	2	2	2	2	2	2
141°	2	2	2	2	2	2	2	2
142°	2	2	2	2	2	2	2	2
143°	2	2	2	2	2	2	2	2

Luminous Intensity (cd) Distribution Data

C γ	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
144°	2	2	2	2	2	2	2	2
145°	2	2	2	2	2	2	2	2
146°	2	2	2	3	3	3	2	2
147°	2	2	3	3	3	3	3	2
148°	2	2	3	3	3	3	3	2
149°	2	3	3	3	3	3	3	2
150°	2	3	3	3	3	3	3	2
151°	3	3	3	3	3	3	3	3
152°	3	3	3	3	3	3	3	3
153°	3	3	3	3	3	3	3	3
154°	3	3	3	3	3	3	3	3
155°	3	3	3	3	3	3	3	3
156°	3	3	3	3	3	3	3	3
157°	3	3	3	3	3	3	3	3
158°	3	3	3	3	3	3	3	3
159°	3	3	3	3	3	3	3	3
160°	3	3	3	3	3	3	3	3
161°	3	3	3	3	3	3	3	3
162°	3	3	3	3	3	3	3	3
163°	3	3	3	3	3	3	3	3
164°	3	3	3	3	3	3	3	3
165°	3	3	3	3	3	3	3	3
166°	3	3	3	3	3	3	3	3
167°	3	3	3	3	3	3	3	3
168°	3	3	3	3	3	3	3	3
169°	3	3	3	3	3	3	3	3
170°	3	3	3	3	3	3	3	3
171°	3	3	3	3	3	3	3	3
172°	3	3	3	3	3	3	3	3
173°	3	3	3	3	3	3	3	3
174°	3	3	3	3	3	3	3	3
175°	3	3	3	3	3	3	3	3
176°	3	3	3	3	3	3	3	3
177°	3	3	3	3	3	3	3	3
178°	3	3	3	2	2	3	3	3
179°	3	2	2	2	2	2	3	3
180°	3	2	2	2	2	2	2	3

Luminous Intensity (cd) Distribution Data (cont.)

$\begin{matrix} \text{C} \\ \swarrow \\ \gamma \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
0°	1936	1936	1936	1936	1936	1936	1936	1936
1°	1934	1935	1935	1933	1937	1937	1936	1936
2°	1933	1933	1937	1932	1938	1935	1939	1930
3°	1929	1931	1936	1930	1936	1934	1935	1928
4°	1928	1928	1930	1928	1930	1930	1930	1924
5°	1924	1924	1928	1922	1926	1925	1928	1919
6°	1916	1918	1922	1918	1920	1918	1920	1913
7°	1910	1913	1914	1913	1913	1916	1912	1906
8°	1901	1904	1904	1904	1906	1906	1905	1895
9°	1888	1893	1896	1894	1897	1897	1896	1885
10°	1879	1882	1886	1885	1888	1886	1886	1874
11°	1867	1871	1873	1874	1877	1875	1876	1860
12°	1856	1858	1865	1863	1869	1863	1865	1844
13°	1844	1845	1852	1849	1854	1850	1851	1833
14°	1828	1830	1836	1836	1838	1838	1836	1818
15°	1814	1815	1819	1820	1823	1823	1821	1803
16°	1797	1799	1804	1804	1807	1805	1804	1783
17°	1779	1784	1787	1790	1790	1791	1786	1765
18°	1760	1765	1769	1770	1770	1771	1769	1745
19°	1741	1744	1750	1751	1754	1752	1750	1727
20°	1719	1723	1731	1731	1734	1732	1731	1705
21°	1698	1703	1708	1711	1714	1711	1710	1686
22°	1680	1683	1692	1689	1695	1691	1689	1661
23°	1656	1661	1669	1668	1672	1669	1667	1640
24°	1634	1638	1646	1645	1649	1647	1645	1617
25°	1611	1614	1622	1623	1626	1624	1621	1593
26°	1586	1591	1598	1597	1602	1600	1597	1568
27°	1561	1568	1575	1575	1576	1575	1572	1542
28°	1534	1542	1549	1548	1549	1549	1546	1515
29°	1508	1514	1523	1524	1525	1524	1521	1490
30°	1481	1487	1496	1497	1500	1497	1494	1462
31°	1454	1461	1468	1470	1473	1471	1468	1435
32°	1427	1432	1442	1443	1447	1443	1440	1407
33°	1399	1404	1415	1416	1418	1417	1414	1381
34°	1370	1376	1386	1387	1390	1389	1386	1353
35°	1341	1348	1357	1360	1362	1360	1356	1323
36°	1311	1319	1329	1330	1331	1332	1326	1296
37°	1284	1292	1299	1301	1303	1301	1299	1270
38°	1257	1264	1273	1274	1276	1274	1272	1243
39°	1230	1237	1247	1247	1249	1247	1245	1214
40°	1197	1206	1218	1220	1222	1220	1218	1181
41°	1165	1173	1185	1187	1190	1190	1186	1149
42°	1133	1142	1152	1156	1156	1157	1153	1117
43°	1100	1109	1122	1123	1127	1126	1123	1085
44°	1066	1076	1088	1091	1093	1093	1090	1052
45°	1033	1044	1056	1059	1061	1061	1057	1019
46°	998	1009	1023	1026	1027	1028	1024	986
47°	965	975	990	991	995	993	992	951
48°	930	942	955	959	960	960	958	917

