

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: P1037262

Luminaire Tested: S123DS-B1165DB2750-4F0-XX-W2A-A_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037262
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-B1165DB2750-4F0-XX-W2A-A_2700K
Description: Define 3 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

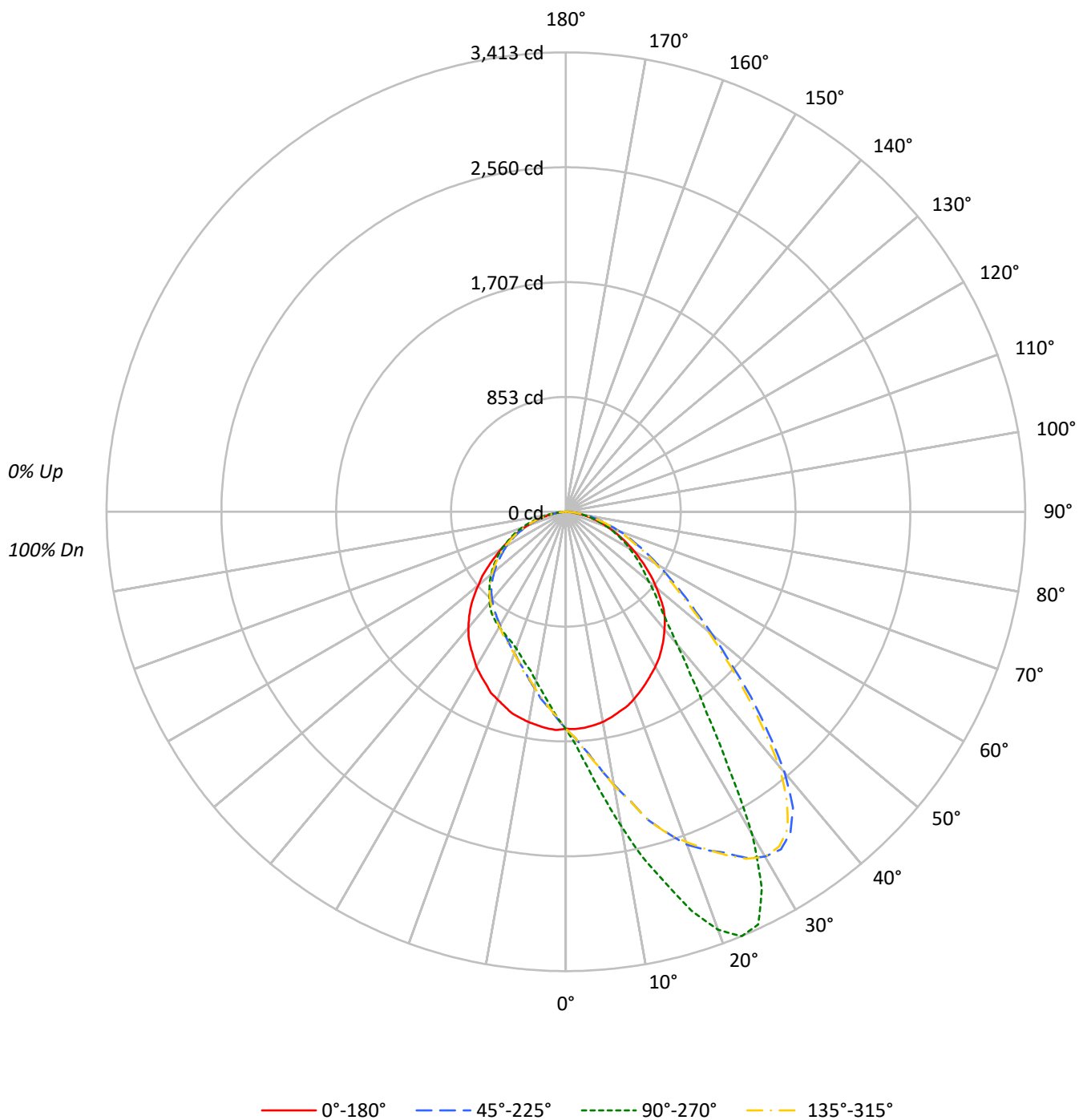
Lumens per Lamp: N/A
Luminaire Lumens: 4865.0 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.5
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
Input Voltage (V): 120
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°	17350	17350	17350	17350
5°	17399	20691	17450	15443
10°	17328	25897	17345	13948
15°	17127	31765	17266	12985
20°	16961	37841	16997	12363
25°	16695	40180	16733	12225
30°	16521	34440	16521	12289
35°	16297	23952	16194	12418
40°	16021	18040	15823	12378
45°	15668	14979	15216	12221
50°	14726	13418	14202	12110
55°	13688	12545	13131	11960
60°	12643	11769	11969	11836
65°	11497	11059	10939	11456
70°	10323	10373	9633	10911
75°	9029	9291	8447	10002
80°	7457	8133	6874	8616
85°	5792	6360	4631	5792

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 34975 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	3.3
10°-20°	509.2	10.5
20°-30°	856.7	17.6
30°-40°	968.2	19.9
40°-50°	867.2	17.8
50°-60°	700.0	14.4
60°-70°	487.8	10.0
70°-80°	256.0	5.3
80°-90°	61.4	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°	1524.4	31.3
0°-40°	2492.6	51.2
0°-60°	4059.8	83.4
0°-90°	4865.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4865.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1612	1612	1612	1612	1612	
5°	1610	1915	1615	1429	1610	153
15°	1537	2850	1549	1165	1537	434
25°	1406	3383	1409	1029	1406	648
35°	1240	1823	1232	945	1240	776
45°	1029	984	1000	803	1029	787
55°	729	668	700	637	729	653
65°	451	434	430	450	451	450
75°	217	223	203	240	217	233
85°	47	52	38	47	47	57
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°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1616.6	1629.1	1635.3	1644.7	1654.1	1668.1	1672.8	1680.6	1677.5	1683.8	1686.9
5°	1610.3	1632.2	1651.0	1674.4	1696.3	1711.9	1727.5	1752.5	1771.2	1774.3	1788.4
7.5°	1599.4	1630.7	1663.5	1696.3	1738.4	1763.4	1791.5	1825.9	1854.0	1899.3	1916.5
10°	1585.4	1629.1	1675.9	1721.2	1779.0	1818.1	1852.4	1910.2	1968.0	2014.9	2058.6
12.5°	1563.5	1618.2	1679.1	1746.2	1821.2	1866.5	1913.4	1989.9	2077.4	2149.2	2196.1
15°	1536.9	1605.7	1683.8	1755.6	1838.4	1922.7	1972.7	2058.6	2183.6	2250.7	2371.0
17.5°	1515.1	1585.4	1663.5	1775.9	1888.4	1972.7	2008.6	2166.4	2252.3	2364.8	2500.6
20°	1480.7	1569.7	1669.7	1782.2	1927.4	1979.0	2052.4	2211.7	2317.9	2464.7	2631.8
22.5°	1444.8	1540.1	1660.3	1777.5	1939.9	1994.6	2094.5	2221.1	2389.7	2535.0	2719.3
25°	1405.7	1508.8	1630.7	1769.7	1929.0	2008.6	2102.4	2258.5	2441.3	2624.0	2794.3
