

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: P1037233

Luminaire Tested: S123DS-B1000DB2750-4F0-XX-W2A-A_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037233
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_3000K
Description: Define 3 Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

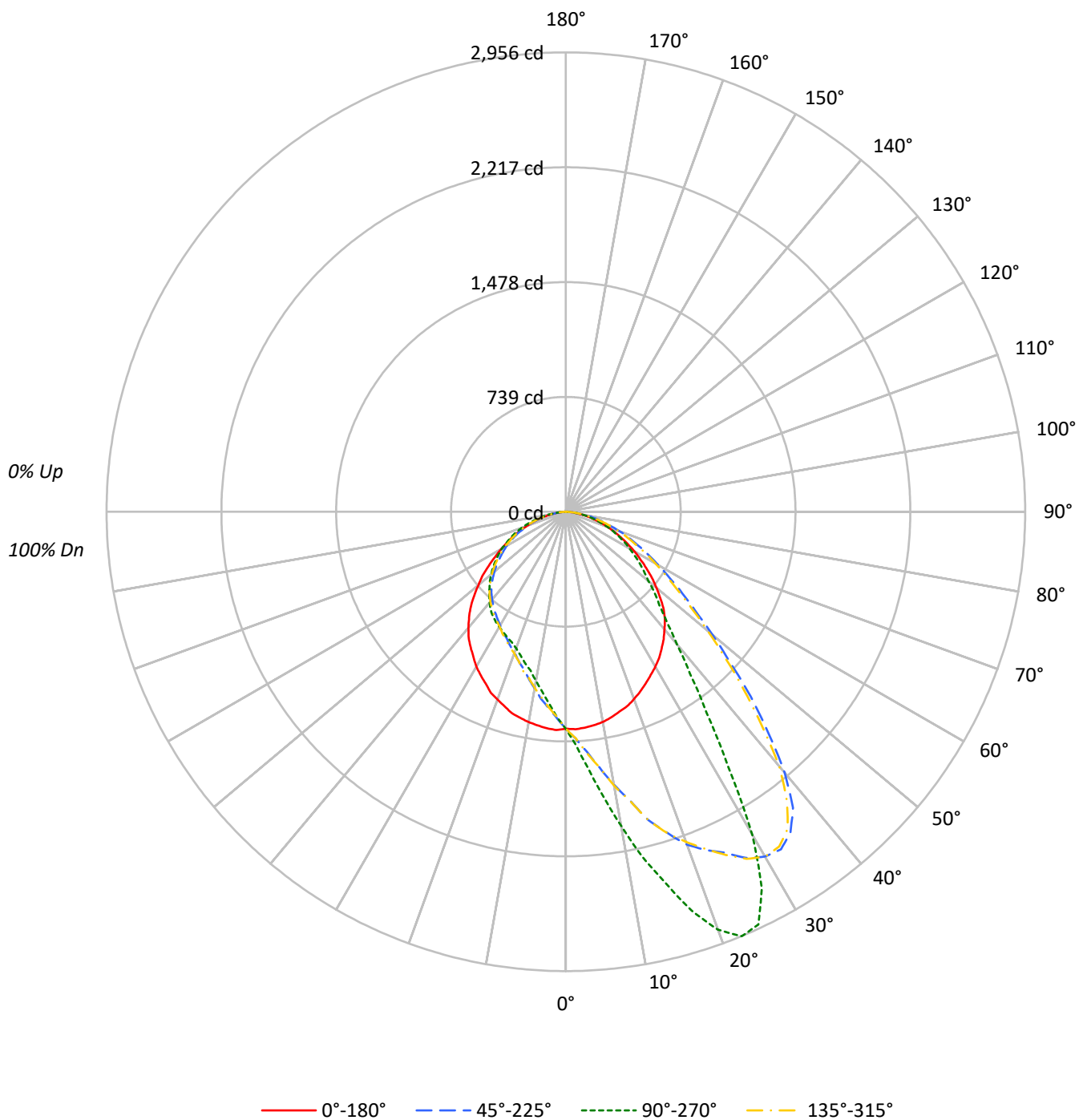
Lumens per Lamp: N/A
Luminaire Lumens: 4214.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.5
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	15029	15029	15029	15029
5°	15072	17922	15115	13376
10°	15009	22433	15024	12081
15°	14836	27515	14956	11247
20°	14692	32777	14723	10709
25°	14461	34803	14493	10589
30°	14310	29831	14310	10644
35°	14115	20747	14027	10755
40°	13877	15626	13707	10721
45°	13572	12974	13181	10586
50°	12755	11622	12301	10489
55°	11857	10868	11374	10359
60°	10951	10193	10368	10252
65°	9959	9579	9477	9923
70°	8941	8985	8346	9451
75°	7823	8047	7315	8663
80°	6459	7042	5957	7463
85°	5014	5508	4014	5014

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 30294 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.3	3.3
10°-20°	441.0	10.5
20°-30°	742.1	17.6
30°-40°	838.6	19.9
40°-50°	751.1	17.8
50°-60°	606.3	14.4
60°-70°	422.5	10.0
70°-80°	221.8	5.3
80°-90°	53.2	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°	1320.4	31.3
0°-40°	2159.1	51.2
0°-60°	3516.5	83.4
0°-90°	4214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4214.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1396	1396	1396	1396	1396	
5°	1395	1659	1399	1238	1395	132
15°	1331	2469	1342	1009	1331	376
25°	1218	2930	1220	892	1218	562
35°	1074	1579	1068	818	1074	672
45°	892	852	866	695	892	682
55°	632	579	606	552	632	566
65°	391	376	372	390	391	389
75°	188	194	176	208	188	202
85°	41	45	32	41	41	50
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°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1400.3	1411.1	1416.5	1424.6	1432.7	1444.9	1449.0	1455.7	1453.0	1458.4	1461.2
5°	1394.9	1413.8	1430.0	1450.3	1469.3	1482.8	1496.3	1518.0	1534.2	1536.9	1549.1
7.5°	1385.4	1412.4	1440.9	1469.3	1505.8	1527.4	1551.8	1581.6	1605.9	1645.2	1660.0
10°	1373.2	1411.1	1451.7	1490.9	1541.0	1574.8	1604.6	1654.6	1704.7	1745.3	1783.2
12.5°	1354.3	1401.6	1454.4	1512.6	1577.5	1616.7	1657.3	1723.6	1799.4	1861.6	1902.2
15°	1331.3	1390.8	1458.4	1520.7	1592.4	1665.4	1708.7	1783.2	1891.4	1949.6	2053.7
17.5°	1312.3	1373.2	1440.9	1538.3	1635.7	1708.7	1739.9	1876.5	1950.9	2048.3	2166.0
20°	1282.6	1359.7	1446.3	1543.7	1669.5	1714.2	1777.7	1915.7	2007.7	2134.9	2279.7
22.5°	1251.5	1334.0	1438.2	1539.6	1680.3	1727.7	1814.3	1923.9	2070.0	2195.8	2355.4
25°	1217.6	1306.9	1412.4	1532.9	1670.9	1739.9	1821.0	1956.3	2114.6	2272.9	2420.4
27.5°	1183.8	1281.2	1390.8	1511.2	1645.2	1726.3	1807.5	1948.2	2151.1	2323.0	2511.0