Luminous Intensity (cd) Distribution Data (cont.)

$\begin{matrix} \text{C} \\ \backslash \\ \text{Y} \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
49°	895	908	921	924	927	926	925	884
50°	860	873	887	891	894	893	891	850
51°	825	839	852	856	859	859	857	816
52°	789	804	817	822	824	825	823	779
53°	754	768	783	788	791	791	789	745
54°	717	733	748	753	756	757	755	710
55°	682	698	714	718	721	723	720	675
56°	646	663	679	684	687	688	685	640
57°	610	626	644	648	651	653	650	605
58°	574	592	609	614	615	618	615	570
59°	538	555	574	579	582	583	580	534
60°	502	520	538	543	547	548	545	499
61°	466	484	503	508	512	514	511	464
62°	430	448	468	472	476	479	476	428
63°	395	412	433	436	441	444	441	394
64°	360	377	398	401	405	410	407	359
65°	326	343	363	366	371	375	372	326
66°	292	308	329	332	337	342	339	292
67°	258	274	295	297	302	308	305	260
68°	226	242	262	263	269	275	272	228
69°	195	210	230	230	237	243	240	197
70°	167	179	199	198	206	210	209	168
71°	138	152	170	169	176	178	179	139
72°	109	124	142	140	146	145	151	111
73°	85	97	113	111	115	113	122	86
74°	64	75	89	87	82	82	98	64
75°	47	56	68	66	50	56	75	47
76°	33	40	50	48	34	34	56	32
77°	25	28	36	33	24	22	39	24
78°	16	20	24	24	19	17	27	16
79°	8	13	18	16	14	12	20	8
80°	6	6	12	8	9	8	13	5
81°	5	5	5	5	4	5	6	5
82°	4	4	4	4	3	4	4	4
83°	3	4	4	4	3	3	3	3
84°	3	3	3	3	3	3	3	3
85°	2	2	2	2	2	2	2	2
86°	2	2	2	2	2	2	2	2
87°	1	1	1	1	1	1	1	1
88°	1	1	1	1	1	1	1	1
89°	1	0	0	0	0	0	1	0
90°	0	0	0	0	0	0	0	0
91°	0	0	0	0	0	0	0	0
92°	0	0	0	0	0	0	0	0
93°	0	0	0	0	0	0	0	0
94°	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0
96°	0	0	0	0	0	0	0	0
97°	0	0	0	0	0	0	0	0

Luminous Intensity (cd) Distribution Data (cont.)