27.5°	1366.7	1479.1	1605.7	1744.7	1899.3	1993.0	2086.7	2249.2	2483.5	2681.8	2898.9
30°	1329.2	1441.7	1568.2	1710.3	1872.8	1963.3	2052.4	2255.4	2516.3	2739.6	2958.3
32.5°	1288.6	1404.2	1536.9	1655.6	1819.6	1916.5	2016.4	2255.4	2536.6	2774.0	2973.9
35°	1240.2	1358.9	1472.9	1591.6	1754.0	1861.8	1974.3	2239.8	2555.3	2784.9	2908.3
37.5°	1193.3	1298.0	1396.4	1511.9	1682.2	1797.8	1927.4	2221.1	2545.9	2738.1	2772.4
40°	1140.2	1244.9	1324.5	1432.3	1611.9	1746.2	1877.4	2196.1	2505.3	2627.2	2527.2
42.5°	1088.7	1171.4	1240.2	1344.8	1540.1	1671.3	1813.4	2150.8	2425.7	2450.7	2225.7
45°	1029.3	1088.7	1149.6	1268.3	1462.0	1596.3	1754.0	2085.2	2297.6	2225.7	1941.5
47.5°	952.8	1005.9	1073.0	1182.4	1379.2	1518.2	1668.1	2000.8	2111.7	1961.8	1651.0
50°	879.4	924.7	987.1	1093.3	1291.7	1427.6	1586.9	1868.1	1922.7	1686.9	1422.9
52.5°	806.0	840.3	901.2	1007.4	1205.8	1337.0	1482.3	1732.2	1700.9	1447.9	1213.6
55°	729.4	759.1	816.9	921.5	1105.8	1230.8	1369.8	1565.1	1483.8	1243.3	1055.9
57.5°	654.4	685.7	745.0	832.5	1005.9	1127.7	1238.6	1391.7	1269.8	1077.7	912.2
60°	587.3	613.8	659.1	745.0	902.8	1001.2	1102.7	1207.4	1105.8	920.0	793.5
62.5°	517.0	542.0	584.2	662.3	798.1	885.6	966.8	1052.7	940.3	804.4	691.9
65°	451.4	471.7	510.8	582.6	693.5	765.3	830.9	890.3	799.7	674.8	590.4
67.5°	392.0	409.2	442.0	506.1	599.8	651.3	704.4	754.4	677.9	577.9	506.1
70°	328.0	342.1	371.7	418.6	493.6	546.7	585.7	623.2	554.5	474.8	426.4
72.5°	271.8	285.8	304.6	353.0	404.5	437.3	479.5	499.8	460.8	395.2	346.7
75°	217.1	228.0	245.2	276.5	324.9	346.7	373.3	388.9	353.0	309.3	279.6
77.5°	170.3	174.9	187.4	209.3	242.1	267.1	287.4	296.8	271.8	243.7	218.7
80°	120.3	126.5	135.9	154.6	179.6	187.4	199.9	210.9	195.2	170.3	154.6
82.5°	79.7	87.5	92.2	100.0	115.6	125.0	128.1	137.4	123.4	114.0	107.8
85°	46.9	50.0	51.5	56.2	64.0	68.7	73.4	75.0	71.8	70.3	64.0
87.5°	23.4	23.4	23.4	26.6	28.1	31.2	32.8	32.8	32.8	31.2	29.7
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°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1697.8	1700.9	1711.9	1719.7	1735.3	1733.7	1733.7	1732.2	1727.5	1735.3	1740.0
5°	1816.5	1843.1	1846.2	1880.6	1882.1	1896.2	1905.6	1897.7	1916.5	1914.9	1900.9
7.5°	1963.3	1999.3	2016.4	2049.2	2086.7	2077.4	2113.3	2119.5	2116.4	2132.0	2143.0
10°	2124.2	2186.7	2230.4	2291.3	2307.0	2316.3	2339.8	2360.1	2400.7	2369.4	2389.7
12.5°	2308.5	2353.8	2411.6	2508.5	2556.9	2588.1	2599.0	2613.1	2641.2	2624.0	2625.6
15°	2463.2	2524.1	2622.5	2742.7	2756.8	2795.8	2786.5	2870.8	2911.4	2850.5	2884.9
17.5°	2624.0	2705.3	2822.4	2927.1	2986.4	3013.0	3037.9	3119.2	3116.0	3106.7	3114.5
20°	2727.1	2859.9	3005.1	3144.2	3161.3	3181.6	3248.8	3283.2	3276.9	3303.5	3320.7
22.5°	2872.4	3013.0	3167.6	3259.7	3298.8	3322.2	3375.3	3397.2	3406.6	3412.8	3401.9
25°	2994.2	3144.2	3258.2	3339.4	3362.8	3375.3	3392.5	3398.8	3394.1	3383.1	3392.5
