

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: P1000413

Luminaire Tested: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1000413
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-31)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_3500K
Description: Define 4 Regressed Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

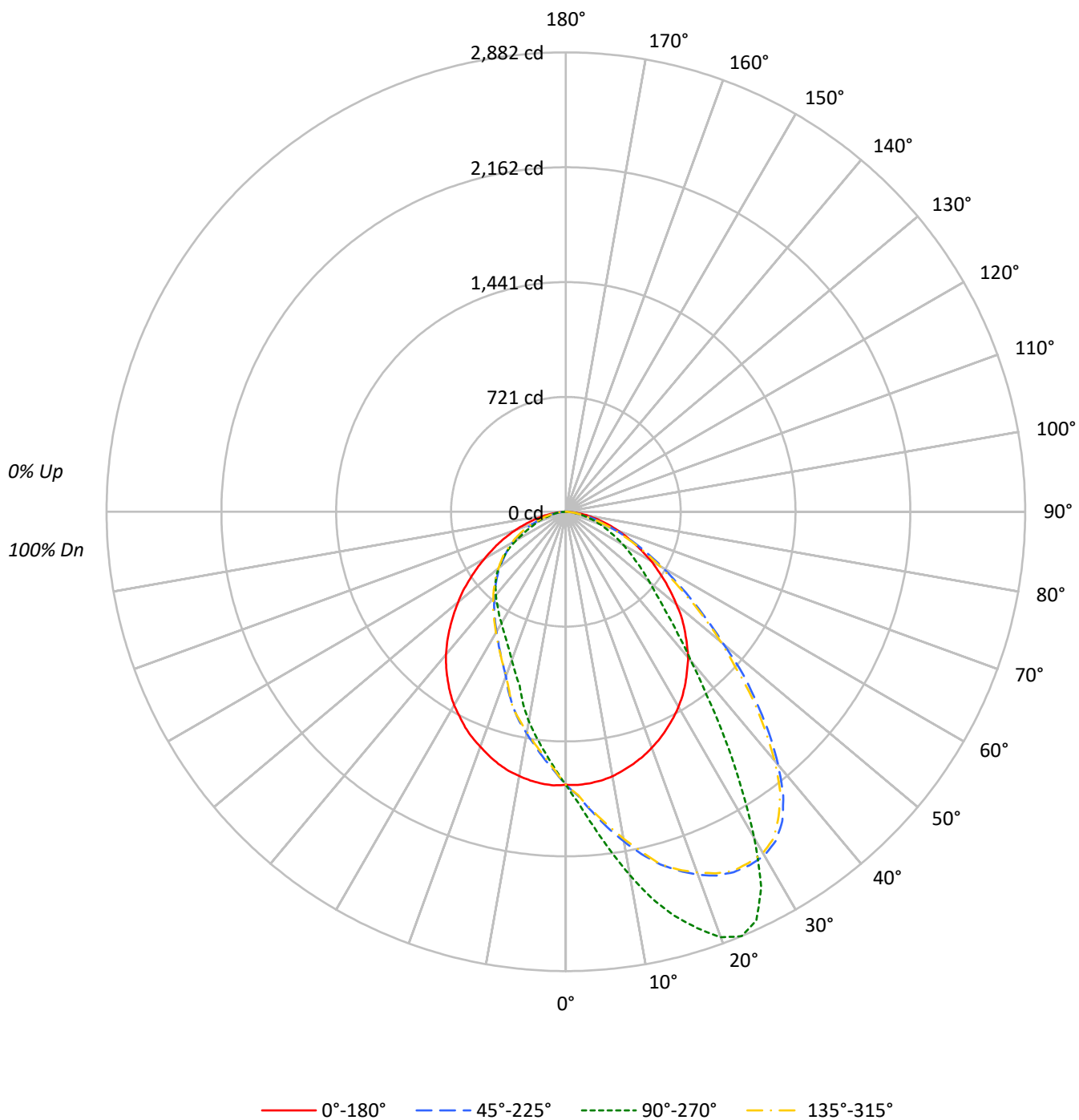
Lumens per Lamp: N/A
Luminaire Lumens: 4330.0 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92	90	88		86
2	101	93	87	82	98	92	86	81	88	83	79		85	81	77		82	79	76		74
3	93	83	76	70	90	81	75	69	79	73	68		76	71	67		73	69	65		63
4	85	74	66	60	83	73	65	59	71	64	59		68	63	58		66	61	57		55
5	79	67	58	52	77	66	58	52	64	57	51		62	56	51		60	55	50		48
6	73	61	52	46	71	60	52	46	58	51	46		56	50	45		55	49	45		43
7	68	55	47	41	66	54	47	41	53	46	41		52	45	40		50	44	40		38
8	64	51	42	37	62	50	42	37	49	42	37		47	41	36		46	40	36		34
9	59	47	39	33	58	46	38	33	45	38	33		44	38	33		43	37	33		31
10	56	43	35	30	55	43	35	30	42	35	30		41	34	30		40	34	30		28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13968	13968	13968	13968
5°	13998	16202	14021	12383
10°	13955	19166	13943	11052
15°	13820	22140	13820	9497
20°	13679	24650	13607	8588
25°	13499	25446	13437	7973
30°	13309	22276	13204	7602
35°	13026	17340	12861	7378
40°	12709	13003	12460	7258
45°	12161	10267	11859	7195
50°	11504	8667	11189	6986
55°	10792	7555	10439	6612
60°	10085	6798	9634	5853
65°	9188	5993	8895	5034
70°	8392	5398	7997	4542
75°	7524	4521	7001	3869
80°	6480	3823	5898	3630
85°	5296	3228	4388	3228

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 20884 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.9	3.8
10°-20°	500.9	11.6
20°-30°	784.6	18.1
30°-40°	871.3	20.1
40°-50°	772.0	17.8
50°-60°	601.7	13.9
60°-70°	393.6	9.1
70°-80°	193.1	4.5
80°-90°	47.0	1.1
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°	1451.3	33.5
0°-40°	2322.6	53.6
0°-60°	3696.3	85.4
0°-90°	4330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4330.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1713	1713	1713	1713	1713	
5°	1710	1979	1713	1513	1710	162
15°	1637	2622	1637	1125	1637	462
25°	1500	2828	1493	886	1500	691
35°	1308	1742	1292	741	1308	818
45°	1054	890	1028	624	1054	813
55°	759	531	734	465	759	679
65°	476	311	461	261	476	475
75°	239	144	222	123	239	253
85°	57	34	47	34	57	68
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°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1715.7	1730.8	1739.1	1746.0	1759.8	1765.3	1776.4	1779.1	1790.2	1788.8	1784.7
5°	1710.1	1736.4	1755.7	1776.4	1801.2	1815.0	1830.2	1852.3	1863.3	1878.5	1888.2
7.5°	1700.5	1736.4	1768.1	1799.9	1839.9	1862.0	1881.3	1915.8	1944.8	1969.6	1997.2
10°	1685.3	1730.8	1777.8	1820.6	1875.8	1902.0	1931.0	1982.0	2022.1	2056.6	2100.7
12.5°	1661.8	1725.3	1777.8	1835.7	1906.1	1942.0	1980.7	2041.4	2088.3	2144.9	2200.1
