

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: P992324

Luminaire Tested: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P992324
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: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K
Description: Define 3 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

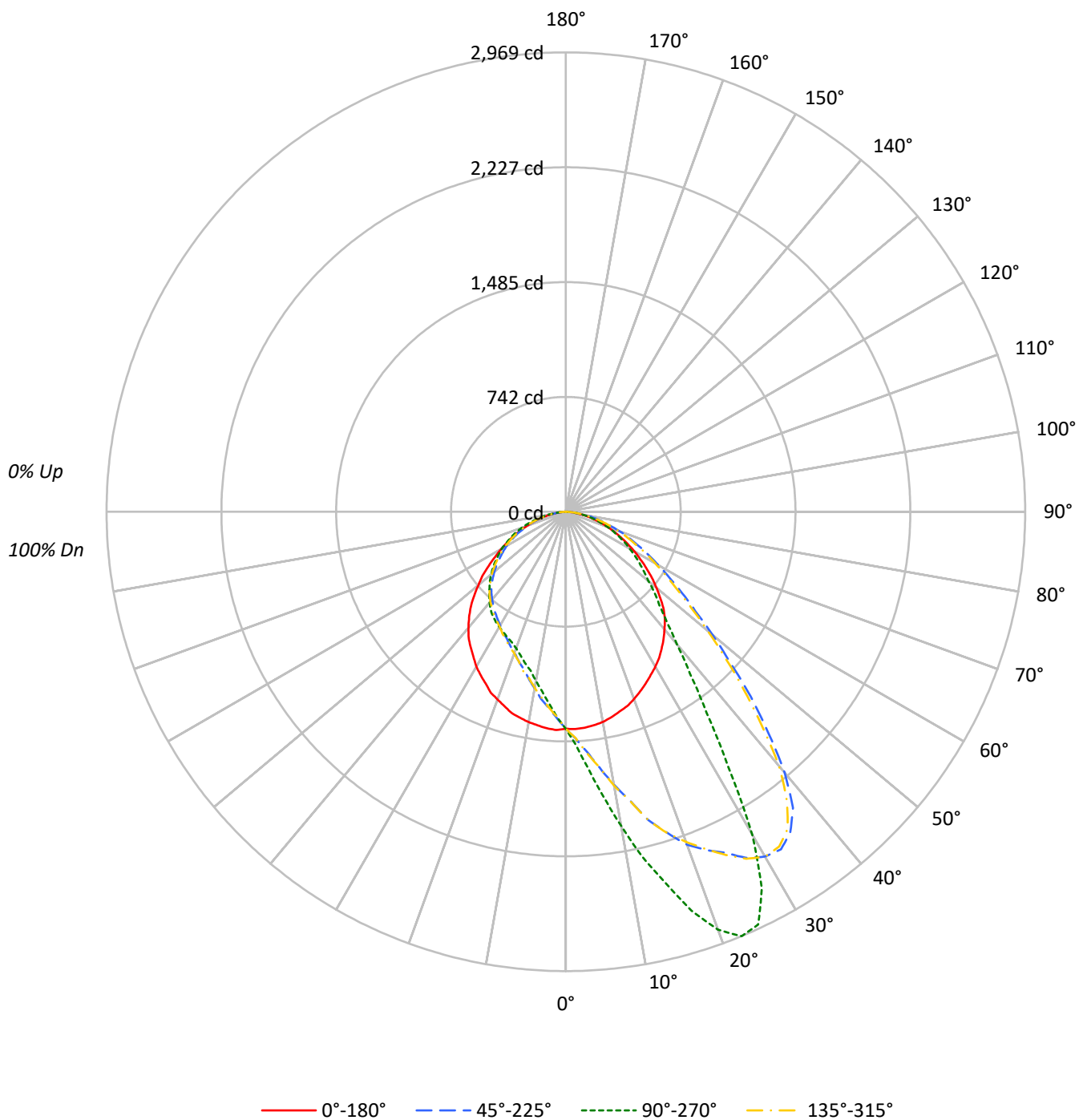
Lumens per Lamp: N/A
Luminaire Lumens: 4232.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.5
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

Luminous Intensity Polar Plot



TEST NUMBER: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

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°	15093	15093	15093	15093
5°	15136	17999	15180	13433
10°	15074	22528	15088	12133
15°	14899	27632	15019	11295
20°	14754	32917	14786	10755
25°	14523	34952	14555	10634
30°	14372	29958	14372	10690
35°	14176	20835	14086	10801
40°	13937	15694	13765	10768
45°	13630	13030	13237	10631
50°	12809	11672	12355	10535
55°	11907	10913	11423	10402
60°	10999	10236	10413	10297
65°	10002	9620	9515	9966
70°	8979	9023	8381	9492
75°	7856	8081	7345	8700
80°	6484	7073	5982	7494
85°	5039	5533	4026	5039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 30424 cd/sqm

TEST NUMBER: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.9	3.3
10°-20°	442.9	10.5
20°-30°	745.3	17.6
30°-40°	842.2	19.9
40°-50°	754.3	17.8
50°-60°	608.9	14.4
60°-70°	424.3	10.0
70°-80°	222.7	5.3
80°-90°	53.4	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°	1326.1	31.3
0°-40°	2168.3	51.2
0°-60°	3531.6	83.4
0°-90°	4232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4232.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1402	1402	1402	1402	1402	
5°	1401	1666	1405	1243	1401	133
15°	1337	2480	1348	1014	1337	378
25°	1223	2943	1226	895	1223	564
35°	1079	1586	1072	822	1079	675
45°	895	856	870	698	895	685
55°	634	582	609	554	634	568
65°	393	378	374	391	393	391
75°	189	194	177	209	189	203
85°	41	45	33	41	41	50
90°	0	0	0	0	0	

TEST NUMBER: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1406.3	1417.1	1422.6	1430.7	1438.9	1451.1	1455.2	1462.0	1459.2	1464.7	1467.4
5°	1400.8	1419.8	1436.1	1456.5	1475.5	1489.1	1502.7	1524.5	1540.8	1543.5	1555.7
7.5°	1391.3	1418.5	1447.0	1475.5	1512.2	1534.0	1558.4	1588.3	1612.8	1652.2	1667.1
10°	1379.1	1417.1	1457.9	1497.3	1547.6	1581.5	1611.4	1661.7	1712.0	1752.7	1790.8
12.5°	1360.1	1407.6	1460.6	1519.0	1584.2	1623.6	1664.4	1731.0	1807.1	1869.6	1910.3
15°	1337.0	1396.7	1464.7	1527.2	1599.2	1672.6	1716.0	1790.8	1899.5	1957.9	2062.5
17.5°	1317.9	1379.1	1447.0	1544.8	1642.7	1716.0	1747.3	1884.5	1959.2	2057.1	2175.3
20°	1288.0	1365.5	1452.5	1550.3	1676.6	1721.5	1785.3	1923.9	2016.3	2144.0	2289.4
22.5°	1256.8	1339.7	1444.3	1546.2	1687.5	1735.1	1822.0	1932.1	2078.8	2205.2	2365.5
