

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: P1037584

Luminaire Tested: S124DS-B1020DB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-21)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DS-B1020DB2750-4F0-XX-W2A-A_3500K
Description: Define 4 Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

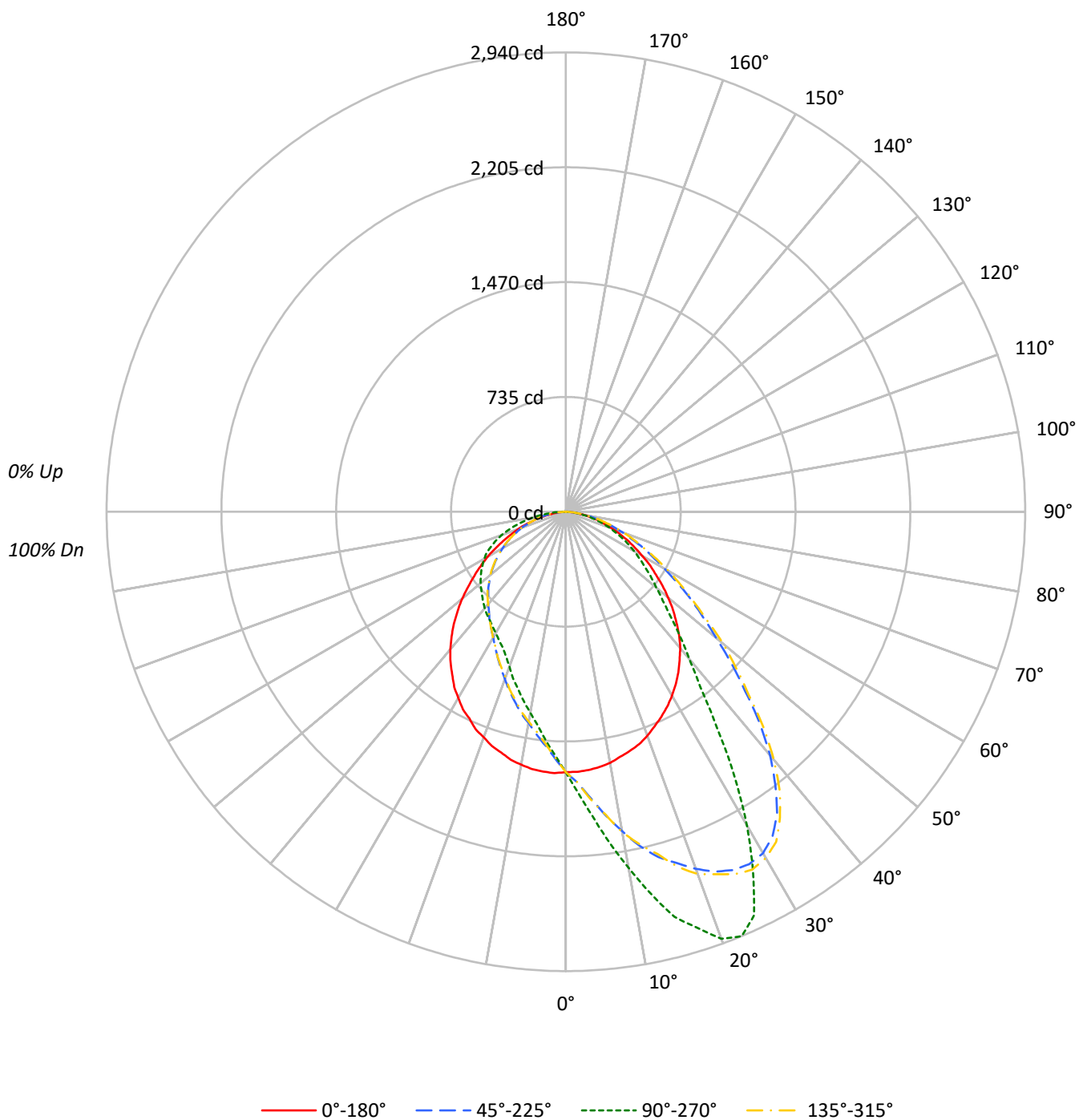
Lumens per Lamp: N/A
Luminaire Lumens: 4597.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.3 / 1.41
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10		0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102		100
1	109	105	101	97	107	103	99	96	98	95	93		95	92	90		91	89	87		85
2	100	92	86	80	98	90	84	79	87	82	78		84	79	76		81	77	74		72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	64		62
4	84	73	64	58	82	72	64	58	69	62	57		67	61	56		65	60	55		53
5	78	65	57	50	76	64	56	50	62	55	50		60	54	49		58	53	49		46
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53	47	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	40	35		45	39	35		33
9	58	45	37	32	57	45	37	32	44	37	32		43	36	32		42	36	31		30
10	55	42	34	29	54	41	34	29	40	34	29		39	33	29		39	33	29		27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13585	13585	13585	13585
5°	13580	15998	13659	12021
10°	13508	19154	13611	10823
15°	13377	22663	13469	9939
20°	13235	25236	13331	9151
25°	13015	25645	13139	8606
30°	12801	21821	12957	8435
35°	12489	16776	12627	8437
40°	12121	13076	12238	8595
45°	11540	10904	11683	8738
50°	10839	9596	10996	9035
55°	10007	8790	10165	9399
60°	9206	8239	9477	9838
65°	8469	7670	8550	10199
70°	7601	7010	7765	10431
75°	6783	6263	6739	10306
80°	5574	5250	5508	9984
85°	4135	3873	3873	9553

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 145°

Vertical Angle: 45°

Luminance: 20978 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.1	3.5
10°-20°	500.4	10.9
20°-30°	795.0	17.3
30°-40°	883.4	19.2
40°-50°	803.4	17.5
50°-60°	656.5	14.3
60°-70°	468.6	10.2
70°-80°	257.9	5.6
80°-90°	69.7	1.5
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°	1457.6	31.7
0°-40°	2341.0	50.9
0°-60°	3800.8	82.7
0°-90°	4597.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4597.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1666	1666	1666	1666	1666	
5°	1659	1954	1669	1469	1659	157
15°	1584	2684	1596	1177	1584	447
25°	1446	2850	1460	956	1446	667
35°	1255	1685	1268	848	1255	784
45°	1001	946	1013	758	1001	772
55°	704	618	715	661	704	633
65°	439	398	443	529	439	433
75°	215	199	214	327	215	226
85°	44	41	41	102	44	54
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°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1665.9	1682.5	1689.4	1694.9	1712.9	1718.4	1719.8	1728.0	1734.9	1736.3	1736.3
5°	1659.0	1685.2	1706.0	1725.3	1754.3	1766.7	1781.9	1798.4	1820.5	1834.3	1841.2
7.5°	1648.0	1686.6	1718.4	1751.5	1791.5	1816.4	1830.2	1874.3	1904.7	1929.5	1959.9
