

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: P998437

Luminaire Tested: S124DR-B1020DB30-4F0-XX-W2A-A

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998437
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: S124DR-B1020DB30-4F0-XX-W2A-A
Description: Define 4 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

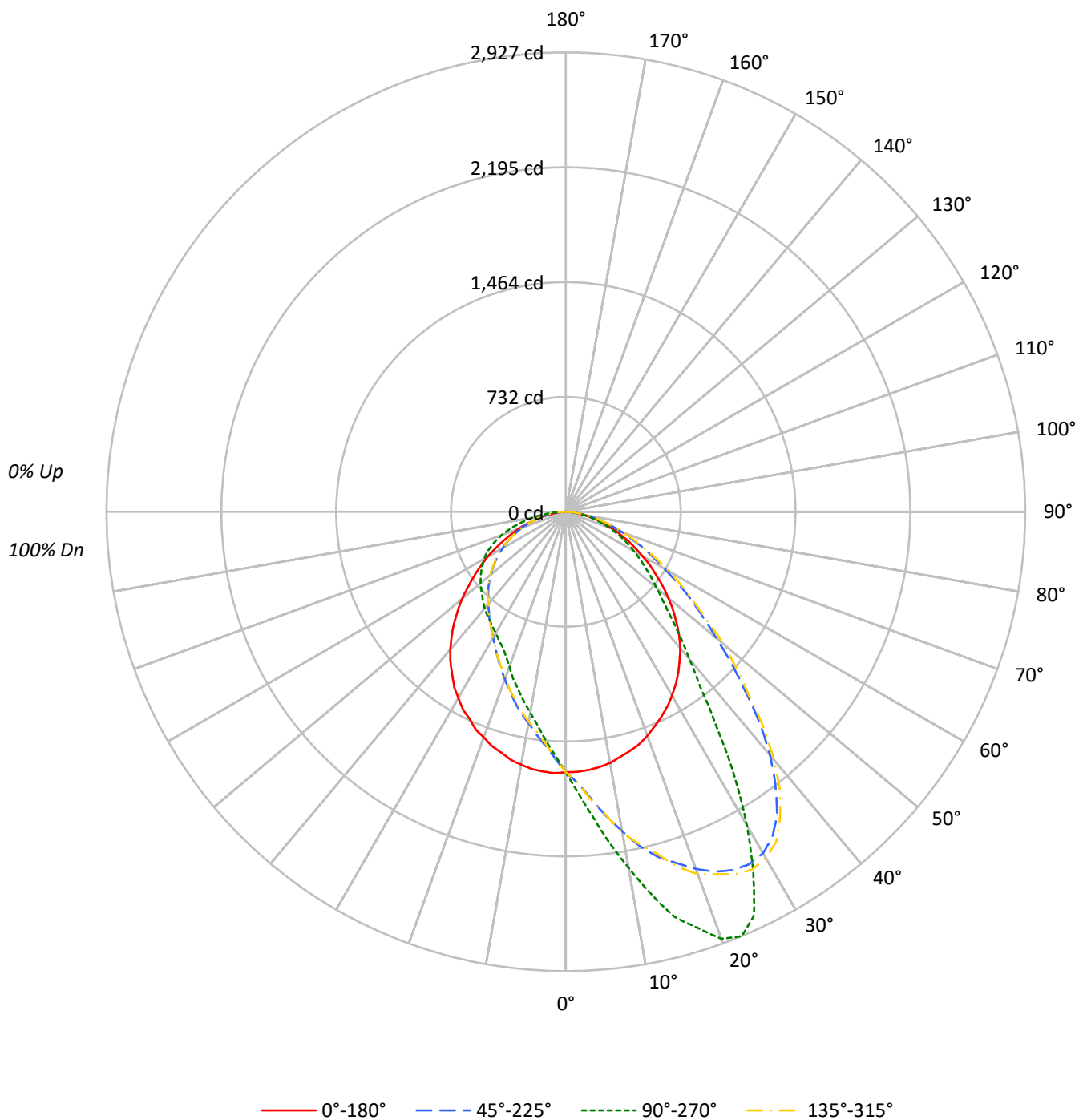
Lumens per Lamp: N/A
Luminaire Lumens: 4577.0 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.3 / 1.41
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	101	97	107	103	99	96	98	95	93		95	92	90		91
2	100	92	86	80	98	90	84	79	87	82	78		84	79	76		81
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72
4	84	73	64	58	82	72	64	58	69	62	57		67	61	56		65
5	78	65	57	50	76	64	56	50	62	55	50		60	54	49		58
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53
7	67	54	45	39	65	53	45	39	52	44	39		50	44	39		49
8	62	49	41	35	61	49	41	35	47	40	35		46	40	35		45
9	58	45	37	32	57	45	37	32	44	37	32		43	36	32		42
10	55	42	34	29	54	41	34	29	40	34	29		39	33	29		39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13526	13526	13526	13526
5°	13521	15928	13600	11969
10°	13450	19071	13552	10776
15°	13318	22564	13411	9896
20°	13177	25127	13273	9111
25°	12958	25533	13081	8568
30°	12745	21725	12901	8398
35°	12436	16703	12572	8400
40°	12068	13020	12185	8557
45°	11490	10855	11633	8700
50°	10791	9554	10948	8996
55°	9963	8752	10120	9358
60°	9167	8203	9435	9794
65°	8432	7637	8511	10155
70°	7567	6979	7732	10386
75°	6755	6235	6711	10262
80°	5551	5227	5485	9937
85°	4117	3855	3855	9515

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 145°

Vertical Angle: 45°

Luminance: 20887 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.4	3.5
10°-20°	498.3	10.9
20°-30°	791.6	17.3
30°-40°	879.6	19.2
40°-50°	799.9	17.5
50°-60°	653.6	14.3
60°-70°	466.6	10.2
70°-80°	256.7	5.6
80°-90°	69.4	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°	1451.2	31.7
0°-40°	2330.8	50.9
0°-60°	3784.3	82.7
0°-90°	4577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4577.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1659	1659	1659	1659	1659	
5°	1652	1946	1661	1462	1652	157
15°	1578	2673	1589	1172	1578	445
25°	1440	2838	1454	952	1440	664
35°	1249	1678	1263	844	1249	780
45°	996	941	1009	754	996	768
55°	701	616	712	658	701	630
65°	437	396	441	526	437	432
75°	214	198	213	326	214	225
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°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1658.7	1675.2	1682.0	1687.5	1705.4	1710.9	1712.3	1720.5	1727.4	1728.8	1728.8
5°	1651.8	1677.9	1698.5	1717.8	1746.6	1759.0	1774.1	1790.6	1812.6	1826.3	1833.2
7.5°	1640.8	1679.3	1710.9	1743.9	1783.7	1808.5	1822.2	1866.2	1896.4	1921.2	1951.4
10°	1624.3	1673.8	1719.1	1767.2	1823.6	1853.8	1884.0	1937.6	1980.2	2028.3	2066.8
12.5°	1599.6	1664.2	1719.1	1786.5	1856.6	1892.3	1928.0	2021.5	2070.9	2113.5	2182.3
