

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1037505

Luminaire Tested: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037505
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-30)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K
Description: Define 3 Regressed Direct Surface with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

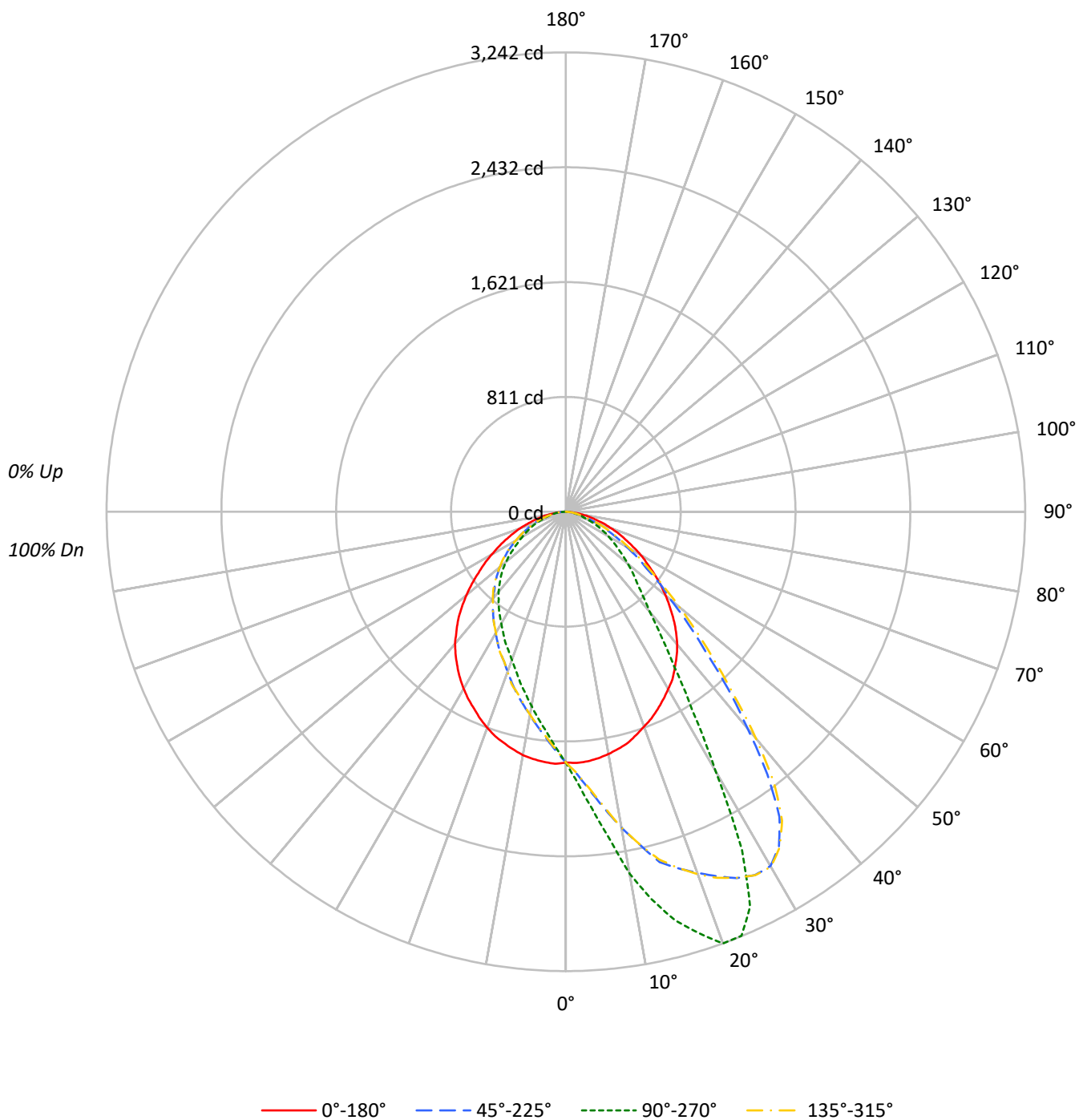
Lumens per Lamp: N/A
Luminaire Lumens: 4406.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.34
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	74			
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56			
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50			
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39			
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36			
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	29			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	19046	19046	19046	19046
5°	19102	22704	19152	16844
10°	18976	28348	19059	15217
15°	18823	33274	18823	13877
20°	18481	37136	18585	12738
25°	18244	36542	18208	12037
30°	17963	26266	17925	11317
35°	17617	17538	17538	10849
40°	17178	12922	17093	10367
45°	16373	10838	16350	9893
50°	15373	9563	15322	9234
55°	14244	8387	14129	8330
60°	13143	7468	13014	7632
65°	11846	6558	11922	7098
70°	10678	5149	10965	6483
75°	9262	4537	9640	5922
80°	7699	3942	8356	5821
85°	6175	3186	6731	6175

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 30°

Vertical Angle: 45°

Luminance: 31063 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.8	3.9
10°-20°	544.0	12.3
20°-30°	856.7	19.4
30°-40°	890.8	20.2
40°-50°	762.1	17.3
50°-60°	581.1	13.2
60°-70°	372.3	8.4
70°-80°	178.4	4.0
80°-90°	46.9	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1574.4	35.7
0°-40°	2465.3	56.0
0°-60°	3808.5	86.4
0°-90°	4406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4406.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1769	1769	1769	1769	1769	
5°	1768	2101	1772	1559	1768	168
15°	1689	2986	1689	1245	1689	475
25°	1536	3077	1533	1014	1536	708
35°	1341	1335	1335	826	1341	839
45°	1076	712	1074	650	1076	828
55°	759	447	753	444	759	680
65°	465	258	468	279	465	465
75°	223	109	232	142	223	240
85°	50	26	54	50	50	59
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1774.0	1786.1	1795.2	1801.3	1816.4	1825.5	1833.1	1846.7	1846.7	1849.7	1855.8
5°	1767.9	1793.7	1811.9	1836.1	1867.9	1883.1	1904.3	1922.4	1948.2	1961.8	1975.5
7.5°	1754.3	1790.6	1828.5	1864.9	1911.8	1942.1	1963.3	2010.3	2043.6	2084.5	2116.4
10°	1736.1	1786.1	1834.6	1890.6	1954.3	1999.7	2031.5	2093.6	2157.3	2214.8	2263.3
12.5°	1713.4	1774.0	1843.7	1911.8	2001.2	2046.7	2098.2	2175.4	2266.3	2339.1	2404.2
15°	1689.1	1758.8	1837.6	1920.9	2033.0	2096.7	2170.9	2264.8	2366.3	2470.9	2560.2
17.5°	1651.3	1739.1	1827.0	1948.2	2080.0	2117.9	2181.5	2310.3	2436.0	2529.9	2639.0