10°	1631.4	1681.1	1726.7	1775.0	1831.6	1861.9	1892.3	1946.1	1988.9	2037.2	2075.9
12.5°	1606.6	1671.4	1726.7	1794.3	1864.7	1900.6	1936.4	2030.3	2080.0	2122.8	2191.8
15°	1584.5	1649.4	1728.0	1797.0	1884.0	1937.8	1990.3	2051.0	2129.7	2222.2	2288.4
17.5°	1559.6	1641.1	1714.2	1810.8	1907.5	1958.5	2001.3	2095.2	2205.6	2296.7	2357.4
20°	1525.1	1608.0	1704.6	1806.7	1921.3	1961.3	2017.9	2143.5	2242.9	2332.6	2431.9
22.5°	1485.1	1581.7	1683.9	1781.9	1900.6	1984.8	2046.9	2157.3	2277.4	2380.9	2492.7
25°	1446.5	1551.4	1641.1	1775.0	1900.6	1957.2	2027.5	2158.7	2289.8	2415.4	2529.9
27.5°	1405.1	1503.1	1624.5	1730.8	1873.0	1935.1	2011.0	2154.5	2293.9	2419.5	2542.4
30°	1359.5	1464.4	1565.2	1690.8	1828.8	1908.8	1979.2	2135.2	2277.4	2408.5	2523.0
32.5°	1308.4	1407.8	1515.5	1634.2	1779.1	1860.5	1948.9	2109.0	2260.8	2374.0	2462.3
35°	1254.6	1355.4	1449.2	1570.7	1719.8	1801.2	1886.8	2063.4	2213.9	2306.3	2357.4
37.5°	1195.3	1290.5	1383.0	1503.1	1652.1	1739.1	1826.0	1997.2	2139.3	2216.6	2202.8
40°	1138.7	1224.3	1309.8	1423.0	1579.0	1671.4	1747.4	1919.9	2044.1	2077.2	2031.7
42.5°	1073.8	1147.0	1229.8	1345.7	1497.5	1584.5	1679.7	1837.1	1929.5	1915.7	1838.5
45°	1000.7	1065.5	1148.3	1257.4	1412.0	1501.7	1581.7	1730.8	1798.4	1763.9	1623.1
47.5°	930.3	993.8	1061.4	1170.4	1320.9	1396.8	1478.2	1612.1	1650.7	1577.6	1436.8
50°	854.4	906.8	977.2	1080.7	1221.5	1301.5	1369.2	1476.8	1490.6	1400.9	1254.6
52.5°	781.2	825.4	893.0	995.1	1126.3	1189.7	1256.0	1351.2	1340.2	1247.7	1106.9
55°	703.9	745.3	807.4	901.3	1017.2	1078.0	1134.5	1218.7	1195.3	1100.0	977.2
57.5°	639.0	668.0	728.8	815.7	910.9	977.2	1025.5	1091.8	1055.9	960.6	846.1
60°	564.5	600.4	651.5	721.9	815.7	859.9	902.7	946.8	922.0	830.9	728.8
62.5°	496.9	524.5	568.7	636.3	709.4	749.5	795.0	822.6	797.8	713.6	628.0
65°	438.9	461.0	495.5	550.7	621.1	654.2	680.4	706.7	686.0	607.3	545.2
67.5°	375.4	394.7	423.7	467.9	527.2	550.7	575.6	593.5	570.0	517.6	456.9
70°	318.8	332.6	360.2	393.4	434.8	456.9	477.6	495.5	474.8	430.6	385.1
72.5°	260.9	271.9	296.7	320.2	357.5	372.7	387.8	401.6	394.7	353.3	316.1
75°	215.3	219.5	236.0	255.3	278.8	295.4	306.4	314.7	309.2	276.0	252.6
77.5°	162.9	168.4	180.8	196.0	216.7	226.4	233.3	241.5	234.6	208.4	191.9
80°	118.7	120.1	127.0	140.8	154.6	156.0	162.9	173.9	169.8	151.8	139.4
82.5°	75.9	80.1	82.8	91.1	100.8	103.5	107.7	110.4	109.0	98.0	93.9
85°	44.2	44.2	46.9	52.4	55.2	59.3	60.7	62.1	64.9	58.0	53.8
87.5°	19.3	20.7	20.7	22.1	24.8	24.8	26.2	27.6	29.0	27.6	23.5
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°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1740.5	1765.3	1776.3	1779.1	1794.3	1784.6	1788.8	1787.4	1798.4	1799.8	1799.8
5°	1867.4	1896.4	1906.1	1919.9	1940.6	1946.1	1942.0	1950.3	1965.4	1954.4	1971.0
7.5°	2001.3	2033.1	2055.1	2085.5	2092.4	2110.4	2121.4	2131.1	2133.8	2135.2	2138.0
10°	2125.5	2165.6	2195.9	2247.0	2258.0	2267.7	2316.0	2296.7	2321.5	2313.2	2316.0