15°	1577.6	1642.2	1720.5	1789.2	1875.8	1929.4	1981.6	2042.1	2120.4	2212.5	2278.4
17.5°	1552.9	1633.9	1706.8	1803.0	1899.2	1950.0	1992.6	2086.1	2196.0	2286.7	2347.2
20°	1518.5	1601.0	1697.2	1798.8	1912.9	1952.8	2009.1	2134.2	2233.1	2322.4	2421.4
22.5°	1478.7	1574.9	1676.5	1774.1	1892.3	1976.1	2038.0	2147.9	2267.5	2370.5	2481.8
25°	1440.2	1544.6	1633.9	1767.2	1892.3	1948.6	2018.7	2149.3	2279.8	2404.9	2518.9
27.5°	1399.0	1496.5	1617.5	1723.3	1864.8	1926.6	2002.2	2145.1	2283.9	2409.0	2531.3
30°	1353.6	1458.0	1558.4	1683.4	1820.8	1900.5	1970.6	2125.9	2267.5	2398.0	2512.1
32.5°	1302.8	1401.7	1508.9	1627.1	1771.4	1852.4	1940.4	2099.8	2251.0	2363.6	2451.6
35°	1249.2	1349.5	1442.9	1563.9	1712.3	1793.4	1878.6	2054.5	2204.2	2296.3	2347.2
37.5°	1190.1	1284.9	1377.0	1496.5	1644.9	1731.5	1818.1	1988.5	2130.0	2207.0	2193.2
40°	1133.7	1218.9	1304.1	1416.8	1572.1	1664.2	1739.8	1911.5	2035.2	2068.2	2022.8
42.5°	1069.1	1142.0	1224.4	1339.9	1491.0	1577.6	1672.4	1829.1	1921.2	1907.4	1830.5
45°	996.3	1060.9	1143.3	1251.9	1405.8	1495.1	1574.9	1723.3	1790.6	1756.2	1616.1
47.5°	926.2	989.4	1056.8	1165.3	1315.1	1390.7	1471.8	1605.1	1643.6	1570.7	1430.6
50°	850.6	902.9	972.9	1076.0	1216.2	1295.9	1363.2	1470.4	1484.2	1394.8	1249.2
52.5°	777.8	821.8	889.1	990.8	1121.4	1184.6	1250.5	1345.4	1334.4	1242.3	1102.1
55°	700.8	742.1	803.9	897.4	1012.8	1073.3	1129.6	1213.4	1190.1	1095.2	972.9
57.5°	636.3	665.1	725.6	812.2	907.0	972.9	1021.0	1087.0	1051.3	956.5	842.4
60°	562.1	597.8	648.6	718.7	812.2	856.1	898.7	942.7	918.0	827.3	725.6
62.5°	494.7	522.2	566.2	633.5	706.3	746.2	791.5	819.0	794.3	710.5	625.3
65°	437.0	459.0	493.3	548.3	618.4	651.4	677.5	703.6	683.0	604.7	542.8
67.5°	373.8	393.0	421.9	465.9	525.0	548.3	573.0	590.9	567.6	515.3	454.9
70°	317.4	331.2	358.7	391.7	432.9	454.9	475.5	493.3	472.7	428.8	383.4
72.5°	259.7	270.7	295.5	318.8	355.9	371.0	386.2	399.9	393.0	351.8	314.7
75°	214.4	218.5	235.0	254.2	277.6	294.1	305.1	313.3	307.8	274.8	251.5
77.5°	162.2	167.7	180.0	195.1	215.8	225.4	232.2	240.5	233.6	207.5	191.0
80°	118.2	119.6	126.4	140.2	153.9	155.3	162.2	173.2	169.0	151.2	138.8
82.5°	75.6	79.7	82.5	90.7	100.3	103.1	107.2	109.9	108.6	97.6	93.4
85°	44.0	44.0	46.7	52.2	55.0	59.1	60.5	61.8	64.6	57.7	53.6
87.5°	19.2	20.6	20.6	22.0	24.7	24.7	26.1	27.5	28.9	27.5	23.4
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°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1732.9	1757.6	1768.6	1771.4	1786.5	1776.9	1781.0	1779.6	1790.6	1792.0	1792.0
5°	1859.3	1888.2	1897.8	1911.5	1932.1	1937.6	1933.5	1941.8	1956.9	1945.9	1962.4
7.5°	1992.6	2024.2	2046.2	2076.4	2083.3	2101.2	2112.2	2121.8	2124.5	2125.9	2128.7
10°	2116.3	2156.1	2186.4	2237.2	2248.2	2257.8	2305.9	2286.7	2311.4	2303.2	2305.9
12.5°	2216.6	2294.9	2319.7	2404.9	2413.1	2446.1	2443.4	2473.6	2479.1	2490.1	2479.1
15°	2348.5	2439.2	2479.1	2527.2	2554.7	2593.1	2600.0	2641.2	2657.7	2672.8	2657.7