15°	1637.0	1707.4	1776.4	1852.3	1932.4	1973.8	2012.4	2093.8	2165.6	2230.5	2291.2
17.5°	1609.4	1686.7	1762.6	1846.8	1943.4	1994.5	2040.0	2138.0	2216.7	2300.9	2361.6
20°	1576.3	1660.4	1747.4	1841.3	1950.3	2006.9	2058.0	2169.8	2256.7	2347.8	2423.7
22.5°	1540.4	1631.5	1726.7	1828.8	1942.0	2004.1	2063.5	2183.6	2284.3	2368.5	2470.7
25°	1500.3	1597.0	1695.0	1802.6	1929.6	1997.2	2058.0	2176.7	2284.3	2394.7	2494.1
27.5°	1458.9	1558.3	1660.4	1773.6	1903.4	1969.6	2038.6	2153.2	2278.8	2398.9	2499.6
30°	1413.4	1510.0	1617.7	1725.3	1863.3	1929.6	2000.0	2124.2	2260.9	2380.9	2490.0
32.5°	1363.7	1463.1	1565.2	1677.0	1812.3	1884.0	1948.9	2089.7	2229.1	2347.8	2450.0
35°	1308.5	1402.3	1499.0	1613.5	1747.4	1812.3	1889.6	2035.9	2176.7	2302.3	2368.5
37.5°	1249.1	1338.8	1428.6	1541.7	1670.1	1748.8	1824.7	1972.4	2121.5	2205.6	2240.2
40°	1193.9	1272.6	1351.3	1460.3	1590.1	1671.5	1748.8	1902.0	2033.1	2098.0	2071.8
42.5°	1123.5	1205.0	1275.4	1376.1	1507.2	1583.2	1661.8	1820.6	1926.8	1953.1	1888.2
45°	1054.5	1122.1	1189.8	1287.8	1425.8	1490.7	1574.9	1722.6	1810.9	1787.4	1692.2
47.5°	986.9	1042.1	1105.6	1200.8	1325.0	1402.3	1481.0	1609.4	1671.5	1638.4	1505.9
50°	906.8	962.0	1028.3	1111.1	1231.2	1305.7	1367.8	1486.5	1533.5	1452.0	1291.9
52.5°	830.9	879.2	935.8	1013.1	1127.7	1195.3	1262.9	1365.1	1380.3	1286.4	1118.0
55°	759.1	797.8	857.1	919.2	1024.1	1095.9	1142.9	1229.8	1225.7	1108.3	963.4
57.5°	684.6	720.5	760.5	825.4	924.8	978.6	1029.7	1105.6	1065.6	966.2	822.6
60°	618.4	639.1	679.1	741.2	825.4	872.3	912.3	953.8	919.2	811.6	701.2
62.5°	545.2	568.7	597.7	647.3	721.9	766.0	795.0	813.0	777.1	694.3	593.5
65°	476.2	496.9	527.3	571.4	628.0	661.1	676.3	688.7	669.4	575.6	495.5
67.5°	414.1	427.9	455.5	484.5	545.2	553.5	574.2	579.7	541.1	469.3	405.8
70°	352.0	365.8	378.2	412.7	440.3	455.5	459.6	459.6	421.0	374.0	321.6
72.5°	294.0	302.3	314.7	338.2	353.3	364.4	369.9	363.0	327.1	288.5	249.8
75°	238.8	242.9	254.0	269.1	281.6	277.4	276.1	267.8	241.5	213.9	191.9
77.5°	183.6	186.3	198.8	202.9	202.9	207.0	201.5	193.2	171.2	150.4	140.8
80°	138.0	142.2	143.5	146.3	143.5	143.5	139.4	125.6	114.6	104.9	98.0
82.5°	95.2	98.0	99.4	95.2	98.0	93.9	87.0	77.3	70.4	69.0	66.3
85°	56.6	58.0	56.6	56.6	52.4	51.1	45.5	44.2	41.4	41.4	40.0
87.5°	27.6	26.2	23.5	20.7	20.7	19.3	20.7	17.9	20.7	19.3	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1795.7	1810.9	1812.3	1826.1	1821.9	1815.0	1827.5	1819.2	1835.7	1830.2	1837.1
5°	1900.6	1921.3	1939.3	1950.3	1969.6	1965.5	1986.2	1979.3	1994.5	1979.3	1998.6
7.5°	2023.5	2058.0	2075.9	2104.9	2113.2	2114.6	2139.4	2144.9	2154.6	2144.9	2156.0
10°	2143.5	2184.9	2226.4	2249.8	2265.0	2285.7	2307.8	2317.4	2324.3	2314.7	2321.6
12.5°	2252.6	2317.4	2363.0	2409.9	2421.0	2438.9	2462.4	2459.6	2487.2	2481.7	2494.1
15°	2353.3	2425.1	2480.3	2517.6	2547.9	2563.1	2607.3	2610.1	2608.7	2622.5	2614.2
