

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: P1037236

Luminaire Tested: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K
Description: Define 3 Direct Surface with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

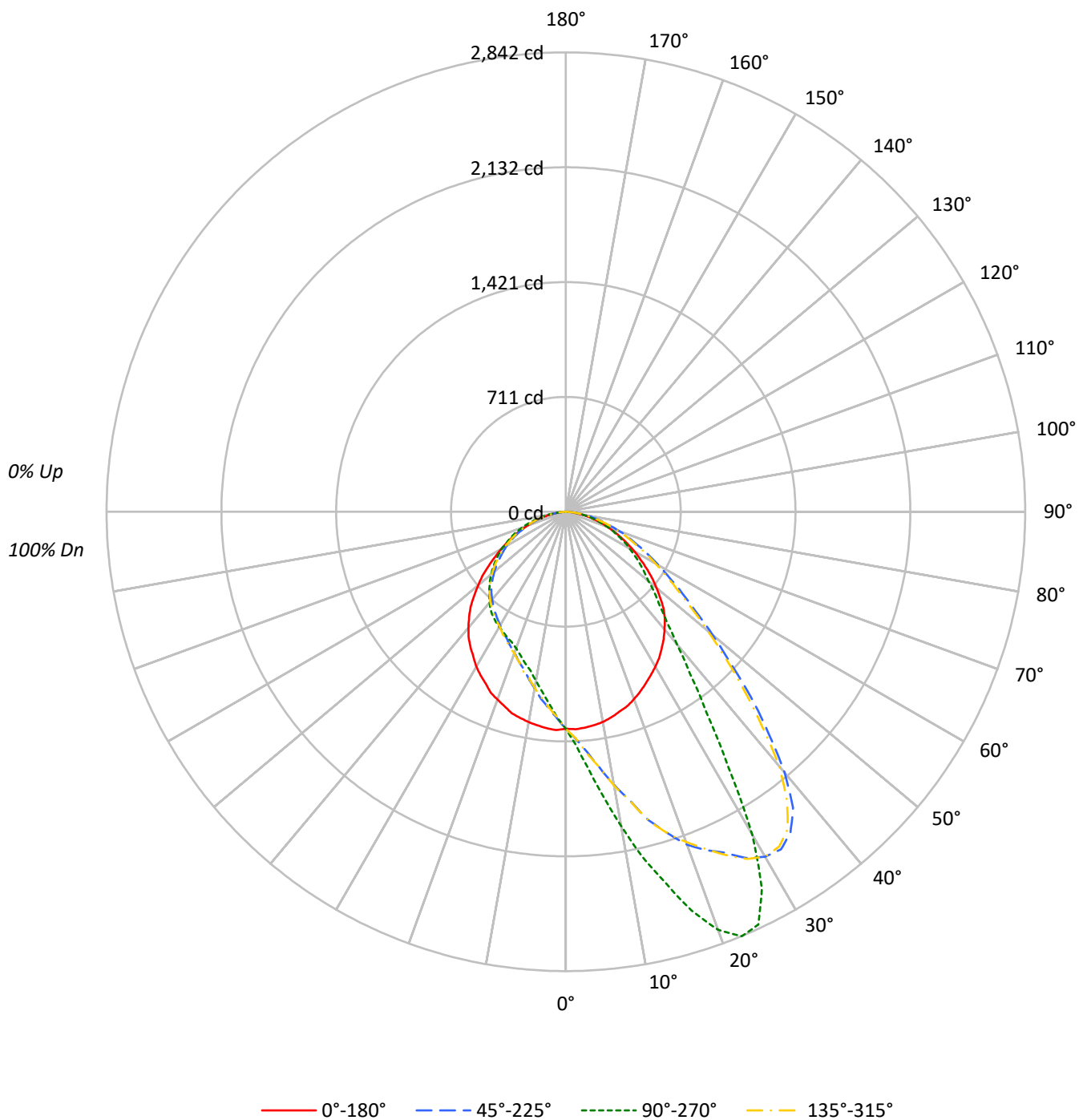
Lumens per Lamp: N/A
Luminaire Lumens: 4052.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.5
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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				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		0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102		100
1	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	87		85
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	74		72
3	92	82	74	68	89	80	73	67	77	71	66		75	69	65		72	68	64		62
4	84	73	65	58	82	72	64	58	69	62	57		67	61	56		65	60	56		53
5	78	66	57	51	76	64	56	50	62	55	50		60	54	49		59	53	49		47
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53	48	43		41
7	67	54	45	39	65	53	45	39	52	44	39		50	44	39		49	43	38		36
8	62	49	41	35	61	49	41	35	47	40	35		46	39	35		45	39	35		33
9	58	45	37	32	57	45	37	32	43	36	32		42	36	31		41	36	31		29
10	55	42	34	29	53	41	34	29	40	33	29		39	33	29		38	33	28		27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14451	14451	14451	14451
5°	14492	17233	14534	12861
10°	14432	21570	14446	11616
15°	14265	26457	14381	10815
20°	14127	31517	14157	10297
25°	13905	33466	13936	10182
30°	13760	28684	13760	10235
35°	13573	19950	13487	10343
40°	13345	15025	13180	10309
45°	13050	12476	12674	10179
50°	12265	11176	11829	10086
55°	11401	10449	10937	9961
60°	10529	9802	9970	9858
65°	9577	9212	9113	9543
70°	8598	8639	8025	9089
75°	7519	7735	7033	8330
80°	6211	6775	5728	7178
85°	4817	5298	3853	4817

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 29130 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	3.3
10°-20°	424.1	10.5
20°-30°	713.6	17.6
30°-40°	806.4	19.9
40°-50°	722.2	17.8
50°-60°	583.0	14.4
60°-70°	406.3	10.0
70°-80°	213.2	5.3
80°-90°	51.1	1.3
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°	1269.7	31.3
0°-40°	2076.1	51.2
0°-60°	3381.3	83.4
0°-90°	4052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4052.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1342	1342	1342	1342	1342	
5°	1341	1595	1345	1190	1341	127
15°	1280	2374	1290	970	1280	362
25°	1171	2818	1173	857	1171	540
35°	1033	1518	1026	787	1033	646
45°	857	820	833	669	857	656
55°	608	557	583	531	608	544
65°	376	362	358	375	376	374
75°	181	186	169	200	181	194
85°	39	43	31	39	39	48
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°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1346.4	1356.8	1362.1	1369.9	1377.7	1389.4	1393.3	1399.8	1397.2	1402.4	1405.0
5°	1341.2	1359.5	1375.1	1394.6	1412.8	1425.8	1438.8	1459.6	1475.2	1477.8	1489.5
7.5°	1332.1	1358.2	1385.5	1412.8	1447.9	1468.7	1492.1	1520.8	1544.2	1581.9	1596.2
