

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: P1000414

Luminaire Tested: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1000414
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_4000K
Description: Define 4 Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

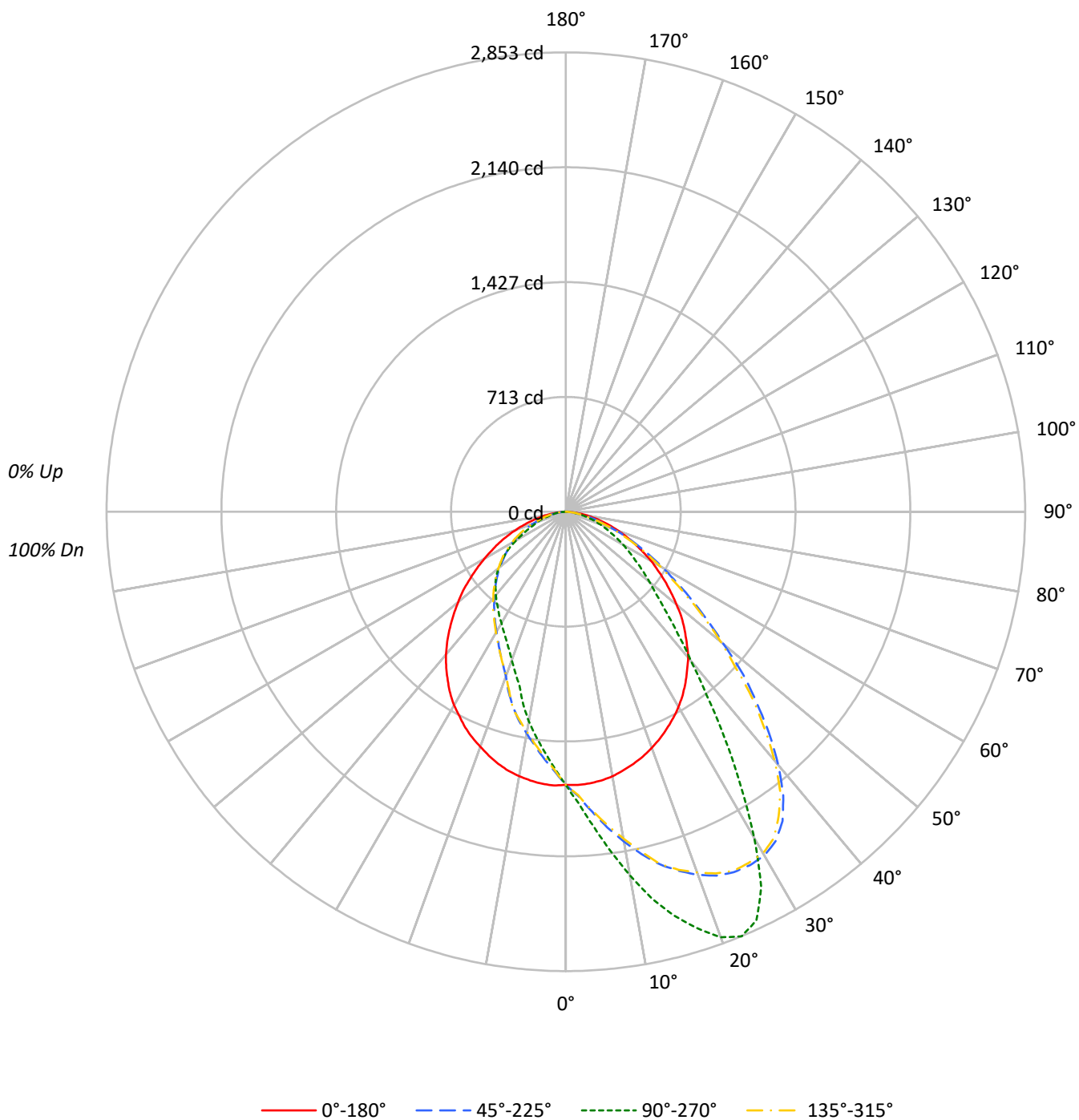
Lumens per Lamp: N/A
Luminaire Lumens: 4287.0 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	13829	13829	13829	13829
5°	13860	16041	13882	12260
10°	13816	18976	13805	10942
15°	13682	21919	13682	9402
20°	13543	24405	13471	8503
25°	13365	25194	13304	7893
30°	13176	22055	13073	7527
35°	12896	17168	12733	7305
40°	12583	12874	12335	7186
45°	12040	10164	11741	7123
50°	11390	8581	11078	6918
55°	10685	7480	10336	6547
60°	9984	6731	9539	5795
65°	9098	5933	8806	4984
70°	8309	5343	7918	4497
75°	7448	4477	6931	3831
80°	6419	3785	5842	3592
85°	5239	3200	4351	3200

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 20676 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.2	3.8
10°-20°	495.9	11.6
20°-30°	776.8	18.1
30°-40°	862.6	20.1
40°-50°	764.4	17.8
50°-60°	595.7	13.9
60°-70°	389.7	9.1
70°-80°	191.2	4.5
80°-90°	46.6	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°	1436.9	33.5
0°-40°	2299.5	53.6
0°-60°	3659.6	85.4
0°-90°	4287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4287.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1696	1696	1696	1696	1696	
5°	1693	1960	1696	1498	1693	161
15°	1621	2596	1621	1114	1621	457
25°	1485	2800	1479	877	1485	685
35°	1296	1725	1279	734	1296	810
45°	1044	881	1018	618	1044	805
55°	752	526	727	460	752	672
65°	472	308	456	258	472	470
75°	236	142	220	122	236	251
85°	56	34	46	34	56	67
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°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1698.6	1713.7	1721.9	1728.7	1742.3	1747.8	1758.7	1761.5	1772.4	1771.0	1766.9
5°	1693.2	1719.1	1738.2	1758.7	1783.3	1797.0	1812.0	1833.9	1844.8	1859.9	1869.4
7.5°	1683.6	1719.1	1750.5	1782.0	1821.6	1843.5	1862.6	1896.8	1925.5	1950.1	1977.4
10°	1668.6	1713.7	1760.1	1802.5	1857.1	1883.1	1911.8	1962.4	2002.0	2036.2	2079.9
12.5°	1645.3	1708.2	1760.1	1817.5	1887.2	1922.7	1961.0	2021.1	2067.6	2123.6	2178.3
15°	1620.7	1690.4	1758.7	1833.9	1913.2	1954.2	1992.4	2073.1	2144.1	2208.3	2268.5