25°	1222.8	1312.5	1418.5	1539.4	1678.0	1747.3	1828.8	1964.7	2123.6	2282.6	2430.7
27.5°	1188.9	1286.7	1396.7	1517.7	1652.2	1733.7	1815.2	1956.5	2160.3	2332.9	2521.7
30°	1156.3	1254.1	1364.1	1487.8	1629.1	1707.9	1785.3	1962.0	2188.9	2383.2	2573.4
32.5°	1120.9	1221.5	1337.0	1440.2	1582.9	1667.1	1754.1	1962.0	2206.5	2413.1	2587.0
35°	1078.8	1182.1	1281.3	1384.5	1525.8	1619.6	1717.4	1948.4	2222.8	2422.6	2529.9
37.5°	1038.0	1129.1	1214.7	1315.2	1463.3	1563.9	1676.6	1932.1	2214.7	2381.8	2411.7
40°	991.9	1082.9	1152.2	1245.9	1402.2	1519.0	1633.2	1910.3	2179.4	2285.3	2198.4
42.5°	947.0	1019.0	1078.8	1169.8	1339.7	1453.8	1577.5	1870.9	2110.1	2131.8	1936.1
45°	895.4	947.0	1000.0	1103.3	1271.7	1388.6	1525.8	1813.9	1998.6	1936.1	1688.9
47.5°	828.8	875.0	933.4	1028.5	1199.7	1320.7	1451.1	1740.5	1837.0	1706.5	1436.1
50°	764.9	804.4	858.7	951.1	1123.6	1241.9	1380.4	1625.0	1672.6	1467.4	1237.8
52.5°	701.1	731.0	784.0	876.4	1048.9	1163.0	1289.4	1506.8	1479.6	1259.5	1055.7
55°	634.5	660.3	710.6	801.6	962.0	1070.7	1191.6	1361.4	1290.8	1081.5	918.5
57.5°	569.3	596.5	648.1	724.2	875.0	981.0	1077.4	1210.6	1104.6	937.5	793.5
60°	510.9	534.0	573.4	648.1	785.3	870.9	959.2	1050.3	962.0	800.3	690.2
62.5°	449.7	471.5	508.2	576.1	694.3	770.4	841.0	915.8	817.9	699.7	601.9
65°	392.7	410.3	444.3	506.8	603.3	665.8	722.8	774.5	695.7	587.0	513.6
67.5°	341.0	356.0	384.5	440.2	521.7	566.6	612.8	656.3	589.7	502.7	440.2
70°	285.3	297.6	323.4	364.1	429.3	475.5	509.5	542.1	482.3	413.0	370.9
72.5°	236.4	248.6	264.9	307.1	351.9	380.4	417.1	434.8	400.8	343.8	301.6
75°	188.9	198.4	213.3	240.5	282.6	301.6	324.7	338.3	307.1	269.0	243.2
77.5°	148.1	152.2	163.0	182.1	210.6	232.3	250.0	258.2	236.4	212.0	190.2
80°	104.6	110.1	118.2	134.5	156.3	163.0	173.9	183.4	169.8	148.1	134.5
82.5°	69.3	76.1	80.2	87.0	100.5	108.7	111.4	119.6	107.3	99.2	93.8
85°	40.8	43.5	44.8	48.9	55.7	59.8	63.9	65.2	62.5	61.1	55.7
87.5°	20.4	20.4	20.4	23.1	24.5	27.2	28.5	28.5	28.5	27.2	25.8
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: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1476.9	1479.6	1489.1	1495.9	1509.5	1508.2	1508.2	1506.8	1502.7	1509.5	1513.6
5°	1580.2	1603.3	1606.0	1635.9	1637.2	1649.5	1657.6	1650.8	1667.1	1665.8	1653.5
7.5°	1707.9	1739.1	1754.1	1782.6	1815.2	1807.1	1838.3	1843.8	1841.0	1854.6	1864.1
10°	1847.8	1902.2	1940.2	1993.2	2006.8	2015.0	2035.3	2053.0	2088.3	2061.1	2078.8
12.5°	2008.2	2047.6	2097.8	2182.1	2224.2	2251.4	2260.9	2273.1	2297.6	2282.6	2284.0
15°	2142.7	2195.7	2281.3	2385.9	2398.1	2432.1	2423.9	2497.3	2532.6	2479.6	2509.5
17.5°	2282.6	2353.3	2455.2	2546.2	2597.8	2620.9	2642.7	2713.3	2710.6	2702.5	2709.2
20°	2372.3	2487.8	2614.1	2735.1	2750.0	2767.7	2826.1	2856.0	2850.6	2873.7	2888.6
