

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: P1037235

Luminaire Tested: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037235
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_4000K
Description: Define 3 Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

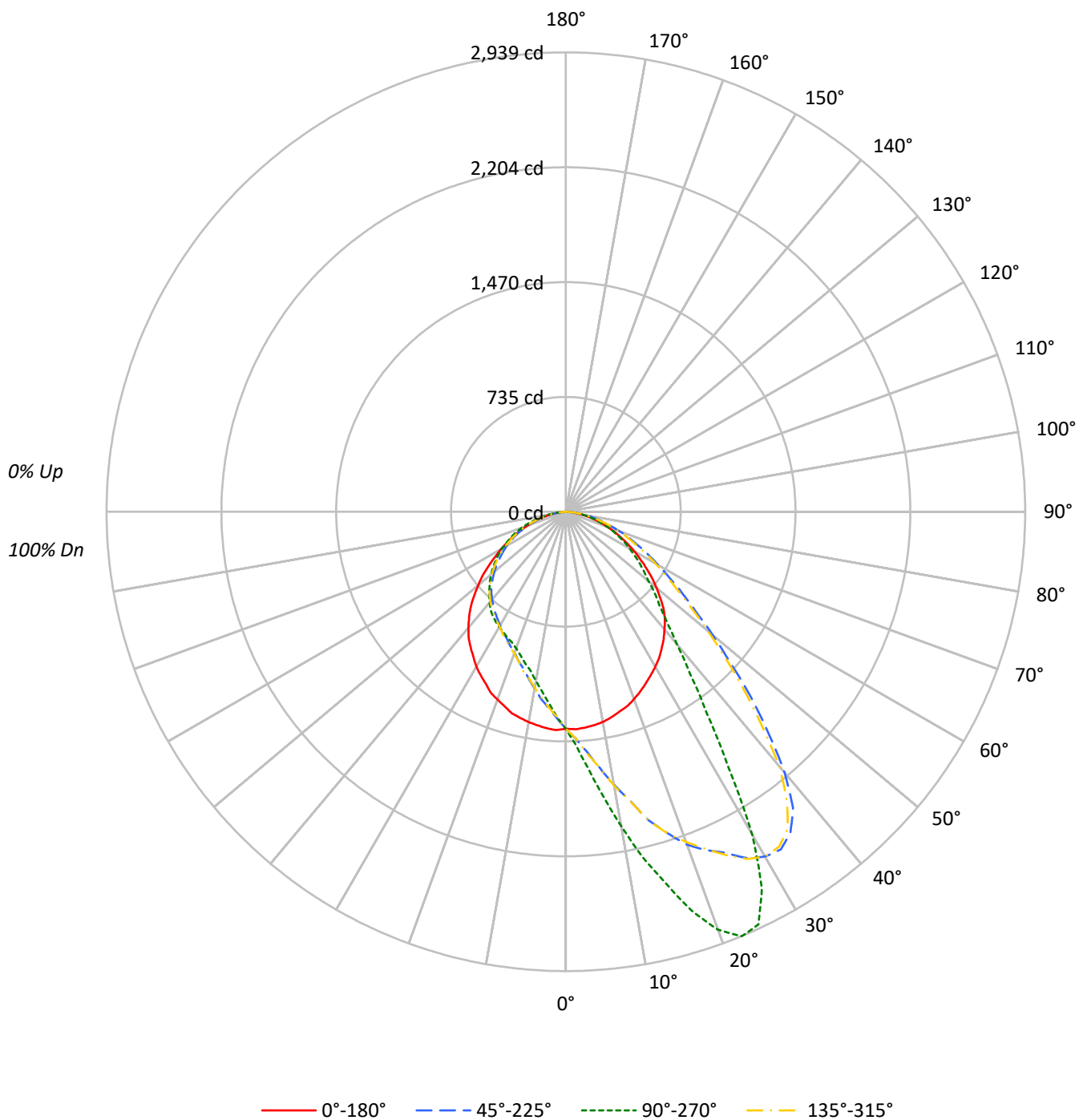
Lumens per Lamp: N/A
Luminaire Lumens: 4190.0 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.5
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

Luminous Intensity Polar Plot



TEST NUMBER: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

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	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°	14944	14944	14944	14944
5°	14985	17820	15030	13300
10°	14924	22305	14938	12012
15°	14751	27358	14871	11183
20°	14608	32590	14639	10647
25°	14379	34605	14411	10529
30°	14229	29661	14229	10583
35°	14035	20629	13947	10695
40°	13798	15538	13628	10661
45°	13495	12901	13105	10525
50°	12683	11556	12233	10429
55°	11789	10806	11310	10299
60°	10889	10135	10310	10193
65°	9903	9526	9421	9867
70°	8891	8932	8299	9397
75°	7777	8002	7274	8617
80°	6422	7005	5920	7420
85°	4989	5483	3989	4989

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 30122 cd/sqm

TEST NUMBER: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.5	3.3
10°-20°	438.5	10.5
20°-30°	737.9	17.6
30°-40°	833.9	19.9
40°-50°	746.8	17.8
50°-60°	602.9	14.4
60°-70°	420.1	10.0
70°-80°	220.5	5.3
80°-90°	52.9	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°	1312.9	31.3
0°-40°	2146.8	51.2
0°-60°	3496.5	83.4
0°-90°	4190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4190.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1388	1388	1388	1388	1388	
5°	1387	1649	1391	1231	1387	132
15°	1324	2455	1334	1004	1324	374
25°	1211	2914	1213	886	1211	559
35°	1068	1570	1061	814	1068	668
45°	886	848	861	691	886	678
55°	628	576	603	549	628	562
65°	389	374	370	387	389	387
75°	187	192	175	207	187	201
85°	40	44	32	40	40	49
90°	0	0	0	0	0	

TEST NUMBER: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1392.3	1403.1	1408.4	1416.5	1424.6	1436.7	1440.7	1447.5	1444.8	1450.1	1452.8
5°	1386.9	1405.8	1421.9	1442.1	1460.9	1474.4	1487.8	1509.3	1525.5	1528.2	1540.3
7.5°	1377.5	1404.4	1432.7	1460.9	1497.2	1518.7	1543.0	1572.6	1596.8	1635.8	1650.6
10°	1365.4	1403.1	1443.4	1482.4	1532.2	1565.8	1595.4	1645.2	1695.0	1735.3	1773.0
12.5°	1346.6	1393.6	1446.1	1504.0	1568.5	1607.5	1647.9	1713.8	1789.1	1851.0	1891.4
15°	1323.7	1382.9	1450.1	1512.0	1583.3	1656.0	1699.0	1773.0	1880.6	1938.5	2042.0
17.5°	1304.9	1365.4	1432.7	1529.5	1626.4	1699.0	1729.9	1865.8	1939.8	2036.7	2153.7
20°	1275.3	1351.9	1438.0	1534.9	1660.0	1704.4	1767.6	1904.8	1996.3	2122.8	2266.7
22.5°	1244.3	1326.4	1430.0	1530.9	1670.8	1717.8	1803.9	1912.9	2058.2	2183.3	2342.0