10°	1320.4	1356.8	1395.9	1433.6	1481.7	1514.3	1542.9	1591.0	1639.1	1678.2	1714.6
12.5°	1302.2	1347.7	1398.5	1454.4	1516.9	1554.6	1593.6	1657.4	1730.2	1790.1	1829.1
15°	1280.1	1337.3	1402.4	1462.2	1531.2	1601.4	1643.0	1714.6	1818.7	1874.6	1974.8
17.5°	1261.9	1320.4	1385.5	1479.1	1572.8	1643.0	1673.0	1804.4	1875.9	1969.6	2082.8
20°	1233.3	1307.4	1390.7	1484.3	1605.3	1648.3	1709.4	1842.1	1930.6	2052.8	2192.0
22.5°	1203.3	1282.7	1382.9	1480.4	1615.7	1661.3	1744.5	1849.9	1990.4	2111.4	2264.9
25°	1170.8	1256.7	1358.2	1473.9	1606.6	1673.0	1751.0	1881.1	2033.3	2185.5	2327.3
27.5°	1138.3	1232.0	1337.3	1453.1	1581.9	1660.0	1738.0	1873.3	2068.4	2233.7	2414.5
30°	1107.1	1200.7	1306.1	1424.5	1559.8	1635.2	1709.4	1878.5	2095.8	2281.8	2463.9
32.5°	1073.3	1169.5	1280.1	1379.0	1515.6	1596.2	1679.5	1878.5	2112.7	2310.4	2476.9
35°	1032.9	1131.8	1226.8	1325.6	1460.9	1550.7	1644.4	1865.5	2128.3	2319.5	2422.3
37.5°	993.9	1081.1	1163.0	1259.3	1401.1	1497.3	1605.3	1849.9	2120.5	2280.5	2309.1
40°	949.7	1036.8	1103.2	1192.9	1342.5	1454.4	1563.7	1829.1	2086.7	2188.1	2104.9
42.5°	906.7	975.7	1032.9	1120.1	1282.7	1392.0	1510.4	1791.4	2020.3	2041.1	1853.8
45°	857.3	906.7	957.5	1056.3	1217.7	1329.5	1460.9	1736.7	1913.6	1853.8	1617.0
47.5°	793.6	837.8	893.7	984.8	1148.7	1264.5	1389.4	1666.5	1758.8	1633.9	1375.1
50°	732.4	770.1	822.2	910.6	1075.9	1189.0	1321.7	1555.9	1601.4	1405.0	1185.1
52.5°	671.3	699.9	750.6	839.1	1004.3	1113.6	1234.6	1442.7	1416.7	1205.9	1010.8
55°	607.5	632.2	680.4	767.5	921.0	1025.1	1140.9	1303.5	1235.9	1035.5	879.4
57.5°	545.1	571.1	620.5	693.4	837.8	939.3	1031.6	1159.1	1057.6	897.6	759.7
60°	489.1	511.3	549.0	620.5	751.9	833.9	918.4	1005.6	921.0	766.2	660.9
62.5°	430.6	451.4	486.5	551.6	664.8	737.6	805.3	876.8	783.1	670.0	576.3
65°	376.0	392.9	425.4	485.2	577.6	637.4	692.1	741.5	666.1	562.0	491.7
67.5°	326.5	340.8	368.2	421.5	499.5	542.5	586.7	628.3	564.6	481.3	421.5
70°	273.2	284.9	309.6	348.6	411.1	455.3	487.8	519.1	461.8	395.5	355.1
72.5°	226.4	238.1	253.7	294.0	336.9	364.3	399.4	416.3	383.8	329.1	288.8
75°	180.8	189.9	204.2	230.3	270.6	288.8	310.9	323.9	294.0	257.6	232.9
77.5°	141.8	145.7	156.1	174.3	201.6	222.5	239.4	247.2	226.4	202.9	182.1
80°	100.2	105.4	113.2	128.8	149.6	156.1	166.5	175.6	162.6	141.8	128.8
82.5°	66.3	72.9	76.8	83.3	96.3	104.1	106.7	114.5	102.8	95.0	89.8
85°	39.0	41.6	42.9	46.8	53.3	57.2	61.1	62.4	59.8	58.5	53.3
87.5°	19.5	19.5	19.5	22.1	23.4	26.0	27.3	27.3	27.3	26.0	24.7
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°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1414.1	1416.7	1425.8	1432.3	1445.3	1444.0	1444.0	1442.7	1438.8	1445.3	1449.2
5°	1513.0	1535.1	1537.7	1566.3	1567.6	1579.3	1587.1	1580.6	1596.2	1594.9	1583.2
7.5°	1635.2	1665.2	1679.5	1706.8	1738.0	1730.2	1760.1	1765.3	1762.7	1775.7	1784.8