22.5°	2498.6	2620.9	2755.4	2835.6	2869.6	2890.0	2936.2	2955.2	2963.3	2968.8	2959.2
25°	2604.6	2735.1	2834.2	2904.9	2925.3	2936.2	2951.1	2956.5	2952.5	2942.9	2951.1
27.5°	2676.6	2781.3	2849.2	2881.8	2870.9	2853.3	2824.7	2805.7	2763.6	2743.2	2767.7
30°	2706.5	2752.7	2773.1	2718.8	2664.4	2620.9	2566.6	2466.0	2387.2	2410.3	2379.1
32.5°	2659.0	2629.1	2531.3	2391.3	2349.2	2278.5	2125.0	2006.8	2010.9	1948.4	1974.2
35°	2519.0	2383.2	2198.4	1986.4	1930.7	1892.7	1724.2	1698.4	1644.0	1585.6	1601.9
37.5°	2271.7	2073.4	1849.2	1692.9	1610.1	1527.2	1432.1	1375.0	1342.4	1317.9	1337.0
40°	1970.1	1728.3	1543.5	1403.5	1332.9	1279.9	1214.7	1157.6	1120.9	1116.9	1123.6
42.5°	1673.9	1470.1	1300.3	1167.1	1144.0	1081.5	1039.4	994.6	983.7	966.0	975.5
45°	1417.1	1251.4	1111.4	1002.7	975.5	959.2	907.6	879.1	866.9	856.0	872.3
47.5°	1231.0	1057.1	955.2	889.9	862.8	835.6	807.1	788.0	778.5	779.9	778.5
50°	1051.6	923.9	834.2	784.0	767.7	748.6	725.5	713.3	709.2	697.0	706.5
52.5°	904.9	812.5	750.0	702.4	690.2	676.6	657.6	650.8	641.3	638.6	638.6
55°	786.7	714.7	664.4	633.2	618.2	607.3	596.5	588.3	581.5	581.5	581.5
57.5°	694.3	631.8	595.1	567.9	562.5	551.6	539.4	539.4	529.9	528.5	532.6
60°	615.5	559.8	531.3	508.2	500.0	497.3	485.1	485.1	482.3	475.5	481.0
62.5°	535.3	494.6	470.1	452.4	444.3	444.3	434.8	428.0	428.0	429.3	426.6
65°	462.0	432.1	410.3	396.7	392.7	387.2	385.9	380.4	376.4	377.7	376.4
67.5°	396.7	373.6	358.7	347.8	341.0	338.3	334.2	334.2	331.5	332.9	326.1
70°	338.3	315.2	303.0	292.1	289.4	289.4	284.0	285.3	282.6	286.7	284.0
72.5°	278.5	260.9	251.4	247.3	244.6	243.2	240.5	237.8	236.4	239.1	237.8
75°	225.5	210.6	203.8	201.1	198.4	198.4	197.0	195.7	194.3	194.3	194.3
77.5°	175.3	165.8	157.6	160.3	156.3	157.6	153.5	153.5	154.9	153.5	153.5
80°	129.1	122.3	122.3	119.6	114.1	116.8	116.8	112.8	111.4	114.1	110.1
82.5°	85.6	84.2	81.5	80.2	77.4	78.8	77.4	76.1	74.7	77.4	74.7
85°	50.3	50.3	48.9	46.2	48.9	47.6	46.2	46.2	44.8	44.8	44.8
87.5°	25.8	23.1	23.1	21.7	23.1	20.4	21.7	20.4	19.0	20.4	19.0
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: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1502.7	1506.8	1495.9	1493.2	1493.2	1498.6	1494.6	1457.9	1464.7	1456.5	1453.8
5°	1668.5	1660.3	1649.5	1644.0	1637.2	1618.2	1616.9	1574.7	1566.6	1539.4	1527.2
7.5°	1850.5	1843.8	1811.1	1807.1	1804.4	1786.7	1741.9	1697.0	1664.4	1633.2	1603.3
10°	2058.4	2038.1	2023.1	1993.2	1978.3	1953.8	1895.4	1853.3	1797.6	1750.0	1687.5
12.5°	2308.4	2285.3	2235.1	2213.3	2194.3	2126.4	2067.9	2020.4	1911.7	1879.1	1801.6
15°	2491.9	2442.9	2437.5	2390.0	2387.2	2312.5	2201.1	2149.5	2065.2	1945.7	1865.5
17.5°	2690.2	2646.7	2612.8	2555.7	2547.6	2476.9	2395.4	2269.0	2176.6	2062.5	1960.6
20°	2835.6	2812.5	2754.1	2731.0	2683.4	2623.6	2539.4	2383.2	2270.4	2156.3	2031.3