C y	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
98°	0	0	0	0	0	0	0	0
99°	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0
101°	0	0	0	0	0	0	0	0
102°	0	0	0	0	0	0	0	0
103°	0	0	0	0	0	0	0	0
104°	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0
106°	0	0	0	0	0	0	0	0
107°	0	0	0	0	0	0	0	0
108°	0	0	0	0	0	0	0	0
109°	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0
111°	0	0	0	0	0	0	0	0
112°	0	0	0	0	0	0	0	0
113°	0	0	0	0	0	0	0	0
114°	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0
116°	0	0	0	0	0	0	0	0
117°	0	0	0	0	0	0	0	0
118°	0	0	0	0	0	0	0	0
119°	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0
121°	0	0	0	0	0	0	0	0
122°	0	0	0	0	0	0	0	0
123°	0	0	0	0	0	0	0	0
124°	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0
126°	0	0	0	0	0	0	0	0
127°	0	0	0	0	0	0	0	1
128°	0	0	0	0	0	0	0	1
129°	0	0	1	0	0	0	0	1
130°	1	1	1	1	0	1	0	1
131°	1	1	1	1	1	1	1	1
132°	1	1	1	1	1	1	1	1
133°	1	1	1	1	1	1	1	1
134°	1	1	1	1	1	1	1	1
135°	1	1	1	1	1	1	1	1
136°	1	1	1	1	1	1	1	1
137°	1	1	1	1	1	1	1	1
138°	1	1	1	1	1	1	1	1
139°	1	1	1	1	1	1	1	1
140°	1	1	1	1	1	1	1	1
141°	1	1	1	1	1	1	1	1
142°	1	1	1	1	1	1	1	1
143°	1	1	1	1	1	1	1	1
144°	1	1	1	1	1	1	1	1
145°	1	1	1	1	1	1	1	1
146°	1	1	1	1	1	1	1	1

Luminous Intensity (cd) Distribution Data (cont.)

$\begin{matrix} C \\ \backslash \\ \gamma \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
147°	1	1	1	1	1	1	1	1
148°	1	1	1	1	1	1	1	1
149°	1	1	1	1	1	1	1	1
150°	1	1	1	1	1	1	1	1
151°	1	1	1	1	1	1	1	1
152°	1	1	1	1	1	1	1	1
153°	1	1	1	1	1	1	1	1
154°	1	1	1	1	1	1	1	1
155°	1	1	1	1	1	1	1	1
156°	1	1	1	1	1	1	1	1
157°	1	1	1	1	1	1	1	2
158°	1	1	1	1	1	1	1	2
159°	1	1	2	1	1	1	1	2
160°	2	1	2	1	1	1	1	2
161°	2	2	2	2	1	1	1	2
162°	2	2	2	2	2	1	2	2
163°	2	2	2	2	2	2	2	2
164°	2	2	2	2	2	2	2	2
165°	2	2	2	2	2	2	2	2
166°	2	2	2	2	2	2	2	2
167°	2	2	2	2	2	2	2	2
168°	2	2	2	2	2	2	2	2
169°	2	2	2	2	2	2	2	2
170°	2	2	2	2	2	2	2	2
171°	2	2	2	2	2	2	2	2
172°	2	2	2	2	2	2	2	2
173°	2	2	2	2	2	2	2	2
174°	2	2	2	2	2	2	2	2
175°	2	2	2	2	2	2	2	2
176°	2	2	2	2	2	2	2	2
177°	2	2	2	2	2	2	2	2
178°	2	2	2	2	2	2	2	2
179°	2	2	2	2	2	2	2	2
180°	3	3	2	2	2	2	2	3