10°	1769.2	1821.3	1857.7	1908.4	1921.4	1929.3	1948.8	1965.7	1999.5	1973.5	1990.4
12.5°	1922.7	1960.5	2008.6	2089.3	2129.6	2155.6	2164.7	2176.4	2199.8	2185.5	2186.8
15°	2051.5	2102.3	2184.2	2284.4	2296.1	2328.6	2320.8	2391.1	2424.9	2374.2	2402.8
17.5°	2185.5	2253.2	2350.7	2437.9	2487.3	2509.5	2530.3	2597.9	2595.3	2587.5	2594.0
20°	2271.4	2382.0	2503.0	2618.7	2633.0	2650.0	2705.9	2734.5	2729.3	2751.4	2765.7
22.5°	2392.4	2509.5	2638.2	2715.0	2747.5	2767.0	2811.3	2829.5	2837.3	2842.5	2833.4
25°	2493.8	2618.7	2713.7	2781.3	2800.9	2811.3	2825.6	2830.8	2826.9	2817.8	2825.6
27.5°	2562.8	2663.0	2728.0	2759.2	2748.8	2731.9	2704.6	2686.4	2646.1	2626.5	2650.0
30°	2591.4	2635.6	2655.2	2603.1	2551.1	2509.5	2457.4	2361.2	2285.7	2307.8	2277.9
32.5°	2545.9	2517.3	2423.6	2289.6	2249.3	2181.6	2034.6	1921.4	1925.3	1865.5	1890.2
35°	2411.9	2281.8	2104.9	1901.9	1848.6	1812.2	1650.9	1626.1	1574.1	1518.2	1533.8
37.5°	2175.1	1985.2	1770.5	1620.9	1541.6	1462.2	1371.2	1316.5	1285.3	1261.9	1280.1
40°	1886.3	1654.8	1477.8	1343.8	1276.2	1225.5	1163.0	1108.4	1073.3	1069.3	1075.9
42.5°	1602.7	1407.6	1245.0	1117.5	1095.4	1035.5	995.2	952.3	941.9	924.9	934.1
45°	1356.8	1198.1	1064.1	960.1	934.1	918.4	869.0	841.7	830.0	819.6	835.2
47.5°	1178.6	1012.1	914.5	852.1	826.1	800.1	772.7	754.5	745.4	746.7	745.4
50°	1006.9	884.6	798.8	750.6	735.0	716.8	694.7	683.0	679.1	667.4	676.5
52.5°	866.4	777.9	718.1	672.6	660.9	647.9	629.6	623.1	614.0	611.4	611.4
55°	753.2	684.3	636.1	606.2	591.9	581.5	571.1	563.3	556.8	556.8	556.8
57.5°	664.8	604.9	569.8	543.8	538.6	528.2	516.5	516.5	507.4	506.1	510.0
60°	589.3	536.0	508.7	486.5	478.7	476.1	464.4	464.4	461.8	455.3	460.5
62.5°	512.6	473.5	450.1	433.2	425.4	425.4	416.3	409.8	409.8	411.1	408.5
65°	442.3	413.7	392.9	379.9	376.0	370.8	369.5	364.3	360.4	361.7	360.4
67.5°	379.9	357.8	343.4	333.0	326.5	323.9	320.0	320.0	317.4	318.7	312.2
70°	323.9	301.8	290.1	279.7	277.1	277.1	271.9	273.2	270.6	274.5	271.9
72.5°	266.7	249.8	240.7	236.8	234.2	232.9	230.3	227.7	226.4	229.0	227.7
75°	216.0	201.6	195.1	192.5	189.9	189.9	188.6	187.3	186.0	186.0	186.0
77.5°	167.8	158.7	150.9	153.5	149.6	150.9	147.0	147.0	148.3	147.0	147.0
80°	123.6	117.1	117.1	114.5	109.3	111.9	111.9	108.0	106.7	109.3	105.4
82.5°	82.0	80.7	78.1	76.8	74.2	75.5	74.2	72.9	71.6	74.2	71.6
85°	48.1	48.1	46.8	44.2	46.8	45.5	44.2	44.2	42.9	42.9	42.9
87.5°	24.7	22.1	22.1	20.8	22.1	19.5	20.8	19.5	18.2	19.5	18.2
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°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1438.8	1442.7	1432.3	1429.7	1429.7	1434.9	1431.0	1395.9	1402.4	1394.6	1392.0
5°	1597.5	1589.7	1579.3	1574.1	1567.6	1549.4	1548.1	1507.8	1499.9	1473.9	1462.2
7.5°	1771.8	1765.3	1734.1	1730.2	1727.6	1710.7	1667.8	1624.8	1593.6	1563.7	1535.1
10°	1970.9	1951.4	1937.1	1908.4	1894.1	1870.7	1814.8	1774.4	1721.1	1675.6	1615.7
12.5°	2210.2	2188.1	2140.0	2119.2	2101.0	2035.9	1980.0	1934.5	1830.4	1799.2	1725.0
