

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/L9CCT5S/DIM120V/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:	KS2231107-64477E-EE-7
Test Date:	2023-11-11
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 2023-11-07, and used for testing. All tests and evaluations were performed at the most consumptive white light setting.

Model Tested: NYXDM8RD/L9CCT5S/DIM120V/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: 120V AC 60Hz
Rated Power: 40W-50W-63W
Nominal CCT: 2700K/3000K/3500K/4000K/5000K
Nominal Lumen Output: 5860lm(2700K),6110lm(3000K),6300lm(3500K/4000K/5000K)

2. Standards Used

- ANSI/IES LM-79-19: Approved method :Optical and Electrical Measurements of Solid-State Lighting Products
- ANSI C82.77-10-2014: Harmonic Emission Limits – Related Power Quality Requirements for Lighting
- *IES TM-30-18: IES Method for Evaluating Light Source Color Rendition (This method is not in NVLAP accreditation scope)

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°C±1.2°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]

The photometric distance: **2.513m**

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

Test orientation: **Downward**

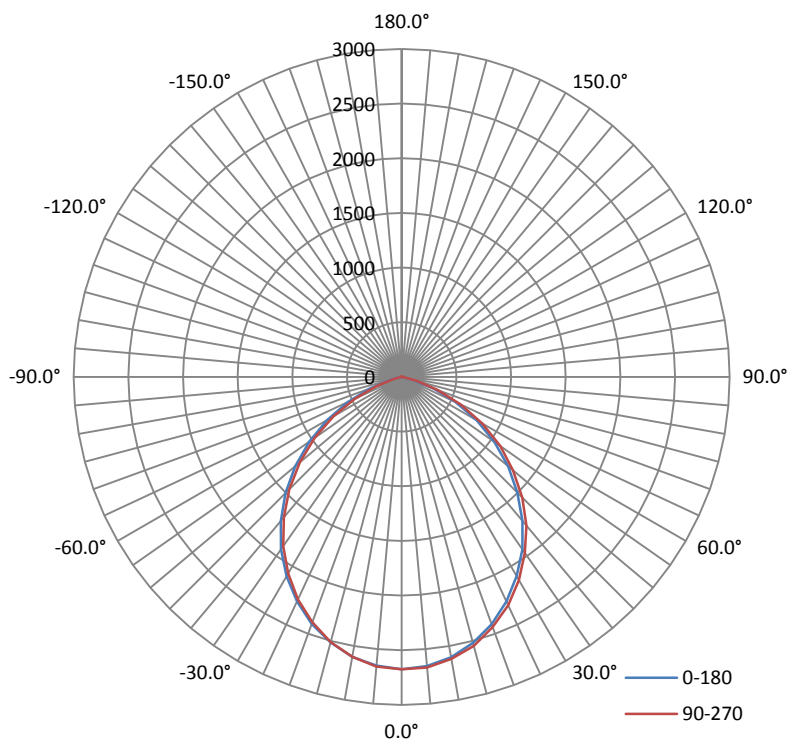
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.01	60	0.5155	61.540	0.9947

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I_{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
5989.67	97.33	2682	1.18	1.20

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I_{max}):	97.1	97.2	97.1	97.2	97.2
Field Angle (10% I_{max}):	142.0	142.0	141.2	142.1	141.8