17.5°	1593.4	1669.9	1745.1	1828.4	1924.1	1974.7	2019.8	2116.8	2194.7	2278.0	2338.2
20°	1560.6	1644.0	1730.0	1823.0	1930.9	1987.0	2037.5	2148.2	2234.3	2324.5	2399.7
22.5°	1525.1	1615.3	1709.6	1810.7	1922.7	1984.2	2043.0	2161.9	2261.6	2345.0	2446.1
25°	1485.4	1581.1	1678.1	1784.7	1910.4	1977.4	2037.5	2155.0	2261.6	2371.0	2469.4
27.5°	1444.4	1542.8	1644.0	1756.0	1884.5	1950.1	2018.4	2131.8	2256.2	2375.1	2474.8
30°	1399.3	1495.0	1601.6	1708.2	1844.8	1910.4	1980.1	2103.1	2238.4	2357.3	2465.3
32.5°	1350.1	1448.5	1549.7	1660.4	1794.3	1865.3	1929.6	2069.0	2207.0	2324.5	2425.6
35°	1295.5	1388.4	1484.1	1597.5	1730.0	1794.3	1870.8	2015.7	2155.0	2279.4	2345.0
37.5°	1236.7	1325.6	1414.4	1526.4	1653.5	1731.4	1806.6	1952.8	2100.4	2183.7	2217.9
40°	1182.1	1260.0	1337.9	1445.8	1574.3	1654.9	1731.4	1883.1	2012.9	2077.2	2051.2
42.5°	1112.4	1193.0	1262.7	1362.4	1492.3	1567.4	1645.3	1802.5	1907.7	1933.7	1869.4
45°	1044.0	1111.0	1178.0	1275.0	1411.6	1475.9	1559.2	1705.5	1792.9	1769.7	1675.4
47.5°	977.1	1031.7	1094.6	1188.9	1311.9	1388.4	1466.3	1593.4	1654.9	1622.1	1490.9
50°	897.8	952.5	1018.1	1100.1	1219.0	1292.8	1354.2	1471.8	1518.2	1437.6	1279.1
52.5°	822.7	870.5	926.5	1003.0	1116.5	1183.4	1250.4	1351.5	1366.5	1273.6	1106.9
55°	751.6	789.9	848.6	910.1	1014.0	1085.0	1131.5	1217.6	1213.5	1097.3	953.9
57.5°	677.8	713.3	753.0	817.2	915.6	968.9	1019.4	1094.6	1055.0	956.6	814.5
60°	612.2	632.7	672.3	733.8	817.2	863.7	903.3	944.3	910.1	803.5	694.2
62.5°	539.8	563.0	591.7	640.9	714.7	758.4	787.1	804.9	769.4	687.4	587.6
65°	471.5	492.0	522.0	565.8	621.8	654.6	669.6	681.9	662.8	569.9	490.6
67.5°	410.0	423.6	451.0	479.7	539.8	548.0	568.5	574.0	535.7	464.6	401.8
70°	348.5	362.1	374.4	408.6	435.9	451.0	455.1	455.1	416.8	370.3	318.4
72.5°	291.1	299.3	311.6	334.8	349.8	360.8	366.2	359.4	323.9	285.6	247.3
75°	236.4	240.5	251.4	266.5	278.8	274.7	273.3	265.1	239.1	211.8	190.0
77.5°	181.8	184.5	196.8	200.9	200.9	205.0	199.5	191.3	169.5	149.0	139.4
80°	136.7	140.8	142.1	144.9	142.1	142.1	138.0	124.4	113.4	103.9	97.0
82.5°	94.3	97.0	98.4	94.3	97.0	92.9	86.1	76.5	69.7	68.3	65.6
85°	56.0	57.4	56.0	56.0	51.9	50.6	45.1	43.7	41.0	41.0	39.6
87.5°	27.3	26.0	23.2	20.5	20.5	19.1	20.5	17.8	20.5	19.1	17.8
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1777.9	1792.9	1794.3	1807.9	1803.8	1797.0	1809.3	1801.1	1817.5	1812.0	1818.9