20°	1613.4	1711.9	1822.5	1931.5	2073.9	2161.8	2220.9	2357.2	2492.1	2605.7	2710.2
22.5°	1578.6	1681.6	1796.7	1934.6	2067.9	2155.7	2230.0	2372.4	2528.4	2655.7	2784.4
25°	1536.1	1648.2	1775.5	1905.8	2067.9	2134.5	2216.3	2381.5	2546.6	2693.5	2852.6
27.5°	1490.7	1604.3	1730.1	1863.4	2011.8	2110.3	2190.6	2367.8	2569.3	2726.9	2890.5
30°	1445.2	1561.9	1683.1	1802.8	1969.4	2063.3	2155.7	2351.2	2581.4	2761.7	2887.5
32.5°	1401.3	1499.8	1619.5	1736.1	1901.2	2004.3	2108.8	2334.5	2586.0	2737.5	2798.1
35°	1340.7	1443.7	1540.7	1664.9	1831.6	1933.1	2055.8	2333.0	2566.3	2660.2	2629.9
37.5°	1284.7	1371.0	1463.4	1574.0	1745.2	1877.0	2004.3	2293.6	2501.2	2507.2	2336.0
40°	1222.5	1293.8	1371.0	1487.7	1672.5	1802.8	1940.6	2233.0	2383.0	2293.6	1992.1
42.5°	1151.3	1215.0	1275.6	1389.2	1590.7	1736.1	1884.6	2157.3	2211.8	2005.8	1692.2
45°	1075.6	1127.1	1183.2	1302.8	1504.3	1648.2	1796.7	2040.6	1984.6	1693.7	1395.3
47.5°	996.8	1040.8	1095.3	1204.4	1411.9	1558.9	1699.8	1874.0	1731.6	1419.5	1169.5
50°	918.0	952.9	1005.9	1118.0	1318.0	1451.3	1581.6	1695.2	1495.2	1218.0	966.5
52.5°	840.8	868.1	922.6	1018.0	1211.9	1339.2	1433.1	1477.1	1274.1	1005.9	839.3
55°	759.0	789.3	825.6	922.6	1115.0	1208.9	1271.0	1269.5	1060.5	852.9	693.8
57.5°	680.2	707.5	739.3	836.2	992.3	1055.9	1108.9	1083.2	884.7	698.4	595.4
60°	610.5	625.7	660.5	742.3	860.5	915.0	945.3	901.4	722.6	589.3	492.4
62.5°	534.8	549.9	578.7	656.0	728.7	757.5	783.2	727.2	596.9	480.2	421.2
65°	465.1	484.8	503.0	565.1	604.5	639.3	636.3	589.3	466.6	390.9	342.4
67.5°	404.5	412.1	427.2	465.1	483.3	509.0	510.5	457.5	375.7	318.1	289.4
70°	339.3	346.9	357.5	375.7	387.8	393.9	390.9	343.9	283.3	248.4	222.7
72.5°	283.3	281.8	289.4	289.4	301.5	300.0	290.9	254.5	215.1	186.3	171.2
75°	222.7	224.2	225.7	222.7	218.1	212.1	204.5	177.2	151.5	137.9	124.2
77.5°	174.2	171.2	172.7	162.1	156.0	150.0	139.4	125.7	104.5	101.5	95.4
80°	124.2	122.7	121.2	116.6	103.0	97.0	89.4	81.8	77.3	74.2	72.7
82.5°	83.3	83.3	80.3	71.2	63.6	59.1	57.6	54.5	50.0	50.0	48.5
85°	50.0	48.5	45.4	36.4	31.8	31.8	31.8	31.8	28.8	28.8	27.3
87.5°	19.7	18.2	13.6	13.6	12.1	12.1	12.1	10.6	10.6	9.1	9.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1867.9	1867.9	1881.5	1895.2	1887.6	1892.1	1908.8	1902.8	1914.9	1913.4	1917.9
5°	2008.8	2025.5	2039.1	2067.9	2072.4	2067.9	2096.7	2104.2	2117.9	2101.2	2108.8
7.5°	2167.9	2202.7	2236.0	2278.5	2292.1	2295.1	2310.3	2331.5	2349.7	2316.3	2333.0
10°	2322.4	2375.4	2443.6	2481.5	2514.8	2526.9	2539.0	2552.7	2573.9	2593.6	2578.4
12.5°	2489.0	2566.3	2631.4	2699.6	2740.5	2736.0	2770.8	2779.9	2796.6	2801.1	2807.2
15°	2625.4	2734.4	2775.4	2876.9	2885.9	2916.2	2955.6	2990.5	2995.0	2985.9	2985.9
17.5°	2755.7	2849.6	2922.3	3004.1	3020.8	3046.5	3096.5	3113.2	3119.2	3117.7	3117.7
20°	2861.7	2923.8	3046.5	3114.7	3142.0	3175.3	3210.1	3231.3	3235.9	3242.0	3232.9