Luminous Intensity (cd) Distribution Data

C y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0°	2674	2674	2674	2674	2674	2674	2674	2674
1°	2675	2673	2674	2675	2679	2680	2674	2674
2°	2674	2664	2670	2673	2673	2672	2669	2670
3°	2666	2667	2664	2668	2671	2661	2662	2666
4°	2660	2662	2668	2664	2664	2657	2658	2656
5°	2650	2657	2656	2657	2659	2646	2652	2655
6°	2644	2660	2645	2649	2649	2640	2645	2644
7°	2637	2643	2634	2636	2641	2625	2635	2632
8°	2625	2627	2624	2624	2624	2624	2613	2622
9°	2616	2615	2613	2608	2615	2609	2606	2613
10°	2601	2605	2602	2596	2599	2593	2590	2599
11°	2591	2589	2586	2583	2583	2583	2580	2583
12°	2581	2566	2570	2567	2566	2560	2564	2567
13°	2560	2554	2548	2548	2551	2537	2545	2549
14°	2539	2535	2532	2530	2531	2526	2528	2521
15°	2514	2516	2512	2514	2511	2502	2504	2508
16°	2497	2504	2491	2491	2491	2482	2483	2487
17°	2477	2481	2471	2465	2466	2455	2461	2465
18°	2454	2452	2443	2441	2441	2435	2431	2443
19°	2433	2426	2419	2412	2416	2413	2412	2415
20°	2405	2401	2394	2390	2387	2386	2383	2391
21°	2384	2374	2369	2364	2363	2363	2359	2365
22°	2360	2343	2347	2337	2334	2330	2330	2337
23°	2326	2321	2311	2305	2306	2299	2300	2308
24°	2298	2291	2283	2276	2275	2269	2273	2276
25°	2265	2258	2250	2248	2246	2237	2242	2248
26°	2234	2239	2219	2217	2218	2207	2209	2216
27°	2203	2203	2190	2184	2182	2173	2175	2182
28°	2172	2164	2154	2148	2146	2139	2139	2149
29°	2140	2135	2121	2109	2111	2105	2109	2118
30°	2106	2097	2085	2077	2075	2072	2072	2083
31°	2071	2061	2051	2043	2042	2040	2039	2046
32°	2038	2021	2019	2008	2008	2000	2000	2009
33°	1999	1989	1977	1970	1969	1961	1961	1974
34°	1962	1956	1942	1933	1928	1923	1927	1934
35°	1924	1915	1902	1894	1890	1882	1890	1894
36°	1886	1879	1861	1854	1852	1843	1850	1859
37°	1844	1838	1821	1817	1811	1801	1806	1815
38°	1804	1793	1777	1770	1764	1764	1758	1773
39°	1763	1752	1737	1724	1723	1718	1718	1733
40°	1720	1710	1695	1684	1677	1674	1676	1690
41°	1680	1666	1652	1639	1636	1634	1634	1646
42°	1638	1619	1608	1593	1593	1585	1595	1600
43°	1593	1577	1562	1550	1546	1538	1545	1556
44°	1547	1531	1517	1504	1500	1496	1500	1507
45°	1502	1488	1471	1462	1453	1449	1453	1463
46°	1457	1443	1426	1414	1408	1403	1407	1418
47°	1412	1396	1378	1367	1359	1356	1360	1373
48°	1366	1349	1331	1318	1310	1307	1311	1324

Luminous Intensity (cd) Distribution Data

$\begin{matrix} \text{C} \\ \backslash \\ \text{Y} \end{matrix}$	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
49°	1317	1302	1283	1267	1264	1261	1267	1275
50°	1271	1254	1237	1223	1215	1214	1218	1229
51°	1223	1208	1190	1176	1170	1168	1170	1181
52°	1177	1158	1141	1127	1119	1117	1125	1132
53°	1127	1111	1093	1077	1069	1067	1073	1084
54°	1080	1060	1044	1029	1020	1019	1026	1033
55°	1032	1013	995	982	971	969	977	985
56°	983	966	947	932	923	923	927	936
57°	933	917	897	882	871	873	878	888
58°	884	866	848	833	820	822	828	839
59°	836	818	799	782	769	773	781	789
60°	787	768	750	733	719	722	732	740
61°	736	719	700	684	669	675	683	690
62°	688	669	652	635	618	624	635	641
63°	638	621	603	591	570	576	587	589
64°	589	574	556	542	522	529	539	545
65°	543	528	509	492	474	481	492	500
66°	498	481	462	443	426	434	444	452
67°	451	433	414	398	378	387	398	406
68°	404	386	368	351	333	343	351	360
69°	357	341	325	307	288	298	307	316
70°	312	297	281	265	246	256	264	273
71°	268	254	239	224	205	216	224	231
72°	225	214	201	186	168	178	186	192
73°	184	175	164	150	135	143	150	155
74°	146	140	132	119	105	111	119	121
75°	112	109	103	91	80	84	92	92
76°	84	82	78	69	59	62	68	67
77°	62	60	58	55	45	50	53	52
78°	49	47	44	41	32	37	38	37
79°	36	35	30	27	23	24	24	22
80°	23	22	21	19	18	17	17	16
81°	19	18	16	16	14	14	13	13
82°	16	15	14	13	12	12	11	10
83°	13	12	12	11	10	10	9	8
84°	10	10	9	9	8	8	7	7
85°	7	7	7	7	6	6	5	5
86°	5	5	5	5	5	4	3	3
87°	3	3	3	3	3	3	2	2
88°	1	1	1	1	1	1	1	1
89°	0	0	0	1	0	1	0	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

