

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: P994924

Luminaire Tested: S123RDR-B1000DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P994924
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: S123RDR-B1000DB2750-4F0-XX-W2A-A_4000K
Description: Define 3 Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

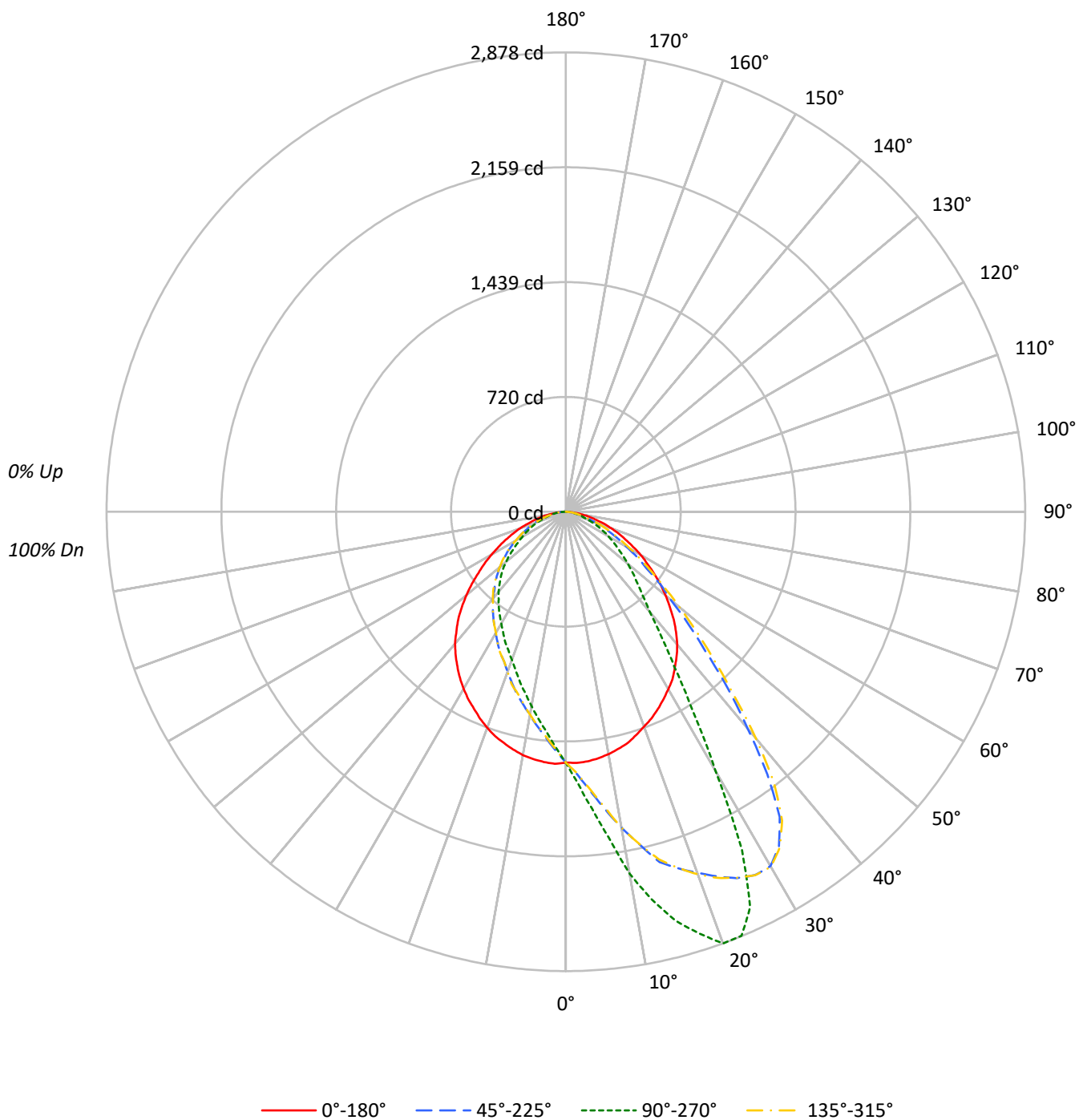
Lumens per Lamp: N/A
Luminaire Lumens: 3912.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.34
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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			
RC	80				70				50				30				10			
RW	70	50	30	10	70	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°	16910	16910	16910	16910
5°	16961	20158	17004	14955
10°	16849	25170	16922	13511
15°	16713	29543	16713	12322
20°	16409	32972	16502	11309
25°	16199	32446	16167	10688
30°	15949	23322	15915	10048
35°	15642	15571	15571	9633
40°	15253	11473	15177	9205
45°	14537	9624	14518	8783
50°	13649	8492	13604	8199
55°	12647	7446	12545	7396
60°	11670	6631	11554	6775
65°	10516	5825	10585	6304
70°	9482	4573	9737	5756
75°	8222	4026	8559	5257
80°	6837	3502	7420	5170
85°	5483	2828	5978	5483

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 30°

Vertical Angle: 45°

Luminance: 27580 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.3	3.9
10°-20°	483.0	12.3
20°-30°	760.7	19.4
30°-40°	791.0	20.2
40°-50°	676.7	17.3
50°-60°	515.9	13.2
60°-70°	330.5	8.4
70°-80°	158.4	4.0
80°-90°	41.6	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°	1397.9	35.7
0°-40°	2188.9	56.0
0°-60°	3381.5	86.4
0°-90°	3912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3912.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1571	1571	1571	1571	1571	
5°	1570	1866	1574	1384	1570	149
15°	1500	2651	1500	1106	1500	422
25°	1364	2732	1361	900	1364	628
35°	1190	1185	1185	733	1190	745
45°	955	632	954	577	955	735
55°	674	397	668	394	674	604
65°	413	229	416	248	413	413
75°	198	97	206	126	198	213
85°	44	23	48	44	44	52
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°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1575.1	1585.8	1593.9	1599.3	1612.7	1620.8	1627.5	1639.6	1639.6	1642.3	1647.7
5°	1569.7	1592.6	1608.7	1630.2	1658.5	1671.9	1690.8	1706.9	1729.8	1741.9	1754.0
7.5°	1557.6	1589.9	1623.5	1655.8	1697.5	1724.4	1743.2	1784.9	1814.5	1850.8	1879.1
10°	1541.5	1585.8	1628.9	1678.7	1735.1	1775.5	1803.7	1858.9	1915.4	1966.5	2009.5
12.5°	1521.3	1575.1	1637.0	1697.5	1776.8	1817.2	1862.9	1931.5	2012.2	2076.8	2134.6
15°	1499.8	1561.6	1631.6	1705.6	1805.1	1861.6	1927.5	2010.9	2101.0	2193.8	2273.2
17.5°	1466.1	1544.1	1622.2	1729.8	1846.8	1880.4	1936.9	2051.2	2162.9	2246.3	2343.1
20°	1432.5	1519.9	1618.1	1715.0	1841.4	1919.4	1971.9	2092.9	2212.7	2313.5	2406.3
22.5°	1401.6	1493.0	1595.3	1717.7	1836.0	1914.0	1980.0	2106.4	2244.9	2357.9	2472.3