30°	1151.3	1248.7	1358.3	1481.4	1622.2	1700.6	1777.7	1953.6	2179.6	2373.0	2562.4
32.5°	1116.2	1216.3	1331.3	1434.1	1576.2	1660.0	1746.6	1953.6	2197.1	2402.8	2576.0
35°	1074.2	1177.0	1275.8	1378.6	1519.3	1612.7	1710.1	1940.1	2213.4	2412.3	2519.1
37.5°	1033.6	1124.3	1209.5	1309.6	1457.1	1557.2	1669.5	1923.9	2205.3	2371.7	2401.4
40°	987.6	1078.3	1147.3	1240.6	1396.2	1512.6	1626.2	1902.2	2170.1	2275.6	2189.0
42.5°	943.0	1014.7	1074.2	1164.9	1334.0	1447.6	1570.7	1863.0	2101.1	2122.7	1927.9
45°	891.6	943.0	995.7	1098.6	1266.3	1382.7	1519.3	1806.1	1990.1	1927.9	1681.7
47.5°	825.3	871.3	929.5	1024.2	1194.6	1315.0	1444.9	1733.1	1829.1	1699.3	1430.0
50°	761.7	800.9	855.0	947.0	1118.9	1236.6	1374.6	1618.1	1665.4	1461.2	1232.5
52.5°	698.1	727.9	780.6	872.6	1044.5	1158.1	1283.9	1500.4	1473.3	1254.2	1051.2
55°	631.8	657.5	707.6	798.2	957.9	1066.1	1186.5	1355.6	1285.3	1076.9	914.6
57.5°	566.9	593.9	645.3	721.1	871.3	976.8	1072.9	1205.5	1099.9	933.5	790.1
60°	508.7	531.7	570.9	645.3	782.0	867.2	955.2	1045.8	957.9	796.9	687.3
62.5°	447.8	469.5	506.0	573.6	691.3	767.1	837.5	911.9	814.5	696.8	599.3
65°	391.0	408.6	442.4	504.6	600.7	662.9	719.8	771.2	692.7	584.5	511.4
67.5°	339.6	354.5	382.9	438.3	519.5	564.2	610.2	653.5	587.2	500.6	438.3
70°	284.1	296.3	322.0	362.6	427.5	473.5	507.3	539.8	480.3	411.3	369.3
72.5°	235.4	247.6	263.8	305.8	350.4	378.8	415.3	432.9	399.1	342.3	300.3
75°	188.1	197.5	212.4	239.5	281.4	300.3	323.3	336.9	305.8	267.9	242.2
77.5°	147.5	151.5	162.4	181.3	209.7	231.3	248.9	257.1	235.4	211.1	189.4
80°	104.2	109.6	117.7	133.9	155.6	162.4	173.2	182.6	169.1	147.5	133.9
82.5°	69.0	75.8	79.8	86.6	100.1	108.2	110.9	119.1	106.9	98.8	93.4
85°	40.6	43.3	44.6	48.7	55.5	59.5	63.6	64.9	62.2	60.9	55.5
87.5°	20.3	20.3	20.3	23.0	24.4	27.1	28.4	28.4	28.4	27.1	25.7
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°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1470.6	1473.3	1482.8	1489.6	1503.1	1501.7	1501.7	1500.4	1496.3	1503.1	1507.2
5°	1573.4	1596.4	1599.2	1628.9	1630.3	1642.4	1650.6	1643.8	1660.0	1658.7	1646.5
7.5°	1700.6	1731.7	1746.6	1775.0	1807.5	1799.4	1830.5	1835.9	1833.2	1846.7	1856.2
10°	1840.0	1894.1	1932.0	1984.7	1998.3	2006.4	2026.7	2044.3	2079.4	2052.4	2070.0
12.5°	1999.6	2038.9	2088.9	2172.8	2214.7	2241.8	2251.3	2263.4	2287.8	2272.9	2274.3
15°	2133.6	2186.3	2271.6	2375.7	2387.9	2421.7	2413.6	2486.7	2521.8	2469.1	2498.8
17.5°	2272.9	2343.3	2444.7	2535.4	2586.8	2609.8	2631.4	2701.8	2699.1	2691.0	2697.7
20°	2362.2	2477.2	2603.0	2723.4	2738.3	2755.9	2814.1	2843.8	2838.4	2861.4	2876.3
22.5°	2488.0	2609.8	2743.7	2823.5	2857.4	2877.7	2923.7	2942.6	2950.7	2956.1	2946.7
25°	2593.5	2723.4	2822.2	2892.5	2912.8	2923.7	2938.5	2944.0	2939.9	2930.4	2938.5