C γ	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
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	1	1	1	1	0
106°	0	0	1	1	1	1	1	1
107°	0	1	1	1	1	1	1	1
108°	1	1	1	1	1	1	1	1
109°	1	1	1	1	1	1	1	1
110°	1	1	1	1	1	1	1	1
111°	1	1	1	1	1	1	1	1
112°	1	1	1	1	1	1	1	1
113°	1	1	1	1	1	1	1	1
114°	1	1	1	1	1	1	1	1
115°	1	1	1	1	1	1	1	1
116°	1	1	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°	2	1	1	2	2	2	2	1
131°	2	2	2	2	2	2	2	2
132°	2	2	2	2	2	2	2	2
133°	2	2	2	2	2	2	2	2
134°	2	2	2	2	2	2	2	2
135°	2	2	2	2	2	2	2	2
136°	2	2	2	2	2	2	2	2
137°	2	2	2	2	2	2	2	2
138°	2	2	2	2	2	2	2	2
139°	2	2	2	2	3	3	2	2
140°	3	3	3	3	3	3	3	2
141°	3	3	3	3	3	3	3	3
142°	3	3	3	3	3	3	3	3
143°	3	3	3	3	3	3	3	3
144°	3	3	3	3	3	3	3	3
145°	3	3	3	3	3	3	3	3
146°	3	3	3	4	4	4	3	3

Luminous Intensity (cd) Distribution Data

C γ	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
147°	3	3	4	4	4	4	4	3
148°	3	4	4	4	4	4	4	3
149°	3	4	4	4	4	4	4	4
150°	4	4	4	4	4	4	4	4
151°	4	4	4	4	4	4	4	4
152°	4	4	4	4	4	4	4	4
153°	4	4	4	4	4	4	4	4
154°	4	4	4	4	4	4	4	4
155°	4	4	4	5	5	5	4	4
156°	4	4	5	5	5	5	5	4
157°	4	5	5	5	5	5	5	4
158°	4	5	5	5	5	5	5	5
159°	5	5	5	5	5	5	5	5
160°	5	5	5	5	5	5	5	5
161°	5	5	5	5	5	5	5	5
162°	5	5	5	5	5	5	5	5
163°	5	5	5	5	5	5	5	5
164°	5	5	5	5	5	5	5	5
165°	5	5	5	5	5	5	5	5
166°	4	5	5	5	5	5	5	5
167°	4	4	4	5	5	5	5	4
168°	4	4	4	4	5	4	4	4
169°	4	4	4	4	4	4	4	4
170°	4	4	4	4	4	4	4	4
171°	4	4	4	4	4	4	4	4
172°	4	4	4	4	4	4	4	4
173°	4	4	4	4	4	4	4	4
174°	4	4	4	4	4	4	4	4
175°	4	4	4	4	4	4	4	4
176°	4	4	4	4	4	4	4	4
177°	4	4	4	4	4	4	4	4
178°	4	4	4	4	4	4	4	4
179°	4	4	4	3	3	3	4	4
180°	4	4	3	3	3	3	4	4

Luminous Intensity (cd) Distribution Data (cont.)