25°	1363.9	1463.4	1576.4	1692.1	1836.0	1895.2	1967.8	2114.5	2261.1	2391.5	2532.8
27.5°	1323.6	1424.4	1536.1	1654.4	1786.3	1873.7	1945.0	2102.4	2281.2	2421.1	2566.4
30°	1283.2	1386.8	1494.4	1600.6	1748.6	1832.0	1914.0	2087.6	2292.0	2452.1	2563.7
32.5°	1244.2	1331.6	1437.9	1541.5	1688.1	1779.5	1872.3	2072.8	2296.0	2430.6	2484.4
35°	1190.4	1281.9	1367.9	1478.2	1626.2	1716.3	1825.3	2071.4	2278.6	2362.0	2335.1
37.5°	1140.6	1217.3	1299.3	1397.5	1549.5	1666.5	1779.5	2036.4	2220.7	2226.1	2074.1
40°	1085.5	1148.7	1217.3	1320.9	1485.0	1600.6	1723.0	1982.6	2115.8	2036.4	1768.8
42.5°	1022.3	1078.8	1132.6	1233.4	1412.3	1541.5	1673.3	1915.4	1963.8	1780.9	1502.5
45°	955.0	1000.7	1050.5	1156.8	1335.7	1463.4	1595.3	1811.8	1762.1	1503.8	1238.8
47.5°	885.1	924.1	972.5	1069.3	1253.6	1384.1	1509.2	1663.9	1537.4	1260.3	1038.4
50°	815.1	846.1	893.1	992.7	1170.2	1288.6	1404.3	1505.1	1327.6	1081.4	858.2
52.5°	746.5	770.7	819.2	903.9	1076.1	1189.0	1272.4	1311.4	1131.2	893.1	745.2
55°	673.9	700.8	733.1	819.2	990.0	1073.4	1128.5	1127.2	941.6	757.3	616.0
57.5°	603.9	628.2	656.4	742.5	881.0	937.5	984.6	961.7	785.5	620.1	528.6
60°	542.1	555.5	586.5	659.1	764.0	812.4	839.3	800.3	641.6	523.2	437.1
62.5°	474.8	488.3	513.8	582.4	647.0	672.5	695.4	645.6	530.0	426.4	373.9
65°	412.9	430.4	446.6	501.7	536.7	567.6	564.9	523.2	414.3	347.0	304.0
67.5°	359.1	365.9	379.3	412.9	429.1	451.9	453.3	406.2	333.6	282.5	256.9
70°	301.3	308.0	317.4	333.6	344.3	349.7	347.0	305.3	251.5	220.6	197.7
72.5°	251.5	250.2	256.9	256.9	267.7	266.3	258.3	226.0	191.0	165.4	152.0
75°	197.7	199.1	200.4	197.7	193.7	188.3	181.6	157.4	134.5	122.4	110.3
77.5°	154.7	152.0	153.3	143.9	138.5	133.2	123.7	111.6	92.8	90.1	84.7
80°	110.3	109.0	107.6	103.6	91.5	86.1	79.4	72.6	68.6	65.9	64.6
82.5°	74.0	74.0	71.3	63.2	56.5	52.5	51.1	48.4	44.4	44.4	43.0
85°	44.4	43.0	40.4	32.3	28.2	28.2	28.2	28.2	25.6	25.6	24.2
87.5°	17.5	16.1	12.1	12.1	10.8	10.8	10.8	9.4	9.4	8.1	8.1
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°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1658.5	1658.5	1670.6	1682.7	1676.0	1680.0	1694.8	1689.4	1700.2	1698.8	1702.9
5°	1783.6	1798.4	1810.5	1836.0	1840.1	1836.0	1861.6	1868.3	1880.4	1865.6	1872.3
7.5°	1924.8	1955.7	1985.3	2023.0	2035.1	2037.8	2051.2	2070.1	2086.2	2056.6	2071.4
10°	2062.0	2109.1	2169.6	2203.2	2232.8	2243.6	2254.3	2266.5	2285.3	2302.8	2289.3
12.5°	2210.0	2278.6	2336.4	2396.9	2433.2	2429.2	2460.1	2468.2	2483.0	2487.0	2492.4
15°	2331.0	2427.9	2464.2	2554.3	2562.4	2589.3	2624.2	2655.2	2659.2	2651.1	2651.1
17.5°	2446.7	2530.1	2594.7	2667.3	2682.1	2704.9	2749.3	2764.1	2769.5	2768.2	2768.2
20°	2540.8	2596.0	2704.9	2765.5	2789.7	2819.3	2850.2	2869.0	2873.1	2878.5	2870.4
22.5°	2602.7	2686.1	2774.9	2824.7	2844.8	2855.6	2875.8	2881.2	2874.4	2875.8	2877.1