5°	1881.7	1902.2	1920.0	1930.9	1950.1	1946.0	1966.5	1959.6	1974.7	1959.6	1978.8
7.5°	2003.4	2037.5	2055.3	2084.0	2092.2	2093.6	2118.1	2123.6	2133.2	2123.6	2134.5
10°	2122.2	2163.2	2204.2	2227.5	2242.5	2263.0	2284.9	2294.4	2301.3	2291.7	2298.5
12.5°	2230.2	2294.4	2339.5	2386.0	2396.9	2414.7	2437.9	2435.2	2462.5	2457.1	2469.4
15°	2330.0	2401.0	2455.7	2492.6	2522.6	2537.7	2581.4	2584.1	2582.8	2596.4	2588.2
17.5°	2418.8	2478.9	2556.8	2604.6	2641.5	2641.5	2666.1	2716.7	2712.6	2711.2	2719.4
20°	2491.2	2559.5	2632.0	2712.6	2742.7	2748.1	2782.3	2808.3	2812.4	2812.4	2812.4
22.5°	2545.9	2626.5	2704.4	2761.8	2785.0	2804.2	2834.2	2850.6	2856.1	2853.4	2856.1
25°	2573.2	2649.7	2729.0	2780.9	2794.6	2805.5	2808.3	2817.8	2816.5	2800.1	2809.6
27.5°	2578.7	2652.5	2704.4	2718.1	2711.2	2704.4	2660.7	2664.8	2652.5	2627.9	2637.4
30°	2554.1	2593.7	2592.3	2550.0	2537.7	2509.0	2469.4	2410.6	2362.8	2342.3	2349.1
32.5°	2465.3	2465.3	2416.1	2320.4	2278.0	2226.1	2155.0	2101.8	2038.9	2025.2	2051.2
35°	2342.3	2272.6	2182.4	2056.7	1992.4	1954.2	1831.2	1792.9	1739.6	1724.6	1736.9
37.5°	2150.9	2034.8	1903.6	1786.1	1731.4	1663.1	1555.1	1500.5	1462.2	1436.2	1448.5
40°	1936.4	1795.6	1659.0	1514.1	1454.0	1398.0	1317.4	1268.2	1206.7	1209.4	1213.5
42.5°	1731.4	1566.1	1413.0	1279.1	1221.7	1175.2	1119.2	1059.1	1037.2	1030.4	1023.5
45°	1514.1	1337.9	1194.4	1094.6	1042.7	998.9	947.0	912.9	886.9	881.4	888.3
47.5°	1309.2	1160.2	1023.5	930.6	888.3	866.4	825.4	794.0	777.6	763.9	772.1
50°	1123.3	983.9	874.6	796.7	766.6	751.6	713.3	696.9	680.5	676.4	675.1
52.5°	970.2	851.4	757.1	694.2	671.0	662.8	634.1	610.8	597.2	601.3	604.0
55°	830.9	729.7	655.9	605.4	586.2	576.7	556.2	539.8	530.2	526.1	528.9
57.5°	707.9	620.4	567.1	526.1	511.1	507.0	485.1	479.7	472.8	468.7	468.7
60°	595.8	534.3	485.1	461.9	445.5	441.4	425.0	418.2	416.8	412.7	410.0
62.5°	501.5	451.0	416.8	392.2	385.4	384.0	373.1	364.9	360.8	358.0	358.0
65°	419.5	382.6	353.9	336.2	330.7	328.0	315.7	312.9	310.2	307.5	306.1
67.5°	349.8	317.0	296.5	284.2	277.4	278.8	271.9	266.5	266.5	265.1	263.7
70°	282.9	262.4	244.6	237.8	235.0	232.3	229.6	225.5	224.1	224.1	224.1
72.5°	222.7	209.1	199.5	195.4	192.7	190.0	187.2	187.2	187.2	185.9	185.9
75°	170.8	165.4	158.5	154.4	154.4	157.2	153.1	149.0	144.9	142.1	143.5