27.5°	2665.3	2769.4	2837.1	2869.5	2858.7	2841.1	2812.7	2793.8	2751.8	2731.5	2755.9
30°	2695.0	2741.0	2761.3	2707.2	2653.1	2609.8	2555.7	2455.6	2377.1	2400.1	2369.0
32.5°	2647.7	2617.9	2520.5	2381.1	2339.2	2268.8	2116.0	1998.3	2002.3	1940.1	1965.8
35°	2508.3	2373.0	2189.0	1978.0	1922.5	1884.6	1716.9	1691.2	1637.0	1578.9	1595.1
37.5°	2262.1	2064.6	1841.3	1685.7	1603.2	1520.7	1426.0	1369.2	1336.7	1312.3	1331.3
40°	1961.7	1720.9	1536.9	1397.6	1327.2	1274.5	1209.5	1152.7	1116.2	1112.1	1118.9
42.5°	1666.8	1463.9	1294.7	1162.2	1139.2	1076.9	1035.0	990.3	979.5	961.9	971.4
45°	1411.1	1246.0	1106.7	998.5	971.4	955.2	903.8	875.3	863.2	852.3	868.6
47.5°	1225.7	1052.6	951.1	886.2	859.1	832.0	803.6	784.7	775.2	776.6	775.2
50°	1047.2	920.0	830.7	780.6	764.4	745.5	722.5	710.3	706.2	694.0	703.5
52.5°	901.0	809.0	746.8	699.5	687.3	673.8	654.8	648.0	638.6	635.9	635.9
55°	783.3	711.6	661.6	630.5	615.6	604.8	593.9	585.8	579.1	579.1	579.1
57.5°	691.3	629.1	592.6	565.5	560.1	549.3	537.1	537.1	527.6	526.3	530.3
60°	612.9	557.4	529.0	506.0	497.9	495.2	483.0	483.0	480.3	473.5	478.9
62.5°	533.1	492.5	468.1	450.5	442.4	442.4	432.9	426.2	426.2	427.5	424.8
65°	460.0	430.2	408.6	395.1	391.0	385.6	384.2	378.8	374.8	376.1	374.8
67.5°	395.1	372.1	357.2	346.3	339.6	336.9	332.8	332.8	330.1	331.5	324.7
70°	336.9	313.9	301.7	290.9	288.2	288.2	282.8	284.1	281.4	285.5	282.8
72.5°	277.3	259.8	250.3	246.2	243.5	242.2	239.5	236.8	235.4	238.1	236.8
75°	224.6	209.7	202.9	200.2	197.5	197.5	196.2	194.8	193.5	193.5	193.5
77.5°	174.5	165.1	156.9	159.6	155.6	156.9	152.9	152.9	154.2	152.9	152.9
80°	128.5	121.8	121.8	119.1	113.6	116.4	116.4	112.3	110.9	113.6	109.6
82.5°	85.2	83.9	81.2	79.8	77.1	78.5	77.1	75.8	74.4	77.1	74.4
85°	50.1	50.1	48.7	46.0	48.7	47.4	46.0	46.0	44.6	44.6	44.6
87.5°	25.7	23.0	23.0	21.6	23.0	20.3	21.6	20.3	18.9	20.3	18.9
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°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1496.3	1500.4	1489.6	1486.9	1486.9	1492.3	1488.2	1451.7	1458.4	1450.3	1447.6
5°	1661.4	1653.3	1642.4	1637.0	1630.3	1611.3	1610.0	1568.0	1559.9	1532.9	1520.7
7.5°	1842.7	1835.9	1803.4	1799.4	1796.7	1779.1	1734.4	1689.8	1657.3	1626.2	1596.4
10°	2049.7	2029.4	2014.5	1984.7	1969.9	1945.5	1887.3	1845.4	1789.9	1742.6	1680.3
12.5°	2298.6	2275.6	2225.6	2203.9	2185.0	2117.3	2059.1	2011.8	1903.6	1871.1	1794.0
15°	2481.3	2432.6	2427.1	2379.8	2377.1	2302.7	2191.7	2140.3	2056.4	1937.4	1857.6
17.5°	2678.8	2635.5	2601.7	2544.8	2536.7	2466.4	2385.2	2259.4	2167.4	2053.7	1952.3
20°	2823.5	2800.5	2742.4	2719.4	2672.0	2612.5	2528.6	2373.0	2260.7	2147.1	2022.6
22.5°	2938.5	2915.5	2869.5	2838.4	2811.4	2734.3	2634.1	2501.6	2347.3	2198.5	2070.0
25°	2937.2	2930.4	2911.5	2896.6	2876.3	2819.5	2735.6	2608.4	2436.6	2272.9	2094.3