22.5°	2931.4	3025.3	3125.3	3181.4	3204.1	3216.2	3238.9	3245.0	3237.4	3238.9	3240.4
25°	2985.9	3078.3	3138.9	3154.1	3152.6	3137.4	3120.8	3092.0	3088.9	3076.8	3052.6
27.5°	3001.1	3035.9	3028.3	2966.2	2904.1	2898.1	2798.1	2743.5	2681.4	2690.5	2655.7
30°	2919.3	2873.8	2766.3	2608.7	2543.6	2437.5	2325.4	2208.8	2163.3	2113.3	2205.7
32.5°	2719.3	2557.2	2366.3	2161.8	2052.7	1958.8	1839.1	1754.3	1705.8	1664.9	1743.7
35°	2417.8	2164.8	1911.8	1717.9	1628.6	1543.7	1431.6	1389.2	1328.6	1334.7	1342.2
37.5°	2030.0	1751.3	1560.4	1369.5	1310.4	1275.6	1193.8	1128.6	1107.4	1101.4	1101.4
40°	1666.4	1437.7	1268.0	1118.0	1072.6	1043.8	978.6	948.3	925.6	919.6	927.1
42.5°	1378.6	1183.2	1051.4	951.4	919.6	883.2	855.9	818.1	813.5	802.9	816.5
45°	1157.4	987.7	889.3	816.5	789.3	775.6	745.3	722.6	713.5	712.0	722.6
47.5°	981.7	849.9	763.5	718.1	696.9	683.2	657.5	648.4	639.3	642.3	637.8
50°	824.1	725.7	669.6	628.7	615.1	601.4	584.8	575.7	571.1	571.1	569.6
52.5°	707.5	625.7	589.3	551.4	545.4	537.8	519.6	513.6	506.0	504.5	510.5
55°	606.0	549.9	513.6	490.8	484.8	469.6	462.1	454.5	449.9	446.9	448.4
57.5°	518.1	475.7	451.4	431.8	421.2	415.1	401.5	399.9	396.9	396.9	395.4
60°	445.4	415.1	386.3	374.2	366.6	359.0	357.5	348.4	343.9	346.9	345.4
62.5°	377.2	353.0	336.3	322.7	318.1	312.1	307.5	304.5	300.0	301.5	301.5
65°	315.1	295.4	283.3	271.2	269.7	263.6	262.1	259.1	259.1	257.5	260.6
67.5°	259.1	245.4	234.8	227.2	222.7	224.2	218.1	213.6	213.6	212.1	216.6
70°	206.0	198.5	187.9	178.8	172.7	172.7	165.1	163.6	163.6	163.6	162.1
72.5°	159.1	145.4	140.9	137.9	137.9	137.9	134.8	134.8	133.3	134.8	133.3
75°	118.2	116.6	113.6	112.1	112.1	110.6	109.1	109.1	109.1	109.1	109.1
77.5°	92.4	92.4	89.4	87.9	87.9	87.9	86.4	86.4	84.8	84.8	84.8
80°	68.2	68.2	65.1	65.1	65.1	63.6	63.6	63.6	65.1	63.6	63.6
82.5°	47.0	47.0	45.4	47.0	45.4	43.9	43.9	43.9	42.4	43.9	43.9
85°	27.3	27.3	25.8	24.2	25.8	25.8	24.2	25.8	24.2	25.8	24.2
87.5°	10.6	9.1	9.1	9.1	7.6	9.1	7.6	7.6	9.1	7.6	9.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1910.3	1901.2	1895.2	1890.6	1886.1	1899.7	1881.5	1861.8	1848.2	1839.1	1836.1
5°	2110.3	2090.6	2073.9	2060.3	2063.3	2063.3	2031.5	1996.7	1966.4	1949.7	1931.5
7.5°	2342.1	2320.9	2287.5	2280.0	2273.9	2236.0	2204.2	2140.6	2102.7	2064.9	2031.5
10°	2572.4	2545.1	2513.3	2502.7	2487.5	2440.6	2392.1	2310.3	2263.3	2193.6	2149.7
12.5°	2787.5	2754.1	2722.3	2714.8	2692.0	2651.1	2567.8	2483.0	2402.7	2328.4	2251.2
15°	2967.7	2958.7	2910.2	2879.9	2829.9	2773.8	2755.7	2640.5	2539.0	2461.8	2322.4
17.5°	3119.2	3076.8	3031.4	3011.7	2992.0	2926.8	2861.7	2743.5	2634.5	2520.8	2431.5
20°	3240.4	3193.5	3161.7	3132.9	3123.8	3049.6	2946.5	2842.0	2722.3	2595.1	2478.4
22.5°	3246.5	3240.4	3219.2	3202.6	3184.4	3135.9	3054.1	2923.8	2796.6	2657.2	2504.2
25°	3120.8	3111.7	3172.3	3157.1	3169.2	3151.1	3107.1	2998.0	2849.6	2686.0	2531.4