77.5°	128.5	125.7	121.6	114.8	116.2	113.4	113.4	110.7	112.1	112.1	109.3
80°	94.3	90.2	88.8	84.7	86.1	84.7	83.4	83.4	80.6	80.6	80.6
82.5°	65.6	61.5	61.5	60.1	58.8	58.8	57.4	57.4	58.8	56.0	56.0
85°	39.6	38.3	38.3	35.5	35.5	35.5	35.5	36.9	35.5	34.2	34.2
87.5°	17.8	19.1	17.8	16.4	16.4	16.4	15.0	15.0	13.7	15.0	15.0
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°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1823.0	1813.4	1812.0	1812.0	1797.0	1805.2	1788.8	1771.0	1762.8	1762.8	1747.8
5°	1974.7	1965.1	1955.5	1940.5	1940.5	1932.3	1906.3	1880.4	1861.2	1844.8	1827.1
7.5°	2130.4	2120.9	2093.6	2078.5	2086.7	2070.3	2036.2	1992.4	1959.6	1933.7	1896.8
10°	2299.9	2273.9	2260.3	2252.1	2223.4	2205.6	2166.0	2101.8	2060.8	2026.6	1978.8
12.5°	2437.9	2446.1	2394.2	2398.3	2369.6	2345.0	2283.5	2222.0	2160.5	2112.7	2041.6
15°	2586.9	2562.3	2530.8	2506.2	2496.7	2466.6	2414.7	2332.7	2265.7	2190.6	2109.9
17.5°	2704.4	2685.3	2655.2	2632.0	2611.5	2539.0	2495.3	2422.9	2331.3	2257.5	2159.1
20°	2804.2	2786.4	2744.0	2729.0	2692.1	2640.2	2577.3	2465.3	2383.3	2302.6	2207.0
22.5°	2846.5	2828.8	2791.9	2772.7	2749.5	2698.9	2638.8	2532.2	2431.1	2330.0	2228.8
25°	2811.0	2811.0	2793.2	2786.4	2765.9	2720.8	2659.3	2569.1	2461.2	2351.8	2231.6
27.5°	2638.8	2673.0	2685.3	2692.1	2692.1	2693.5	2651.1	2563.6	2458.4	2351.8	2226.1
30°	2390.1	2447.5	2498.0	2513.1	2539.0	2567.7	2585.5	2543.1	2448.9	2336.8	2211.1
32.5°	2077.2	2150.9	2245.2	2268.5	2304.0	2390.1	2437.9	2455.7	2403.8	2305.4	2171.4
35°	1765.6	1858.5	1915.9	1987.0	2019.8	2146.8	2253.4	2317.7	2305.4	2246.6	2125.0
37.5°	1493.6	1546.9	1616.6	1691.8	1757.4	1879.0	2011.6	2135.9	2186.5	2157.8	2066.2
40°	1232.6	1295.5	1378.8	1440.3	1485.4	1607.1	1771.0	1906.3	2017.0	2034.8	1978.8
42.5°	1048.1	1111.0	1161.6	1228.5	1264.1	1381.6	1526.4	1695.9	1827.1	1896.8	1872.2
45°	906.0	944.3	985.3	1023.5	1067.3	1171.1	1305.1	1490.9	1638.5	1736.9	1746.4
47.5°	781.7	815.8	851.4	886.9	911.5	992.1	1115.1	1266.8	1428.0	1563.3	1616.6
50°	694.2	710.6	736.6	757.1	785.8	855.5	953.9	1085.0	1255.9	1402.1	1471.8
52.5°	608.1	628.6	649.1	666.9	686.0	735.2	825.4	938.8	1086.4	1236.7	1322.8
55°	535.7	552.1	571.2	583.5	594.4	638.2	706.5	794.0	921.1	1063.2	1169.8
57.5°	476.9	483.8	500.2	507.0	519.3	554.8	604.0	681.9	784.4	922.4	1009.9
60°	412.7	426.4	438.7	444.1	453.7	478.3	512.5	584.9	673.7	774.8	874.6