27.5°	2770.8	2789.7	2822.2	2838.4	2834.4	2826.3	2778.9	2672.0	2517.8	2323.0	2122.7
30°	2424.4	2493.4	2554.3	2635.5	2659.8	2719.4	2746.4	2685.5	2562.4	2381.1	2159.3
32.5°	2010.4	2110.6	2243.1	2287.8	2364.9	2479.9	2608.4	2631.4	2554.3	2415.0	2182.3
35°	1649.2	1731.7	1834.6	1904.9	1973.9	2160.6	2323.0	2463.7	2489.4	2397.4	2176.9
37.5°	1365.1	1423.3	1513.9	1573.4	1637.0	1796.7	2024.0	2206.6	2335.1	2337.8	2162.0
40°	1159.5	1185.2	1263.6	1306.9	1367.8	1505.8	1708.7	1946.9	2134.9	2221.5	2122.7
42.5°	982.2	1016.0	1081.0	1113.5	1152.7	1273.1	1407.0	1633.0	1865.7	2051.0	2049.7
45°	876.7	901.0	930.8	957.9	1002.5	1074.2	1227.1	1396.2	1619.4	1829.1	1911.7
47.5°	783.3	806.3	836.1	844.2	874.0	941.6	1035.0	1182.5	1390.8	1599.2	1754.7
50°	704.9	723.8	744.1	759.0	772.5	828.0	898.3	1022.8	1189.2	1390.8	1584.3
52.5°	644.0	657.5	675.1	683.2	695.4	736.0	790.1	882.1	1018.7	1202.7	1390.8
55°	587.2	596.6	607.5	621.0	626.4	656.2	698.1	776.6	878.0	1043.1	1221.7
57.5°	534.4	538.5	545.2	553.3	560.1	585.8	622.3	675.1	764.4	891.6	1060.7
60°	474.9	485.7	489.8	497.9	501.9	522.2	550.6	595.3	664.3	773.9	901.0
62.5°	424.8	431.6	438.3	442.4	451.9	458.6	481.6	522.2	579.1	660.2	775.2
65°	380.2	382.9	386.9	391.0	393.7	401.8	423.5	450.5	493.8	565.5	654.8
67.5°	328.8	331.5	336.9	338.2	340.9	351.8	363.9	386.9	423.5	477.6	550.6
70°	278.7	282.8	285.5	288.2	292.2	296.3	309.8	328.8	357.2	395.1	451.9
72.5°	235.4	239.5	239.5	242.2	240.8	246.2	259.8	273.3	292.2	323.3	373.4
75°	192.1	192.1	194.8	196.2	197.5	202.9	208.3	219.2	234.1	258.4	289.5
77.5°	151.5	150.2	152.9	152.9	152.9	156.9	162.4	167.8	177.2	194.8	219.2
80°	110.9	110.9	113.6	115.0	112.3	113.6	116.4	121.8	128.5	140.7	154.2
82.5°	73.1	78.5	77.1	78.5	77.1	79.8	81.2	82.5	85.2	90.6	100.1
85°	44.6	44.6	44.6	46.0	44.6	46.0	46.0	46.0	47.4	50.1	54.1
87.5°	18.9	18.9	18.9	20.3	18.9	18.9	20.3	18.9	20.3	20.3	21.6
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: P1037233

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1434.1	1430.0	1430.0	1427.3	1419.2	1404.3	1403.0	1405.7	1397.6	1389.5	1377.3
5°	1504.4	1478.7	1470.6	1462.5	1446.3	1419.2	1408.4	1398.9	1384.0	1366.5	1347.5
7.5°	1564.0	1527.4	1516.6	1501.7	1469.3	1431.4	1407.0	1386.7	1366.5	1342.1	1319.1
10°	1638.4	1585.6	1559.9	1538.3	1493.6	1440.9	1404.3	1374.6	1342.1	1312.3	1282.6
12.5°	1722.3	1637.0	1628.9	1576.2	1524.7	1446.3	1401.6	1358.3	1315.0	1278.5	1247.4
15°	1792.6	1699.3	1665.4	1630.3	1531.5	1434.1	1390.8	1342.1	1292.0	1252.8	1206.8
17.5°	1837.3	1760.2	1688.4	1641.1	1538.3	1451.7	1367.8	1312.3	1259.6	1205.5	1167.6
20°	1891.4	1779.1	1716.9	1653.3	1551.8	1438.2	1354.3	1285.3	1220.3	1171.6	1125.6
22.5°	1945.5	1794.0	1742.6	1673.6	1554.5	1424.6	1329.9	1260.9	1186.5	1137.8	1087.7
25°	1940.1	1815.6	1730.4	1672.2	1527.4	1412.4	1301.5	1220.3	1151.3	1089.1	1039.0