12.5°	2226.3	2305.0	2329.8	2415.4	2423.7	2456.8	2454.0	2484.4	2489.9	2501.0	2489.9
15°	2358.8	2449.9	2489.9	2538.2	2565.8	2604.5	2611.4	2652.8	2669.3	2684.5	2669.3
17.5°	2480.3	2528.6	2630.7	2669.3	2687.3	2708.0	2760.4	2775.6	2800.5	2790.8	2818.4
20°	2541.0	2610.0	2717.7	2783.9	2811.5	2830.8	2875.0	2898.5	2908.1	2908.1	2910.9
22.5°	2594.8	2694.2	2774.2	2850.2	2875.0	2888.8	2915.0	2933.0	2937.1	2939.9	2942.6
25°	2643.1	2732.8	2797.7	2840.5	2850.2	2850.2	2865.3	2854.3	2836.4	2850.2	2858.4
27.5°	2643.1	2706.6	2735.6	2750.8	2750.8	2713.5	2691.4	2645.9	2607.2	2596.2	2621.0
30°	2599.0	2627.9	2587.9	2550.6	2521.7	2496.8	2409.9	2340.9	2327.1	2317.4	2354.7
32.5°	2496.8	2459.6	2380.9	2273.2	2230.4	2173.8	2106.2	2053.8	2022.0	2011.0	2002.7
35°	2316.0	2219.4	2117.3	1972.3	1942.0	1870.2	1777.7	1739.1	1686.6	1685.2	1703.2
37.5°	2118.6	1969.6	1859.2	1721.1	1678.3	1602.4	1515.5	1475.5	1439.6	1412.0	1445.1
40°	1888.1	1758.4	1590.0	1476.8	1416.1	1376.1	1302.9	1258.8	1242.2	1228.4	1249.1
42.5°	1672.8	1530.7	1399.5	1283.6	1233.9	1188.4	1140.1	1097.3	1084.9	1083.5	1098.7
45°	1458.9	1319.5	1198.0	1098.7	1066.9	1039.3	992.4	980.0	959.3	945.5	952.4
47.5°	1287.7	1144.2	1043.4	967.5	939.9	916.5	886.1	865.4	847.5	841.9	850.2
50°	1119.4	1022.7	919.2	855.7	835.0	812.9	789.5	770.2	761.9	756.4	761.9
52.5°	984.1	880.6	810.2	759.1	738.4	721.9	705.3	697.0	686.0	688.7	694.3
55°	862.6	771.5	712.2	674.9	662.5	655.6	634.9	625.2	621.1	618.3	621.1
57.5°	748.1	681.8	637.7	605.9	589.4	585.2	568.7	568.7	564.5	560.4	561.7
60°	657.0	600.4	557.6	532.8	530.0	523.1	512.1	510.7	501.0	505.2	506.5
62.5°	564.5	519.0	490.0	474.8	465.1	462.4	455.5	454.1	450.0	451.3	448.6
65°	491.4	454.1	425.1	412.7	408.5	407.2	401.6	397.5	394.7	397.5	394.7
67.5°	418.2	393.4	371.3	358.9	353.3	352.0	347.8	345.1	346.4	342.3	345.1
70°	349.2	324.4	310.5	303.6	300.9	296.7	296.7	296.7	296.7	294.0	292.6
72.5°	294.0	269.1	259.5	255.3	252.6	251.2	247.1	248.4	247.1	245.7	251.2
75°	233.3	218.1	208.4	204.3	207.0	202.9	198.8	201.5	197.4	198.8	204.3
77.5°	176.7	169.8	164.2	161.5	158.7	156.0	156.0	153.2	153.2	153.2	153.2
80°	128.4	127.0	117.3	115.9	115.9	113.2	113.2	113.2	113.2	111.8	113.2
82.5°	85.6	84.2	81.4	80.1	77.3	78.7	78.7	75.9	75.9	74.5	75.9
85°	49.7	49.7	46.9	45.5	44.2	45.5	42.8	41.4	42.8	41.4	42.8
87.5°	23.5	20.7	22.1	20.7	17.9	19.3	16.6	17.9	16.6	15.2	17.9
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°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1797.0	1792.9	1787.4	1787.4	1780.5	1780.5	1769.4	1750.1	1733.6	1728.0	1730.8
5°	1950.3	1951.6	1943.3	1936.4	1924.0	1914.4	1896.4	1861.9	1850.9	1828.8	1813.6
7.5°	2125.5	2120.0	2104.8	2093.8	2091.0	2068.9	2030.3	1988.9	1955.8	1933.7	1901.9
10°	2322.9	2300.8	2278.7	2271.8	2255.3	2218.0	2173.8	2128.3	2082.8	2034.4	1980.6
12.5°	2488.5	2445.7	2444.4	2427.8	2396.1	2375.4	2322.9	2258.0	2179.4	2125.5	2064.8
15°	2666.6	2626.6	2593.4	2563.1	2547.9	2487.2	2443.0	2361.6	2267.7	2209.7	2168.3