17.5°	2469.5	2517.6	2619.3	2657.7	2675.6	2696.2	2748.4	2763.5	2788.3	2778.7	2806.1
20°	2529.9	2598.6	2705.8	2771.8	2799.3	2818.5	2862.5	2885.9	2895.5	2895.5	2898.2
22.5°	2583.5	2682.5	2762.2	2837.8	2862.5	2876.2	2902.3	2920.2	2924.3	2927.1	2929.8
25°	2631.6	2720.9	2785.5	2828.1	2837.8	2837.8	2852.9	2841.9	2824.0	2837.8	2846.0
27.5°	2631.6	2694.8	2723.7	2738.8	2738.8	2701.7	2679.7	2634.4	2595.9	2584.9	2609.6
30°	2587.6	2616.5	2576.7	2539.5	2510.7	2486.0	2399.4	2330.7	2316.9	2307.3	2344.4
32.5°	2486.0	2448.9	2370.5	2263.3	2220.7	2164.4	2097.1	2044.8	2013.2	2002.2	1994.0
35°	2305.9	2209.7	2108.0	1963.8	1933.5	1862.1	1770.0	1731.5	1679.3	1677.9	1695.8
37.5°	2109.4	1961.0	1851.1	1713.6	1671.0	1595.5	1508.9	1469.0	1433.3	1405.8	1438.8
40°	1879.9	1750.7	1583.1	1470.4	1409.9	1370.1	1297.3	1253.3	1236.8	1223.1	1243.7
42.5°	1665.5	1524.0	1393.5	1278.0	1228.5	1183.2	1135.1	1092.5	1080.1	1078.8	1093.9
45°	1452.5	1313.7	1192.8	1093.9	1062.3	1034.8	988.1	975.7	955.1	941.3	948.2
47.5°	1282.1	1139.2	1038.9	963.3	935.8	912.5	882.2	861.6	843.8	838.3	846.5
50°	1114.5	1018.3	915.2	852.0	831.4	809.4	786.1	766.8	758.6	753.1	758.6
52.5°	979.8	876.7	806.7	755.8	735.2	718.7	702.2	694.0	683.0	685.7	691.2
55°	858.9	768.2	709.1	672.0	659.6	652.8	632.1	622.5	618.4	615.6	618.4
57.5°	744.8	678.9	634.9	603.3	586.8	582.7	566.2	566.2	562.1	557.9	559.3
60°	654.1	597.8	555.2	530.4	527.7	520.8	509.8	508.5	498.8	503.0	504.3
62.5°	562.1	516.7	487.8	472.7	463.1	460.4	453.5	452.1	448.0	449.4	446.6
65°	489.2	452.1	423.3	410.9	406.8	405.4	399.9	395.8	393.0	395.8	393.0
67.5°	416.4	391.7	369.7	357.3	351.8	350.4	346.3	343.6	344.9	340.8	343.6
70°	347.7	322.9	309.2	302.3	299.6	295.5	295.5	295.5	295.5	292.7	291.3
72.5°	292.7	268.0	258.4	254.2	251.5	250.1	246.0	247.4	246.0	244.6	250.1
75°	232.2	217.1	207.5	203.4	206.1	202.0	197.9	200.6	196.5	197.9	203.4
77.5°	175.9	169.0	163.5	160.8	158.0	155.3	155.3	152.5	152.5	152.5	152.5
80°	127.8	126.4	116.8	115.4	115.4	112.7	112.7	112.7	112.7	111.3	112.7
82.5°	85.2	83.8	81.1	79.7	77.0	78.3	78.3	75.6	75.6	74.2	75.6
85°	49.5	49.5	46.7	45.3	44.0	45.3	42.6	41.2	42.6	41.2	42.6
87.5°	23.4	20.6	22.0	20.6	17.9	19.2	16.5	17.9	16.5	15.1	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°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1789.2	1785.1	1779.6	1779.6	1772.7	1772.7	1761.7	1742.5	1726.0	1720.5	1723.3
5°	1941.8	1943.1	1934.9	1928.0	1915.7	1906.0	1888.2	1853.8	1842.8	1820.8	1805.7
7.5°	2116.3	2110.8	2095.7	2084.7	2081.9	2059.9	2021.5	1980.2	1947.3	1925.3	1893.7
10°	2312.8	2290.8	2268.8	2262.0	2245.5	2208.4	2164.4	2119.0	2073.7	2025.6	1972.0
12.5°	2477.7	2435.1	2433.7	2417.2	2385.6	2365.0	2312.8	2248.2	2169.9	2116.3	2055.8
15°	2655.0	2615.1	2582.1	2551.9	2536.8	2476.3	2432.4	2351.3	2257.8	2200.1	2158.9
17.5°	2781.4	2763.5	2707.2	2693.5	2672.8	2602.8	2532.7	2453.0	2371.9	2290.8	2179.5