22.5°	2951.1	2928.0	2881.8	2850.6	2823.4	2745.9	2645.4	2512.2	2357.3	2207.9	2078.8
25°	2949.7	2942.9	2923.9	2909.0	2888.6	2831.5	2747.3	2619.6	2447.0	2282.6	2103.3
27.5°	2782.6	2801.6	2834.2	2850.6	2846.5	2838.3	2790.8	2683.4	2528.5	2332.9	2131.8
30°	2434.8	2504.1	2565.2	2646.7	2671.2	2731.0	2758.2	2697.0	2573.4	2391.3	2168.5
32.5°	2019.0	2119.6	2252.7	2297.6	2375.0	2490.5	2619.6	2642.7	2565.2	2425.3	2191.6
35°	1656.3	1739.1	1842.4	1913.0	1982.3	2169.8	2332.9	2474.2	2500.0	2407.6	2186.1
37.5°	1370.9	1429.4	1520.4	1580.2	1644.0	1804.4	2032.6	2216.0	2345.1	2347.8	2171.2
40°	1164.4	1190.2	1269.0	1312.5	1373.6	1512.2	1716.0	1955.2	2144.0	2231.0	2131.8
42.5°	986.4	1020.4	1085.6	1118.2	1157.6	1278.5	1413.0	1640.0	1873.6	2059.8	2058.4
45°	880.4	904.9	934.8	962.0	1006.8	1078.8	1232.3	1402.2	1626.4	1837.0	1919.8
47.5°	786.7	809.8	839.7	847.8	877.7	945.7	1039.4	1187.5	1396.7	1606.0	1762.2
50°	707.9	726.9	747.3	762.2	775.8	831.5	902.2	1027.2	1194.3	1396.7	1591.0
52.5°	646.7	660.3	678.0	686.1	698.4	739.1	793.5	885.9	1023.1	1207.9	1396.7
55°	589.7	599.2	610.1	623.6	629.1	659.0	701.1	779.9	881.8	1047.6	1226.9
57.5°	536.7	540.8	547.6	555.7	562.5	588.3	625.0	678.0	767.7	895.4	1065.2
60°	476.9	487.8	491.8	500.0	504.1	524.5	553.0	597.8	667.1	777.2	904.9
62.5°	426.6	433.4	440.2	444.3	453.8	460.6	483.7	524.5	581.5	663.0	778.5
65°	381.8	384.5	388.6	392.7	395.4	403.5	425.3	452.4	495.9	567.9	657.6
67.5°	330.2	332.9	338.3	339.7	342.4	353.3	365.5	388.6	425.3	479.6	553.0
70°	279.9	284.0	286.7	289.4	293.5	297.6	311.1	330.2	358.7	396.7	453.8
72.5°	236.4	240.5	240.5	243.2	241.8	247.3	260.9	274.5	293.5	324.7	375.0
75°	192.9	192.9	195.7	197.0	198.4	203.8	209.2	220.1	235.1	259.5	290.8
77.5°	152.2	150.8	153.5	153.5	153.5	157.6	163.0	168.5	178.0	195.7	220.1
80°	111.4	111.4	114.1	115.5	112.8	114.1	116.8	122.3	129.1	141.3	154.9
82.5°	73.4	78.8	77.4	78.8	77.4	80.2	81.5	82.9	85.6	91.0	100.5
85°	44.8	44.8	44.8	46.2	44.8	46.2	46.2	46.2	47.6	50.3	54.3
87.5°	19.0	19.0	19.0	20.4	19.0	19.0	20.4	19.0	20.4	20.4	21.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1440.2	1436.1	1436.1	1433.4	1425.3	1410.3	1409.0	1411.7	1403.5	1395.4	1383.2
5°	1510.9	1485.1	1476.9	1468.8	1452.5	1425.3	1414.4	1404.9	1390.0	1372.3	1353.3
7.5°	1570.7	1534.0	1523.1	1508.2	1475.5	1437.5	1413.0	1392.7	1372.3	1347.8	1324.7
10°	1645.4	1592.4	1566.6	1544.8	1500.0	1447.0	1410.3	1380.4	1347.8	1317.9	1288.0
12.5°	1729.6	1644.0	1635.9	1582.9	1531.3	1452.5	1407.6	1364.1	1320.7	1284.0	1252.7
15°	1800.3	1706.5	1672.6	1637.2	1538.0	1440.2	1396.7	1347.8	1297.6	1258.2	1212.0
17.5°	1845.1	1767.7	1695.7	1648.1	1544.8	1457.9	1373.6	1317.9	1264.9	1210.6	1172.6
20°	1899.5	1786.7	1724.2	1660.3	1558.4	1444.3	1360.1	1290.8	1225.5	1176.6	1130.4
22.5°	1953.8	1801.6	1750.0	1680.7	1561.1	1430.7	1335.6	1266.3	1191.6	1142.7	1092.4