27.5°	1944.1	1791.3	1704.7	1637.0	1508.5	1394.9	1271.7	1186.5	1114.8	1049.9	997.1
30°	1945.5	1754.7	1679.0	1597.8	1473.3	1352.9	1237.9	1151.3	1075.6	1005.2	957.9
32.5°	1941.4	1725.0	1630.3	1557.2	1417.9	1312.3	1198.7	1106.7	1029.6	964.6	920.0
35°	1932.0	1689.8	1580.2	1488.2	1361.0	1254.2	1162.2	1067.5	984.9	925.4	874.0
37.5°	1906.3	1651.9	1527.4	1436.8	1294.7	1186.5	1105.3	1026.9	947.0	876.7	833.4
40°	1887.3	1600.5	1474.7	1375.9	1223.0	1117.5	1049.9	975.5	897.0	833.4	791.5
42.5°	1844.0	1551.8	1420.6	1302.9	1152.7	1044.5	980.9	921.3	853.7	791.5	753.6
45°	1773.7	1499.0	1354.3	1235.2	1075.6	972.8	914.6	865.9	806.3	746.8	708.9
47.5°	1674.9	1423.3	1283.9	1164.9	999.8	895.6	837.5	800.9	753.6	703.5	671.0
50°	1568.0	1340.7	1212.2	1094.5	926.8	825.3	768.5	734.6	703.5	657.5	626.4
52.5°	1428.7	1252.8	1129.7	1017.4	848.3	750.9	700.8	676.5	644.0	611.5	584.5
55°	1293.4	1139.2	1037.7	930.8	771.2	680.5	631.8	606.1	587.2	560.1	538.5
57.5°	1136.5	1033.6	940.3	842.9	699.5	616.9	570.9	539.8	527.6	515.5	495.2
60°	991.7	913.2	837.5	756.3	625.0	550.6	506.0	481.6	469.5	461.3	447.8
62.5°	859.1	798.2	733.3	668.3	549.3	481.6	447.8	423.5	412.6	411.3	399.1
65°	731.9	688.6	635.9	572.3	478.9	419.4	386.9	372.1	359.9	359.9	350.4
67.5°	604.8	575.0	533.1	488.4	415.3	359.9	330.1	316.6	309.8	309.8	303.1
70°	503.3	483.0	445.1	405.9	342.3	300.3	277.3	265.2	261.1	262.5	257.1
72.5°	408.6	386.9	355.8	327.4	280.1	248.9	232.7	219.2	212.4	213.8	212.4
75°	316.6	305.8	278.7	257.1	219.2	197.5	182.6	175.9	170.5	171.8	169.1
77.5°	238.1	221.9	207.0	192.1	169.1	151.5	139.4	132.6	128.5	128.5	128.5
80°	162.4	159.6	147.5	139.4	120.4	106.9	97.4	96.1	92.0	92.0	92.0
82.5°	105.5	98.8	92.0	86.6	75.8	67.6	63.6	60.9	59.5	58.2	60.9
85°	58.2	54.1	51.4	46.0	41.9	37.9	33.8	32.5	31.1	32.5	31.1
87.5°	23.0	18.9	18.9	17.6	16.2	14.9	14.9	12.2	12.2	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: P1037233

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1374.6	1373.2	1375.9	1367.8	1354.3	1347.5	1328.6	1324.5	1323.2	1324.5	1325.9
5°	1336.7	1335.3	1331.3	1317.7	1301.5	1289.3	1266.3	1265.0	1256.9	1248.7	1252.8
7.5°	1300.2	1294.7	1286.6	1269.0	1247.4	1233.9	1214.9	1201.4	1190.6	1183.8	1178.4
10°	1263.6	1255.5	1247.4	1224.4	1197.3	1177.0	1154.0	1143.2	1131.0	1125.6	1120.2
12.5°	1216.3	1208.2	1193.3	1166.2	1150.0	1124.3	1101.3	1090.5	1083.7	1072.9	1066.1
15°	1178.4	1162.2	1154.0	1125.6	1091.8	1089.1	1047.2	1044.5	1030.9	1030.9	1020.1
17.5°	1135.1	1122.9	1108.0	1079.6	1055.3	1030.9	1009.3	1001.2	989.0	986.3	980.9
20°	1093.2	1076.9	1071.5	1043.1	1017.4	987.6	964.6	956.5	951.1	945.7	949.8
22.5°	1049.9	1036.3	1022.8	997.1	978.2	948.4	934.9	926.8	918.6	915.9	917.3
25°	1007.9	995.7	982.2	956.5	936.2	911.9	899.7	895.6	891.6	891.6	890.2
27.5°	967.3	955.2	943.0	920.0	899.7	882.1	872.6	868.6	864.5	867.2	869.9