17.5°	2443.1	2503.8	2582.5	2630.8	2668.0	2668.0	2692.9	2743.9	2739.8	2738.4	2746.7
20°	2516.2	2585.2	2658.4	2739.8	2770.2	2775.7	2810.2	2836.4	2840.6	2840.6	2840.6
22.5°	2571.4	2652.8	2731.5	2789.5	2813.0	2832.3	2862.6	2879.2	2884.7	2882.0	2884.7
25°	2599.0	2676.3	2756.4	2808.8	2822.6	2833.7	2836.4	2846.1	2844.7	2828.1	2837.8
27.5°	2604.5	2679.1	2731.5	2745.3	2738.4	2731.5	2687.4	2691.5	2679.1	2654.2	2663.9
30°	2579.7	2619.7	2618.3	2575.6	2563.1	2534.1	2494.1	2434.8	2386.5	2365.8	2372.7
32.5°	2490.0	2490.0	2440.3	2343.7	2300.9	2248.4	2176.7	2122.8	2059.3	2045.5	2071.8
35°	2365.8	2295.4	2204.3	2077.3	2012.4	1973.8	1849.5	1810.9	1757.1	1741.9	1754.3
37.5°	2172.5	2055.2	1922.7	1804.0	1748.8	1679.8	1570.7	1515.5	1476.9	1450.6	1463.1
40°	1955.8	1813.7	1675.6	1529.3	1468.6	1412.0	1330.6	1280.9	1218.8	1221.5	1225.7
42.5°	1748.8	1581.8	1427.2	1291.9	1233.9	1187.0	1130.4	1069.7	1047.6	1040.7	1033.8
45°	1529.3	1351.3	1206.3	1105.6	1053.1	1009.0	956.5	922.0	895.8	890.3	897.2
47.5°	1322.3	1171.8	1033.8	940.0	897.2	875.1	833.7	801.9	785.4	771.6	779.8
50°	1134.6	993.8	883.4	804.7	774.3	759.1	720.5	703.9	687.4	683.2	681.8
52.5°	980.0	859.9	764.7	701.2	677.7	669.4	640.4	617.0	603.2	607.3	610.1
55°	839.2	737.1	662.5	611.5	592.1	582.5	561.8	545.2	535.5	531.4	534.2
57.5°	715.0	626.6	572.8	531.4	516.2	512.1	490.0	484.5	477.6	473.4	473.4
60°	601.8	539.7	490.0	466.5	450.0	445.8	429.3	422.4	421.0	416.8	414.1
62.5°	506.6	455.5	421.0	396.1	389.2	387.9	376.8	368.5	364.4	361.6	361.6
65°	423.7	386.5	357.5	339.5	334.0	331.3	318.8	316.1	313.3	310.6	309.2
67.5°	353.3	320.2	299.5	287.1	280.2	281.6	274.7	269.1	269.1	267.8	266.4
70°	285.7	265.0	247.1	240.2	237.4	234.6	231.9	227.7	226.4	226.4	226.4
72.5°	225.0	211.2	201.5	197.4	194.6	191.9	189.1	189.1	189.1	187.7	187.7
75°	172.5	167.0	160.1	156.0	156.0	158.7	154.6	150.4	146.3	143.5	144.9
77.5°	129.7	127.0	122.8	115.9	117.3	114.6	114.6	111.8	113.2	113.2	110.4
80°	95.2	91.1	89.7	85.6	87.0	85.6	84.2	84.2	81.4	81.4	81.4
82.5°	66.3	62.1	62.1	60.7	59.4	59.4	58.0	58.0	59.4	56.6	56.6
85°	40.0	38.6	38.6	35.9	35.9	35.9	35.9	37.3	35.9	34.5	34.5
87.5°	17.9	19.3	17.9	16.6	16.6	16.6	15.2	15.2	13.8	15.2	15.2
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°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1841.3	1831.6	1830.2	1830.2	1815.0	1823.3	1806.8	1788.8	1780.5	1780.5	1765.3
5°	1994.5	1984.8	1975.1	1960.0	1960.0	1951.7	1925.5	1899.2	1879.9	1863.3	1845.4
7.5°	2151.8	2142.2	2114.6	2099.4	2107.6	2091.1	2056.6	2012.4	1979.3	1953.1	1915.8
10°	2323.0	2296.7	2282.9	2274.7	2245.7	2227.7	2187.7	2122.8	2081.4	2046.9	1998.6
12.5°	2462.4	2470.7	2418.2	2422.3	2393.4	2368.5	2306.4	2244.3	2182.2	2133.9	2062.1
15°	2612.8	2588.0	2556.2	2531.4	2521.7	2491.4	2438.9	2356.1	2288.5	2212.5	2131.1
17.5°	2731.5	2712.2	2681.8	2658.4	2637.7	2564.5	2520.3	2447.2	2354.7	2280.2	2180.8