20°	2883.1	2872.1	2835.0	2815.8	2782.8	2727.8	2642.6	2550.5	2457.1	2341.7	2237.2
22.5°	2927.1	2913.3	2883.1	2866.6	2846.0	2799.3	2726.4	2622.0	2499.7	2396.6	2285.3
25°	2840.5	2865.2	2857.0	2850.1	2841.9	2814.4	2759.4	2667.4	2547.8	2431.0	2292.2
27.5°	2645.4	2688.0	2729.2	2734.7	2748.4	2759.4	2737.4	2671.5	2571.2	2447.5	2294.9
30°	2382.9	2402.1	2486.0	2510.7	2529.9	2600.0	2641.2	2624.8	2547.8	2436.5	2296.3
32.5°	2046.2	2097.1	2182.3	2241.3	2293.6	2371.9	2479.1	2521.7	2494.2	2403.5	2264.7
35°	1727.4	1787.9	1886.8	1962.4	2014.6	2125.9	2252.3	2344.4	2378.8	2333.4	2209.7
37.5°	1466.3	1539.1	1627.1	1655.9	1716.4	1853.8	2028.3	2156.1	2240.0	2244.1	2147.9
40°	1269.8	1306.9	1377.0	1420.9	1480.0	1595.5	1765.9	1934.9	2061.3	2103.9	2053.1
42.5°	1103.5	1132.4	1184.6	1238.2	1291.8	1379.7	1536.4	1694.4	1864.8	1950.0	1948.6
45°	971.6	1001.8	1037.5	1081.5	1118.6	1213.4	1337.1	1499.3	1646.3	1778.2	1811.2
47.5°	856.1	882.2	926.2	945.5	970.2	1059.5	1166.7	1317.9	1470.4	1621.6	1660.1
50°	770.9	792.9	823.2	835.5	863.0	929.0	1016.9	1139.2	1308.3	1447.0	1518.5
52.5°	694.0	710.5	733.8	743.5	762.7	812.2	891.9	988.1	1128.2	1271.1	1371.5
55°	628.0	639.0	655.5	666.5	680.2	724.2	783.3	869.9	990.8	1114.5	1212.1
57.5°	566.2	574.4	590.9	596.4	607.4	641.8	683.0	755.8	867.1	977.1	1071.9
60°	508.5	514.0	523.6	535.9	544.2	567.6	606.0	666.5	755.8	856.1	933.1
62.5°	453.5	461.7	464.5	470.0	476.9	498.8	529.1	573.0	651.4	733.8	814.9
65°	397.1	404.0	409.5	410.9	417.8	434.3	461.7	500.2	551.1	622.5	698.1
67.5°	344.9	349.1	351.8	357.3	364.2	372.4	394.4	423.3	470.0	527.7	588.2
70°	296.8	296.8	301.0	302.3	310.6	320.2	329.8	357.3	398.5	445.2	486.5
72.5°	244.6	251.5	250.1	257.0	255.6	262.5	274.8	292.7	322.9	360.0	399.9
75°	199.3	203.4	203.4	203.4	206.1	211.6	218.5	235.0	258.4	288.6	311.9
77.5°	155.3	158.0	158.0	158.0	159.4	164.9	171.8	182.8	199.3	217.1	230.9
80°	111.3	114.1	114.1	116.8	116.8	118.2	125.1	130.6	138.8	152.5	166.3
82.5°	75.6	77.0	79.7	79.7	78.3	81.1	82.5	87.9	96.2	98.9	108.6
85°	41.2	42.6	44.0	44.0	45.3	48.1	46.7	52.2	52.2	57.7	60.5
87.5°	16.5	19.2	19.2	17.9	19.2	19.2	19.2	22.0	23.4	24.7	23.4
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: P998437

CATALOG NUMBER: S124DR-B1020DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1710.9	1705.4	1701.3	1701.3	1688.9	1676.5	1669.7	1666.9	1664.2	1653.2	1638.1
5°	1781.0	1763.1	1750.7	1738.4	1717.8	1695.8	1673.8	1661.4	1643.6	1618.8	1601.0
7.5°	1859.3	1816.7	1803.0	1787.9	1746.6	1709.5	1679.3	1653.2	1624.3	1592.7	1561.1
10°	1925.3	1879.9	1849.7	1823.6	1770.0	1720.5	1675.2	1636.7	1599.6	1558.4	1519.9
12.5°	1988.5	1923.9	1892.3	1853.8	1797.5	1726.0	1666.9	1618.8	1563.9	1521.3	1474.5
15°	2076.4	1967.9	1915.7	1890.9	1815.3	1731.5	1660.1	1588.6	1543.2	1478.7	1437.4
17.5°	2090.2	2002.2	1967.9	1904.7	1814.0	1719.1	1636.7	1565.2	1496.5	1438.8	1385.2
20°	2138.3	2022.8	1967.9	1928.0	1808.5	1712.3	1621.6	1529.5	1463.5	1401.7	1341.2