17.5°	2793.6	2775.6	2719.0	2705.2	2684.5	2614.1	2543.7	2463.7	2382.3	2300.8	2189.0
20°	2895.7	2884.7	2847.4	2828.1	2794.9	2739.7	2654.2	2561.7	2467.8	2351.9	2247.0
22.5°	2939.9	2926.1	2895.7	2879.1	2858.4	2811.5	2738.4	2633.5	2510.6	2407.1	2295.3
25°	2852.9	2877.8	2869.5	2862.6	2854.3	2826.7	2771.5	2679.0	2558.9	2441.6	2302.2
27.5°	2656.9	2699.7	2741.1	2746.6	2760.4	2771.5	2749.4	2683.1	2582.4	2458.2	2305.0
30°	2393.3	2412.6	2496.8	2521.7	2541.0	2611.4	2652.8	2636.2	2558.9	2447.1	2306.3
32.5°	2055.1	2106.2	2191.8	2251.1	2303.6	2382.3	2489.9	2532.7	2505.1	2414.0	2274.6
35°	1734.9	1795.7	1895.0	1971.0	2023.4	2135.2	2262.2	2354.7	2389.2	2343.6	2219.4
37.5°	1472.7	1545.8	1634.2	1663.2	1723.9	1861.9	2037.2	2165.6	2249.8	2253.9	2157.3
40°	1275.3	1312.6	1383.0	1427.1	1486.5	1602.4	1773.6	1943.3	2070.3	2113.1	2062.0
42.5°	1108.3	1137.3	1189.7	1243.6	1297.4	1385.7	1543.1	1701.8	1873.0	1958.5	1957.2
45°	975.8	1006.2	1042.1	1086.2	1123.5	1218.7	1343.0	1505.8	1653.5	1786.0	1819.1
47.5°	859.9	886.1	930.3	949.6	974.4	1064.1	1171.8	1323.6	1476.8	1628.7	1667.3
50°	774.3	796.4	826.8	839.2	866.8	933.0	1021.4	1144.2	1314.0	1453.4	1525.1
52.5°	697.0	713.6	737.0	746.7	766.0	815.7	895.8	992.4	1133.2	1276.7	1377.5
55°	630.8	641.8	658.4	669.4	683.2	727.4	786.7	873.7	995.1	1119.4	1217.4
57.5°	568.7	576.9	593.5	599.0	610.1	644.6	686.0	759.1	870.9	981.3	1076.6
60°	510.7	516.2	525.9	538.3	546.6	570.0	608.7	669.4	759.1	859.9	937.2
62.5°	455.5	463.8	466.5	472.0	478.9	501.0	531.4	575.6	654.2	737.0	818.5
65°	398.9	405.8	411.3	412.7	419.6	436.1	463.8	502.4	553.5	625.2	701.2
67.5°	346.4	350.6	353.3	358.9	365.8	374.0	396.1	425.1	472.0	530.0	590.7
70°	298.1	298.1	302.3	303.6	311.9	321.6	331.3	358.9	400.3	447.2	488.6
72.5°	245.7	252.6	251.2	258.1	256.7	263.6	276.0	294.0	324.4	361.6	401.6
75°	200.1	204.3	204.3	204.3	207.0	212.6	219.5	236.0	259.5	289.8	313.3
77.5°	156.0	158.7	158.7	158.7	160.1	165.6	172.5	183.6	200.1	218.1	231.9
80°	111.8	114.6	114.6	117.3	117.3	118.7	125.6	131.1	139.4	153.2	167.0
82.5°	75.9	77.3	80.1	80.1	78.7	81.4	82.8	88.3	96.6	99.4	109.0
85°	41.4	42.8	44.2	44.2	45.5	48.3	46.9	52.4	52.4	58.0	60.7
87.5°	16.6	19.3	19.3	17.9	19.3	19.3	19.3	22.1	23.5	24.8	23.5
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: P1037584

CATALOG NUMBER: S124DS-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1718.4	1712.9	1708.7	1708.7	1696.3	1683.9	1677.0	1674.2	1671.4	1660.4	1645.2
5°	1788.8	1770.8	1758.4	1746.0	1725.3	1703.2	1681.1	1668.7	1650.7	1625.9	1608.0
7.5°	1867.4	1824.7	1810.8	1795.7	1754.3	1717.0	1686.6	1660.4	1631.4	1599.7	1567.9
10°	1933.7	1888.1	1857.8	1831.6	1777.7	1728.0	1682.5	1643.8	1606.6	1565.2	1526.5
12.5°	1997.2	1932.3	1900.6	1861.9	1805.3	1733.6	1674.2	1625.9	1570.7	1527.9	1481.0
15°	2085.5	1976.5	1924.0	1899.2	1823.3	1739.1	1667.3	1595.5	1550.0	1485.1	1443.7
17.5°	2099.3	2011.0	1976.5	1913.0	1821.9	1726.7	1643.8	1572.1	1503.1	1445.1	1391.3