20°	2832.3	2814.3	2771.6	2756.4	2719.1	2666.7	2603.2	2490.0	2407.2	2325.7	2229.1
22.5°	2875.1	2857.1	2819.9	2800.5	2777.1	2726.0	2665.3	2557.6	2455.5	2353.3	2251.2
25°	2839.2	2839.2	2821.2	2814.3	2793.6	2748.1	2686.0	2594.9	2485.8	2375.4	2254.0
27.5°	2665.3	2699.8	2712.2	2719.1	2719.1	2720.5	2677.7	2589.4	2483.1	2375.4	2248.4
30°	2414.1	2472.0	2523.1	2538.3	2564.5	2593.5	2611.4	2568.7	2473.4	2360.2	2233.3
32.5°	2098.0	2172.5	2267.8	2291.2	2327.1	2414.1	2462.4	2480.3	2427.9	2328.5	2193.2
35°	1783.3	1877.1	1935.1	2006.9	2040.0	2168.4	2276.0	2340.9	2328.5	2269.1	2146.3
37.5°	1508.6	1562.4	1632.8	1708.8	1775.0	1897.9	2031.7	2157.3	2208.4	2179.4	2086.9
40°	1245.0	1308.5	1392.7	1454.8	1500.3	1623.2	1788.8	1925.5	2037.3	2055.2	1998.6
42.5°	1058.7	1122.1	1173.2	1240.8	1276.7	1395.4	1541.7	1712.9	1845.4	1915.8	1890.9
45°	915.1	953.8	995.2	1033.8	1078.0	1182.9	1318.1	1505.9	1654.9	1754.3	1764.0
47.5°	789.5	824.0	859.9	895.8	920.6	1002.1	1126.3	1279.5	1442.4	1579.0	1632.8
50°	701.2	717.7	744.0	764.7	793.6	864.0	963.4	1095.9	1268.5	1416.1	1486.5
52.5°	614.2	634.9	655.6	673.6	692.9	742.6	833.7	948.2	1097.3	1249.1	1336.1
55°	541.1	557.6	576.9	589.4	600.4	644.6	713.6	801.9	930.3	1073.8	1181.5
57.5°	481.7	488.6	505.2	512.1	524.5	560.4	610.1	688.7	792.3	931.7	1020.0
60°	416.8	430.6	443.1	448.6	458.2	483.1	517.6	590.7	680.5	782.6	883.4
62.5°	364.4	369.9	379.6	386.5	393.4	419.6	448.6	503.8	571.4	657.0	749.5
65°	316.1	318.8	324.4	334.0	338.2	357.5	374.0	414.1	477.6	542.4	634.9
67.5°	266.4	269.1	276.1	281.6	285.7	298.1	316.1	345.1	379.6	451.3	502.4
70°	227.7	227.7	231.9	234.6	238.8	244.3	254.0	276.1	307.8	353.3	400.3
72.5°	190.5	190.5	190.5	194.6	194.6	198.8	204.3	219.5	241.5	277.4	307.8
75°	147.7	149.1	151.8	151.8	153.2	158.7	162.9	167.0	178.1	201.5	229.1
77.5°	111.8	114.6	115.9	113.2	115.9	115.9	121.5	127.0	132.5	139.4	160.1
80°	82.8	84.2	81.4	82.8	82.8	85.6	88.3	87.0	89.7	98.0	103.5
82.5°	55.2	56.6	56.6	56.6	56.6	60.7	60.7	59.4	60.7	62.1	63.5
85°	34.5	33.1	33.1	34.5	33.1	33.1	34.5	35.9	34.5	35.9	37.3
87.5°	15.2	15.2	15.2	15.2	13.8	13.8	15.2	13.8	15.2	13.8	12.4
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: P1000413

CATALOG NUMBER: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1757.1	1750.2	1746.0	1744.6	1732.2	1725.3	1721.2	1718.4	1714.3	1703.2	1693.6
5°	1823.3	1804.0	1794.3	1783.3	1764.0	1741.9	1723.9	1712.9	1699.1	1677.0	1656.3
7.5°	1885.4	1856.4	1837.1	1821.9	1788.8	1752.9	1723.9	1700.5	1674.2	1643.9	1614.9
10°	1950.3	1903.4	1878.5	1855.1	1806.8	1759.8	1718.4	1683.9	1646.6	1606.6	1574.9
12.5°	2001.4	1939.3	1911.7	1878.5	1819.2	1764.0	1711.5	1664.6	1616.3	1573.5	1527.9
15°	2060.7	1983.4	1951.7	1908.9	1827.5	1755.7	1688.1	1637.0	1587.3	1523.8	1475.5
17.5°	2095.2	2005.5	1960.0	1922.7	1834.4	1747.4	1668.7	1605.2	1547.3	1483.8	1432.7
20°	2129.7	2027.6	1976.5	1924.1	1819.2	1726.7	1643.9	1568.0	1507.2	1438.2	1385.8