27.5°	3077.0	3197.3	3275.4	3312.8	3300.4	3280.0	3247.2	3225.4	3177.0	3153.5	3181.6
30°	3111.4	3164.5	3187.9	3125.4	3062.9	3013.0	2950.5	2834.9	2744.3	2770.9	2734.9
32.5°	3056.7	3022.3	2909.9	2749.0	2700.6	2619.4	2442.9	2307.0	2311.7	2239.8	2269.5
35°	2895.8	2739.6	2527.2	2283.5	2219.5	2175.8	1982.1	1952.4	1889.9	1822.8	1841.5
37.5°	2611.5	2383.5	2125.8	1946.2	1850.9	1755.6	1646.3	1580.7	1543.2	1515.1	1536.9
40°	2264.8	1986.8	1774.3	1613.5	1532.3	1471.3	1396.4	1330.8	1288.6	1283.9	1291.7
42.5°	1924.3	1690.0	1494.8	1341.7	1315.1	1243.3	1194.9	1143.3	1130.8	1110.5	1121.5
45°	1629.1	1438.5	1277.7	1152.7	1121.5	1102.7	1043.4	1010.6	996.5	984.0	1002.8
47.5°	1415.1	1215.2	1098.0	1023.1	991.8	960.6	927.8	905.9	895.0	896.5	895.0
50°	1208.9	1062.1	959.0	901.2	882.5	860.6	834.1	820.0	815.3	801.3	812.2
52.5°	1040.2	934.0	862.2	807.5	793.5	777.8	756.0	748.2	737.2	734.1	734.1
55°	904.4	821.6	763.8	727.9	710.7	698.2	685.7	676.3	668.5	668.5	668.5
57.5°	798.1	726.3	684.1	652.9	646.6	634.1	620.1	620.1	609.2	607.6	612.3
60°	707.6	643.5	610.7	584.2	574.8	571.7	557.6	557.6	554.5	546.7	552.9
62.5°	615.4	568.5	540.4	520.1	510.8	510.8	499.8	492.0	492.0	493.6	490.4
65°	531.1	496.7	471.7	456.1	451.4	445.1	443.6	437.3	432.7	434.2	432.7
67.5°	456.1	429.5	412.3	399.9	392.0	388.9	384.2	384.2	381.1	382.7	374.9
70°	388.9	362.4	348.3	335.8	332.7	332.7	326.4	328.0	324.9	329.6	326.4
72.5°	320.2	299.9	289.0	284.3	281.1	279.6	276.5	273.3	271.8	274.9	273.3
75°	259.3	242.1	234.3	231.2	228.0	228.0	226.5	224.9	223.4	223.4	223.4
77.5°	201.5	190.6	181.2	184.3	179.6	181.2	176.5	176.5	178.1	176.5	176.5
80°	148.4	140.6	140.6	137.4	131.2	134.3	134.3	129.6	128.1	131.2	126.5
82.5°	98.4	96.8	93.7	92.2	89.0	90.6	89.0	87.5	85.9	89.0	85.9
85°	57.8	57.8	56.2	53.1	56.2	54.7	53.1	53.1	51.5	51.5	51.5
87.5°	29.7	26.6	26.6	25.0	26.6	23.4	25.0	23.4	21.9	23.4	21.9
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°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1727.5	1732.2	1719.7	1716.6	1716.6	1722.8	1718.1	1675.9	1683.8	1674.4	1671.3
5°	1918.0	1908.7	1896.2	1889.9	1882.1	1860.3	1858.7	1810.3	1800.9	1769.7	1755.6
7.5°	2127.3	2119.5	2082.0	2077.4	2074.2	2053.9	2002.4	1950.8	1913.4	1877.4	1843.1
10°	2366.3	2342.9	2325.7	2291.3	2274.2	2246.1	2178.9	2130.5	2066.4	2011.8	1939.9
12.5°	2653.7	2627.2	2569.4	2544.4	2522.5	2444.4	2377.3	2322.6	2197.6	2160.1	2071.1
15°	2864.6	2808.3	2802.1	2747.4	2744.3	2658.4	2530.3	2471.0	2374.1	2236.7	2144.5
17.5°	3092.6	3042.6	3003.6	2938.0	2928.6	2847.4	2753.7	2608.4	2502.2	2371.0	2253.9
20°	3259.7	3233.2	3166.0	3139.5	3084.8	3016.1	2919.2	2739.6	2610.0	2478.8	2335.1
22.5°	3392.5	3366.0	3312.8	3276.9	3245.7	3156.7	3041.1	2888.0	2709.9	2538.1	2389.7
25°	3390.9	3383.1	3361.3	3344.1	3320.7	3255.1	3158.2	3011.4	2813.0	2624.0	2417.9