25°	1210.7	1299.5	1404.4	1524.1	1661.3	1729.9	1810.7	1945.2	2102.6	2260.0	2406.6
27.5°	1177.1	1273.9	1382.9	1502.6	1635.8	1716.5	1797.2	1937.1	2138.9	2309.7	2496.7
30°	1144.8	1241.6	1350.6	1473.0	1612.9	1690.9	1767.6	1942.5	2167.1	2359.5	2547.8
32.5°	1109.8	1209.3	1323.7	1425.9	1567.2	1650.6	1736.7	1942.5	2184.6	2389.1	2561.3
35°	1068.1	1170.3	1268.5	1370.8	1510.7	1603.5	1700.4	1929.0	2200.8	2398.5	2504.8
37.5°	1027.7	1117.9	1202.6	1302.2	1448.8	1548.3	1660.0	1912.9	2192.7	2358.2	2387.8
40°	982.0	1072.1	1140.7	1233.6	1388.3	1504.0	1616.9	1891.4	2157.7	2262.7	2176.6
42.5°	937.6	1008.9	1068.1	1158.2	1326.4	1439.4	1561.8	1852.4	2089.1	2110.6	1916.9
45°	886.5	937.6	990.1	1092.3	1259.1	1374.8	1510.7	1795.9	1978.8	1916.9	1672.1
47.5°	820.6	866.3	924.2	1018.3	1187.8	1307.5	1436.7	1723.2	1818.7	1689.6	1421.9
50°	757.4	796.4	850.2	941.7	1112.5	1229.5	1366.7	1608.9	1656.0	1452.8	1225.5
52.5°	694.1	723.7	776.2	867.7	1038.5	1151.5	1276.6	1491.8	1464.9	1247.0	1045.2
55°	628.2	653.8	703.5	793.7	952.4	1060.0	1179.8	1347.9	1278.0	1070.8	909.4
57.5°	563.6	590.5	641.7	717.0	866.3	971.2	1066.8	1198.6	1093.7	928.2	785.6
60°	505.8	528.7	567.7	641.7	777.5	862.3	949.7	1039.9	952.4	792.3	683.4
62.5°	445.3	466.8	503.1	570.4	687.4	762.7	832.7	906.7	809.8	692.8	595.9
65°	388.8	406.3	439.9	501.8	597.3	659.2	715.7	766.8	688.8	581.1	508.5
67.5°	337.6	352.4	380.7	435.8	516.6	561.0	606.7	649.7	583.8	497.7	435.8
70°	282.5	294.6	320.2	360.5	425.1	470.8	504.5	536.7	477.6	408.9	367.2
72.5°	234.1	246.2	262.3	304.0	348.4	376.7	413.0	430.5	396.8	340.3	298.6
75°	187.0	196.4	211.2	238.1	279.8	298.6	321.5	335.0	304.0	266.4	240.8
77.5°	146.6	150.7	161.4	180.3	208.5	230.0	247.5	255.6	234.1	209.9	188.3
80°	103.6	109.0	117.0	133.2	154.7	161.4	172.2	181.6	168.2	146.6	133.2
82.5°	68.6	75.3	79.4	86.1	99.5	107.6	110.3	118.4	106.3	98.2	92.8
85°	40.4	43.0	44.4	48.4	55.2	59.2	63.2	64.6	61.9	60.5	55.2
87.5°	20.2	20.2	20.2	22.9	24.2	26.9	28.2	28.2	28.2	26.9	25.6
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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1462.2	1464.9	1474.4	1481.1	1494.5	1493.2	1493.2	1491.8	1487.8	1494.5	1498.6
5°	1564.5	1587.4	1590.0	1619.6	1621.0	1633.1	1641.2	1634.4	1650.6	1649.2	1637.1
7.5°	1690.9	1721.9	1736.7	1764.9	1797.2	1789.1	1820.1	1825.5	1822.8	1836.2	1845.6
10°	1829.5	1883.3	1921.0	1973.4	1986.9	1995.0	2015.1	2032.6	2067.6	2040.7	2058.2
12.5°	1988.2	2027.2	2077.0	2160.4	2202.1	2229.0	2238.4	2250.5	2274.8	2260.0	2261.3
15°	2121.4	2173.9	2258.6	2362.2	2374.3	2407.9	2399.9	2472.5	2507.5	2455.0	2484.6
17.5°	2260.0	2329.9	2430.8	2520.9	2572.1	2594.9	2616.4	2686.4	2683.7	2675.6	2682.4
20°	2348.7	2463.1	2588.2	2707.9	2722.7	2740.2	2798.0	2827.6	2822.3	2845.1	2859.9