30°	925.4	914.6	903.8	883.5	867.2	851.0	845.6	842.9	841.5	848.3	848.3
32.5°	887.5	878.0	869.9	851.0	834.8	821.2	817.2	818.5	819.9	823.9	826.6
35°	848.3	841.5	833.4	817.2	803.6	791.5	792.8	792.8	795.5	802.3	807.7
37.5°	813.1	803.6	796.9	783.3	772.5	761.7	765.8	769.8	772.5	780.6	783.3
40°	771.2	767.1	761.7	748.2	738.7	737.3	738.7	741.4	746.8	750.9	754.9
42.5°	737.3	731.9	725.2	714.3	706.2	707.6	708.9	711.6	714.3	721.1	725.2
45°	699.5	695.4	690.0	680.5	673.8	675.1	676.5	676.5	679.2	687.3	690.0
47.5°	657.5	658.9	652.1	642.6	638.6	638.6	638.6	641.3	648.0	650.8	652.1
50°	616.9	614.2	612.9	603.4	600.7	599.3	600.7	602.0	611.5	610.2	614.2
52.5°	573.6	573.6	572.3	566.9	562.8	562.8	560.1	566.9	569.6	572.3	576.3
55°	531.7	527.6	526.3	523.6	518.2	516.8	519.5	527.6	530.3	533.1	537.1
57.5°	485.7	485.7	483.0	478.9	478.9	478.9	478.9	484.3	488.4	491.1	499.2
60°	443.8	438.3	434.3	434.3	434.3	432.9	441.1	441.1	449.2	450.5	453.2
62.5°	393.7	391.0	388.3	389.6	388.3	391.0	393.7	399.1	400.5	404.5	408.6
65°	346.3	346.3	343.6	351.8	346.3	346.3	353.1	353.1	355.8	359.9	365.3
67.5°	300.3	301.7	299.0	299.0	301.7	303.1	304.4	309.8	311.2	316.6	323.3
70°	253.0	255.7	257.1	254.3	257.1	259.8	262.5	263.8	269.2	271.9	276.0
72.5°	211.1	213.8	209.7	211.1	212.4	215.1	216.5	219.2	221.9	230.0	232.7
75°	169.1	167.8	166.4	171.8	169.1	174.5	175.9	175.9	178.6	185.4	188.1
77.5°	129.9	129.9	131.2	128.5	132.6	131.2	132.6	136.6	140.7	140.7	151.5
80°	90.6	93.4	93.4	93.4	94.7	96.1	93.4	100.1	101.5	101.5	105.5
82.5°	58.2	59.5	58.2	60.9	60.9	63.6	62.2	63.6	66.3	69.0	70.4
85°	31.1	31.1	33.8	33.8	32.5	33.8	32.5	33.8	36.5	36.5	37.9
87.5°	10.8	10.8	10.8	10.8	12.2	10.8	12.2	12.2	10.8	10.8	14.9
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: P1037233

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1324.5	1325.9	1320.5	1316.4	1327.2	1320.5	1320.5	1321.8	1319.1	1323.2	1321.8
5°	1250.1	1251.5	1242.0	1244.7	1239.3	1237.9	1236.6	1244.7	1243.3	1242.0	1244.7
7.5°	1177.0	1177.0	1173.0	1170.3	1170.3	1166.2	1171.6	1170.3	1173.0	1173.0	1177.0
10°	1116.2	1118.9	1112.1	1105.3	1104.0	1105.3	1105.3	1106.7	1108.0	1117.5	1116.2
12.5°	1066.1	1062.0	1060.7	1056.6	1049.9	1047.2	1044.5	1059.3	1055.3	1055.3	1055.3
15°	1010.6	1020.1	1018.7	1006.6	1003.9	1009.3	1006.6	1006.6	1020.1	1018.7	1017.4
17.5°	980.9	978.2	975.5	968.7	970.0	968.7	970.0	970.0	978.2	978.2	978.2
20°	947.0	941.6	941.6	938.9	938.9	934.9	940.3	941.6	947.0	947.0	948.4
22.5°	917.3	913.2	913.2	911.9	914.6	909.2	914.6	915.9	915.9	920.0	920.0
25°	891.6	888.9	888.9	891.6	891.6	891.6	891.6	897.0	892.9	894.3	892.9
27.5°	868.6	869.9	871.3	872.6	871.3	872.6	874.0	876.7	878.0	876.7	874.0
30°	846.9	851.0	852.3	852.3	855.0	856.4	857.8	857.8	859.1	855.0	857.8