25°	1948.4	1823.4	1737.8	1679.4	1534.0	1418.5	1307.1	1225.5	1156.3	1093.8	1043.5
27.5°	1952.5	1798.9	1712.0	1644.0	1515.0	1400.8	1277.2	1191.6	1119.6	1054.4	1001.4
30°	1953.8	1762.2	1686.1	1604.6	1479.6	1358.7	1243.2	1156.3	1080.2	1009.5	962.0
32.5°	1949.7	1732.3	1637.2	1563.9	1423.9	1317.9	1203.8	1111.4	1034.0	968.8	923.9
35°	1940.2	1697.0	1587.0	1494.6	1366.9	1259.5	1167.1	1072.0	989.1	929.4	877.7
37.5°	1914.4	1659.0	1534.0	1442.9	1300.3	1191.6	1110.1	1031.3	951.1	880.4	837.0
40°	1895.4	1607.3	1481.0	1381.8	1228.3	1122.3	1054.4	979.6	900.8	837.0	794.8
42.5°	1851.9	1558.4	1426.6	1308.4	1157.6	1048.9	985.1	925.3	857.3	794.8	756.8
45°	1781.3	1505.4	1360.1	1240.5	1080.2	976.9	918.5	869.6	809.8	750.0	712.0
47.5°	1682.1	1429.4	1289.4	1169.8	1004.1	899.5	841.0	804.4	756.8	706.5	673.9
50°	1574.7	1346.5	1217.4	1099.2	930.7	828.8	771.7	737.8	706.5	660.3	629.1
52.5°	1434.8	1258.2	1134.5	1021.7	851.9	754.1	703.8	679.4	646.7	614.1	587.0
55°	1298.9	1144.0	1042.1	934.8	774.5	683.4	634.5	608.7	589.7	562.5	540.8
57.5°	1141.3	1038.0	944.3	846.5	702.4	619.6	573.4	542.1	529.9	517.7	497.3
60°	995.9	917.1	841.0	759.5	627.7	553.0	508.2	483.7	471.5	463.3	449.7
62.5°	862.8	801.6	736.4	671.2	551.6	483.7	449.7	425.3	414.4	413.0	400.8
65°	735.1	691.6	638.6	574.7	481.0	421.2	388.6	373.6	361.4	361.4	351.9
67.5°	607.3	577.4	535.3	490.5	417.1	361.4	331.5	317.9	311.1	311.1	304.3
70°	505.4	485.1	447.0	407.6	343.8	301.6	278.5	266.3	262.2	263.6	258.2
72.5°	410.3	388.6	357.3	328.8	281.3	250.0	233.7	220.1	213.3	214.7	213.3
75°	317.9	307.1	279.9	258.2	220.1	198.4	183.4	176.6	171.2	172.6	169.8
77.5°	239.1	222.8	207.9	192.9	169.8	152.2	139.9	133.2	129.1	129.1	129.1
80°	163.0	160.3	148.1	139.9	120.9	107.3	97.8	96.5	92.4	92.4	92.4
82.5°	106.0	99.2	92.4	87.0	76.1	67.9	63.9	61.1	59.8	58.4	61.1
85°	58.4	54.3	51.6	46.2	42.1	38.0	34.0	32.6	31.3	32.6	31.3
87.5°	23.1	19.0	19.0	17.7	16.3	14.9	14.9	12.2	12.2	10.9	10.9
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: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1380.4	1379.1	1381.8	1373.6	1360.1	1353.3	1334.2	1330.2	1328.8	1330.2	1331.5
5°	1342.4	1341.0	1337.0	1323.4	1307.1	1294.8	1271.7	1270.4	1262.2	1254.1	1258.2
7.5°	1305.7	1300.3	1292.1	1274.5	1252.7	1239.1	1220.1	1206.5	1195.7	1188.9	1183.4
10°	1269.0	1260.9	1252.7	1229.6	1202.4	1182.1	1159.0	1148.1	1135.9	1130.4	1125.0
12.5°	1221.5	1213.3	1198.4	1171.2	1154.9	1129.1	1106.0	1095.1	1088.3	1077.4	1070.7
15°	1183.4	1167.1	1159.0	1130.4	1096.5	1093.8	1051.6	1048.9	1035.3	1035.3	1024.5
17.5°	1139.9	1127.7	1112.8	1084.2	1059.8	1035.3	1013.6	1005.4	993.2	990.5	985.1
20°	1097.8	1081.5	1076.1	1047.6	1021.7	991.9	968.8	960.6	955.2	949.7	953.8
22.5°	1054.4	1040.8	1027.2	1001.4	982.3	952.4	938.9	930.7	922.6	919.8	921.2