22.5°	2473.9	2594.9	2728.1	2807.5	2841.1	2861.3	2907.0	2925.8	2933.9	2939.3	2929.9
25°	2578.8	2707.9	2806.1	2876.1	2896.2	2907.0	2921.8	2927.2	2923.2	2913.7	2921.8
27.5°	2650.1	2753.7	2820.9	2853.2	2842.4	2825.0	2796.7	2777.9	2736.2	2716.0	2740.2
30°	2679.7	2725.4	2745.6	2691.8	2638.0	2594.9	2541.1	2441.6	2363.5	2386.4	2355.5
32.5°	2632.6	2603.0	2506.1	2367.6	2325.9	2255.9	2103.9	1986.9	1990.9	1929.0	1954.6
35°	2494.0	2359.5	2176.6	1966.7	1911.6	1873.9	1707.1	1681.5	1627.7	1569.9	1586.0
37.5°	2249.2	2052.8	1830.8	1676.1	1594.1	1512.0	1417.9	1361.4	1329.1	1304.9	1323.7
40°	1950.6	1711.1	1528.2	1389.6	1319.7	1267.2	1202.6	1146.1	1109.8	1105.8	1112.5
42.5°	1657.3	1455.5	1287.4	1155.5	1132.7	1070.8	1029.1	984.7	973.9	956.4	965.9
45°	1403.1	1238.9	1100.4	992.8	965.9	949.7	898.6	870.4	858.2	847.5	863.6
47.5°	1218.8	1046.6	945.7	881.1	854.2	827.3	799.1	780.2	770.8	772.2	770.8
50°	1041.2	914.7	826.0	776.2	760.0	741.2	718.3	706.2	702.2	690.1	699.5
52.5°	895.9	804.4	742.6	695.5	683.4	669.9	651.1	644.4	634.9	632.3	632.3
55°	778.9	707.6	657.8	626.9	612.1	601.3	590.5	582.5	575.8	575.8	575.8
57.5°	687.4	625.5	589.2	562.3	556.9	546.2	534.1	534.1	524.6	523.3	527.3
60°	609.4	554.2	526.0	503.1	495.0	492.3	480.2	480.2	477.6	470.8	476.2
62.5°	530.0	489.7	465.4	448.0	439.9	439.9	430.5	423.7	423.7	425.1	422.4
65°	457.4	427.8	406.3	392.8	388.8	383.4	382.0	376.7	372.6	374.0	372.6
67.5°	392.8	369.9	355.1	344.4	337.6	335.0	330.9	330.9	328.2	329.6	322.9
70°	335.0	312.1	300.0	289.2	286.5	286.5	281.2	282.5	279.8	283.8	281.2
72.5°	275.8	258.3	248.9	244.8	242.1	240.8	238.1	235.4	234.1	236.8	235.4
75°	223.3	208.5	201.8	199.1	196.4	196.4	195.1	193.7	192.4	192.4	192.4
77.5°	173.5	164.1	156.0	158.7	154.7	156.0	152.0	152.0	153.4	152.0	152.0
80°	127.8	121.1	121.1	118.4	113.0	115.7	115.7	111.7	110.3	113.0	109.0
82.5°	84.7	83.4	80.7	79.4	76.7	78.0	76.7	75.3	74.0	76.7	74.0
85°	49.8	49.8	48.4	45.7	48.4	47.1	45.7	45.7	44.4	44.4	44.4
87.5°	25.6	22.9	22.9	21.5	22.9	20.2	21.5	20.2	18.8	20.2	18.8
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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1487.8	1491.8	1481.1	1478.4	1478.4	1483.8	1479.7	1443.4	1450.1	1442.1	1439.4
5°	1651.9	1643.9	1633.1	1627.7	1621.0	1602.2	1600.8	1559.1	1551.0	1524.1	1512.0
7.5°	1832.2	1825.5	1793.2	1789.1	1786.4	1769.0	1724.6	1680.2	1647.9	1616.9	1587.4
10°	2038.0	2017.8	2003.0	1973.4	1958.6	1934.4	1876.6	1834.9	1779.7	1732.6	1670.8
12.5°	2285.5	2262.7	2212.9	2191.4	2172.5	2105.3	2047.4	2000.3	1892.7	1860.4	1783.8
15°	2467.1	2418.7	2413.3	2366.2	2363.5	2289.6	2179.2	2128.1	2044.7	1926.3	1847.0
17.5°	2663.5	2620.5	2586.9	2530.4	2522.3	2452.3	2371.6	2246.5	2155.0	2042.0	1941.1
20°	2807.5	2784.6	2726.8	2703.9	2656.8	2597.6	2514.2	2359.5	2247.9	2134.9	2011.1
22.5°	2921.8	2898.9	2853.2	2822.3	2795.4	2718.7	2619.1	2487.3	2333.9	2186.0	2058.2