15°	2385.9	2339.0	2333.8	2288.3	2285.7	2214.1	2107.5	2058.0	1977.4	1862.9	1786.2
17.5°	2575.8	2534.2	2501.7	2447.0	2439.2	2371.6	2293.5	2172.5	2084.1	1974.8	1877.2
20°	2715.0	2692.9	2636.9	2614.8	2569.3	2512.1	2431.4	2281.8	2173.8	2064.5	1944.9
22.5°	2825.6	2803.5	2759.2	2729.3	2703.3	2629.1	2532.9	2405.4	2257.1	2114.0	1990.4
25°	2824.3	2817.8	2799.6	2785.2	2765.7	2711.1	2630.4	2508.2	2342.9	2185.5	2013.8
27.5°	2664.3	2682.5	2713.7	2729.3	2725.4	2717.6	2672.1	2569.3	2421.0	2233.7	2041.1
30°	2331.2	2397.6	2456.1	2534.2	2557.6	2614.8	2640.8	2582.3	2463.9	2289.6	2076.3
32.5°	1933.2	2029.4	2156.9	2199.8	2274.0	2384.6	2508.2	2530.3	2456.1	2322.1	2098.4
35°	1585.8	1665.2	1764.0	1831.7	1898.0	2077.6	2233.7	2369.0	2393.7	2305.2	2093.2
37.5°	1312.6	1368.6	1455.7	1513.0	1574.1	1727.6	1946.2	2121.8	2245.4	2248.0	2078.9
40°	1114.9	1139.6	1215.1	1256.7	1315.2	1447.9	1643.0	1872.0	2052.8	2136.1	2041.1
42.5°	944.5	977.0	1039.4	1070.6	1108.4	1224.2	1352.9	1570.2	1794.0	1972.2	1970.9
45°	843.0	866.4	895.0	921.0	964.0	1032.9	1179.9	1342.5	1557.2	1758.8	1838.2
47.5°	753.2	775.3	804.0	811.8	840.4	905.4	995.2	1137.0	1337.3	1537.7	1687.3
50°	677.8	696.0	715.5	729.8	742.8	796.2	863.8	983.5	1143.5	1337.3	1523.4
52.5°	619.2	632.2	649.2	657.0	668.7	707.7	759.7	848.2	979.6	1156.5	1337.3
55°	564.6	573.7	584.1	597.1	602.3	630.9	671.3	746.7	844.3	1003.0	1174.7
57.5°	513.9	517.8	524.3	532.1	538.6	563.3	598.4	649.2	735.0	857.3	1019.9
60°	456.6	467.0	470.9	478.7	482.6	502.2	529.5	572.4	638.7	744.1	866.4
62.5°	408.5	415.0	421.5	425.4	434.5	441.0	463.1	502.2	556.8	634.8	745.4
65°	365.6	368.2	372.1	376.0	378.6	386.4	407.2	433.2	474.8	543.8	629.6
67.5°	316.1	318.7	323.9	325.2	327.8	338.2	349.9	372.1	407.2	459.2	529.5
70°	268.0	271.9	274.5	277.1	281.0	284.9	297.9	316.1	343.4	379.9	434.5
72.5°	226.4	230.3	230.3	232.9	231.6	236.8	249.8	262.8	281.0	310.9	359.1
75°	184.7	184.7	187.3	188.6	189.9	195.1	200.3	210.7	225.1	248.5	278.4
77.5°	145.7	144.4	147.0	147.0	147.0	150.9	156.1	161.3	170.4	187.3	210.7
80°	106.7	106.7	109.3	110.6	108.0	109.3	111.9	117.1	123.6	135.3	148.3
82.5°	70.2	75.5	74.2	75.5	74.2	76.8	78.1	79.4	82.0	87.2	96.3
85°	42.9	42.9	42.9	44.2	42.9	44.2	44.2	44.2	45.5	48.1	52.0
87.5°	18.2	18.2	18.2	19.5	18.2	18.2	19.5	18.2	19.5	19.5	20.8
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: P1037236

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1379.0	1375.1	1375.1	1372.5	1364.7	1350.3	1349.0	1351.6	1343.8	1336.0	1324.3
5°	1446.6	1421.9	1414.1	1406.3	1390.7	1364.7	1354.2	1345.1	1330.8	1313.9	1295.7
7.5°	1503.9	1468.7	1458.3	1444.0	1412.8	1376.4	1352.9	1333.4	1313.9	1290.5	1268.4
10°	1575.4	1524.7	1499.9	1479.1	1436.2	1385.5	1350.3	1321.7	1290.5	1261.9	1233.3
12.5°	1656.1	1574.1	1566.3	1515.6	1466.1	1390.7	1347.7	1306.1	1264.5	1229.4	1199.4
15°	1723.7	1633.9	1601.4	1567.6	1472.6	1379.0	1337.3	1290.5	1242.4	1204.6	1160.4