$\begin{matrix} \diagup C \\ \diagdown \gamma \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
0°	2674	2674	2674	2674	2674	2674	2674	2674
1°	2672	2676	2675	2674	2680	2674	2675	2675
2°	2670	2675	2674	2676	2682	2672	2668	2673
3°	2665	2673	2672	2673	2679	2668	2670	2669
4°	2662	2674	2667	2671	2677	2669	2668	2666
5°	2655	2660	2661	2667	2669	2661	2665	2663
6°	2649	2654	2655	2658	2667	2659	2657	2652
7°	2641	2649	2647	2649	2654	2650	2648	2648
8°	2632	2631	2636	2643	2644	2641	2641	2638
9°	2618	2623	2626	2633	2635	2637	2629	2625
10°	2604	2612	2614	2618	2619	2620	2621	2614
11°	2591	2598	2601	2602	2612	2605	2606	2601
12°	2578	2583	2585	2590	2598	2591	2586	2586
13°	2559	2567	2572	2574	2580	2572	2574	2573
14°	2541	2560	2554	2561	2564	2560	2559	2556
15°	2518	2531	2535	2541	2548	2543	2540	2538
16°	2501	2510	2517	2522	2530	2527	2521	2514
17°	2483	2485	2491	2500	2511	2503	2502	2497
18°	2458	2463	2472	2479	2485	2482	2486	2478
19°	2440	2443	2450	2458	2462	2465	2460	2453
20°	2407	2419	2423	2435	2435	2437	2436	2429
21°	2383	2393	2400	2407	2417	2412	2406	2403
22°	2356	2365	2372	2383	2388	2392	2378	2375
23°	2330	2335	2345	2358	2363	2357	2358	2350
24°	2298	2316	2317	2327	2336	2334	2329	2325
25°	2266	2277	2289	2300	2304	2305	2298	2293
26°	2238	2251	2259	2269	2276	2274	2270	2258
27°	2206	2214	2224	2239	2246	2244	2237	2232
28°	2172	2181	2193	2208	2214	2212	2212	2201
29°	2145	2152	2161	2173	2182	2183	2182	2168
30°	2103	2119	2128	2139	2146	2148	2144	2137
31°	2072	2084	2096	2105	2117	2114	2107	2098
32°	2036	2049	2059	2072	2084	2079	2070	2066
33°	2000	2011	2025	2039	2052	2044	2040	2031
34°	1964	1977	1986	2001	2011	2013	2003	1997
35°	1924	1935	1949	1966	1964	1972	1968	1957
36°	1888	1899	1912	1926	1936	1935	1931	1917
37°	1846	1858	1871	1886	1897	1895	1890	1882
38°	1803	1815	1832	1849	1858	1857	1855	1840
39°	1764	1776	1791	1805	1821	1820	1812	1799
40°	1719	1734	1748	1764	1775	1775	1770	1757
41°	1680	1691	1706	1719	1733	1732	1726	1714
42°	1633	1650	1664	1678	1691	1690	1681	1675
43°	1591	1605	1623	1637	1649	1645	1641	1631
44°	1544	1563	1575	1595	1606	1605	1597	1586
45°	1496	1514	1530	1552	1560	1561	1553	1542
46°	1455	1469	1485	1501	1515	1514	1509	1494
47°	1408	1424	1438	1455	1468	1468	1462	1452
48°	1362	1375	1396	1409	1422	1424	1421	1406

Luminous Intensity (cd) Distribution Data (cont.)

$\begin{matrix} \text{C} \\ \backslash \\ \gamma \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
49°	1317	1330	1352	1364	1378	1379	1371	1362
50°	1273	1286	1305	1318	1330	1331	1324	1315
51°	1228	1241	1261	1275	1284	1286	1277	1271
52°	1184	1197	1217	1232	1241	1241	1237	1227
53°	1134	1153	1174	1190	1197	1196	1197	1184
54°	1084	1107	1123	1141	1153	1151	1148	1135
55°	1035	1057	1075	1094	1102	1104	1099	1087
56°	987	1006	1026	1043	1052	1054	1050	1036
57°	937	957	975	993	1004	1007	1002	988
58°	888	906	928	943	953	955	955	939
59°	842	857	881	894	902	907	903	891
60°	790	808	830	844	850	857	854	841
61°	739	758	780	794	800	806	802	790
62°	690	709	730	745	750	757	753	742
63°	640	659	680	694	698	706	705	692
64°	591	611	630	643	648	654	655	642
65°	542	562	581	593	595	604	604	593
66°	496	513	531	543	545	553	555	543
67°	448	465	481	494	494	504	505	496
68°	402	418	434	445	446	456	457	448
69°	358	373	388	397	396	409	410	402
70°	313	327	341	351	349	362	363	354
71°	270	283	296	306	303	316	317	309
72°	227	241	254	262	259	272	274	265
73°	186	200	213	221	216	230	233	223
74°	149	165	178	182	181	190	194	183
75°	112	130	143	147	145	157	161	148
76°	83	95	108	112	110	125	128	113
77°	60	70	81	85	83	92	96	86
78°	42	50	60	64	62	69	72	63
79°	28	35	43	47	45	52	53	46
80°	19	23	30	34	33	38	39	33
81°	16	16	21	24	25	28	28	24
82°	13	14	16	18	19	21	21	19
83°	10	11	13	15	16	18	18	16
84°	8	9	11	13	14	15	15	13
85°	6	7	8	10	11	12	12	11
86°	4	5	6	8	9	9	9	8
87°	2	3	4	6	6	7	6	5
88°	1	2	2	4	5	5	4	3
89°	0	0	1	1	2	2	2	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
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 γ	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°	1	0	0	0	0	0	0	0
119°	1	0	0	0	0	0	0	0
120°	1	0	0	0	0	0	0	0
121°	0	0	0	0	0	0	0	0
122°	1	0	0	0	0	0	0	0
123°	1	1	1	1	0	0	0	0
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	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.)