27.5°	2742.0	2834.4	2929.9	2963.2	2985.9	3051.1	3072.3	3011.7	2892.0	2717.8	2545.1
30°	2226.9	2349.7	2504.2	2587.5	2651.1	2772.3	2929.9	2949.6	2893.5	2754.1	2542.1
32.5°	1748.2	1860.3	1984.6	2083.0	2167.9	2416.3	2628.4	2781.4	2808.7	2736.0	2549.6
35°	1408.9	1457.4	1575.5	1669.5	1784.6	1996.7	2246.6	2493.6	2660.2	2669.3	2526.9
37.5°	1162.0	1187.7	1290.7	1343.7	1411.9	1598.3	1831.6	2154.2	2413.3	2536.0	2463.3
40°	962.0	1021.1	1080.1	1110.4	1158.9	1287.7	1511.9	1764.9	2086.1	2313.3	2364.8
42.5°	834.7	860.5	898.4	940.8	971.1	1083.2	1233.2	1464.9	1754.3	2070.9	2213.3
45°	736.3	745.3	784.7	812.0	843.8	922.6	1028.6	1222.5	1477.1	1789.1	2031.5
47.5°	654.4	672.6	693.8	710.5	731.7	792.3	883.2	1024.1	1248.3	1527.0	1787.6
50°	581.7	592.3	619.6	627.2	642.3	684.7	754.4	862.0	1046.8	1269.5	1539.2
52.5°	513.6	533.3	543.9	554.5	568.1	602.9	648.4	736.3	875.6	1084.7	1313.4
55°	460.5	466.6	481.7	490.8	501.4	525.7	565.1	630.2	739.3	905.9	1122.6
57.5°	409.0	409.0	424.2	431.8	442.4	460.5	495.4	545.4	624.2	748.4	946.8
60°	354.5	356.0	368.1	377.2	380.2	398.4	427.2	466.6	527.2	618.1	780.2
62.5°	306.0	313.6	319.7	322.7	333.3	343.9	368.1	395.4	437.8	518.1	633.2
65°	265.1	266.6	271.2	274.2	278.7	290.9	309.0	327.2	363.6	422.7	516.6
67.5°	218.1	224.2	230.3	230.3	234.8	240.9	259.1	274.2	301.5	336.3	399.9
70°	163.6	166.6	175.7	180.3	186.3	196.9	206.0	215.1	236.3	262.1	310.6
72.5°	136.3	136.3	139.4	140.9	140.9	148.5	162.1	171.2	181.8	200.0	233.3
75°	109.1	109.1	113.6	112.1	115.1	118.2	119.7	125.7	131.8	145.4	165.1
77.5°	86.4	87.9	87.9	89.4	89.4	90.9	92.4	95.4	98.5	106.0	115.1
80°	63.6	65.1	65.1	66.7	66.7	68.2	69.7	71.2	74.2	77.3	81.8
82.5°	43.9	45.4	45.4	47.0	45.4	47.0	48.5	48.5	50.0	53.0	54.5
85°	25.8	25.8	27.3	25.8	25.8	25.8	27.3	27.3	28.8	33.3	33.3
87.5°	7.6	9.1	7.6	9.1	9.1	9.1	9.1	10.6	10.6	12.1	13.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037505

CATALOG NUMBER: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1831.6	1824.0	1816.4	1816.4	1799.7	1784.6	1777.0	1780.0	1771.0	1758.8	1746.7
5°	1911.8	1881.5	1875.5	1858.8	1836.1	1804.3	1787.6	1772.5	1754.3	1730.1	1707.3
7.5°	1986.1	1946.7	1925.5	1908.8	1864.9	1820.9	1784.6	1760.3	1728.5	1692.2	1664.9
10°	2083.0	2010.3	1987.6	1949.7	1887.6	1825.5	1783.1	1743.7	1699.8	1657.3	1621.0
12.5°	2160.3	2077.0	2034.6	1996.7	1916.4	1837.6	1766.4	1717.9	1664.9	1617.9	1571.0
15°	2248.2	2154.2	2080.0	2034.6	1933.1	1837.6	1757.3	1689.1	1630.1	1572.5	1531.6
17.5°	2290.6	2172.4	2139.1	2073.9	1927.0	1831.6	1733.1	1660.4	1589.2	1522.5	1474.0
20°	2357.2	2219.4	2136.1	2092.1	1961.8	1820.9	1705.8	1622.5	1548.3	1477.1	1425.5
22.5°	2361.8	2211.8	2157.3	2073.9	1913.4	1789.1	1681.6	1580.1	1493.7	1427.1	1374.0
25°	2351.2	2198.2	2122.4	2055.8	1922.4	1771.0	1633.1	1533.1	1448.3	1371.0	1308.9