20°	2147.6	2031.7	1976.5	1936.4	1816.4	1719.8	1628.7	1536.2	1469.9	1407.8	1347.1
22.5°	2178.0	2046.9	1988.9	1925.4	1810.8	1694.9	1587.3	1507.2	1425.8	1362.3	1314.0
25°	2169.7	2038.6	1973.7	1914.4	1775.0	1659.0	1562.4	1460.3	1384.4	1315.3	1251.9
27.5°	2165.6	2017.9	1948.9	1882.6	1751.5	1630.0	1508.6	1425.8	1341.6	1261.5	1214.6
30°	2154.5	1991.7	1911.6	1839.8	1703.2	1576.2	1472.7	1376.1	1291.9	1218.7	1156.6
32.5°	2117.3	1947.5	1870.2	1792.9	1650.7	1523.8	1418.9	1329.2	1245.0	1169.0	1109.7
35°	2067.6	1895.0	1810.8	1729.4	1587.3	1458.9	1362.3	1268.4	1189.7	1116.6	1060.0
37.5°	2017.9	1834.3	1755.6	1661.8	1530.7	1396.8	1297.4	1213.2	1140.1	1064.1	1002.0
40°	1946.1	1762.5	1675.6	1595.5	1442.3	1316.7	1225.6	1149.7	1078.0	1006.2	953.7
42.5°	1848.1	1683.9	1594.2	1505.8	1362.3	1238.1	1149.7	1082.1	1014.5	955.1	897.1
45°	1748.7	1588.6	1508.6	1429.9	1273.9	1156.6	1075.2	1013.1	956.5	891.6	844.7
47.5°	1628.7	1493.4	1413.3	1336.1	1188.4	1071.1	996.5	938.5	886.1	832.3	788.1
50°	1505.8	1388.5	1315.3	1235.3	1094.5	988.2	915.1	866.8	824.0	772.9	737.0
52.5°	1373.3	1271.2	1209.1	1131.8	1007.6	909.6	835.0	786.7	750.8	713.6	681.8
55°	1232.5	1158.0	1091.8	1029.6	912.3	824.0	757.7	715.0	690.1	655.6	628.0
57.5°	1105.6	1033.8	993.8	923.4	821.2	734.3	681.8	645.9	617.0	596.3	574.2
60°	973.1	915.1	870.9	819.9	730.1	657.0	601.8	581.1	550.7	535.5	525.9
62.5°	846.1	804.7	763.3	724.6	644.6	575.6	534.1	507.9	490.0	474.8	466.5
65°	726.0	687.3	658.4	623.9	557.6	502.4	463.8	443.1	425.1	421.0	411.3
67.5°	608.7	592.1	560.4	532.8	476.2	433.4	404.4	378.2	368.5	364.4	356.1
70°	509.3	490.0	465.1	441.7	398.9	361.6	335.4	325.7	311.9	310.5	300.9
72.5°	419.6	396.1	378.2	360.2	328.5	295.4	281.6	267.8	260.9	255.3	251.2
75°	332.6	316.1	303.6	288.5	260.9	238.8	219.5	213.9	209.8	208.4	205.7
77.5°	248.4	237.4	231.9	216.7	197.4	178.0	169.8	161.5	161.5	158.7	160.1
80°	176.7	169.8	162.9	154.6	138.0	129.7	122.8	117.3	114.6	113.2	114.6
82.5°	111.8	107.7	106.3	100.8	89.7	85.6	80.1	75.9	75.9	75.9	75.9
85°	62.1	62.1	62.1	53.8	49.7	45.5	42.8	41.4	41.4	41.4	42.8
87.5°	26.2	26.2	22.1	22.1	20.7	17.9	16.6	16.6	17.9	17.9	19.3
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):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1641.1	1635.6	1638.3	1624.5	1612.1	1594.2	1579.0	1576.2	1573.5	1581.7	1576.2
5°	1594.2	1587.3	1580.4	1563.8	1538.9	1523.8	1501.7	1500.3	1492.0	1479.6	1482.4
7.5°	1543.1	1538.9	1529.3	1503.1	1481.0	1454.8	1436.8	1421.6	1414.7	1403.7	1399.5
10°	1501.7	1486.5	1478.2	1449.2	1423.0	1395.4	1371.9	1360.9	1348.5	1338.8	1331.9
12.5°	1445.1	1440.9	1417.5	1394.0	1371.9	1340.2	1322.3	1290.5	1273.9	1282.2	1279.5
15°	1407.8	1388.5	1383.0	1349.9	1312.6	1291.9	1258.8	1238.1	1231.2	1218.7	1203.6
17.5°	1358.1	1345.7	1326.4	1296.0	1253.2	1224.3	1200.8	1181.5	1173.2	1156.6	1144.2
20°	1311.2	1290.5	1275.3	1247.7	1206.3	1169.0	1140.1	1127.6	1106.9	1093.1	1086.2