25°	2920.5	2913.7	2894.9	2880.1	2859.9	2803.4	2720.0	2593.6	2422.7	2260.0	2082.4
27.5°	2755.0	2773.8	2806.1	2822.3	2818.2	2810.2	2763.1	2656.8	2503.4	2309.7	2110.6
30°	2410.6	2479.2	2539.8	2620.5	2644.7	2703.9	2730.8	2670.3	2547.8	2367.6	2147.0
32.5°	1999.0	2098.5	2230.4	2274.8	2351.4	2465.8	2593.6	2616.4	2539.8	2401.2	2169.8
35°	1639.8	1721.9	1824.1	1894.1	1962.7	2148.3	2309.7	2449.6	2475.2	2383.7	2164.5
37.5°	1357.3	1415.2	1505.3	1564.5	1627.7	1786.4	2012.4	2194.0	2321.8	2324.5	2149.7
40°	1152.9	1178.4	1256.4	1299.5	1360.0	1497.2	1699.0	1935.8	2122.8	2208.8	2110.6
42.5°	976.6	1010.3	1074.8	1107.1	1146.1	1265.8	1399.0	1623.7	1855.1	2039.3	2038.0
45°	871.7	895.9	925.5	952.4	996.8	1068.1	1220.1	1388.3	1610.2	1818.7	1900.8
47.5°	778.9	801.7	831.3	839.4	869.0	936.3	1029.1	1175.7	1382.9	1590.0	1744.7
50°	700.9	719.7	739.9	754.7	768.1	823.3	893.2	1017.0	1182.4	1382.9	1575.2
52.5°	640.3	653.8	671.3	679.3	691.4	731.8	785.6	877.1	1012.9	1195.9	1382.9
55°	583.8	593.2	604.0	617.5	622.8	652.4	694.1	772.2	873.0	1037.2	1214.7
57.5°	531.4	535.4	542.1	550.2	556.9	582.5	618.8	671.3	760.0	886.5	1054.6
60°	472.2	482.9	487.0	495.0	499.1	519.3	547.5	591.9	660.5	769.5	895.9
62.5°	422.4	429.1	435.8	439.9	449.3	456.0	478.9	519.3	575.8	656.5	770.8
65°	378.0	380.7	384.7	388.8	391.5	399.5	421.1	448.0	491.0	562.3	651.1
67.5°	326.9	329.6	335.0	336.3	339.0	349.8	361.9	384.7	421.1	474.9	547.5
70°	277.1	281.2	283.8	286.5	290.6	294.6	308.1	326.9	355.1	392.8	449.3
72.5°	234.1	238.1	238.1	240.8	239.4	244.8	258.3	271.7	290.6	321.5	371.3
75°	191.0	191.0	193.7	195.1	196.4	201.8	207.2	217.9	232.7	256.9	287.9
77.5°	150.7	149.3	152.0	152.0	152.0	156.0	161.4	166.8	176.2	193.7	217.9
80°	110.3	110.3	113.0	114.3	111.7	113.0	115.7	121.1	127.8	139.9	153.4
82.5°	72.6	78.0	76.7	78.0	76.7	79.4	80.7	82.1	84.7	90.1	99.5
85°	44.4	44.4	44.4	45.7	44.4	45.7	45.7	45.7	47.1	49.8	53.8
87.5°	18.8	18.8	18.8	20.2	18.8	18.8	20.2	18.8	20.2	20.2	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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1425.9	1421.9	1421.9	1419.2	1411.1	1396.3	1395.0	1397.7	1389.6	1381.5	1369.4
5°	1495.9	1470.3	1462.2	1454.2	1438.0	1411.1	1400.4	1391.0	1376.2	1358.7	1339.8
7.5°	1555.1	1518.7	1508.0	1493.2	1460.9	1423.2	1399.0	1378.8	1358.7	1334.5	1311.6
10°	1629.1	1576.6	1551.0	1529.5	1485.1	1432.7	1396.3	1366.7	1334.5	1304.9	1275.3
12.5°	1712.5	1627.7	1619.6	1567.2	1516.1	1438.0	1393.6	1350.6	1307.5	1271.2	1240.3
15°	1782.4	1689.6	1656.0	1621.0	1522.8	1425.9	1382.9	1334.5	1284.7	1245.7	1199.9
17.5°	1826.8	1750.1	1678.8	1631.7	1529.5	1443.4	1360.0	1304.9	1252.4	1198.6	1160.9
20°	1880.6	1769.0	1707.1	1643.9	1543.0	1430.0	1346.6	1278.0	1213.4	1165.0	1119.2
22.5°	1934.4	1783.8	1732.6	1664.0	1545.7	1416.5	1322.3	1253.7	1179.8	1131.3	1081.6