27.5°	2346.6	2158.8	2087.6	2020.9	1870.9	1717.9	1604.3	1490.7	1393.7	1325.6	1261.9
30°	2340.6	2116.4	2030.0	1952.7	1814.9	1677.0	1540.7	1442.2	1349.8	1263.5	1199.8
32.5°	2301.2	2058.8	1970.9	1889.1	1740.7	1602.8	1495.2	1390.7	1290.7	1210.4	1152.9
35°	2289.1	2005.8	1890.6	1802.8	1657.3	1534.6	1421.0	1334.7	1240.7	1160.4	1092.3
37.5°	2254.2	1951.2	1827.0	1714.9	1563.4	1446.8	1363.4	1277.1	1186.2	1099.8	1045.3
40°	2193.6	1887.6	1746.7	1631.6	1475.5	1357.4	1280.1	1216.5	1127.1	1049.8	983.2
42.5°	2104.2	1822.5	1671.0	1549.8	1377.1	1266.5	1202.9	1142.3	1066.5	986.2	931.7
45°	2001.2	1736.1	1595.2	1460.4	1284.7	1177.1	1110.4	1074.1	1004.4	936.2	872.6
47.5°	1860.3	1646.7	1507.4	1368.0	1189.2	1084.7	1031.7	995.3	946.8	872.6	821.1
50°	1683.1	1531.6	1399.8	1275.6	1095.3	995.3	942.3	915.0	874.1	821.1	771.1
52.5°	1486.1	1398.3	1289.2	1174.1	999.9	905.9	857.5	836.2	805.9	756.0	713.5
55°	1287.7	1249.8	1175.6	1062.0	899.9	822.6	780.2	752.9	730.2	693.8	657.5
57.5°	1110.4	1092.3	1040.8	952.9	816.5	736.3	699.9	681.7	663.5	636.3	599.9
60°	927.1	946.8	893.8	849.9	725.7	656.0	624.2	604.5	595.4	571.1	548.4
62.5°	768.1	786.2	756.0	722.6	634.8	572.6	552.9	534.8	528.7	507.5	484.8
65°	624.2	646.9	624.2	606.0	552.9	501.4	477.2	468.1	462.1	448.4	430.2
67.5°	496.9	519.6	509.0	486.3	469.6	427.2	413.6	404.5	401.5	390.9	375.7
70°	374.2	406.0	409.0	395.4	380.2	360.6	351.5	348.4	340.9	331.8	322.7
72.5°	269.7	306.0	307.5	307.5	298.4	298.4	289.4	284.8	284.8	275.7	265.1
75°	198.5	222.7	225.7	228.8	233.3	237.8	231.8	231.8	230.3	221.2	216.6
77.5°	131.8	153.0	160.6	171.2	177.2	177.2	180.3	183.3	180.3	175.7	172.7
80°	84.8	100.0	109.1	115.1	124.2	128.8	133.3	134.8	131.8	130.3	125.7
82.5°	56.1	60.6	65.1	72.7	83.3	90.9	90.9	89.4	92.4	90.9	89.4
85°	31.8	34.8	36.4	37.9	43.9	51.5	53.0	54.5	57.6	54.5	51.5
87.5°	12.1	13.6	13.6	13.6	16.7	18.2	22.7	28.8	27.3	24.2	24.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037505

CATALOG NUMBER: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1746.7	1739.1	1736.1	1728.5	1710.4	1698.2	1684.6	1675.5	1677.0	1669.5	1674.0
5°	1692.2	1690.7	1680.1	1664.9	1639.2	1625.5	1601.3	1589.2	1583.1	1584.6	1575.5
7.5°	1646.7	1633.1	1625.5	1601.3	1577.0	1548.3	1528.6	1518.0	1508.9	1499.8	1493.7
10°	1595.2	1583.1	1571.0	1545.2	1511.9	1484.6	1457.4	1446.8	1433.1	1427.1	1422.5
12.5°	1540.7	1533.1	1518.0	1487.7	1449.8	1424.0	1392.2	1386.2	1368.0	1355.9	1352.8
15°	1490.7	1486.1	1458.9	1424.0	1386.2	1360.4	1333.1	1315.0	1284.7	1290.7	1280.1
17.5°	1437.7	1418.0	1401.3	1354.3	1336.2	1296.8	1265.0	1255.9	1234.7	1221.0	1207.4
20°	1378.6	1366.5	1345.3	1315.0	1271.0	1225.6	1201.3	1186.2	1174.1	1152.9	1146.8
22.5°	1322.5	1307.4	1289.2	1249.8	1211.9	1174.1	1140.7	1127.1	1112.0	1096.8	1087.7
25°	1278.6	1255.9	1236.2	1187.7	1149.8	1118.0	1096.8	1074.1	1052.9	1043.8	1040.8