32.5°	830.7	830.7	833.4	834.8	837.5	838.8	838.8	841.5	840.2	836.1	837.5
35°	807.7	807.7	813.1	815.8	819.9	818.5	819.9	819.9	821.2	818.5	814.5
37.5°	784.7	787.4	787.4	792.8	794.2	795.5	794.2	796.9	795.5	792.8	791.5
40°	757.6	756.3	757.6	761.7	763.0	763.0	763.0	765.8	765.8	765.8	764.4
42.5°	723.8	727.9	726.5	730.6	729.2	729.2	731.9	734.6	736.0	731.9	733.3
45°	691.3	691.3	694.0	694.0	695.4	695.4	700.8	698.1	700.8	698.1	699.5
47.5°	656.2	657.5	657.5	658.9	661.6	664.3	661.6	662.9	662.9	664.3	661.6
50°	616.9	616.9	619.6	623.7	629.1	626.4	625.0	630.5	626.4	626.4	623.7
52.5°	576.3	580.4	581.8	585.8	589.9	591.2	592.6	589.9	591.2	587.2	588.5
55°	537.1	538.5	543.9	547.9	552.0	552.0	550.6	552.0	553.3	547.9	547.9
57.5°	497.9	501.9	507.3	507.3	512.8	512.8	511.4	511.4	512.8	508.7	507.3
60°	455.9	460.0	466.8	466.8	474.9	476.2	473.5	470.8	470.8	466.8	468.1
62.5°	411.3	415.3	419.4	426.2	431.6	428.9	434.3	428.9	430.2	422.1	422.1
65°	372.1	373.4	380.2	386.9	386.9	389.6	386.9	388.3	384.2	384.2	378.8
67.5°	326.1	326.1	332.8	339.6	346.3	346.3	346.3	342.3	342.3	338.2	338.2
70°	285.5	284.1	290.9	294.9	299.0	300.3	297.6	296.3	293.6	289.5	288.2
72.5°	235.4	238.1	244.9	247.6	254.3	253.0	259.8	251.6	251.6	244.9	243.5
75°	190.8	193.5	200.2	204.3	208.3	208.3	212.4	208.3	202.9	200.2	198.9
77.5°	151.5	150.2	155.6	162.4	163.7	162.4	165.1	163.7	158.3	158.3	155.6
80°	108.2	112.3	117.7	116.4	121.8	120.4	120.4	117.7	117.7	113.6	116.4
82.5°	71.7	75.8	77.1	75.8	77.1	79.8	81.2	79.8	79.8	77.1	78.5
85°	37.9	37.9	40.6	41.9	40.6	40.6	41.9	46.0	43.3	40.6	43.3
87.5°	12.2	10.8	10.8	12.2	10.8	10.8	12.2	12.2	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: P1037233

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2	1396.2
2.5°	1325.9	1328.6	1329.9	1324.5	1320.5	1327.2	1336.7	1343.5	1348.9	1355.6	1359.7
5°	1247.4	1256.9	1256.9	1259.6	1263.6	1270.4	1288.0	1300.2	1311.0	1319.1	1325.9
7.5°	1181.1	1187.9	1191.9	1198.7	1205.5	1214.9	1235.2	1252.8	1269.0	1278.5	1289.3
10°	1121.6	1127.0	1133.7	1137.8	1150.0	1163.5	1189.2	1204.1	1223.0	1237.9	1251.5
12.5°	1064.7	1083.7	1087.7	1086.4	1097.2	1112.1	1137.8	1160.8	1181.1	1196.0	1210.9
15°	1024.2	1030.9	1039.0	1037.7	1060.7	1064.7	1086.4	1113.5	1140.5	1150.0	1163.5
17.5°	979.5	990.3	998.5	1002.5	1009.3	1024.2	1044.5	1064.7	1099.9	1101.3	1136.5
20°	944.3	955.2	960.6	966.0	970.0	987.6	1005.2	1028.2	1056.6	1071.5	1090.5
22.5°	921.3	926.8	930.8	934.9	940.3	949.8	971.4	997.1	1016.0	1032.3	1044.5
25°	894.3	899.7	905.1	907.8	911.9	917.3	933.5	953.8	980.9	991.7	1003.9
27.5°	875.3	875.3	878.0	878.0	883.5	888.9	901.0	920.0	941.6	955.2	971.4
30°	855.0	853.7	855.0	853.7	852.3	860.5	871.3	887.5	902.4	918.6	929.5
32.5°	834.8	833.4	833.4	834.8	829.3	833.4	838.8	853.7	869.9	878.0	890.2
35°	813.1	810.4	810.4	810.4	807.7	805.0	810.4	823.9	834.8	845.6	855.0