25°	2651.1	2733.2	2787.0	2800.4	2799.1	2785.7	2770.9	2745.3	2742.6	2731.9	2710.3
27.5°	2664.6	2695.5	2688.8	2633.7	2578.5	2573.1	2484.4	2435.9	2380.8	2388.9	2357.9
30°	2592.0	2551.6	2456.1	2316.2	2258.4	2164.2	2064.7	1961.1	1920.8	1876.4	1958.4
32.5°	2414.4	2270.5	2101.0	1919.4	1822.6	1739.2	1632.9	1557.6	1514.6	1478.2	1548.2
35°	2146.7	1922.1	1697.5	1525.3	1446.0	1370.6	1271.1	1233.4	1179.6	1185.0	1191.7
37.5°	1802.4	1554.9	1385.4	1215.9	1163.5	1132.6	1059.9	1002.1	983.3	977.9	977.9
40°	1479.6	1276.5	1125.8	992.7	952.3	926.8	868.9	842.0	821.8	816.5	823.2
42.5°	1224.0	1050.5	933.5	844.7	816.5	784.2	760.0	726.3	722.3	712.9	725.0
45°	1027.6	877.0	789.6	725.0	700.8	688.7	661.8	641.6	633.5	632.2	641.6
47.5°	871.6	754.6	677.9	637.6	618.7	606.6	583.8	575.7	567.6	570.3	566.3
50°	731.7	644.3	594.5	558.2	546.1	534.0	519.2	511.1	507.1	507.1	505.7
52.5°	628.2	555.5	523.2	489.6	484.2	477.5	461.4	456.0	449.3	447.9	453.3
55°	538.0	488.3	456.0	435.8	430.4	417.0	410.2	403.5	399.5	396.8	398.1
57.5°	460.0	422.4	400.8	383.3	373.9	368.6	356.4	355.1	352.4	352.4	351.1
60°	395.5	368.6	343.0	332.2	325.5	318.8	317.4	309.4	305.3	308.0	306.7
62.5°	334.9	313.4	298.6	286.5	282.5	277.1	273.1	270.4	266.3	267.7	267.7
65°	279.8	262.3	251.5	240.8	239.4	234.0	232.7	230.0	230.0	228.7	231.4
67.5°	230.0	217.9	208.5	201.8	197.7	199.1	193.7	189.7	189.7	188.3	192.3
70°	182.9	176.2	166.8	158.7	153.3	153.3	146.6	145.3	145.3	145.3	143.9
72.5°	141.2	129.1	125.1	122.4	122.4	122.4	119.7	119.7	118.4	119.7	118.4
75°	104.9	103.6	100.9	99.5	99.5	98.2	96.8	96.8	96.8	96.8	96.8
77.5°	82.0	82.0	79.4	78.0	78.0	78.0	76.7	76.7	75.3	75.3	75.3
80°	60.5	60.5	57.8	57.8	57.8	56.5	56.5	56.5	57.8	56.5	56.5
82.5°	41.7	41.7	40.4	41.7	40.4	39.0	39.0	39.0	37.7	39.0	39.0
85°	24.2	24.2	22.9	21.5	22.9	22.9	21.5	22.9	21.5	22.9	21.5
87.5°	9.4	8.1	8.1	8.1	6.7	8.1	6.7	6.7	8.1	6.7	8.1
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°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1696.1	1688.1	1682.7	1678.7	1674.6	1686.7	1670.6	1653.1	1641.0	1632.9	1630.2
5°	1873.7	1856.2	1841.4	1829.3	1832.0	1832.0	1803.7	1772.8	1745.9	1731.1	1715.0
7.5°	2079.5	2060.7	2031.1	2024.3	2019.0	1985.3	1957.1	1900.6	1867.0	1833.3	1803.7
10°	2283.9	2259.7	2231.5	2222.1	2208.6	2166.9	2123.9	2051.2	2009.5	1947.7	1908.7
12.5°	2474.9	2445.3	2417.1	2410.4	2390.2	2353.9	2279.9	2204.6	2133.3	2067.4	1998.8
15°	2635.0	2626.9	2583.9	2557.0	2512.6	2462.8	2446.7	2344.5	2254.3	2185.7	2062.0
17.5°	2769.5	2731.9	2691.5	2674.0	2656.5	2598.7	2540.8	2435.9	2339.1	2238.2	2158.8
20°	2877.1	2835.4	2807.2	2781.6	2773.5	2707.6	2616.2	2523.4	2417.1	2304.1	2200.5
22.5°	2882.5	2877.1	2858.3	2843.5	2827.4	2784.3	2711.7	2596.0	2483.0	2359.3	2223.4
25°	2770.9	2762.8	2816.6	2803.1	2813.9	2797.8	2758.8	2661.9	2530.1	2384.8	2247.6