22.5°	2140.8	2022.1	1968.2	1919.9	1809.5	1706.0	1610.8	1533.5	1463.1	1394.1	1334.7
25°	2140.8	2020.7	1957.2	1895.1	1779.1	1672.9	1577.6	1493.4	1414.8	1345.7	1286.4
27.5°	2118.7	1993.1	1926.8	1870.2	1750.2	1635.6	1537.6	1445.1	1369.2	1300.2	1232.6
30°	2091.1	1953.1	1886.8	1819.2	1703.2	1594.2	1487.9	1402.3	1322.3	1243.6	1182.9
32.5°	2056.6	1910.3	1837.1	1768.1	1645.3	1532.1	1434.1	1349.9	1274.0	1192.5	1124.9
35°	2006.9	1846.8	1765.3	1704.6	1585.9	1468.6	1374.7	1291.9	1218.8	1134.6	1061.4
37.5°	1943.4	1788.8	1706.0	1631.5	1508.6	1401.0	1312.6	1232.6	1160.8	1083.5	1002.1
40°	1868.9	1707.4	1635.6	1556.9	1427.2	1325.0	1242.2	1170.5	1098.7	1025.5	946.9
42.5°	1784.7	1624.6	1544.5	1468.6	1344.4	1243.6	1166.3	1101.4	1035.2	967.6	883.4
45°	1683.9	1533.5	1456.2	1384.4	1264.3	1160.8	1090.4	1028.3	971.7	902.7	828.2
47.5°	1570.7	1439.6	1360.9	1283.6	1166.3	1076.6	1007.6	955.1	906.8	837.8	770.2
50°	1460.3	1330.6	1267.1	1188.4	1080.7	996.5	926.2	882.0	844.7	777.1	716.4
52.5°	1320.9	1222.9	1162.2	1094.5	991.0	905.4	850.2	811.6	767.4	715.0	661.1
55°	1198.1	1107.0	1058.7	995.2	893.0	817.1	770.2	734.3	699.8	652.9	610.1
57.5°	1058.7	1002.1	953.8	898.5	797.8	732.9	691.5	661.1	629.4	590.7	556.2
60°	912.3	886.1	839.2	795.0	709.5	652.9	618.4	590.7	560.4	528.6	499.7
62.5°	782.6	767.4	739.8	705.3	625.3	576.9	542.4	521.7	499.7	470.7	443.1
65°	659.8	652.9	626.6	601.8	546.6	503.8	473.4	461.0	436.2	414.1	389.2
67.5°	550.7	542.4	527.3	516.2	469.3	429.3	414.1	397.5	376.8	360.2	339.5
70°	440.3	438.9	429.3	415.5	390.6	361.6	346.4	335.4	314.7	302.3	287.1
72.5°	342.3	349.2	340.9	335.4	318.8	298.1	284.3	277.4	260.9	251.2	240.2
75°	255.3	260.9	265.0	255.3	251.2	241.5	229.1	222.2	213.9	200.1	196.0
77.5°	173.9	186.3	186.3	189.1	190.5	185.0	175.3	169.8	160.1	157.3	151.8
80°	114.6	125.6	127.0	129.7	133.9	133.9	127.0	125.6	115.9	114.6	110.4
82.5°	66.3	75.9	81.4	85.6	84.2	89.7	84.2	82.8	77.3	77.3	74.5
85°	35.9	37.3	40.0	42.8	45.5	48.3	48.3	46.9	45.5	44.2	41.4
87.5°	13.8	13.8	15.2	13.8	15.2	17.9	19.3	19.3	17.9	16.6	13.8
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°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1685.3	1682.5	1679.8	1668.7	1659.1	1642.5	1628.7	1623.2	1621.8	1623.2	1619.0
5°	1637.0	1635.6	1625.9	1606.6	1588.7	1569.3	1555.5	1541.7	1533.5	1533.5	1523.8
7.5°	1591.4	1581.8	1573.5	1548.6	1527.9	1501.7	1481.0	1468.6	1461.7	1446.5	1446.5
10°	1543.1	1529.3	1518.3	1494.8	1464.5	1438.2	1412.0	1396.8	1384.4	1373.4	1369.2
12.5°	1494.8	1483.8	1463.1	1438.2	1407.9	1374.7	1347.1	1336.1	1307.1	1283.6	1285.0
15°	1449.3	1424.4	1414.8	1378.9	1343.0	1311.2	1271.2	1239.5	1216.0	1200.8	1181.5
17.5°	1398.2	1373.4	1355.4	1325.0	1278.1	1228.4	1189.8	1147.0	1123.5	1097.3	1084.9
20°	1341.6	1320.9	1307.1	1258.8	1202.2	1142.9	1100.1	1073.8	1047.6	1028.3	1017.2