$\begin{matrix} \text{C} \\ \backslash \\ \gamma \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
147°	2	1	1	2	1	1	1	2
148°	2	1	1	2	2	2	1	2
149°	2	1	2	2	2	2	2	2
150°	2	1	2	2	2	2	2	2
151°	2	2	2	2	2	2	2	2
152°	2	2	2	2	2	2	2	2
153°	2	2	2	2	2	2	2	2
154°	2	2	2	2	2	2	2	2
155°	2	2	2	2	2	2	2	2
156°	2	2	2	2	2	2	2	2
157°	2	2	2	2	2	2	2	2
158°	2	2	2	2	2	2	2	2
159°	2	2	2	2	2	2	2	2
160°	2	2	2	2	2	2	2	2
161°	2	2	2	2	2	2	2	2
162°	2	2	2	2	2	2	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°	3	2	2	2	2	2	2	3
167°	3	3	2	2	2	2	2	3
168°	3	3	2	2	2	2	2	3
169°	3	3	3	2	2	2	2	3
170°	3	3	3	2	2	2	2	3
171°	3	3	3	3	2	2	2	3
172°	3	3	3	3	3	2	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	3	3	3	3	3
179°	4	4	3	3	3	3	3	3
180°	4	4	4	3	3	3	3	4

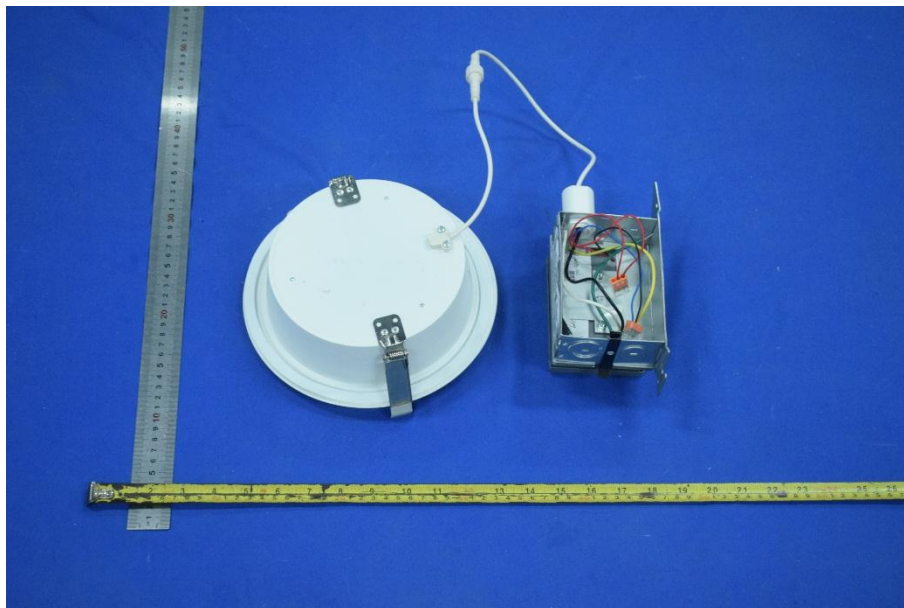
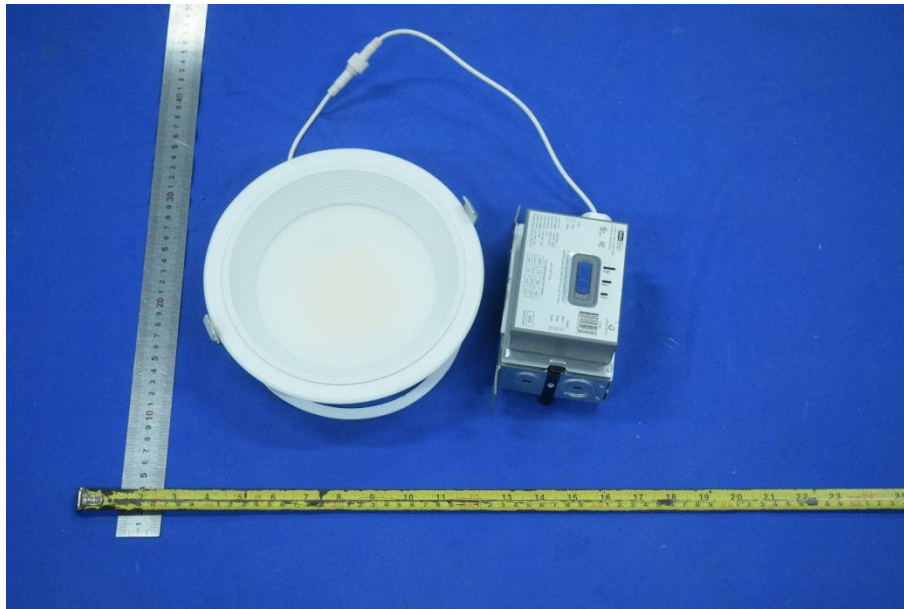
Zonal Lumen Density Measurement