22.5°	2168.5	2038.0	1980.2	1917.0	1803.0	1687.5	1580.3	1500.6	1419.6	1356.3	1308.3
25°	2160.3	2029.7	1965.1	1906.0	1767.2	1651.8	1555.6	1453.9	1378.3	1309.6	1246.4
27.5°	2156.1	2009.1	1940.4	1874.4	1743.9	1622.9	1502.0	1419.6	1335.7	1256.0	1209.3
30°	2145.1	1983.0	1903.3	1831.8	1695.8	1569.4	1466.3	1370.1	1286.3	1213.4	1151.6
32.5°	2108.0	1939.0	1862.1	1785.1	1643.6	1517.1	1412.7	1323.4	1239.5	1164.0	1104.9
35°	2058.6	1886.8	1803.0	1721.9	1580.3	1452.5	1356.3	1262.9	1184.6	1111.7	1055.4
37.5°	2009.1	1826.3	1748.0	1654.6	1524.0	1390.7	1291.8	1207.9	1135.1	1059.5	997.7
40°	1937.6	1754.9	1668.3	1588.6	1436.1	1311.0	1220.3	1144.7	1073.3	1001.8	949.6
42.5°	1840.1	1676.5	1587.2	1499.3	1356.3	1232.7	1144.7	1077.4	1010.0	951.0	893.2
45°	1741.1	1581.7	1502.0	1423.7	1268.4	1151.6	1070.5	1008.7	952.3	887.7	841.0
47.5°	1621.6	1486.9	1407.2	1330.2	1183.2	1066.4	992.2	934.5	882.2	828.7	784.7
50°	1499.3	1382.5	1309.6	1229.9	1089.8	983.9	911.1	863.0	820.4	769.6	733.8
52.5°	1367.3	1265.7	1203.8	1126.9	1003.2	905.6	831.4	783.3	747.6	710.5	678.9
55°	1227.2	1153.0	1087.0	1025.2	908.4	820.4	754.4	711.8	687.1	652.8	625.3
57.5°	1100.7	1029.3	989.4	919.3	817.7	731.1	678.9	643.1	614.3	593.7	571.7
60°	968.8	911.1	867.1	816.3	727.0	654.1	599.2	578.5	548.3	533.2	523.6
62.5°	842.4	801.2	759.9	721.5	641.8	573.0	531.8	505.7	487.8	472.7	464.5
65°	722.8	684.4	655.5	621.1	555.2	500.2	461.7	441.1	423.3	419.1	409.5
67.5°	606.0	589.5	557.9	530.4	474.1	431.5	402.6	376.5	366.9	362.8	354.5
70°	507.1	487.8	463.1	439.7	397.1	360.0	333.9	324.3	310.6	309.2	299.6
72.5°	417.8	394.4	376.5	358.7	327.1	294.1	280.3	266.6	259.7	254.2	250.1
75°	331.2	314.7	302.3	287.2	259.7	237.7	218.5	213.0	208.9	207.5	204.8
77.5°	247.4	236.4	230.9	215.8	196.5	177.3	169.0	160.8	160.8	158.0	159.4
80°	175.9	169.0	162.2	153.9	137.4	129.2	122.3	116.8	114.1	112.7	114.1
82.5°	111.3	107.2	105.8	100.3	89.3	85.2	79.7	75.6	75.6	75.6	75.6
85°	61.8	61.8	61.8	53.6	49.5	45.3	42.6	41.2	41.2	41.2	42.6
87.5°	26.1	26.1	22.0	22.0	20.6	17.9	16.5	16.5	17.9	17.9	19.2
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: P998437

CATALOG NUMBER: S124DR-B1020DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1633.9	1628.4	1631.2	1617.5	1605.1	1587.2	1572.1	1569.4	1566.6	1574.9	1569.4
5°	1587.2	1580.3	1573.5	1557.0	1532.2	1517.1	1495.1	1493.8	1485.5	1473.2	1475.9
7.5°	1536.4	1532.2	1522.6	1496.5	1474.5	1448.4	1430.6	1415.4	1408.6	1397.6	1393.5
10°	1495.1	1480.0	1471.8	1442.9	1416.8	1389.3	1366.0	1355.0	1342.6	1333.0	1326.1
12.5°	1438.8	1434.7	1411.3	1388.0	1366.0	1334.4	1316.5	1284.9	1268.4	1276.6	1273.9
15°	1401.7	1382.5	1377.0	1344.0	1306.9	1286.3	1253.3	1232.7	1225.8	1213.4	1198.3
17.5°	1352.2	1339.9	1320.6	1290.4	1247.8	1218.9	1195.6	1176.3	1168.1	1151.6	1139.2
20°	1305.5	1284.9	1269.8	1242.3	1201.1	1164.0	1135.1	1122.7	1102.1	1088.4	1081.5
22.5°	1262.9	1247.8	1225.8	1184.6	1148.8	1113.1	1078.8	1060.9	1041.7	1033.4	1022.4