22.5°	1293.3	1267.1	1250.5	1185.6	1123.5	1064.2	1031.1	1009.0	986.9	970.3	964.8
25°	1231.2	1216.0	1176.0	1119.4	1043.5	1003.4	974.5	945.5	933.1	922.0	909.6
27.5°	1180.1	1142.9	1115.2	1040.7	993.8	948.2	919.2	897.2	882.0	870.9	861.3
30°	1116.6	1082.1	1043.5	981.4	938.6	895.8	869.6	851.6	835.1	828.2	819.9
32.5°	1050.4	1018.6	981.4	931.7	879.2	846.1	825.4	806.1	795.0	788.1	778.5
35°	991.0	951.0	926.2	879.2	836.4	799.2	779.8	763.3	750.9	748.1	746.7
37.5°	927.5	897.2	873.7	825.4	789.5	757.8	739.8	721.9	715.0	713.6	708.1
40°	872.3	846.1	824.0	778.5	739.8	710.8	697.0	686.0	679.1	679.1	677.7
42.5°	824.0	796.4	774.3	732.9	698.4	672.2	657.0	646.0	643.2	644.6	643.2
45°	770.2	746.7	724.6	681.8	652.9	633.5	617.0	611.5	607.3	608.7	610.1
47.5°	719.1	699.8	677.7	643.2	610.1	589.4	579.7	574.2	574.2	574.2	576.9
50°	673.6	651.5	632.2	596.3	565.9	549.3	541.1	534.2	535.5	536.9	538.3
52.5°	619.7	600.4	586.6	550.7	528.6	507.9	498.3	499.7	498.3	498.3	501.0
55°	572.8	553.5	539.7	506.6	484.5	470.7	462.4	458.2	459.6	456.9	462.4
57.5°	520.4	503.8	494.1	462.4	443.1	430.6	423.7	416.8	419.6	418.2	416.8
60°	474.8	455.5	440.3	418.2	401.7	386.5	382.3	375.4	378.2	375.4	374.0
62.5°	422.4	407.2	396.1	374.0	360.2	347.8	338.2	334.0	332.6	328.5	324.4
65°	369.9	361.6	350.6	328.5	314.7	305.0	299.5	295.4	294.0	283.0	270.5
67.5°	321.6	316.1	305.0	288.5	276.1	266.4	258.1	251.2	242.9	234.6	227.7
70°	276.1	267.8	260.9	245.7	234.6	225.0	216.7	208.4	204.3	196.0	193.2
72.5°	231.9	223.6	216.7	202.9	193.2	183.6	180.8	171.2	167.0	165.6	165.6
75°	186.3	179.4	175.3	162.9	154.6	147.7	143.5	140.8	138.0	135.3	131.1
77.5°	142.2	138.0	135.3	127.0	120.1	115.9	114.6	104.9	102.1	99.4	96.6
80°	103.5	102.1	99.4	92.5	89.7	80.1	80.1	77.3	75.9	75.9	75.9
82.5°	70.4	67.6	66.3	59.4	58.0	56.6	55.2	53.8	55.2	53.8	55.2
85°	37.3	35.9	34.5	34.5	34.5	34.5	34.5	34.5	34.5	33.1	34.5
87.5°	13.8	13.8	13.8	13.8	12.4	13.8	13.8	12.4	13.8	13.8	13.8
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: P1000413

CATALOG NUMBER: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1619.0	1624.6	1617.7	1621.8	1612.1	1610.8	1612.1	1612.1	1613.5	1614.9	1616.3
5°	1527.9	1526.6	1518.3	1512.8	1508.6	1512.8	1515.5	1518.3	1515.5	1518.3	1519.7
7.5°	1442.4	1438.2	1434.1	1424.4	1427.2	1424.4	1432.7	1428.6	1428.6	1435.5	1441.0
10°	1366.5	1358.2	1355.4	1344.4	1336.1	1334.7	1344.4	1348.5	1352.6	1355.4	1366.5
12.5°	1268.5	1256.0	1246.4	1250.5	1227.0	1236.7	1239.5	1233.9	1250.5	1269.8	1258.8
15°	1163.6	1164.9	1145.6	1138.7	1119.4	1124.9	1126.3	1140.1	1153.9	1152.5	1169.1
17.5°	1086.3	1078.0	1061.4	1060.0	1051.8	1055.9	1054.5	1065.6	1061.4	1068.3	1082.1
20°	1014.5	1009.0	995.2	989.6	992.4	989.6	991.0	992.4	996.5	1011.7	1009.0
22.5°	957.9	951.0	951.0	944.1	935.8	933.1	940.0	944.1	949.6	952.4	959.3
25°	908.2	902.7	895.8	891.6	884.7	886.1	890.3	895.8	899.9	905.4	911.0