17.5°	1766.6	1692.5	1623.5	1578.0	1479.1	1395.9	1315.2	1261.9	1211.1	1159.1	1122.7
20°	1818.7	1710.7	1650.9	1589.7	1492.1	1382.9	1302.2	1235.9	1173.4	1126.6	1082.4
22.5°	1870.7	1725.0	1675.6	1609.2	1494.7	1369.9	1278.8	1212.4	1140.9	1094.1	1045.9
25°	1865.5	1745.8	1663.9	1607.9	1468.7	1358.2	1251.5	1173.4	1107.1	1047.2	999.1
27.5°	1869.4	1722.4	1639.1	1574.1	1450.5	1341.2	1222.9	1140.9	1072.0	1009.5	958.8
30°	1870.7	1687.3	1614.4	1536.4	1416.7	1300.9	1190.3	1107.1	1034.2	966.6	921.0
32.5°	1866.8	1658.7	1567.6	1497.3	1363.4	1261.9	1152.6	1064.1	990.0	927.5	884.6
35°	1857.7	1624.8	1519.5	1431.0	1308.7	1205.9	1117.5	1026.4	947.1	889.8	840.4
37.5°	1833.0	1588.4	1468.7	1381.6	1245.0	1140.9	1062.8	987.4	910.6	843.0	801.4
40°	1814.8	1539.0	1418.0	1323.0	1176.0	1074.6	1009.5	938.0	862.5	801.4	761.0
42.5°	1773.1	1492.1	1366.0	1252.8	1108.4	1004.3	943.2	885.9	820.9	761.0	724.6
45°	1705.5	1441.4	1302.2	1187.7	1034.2	935.4	879.4	832.6	775.3	718.1	681.7
47.5°	1610.5	1368.6	1234.6	1120.1	961.4	861.2	805.3	770.1	724.6	676.5	645.3
50°	1507.8	1289.2	1165.6	1052.4	891.1	793.6	738.9	706.4	676.5	632.2	602.3
52.5°	1373.8	1204.6	1086.3	978.3	815.7	722.0	673.9	650.5	619.2	588.0	562.0
55°	1243.7	1095.4	997.8	895.0	741.5	654.4	607.5	582.8	564.6	538.6	517.8
57.5°	1092.8	993.9	904.1	810.5	672.6	593.2	549.0	519.1	507.4	495.6	476.1
60°	953.6	878.1	805.3	727.2	601.0	529.5	486.5	463.1	451.4	443.6	430.6
62.5°	826.1	767.5	705.1	642.6	528.2	463.1	430.6	407.2	396.8	395.5	383.8
65°	703.8	662.2	611.4	550.3	460.5	403.3	372.1	357.8	346.0	346.0	336.9
67.5°	581.5	552.9	512.6	469.6	399.4	346.0	317.4	304.4	297.9	297.9	291.4
70°	483.9	464.4	428.0	390.3	329.1	288.8	266.7	255.0	251.1	252.4	247.2
72.5°	392.9	372.1	342.1	314.8	269.3	239.4	223.8	210.7	204.2	205.5	204.2
75°	304.4	294.0	268.0	247.2	210.7	189.9	175.6	169.1	163.9	165.2	162.6
77.5°	229.0	213.3	199.0	184.7	162.6	145.7	134.0	127.5	123.6	123.6	123.6
80°	156.1	153.5	141.8	134.0	115.8	102.8	93.7	92.4	88.5	88.5	88.5
82.5°	101.5	95.0	88.5	83.3	72.9	65.0	61.1	58.5	57.2	55.9	58.5
85°	55.9	52.0	49.4	44.2	40.3	36.4	32.5	31.2	29.9	31.2	29.9
87.5°	22.1	18.2	18.2	16.9	15.6	14.3	14.3	11.7	11.7	10.4	10.4
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: P1037236

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1321.7	1320.4	1323.0	1315.2	1302.2	1295.7	1277.5	1273.6	1272.3	1273.6	1274.9
5°	1285.3	1284.0	1280.1	1267.1	1251.5	1239.8	1217.7	1216.4	1208.5	1200.7	1204.6
7.5°	1250.2	1245.0	1237.2	1220.3	1199.4	1186.4	1168.2	1155.2	1144.8	1138.3	1133.1
10°	1215.1	1207.2	1199.4	1177.3	1151.3	1131.8	1109.7	1099.3	1087.6	1082.4	1077.2
12.5°	1169.5	1161.7	1147.4	1121.4	1105.8	1081.1	1058.9	1048.5	1042.0	1031.6	1025.1
15°	1133.1	1117.5	1109.7	1082.4	1049.8	1047.2	1006.9	1004.3	991.3	991.3	980.9
17.5°	1091.5	1079.8	1065.4	1038.1	1014.7	991.3	970.5	962.7	951.0	948.4	943.2