22.5°	1268.4	1253.2	1231.2	1189.7	1153.9	1118.0	1083.5	1065.5	1046.2	1037.9	1026.9
25°	1216.0	1191.1	1175.9	1130.4	1091.8	1062.8	1031.0	1007.6	996.5	982.7	980.0
27.5°	1164.9	1141.4	1123.5	1083.5	1036.5	999.3	980.0	963.4	944.1	944.1	937.2
30°	1113.8	1097.3	1069.7	1031.0	986.9	951.0	928.9	913.7	906.8	901.3	899.9
32.5°	1062.8	1040.7	1024.1	971.7	938.5	905.4	888.9	876.4	868.2	866.8	868.2
35°	1010.3	985.5	968.9	922.0	888.9	858.5	851.6	840.6	836.4	835.0	841.9
37.5°	955.1	935.8	915.1	876.4	839.2	821.2	807.4	803.3	801.9	810.2	812.9
40°	904.0	887.5	868.2	826.8	799.1	779.8	772.9	768.8	774.3	782.6	786.7
42.5°	855.7	832.3	817.1	779.8	755.0	743.9	735.7	735.7	741.2	750.8	757.7
45°	804.7	786.7	771.5	738.4	716.3	703.9	702.5	703.9	710.8	717.7	726.0
47.5°	755.0	737.0	720.5	692.9	673.5	666.6	665.3	666.6	677.7	687.3	697.0
50°	709.4	690.1	674.9	648.7	633.5	625.2	626.6	633.5	641.8	655.6	668.0
52.5°	655.6	641.8	628.0	604.5	590.7	585.2	589.4	594.9	610.1	619.7	634.9
55°	603.2	590.7	579.7	561.7	550.7	546.6	549.3	557.6	570.0	586.6	604.5
57.5°	554.8	541.0	530.0	517.6	505.2	506.5	507.9	519.0	534.1	549.3	570.0
60°	501.0	492.7	483.1	467.9	462.4	462.4	466.5	478.9	492.7	517.6	535.5
62.5°	452.7	441.7	434.8	425.1	416.8	418.2	427.9	438.9	455.5	476.2	499.6
65°	403.0	390.6	385.1	376.8	374.0	375.4	382.3	398.9	416.8	434.8	456.9
67.5°	347.8	343.7	338.2	329.9	332.6	334.0	340.9	354.7	374.0	392.0	416.8
70°	300.9	292.6	291.2	284.3	284.3	288.5	302.3	311.9	329.9	349.2	375.4
72.5°	251.2	244.3	244.3	238.8	242.9	247.1	254.0	267.8	284.3	303.6	325.7
75°	200.1	197.4	200.1	197.4	197.4	204.3	212.6	223.6	241.5	262.2	280.2
77.5°	154.6	154.6	153.2	157.3	157.3	161.5	172.5	183.6	197.4	213.9	233.3
80°	113.2	113.2	113.2	117.3	121.5	121.5	128.4	142.2	154.6	165.6	183.6
82.5°	77.3	77.3	77.3	80.1	85.6	85.6	93.9	102.1	115.9	125.6	133.9
85°	46.9	46.9	45.5	48.3	49.7	53.8	60.7	66.3	73.2	81.4	89.7
87.5°	20.7	20.7	22.1	23.5	24.8	27.6	30.4	33.1	40.0	42.8	46.9
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: P1037584

CATALOG NUMBER: S124DS-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1572.1	1570.7	1563.8	1566.5	1558.3	1561.0	1565.2	1566.5	1572.1	1567.9	1566.5
5°	1475.5	1472.7	1468.6	1464.4	1463.0	1468.6	1458.9	1461.7	1464.4	1468.6	1474.1
7.5°	1396.8	1395.4	1391.3	1384.4	1381.6	1378.8	1380.2	1389.9	1388.5	1387.1	1396.8
10°	1325.0	1326.4	1318.1	1316.7	1308.4	1307.1	1308.4	1311.2	1315.3	1320.9	1322.3
12.5°	1250.5	1268.4	1253.2	1247.7	1235.3	1242.2	1245.0	1232.5	1239.4	1243.6	1264.3
15°	1203.6	1195.3	1185.6	1185.6	1180.1	1177.3	1170.4	1180.1	1185.6	1193.9	1191.1
17.5°	1138.7	1124.9	1119.4	1113.8	1115.2	1120.7	1105.6	1127.6	1127.6	1131.8	1124.9
20°	1082.1	1071.1	1064.1	1061.4	1057.2	1054.5	1053.1	1058.6	1066.9	1069.7	1076.6
22.5°	1022.7	1022.7	1011.7	1007.6	1004.8	1000.7	1007.6	1003.4	1008.9	1014.5	1025.5
25°	973.1	973.1	968.9	963.4	959.3	956.5	960.6	959.3	963.4	970.3	973.1