25°	1210.7	1185.9	1170.8	1125.5	1087.0	1058.1	1026.5	1003.2	992.2	978.4	975.7
27.5°	1159.8	1136.5	1118.6	1078.8	1032.0	994.9	975.7	959.2	940.0	940.0	933.1
30°	1109.0	1092.5	1065.0	1026.5	982.6	946.8	924.8	909.7	902.9	897.4	896.0
32.5°	1058.1	1036.2	1019.7	967.4	934.5	901.5	885.0	872.6	864.4	863.0	864.4
35°	1005.9	981.2	964.7	918.0	885.0	854.8	847.9	836.9	832.8	831.4	838.3
37.5°	951.0	931.7	911.1	872.6	835.5	817.7	803.9	799.8	798.4	806.7	809.4
40°	900.1	883.6	864.4	823.2	795.7	776.4	769.6	765.4	770.9	779.2	783.3
42.5°	852.0	828.7	813.5	776.4	751.7	740.7	732.5	732.5	738.0	747.6	754.4
45°	801.2	783.3	768.2	735.2	713.2	700.8	699.5	700.8	707.7	714.6	722.8
47.5°	751.7	733.8	717.3	689.9	670.6	663.7	662.4	663.7	674.7	684.4	694.0
50°	706.3	687.1	672.0	645.9	630.8	622.5	623.9	630.8	639.0	652.8	665.1
52.5°	652.8	639.0	625.3	601.9	588.2	582.7	586.8	592.3	607.4	617.0	632.1
55°	600.5	588.2	577.2	559.3	548.3	544.2	546.9	555.2	567.6	584.0	601.9
57.5°	552.4	538.7	527.7	515.3	503.0	504.3	505.7	516.7	531.8	546.9	567.6
60°	498.8	490.6	481.0	465.9	460.4	460.4	464.5	476.9	490.6	515.3	533.2
62.5°	450.7	439.7	432.9	423.3	415.0	416.4	426.0	437.0	453.5	474.1	497.5
65°	401.3	388.9	383.4	375.2	372.4	373.8	380.7	397.1	415.0	432.9	454.9
67.5°	346.3	342.2	336.7	328.4	331.2	332.6	339.4	353.2	372.4	390.3	415.0
70°	299.6	291.3	290.0	283.1	283.1	287.2	301.0	310.6	328.4	347.7	373.8
72.5°	250.1	243.2	243.2	237.7	241.9	246.0	252.9	266.6	283.1	302.3	324.3
75°	199.3	196.5	199.3	196.5	196.5	203.4	211.6	222.6	240.5	261.1	279.0
77.5°	153.9	153.9	152.5	156.7	156.7	160.8	171.8	182.8	196.5	213.0	232.2
80°	112.7	112.7	112.7	116.8	120.9	120.9	127.8	141.5	153.9	164.9	182.8
82.5°	77.0	77.0	77.0	79.7	85.2	85.2	93.4	101.7	115.4	125.1	133.3
85°	46.7	46.7	45.3	48.1	49.5	53.6	60.5	66.0	72.8	81.1	89.3
87.5°	20.6	20.6	22.0	23.4	24.7	27.5	30.2	33.0	39.9	42.6	46.7
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: P998437

CATALOG NUMBER: S124DR-B1020DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1565.2	1563.9	1557.0	1559.7	1551.5	1554.2	1558.4	1559.7	1565.2	1561.1	1559.7
5°	1469.0	1466.3	1462.2	1458.0	1456.7	1462.2	1452.5	1455.3	1458.0	1462.2	1467.7
7.5°	1390.7	1389.3	1385.2	1378.3	1375.6	1372.8	1374.2	1383.8	1382.5	1381.1	1390.7
10°	1319.2	1320.6	1312.4	1311.0	1302.8	1301.4	1302.8	1305.5	1309.6	1315.1	1316.5
12.5°	1245.0	1262.9	1247.8	1242.3	1229.9	1236.8	1239.5	1227.2	1234.0	1238.2	1258.8
15°	1198.3	1190.1	1180.5	1180.5	1175.0	1172.2	1165.3	1175.0	1180.5	1188.7	1185.9
17.5°	1133.7	1120.0	1114.5	1109.0	1110.4	1115.9	1100.7	1122.7	1122.7	1126.9	1120.0
20°	1077.4	1066.4	1059.5	1056.8	1052.6	1049.9	1048.5	1054.0	1062.3	1065.0	1071.9
22.5°	1018.3	1018.3	1007.3	1003.2	1000.4	996.3	1003.2	999.1	1004.6	1010.0	1021.0
25°	968.8	968.8	964.7	959.2	955.1	952.3	956.5	955.1	959.2	966.1	968.8
27.5°	929.0	924.8	923.5	922.1	920.7	922.1	920.7	924.8	929.0	930.3	927.6