27.5°	2434.6	2516.6	2601.4	2631.0	2651.1	2709.0	2727.8	2674.0	2567.8	2413.1	2259.7
30°	1977.3	2086.2	2223.4	2297.4	2353.9	2461.5	2601.4	2618.9	2569.1	2445.3	2257.0
32.5°	1552.2	1651.8	1762.1	1849.5	1924.8	2145.4	2333.7	2469.6	2493.8	2429.2	2263.8
35°	1250.9	1294.0	1398.9	1482.3	1584.5	1772.8	1994.7	2214.0	2362.0	2370.0	2243.6
37.5°	1031.7	1054.5	1146.0	1193.1	1253.6	1419.1	1626.2	1912.7	2142.7	2251.7	2187.1
40°	854.1	906.6	959.0	985.9	1029.0	1143.3	1342.4	1567.0	1852.2	2053.9	2099.7
42.5°	741.1	764.0	797.6	835.3	862.2	961.7	1094.9	1300.7	1557.6	1838.7	1965.2
45°	653.7	661.8	696.7	721.0	749.2	819.2	913.3	1085.5	1311.4	1588.5	1803.7
47.5°	581.1	597.2	616.0	630.8	649.7	703.5	784.2	909.3	1108.3	1355.8	1587.2
50°	516.5	525.9	550.1	556.9	570.3	608.0	669.8	765.3	929.4	1127.2	1366.6
52.5°	456.0	473.5	482.9	492.3	504.4	535.3	575.7	653.7	777.5	963.1	1166.2
55°	408.9	414.3	427.7	435.8	445.2	466.7	501.7	559.6	656.4	804.4	996.7
57.5°	363.2	363.2	376.6	383.3	392.8	408.9	439.8	484.2	554.2	664.5	840.7
60°	314.7	316.1	326.9	334.9	337.6	353.8	379.3	414.3	468.1	548.8	692.7
62.5°	271.7	278.4	283.8	286.5	295.9	305.3	326.9	351.1	388.7	460.0	562.2
65°	235.4	236.7	240.8	243.5	247.5	258.3	274.4	290.5	322.8	375.3	458.7
67.5°	193.7	199.1	204.5	204.5	208.5	213.9	230.0	243.5	267.7	298.6	355.1
70°	145.3	148.0	156.0	160.1	165.4	174.9	182.9	191.0	209.8	232.7	275.7
72.5°	121.1	121.1	123.7	125.1	125.1	131.8	143.9	152.0	161.4	177.6	207.1
75°	96.8	96.8	100.9	99.5	102.2	104.9	106.3	111.6	117.0	129.1	146.6
77.5°	76.7	78.0	78.0	79.4	79.4	80.7	82.0	84.7	87.4	94.2	102.2
80°	56.5	57.8	57.8	59.2	59.2	60.5	61.9	63.2	65.9	68.6	72.6
82.5°	39.0	40.4	40.4	41.7	40.4	41.7	43.0	43.0	44.4	47.1	48.4
85°	22.9	22.9	24.2	22.9	22.9	22.9	24.2	24.2	25.6	29.6	29.6
87.5°	6.7	8.1	6.7	8.1	8.1	8.1	8.1	9.4	9.4	10.8	12.1
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: P994924

CATALOG NUMBER: S123RDR-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1626.2	1619.5	1612.7	1612.7	1598.0	1584.5	1577.8	1580.5	1572.4	1561.6	1550.9
5°	1697.5	1670.6	1665.2	1650.4	1630.2	1602.0	1587.2	1573.7	1557.6	1536.1	1515.9
7.5°	1763.4	1728.4	1709.6	1694.8	1655.8	1616.8	1584.5	1563.0	1534.7	1502.5	1478.2
10°	1849.5	1784.9	1764.7	1731.1	1676.0	1620.8	1583.2	1548.2	1509.2	1471.5	1439.2
12.5°	1918.1	1844.1	1806.4	1772.8	1701.5	1631.6	1568.4	1525.3	1478.2	1436.5	1394.8
15°	1996.1	1912.7	1846.8	1806.4	1716.3	1631.6	1560.3	1499.8	1447.3	1396.2	1359.9
17.5°	2033.8	1928.8	1899.2	1841.4	1710.9	1626.2	1538.8	1474.2	1411.0	1351.8	1308.8
20°	2092.9	1970.5	1896.6	1857.6	1741.9	1616.8	1514.6	1440.6	1374.7	1311.4	1265.7
22.5°	2097.0	1963.8	1915.4	1841.4	1698.8	1588.5	1493.0	1402.9	1326.2	1267.1	1220.0
25°	2087.6	1951.7	1884.5	1825.3	1706.9	1572.4	1450.0	1361.2	1285.9	1217.3	1162.1