20°	1051.1	1035.5	1030.3	1003.0	978.3	949.7	927.5	919.7	914.5	909.3	913.2
22.5°	1009.5	996.5	983.5	958.8	940.6	911.9	898.9	891.1	883.3	880.7	882.0
25°	969.2	957.5	944.5	919.7	900.2	876.8	865.1	861.2	857.3	857.3	856.0
27.5°	930.2	918.4	906.7	884.6	865.1	848.2	839.1	835.2	831.3	833.9	836.5
30°	889.8	879.4	869.0	849.5	833.9	818.3	813.1	810.5	809.2	815.7	815.7
32.5°	853.4	844.3	836.5	818.3	802.7	789.7	785.7	787.1	788.4	792.3	794.9
35°	815.7	809.2	801.4	785.7	772.7	761.0	762.3	762.3	764.9	771.4	776.6
37.5°	781.8	772.7	766.2	753.2	742.8	732.4	736.3	740.2	742.8	750.6	753.2
40°	741.5	737.6	732.4	719.4	710.3	709.0	710.3	712.9	718.1	722.0	725.9
42.5°	709.0	703.8	697.3	686.9	679.1	680.4	681.7	684.3	686.9	693.4	697.3
45°	672.6	668.7	663.5	654.4	647.9	649.2	650.5	650.5	653.1	660.9	663.5
47.5°	632.2	633.5	627.0	617.9	614.0	614.0	614.0	616.6	623.1	625.7	627.0
50°	593.2	590.6	589.3	580.2	577.6	576.3	577.6	578.9	588.0	586.7	590.6
52.5°	551.6	551.6	550.3	545.1	541.2	541.2	538.6	545.1	547.7	550.3	554.2
55°	511.3	507.4	506.1	503.5	498.2	496.9	499.5	507.4	510.0	512.6	516.5
57.5°	467.0	467.0	464.4	460.5	460.5	460.5	460.5	465.7	469.6	472.2	480.0
60°	426.7	421.5	417.6	417.6	417.6	416.3	424.1	424.1	431.9	433.2	435.8
62.5°	378.6	376.0	373.4	374.7	373.4	376.0	378.6	383.8	385.1	389.0	392.9
65°	333.0	333.0	330.4	338.2	333.0	333.0	339.5	339.5	342.1	346.0	351.2
67.5°	288.8	290.1	287.5	287.5	290.1	291.4	292.7	297.9	299.2	304.4	310.9
70°	243.3	245.9	247.2	244.6	247.2	249.8	252.4	253.7	258.9	261.5	265.4
72.5°	202.9	205.5	201.6	202.9	204.2	206.8	208.1	210.7	213.3	221.2	223.8
75°	162.6	161.3	160.0	165.2	162.6	167.8	169.1	169.1	171.7	178.2	180.8
77.5°	124.9	124.9	126.2	123.6	127.5	126.2	127.5	131.4	135.3	135.3	145.7
80°	87.2	89.8	89.8	89.8	91.1	92.4	89.8	96.3	97.6	97.6	101.5
82.5°	55.9	57.2	55.9	58.5	58.5	61.1	59.8	61.1	63.7	66.3	67.6
85°	29.9	29.9	32.5	32.5	31.2	32.5	31.2	32.5	35.1	35.1	36.4
87.5°	10.4	10.4	10.4	10.4	11.7	10.4	11.7	11.7	10.4	10.4	14.3
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: P1037236

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1273.6	1274.9	1269.7	1265.8	1276.2	1269.7	1269.7	1271.0	1268.4	1272.3	1271.0
5°	1202.0	1203.3	1194.2	1196.8	1191.6	1190.3	1189.0	1196.8	1195.5	1194.2	1196.8
7.5°	1131.8	1131.8	1127.9	1125.3	1125.3	1121.4	1126.6	1125.3	1127.9	1127.9	1131.8
10°	1073.3	1075.9	1069.3	1062.8	1061.5	1062.8	1062.8	1064.1	1065.4	1074.6	1073.3
12.5°	1025.1	1021.2	1019.9	1016.0	1009.5	1006.9	1004.3	1018.6	1014.7	1014.7	1014.7
15°	971.8	980.9	979.6	967.9	965.3	970.5	967.9	967.9	980.9	979.6	978.3
17.5°	943.2	940.6	938.0	931.5	932.8	931.5	932.8	932.8	940.6	940.6	940.6
20°	910.6	905.4	905.4	902.8	902.8	898.9	904.1	905.4	910.6	910.6	911.9
22.5°	882.0	878.1	878.1	876.8	879.4	874.2	879.4	880.7	880.7	884.6	884.6
25°	857.3	854.7	854.7	857.3	857.3	857.3	857.3	862.5	858.6	859.9	858.6