30°	894.6	890.5	891.9	891.9	893.2	891.9	890.5	894.6	896.0	893.2	894.6
32.5°	863.0	863.0	865.8	867.1	867.1	868.5	869.9	867.1	868.5	864.4	865.8
35°	836.9	839.6	842.4	843.8	845.1	843.8	846.5	845.1	842.4	839.6	838.3
37.5°	810.8	813.5	819.0	820.4	824.5	825.9	823.2	823.2	821.8	816.3	813.5
40°	783.3	786.1	792.9	797.0	799.8	803.9	801.2	801.2	795.7	790.2	786.1
42.5°	757.2	762.7	769.6	773.7	779.2	779.2	779.2	776.4	769.6	764.1	759.9
45°	731.1	732.5	742.1	748.9	754.4	754.4	754.4	750.3	746.2	735.2	729.7
47.5°	702.2	706.3	717.3	724.2	729.7	731.1	731.1	727.0	718.7	709.1	702.2
50°	670.6	677.5	689.9	699.5	706.3	709.1	705.0	702.2	692.6	681.6	673.4
52.5°	640.4	648.6	663.7	672.0	681.6	683.0	681.6	677.5	666.5	651.4	644.5
55°	610.2	617.0	633.5	647.3	655.5	658.2	655.5	648.6	634.9	619.8	612.9
57.5°	577.2	586.8	604.7	618.4	628.0	629.4	626.6	619.8	608.8	589.5	579.9
60°	542.8	555.2	573.0	586.8	599.2	600.5	597.8	588.2	574.4	555.2	546.9
62.5°	508.5	518.1	538.7	553.8	563.4	570.3	564.8	555.2	541.4	522.2	509.8
65°	468.6	482.3	500.2	514.0	525.0	526.3	523.6	515.3	500.2	479.6	470.0
67.5°	430.1	439.7	457.6	475.5	479.6	483.7	479.6	471.4	459.0	441.1	427.4
70°	383.4	391.7	413.6	426.0	431.5	435.6	432.9	424.6	413.6	397.1	386.2
72.5°	336.7	343.6	364.2	373.8	384.8	383.4	382.0	376.5	361.4	350.4	343.6
75°	287.2	295.5	309.2	321.6	325.7	325.7	325.7	321.6	311.9	294.1	287.2
77.5°	241.9	246.0	257.0	263.8	268.0	269.3	268.0	261.1	255.6	243.2	239.1
80°	185.5	196.5	204.8	206.1	211.6	211.6	211.6	208.9	203.4	191.0	189.6
82.5°	140.2	142.9	151.2	155.3	158.0	156.7	156.7	151.2	149.8	142.9	140.2
85°	94.8	98.9	97.6	103.1	104.4	101.7	101.7	104.4	97.6	98.9	94.8
87.5°	52.2	52.2	55.0	53.6	59.1	59.1	56.3	57.7	55.0	53.6	52.2
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: P998437

CATALOG NUMBER: S124DR-B1020DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7	1658.7
2.5°	1559.7	1568.0	1559.7	1565.2	1568.0	1574.9	1577.6	1590.0	1594.1	1603.7	1603.7
5°	1466.3	1470.4	1471.8	1477.3	1482.8	1496.5	1506.1	1524.0	1544.6	1547.4	1559.7
7.5°	1390.7	1397.6	1408.6	1404.4	1414.1	1434.7	1447.0	1469.0	1489.6	1500.6	1515.8
10°	1323.4	1331.6	1335.7	1339.9	1357.7	1375.6	1394.8	1409.9	1437.4	1453.9	1466.3
12.5°	1268.4	1261.5	1269.8	1284.9	1305.5	1316.5	1342.6	1366.0	1386.6	1404.4	1415.4
15°	1196.9	1202.4	1210.7	1236.8	1242.3	1269.8	1279.4	1305.5	1344.0	1360.5	1374.2
17.5°	1128.2	1146.1	1162.6	1172.2	1188.7	1210.7	1238.2	1267.0	1291.8	1311.0	1327.5
20°	1073.3	1091.1	1100.7	1107.6	1124.1	1154.3	1180.5	1216.2	1247.8	1262.9	1284.9
22.5°	1029.3	1029.3	1043.0	1063.6	1073.3	1102.1	1124.1	1162.6	1196.9	1216.2	1236.8
25°	974.3	982.6	993.6	1011.4	1025.2	1048.5	1080.1	1113.1	1150.2	1166.7	1192.8
27.5°	929.0	938.6	953.7	957.8	971.6	992.2	1025.2	1060.9	1099.4	1117.2	1139.2
30°	894.6	900.1	905.6	913.9	926.2	944.1	971.6	1003.2	1049.9	1063.6	1091.1
32.5°	864.4	867.1	869.9	876.7	883.6	901.5	923.5	957.8	996.3	1016.9	1041.7