27.5°	2083.5	1916.7	1853.5	1794.3	1661.2	1525.3	1424.4	1323.6	1237.5	1176.9	1120.4
30°	2078.1	1879.1	1802.4	1733.8	1611.4	1489.0	1367.9	1280.5	1198.5	1121.8	1065.3
32.5°	2043.2	1828.0	1749.9	1677.3	1545.5	1423.1	1327.6	1234.8	1146.0	1074.7	1023.6
35°	2032.4	1780.9	1678.7	1600.6	1471.5	1362.6	1261.7	1185.0	1101.6	1030.3	969.8
37.5°	2001.5	1732.5	1622.2	1522.6	1388.1	1284.5	1210.6	1133.9	1053.2	976.5	928.1
40°	1947.7	1676.0	1550.9	1448.6	1310.1	1205.2	1136.6	1080.1	1000.7	932.1	873.0
42.5°	1868.3	1618.1	1483.6	1376.0	1222.7	1124.5	1068.0	1014.2	946.9	875.6	827.2
45°	1776.8	1541.5	1416.4	1296.7	1140.6	1045.1	985.9	953.7	891.8	831.3	774.8
47.5°	1651.8	1462.1	1338.4	1214.6	1055.9	963.1	916.0	883.7	840.7	774.8	729.0
50°	1494.4	1359.9	1242.9	1132.6	972.5	883.7	836.6	812.4	776.1	729.0	684.6
52.5°	1319.5	1241.5	1144.7	1042.4	887.8	804.4	761.3	742.5	715.6	671.2	633.5
55°	1143.3	1109.7	1043.8	942.9	799.0	730.4	692.7	668.5	648.3	616.0	583.8
57.5°	985.9	969.8	924.1	846.1	725.0	653.7	621.4	605.3	589.1	564.9	532.7
60°	823.2	840.7	793.6	754.6	644.3	582.4	554.2	536.7	528.6	507.1	486.9
62.5°	682.0	698.1	671.2	641.6	563.6	508.4	491.0	474.8	469.4	450.6	430.4
65°	554.2	574.3	554.2	538.0	491.0	445.2	423.7	415.6	410.2	398.1	382.0
67.5°	441.2	461.4	451.9	431.8	417.0	379.3	367.2	359.1	356.4	347.0	333.6
70°	332.2	360.5	363.2	351.1	337.6	320.1	312.1	309.4	302.6	294.6	286.5
72.5°	239.4	271.7	273.1	273.1	265.0	265.0	256.9	252.9	252.9	244.8	235.4
75°	176.2	197.7	200.4	203.1	207.1	211.2	205.8	205.8	204.5	196.4	192.3
77.5°	117.0	135.9	142.6	152.0	157.4	157.4	160.1	162.8	160.1	156.0	153.3
80°	75.3	88.8	96.8	102.2	110.3	114.3	118.4	119.7	117.0	115.7	111.6
82.5°	49.8	53.8	57.8	64.6	74.0	80.7	80.7	79.4	82.0	80.7	79.4
85°	28.2	30.9	32.3	33.6	39.0	45.7	47.1	48.4	51.1	48.4	45.7
87.5°	10.8	12.1	12.1	12.1	14.8	16.1	20.2	25.6	24.2	21.5	21.5
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: P994924

CATALOG NUMBER: S123RDR-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1550.9	1544.1	1541.5	1534.7	1518.6	1507.8	1495.7	1487.7	1489.0	1482.3	1486.3
5°	1502.5	1501.1	1491.7	1478.2	1455.4	1443.3	1421.7	1411.0	1405.6	1407.0	1398.9
7.5°	1462.1	1450.0	1443.3	1421.7	1400.2	1374.7	1357.2	1347.8	1339.7	1331.6	1326.2
10°	1416.4	1405.6	1394.8	1372.0	1342.4	1318.2	1294.0	1284.5	1272.4	1267.1	1263.0
12.5°	1367.9	1361.2	1347.8	1320.9	1287.2	1264.4	1236.1	1230.7	1214.6	1203.8	1201.2
15°	1323.6	1319.5	1295.3	1264.4	1230.7	1207.9	1183.7	1167.5	1140.6	1146.0	1136.6
17.5°	1276.5	1259.0	1244.2	1202.5	1186.4	1151.4	1123.1	1115.1	1096.2	1084.1	1072.0
20°	1224.0	1213.3	1194.4	1167.5	1128.5	1088.2	1066.6	1053.2	1042.4	1023.6	1018.2
22.5°	1174.3	1160.8	1144.7	1109.7	1076.1	1042.4	1012.8	1000.7	987.3	973.8	965.8
25°	1135.2	1115.1	1097.6	1054.5	1020.9	992.7	973.8	953.7	934.8	926.8	924.1