27.5°	835.2	836.5	837.8	839.1	837.8	839.1	840.4	843.0	844.3	843.0	840.4
30°	814.4	818.3	819.6	819.6	822.2	823.5	824.8	824.8	826.1	822.2	824.8
32.5°	798.8	798.8	801.4	802.7	805.3	806.6	806.6	809.2	807.9	804.0	805.3
35°	776.6	776.6	781.8	784.4	788.4	787.1	788.4	788.4	789.7	787.1	783.1
37.5°	754.5	757.1	757.1	762.3	763.6	764.9	763.6	766.2	764.9	762.3	761.0
40°	728.5	727.2	728.5	732.4	733.7	733.7	733.7	736.3	736.3	736.3	735.0
42.5°	696.0	699.9	698.6	702.5	701.2	701.2	703.8	706.4	707.7	703.8	705.1
45°	664.8	664.8	667.4	667.4	668.7	668.7	673.9	671.3	673.9	671.3	672.6
47.5°	630.9	632.2	632.2	633.5	636.1	638.7	636.1	637.4	637.4	638.7	636.1
50°	593.2	593.2	595.8	599.7	604.9	602.3	601.0	606.2	602.3	602.3	599.7
52.5°	554.2	558.1	559.4	563.3	567.2	568.5	569.8	567.2	568.5	564.6	565.9
55°	516.5	517.8	523.0	526.9	530.8	530.8	529.5	530.8	532.1	526.9	526.9
57.5°	478.7	482.6	487.8	487.8	493.0	493.0	491.7	491.7	493.0	489.1	487.8
60°	438.4	442.3	448.8	448.8	456.6	457.9	455.3	452.7	452.7	448.8	450.1
62.5°	395.5	399.4	403.3	409.8	415.0	412.4	417.6	412.4	413.7	405.9	405.9
65°	357.8	359.1	365.6	372.1	372.1	374.7	372.1	373.4	369.5	369.5	364.3
67.5°	313.5	313.5	320.0	326.5	333.0	333.0	333.0	329.1	329.1	325.2	325.2
70°	274.5	273.2	279.7	283.6	287.5	288.8	286.2	284.9	282.3	278.4	277.1
72.5°	226.4	229.0	235.5	238.1	244.6	243.3	249.8	242.0	242.0	235.5	234.2
75°	183.4	186.0	192.5	196.4	200.3	200.3	204.2	200.3	195.1	192.5	191.2
77.5°	145.7	144.4	149.6	156.1	157.4	156.1	158.7	157.4	152.2	152.2	149.6
80°	104.1	108.0	113.2	111.9	117.1	115.8	115.8	113.2	113.2	109.3	111.9
82.5°	68.9	72.9	74.2	72.9	74.2	76.8	78.1	76.8	76.8	74.2	75.5
85°	36.4	36.4	39.0	40.3	39.0	39.0	40.3	44.2	41.6	39.0	41.6
87.5°	11.7	10.4	10.4	11.7	10.4	10.4	11.7	11.7	13.0	13.0	13.0
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: P1037236

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5	1342.5
2.5°	1274.9	1277.5	1278.8	1273.6	1269.7	1276.2	1285.3	1291.8	1297.0	1303.5	1307.4
5°	1199.4	1208.5	1208.5	1211.1	1215.1	1221.6	1238.5	1250.2	1260.6	1268.4	1274.9
7.5°	1135.7	1142.2	1146.1	1152.6	1159.1	1168.2	1187.7	1204.6	1220.3	1229.4	1239.8
10°	1078.5	1083.7	1090.2	1094.1	1105.8	1118.8	1143.5	1157.8	1176.0	1190.3	1203.3
12.5°	1023.8	1042.0	1045.9	1044.6	1055.0	1069.3	1094.1	1116.2	1135.7	1150.0	1164.3
15°	984.8	991.3	999.1	997.8	1019.9	1023.8	1044.6	1070.6	1096.7	1105.8	1118.8
17.5°	941.9	952.3	960.1	964.0	970.5	984.8	1004.3	1023.8	1057.6	1058.9	1092.8
20°	908.0	918.4	923.6	928.9	932.8	949.7	966.6	988.7	1016.0	1030.3	1048.5
22.5°	885.9	891.1	895.0	898.9	904.1	913.2	934.1	958.8	977.0	992.6	1004.3
25°	859.9	865.1	870.3	872.9	876.8	882.0	897.6	917.1	943.2	953.6	965.3
27.5°	841.7	841.7	844.3	844.3	849.5	854.7	866.4	884.6	905.4	918.4	934.1
30°	822.2	820.9	822.2	820.9	819.6	827.4	837.8	853.4	867.7	883.3	893.7
32.5°	802.7	801.4	801.4	802.7	797.5	801.4	806.6	820.9	836.5	844.3	856.0