27.5°	857.1	857.1	850.2	848.9	846.1	844.7	850.2	853.0	853.0	857.1	862.7
30°	817.1	817.1	810.2	808.8	807.4	807.4	811.6	813.0	814.4	818.5	821.3
32.5°	778.5	777.1	774.3	775.7	774.3	775.7	775.7	777.1	779.8	781.2	786.7
35°	742.6	744.0	741.2	741.2	739.8	741.2	744.0	745.3	746.7	749.5	749.5
37.5°	708.1	710.8	709.5	713.6	713.6	713.6	713.6	716.4	716.4	716.4	715.0
40°	677.7	677.7	676.3	679.1	681.8	681.8	683.2	683.2	684.6	684.6	683.2
42.5°	643.2	646.0	650.1	651.5	654.2	652.9	657.0	655.6	657.0	654.2	651.5
45°	611.5	611.5	617.0	622.5	623.9	623.9	623.9	626.6	623.9	619.7	618.4
47.5°	576.9	579.7	582.5	589.4	590.7	590.7	590.7	590.7	588.0	588.0	588.0
50°	542.4	543.8	545.2	548.0	552.1	550.7	550.7	550.7	556.2	550.7	552.1
52.5°	501.0	502.4	503.8	509.3	507.9	507.9	509.3	509.3	513.5	512.1	509.3
55°	459.6	459.6	462.4	462.4	462.4	465.1	466.5	469.3	467.9	469.3	470.7
57.5°	418.2	415.5	414.1	414.1	418.2	416.8	418.2	418.2	423.7	426.5	427.9
60°	369.9	369.9	368.5	360.2	360.2	358.9	363.0	365.8	368.5	381.0	379.6
62.5°	320.2	314.7	309.2	310.6	302.3	306.4	303.7	306.4	314.7	324.4	325.7
65°	270.5	266.4	260.9	259.5	256.7	260.9	259.5	260.9	265.0	270.5	277.4
67.5°	226.4	225.0	222.2	220.8	220.8	220.8	223.6	223.6	225.0	229.1	233.3
70°	193.2	191.9	193.2	190.5	191.9	190.5	191.9	193.2	194.6	196.0	200.1
72.5°	162.9	162.9	162.9	160.1	162.9	161.5	161.5	162.9	164.3	165.6	168.4
75°	129.7	127.0	124.2	121.5	120.1	122.8	124.2	122.8	127.0	132.5	132.5
77.5°	98.0	96.6	96.6	96.6	98.0	96.6	99.4	98.0	99.4	99.4	102.1
80°	75.9	74.5	75.9	75.9	74.5	77.3	75.9	75.9	77.3	78.7	77.3
82.5°	55.2	56.6	55.2	55.2	55.2	58.0	55.2	55.2	55.2	56.6	56.6
85°	34.5	34.5	34.5	34.5	35.9	34.5	35.9	34.5	37.3	35.9	35.9
87.5°	12.4	13.8	15.2	15.2	15.2	15.2	13.8	15.2	16.6	15.2	16.6
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: P1000413

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9	1712.9
2.5°	1621.8	1628.7	1625.9	1616.3	1620.4	1628.7	1637.0	1648.0	1654.9	1660.4	1663.2
5°	1526.6	1539.0	1536.2	1536.2	1541.7	1555.5	1569.3	1592.8	1601.1	1610.8	1624.6
7.5°	1442.4	1452.0	1460.3	1463.1	1471.4	1489.3	1507.2	1533.5	1554.2	1565.2	1573.5
10°	1367.8	1374.7	1387.2	1394.1	1402.3	1424.4	1450.6	1478.3	1499.0	1518.3	1529.3
12.5°	1272.6	1300.2	1316.8	1327.8	1338.8	1372.0	1392.7	1423.0	1447.9	1465.8	1482.4
15°	1166.3	1199.4	1209.1	1251.9	1279.5	1305.7	1337.5	1373.4	1396.8	1417.5	1439.6
17.5°	1076.6	1100.1	1111.1	1156.7	1180.1	1221.5	1267.1	1312.6	1348.5	1363.7	1385.8
20°	1020.0	1032.4	1054.5	1069.7	1094.5	1142.9	1192.5	1247.8	1301.6	1316.8	1338.8
22.5°	962.0	978.6	993.8	1014.5	1033.8	1066.9	1116.6	1177.4	1235.3	1262.9	1289.2
25°	909.6	926.2	935.8	957.9	975.8	1009.0	1043.5	1105.6	1174.6	1198.1	1239.5
27.5°	868.2	877.8	894.4	904.1	924.8	955.1	986.9	1033.8	1101.4	1141.5	1181.5
30°	826.8	833.7	847.5	861.3	876.5	897.2	933.1	978.6	1040.7	1075.2	1115.2
32.5°	785.4	796.4	804.7	814.4	830.9	855.8	880.6	924.8	974.5	1013.1	1053.1