27.5°	1074.7	1062.6	1045.1	1004.8	973.8	942.9	925.4	912.0	891.8	882.4	874.3
30°	1035.7	1011.5	991.3	959.0	928.1	894.5	878.3	862.2	850.1	838.0	828.6
32.5°	983.3	964.4	948.3	916.0	885.1	854.1	836.6	812.4	805.7	796.3	785.5
35°	932.1	920.0	902.5	867.6	833.9	812.4	793.6	770.7	762.7	755.9	746.5
37.5°	883.7	866.2	854.1	820.5	790.9	765.3	750.6	731.7	726.3	718.3	711.5
40°	842.0	824.5	812.4	778.8	747.9	721.0	711.5	692.7	684.6	675.2	671.2
42.5°	794.9	780.1	764.0	739.8	707.5	680.6	661.8	651.0	640.3	636.2	628.2
45°	745.2	731.7	719.6	692.7	659.1	640.3	624.1	609.3	601.2	594.5	589.1
47.5°	702.1	690.0	673.9	644.3	617.4	599.9	583.8	569.0	560.9	552.8	546.1
50°	652.4	645.6	628.2	599.9	574.3	554.2	539.4	525.9	520.5	511.1	500.4
52.5°	608.0	595.9	581.1	558.2	535.3	511.1	491.0	482.9	473.5	468.1	458.7
55°	555.5	547.4	531.3	511.1	486.9	466.7	451.9	441.2	429.1	423.7	411.6
57.5°	511.1	496.3	488.3	462.7	439.8	419.7	408.9	398.1	384.7	376.6	371.2
60°	462.7	449.3	437.1	415.6	399.5	378.0	361.8	352.4	343.0	332.2	326.9
62.5°	415.6	404.9	390.1	372.6	352.4	334.9	322.8	309.4	304.0	293.2	289.2
65°	364.5	356.4	344.3	324.2	308.0	293.2	281.1	270.4	265.0	260.9	258.3
67.5°	318.8	308.0	300.0	282.5	265.0	252.9	246.1	239.4	232.7	228.7	224.6
70°	271.7	263.6	255.6	239.4	227.3	216.6	211.2	205.8	201.8	197.7	193.7
72.5°	223.3	219.2	211.2	200.4	191.0	182.9	178.9	172.2	168.1	161.4	158.7
75°	184.3	177.6	173.5	164.1	156.0	149.3	143.9	135.9	130.5	127.8	126.4
77.5°	145.3	142.6	137.2	129.1	125.1	118.4	110.3	107.6	104.9	104.9	103.6
80°	109.0	104.9	100.9	94.2	90.1	84.7	84.7	84.7	83.4	84.7	83.4
82.5°	74.0	71.3	68.6	64.6	63.2	63.2	64.6	64.6	64.6	64.6	64.6
85°	43.0	43.0	43.0	44.4	43.0	43.0	44.4	45.7	44.4	44.4	43.0
87.5°	20.2	20.2	21.5	21.5	22.9	22.9	22.9	22.9	22.9	22.9	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: P994924

CATALOG NUMBER: S123RDR-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1485.0	1486.3	1482.3	1474.2	1472.9	1475.5	1483.6	1480.9	1474.2	1486.3	1475.5
5°	1402.9	1396.2	1393.5	1396.2	1388.1	1384.1	1392.2	1388.1	1392.2	1393.5	1397.5
7.5°	1323.6	1324.9	1316.8	1318.2	1307.4	1310.1	1310.1	1310.1	1314.1	1316.8	1322.2
10°	1255.0	1257.6	1248.2	1249.6	1241.5	1236.1	1240.2	1248.2	1248.2	1248.2	1250.9
12.5°	1199.8	1187.7	1181.0	1179.6	1170.2	1167.5	1175.6	1178.3	1185.0	1185.0	1189.0
15°	1131.2	1128.5	1123.1	1123.1	1100.3	1105.7	1108.3	1117.8	1131.2	1120.4	1123.1
17.5°	1069.3	1062.6	1055.9	1053.2	1050.5	1042.4	1053.2	1051.8	1059.9	1061.3	1065.3
20°	1014.2	1008.8	995.4	996.7	999.4	987.3	994.0	994.0	1002.1	1010.2	1019.6
22.5°	960.4	955.0	948.3	951.0	942.9	940.2	940.2	946.9	956.3	963.1	961.7
25°	918.7	909.3	905.2	901.2	897.2	899.9	895.8	902.5	909.3	913.3	909.3
27.5°	871.6	867.6	859.5	855.5	848.7	851.4	854.1	859.5	863.5	863.5	867.6
30°	825.9	820.5	817.8	813.8	813.8	808.4	809.7	815.1	819.2	823.2	828.6