27.5°	3198.8	3220.7	3258.2	3276.9	3272.2	3262.9	3208.2	3084.8	2906.7	2681.8	2450.7
30°	2799.0	2878.6	2948.9	3042.6	3070.7	3139.5	3170.7	3100.4	2958.3	2749.0	2492.8
32.5°	2321.0	2436.6	2589.7	2641.2	2730.2	2863.0	3011.4	3037.9	2948.9	2788.0	2519.4
35°	1904.0	1999.3	2118.0	2199.2	2278.9	2494.4	2681.8	2844.3	2873.9	2767.7	2513.1
37.5°	1576.0	1643.1	1747.8	1816.5	1889.9	2074.2	2336.6	2547.5	2695.9	2699.0	2496.0
40°	1338.6	1368.2	1458.8	1508.8	1579.1	1738.4	1972.7	2247.6	2464.7	2564.7	2450.7
42.5°	1134.0	1173.0	1248.0	1285.5	1330.8	1469.8	1624.4	1885.2	2153.9	2367.9	2366.3
45°	1012.1	1040.2	1074.6	1105.8	1157.4	1240.2	1416.7	1611.9	1869.6	2111.7	2207.0
47.5°	904.4	930.9	965.3	974.6	1009.0	1087.1	1194.9	1365.1	1605.7	1846.2	2025.8
50°	813.8	835.6	859.1	876.2	891.9	955.9	1037.1	1180.8	1372.9	1605.7	1829.0
52.5°	743.5	759.1	779.4	788.8	802.8	849.7	912.2	1018.4	1176.1	1388.6	1605.7
55°	677.9	688.8	701.3	716.9	723.2	757.5	806.0	896.5	1013.7	1204.2	1410.4
57.5°	617.0	621.6	629.5	638.8	646.6	676.3	718.5	779.4	882.5	1029.3	1224.6
60°	548.2	560.7	565.4	574.8	579.5	602.9	635.7	687.2	766.9	893.4	1040.2
62.5°	490.4	498.3	506.1	510.8	521.7	529.5	556.0	602.9	668.5	762.2	895.0
65°	438.9	442.0	446.7	451.4	454.5	463.9	488.9	520.1	570.1	652.9	756.0
67.5°	379.5	382.7	388.9	390.5	393.6	406.1	420.2	446.7	488.9	551.4	635.7
70°	321.8	326.4	329.6	332.7	337.4	342.1	357.7	379.5	412.3	456.1	521.7
72.5°	271.8	276.5	276.5	279.6	278.0	284.3	299.9	315.5	337.4	373.3	431.1
75°	221.8	221.8	224.9	226.5	228.0	234.3	240.5	253.0	270.2	298.3	334.3
77.5°	174.9	173.4	176.5	176.5	176.5	181.2	187.4	193.7	204.6	224.9	253.0
80°	128.1	128.1	131.2	132.8	129.6	131.2	134.3	140.6	148.4	162.4	178.1
82.5°	84.3	90.6	89.0	90.6	89.0	92.2	93.7	95.3	98.4	104.6	115.6
85°	51.5	51.5	51.5	53.1	51.5	53.1	53.1	53.1	54.7	57.8	62.5
87.5°	21.9	21.9	21.9	23.4	21.9	21.9	23.4	21.9	23.4	23.4	25.0
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: P1037262

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1655.6	1651.0	1651.0	1647.8	1638.5	1621.3	1619.7	1622.8	1613.5	1604.1	1590.0
5°	1736.9	1707.2	1697.8	1688.4	1669.7	1638.5	1626.0	1615.0	1597.9	1577.5	1555.7
7.5°	1805.6	1763.4	1750.9	1733.7	1696.3	1652.5	1624.4	1601.0	1577.5	1549.4	1522.9
10°	1891.5	1830.6	1800.9	1775.9	1724.4	1663.5	1621.3	1586.9	1549.4	1515.1	1480.7
12.5°	1988.3	1889.9	1880.6	1819.6	1760.3	1669.7	1618.2	1568.2	1518.2	1476.0	1440.1
15°	2069.6	1961.8	1922.7	1882.1	1768.1	1655.6	1605.7	1549.4	1491.6	1446.3	1393.2
17.5°	2121.1	2032.1	1949.3	1894.6	1775.9	1675.9	1579.1	1515.1	1454.2	1391.7	1347.9
20°	2183.6	2053.9	1982.1	1908.7	1791.5	1660.3	1563.5	1483.8	1408.9	1352.6	1299.5
22.5°	2246.1	2071.1	2011.8	1932.1	1794.7	1644.7	1535.4	1455.7	1369.8	1313.6	1255.8
25°	2239.8	2096.1	1997.7	1930.5	1763.4	1630.7	1502.6	1408.9	1329.2	1257.4	1199.6