25°	1929.0	1805.3	1720.5	1662.7	1518.7	1404.4	1294.1	1213.4	1144.8	1082.9	1033.1
27.5°	1933.1	1781.1	1695.0	1627.7	1499.9	1386.9	1264.5	1179.8	1108.5	1043.9	991.4
30°	1934.4	1744.7	1669.4	1588.7	1464.9	1345.2	1230.9	1144.8	1069.4	999.5	952.4
32.5°	1930.4	1715.2	1621.0	1548.3	1409.8	1304.9	1191.9	1100.4	1023.7	959.1	914.7
35°	1921.0	1680.2	1571.2	1479.7	1353.3	1247.0	1155.5	1061.4	979.3	920.1	869.0
37.5°	1895.4	1642.5	1518.7	1428.6	1287.4	1179.8	1099.0	1021.0	941.7	871.7	828.7
40°	1876.6	1591.4	1466.3	1368.1	1216.1	1111.1	1043.9	969.9	891.9	828.7	787.0
42.5°	1833.5	1543.0	1412.5	1295.4	1146.1	1038.5	975.3	916.1	848.8	787.0	749.3
45°	1763.6	1490.5	1346.6	1228.2	1069.4	967.2	909.4	860.9	801.7	742.6	704.9
47.5°	1665.4	1415.2	1276.6	1158.2	994.1	890.5	832.7	796.4	749.3	699.5	667.2
50°	1559.1	1333.1	1205.3	1088.3	921.5	820.6	764.1	730.5	699.5	653.8	622.8
52.5°	1420.5	1245.7	1123.3	1011.6	843.5	746.6	696.8	672.6	640.3	608.0	581.1
55°	1286.0	1132.7	1031.8	925.5	766.8	676.6	628.2	602.7	583.8	556.9	535.4
57.5°	1130.0	1027.7	934.9	838.1	695.5	613.4	567.7	536.7	524.6	512.5	492.3
60°	986.0	908.0	832.7	752.0	621.5	547.5	503.1	478.9	466.8	458.7	445.3
62.5°	854.2	793.7	729.1	664.5	546.2	478.9	445.3	421.1	410.3	408.9	396.8
65°	727.8	684.7	632.3	569.0	476.2	417.0	384.7	369.9	357.8	357.8	348.4
67.5°	601.3	571.7	530.0	485.6	413.0	357.8	328.2	314.8	308.1	308.1	301.3
70°	500.4	480.2	442.6	403.6	340.3	298.6	275.8	263.7	259.6	261.0	255.6
72.5°	406.3	384.7	353.8	325.5	278.5	247.5	231.4	217.9	211.2	212.5	211.2
75°	314.8	304.0	277.1	255.6	217.9	196.4	181.6	174.9	169.5	170.8	168.2
77.5°	236.8	220.6	205.8	191.0	168.2	150.7	138.6	131.8	127.8	127.8	127.8
80°	161.4	158.7	146.6	138.6	119.7	106.3	96.9	95.5	91.5	91.5	91.5
82.5°	104.9	98.2	91.5	86.1	75.3	67.3	63.2	60.5	59.2	57.8	60.5
85°	57.8	53.8	51.1	45.7	41.7	37.7	33.6	32.3	30.9	32.3	30.9
87.5°	22.9	18.8	18.8	17.5	16.1	14.8	14.8	12.1	12.1	10.8	10.8
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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1366.7	1365.4	1368.1	1360.0	1346.6	1339.8	1321.0	1317.0	1315.6	1317.0	1318.3
5°	1329.1	1327.7	1323.7	1310.2	1294.1	1282.0	1259.1	1257.8	1249.7	1241.6	1245.7
7.5°	1292.8	1287.4	1279.3	1261.8	1240.3	1226.8	1208.0	1194.6	1183.8	1177.1	1171.7
10°	1256.4	1248.4	1240.3	1217.4	1190.5	1170.3	1147.5	1136.7	1124.6	1119.2	1113.8
12.5°	1209.3	1201.3	1186.5	1159.6	1143.4	1117.9	1095.0	1084.2	1077.5	1066.8	1060.0
15°	1171.7	1155.5	1147.5	1119.2	1085.6	1082.9	1041.2	1038.5	1025.1	1025.1	1014.3
17.5°	1128.6	1116.5	1101.7	1073.5	1049.3	1025.1	1003.5	995.5	983.4	980.7	975.3
20°	1086.9	1070.8	1065.4	1037.2	1011.6	982.0	959.1	951.1	945.7	940.3	944.3
22.5°	1043.9	1030.4	1017.0	991.4	972.6	943.0	929.5	921.5	913.4	910.7	912.1