27.5°	933.0	928.9	927.5	926.1	924.7	926.1	924.7	928.9	933.0	934.4	931.6
30°	898.5	894.4	895.8	895.8	897.1	895.8	894.4	898.5	899.9	897.1	898.5
32.5°	866.8	866.8	869.5	870.9	870.9	872.3	873.7	870.9	872.3	868.2	869.5
35°	840.6	843.3	846.1	847.5	848.8	847.5	850.2	848.8	846.1	843.3	841.9
37.5°	814.3	817.1	822.6	824.0	828.1	829.5	826.8	826.8	825.4	819.9	817.1
40°	786.7	789.5	796.4	800.5	803.3	807.4	804.7	804.7	799.1	793.6	789.5
42.5°	760.5	766.0	772.9	777.1	782.6	782.6	782.6	779.8	772.9	767.4	763.3
45°	734.3	735.7	745.3	752.2	757.7	757.7	757.7	753.6	749.5	738.4	732.9
47.5°	705.3	709.4	720.5	727.4	732.9	734.3	734.3	730.1	721.9	712.2	705.3
50°	673.5	680.4	692.9	702.5	709.4	712.2	708.1	705.3	695.6	684.6	676.3
52.5°	643.2	651.5	666.6	674.9	684.6	686.0	684.6	680.4	669.4	654.2	647.3
55°	612.8	619.7	636.3	650.1	658.4	661.1	658.4	651.5	637.7	622.5	615.6
57.5°	579.7	589.4	607.3	621.1	630.8	632.1	629.4	622.5	611.4	592.1	582.5
60°	545.2	557.6	575.6	589.4	601.8	603.2	600.4	590.7	576.9	557.6	549.3
62.5°	510.7	520.3	541.0	556.2	565.9	572.8	567.3	557.6	543.8	524.5	512.1
65°	470.7	484.5	502.4	516.2	527.2	528.6	525.9	517.6	502.4	481.7	472.0
67.5°	432.0	441.7	459.6	477.6	481.7	485.8	481.7	473.4	461.0	443.1	429.2
70°	385.1	393.4	415.4	427.9	433.4	437.5	434.8	426.5	415.4	398.9	387.8
72.5°	338.2	345.1	365.8	375.4	386.5	385.1	383.7	378.2	363.0	352.0	345.1
75°	288.5	296.7	310.5	323.0	327.1	327.1	327.1	323.0	313.3	295.4	288.5
77.5°	242.9	247.1	258.1	265.0	269.1	270.5	269.1	262.2	256.7	244.3	240.2
80°	186.3	197.4	205.7	207.0	212.6	212.6	212.6	209.8	204.3	191.9	190.5
82.5°	140.8	143.5	151.8	156.0	158.7	157.3	157.3	151.8	150.4	143.5	140.8
85°	95.2	99.4	98.0	103.5	104.9	102.1	102.1	104.9	98.0	99.4	95.2
87.5°	52.4	52.4	55.2	53.8	59.3	59.3	56.6	58.0	55.2	53.8	52.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037584

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9	1665.9
2.5°	1566.5	1574.8	1566.5	1572.1	1574.8	1581.7	1584.5	1596.9	1601.1	1610.7	1610.7
5°	1472.7	1476.8	1478.2	1483.7	1489.3	1503.1	1512.7	1530.7	1551.4	1554.1	1566.5
7.5°	1396.8	1403.7	1414.7	1410.6	1420.2	1440.9	1453.4	1475.5	1496.2	1507.2	1522.4
10°	1329.2	1337.4	1341.6	1345.7	1363.7	1381.6	1400.9	1416.1	1443.7	1460.3	1472.7
12.5°	1273.9	1267.0	1275.3	1290.5	1311.2	1322.3	1348.5	1371.9	1392.6	1410.6	1421.6
15°	1202.2	1207.7	1216.0	1242.2	1247.7	1275.3	1285.0	1311.2	1349.9	1366.4	1380.2
17.5°	1133.2	1151.1	1167.7	1177.3	1193.9	1216.0	1243.6	1272.6	1297.4	1316.7	1333.3
20°	1078.0	1095.9	1105.6	1112.5	1129.0	1159.4	1185.6	1221.5	1253.2	1268.4	1290.5
22.5°	1033.8	1033.8	1047.6	1068.3	1078.0	1106.9	1129.0	1167.7	1202.2	1221.5	1242.2
25°	978.6	986.9	997.9	1015.8	1029.6	1053.1	1084.9	1118.0	1155.2	1171.8	1198.0
27.5°	933.0	942.7	957.9	962.0	975.8	996.5	1029.6	1065.5	1104.2	1122.1	1144.2
30°	898.5	904.0	909.6	917.8	930.3	948.2	975.8	1007.6	1054.5	1068.3	1095.9