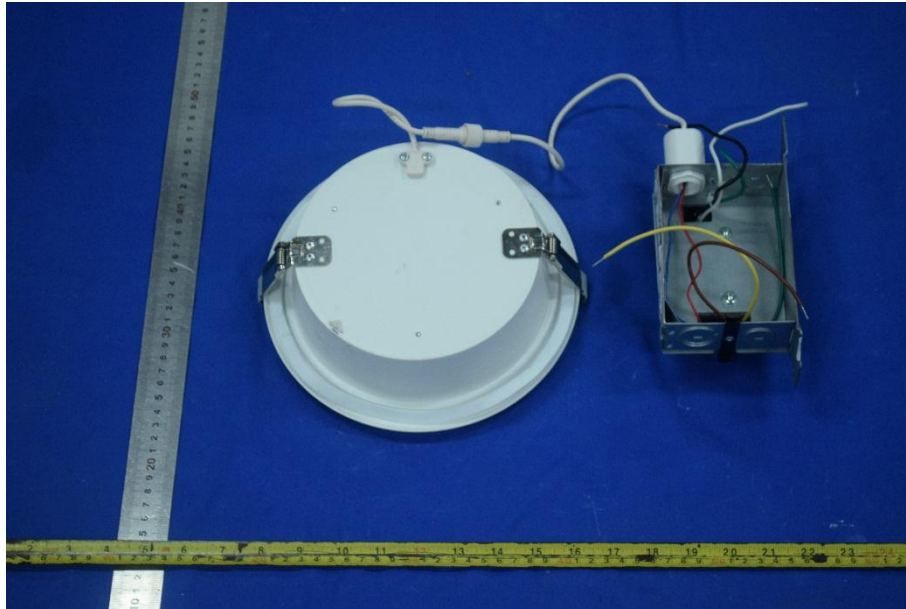
Zonal Lumen Density Measurement

Deg	Flux (lm)	%
0-5	46.1	1.13
5-10	135.9	3.33
10-15	218.8	5.36
15-20	290.6	7.12
20-25	348.4	8.53
25-30	389.9	9.55
30-35	414.1	10.15
35-40	420.9	10.31
40-45	409.8	10.04
45-50	380.4	9.32
50-55	335.0	8.21
55-60	276.2	6.76
60-65	206.0	5.05
65-70	129.8	3.18
70-75	58.6	1.44
75-80	13.7	0.33
80-85	2.2	0.05
85-90	0.6	0.02
90-95	0.1	0.00
95-100	0.1	0.00
100-105	0.1	0.00
105-110	0.1	0.01
110-115	0.2	0.00
115-120	0.2	0.01
120-125	0.2	0.00
125-130	0.3	0.01
130-135	0.4	0.01
135-140	0.4	0.01
140-145	0.5	0.01
145-150	0.5	0.01
150-155	0.5	0.02
155-160	0.5	0.01
160-165	0.4	0.01
165-170	0.3	0.00
170-175	0.2	0.01
175-180	0.1	0.00

Deg	Flux (lm)	%
0-5	46.1	1.13
0-10	182.0	4.46
0-15	400.8	9.82
0-20	691.4	16.94
0-25	1039.8	25.47
0-30	1429.7	35.02
0-35	1843.8	45.17
0-40	2264.7	55.48
0-45	2674.6	65.52
0-50	3055.0	74.84
0-55	3390.0	83.05
0-60	3666.2	89.81
0-65	3872.3	94.86
0-70	4002.0	98.04
0-75	4060.6	99.48
0-80	4074.2	99.81
0-85	4076.4	99.86
0-90	4077.0	99.88
0-95	4077.0	99.88
0-100	4077.1	99.88
0-105	4077.2	99.88
0-110	4077.4	99.89
0-115	4077.5	99.89
0-120	4077.7	99.90
0-125	4078.0	99.90
0-130	4078.3	99.91
0-135	4078.6	99.92
0-140	4079.1	99.93
0-145	4079.5	99.94
0-150	4080.1	99.95
0-155	4080.6	99.97
0-160	4081.1	99.98
0-165	4081.5	99.99
0-170	4081.8	99.99
0-175	4081.9	100.00
0-180	4082.0	100.00

Test Item	Test Voltage (V)	Frequency (Hz)	Test Result
Total Harmonic Distortion:	120	60	13.54%

6. Product Photo



Directions

1. The information marked "superscript #" is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
2. This report includes some test methods are not in NVLAP accreditation scope marked *.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $K=2$ with the 95% confidence interval.
6. This report cannot be reproduced except in full, without prior written approval of the Company.
7. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

*****END OF REPORT*****