35°	781.8	779.2	779.2	779.2	776.6	774.0	779.2	792.3	802.7	813.1	822.2
37.5°	761.0	757.1	757.1	754.5	751.9	748.0	748.0	758.4	772.7	776.6	788.4
40°	732.4	732.4	729.8	728.5	725.9	723.3	719.4	728.5	741.5	745.4	754.5
42.5°	703.8	699.9	698.6	698.6	698.6	694.7	692.1	698.6	706.4	712.9	718.1
45°	671.3	668.7	670.0	668.7	666.1	664.8	663.5	666.1	675.2	677.8	684.3
47.5°	636.1	634.8	634.8	633.5	632.2	633.5	628.3	634.8	637.4	640.0	645.3
50°	599.7	598.4	597.1	595.8	595.8	597.1	595.8	595.8	601.0	603.6	608.8
52.5°	563.3	559.4	559.4	558.1	558.1	555.5	558.1	559.4	562.0	564.6	567.2
55°	524.3	524.3	520.4	520.4	517.8	517.8	519.1	517.8	523.0	525.6	525.6
57.5°	486.5	481.3	482.6	480.0	477.4	476.1	476.1	478.7	481.3	481.3	483.9
60°	446.2	441.0	439.7	434.5	437.1	433.2	434.5	434.5	439.7	437.1	439.7
62.5°	405.9	399.4	395.5	392.9	392.9	394.2	391.6	390.3	392.9	395.5	400.7
65°	363.0	359.1	355.1	351.2	351.2	349.9	352.5	348.6	347.3	348.6	351.2
67.5°	318.7	314.8	310.9	307.0	308.3	304.4	301.8	305.7	303.1	304.4	307.0
70°	275.8	273.2	265.4	262.8	261.5	262.8	261.5	258.9	262.8	261.5	262.8
72.5°	232.9	230.3	226.4	219.9	219.9	218.6	217.3	217.3	216.0	216.0	216.0
75°	191.2	186.0	182.1	180.8	178.2	176.9	175.6	173.0	174.3	175.6	173.0
77.5°	148.3	141.8	140.5	140.5	136.6	136.6	137.9	136.6	135.3	135.3	135.3
80°	109.3	104.1	104.1	101.5	98.9	98.9	98.9	98.9	97.6	96.3	97.6
82.5°	70.2	68.9	67.6	67.6	70.2	65.0	67.6	66.3	65.0	65.0	63.7
85°	39.0	40.3	39.0	40.3	37.7	39.0	39.0	39.0	37.7	39.0	36.4
87.5°	14.3	14.3	14.3	15.6	15.6	15.6	15.6	15.6	16.9	15.6	15.6
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: P1037236

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_5000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1342.5	1342.5	1342.5	1342.5
2.5°	1313.9	1317.8	1330.8	1346.4
5°	1287.9	1298.3	1316.5	1341.2
7.5°	1259.3	1274.9	1300.9	1332.1
10°	1226.8	1248.9	1281.4	1320.4
12.5°	1191.6	1220.3	1261.9	1302.2
15°	1169.5	1198.1	1235.9	1280.1
17.5°	1126.6	1160.4	1199.4	1261.9
20°	1082.4	1120.1	1170.8	1233.3
22.5°	1048.5	1088.9	1137.0	1203.3
25°	1008.2	1049.8	1101.9	1170.8
27.5°	965.3	1006.9	1065.4	1138.3
30°	932.8	973.1	1029.0	1107.1
32.5°	893.7	932.8	991.3	1073.3
35°	849.5	893.7	949.7	1032.9
37.5°	815.7	856.0	914.5	993.9
40°	779.2	814.4	871.6	949.7
42.5°	740.2	779.2	828.7	906.7
45°	703.8	732.4	783.1	857.3
47.5°	664.8	697.3	736.3	793.6
50°	623.1	650.5	693.4	732.4
52.5°	582.8	604.9	641.3	671.3
55°	539.9	562.0	589.3	607.5
57.5°	499.5	515.2	533.4	545.1
60°	450.1	465.7	477.4	489.1
62.5°	405.9	417.6	424.1	430.6
65°	360.4	366.9	370.8	376.0
67.5°	310.9	317.4	318.7	326.5
70°	265.4	266.7	269.3	273.2
72.5°	222.5	225.1	223.8	226.4
75°	178.2	180.8	178.2	180.8
77.5°	135.3	137.9	137.9	141.8
80°	97.6	98.9	100.2	100.2
82.5°	63.7	67.6	65.0	66.3
85°	36.4	37.7	37.7	39.0
87.5°	16.9	18.2	16.9	19.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)