32.5°	868.2	870.9	873.7	880.6	887.5	905.4	927.5	962.0	1000.7	1021.4	1046.2
35°	840.6	837.8	839.2	843.3	850.2	857.1	880.6	909.6	945.5	970.3	989.6
37.5°	814.3	808.8	807.4	807.4	810.2	818.5	836.4	861.3	899.9	920.6	939.9
40°	785.3	779.8	777.1	775.7	774.3	779.8	793.6	818.5	848.8	868.2	890.2
42.5°	757.7	752.2	745.3	743.9	741.2	743.9	753.6	777.1	803.3	822.6	840.6
45°	730.1	720.5	712.2	706.7	708.1	703.9	710.8	728.8	759.1	771.5	789.5
47.5°	699.8	688.7	677.7	672.2	666.6	669.4	672.2	687.3	713.6	726.0	743.9
50°	670.8	655.6	643.2	636.3	632.1	629.4	632.1	647.3	666.6	677.7	692.9
52.5°	637.7	622.5	610.1	599.0	593.5	589.4	590.7	604.5	622.5	633.5	648.7
55°	607.3	588.0	571.4	557.6	553.5	552.1	550.7	560.4	575.6	586.6	599.0
57.5°	572.8	553.5	535.5	519.0	510.7	509.3	509.3	512.1	531.4	539.7	546.6
60°	538.3	517.6	498.3	483.1	470.7	466.5	465.1	470.7	480.3	488.6	498.3
62.5°	499.6	478.9	455.5	441.7	429.2	418.2	422.3	423.7	437.5	441.7	450.0
65°	462.4	438.9	419.6	397.5	383.7	376.8	374.0	376.8	387.8	389.2	394.7
67.5°	419.6	397.5	374.0	358.9	346.4	334.0	331.3	331.3	336.8	340.9	347.8
70°	378.2	356.1	329.9	313.3	300.9	289.8	285.7	284.3	288.5	291.2	298.1
72.5°	329.9	307.8	288.5	270.5	255.3	247.1	242.9	240.2	244.3	247.1	248.4
75°	278.8	260.9	241.5	223.6	213.9	205.7	200.1	196.0	198.8	198.8	198.8
77.5°	230.5	212.6	197.4	184.9	172.5	162.9	158.7	154.6	156.0	156.0	158.7
80°	179.4	167.0	154.6	143.5	132.5	124.2	121.5	117.3	114.6	113.2	113.2
82.5°	132.5	122.8	111.8	102.1	96.6	88.3	85.6	80.1	80.1	78.7	78.7
85°	88.3	82.8	71.8	64.9	60.7	56.6	53.8	51.1	46.9	46.9	45.5
87.5°	46.9	44.2	41.4	33.1	33.1	29.0	27.6	26.2	22.1	23.5	23.5
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: P1037584

CATALOG NUMBER: S124DS-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1665.9	1665.9	1665.9	1665.9
2.5°	1620.4	1634.2	1646.6	1665.9
5°	1584.5	1603.8	1630.0	1659.0
7.5°	1543.1	1573.5	1608.0	1648.0
10°	1504.4	1538.9	1583.1	1631.4
12.5°	1464.4	1505.8	1554.1	1606.6
15°	1418.9	1460.3	1514.1	1584.5
17.5°	1377.5	1427.1	1485.1	1559.6
20°	1329.2	1376.1	1439.6	1525.1
22.5°	1286.4	1340.2	1410.6	1485.1
25°	1239.4	1286.4	1356.8	1446.5
27.5°	1192.5	1250.5	1318.1	1405.1
30°	1147.0	1195.3	1268.4	1359.5
32.5°	1097.3	1155.2	1222.9	1308.4
35°	1043.4	1098.7	1162.1	1254.6
37.5°	995.1	1049.0	1113.8	1195.3
40°	941.3	997.9	1057.2	1138.7
42.5°	888.9	939.9	999.3	1073.8
45°	837.8	882.0	935.8	1000.7
47.5°	785.3	822.6	872.3	930.3
50°	728.8	768.8	806.0	854.4
52.5°	676.3	710.8	741.2	781.2
55°	625.2	648.7	673.5	703.9
57.5°	571.4	589.4	607.3	639.0
60°	517.6	534.1	543.8	564.5
62.5°	465.1	472.0	484.5	496.9
65°	407.2	416.8	423.7	438.9
67.5°	354.7	358.9	365.8	375.4
70°	299.5	309.2	311.9	318.8
72.5°	252.6	256.7	259.5	260.9
75°	200.1	204.3	207.0	215.3
77.5°	157.3	156.0	161.5	162.9
80°	115.9	111.8	113.2	118.7
82.5°	75.9	77.3	75.9	75.9
85°	46.9	45.5	42.8	44.2
87.5°	20.7	20.7	19.3	19.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)