Deg	Flux (lm)	%
0-5	63.8	1.06
5-10	188.4	3.15
10-15	304.3	5.08
15-20	406.6	6.79
20-25	490.9	8.20
25-30	554.1	9.25
30-35	594.3	9.92
35-40	609.1	10.17
40-45	597.2	9.97
45-50	560.2	9.35
50-55	501.8	8.38
55-60	421.5	7.04
60-65	323.1	5.39
65-70	214.7	3.58
70-75	108.8	1.82
75-80	33.8	0.57
80-85	8.0	0.13
85-90	1.8	0.03
90-95	0.1	0.00
95-100	0.1	0.00
100-105	0.2	0.01
105-110	0.2	0.00
110-115	0.3	0.00
115-120	0.3	0.01
120-125	0.4	0.00
125-130	0.4	0.01
130-135	0.5	0.01
135-140	0.6	0.01
140-145	0.7	0.01
145-150	0.7	0.01
150-155	0.7	0.02
155-160	0.7	0.01
160-165	0.6	0.01
165-170	0.4	0.00
170-175	0.2	0.01
175-180	0.1	0.00

Deg	Flux (lm)	%
0-5	63.8	1.06
0-10	252.1	4.21
0-15	556.5	9.29
0-20	963.1	16.08
0-25	1454.0	24.28
0-30	2008.1	33.53
0-35	2602.4	43.45
0-40	3211.5	53.62
0-45	3808.7	63.59
0-50	4368.9	72.94
0-55	4870.7	81.32
0-60	5292.2	88.36
0-65	5615.3	93.75
0-70	5830.0	97.33
0-75	5938.8	99.15
0-80	5972.6	99.72
0-85	5980.6	99.85
0-90	5982.4	99.88
0-95	5982.5	99.88
0-100	5982.6	99.88
0-105	5982.8	99.89
0-110	5983.0	99.89
0-115	5983.3	99.89
0-120	5983.6	99.90
0-125	5983.9	99.90
0-130	5984.4	99.91
0-135	5984.9	99.92
0-140	5985.5	99.93
0-145	5986.2	99.94
0-150	5986.9	99.95
0-155	5987.7	99.97
0-160	5988.4	99.98
0-165	5988.9	99.99
0-170	5989.3	99.99
0-175	5989.6	100.00
0-180	5989.7	100.00

Test Item	Test Voltage (V)	Frequency (Hz)	Test Result
Total Harmonic Distortion:	120	60	6.50%

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