27.5°	2244.5	2068.0	1968.0	1889.9	1741.5	1610.3	1468.2	1369.8	1287.0	1212.1	1151.1
30°	2246.1	2025.8	1938.4	1844.6	1700.9	1561.9	1429.2	1329.2	1241.7	1160.5	1105.8
32.5°	2241.4	1991.5	1882.1	1797.8	1636.9	1515.1	1383.9	1277.7	1188.6	1113.7	1062.1
35°	2230.4	1950.8	1824.3	1718.1	1571.3	1447.9	1341.7	1232.4	1137.1	1068.4	1009.0
37.5°	2200.8	1907.1	1763.4	1658.8	1494.8	1369.8	1276.1	1185.5	1093.3	1012.1	962.1
40°	2178.9	1847.8	1702.5	1588.5	1412.0	1290.2	1212.1	1126.1	1035.6	962.1	913.7
42.5°	2128.9	1791.5	1640.0	1504.1	1330.8	1205.8	1132.4	1063.7	985.6	913.7	870.0
45°	2047.7	1730.6	1563.5	1426.0	1241.7	1123.0	1055.9	999.6	930.9	862.2	818.4
47.5°	1933.7	1643.1	1482.3	1344.8	1154.3	1034.0	966.8	924.7	870.0	812.2	774.7
50°	1810.3	1547.9	1399.5	1263.6	1069.9	952.8	887.2	848.1	812.2	759.1	723.2
52.5°	1649.4	1446.3	1304.2	1174.6	979.3	866.9	809.1	781.0	743.5	706.0	674.8
55°	1493.2	1315.1	1198.0	1074.6	890.3	785.6	729.4	699.7	677.9	646.6	621.6
57.5°	1312.0	1193.3	1085.5	973.1	807.5	712.2	659.1	623.2	609.2	595.1	571.7
60°	1144.9	1054.3	966.8	873.1	721.6	635.7	584.2	556.0	542.0	532.6	517.0
62.5°	991.8	921.5	846.6	771.6	634.1	556.0	517.0	488.9	476.4	474.8	460.8
65°	845.0	795.0	734.1	660.7	552.9	484.2	446.7	429.5	415.5	415.5	404.5
67.5°	698.2	663.8	615.4	563.9	479.5	415.5	381.1	365.5	357.7	357.7	349.9
70°	581.0	557.6	513.9	468.6	395.2	346.7	320.2	306.1	301.5	303.0	296.8
72.5°	471.7	446.7	410.8	378.0	323.3	287.4	268.7	253.0	245.2	246.8	245.2
75°	365.5	353.0	321.8	296.8	253.0	228.0	210.9	203.1	196.8	198.4	195.2
77.5°	274.9	256.2	239.0	221.8	195.2	174.9	160.9	153.1	148.4	148.4	148.4
80°	187.4	184.3	170.3	160.9	139.0	123.4	112.5	110.9	106.2	106.2	106.2
82.5°	121.8	114.0	106.2	100.0	87.5	78.1	73.4	70.3	68.7	67.2	70.3
85°	67.2	62.5	59.4	53.1	48.4	43.7	39.0	37.5	35.9	37.5	35.9
87.5°	26.6	21.9	21.9	20.3	18.7	17.2	17.2	14.1	14.1	12.5	12.5
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: P1037262

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1586.9	1585.4	1588.5	1579.1	1563.5	1555.7	1533.8	1529.1	1527.6	1529.1	1530.7
5°	1543.2	1541.6	1536.9	1521.3	1502.6	1488.5	1462.0	1460.4	1451.0	1441.7	1446.3
7.5°	1501.0	1494.8	1485.4	1465.1	1440.1	1424.5	1402.6	1387.0	1374.5	1366.7	1360.4
10°	1458.8	1449.5	1440.1	1413.5	1382.3	1358.9	1332.3	1319.8	1305.8	1299.5	1293.3
12.5°	1404.2	1394.8	1377.6	1346.4	1327.6	1298.0	1271.4	1258.9	1251.1	1238.6	1230.8
15°	1360.4	1341.7	1332.3	1299.5	1260.5	1257.4	1208.9	1205.8	1190.2	1190.2	1177.7
17.5°	1310.5	1296.4	1279.2	1246.4	1218.3	1190.2	1165.2	1155.8	1141.8	1138.6	1132.4
20°	1262.0	1243.3	1237.0	1204.2	1174.6	1140.2	1113.7	1104.3	1098.0	1091.8	1096.5
22.5°	1212.1	1196.4	1180.8	1151.1	1129.3	1094.9	1079.3	1069.9	1060.5	1057.4	1059.0
25°	1163.6	1149.6	1134.0	1104.3	1080.9	1052.7	1038.7	1034.0	1029.3	1029.3	1027.7