32.5°	781.5	777.5	773.4	773.4	770.7	769.4	768.0	776.1	776.1	784.2	784.2
35°	745.2	738.4	738.4	731.7	734.4	733.1	730.4	735.8	737.1	742.5	741.1
37.5°	704.8	704.8	702.1	695.4	690.0	691.4	698.1	698.1	702.1	700.8	704.8
40°	664.5	661.8	661.8	657.7	656.4	655.1	656.4	657.7	664.5	663.1	664.5
42.5°	624.1	625.5	618.7	618.7	618.7	614.7	616.0	617.4	620.1	622.8	626.8
45°	585.1	582.4	581.1	578.4	575.7	577.0	575.7	581.1	579.7	582.4	586.5
47.5°	543.4	539.4	538.0	532.7	532.7	535.3	534.0	538.0	539.4	543.4	540.7
50°	503.1	497.7	493.6	495.0	486.9	489.6	489.6	493.6	497.7	499.0	501.7
52.5°	456.0	454.6	453.3	446.6	445.2	443.9	445.2	446.6	451.9	456.0	457.3
55°	410.2	408.9	400.8	398.1	394.1	394.1	396.8	398.1	407.6	408.9	414.3
57.5°	368.6	364.5	355.1	353.8	353.8	353.8	349.7	355.1	357.8	364.5	364.5
60°	322.8	322.8	314.7	314.7	316.1	314.7	314.7	316.1	316.1	321.5	324.2
62.5°	286.5	285.2	285.2	282.5	281.1	282.5	281.1	281.1	282.5	286.5	290.5
65°	254.2	252.9	251.5	250.2	247.5	247.5	248.8	251.5	251.5	254.2	255.6
67.5°	223.3	223.3	220.6	220.6	219.2	217.9	219.2	217.9	223.3	223.3	224.6
70°	192.3	191.0	187.0	185.6	181.6	182.9	182.9	187.0	188.3	191.0	193.7
72.5°	154.7	154.7	152.0	149.3	150.6	148.0	148.0	149.3	149.3	153.3	154.7
75°	127.8	125.1	123.7	125.1	123.7	126.4	123.7	123.7	126.4	126.4	126.4
77.5°	104.9	104.9	103.6	103.6	104.9	103.6	104.9	104.9	104.9	103.6	104.9
80°	86.1	84.7	84.7	84.7	83.4	83.4	83.4	83.4	83.4	83.4	83.4
82.5°	64.6	64.6	63.2	64.6	64.6	63.2	64.6	63.2	63.2	64.6	64.6
85°	43.0	45.7	43.0	43.0	44.4	44.4	45.7	44.4	45.7	43.0	44.4
87.5°	22.9	24.2	24.2	22.9	22.9	24.2	24.2	24.2	25.6	22.9	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: P994924

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0	1571.0
2.5°	1486.3	1491.7	1486.3	1475.5	1486.3	1493.0	1499.8	1510.5	1515.9	1515.9	1524.0
5°	1401.6	1412.3	1408.3	1405.6	1416.4	1423.1	1433.9	1447.3	1462.1	1471.5	1482.3
7.5°	1326.2	1333.0	1339.7	1339.7	1350.5	1365.3	1381.4	1397.5	1416.4	1429.8	1437.9
10°	1260.3	1265.7	1269.8	1275.1	1291.3	1307.4	1328.9	1349.1	1365.3	1380.0	1393.5
12.5°	1197.1	1205.2	1214.6	1218.6	1230.7	1250.9	1271.1	1295.3	1320.9	1335.7	1349.1
15°	1136.6	1140.6	1151.4	1163.5	1174.3	1195.8	1221.3	1246.9	1268.4	1291.3	1303.4
17.5°	1074.7	1076.1	1104.3	1097.6	1132.6	1152.7	1166.2	1190.4	1225.4	1244.2	1263.0
20°	1014.2	1027.6	1039.7	1046.5	1065.3	1088.2	1127.2	1146.0	1174.3	1191.7	1207.9
22.5°	967.1	987.3	987.3	1003.4	1012.8	1034.4	1062.6	1098.9	1129.9	1142.0	1164.8
25°	925.4	934.8	951.0	956.3	973.8	992.7	1011.5	1050.5	1084.1	1100.3	1116.4
27.5°	871.6	883.7	905.2	905.2	928.1	948.3	971.1	996.7	1030.3	1053.2	1070.7
30°	829.9	842.0	851.4	866.2	875.6	894.5	934.8	953.7	983.3	1003.4	1024.9
32.5°	790.9	800.3	808.4	824.5	835.3	856.8	878.3	912.0	937.5	956.3	979.2