25°	1012.2	1000.0	986.4	960.6	940.2	915.8	903.5	899.5	895.4	895.4	894.0
27.5°	971.5	959.2	947.0	923.9	903.5	885.9	876.4	872.3	868.2	870.9	873.6
30°	929.4	918.5	907.6	887.2	870.9	854.6	849.2	846.5	845.1	851.9	851.9
32.5°	891.3	881.8	873.6	854.6	838.3	824.7	820.7	822.0	823.4	827.4	830.2
35°	851.9	845.1	837.0	820.7	807.1	794.8	796.2	796.2	798.9	805.7	811.1
37.5°	816.6	807.1	800.3	786.7	775.8	764.9	769.0	773.1	775.8	784.0	786.7
40°	774.5	770.4	764.9	751.4	741.9	740.5	741.9	744.6	750.0	754.1	758.2
42.5°	740.5	735.1	728.3	717.4	709.2	710.6	712.0	714.7	717.4	724.2	728.3
45°	702.4	698.4	692.9	683.4	676.6	678.0	679.4	679.4	682.1	690.2	692.9
47.5°	660.3	661.7	654.9	645.4	641.3	641.3	641.3	644.0	650.8	653.5	654.9
50°	619.6	616.8	615.5	606.0	603.3	601.9	603.3	604.6	614.1	612.8	616.8
52.5°	576.1	576.1	574.7	569.3	565.2	565.2	562.5	569.3	572.0	574.7	578.8
55°	534.0	529.9	528.5	525.8	520.4	519.0	521.7	529.9	532.6	535.3	539.4
57.5°	487.8	487.8	485.1	481.0	481.0	481.0	481.0	486.4	490.5	493.2	501.4
60°	445.7	440.2	436.1	436.1	436.1	434.8	442.9	442.9	451.1	452.4	455.2
62.5°	395.4	392.7	389.9	391.3	389.9	392.7	395.4	400.8	402.2	406.3	410.3
65°	347.8	347.8	345.1	353.3	347.8	347.8	354.6	354.6	357.3	361.4	366.8
67.5°	301.6	303.0	300.3	300.3	303.0	304.3	305.7	311.1	312.5	317.9	324.7
70°	254.1	256.8	258.2	255.4	258.2	260.9	263.6	264.9	270.4	273.1	277.2
72.5°	212.0	214.7	210.6	212.0	213.3	216.0	217.4	220.1	222.8	231.0	233.7
75°	169.8	168.5	167.1	172.6	169.8	175.3	176.6	176.6	179.3	186.1	188.9
77.5°	130.4	130.4	131.8	129.1	133.2	131.8	133.2	137.2	141.3	141.3	152.2
80°	91.0	93.8	93.8	93.8	95.1	96.5	93.8	100.5	101.9	101.9	106.0
82.5°	58.4	59.8	58.4	61.1	61.1	63.9	62.5	63.9	66.6	69.3	70.7
85°	31.3	31.3	34.0	34.0	32.6	34.0	32.6	34.0	36.7	36.7	38.0
87.5°	10.9	10.9	10.9	10.9	12.2	10.9	12.2	12.2	10.9	10.9	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: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1330.2	1331.5	1326.1	1322.0	1332.9	1326.1	1326.1	1327.5	1324.7	1328.8	1327.5
5°	1255.4	1256.8	1247.3	1250.0	1244.6	1243.2	1241.9	1250.0	1248.6	1247.3	1250.0
7.5°	1182.1	1182.1	1178.0	1175.3	1175.3	1171.2	1176.6	1175.3	1178.0	1178.0	1182.1
10°	1120.9	1123.6	1116.9	1110.1	1108.7	1110.1	1110.1	1111.4	1112.8	1122.3	1120.9
12.5°	1070.7	1066.6	1065.2	1061.1	1054.4	1051.6	1048.9	1063.9	1059.8	1059.8	1059.8
15°	1014.9	1024.5	1023.1	1010.9	1008.2	1013.6	1010.9	1010.9	1024.5	1023.1	1021.7
17.5°	985.1	982.3	979.6	972.8	974.2	972.8	974.2	974.2	982.3	982.3	982.3
20°	951.1	945.7	945.7	942.9	942.9	938.9	944.3	945.7	951.1	951.1	952.4
22.5°	921.2	917.1	917.1	915.8	918.5	913.0	918.5	919.8	919.8	923.9	923.9
25°	895.4	892.7	892.7	895.4	895.4	895.4	895.4	900.8	896.7	898.1	896.7
27.5°	872.3	873.6	875.0	876.4	875.0	876.4	877.7	880.4	881.8	880.4	877.7