27.5°	1116.8	1102.7	1088.7	1062.1	1038.7	1018.4	1007.4	1002.8	998.1	1001.2	1004.3
30°	1068.4	1055.9	1043.4	1019.9	1001.2	982.5	976.2	973.1	971.5	979.3	979.3
32.5°	1024.6	1013.7	1004.3	982.5	963.7	948.1	943.4	945.0	946.5	951.2	954.3
35°	979.3	971.5	962.1	943.4	927.8	913.7	915.3	915.3	918.4	926.2	932.5
37.5°	938.7	927.8	920.0	904.4	891.9	879.4	884.1	888.7	891.9	901.2	904.4
40°	890.3	885.6	879.4	863.7	852.8	851.3	852.8	855.9	862.2	866.9	871.6
42.5°	851.3	845.0	837.2	824.7	815.3	816.9	818.4	821.6	824.7	832.5	837.2
45°	807.5	802.8	796.6	785.6	777.8	779.4	781.0	781.0	784.1	793.5	796.6
47.5°	759.1	760.7	752.8	741.9	737.2	737.2	737.2	740.4	748.2	751.3	752.8
50°	712.2	709.1	707.6	696.6	693.5	691.9	693.5	695.1	706.0	704.4	709.1
52.5°	662.3	662.3	660.7	654.4	649.8	649.8	646.6	654.4	657.6	660.7	665.4
55°	613.8	609.2	607.6	604.5	598.2	596.7	599.8	609.2	612.3	615.4	620.1
57.5°	560.7	560.7	557.6	552.9	552.9	552.9	552.9	559.2	563.9	567.0	576.4
60°	512.3	506.1	501.4	501.4	501.4	499.8	509.2	509.2	518.6	520.1	523.2
62.5°	454.5	451.4	448.3	449.8	448.3	451.4	454.5	460.8	462.3	467.0	471.7
65°	399.9	399.9	396.7	406.1	399.9	399.9	407.7	407.7	410.8	415.5	421.7
67.5°	346.7	348.3	345.2	345.2	348.3	349.9	351.4	357.7	359.2	365.5	373.3
70°	292.1	295.2	296.8	293.6	296.8	299.9	303.0	304.6	310.8	313.9	318.6
72.5°	243.7	246.8	242.1	243.7	245.2	248.3	249.9	253.0	256.2	265.5	268.7
75°	195.2	193.7	192.1	198.4	195.2	201.5	203.1	203.1	206.2	214.0	217.1
77.5°	149.9	149.9	151.5	148.4	153.1	151.5	153.1	157.8	162.4	162.4	174.9
80°	104.6	107.8	107.8	107.8	109.3	110.9	107.8	115.6	117.1	117.1	121.8
82.5°	67.2	68.7	67.2	70.3	70.3	73.4	71.8	73.4	76.5	79.7	81.2
85°	35.9	35.9	39.0	39.0	37.5	39.0	37.5	39.0	42.2	42.2	43.7
87.5°	12.5	12.5	12.5	12.5	14.1	12.5	14.1	14.1	12.5	12.5	17.2
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: P1037262

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1529.1	1530.7	1524.4	1519.8	1532.3	1524.4	1524.4	1526.0	1522.9	1527.6	1526.0
5°	1443.2	1444.8	1433.8	1437.0	1430.7	1429.2	1427.6	1437.0	1435.4	1433.8	1437.0
7.5°	1358.9	1358.9	1354.2	1351.1	1351.1	1346.4	1352.6	1351.1	1354.2	1354.2	1358.9
10°	1288.6	1291.7	1283.9	1276.1	1274.5	1276.1	1276.1	1277.7	1279.2	1290.2	1288.6
12.5°	1230.8	1226.1	1224.6	1219.9	1212.1	1208.9	1205.8	1223.0	1218.3	1218.3	1218.3
15°	1166.8	1177.7	1176.1	1162.1	1159.0	1165.2	1162.1	1162.1	1177.7	1176.1	1174.6
17.5°	1132.4	1129.3	1126.1	1118.3	1119.9	1118.3	1119.9	1119.9	1129.3	1129.3	1129.3
20°	1093.3	1087.1	1087.1	1084.0	1084.0	1079.3	1085.5	1087.1	1093.3	1093.3	1094.9
22.5°	1059.0	1054.3	1054.3	1052.7	1055.9	1049.6	1055.9	1057.4	1057.4	1062.1	1062.1
25°	1029.3	1026.2	1026.2	1029.3	1029.3	1029.3	1029.3	1035.6	1030.9	1032.4	1030.9
27.5°	1002.8	1004.3	1005.9	1007.4	1005.9	1007.4	1009.0	1012.1	1013.7	1012.1	1009.0
30°	977.8	982.5	984.0	984.0	987.1	988.7	990.3	990.3	991.8	987.1	990.3