27.5°	1210.4	1196.8	1177.1	1131.7	1096.8	1062.0	1042.3	1027.1	1004.4	993.8	984.7
30°	1166.5	1139.2	1116.5	1080.1	1045.3	1007.4	989.2	971.1	957.4	943.8	933.2
32.5°	1107.4	1086.2	1068.0	1031.7	996.8	962.0	942.3	915.0	907.4	896.8	884.7
35°	1049.8	1036.2	1016.5	977.1	939.3	915.0	893.8	868.1	859.0	851.4	840.8
37.5°	995.3	975.6	962.0	924.1	890.8	862.0	845.3	824.1	818.1	809.0	801.4
40°	948.3	928.7	915.0	877.1	842.3	812.0	801.4	780.2	771.1	760.5	756.0
42.5°	895.3	878.7	860.5	833.2	796.9	766.6	745.3	733.2	721.1	716.6	707.5
45°	839.3	824.1	810.5	780.2	742.3	721.1	702.9	686.3	677.2	669.6	663.5
47.5°	790.8	777.2	759.0	725.7	695.4	675.7	657.5	640.8	631.7	622.6	615.1
50°	734.7	727.2	707.5	675.7	646.9	624.2	607.5	592.3	586.3	575.7	563.6
52.5°	684.7	671.1	654.4	628.7	602.9	575.7	552.9	543.9	533.3	527.2	516.6
55°	625.7	616.6	598.4	575.7	548.4	525.7	509.0	496.9	483.3	477.2	463.6
57.5°	575.7	559.0	549.9	521.1	495.4	472.7	460.5	448.4	433.3	424.2	418.1
60°	521.1	506.0	492.4	468.1	449.9	425.7	407.5	396.9	386.3	374.2	368.1
62.5°	468.1	456.0	439.3	419.6	396.9	377.2	363.6	348.4	342.4	330.3	325.7
65°	410.5	401.5	387.8	365.1	346.9	330.3	316.6	304.5	298.4	293.9	290.9
67.5°	359.0	346.9	337.8	318.1	298.4	284.8	277.2	269.7	262.1	257.5	253.0
70°	306.0	296.9	287.8	269.7	256.0	243.9	237.8	231.8	227.2	222.7	218.1
72.5°	251.5	246.9	237.8	225.7	215.1	206.0	201.5	193.9	189.4	181.8	178.8
75°	207.5	200.0	195.4	184.8	175.7	168.2	162.1	153.0	146.9	143.9	142.4
77.5°	163.6	160.6	154.5	145.4	140.9	133.3	124.2	121.2	118.2	118.2	116.6
80°	122.7	118.2	113.6	106.0	101.5	95.4	95.4	95.4	93.9	95.4	93.9
82.5°	83.3	80.3	77.3	72.7	71.2	71.2	72.7	72.7	72.7	72.7	72.7
85°	48.5	48.5	48.5	50.0	48.5	48.5	50.0	51.5	50.0	50.0	48.5
87.5°	22.7	22.7	24.2	24.2	25.8	25.8	25.8	25.8	25.8	25.8	27.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037505

CATALOG NUMBER: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1672.5	1674.0	1669.5	1660.4	1658.8	1661.9	1671.0	1667.9	1660.4	1674.0	1661.9
5°	1580.1	1572.5	1569.5	1572.5	1563.4	1558.9	1568.0	1563.4	1568.0	1569.5	1574.0
7.5°	1490.7	1492.2	1483.1	1484.6	1472.5	1475.5	1475.5	1475.5	1480.1	1483.1	1489.2
10°	1413.4	1416.5	1405.9	1407.4	1398.3	1392.2	1396.8	1405.9	1405.9	1405.9	1408.9
12.5°	1351.3	1337.7	1330.1	1328.6	1318.0	1315.0	1324.0	1327.1	1334.7	1334.7	1339.2
15°	1274.1	1271.0	1265.0	1265.0	1239.2	1245.3	1248.3	1258.9	1274.1	1261.9	1265.0
17.5°	1204.4	1196.8	1189.2	1186.2	1183.2	1174.1	1186.2	1184.7	1193.8	1195.3	1199.8
20°	1142.3	1136.2	1121.0	1122.6	1125.6	1112.0	1119.5	1119.5	1128.6	1137.7	1148.3
22.5°	1081.7	1075.6	1068.0	1071.1	1062.0	1058.9	1058.9	1066.5	1077.1	1084.7	1083.2
25°	1034.7	1024.1	1019.5	1015.0	1010.5	1013.5	1008.9	1016.5	1024.1	1028.6	1024.1
27.5°	981.7	977.1	968.0	963.5	955.9	959.0	962.0	968.0	972.6	972.6	977.1
30°	930.2	924.1	921.1	916.5	916.5	910.5	912.0	918.0	922.6	927.1	933.2