30°	850.5	854.6	856.0	856.0	858.7	860.1	861.4	861.4	862.8	858.7	861.4
32.5°	834.2	834.2	837.0	838.3	841.0	842.4	842.4	845.1	843.8	839.7	841.0
35°	811.1	811.1	816.6	819.3	823.4	822.0	823.4	823.4	824.7	822.0	817.9
37.5°	788.0	790.8	790.8	796.2	797.6	798.9	797.6	800.3	798.9	796.2	794.8
40°	760.9	759.5	760.9	764.9	766.3	766.3	766.3	769.0	769.0	769.0	767.7
42.5°	726.9	731.0	729.6	733.7	732.3	732.3	735.1	737.8	739.1	735.1	736.4
45°	694.3	694.3	697.0	697.0	698.4	698.4	703.8	701.1	703.8	701.1	702.4
47.5°	659.0	660.3	660.3	661.7	664.4	667.1	664.4	665.8	665.8	667.1	664.4
50°	619.6	619.6	622.3	626.4	631.8	629.1	627.7	633.2	629.1	629.1	626.4
52.5°	578.8	582.9	584.2	588.3	592.4	593.8	595.1	592.4	593.8	589.7	591.0
55°	539.4	540.8	546.2	550.3	554.3	554.3	553.0	554.3	555.7	550.3	550.3
57.5°	500.0	504.1	509.5	509.5	514.9	514.9	513.6	513.6	514.9	510.9	509.5
60°	457.9	462.0	468.8	468.8	476.9	478.3	475.5	472.8	472.8	468.8	470.1
62.5°	413.0	417.1	421.2	428.0	433.4	430.7	436.1	430.7	432.1	423.9	423.9
65°	373.6	375.0	381.8	388.6	388.6	391.3	388.6	389.9	385.9	385.9	380.4
67.5°	327.4	327.4	334.2	341.0	347.8	347.8	347.8	343.8	343.8	339.7	339.7
70°	286.7	285.3	292.1	296.2	300.3	301.6	298.9	297.6	294.8	290.8	289.4
72.5°	236.4	239.1	245.9	248.6	255.4	254.1	260.9	252.7	252.7	245.9	244.6
75°	191.6	194.3	201.1	205.2	209.2	209.2	213.3	209.2	203.8	201.1	199.7
77.5°	152.2	150.8	156.3	163.0	164.4	163.0	165.8	164.4	159.0	159.0	156.3
80°	108.7	112.8	118.2	116.8	122.3	120.9	120.9	118.2	118.2	114.1	116.8
82.5°	72.0	76.1	77.4	76.1	77.4	80.2	81.5	80.2	80.2	77.4	78.8
85°	38.0	38.0	40.8	42.1	40.8	40.8	42.1	46.2	43.5	40.8	43.5
87.5°	12.2	10.9	10.9	12.2	10.9	10.9	12.2	12.2	13.6	13.6	13.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1331.5	1334.2	1335.6	1330.2	1326.1	1332.9	1342.4	1349.2	1354.6	1361.4	1365.5
5°	1252.7	1262.2	1262.2	1264.9	1269.0	1275.8	1293.5	1305.7	1316.6	1324.7	1331.5
7.5°	1186.1	1192.9	1197.0	1203.8	1210.6	1220.1	1240.5	1258.2	1274.5	1284.0	1294.8
10°	1126.4	1131.8	1138.6	1142.7	1154.9	1168.5	1194.3	1209.2	1228.3	1243.2	1256.8
12.5°	1069.3	1088.3	1092.4	1091.0	1101.9	1116.9	1142.7	1165.8	1186.1	1201.1	1216.0
15°	1028.5	1035.3	1043.5	1042.1	1065.2	1069.3	1091.0	1118.2	1145.4	1154.9	1168.5
17.5°	983.7	994.6	1002.7	1006.8	1013.6	1028.5	1048.9	1069.3	1104.6	1106.0	1141.3
20°	948.4	959.2	964.7	970.1	974.2	991.9	1009.5	1032.6	1061.1	1076.1	1095.1
22.5°	925.3	930.7	934.8	938.9	944.3	953.8	975.5	1001.4	1020.4	1036.7	1048.9
25°	898.1	903.5	909.0	911.7	915.8	921.2	937.5	957.9	985.1	995.9	1008.2
27.5°	879.1	879.1	881.8	881.8	887.2	892.7	904.9	923.9	945.7	959.2	975.5
30°	858.7	857.3	858.7	857.3	856.0	864.1	875.0	891.3	906.3	922.6	933.4
32.5°	838.3	837.0	837.0	838.3	832.9	837.0	842.4	857.3	873.6	881.8	894.0
35°	816.6	813.9	813.9	813.9	811.1	808.4	813.9	827.4	838.3	849.2	858.7