25°	1002.2	990.1	976.6	951.1	930.9	906.7	894.6	890.5	886.5	886.5	885.2
27.5°	961.8	949.7	937.6	914.7	894.6	877.1	867.7	863.6	859.6	862.3	865.0
30°	920.1	909.4	898.6	878.4	862.3	846.1	840.8	838.1	836.7	843.5	843.5
32.5°	882.5	873.0	865.0	846.1	830.0	816.5	812.5	813.9	815.2	819.2	821.9
35°	843.5	836.7	828.7	812.5	799.1	787.0	788.3	788.3	791.0	797.7	803.1
37.5°	808.5	799.1	792.3	778.9	768.1	757.4	761.4	765.4	768.1	776.2	778.9
40°	766.8	762.7	757.4	743.9	734.5	733.1	734.5	737.2	742.6	746.6	750.6
42.5°	733.1	727.8	721.0	710.3	702.2	703.5	704.9	707.6	710.3	717.0	721.0
45°	695.5	691.4	686.1	676.6	669.9	671.3	672.6	672.6	675.3	683.4	686.1
47.5°	653.8	655.1	648.4	639.0	634.9	634.9	634.9	637.6	644.4	647.0	648.4
50°	613.4	610.7	609.4	600.0	597.3	595.9	597.3	598.6	608.0	606.7	610.7
52.5°	570.4	570.4	569.0	563.6	559.6	559.6	556.9	563.6	566.3	569.0	573.1
55°	528.7	524.6	523.3	520.6	515.2	513.9	516.6	524.6	527.3	530.0	534.1
57.5°	482.9	482.9	480.2	476.2	476.2	476.2	476.2	481.6	485.6	488.3	496.4
60°	441.2	435.8	431.8	431.8	431.8	430.5	438.5	438.5	446.6	448.0	450.6
62.5°	391.5	388.8	386.1	387.4	386.1	388.8	391.5	396.8	398.2	402.2	406.3
65°	344.4	344.4	341.7	349.8	344.4	344.4	351.1	351.1	353.8	357.8	363.2
67.5°	298.6	300.0	297.3	297.3	300.0	301.3	302.7	308.1	309.4	314.8	321.5
70°	251.6	254.2	255.6	252.9	255.6	258.3	261.0	262.3	267.7	270.4	274.4
72.5°	209.9	212.5	208.5	209.9	211.2	213.9	215.2	217.9	220.6	228.7	231.4
75°	168.2	166.8	165.5	170.8	168.2	173.5	174.9	174.9	177.6	184.3	187.0
77.5°	129.1	129.1	130.5	127.8	131.8	130.5	131.8	135.9	139.9	139.9	150.7
80°	90.1	92.8	92.8	92.8	94.2	95.5	92.8	99.5	100.9	100.9	104.9
82.5°	57.8	59.2	57.8	60.5	60.5	63.2	61.9	63.2	65.9	68.6	70.0
85°	30.9	30.9	33.6	33.6	32.3	33.6	32.3	33.6	36.3	36.3	37.7
87.5°	10.8	10.8	10.8	10.8	12.1	10.8	12.1	12.1	10.8	10.8	14.8
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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1317.0	1318.3	1312.9	1308.9	1319.7	1312.9	1312.9	1314.3	1311.6	1315.6	1314.3
5°	1243.0	1244.3	1234.9	1237.6	1232.2	1230.9	1229.5	1237.6	1236.3	1234.9	1237.6
7.5°	1170.3	1170.3	1166.3	1163.6	1163.6	1159.6	1165.0	1163.6	1166.3	1166.3	1170.3
10°	1109.8	1112.5	1105.8	1099.0	1097.7	1099.0	1099.0	1100.4	1101.7	1111.1	1109.8
12.5°	1060.0	1056.0	1054.6	1050.6	1043.9	1041.2	1038.5	1053.3	1049.3	1049.3	1049.3
15°	1004.9	1014.3	1012.9	1000.8	998.2	1003.5	1000.8	1000.8	1014.3	1012.9	1011.6
17.5°	975.3	972.6	969.9	963.2	964.5	963.2	964.5	964.5	972.6	972.6	972.6
20°	941.7	936.3	936.3	933.6	933.6	929.5	934.9	936.3	941.7	941.7	943.0
22.5°	912.1	908.0	908.0	906.7	909.4	904.0	909.4	910.7	910.7	914.7	914.7
25°	886.5	883.8	883.8	886.5	886.5	886.5	886.5	891.9	887.8	889.2	887.8
27.5°	863.6	865.0	866.3	867.7	866.3	867.7	869.0	871.7	873.0	871.7	869.0