37.5°	791.5	787.4	787.4	784.7	782.0	777.9	777.9	788.8	803.6	807.7	819.9
40°	761.7	761.7	759.0	757.6	754.9	752.2	748.2	757.6	771.2	775.2	784.7
42.5°	731.9	727.9	726.5	726.5	726.5	722.5	719.8	726.5	734.6	741.4	746.8
45°	698.1	695.4	696.8	695.4	692.7	691.3	690.0	692.7	702.2	704.9	711.6
47.5°	661.6	660.2	660.2	658.9	657.5	658.9	653.5	660.2	662.9	665.6	671.0
50°	623.7	622.3	621.0	619.6	619.6	621.0	619.6	619.6	625.0	627.8	633.2
52.5°	585.8	581.8	581.8	580.4	580.4	577.7	580.4	581.8	584.5	587.2	589.9
55°	545.2	545.2	541.2	541.2	538.5	538.5	539.8	538.5	543.9	546.6	546.6
57.5°	506.0	500.6	501.9	499.2	496.5	495.2	495.2	497.9	500.6	500.6	503.3
60°	464.1	458.6	457.3	451.9	454.6	450.5	451.9	451.9	457.3	454.6	457.3
62.5°	422.1	415.3	411.3	408.6	408.6	409.9	407.2	405.9	408.6	411.3	416.7
65°	377.5	373.4	369.3	365.3	365.3	363.9	366.6	362.6	361.2	362.6	365.3
67.5°	331.5	327.4	323.3	319.3	320.6	316.6	313.9	317.9	315.2	316.6	319.3
70°	286.8	284.1	276.0	273.3	271.9	273.3	271.9	269.2	273.3	271.9	273.3
72.5°	242.2	239.5	235.4	228.6	228.6	227.3	225.9	225.9	224.6	224.6	224.6
75°	198.9	193.5	189.4	188.1	185.4	184.0	182.6	179.9	181.3	182.6	179.9
77.5°	154.2	147.5	146.1	146.1	142.1	142.1	143.4	142.1	140.7	140.7	140.7
80°	113.6	108.2	108.2	105.5	102.8	102.8	102.8	102.8	101.5	100.1	101.5
82.5°	73.1	71.7	70.4	70.4	73.1	67.6	70.4	69.0	67.6	67.6	66.3
85°	40.6	41.9	40.6	41.9	39.2	40.6	40.6	40.6	39.2	40.6	37.9
87.5°	14.9	14.9	14.9	16.2	16.2	16.2	16.2	16.2	17.6	16.2	16.2
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: P1037233

CATALOG NUMBER: S123DS-B1000DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1396.2	1396.2	1396.2	1396.2
2.5°	1366.5	1370.5	1384.0	1400.3
5°	1339.4	1350.2	1369.2	1394.9
7.5°	1309.6	1325.9	1352.9	1385.4
10°	1275.8	1298.8	1332.6	1373.2
12.5°	1239.3	1269.0	1312.3	1354.3
15°	1216.3	1246.0	1285.3	1331.3
17.5°	1171.6	1206.8	1247.4	1312.3
20°	1125.6	1164.9	1217.6	1282.6
22.5°	1090.5	1132.4	1182.5	1251.5
25°	1048.5	1091.8	1145.9	1217.6
27.5°	1003.9	1047.2	1108.0	1183.8
30°	970.0	1012.0	1070.2	1151.3
32.5°	929.5	970.0	1030.9	1116.2
35°	883.5	929.5	987.6	1074.2
37.5°	848.3	890.2	951.1	1033.6
40°	810.4	846.9	906.5	987.6
42.5°	769.8	810.4	861.8	943.0
45°	731.9	761.7	814.5	891.6
47.5°	691.3	725.2	765.8	825.3
50°	648.0	676.5	721.1	761.7
52.5°	606.1	629.1	667.0	698.1
55°	561.5	584.5	612.9	631.8
57.5°	519.5	535.8	554.7	566.9
60°	468.1	484.3	496.5	508.7
62.5°	422.1	434.3	441.1	447.8
65°	374.8	381.5	385.6	391.0
67.5°	323.3	330.1	331.5	339.6
70°	276.0	277.3	280.1	284.1
72.5°	231.3	234.1	232.7	235.4
75°	185.4	188.1	185.4	188.1
77.5°	140.7	143.4	143.4	147.5
80°	101.5	102.8	104.2	104.2
82.5°	66.3	70.4	67.6	69.0
85°	37.9	39.2	39.2	40.6
87.5°	17.6	18.9	17.6	20.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)