32.5°	880.2	875.6	871.1	871.1	868.1	866.5	865.0	874.1	874.1	883.2	883.2
35°	839.3	831.7	831.7	824.1	827.2	825.6	822.6	828.7	830.2	836.2	834.7
37.5°	793.8	793.8	790.8	783.2	777.2	778.7	786.2	786.2	790.8	789.3	793.8
40°	748.4	745.3	745.3	740.8	739.3	737.8	739.3	740.8	748.4	746.9	748.4
42.5°	702.9	704.4	696.9	696.9	696.9	692.3	693.8	695.4	698.4	701.4	706.0
45°	659.0	656.0	654.4	651.4	648.4	649.9	648.4	654.4	652.9	656.0	660.5
47.5°	612.0	607.5	606.0	599.9	599.9	602.9	601.4	606.0	607.5	612.0	609.0
50°	566.6	560.5	556.0	557.5	548.4	551.4	551.4	556.0	560.5	562.0	565.1
52.5°	513.6	512.0	510.5	503.0	501.4	499.9	501.4	503.0	509.0	513.6	515.1
55°	462.1	460.5	451.4	448.4	443.9	443.9	446.9	448.4	459.0	460.5	466.6
57.5°	415.1	410.5	399.9	398.4	398.4	398.4	393.9	399.9	403.0	410.5	410.5
60°	363.6	363.6	354.5	354.5	356.0	354.5	354.5	356.0	356.0	362.1	365.1
62.5°	322.7	321.2	321.2	318.1	316.6	318.1	316.6	316.6	318.1	322.7	327.2
65°	286.3	284.8	283.3	281.8	278.7	278.7	280.3	283.3	283.3	286.3	287.8
67.5°	251.5	251.5	248.4	248.4	246.9	245.4	246.9	245.4	251.5	251.5	253.0
70°	216.6	215.1	210.6	209.1	204.5	206.0	206.0	210.6	212.1	215.1	218.1
72.5°	174.2	174.2	171.2	168.2	169.7	166.6	166.6	168.2	168.2	172.7	174.2
75°	143.9	140.9	139.4	140.9	139.4	142.4	139.4	139.4	142.4	142.4	142.4
77.5°	118.2	118.2	116.6	116.6	118.2	116.6	118.2	118.2	118.2	116.6	118.2
80°	97.0	95.4	95.4	95.4	93.9	93.9	93.9	93.9	93.9	93.9	93.9
82.5°	72.7	72.7	71.2	72.7	72.7	71.2	72.7	71.2	71.2	72.7	72.7
85°	48.5	51.5	48.5	48.5	50.0	50.0	51.5	50.0	51.5	48.5	50.0
87.5°	25.8	27.3	27.3	25.8	25.8	27.3	27.3	27.3	28.8	25.8	27.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037505

CATALOG NUMBER: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1674.0	1680.1	1674.0	1661.9	1674.0	1681.6	1689.1	1701.3	1707.3	1707.3	1716.4
5°	1578.6	1590.7	1586.1	1583.1	1595.2	1602.8	1614.9	1630.1	1646.7	1657.3	1669.5
7.5°	1493.7	1501.3	1508.9	1508.9	1521.0	1537.7	1555.8	1574.0	1595.2	1610.4	1619.5
10°	1419.5	1425.5	1430.1	1436.2	1454.3	1472.5	1496.8	1519.5	1537.7	1554.3	1569.5
12.5°	1348.3	1357.4	1368.0	1372.5	1386.2	1408.9	1431.6	1458.9	1487.7	1504.3	1519.5
15°	1280.1	1284.7	1296.8	1310.4	1322.5	1346.8	1375.6	1404.3	1428.6	1454.3	1468.0
17.5°	1210.4	1211.9	1243.8	1236.2	1275.6	1298.3	1313.4	1340.7	1380.1	1401.3	1422.5
20°	1142.3	1157.4	1171.0	1178.6	1199.8	1225.6	1269.5	1290.7	1322.5	1342.2	1360.4
22.5°	1089.2	1112.0	1112.0	1130.1	1140.7	1165.0	1196.8	1237.7	1272.5	1286.2	1311.9
25°	1042.3	1052.9	1071.1	1077.1	1096.8	1118.0	1139.2	1183.2	1221.0	1239.2	1257.4
27.5°	981.7	995.3	1019.5	1019.5	1045.3	1068.0	1093.8	1122.6	1160.4	1186.2	1205.9
30°	934.7	948.3	959.0	975.6	986.2	1007.4	1052.9	1074.1	1107.4	1130.1	1154.4
32.5°	890.8	901.4	910.5	928.7	940.8	965.0	989.2	1027.1	1055.9	1077.1	1102.9