35°	747.9	757.3	768.0	780.1	796.3	816.5	836.6	864.9	890.4	907.9	926.8
37.5°	707.5	714.2	730.4	738.4	751.9	770.7	796.3	825.9	848.7	862.2	881.0
40°	668.5	673.9	686.0	700.8	710.2	725.0	751.9	777.5	805.7	821.8	836.6
42.5°	626.8	633.5	644.3	659.1	673.9	690.0	704.8	734.4	760.0	773.4	789.6
45°	590.5	594.5	602.6	617.4	632.2	644.3	667.2	694.1	718.3	729.0	746.5
47.5°	547.4	551.5	563.6	570.3	586.5	602.6	625.5	652.4	673.9	684.6	700.8
50°	503.1	507.1	515.2	530.0	540.7	558.2	578.4	601.2	628.2	642.9	652.4
52.5°	460.0	468.1	474.8	486.9	500.4	517.9	536.7	558.2	581.1	595.9	606.6
55°	417.0	423.7	431.8	438.5	454.6	470.8	492.3	512.5	532.7	546.1	558.2
57.5°	368.6	378.0	386.0	399.5	411.6	425.0	449.3	465.4	489.6	499.0	509.8
60°	326.9	336.3	343.0	353.8	364.5	382.0	398.1	418.3	438.5	450.6	464.1
62.5°	291.9	295.9	300.0	310.7	321.5	337.6	353.8	373.9	395.5	402.2	412.9
65°	256.9	260.9	267.7	277.1	285.2	294.6	312.1	328.2	348.4	359.1	363.2
67.5°	227.3	231.4	232.7	239.4	246.1	256.9	266.3	282.5	301.3	308.0	316.1
70°	193.7	200.4	201.8	207.1	209.8	216.6	227.3	239.4	254.2	266.3	273.1
72.5°	154.7	164.1	166.8	174.9	178.9	185.6	193.7	203.1	212.5	217.9	223.3
75°	126.4	129.1	130.5	137.2	143.9	153.3	157.4	162.8	170.8	177.6	182.9
77.5°	104.9	106.3	107.6	107.6	109.0	114.3	122.4	129.1	134.5	137.2	141.2
80°	84.7	83.4	83.4	84.7	84.7	84.7	87.4	96.8	99.5	106.3	104.9
82.5°	65.9	63.2	64.6	63.2	63.2	63.2	63.2	64.6	64.6	68.6	71.3
85°	43.0	44.4	43.0	43.0	41.7	43.0	41.7	41.7	40.4	40.4	39.0
87.5°	22.9	24.2	22.9	22.9	21.5	22.9	21.5	21.5	20.2	20.2	17.5
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: P994924

CATALOG NUMBER: S123RDR-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1571.0	1571.0	1571.0	1571.0
2.5°	1530.7	1540.1	1558.9	1575.1
5°	1498.4	1513.2	1541.5	1569.7
7.5°	1459.4	1482.3	1518.6	1557.6
10°	1421.7	1451.3	1495.7	1541.5
12.5°	1384.1	1415.0	1462.1	1521.3
15°	1339.7	1372.0	1428.5	1499.8
17.5°	1300.7	1343.7	1394.8	1466.1
20°	1259.0	1291.3	1357.2	1432.5
22.5°	1206.5	1260.3	1322.2	1401.6
25°	1164.8	1211.9	1273.8	1363.9
27.5°	1113.7	1168.9	1244.2	1323.6
30°	1072.0	1117.8	1187.7	1283.2
32.5°	1023.6	1077.4	1150.0	1244.2
35°	980.6	1026.3	1094.9	1190.4
37.5°	929.4	979.2	1055.9	1140.6
40°	885.1	933.5	1006.1	1085.5
42.5°	831.3	882.4	955.0	1022.3
45°	788.2	835.3	893.1	955.0
47.5°	735.8	785.5	842.0	885.1
50°	688.7	734.4	778.8	815.1
52.5°	637.6	679.3	719.6	746.5
55°	590.5	622.8	655.1	673.9
57.5°	535.3	566.3	593.2	603.9
60°	486.9	512.5	530.0	542.1
62.5°	435.8	454.6	468.1	474.8
65°	386.0	399.5	406.2	412.9
67.5°	334.9	347.0	351.1	359.1
70°	281.1	294.6	297.3	301.3
72.5°	240.8	240.8	246.1	251.5
75°	192.3	195.0	197.7	197.7
77.5°	150.6	150.6	153.3	154.7
80°	110.3	111.6	111.6	110.3
82.5°	75.3	78.0	75.3	74.0
85°	41.7	47.1	44.4	44.4
87.5°	17.5	17.5	20.2	17.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)