32.5°	959.0	959.0	962.1	963.7	966.8	968.4	968.4	971.5	970.0	965.3	966.8
35°	932.5	932.5	938.7	941.8	946.5	945.0	946.5	946.5	948.1	945.0	940.3
37.5°	905.9	909.0	909.0	915.3	916.9	918.4	916.9	920.0	918.4	915.3	913.7
40°	874.7	873.1	874.7	879.4	880.9	880.9	880.9	884.1	884.1	884.1	882.5
42.5°	835.6	840.3	838.8	843.4	841.9	841.9	845.0	848.1	849.7	845.0	846.6
45°	798.1	798.1	801.3	801.3	802.8	802.8	809.1	806.0	809.1	806.0	807.5
47.5°	757.5	759.1	759.1	760.7	763.8	766.9	763.8	765.3	765.3	766.9	763.8
50°	712.2	712.2	715.4	720.0	726.3	723.2	721.6	727.9	723.2	723.2	720.0
52.5°	665.4	670.1	671.6	676.3	681.0	682.6	684.1	681.0	682.6	677.9	679.4
55°	620.1	621.6	627.9	632.6	637.3	637.3	635.7	637.3	638.8	632.6	632.6
57.5°	574.8	579.5	585.7	585.7	592.0	592.0	590.4	590.4	592.0	587.3	585.7
60°	526.4	531.1	538.9	538.9	548.2	549.8	546.7	543.6	543.6	538.9	540.4
62.5°	474.8	479.5	484.2	492.0	498.3	495.1	501.4	495.1	496.7	487.3	487.3
65°	429.5	431.1	438.9	446.7	446.7	449.8	446.7	448.3	443.6	443.6	437.3
67.5°	376.4	376.4	384.2	392.0	399.9	399.9	399.9	395.2	395.2	390.5	390.5
70°	329.6	328.0	335.8	340.5	345.2	346.7	343.6	342.1	338.9	334.3	332.7
72.5°	271.8	274.9	282.7	285.8	293.6	292.1	299.9	290.5	290.5	282.7	281.1
75°	220.2	223.4	231.2	235.9	240.5	240.5	245.2	240.5	234.3	231.2	229.6
77.5°	174.9	173.4	179.6	187.4	189.0	187.4	190.6	189.0	182.7	182.7	179.6
80°	125.0	129.6	135.9	134.3	140.6	139.0	139.0	135.9	135.9	131.2	134.3
82.5°	82.8	87.5	89.0	87.5	89.0	92.2	93.7	92.2	92.2	89.0	90.6
85°	43.7	43.7	46.9	48.4	46.9	46.9	48.4	53.1	50.0	46.9	50.0
87.5°	14.1	12.5	12.5	14.1	12.5	12.5	14.1	14.1	15.6	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: P1037262

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9	1611.9
2.5°	1530.7	1533.8	1535.4	1529.1	1524.4	1532.3	1543.2	1551.0	1557.2	1565.1	1569.7
5°	1440.1	1451.0	1451.0	1454.2	1458.8	1466.6	1487.0	1501.0	1513.5	1522.9	1530.7
7.5°	1363.6	1371.4	1376.1	1383.9	1391.7	1402.6	1426.0	1446.3	1465.1	1476.0	1488.5
10°	1294.8	1301.1	1308.9	1313.6	1327.6	1343.3	1372.9	1390.1	1412.0	1429.2	1444.8
12.5°	1229.2	1251.1	1255.8	1254.2	1266.7	1283.9	1313.6	1340.1	1363.6	1380.7	1397.9
15°	1182.4	1190.2	1199.6	1198.0	1224.6	1229.2	1254.2	1285.5	1316.7	1327.6	1343.3
17.5°	1130.8	1143.3	1152.7	1157.4	1165.2	1182.4	1205.8	1229.2	1269.8	1271.4	1312.0
20°	1090.2	1102.7	1109.0	1115.2	1119.9	1140.2	1160.5	1187.1	1219.9	1237.0	1258.9
22.5°	1063.7	1069.9	1074.6	1079.3	1085.5	1096.5	1121.5	1151.1	1173.0	1191.8	1205.8
25°	1032.4	1038.7	1044.9	1048.1	1052.7	1059.0	1077.7	1101.2	1132.4	1144.9	1159.0
27.5°	1010.6	1010.6	1013.7	1013.7	1019.9	1026.2	1040.2	1062.1	1087.1	1102.7	1121.5
30°	987.1	985.6	987.1	985.6	984.0	993.4	1005.9	1024.6	1041.8	1060.5	1073.0
32.5°	963.7	962.1	962.1	963.7	957.5	962.1	968.4	985.6	1004.3	1013.7	1027.7