35°	842.3	852.9	865.0	878.7	896.8	919.6	942.3	974.1	1002.9	1022.6	1043.8
37.5°	796.9	804.4	822.6	831.7	846.8	868.1	896.8	930.2	955.9	971.1	992.3
40°	752.9	759.0	772.6	789.3	799.9	816.5	846.8	875.6	907.4	925.6	942.3
42.5°	706.0	713.5	725.7	742.3	759.0	777.2	793.8	827.2	855.9	871.1	889.3
45°	665.1	669.6	678.7	695.4	712.0	725.7	751.4	781.7	809.0	821.1	840.8
47.5°	616.6	621.1	634.8	642.3	660.5	678.7	704.4	734.7	759.0	771.1	789.3
50°	566.6	571.1	580.2	596.9	609.0	628.7	651.4	677.2	707.5	724.1	734.7
52.5°	518.1	527.2	534.8	548.4	563.6	583.2	604.5	628.7	654.4	671.1	683.2
55°	469.6	477.2	486.3	493.9	512.0	530.2	554.5	577.2	599.9	615.1	628.7
57.5°	415.1	425.7	434.8	449.9	463.6	478.7	506.0	524.2	551.4	562.0	574.2
60°	368.1	378.7	386.3	398.4	410.5	430.2	448.4	471.1	493.9	507.5	522.7
62.5°	328.7	333.3	337.8	349.9	362.1	380.2	398.4	421.2	445.4	453.0	465.1
65°	289.4	293.9	301.5	312.1	321.2	331.8	351.5	369.6	392.4	404.5	409.0
67.5°	256.0	260.6	262.1	269.7	277.2	289.4	300.0	318.1	339.3	346.9	356.0
70°	218.1	225.7	227.2	233.3	236.3	243.9	256.0	269.7	286.3	300.0	307.5
72.5°	174.2	184.8	187.9	196.9	201.5	209.1	218.1	228.8	239.4	245.4	251.5
75°	142.4	145.4	146.9	154.5	162.1	172.7	177.2	183.3	192.4	200.0	206.0
77.5°	118.2	119.7	121.2	121.2	122.7	128.8	137.9	145.4	151.5	154.5	159.1
80°	95.4	93.9	93.9	95.4	95.4	95.4	98.5	109.1	112.1	119.7	118.2
82.5°	74.2	71.2	72.7	71.2	71.2	71.2	71.2	72.7	72.7	77.3	80.3
85°	48.5	50.0	48.5	48.5	47.0	48.5	47.0	47.0	45.4	45.4	43.9
87.5°	25.8	27.3	25.8	25.8	24.2	25.8	24.2	24.2	22.7	22.7	19.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037505

CATALOG NUMBER: S123RDS-B1165DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1769.4	1769.4	1769.4	1769.4
2.5°	1724.0	1734.6	1755.8	1774.0
5°	1687.6	1704.3	1736.1	1767.9
7.5°	1643.7	1669.5	1710.4	1754.3
10°	1601.3	1634.6	1684.6	1736.1
12.5°	1558.9	1593.7	1646.7	1713.4
15°	1508.9	1545.2	1608.9	1689.1
17.5°	1464.9	1513.4	1571.0	1651.3
20°	1418.0	1454.3	1528.6	1613.4
22.5°	1358.9	1419.5	1489.2	1578.6
25°	1311.9	1365.0	1434.6	1536.1
27.5°	1254.4	1316.5	1401.3	1490.7
30°	1207.4	1258.9	1337.7	1445.2
32.5°	1152.9	1213.5	1295.3	1401.3
35°	1104.4	1155.9	1233.2	1340.7
37.5°	1046.8	1102.9	1189.2	1284.7
40°	996.8	1051.4	1133.2	1222.5
42.5°	936.2	993.8	1075.6	1151.3
45°	887.7	940.8	1005.9	1075.6
47.5°	828.7	884.7	948.3	996.8
50°	775.6	827.2	877.1	918.0
52.5°	718.1	765.0	810.5	840.8
55°	665.1	701.4	737.8	759.0
57.5°	602.9	637.8	668.1	680.2
60°	548.4	577.2	596.9	610.5
62.5°	490.8	512.0	527.2	534.8
65°	434.8	449.9	457.5	465.1
67.5°	377.2	390.9	395.4	404.5
70°	316.6	331.8	334.8	339.3
72.5°	271.2	271.2	277.2	283.3
75°	216.6	219.7	222.7	222.7
77.5°	169.7	169.7	172.7	174.2
80°	124.2	125.7	125.7	124.2
82.5°	84.8	87.9	84.8	83.3
85°	47.0	53.0	50.0	50.0
87.5°	19.7	19.7	22.7	19.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)