35°	750.9	755.0	766.0	777.1	788.1	810.2	836.4	879.2	923.4	953.8	989.6
37.5°	713.6	720.5	728.8	732.9	750.9	764.7	792.3	825.4	877.8	897.2	933.1
40°	684.6	683.2	691.5	698.4	706.7	728.8	745.3	781.2	822.6	853.0	875.1
42.5°	648.7	648.7	651.5	659.8	670.8	684.6	703.9	734.3	777.1	799.2	825.4
45°	619.7	615.6	617.0	622.5	629.4	643.2	662.5	688.7	731.5	749.5	777.1
47.5°	585.2	581.1	581.1	586.6	592.1	601.8	617.0	647.3	681.8	705.3	726.0
50°	546.6	548.0	546.6	550.7	553.5	563.1	579.7	604.6	636.3	655.6	679.1
52.5°	510.7	507.9	506.6	509.3	514.8	521.7	539.7	561.8	592.1	611.5	632.2
55°	466.5	469.3	469.3	469.3	477.6	480.3	494.1	516.2	546.6	561.8	581.1
57.5°	426.5	425.1	427.9	426.5	433.4	443.1	454.1	470.7	501.0	516.2	534.2
60°	382.3	383.7	385.1	385.1	390.6	400.3	412.7	427.9	452.7	467.9	484.5
62.5°	328.5	335.4	342.3	345.1	353.3	360.2	368.5	385.1	407.2	418.2	433.4
65°	277.4	287.1	296.8	303.7	309.2	316.1	327.1	342.3	360.2	371.3	386.5
67.5°	233.3	240.2	252.6	259.5	270.5	278.8	285.7	298.1	320.2	324.4	336.8
70°	201.5	204.3	209.8	215.3	227.7	234.6	242.9	255.3	271.9	281.6	288.5
72.5°	169.8	171.2	173.9	179.4	185.0	193.2	202.9	213.9	229.1	233.3	242.9
75°	135.3	143.5	143.5	147.7	151.8	156.0	164.3	175.3	185.0	191.9	197.4
77.5°	100.8	104.9	107.7	114.6	120.1	124.2	129.7	138.0	143.5	149.1	153.2
80°	78.7	80.1	81.4	81.4	84.2	89.7	95.2	100.8	107.7	110.4	114.6
82.5°	58.0	58.0	58.0	60.7	62.1	63.5	63.5	66.3	73.2	75.9	80.1
85°	37.3	37.3	37.3	37.3	38.6	40.0	41.4	42.8	42.8	42.8	45.5
87.5°	15.2	17.9	16.6	17.9	17.9	17.9	17.9	19.3	19.3	20.7	20.7
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: P1000413

CATALOG NUMBER: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1712.9	1712.9	1712.9	1712.9
2.5°	1674.2	1682.5	1696.3	1715.7
5°	1635.6	1659.1	1681.2	1710.1
7.5°	1601.1	1628.7	1659.1	1700.5
10°	1561.1	1595.6	1634.2	1685.3
12.5°	1514.1	1562.4	1606.6	1661.8
15°	1479.6	1515.5	1572.1	1637.0
17.5°	1431.3	1479.6	1536.2	1609.4
20°	1385.8	1436.8	1500.3	1576.3
22.5°	1337.5	1395.4	1458.9	1540.4
25°	1287.8	1349.9	1413.4	1500.3
27.5°	1242.2	1298.8	1370.6	1458.9
30°	1187.0	1251.9	1320.9	1413.4
32.5°	1133.2	1200.8	1271.2	1363.7
35°	1075.2	1142.9	1220.1	1308.5
37.5°	1018.6	1093.2	1163.6	1249.1
40°	956.5	1033.8	1107.0	1193.9
42.5°	895.8	975.8	1049.0	1123.5
45°	839.2	917.9	984.1	1054.5
47.5°	785.4	855.8	923.4	986.9
50°	732.9	792.3	854.4	906.8
52.5°	677.7	734.3	784.0	830.9
55°	628.0	672.2	716.4	759.1
57.5°	568.7	612.8	651.5	684.6
60°	519.0	546.6	583.8	618.4
62.5°	462.4	494.1	523.1	545.2
65°	407.2	434.8	456.9	476.2
67.5°	360.2	376.8	393.4	414.1
70°	303.7	317.5	336.8	352.0
72.5°	255.3	266.4	276.1	294.0
75°	207.0	216.7	222.2	238.8
77.5°	160.1	169.8	173.9	183.6
80°	122.8	124.2	129.7	138.0
82.5°	84.2	87.0	88.3	95.2
85°	48.3	55.2	53.8	56.6
87.5°	20.7	22.1	24.8	27.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)