30°	842.1	846.1	847.5	847.5	850.2	851.5	852.9	852.9	854.2	850.2	852.9
32.5°	826.0	826.0	828.7	830.0	832.7	834.0	834.0	836.7	835.4	831.3	832.7
35°	803.1	803.1	808.5	811.2	815.2	813.9	815.2	815.2	816.5	813.9	809.8
37.5°	780.2	782.9	782.9	788.3	789.6	791.0	789.6	792.3	791.0	788.3	787.0
40°	753.3	752.0	753.3	757.4	758.7	758.7	758.7	761.4	761.4	761.4	760.0
42.5°	719.7	723.7	722.4	726.4	725.1	725.1	727.8	730.5	731.8	727.8	729.1
45°	687.4	687.4	690.1	690.1	691.4	691.4	696.8	694.1	696.8	694.1	695.5
47.5°	652.4	653.8	653.8	655.1	657.8	660.5	657.8	659.2	659.2	660.5	657.8
50°	613.4	613.4	616.1	620.1	625.5	622.8	621.5	626.9	622.8	622.8	620.1
52.5°	573.1	577.1	578.4	582.5	586.5	587.9	589.2	586.5	587.9	583.8	585.2
55°	534.1	535.4	540.8	544.8	548.8	548.8	547.5	548.8	550.2	544.8	544.8
57.5°	495.0	499.1	504.5	504.5	509.8	509.8	508.5	508.5	509.8	505.8	504.5
60°	453.3	457.4	464.1	464.1	472.2	473.5	470.8	468.1	468.1	464.1	465.4
62.5°	408.9	413.0	417.0	423.7	429.1	426.4	431.8	426.4	427.8	419.7	419.7
65°	369.9	371.3	378.0	384.7	384.7	387.4	384.7	386.1	382.0	382.0	376.7
67.5°	324.2	324.2	330.9	337.6	344.4	344.4	344.4	340.3	340.3	336.3	336.3
70°	283.8	282.5	289.2	293.3	297.3	298.6	295.9	294.6	291.9	287.9	286.5
72.5°	234.1	236.8	243.5	246.2	252.9	251.6	258.3	250.2	250.2	243.5	242.1
75°	189.7	192.4	199.1	203.1	207.2	207.2	211.2	207.2	201.8	199.1	197.7
77.5°	150.7	149.3	154.7	161.4	162.8	161.4	164.1	162.8	157.4	157.4	154.7
80°	107.6	111.7	117.0	115.7	121.1	119.7	119.7	117.0	117.0	113.0	115.7
82.5°	71.3	75.3	76.7	75.3	76.7	79.4	80.7	79.4	79.4	76.7	78.0
85°	37.7	37.7	40.4	41.7	40.4	40.4	41.7	45.7	43.0	40.4	43.0
87.5°	12.1	10.8	10.8	12.1	10.8	10.8	12.1	12.1	13.5	13.5	13.5
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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1318.3	1321.0	1322.3	1317.0	1312.9	1319.7	1329.1	1335.8	1341.2	1347.9	1351.9
5°	1240.3	1249.7	1249.7	1252.4	1256.4	1263.2	1280.6	1292.8	1303.5	1311.6	1318.3
7.5°	1174.4	1181.1	1185.1	1191.9	1198.6	1208.0	1228.2	1245.7	1261.8	1271.2	1282.0
10°	1115.2	1120.6	1127.3	1131.3	1143.4	1156.9	1182.4	1197.2	1216.1	1230.9	1244.3
12.5°	1058.7	1077.5	1081.6	1080.2	1091.0	1105.8	1131.3	1154.2	1174.4	1189.2	1204.0
15°	1018.3	1025.1	1033.1	1031.8	1054.6	1058.7	1080.2	1107.1	1134.0	1143.4	1156.9
17.5°	973.9	984.7	992.8	996.8	1003.5	1018.3	1038.5	1058.7	1093.7	1095.0	1130.0
20°	939.0	949.7	955.1	960.5	964.5	982.0	999.5	1022.4	1050.6	1065.4	1084.2
22.5°	916.1	921.5	925.5	929.5	934.9	944.3	965.9	991.4	1010.3	1026.4	1038.5
25°	889.2	894.6	899.9	902.6	906.7	912.1	928.2	948.4	975.3	986.0	998.2
27.5°	870.4	870.4	873.0	873.0	878.4	883.8	895.9	914.7	936.3	949.7	965.9
30°	850.2	848.8	850.2	848.8	847.5	855.6	866.3	882.5	897.3	913.4	924.2
32.5°	830.0	828.7	828.7	830.0	824.6	828.7	834.0	848.8	865.0	873.0	885.2