35°	938.7	935.6	935.6	935.6	932.5	929.3	935.6	951.2	963.7	976.2	987.1
37.5°	913.7	909.0	909.0	905.9	902.8	898.1	898.1	910.6	927.8	932.5	946.5
40°	879.4	879.4	876.2	874.7	871.6	868.4	863.7	874.7	890.3	895.0	905.9
42.5°	845.0	840.3	838.8	838.8	838.8	834.1	830.9	838.8	848.1	855.9	862.2
45°	806.0	802.8	804.4	802.8	799.7	798.1	796.6	799.7	810.6	813.8	821.6
47.5°	763.8	762.2	762.2	760.7	759.1	760.7	754.4	762.2	765.3	768.5	774.7
50°	720.0	718.5	716.9	715.4	715.4	716.9	715.4	715.4	721.6	724.7	731.0
52.5°	676.3	671.6	671.6	670.1	670.1	666.9	670.1	671.6	674.8	677.9	681.0
55°	629.5	629.5	624.8	624.8	621.6	621.6	623.2	621.6	627.9	631.0	631.0
57.5°	584.2	577.9	579.5	576.4	573.2	571.7	571.7	574.8	577.9	577.9	581.0
60°	535.7	529.5	527.9	521.7	524.8	520.1	521.7	521.7	527.9	524.8	527.9
62.5°	487.3	479.5	474.8	471.7	471.7	473.3	470.1	468.6	471.7	474.8	481.1
65°	435.8	431.1	426.4	421.7	421.7	420.2	423.3	418.6	417.0	418.6	421.7
67.5°	382.7	378.0	373.3	368.6	370.2	365.5	362.4	367.1	363.9	365.5	368.6
70°	331.1	328.0	318.6	315.5	313.9	315.5	313.9	310.8	315.5	313.9	315.5
72.5°	279.6	276.5	271.8	264.0	264.0	262.4	260.8	260.8	259.3	259.3	259.3
75°	229.6	223.4	218.7	217.1	214.0	212.4	210.9	207.7	209.3	210.9	207.7
77.5°	178.1	170.3	168.7	168.7	164.0	164.0	165.6	164.0	162.4	162.4	162.4
80°	131.2	125.0	125.0	121.8	118.7	118.7	118.7	118.7	117.1	115.6	117.1
82.5°	84.3	82.8	81.2	81.2	84.3	78.1	81.2	79.7	78.1	78.1	76.5
85°	46.9	48.4	46.9	48.4	45.3	46.9	46.9	46.9	45.3	46.9	43.7
87.5°	17.2	17.2	17.2	18.7	18.7	18.7	18.7	18.7	20.3	18.7	18.7
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: P1037262

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1611.9	1611.9	1611.9	1611.9
2.5°	1577.5	1582.2	1597.9	1616.6
5°	1546.3	1558.8	1580.7	1610.3
7.5°	1511.9	1530.7	1561.9	1599.4
10°	1472.9	1499.5	1538.5	1585.4
12.5°	1430.7	1465.1	1515.1	1563.5
15°	1404.2	1438.5	1483.8	1536.9
17.5°	1352.6	1393.2	1440.1	1515.1
20°	1299.5	1344.8	1405.7	1480.7
22.5°	1258.9	1307.3	1365.1	1444.8
25°	1210.5	1260.5	1323.0	1405.7
27.5°	1159.0	1208.9	1279.2	1366.7
30°	1119.9	1168.3	1235.5	1329.2
32.5°	1073.0	1119.9	1190.2	1288.6
35°	1019.9	1073.0	1140.2	1240.2
37.5°	979.3	1027.7	1098.0	1193.3
40°	935.6	977.8	1046.5	1140.2
42.5°	888.7	935.6	994.9	1088.7
45°	845.0	879.4	940.3	1029.3
47.5°	798.1	837.2	884.1	952.8
50°	748.2	781.0	832.5	879.4
52.5°	699.7	726.3	770.0	806.0
55°	648.2	674.8	707.6	729.4
57.5°	599.8	618.5	640.4	654.4
60°	540.4	559.2	573.2	587.3
62.5°	487.3	501.4	509.2	517.0
65°	432.7	440.5	445.1	451.4
67.5°	373.3	381.1	382.7	392.0
70°	318.6	320.2	323.3	328.0
72.5°	267.1	270.2	268.7	271.8
75°	214.0	217.1	214.0	217.1
77.5°	162.4	165.6	165.6	170.3
80°	117.1	118.7	120.3	120.3
82.5°	76.5	81.2	78.1	79.7
85°	43.7	45.3	45.3	46.9
87.5°	20.3	21.9	20.3	23.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)