35°	836.9	834.1	835.5	839.6	846.5	853.4	876.7	905.6	941.3	966.1	985.3
37.5°	810.8	805.3	803.9	803.9	806.7	814.9	832.8	857.5	896.0	916.6	935.8
40°	781.9	776.4	773.7	772.3	770.9	776.4	790.2	814.9	845.1	864.4	886.4
42.5°	754.4	748.9	742.1	740.7	738.0	740.7	750.3	773.7	799.8	819.0	836.9
45°	727.0	717.3	709.1	703.6	705.0	700.8	707.7	725.6	755.8	768.2	786.1
47.5°	696.7	685.7	674.7	669.2	663.7	666.5	669.2	684.4	710.5	722.8	740.7
50°	667.9	652.8	640.4	633.5	629.4	626.6	629.4	644.5	663.7	674.7	689.9
52.5°	634.9	619.8	607.4	596.4	590.9	586.8	588.2	601.9	619.8	630.8	645.9
55°	604.7	585.4	568.9	555.2	551.1	549.7	548.3	557.9	573.0	584.0	596.4
57.5°	570.3	551.1	533.2	516.7	508.5	507.1	507.1	509.8	529.1	537.3	544.2
60°	535.9	515.3	496.1	481.0	468.6	464.5	463.1	468.6	478.2	486.5	496.1
62.5°	497.5	476.9	453.5	439.7	427.4	416.4	420.5	421.9	435.6	439.7	448.0
65°	460.4	437.0	417.8	395.8	382.0	375.2	372.4	375.2	386.2	387.5	393.0
67.5°	417.8	395.8	372.4	357.3	344.9	332.6	329.8	329.8	335.3	339.4	346.3
70°	376.5	354.5	328.4	311.9	299.6	288.6	284.5	283.1	287.2	290.0	296.8
72.5°	328.4	306.4	287.2	269.3	254.2	246.0	241.9	239.1	243.2	246.0	247.4
75°	277.6	259.7	240.5	222.6	213.0	204.8	199.3	195.1	197.9	197.9	197.9
77.5°	229.5	211.6	196.5	184.1	171.8	162.2	158.0	153.9	155.3	155.3	158.0
80°	178.6	166.3	153.9	142.9	131.9	123.7	120.9	116.8	114.1	112.7	112.7
82.5°	131.9	122.3	111.3	101.7	96.2	87.9	85.2	79.7	79.7	78.3	78.3
85°	87.9	82.5	71.5	64.6	60.5	56.3	53.6	50.8	46.7	46.7	45.3
87.5°	46.7	44.0	41.2	33.0	33.0	28.9	27.5	26.1	22.0	23.4	23.4
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: P998437

CATALOG NUMBER: S124DR-B1020DB30-4F0-XX-W2A-A

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1658.7	1658.7	1658.7	1658.7
2.5°	1613.3	1627.1	1639.4	1658.7
5°	1577.6	1596.8	1622.9	1651.8
7.5°	1536.4	1566.6	1601.0	1640.8
10°	1497.9	1532.2	1576.2	1624.3
12.5°	1458.0	1499.3	1547.4	1599.6
15°	1412.7	1453.9	1507.5	1577.6
17.5°	1371.5	1420.9	1478.7	1552.9
20°	1323.4	1370.1	1433.3	1518.5
22.5°	1280.8	1334.4	1404.4	1478.7
25°	1234.0	1280.8	1350.9	1440.2
27.5°	1187.3	1245.0	1312.4	1399.0
30°	1142.0	1190.1	1262.9	1353.6
32.5°	1092.5	1150.2	1217.6	1302.8
35°	1038.9	1093.9	1157.1	1249.2
37.5°	990.8	1044.4	1109.0	1190.1
40°	937.2	993.6	1052.6	1133.7
42.5°	885.0	935.8	994.9	1069.1
45°	834.1	878.1	931.7	996.3
47.5°	781.9	819.0	868.5	926.2
50°	725.6	765.4	802.5	850.6
52.5°	673.4	707.7	738.0	777.8
55°	622.5	645.9	670.6	700.8
57.5°	568.9	586.8	604.7	636.3
60°	515.3	531.8	541.4	562.1
62.5°	463.1	470.0	482.3	494.7
65°	405.4	415.0	421.9	437.0
67.5°	353.2	357.3	364.2	373.8
70°	298.2	307.8	310.6	317.4
72.5°	251.5	255.6	258.4	259.7
75°	199.3	203.4	206.1	214.4
77.5°	156.7	155.3	160.8	162.2
80°	115.4	111.3	112.7	118.2
82.5°	75.6	77.0	75.6	75.6
85°	46.7	45.3	42.6	44.0
87.5°	20.6	20.6	19.2	19.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)