35°	808.5	805.8	805.8	805.8	803.1	800.4	805.8	819.2	830.0	840.8	850.2
37.5°	787.0	782.9	782.9	780.2	777.5	773.5	773.5	784.3	799.1	803.1	815.2
40°	757.4	757.4	754.7	753.3	750.6	747.9	743.9	753.3	766.8	770.8	780.2
42.5°	727.8	723.7	722.4	722.4	722.4	718.3	715.7	722.4	730.5	737.2	742.6
45°	694.1	691.4	692.8	691.4	688.8	687.4	686.1	688.8	698.2	700.9	707.6
47.5°	657.8	656.5	656.5	655.1	653.8	655.1	649.7	656.5	659.2	661.8	667.2
50°	620.1	618.8	617.5	616.1	616.1	617.5	616.1	616.1	621.5	624.2	629.6
52.5°	582.5	578.4	578.4	577.1	577.1	574.4	577.1	578.4	581.1	583.8	586.5
55°	542.1	542.1	538.1	538.1	535.4	535.4	536.7	535.4	540.8	543.5	543.5
57.5°	503.1	497.7	499.1	496.4	493.7	492.3	492.3	495.0	497.7	497.7	500.4
60°	461.4	456.0	454.7	449.3	452.0	448.0	449.3	449.3	454.7	452.0	454.7
62.5°	419.7	413.0	408.9	406.3	406.3	407.6	404.9	403.6	406.3	408.9	414.3
65°	375.3	371.3	367.2	363.2	363.2	361.9	364.6	360.5	359.2	360.5	363.2
67.5°	329.6	325.5	321.5	317.5	318.8	314.8	312.1	316.1	313.4	314.8	317.5
70°	285.2	282.5	274.4	271.7	270.4	271.7	270.4	267.7	271.7	270.4	271.7
72.5°	240.8	238.1	234.1	227.3	227.3	226.0	224.7	224.7	223.3	223.3	223.3
75°	197.7	192.4	188.3	187.0	184.3	182.9	181.6	178.9	180.3	181.6	178.9
77.5°	153.4	146.6	145.3	145.3	141.2	141.2	142.6	141.2	139.9	139.9	139.9
80°	113.0	107.6	107.6	104.9	102.2	102.2	102.2	102.2	100.9	99.5	100.9
82.5°	72.6	71.3	70.0	70.0	72.6	67.3	70.0	68.6	67.3	67.3	65.9
85°	40.4	41.7	40.4	41.7	39.0	40.4	40.4	40.4	39.0	40.4	37.7
87.5°	14.8	14.8	14.8	16.1	16.1	16.1	16.1	16.1	17.5	16.1	16.1
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: P1037235

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1388.3	1388.3	1388.3	1388.3
2.5°	1358.7	1362.7	1376.2	1392.3
5°	1331.8	1342.5	1361.4	1386.9
7.5°	1302.2	1318.3	1345.2	1377.5
10°	1268.5	1291.4	1325.0	1365.4
12.5°	1232.2	1261.8	1304.9	1346.6
15°	1209.3	1238.9	1278.0	1323.7
17.5°	1165.0	1199.9	1240.3	1304.9
20°	1119.2	1158.2	1210.7	1275.3
22.5°	1084.2	1125.9	1175.7	1244.3
25°	1042.5	1085.6	1139.4	1210.7
27.5°	998.2	1041.2	1101.7	1177.1
30°	964.5	1006.2	1064.1	1144.8
32.5°	924.2	964.5	1025.1	1109.8
35°	878.4	924.2	982.0	1068.1
37.5°	843.5	885.2	945.7	1027.7
40°	805.8	842.1	901.3	982.0
42.5°	765.4	805.8	856.9	937.6
45°	727.8	757.4	809.8	886.5
47.5°	687.4	721.0	761.4	820.6
50°	644.4	672.6	717.0	757.4
52.5°	602.7	625.5	663.2	694.1
55°	558.3	581.1	609.4	628.2
57.5°	516.6	532.7	551.5	563.6
60°	465.4	481.6	493.7	505.8
62.5°	419.7	431.8	438.5	445.3
65°	372.6	379.4	383.4	388.8
67.5°	321.5	328.2	329.6	337.6
70°	274.4	275.8	278.5	282.5
72.5°	230.0	232.7	231.4	234.1
75°	184.3	187.0	184.3	187.0
77.5°	139.9	142.6	142.6	146.6
80°	100.9	102.2	103.6	103.6
82.5°	65.9	70.0	67.3	68.6
85°	37.7	39.0	39.0	40.4
87.5°	17.5	18.8	17.5	20.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)