37.5°	794.8	790.8	790.8	788.0	785.3	781.3	781.3	792.1	807.1	811.1	823.4
40°	764.9	764.9	762.2	760.9	758.2	755.4	751.4	760.9	774.5	778.5	788.0
42.5°	735.1	731.0	729.6	729.6	729.6	725.5	722.8	729.6	737.8	744.6	750.0
45°	701.1	698.4	699.7	698.4	695.7	694.3	692.9	695.7	705.2	707.9	714.7
47.5°	664.4	663.0	663.0	661.7	660.3	661.7	656.3	663.0	665.8	668.5	673.9
50°	626.4	625.0	623.6	622.3	622.3	623.6	622.3	622.3	627.7	630.4	635.9
52.5°	588.3	584.2	584.2	582.9	582.9	580.2	582.9	584.2	587.0	589.7	592.4
55°	547.6	547.6	543.5	543.5	540.8	540.8	542.1	540.8	546.2	548.9	548.9
57.5°	508.2	502.7	504.1	501.4	498.6	497.3	497.3	500.0	502.7	502.7	505.4
60°	466.0	460.6	459.2	453.8	456.5	452.4	453.8	453.8	459.2	456.5	459.2
62.5°	423.9	417.1	413.0	410.3	410.3	411.7	409.0	407.6	410.3	413.0	418.5
65°	379.1	375.0	370.9	366.8	366.8	365.5	368.2	364.1	362.8	364.1	366.8
67.5°	332.9	328.8	324.7	320.7	322.0	317.9	315.2	319.3	316.6	317.9	320.7
70°	288.0	285.3	277.2	274.5	273.1	274.5	273.1	270.4	274.5	273.1	274.5
72.5°	243.2	240.5	236.4	229.6	229.6	228.3	226.9	226.9	225.5	225.5	225.5
75°	199.7	194.3	190.2	188.9	186.1	184.8	183.4	180.7	182.1	183.4	180.7
77.5°	154.9	148.1	146.7	146.7	142.7	142.7	144.0	142.7	141.3	141.3	141.3
80°	114.1	108.7	108.7	106.0	103.3	103.3	103.3	103.3	101.9	100.5	101.9
82.5°	73.4	72.0	70.7	70.7	73.4	67.9	70.7	69.3	67.9	67.9	66.6
85°	40.8	42.1	40.8	42.1	39.4	40.8	40.8	40.8	39.4	40.8	38.0
87.5°	14.9	14.9	14.9	16.3	16.3	16.3	16.3	16.3	17.7	16.3	16.3
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: P992324

CATALOG NUMBER: S123DR-B1000DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1402.2	1402.2	1402.2	1402.2
2.5°	1372.3	1376.4	1390.0	1406.3
5°	1345.1	1356.0	1375.0	1400.8
7.5°	1315.2	1331.5	1358.7	1391.3
10°	1281.3	1304.4	1338.3	1379.1
12.5°	1244.6	1274.5	1317.9	1360.1
15°	1221.5	1251.4	1290.8	1337.0
17.5°	1176.6	1212.0	1252.7	1317.9
20°	1130.4	1169.8	1222.8	1288.0
22.5°	1095.1	1137.2	1187.5	1256.8
25°	1053.0	1096.5	1150.8	1222.8
27.5°	1008.2	1051.6	1112.8	1188.9
30°	974.2	1016.3	1074.7	1156.3
32.5°	933.4	974.2	1035.3	1120.9
35°	887.2	933.4	991.9	1078.8
37.5°	851.9	894.0	955.2	1038.0
40°	813.9	850.5	910.3	991.9
42.5°	773.1	813.9	865.5	947.0
45°	735.1	764.9	817.9	895.4
47.5°	694.3	728.3	769.0	828.8
50°	650.8	679.4	724.2	764.9
52.5°	608.7	631.8	669.8	701.1
55°	563.9	587.0	615.5	634.5
57.5°	521.7	538.0	557.1	569.3
60°	470.1	486.4	498.6	510.9
62.5°	423.9	436.1	442.9	449.7
65°	376.4	383.2	387.2	392.7
67.5°	324.7	331.5	332.9	341.0
70°	277.2	278.5	281.3	285.3
72.5°	232.3	235.1	233.7	236.4
75°	186.1	188.9	186.1	188.9
77.5°	141.3	144.0	144.0	148.1
80°	101.9	103.3	104.6	104.6
82.5°	66.6	70.7	67.9	69.3
85°	38.0	39.4	39.4	40.8
87.5°	17.7	19.0	17.7	20.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)