62.5°	360.8	366.2	375.8	382.6	389.5	415.4	444.1	498.8	565.8	650.5	742.0
65°	312.9	315.7	321.1	330.7	334.8	353.9	370.3	410.0	472.8	537.1	628.6
67.5°	263.7	266.5	273.3	278.8	282.9	295.2	312.9	341.6	375.8	446.9	497.4
70°	225.5	225.5	229.6	232.3	236.4	241.9	251.4	273.3	304.7	349.8	396.3
72.5°	188.6	188.6	188.6	192.7	192.7	196.8	202.2	217.3	239.1	274.7	304.7
75°	146.2	147.6	150.3	150.3	151.7	157.2	161.3	165.4	176.3	199.5	226.8
77.5°	110.7	113.4	114.8	112.1	114.8	114.8	120.3	125.7	131.2	138.0	158.5
80°	82.0	83.4	80.6	82.0	82.0	84.7	87.5	86.1	88.8	97.0	102.5
82.5°	54.7	56.0	56.0	56.0	56.0	60.1	60.1	58.8	60.1	61.5	62.9
85°	34.2	32.8	32.8	34.2	32.8	32.8	34.2	35.5	34.2	35.5	36.9
87.5°	15.0	15.0	15.0	15.0	13.7	13.7	15.0	13.7	15.0	13.7	12.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1000414

CATALOG NUMBER: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1739.6	1732.8	1728.7	1727.3	1715.0	1708.2	1704.1	1701.4	1697.3	1686.3	1676.8
5°	1805.2	1786.1	1776.5	1765.6	1746.4	1724.6	1706.8	1695.9	1682.2	1660.4	1639.9
7.5°	1866.7	1838.0	1818.9	1803.8	1771.0	1735.5	1706.8	1683.6	1657.6	1627.6	1598.9
10°	1930.9	1884.5	1859.9	1836.6	1788.8	1742.3	1701.4	1667.2	1630.3	1590.7	1559.2
12.5°	1981.5	1920.0	1892.7	1859.9	1801.1	1746.4	1694.5	1648.1	1600.2	1557.9	1512.8
15°	2040.3	1963.7	1932.3	1889.9	1809.3	1738.2	1671.3	1620.7	1571.5	1508.7	1460.8
17.5°	2074.4	1985.6	1940.5	1903.6	1816.1	1730.0	1652.2	1589.3	1531.9	1469.0	1418.5
20°	2108.6	2007.5	1956.9	1905.0	1801.1	1709.6	1627.6	1552.4	1492.3	1423.9	1372.0
22.5°	2119.5	2002.0	1948.7	1900.9	1791.5	1689.1	1594.8	1518.2	1448.5	1380.2	1321.5
25°	2119.5	2000.6	1937.8	1876.3	1761.5	1656.3	1562.0	1478.6	1400.7	1332.4	1273.6
27.5°	2097.7	1973.3	1907.7	1851.7	1732.8	1619.4	1522.3	1430.8	1355.6	1287.3	1220.3
30°	2070.3	1933.7	1868.1	1801.1	1686.3	1578.4	1473.1	1388.4	1309.2	1231.3	1171.1
32.5°	2036.2	1891.3	1818.9	1750.5	1628.9	1516.9	1419.8	1336.5	1261.3	1180.7	1113.7
35°	1987.0	1828.4	1747.8	1687.7	1570.2	1454.0	1361.1	1279.1	1206.7	1123.3	1050.9
37.5°	1924.1	1771.0	1689.1	1615.3	1493.6	1387.0	1299.6	1220.3	1149.3	1072.7	992.1
40°	1850.3	1690.4	1619.4	1541.5	1413.0	1311.9	1229.9	1158.8	1087.8	1015.3	937.5
42.5°	1766.9	1608.4	1529.2	1454.0	1331.0	1231.3	1154.7	1090.5	1024.9	957.9	874.6
45°	1667.2	1518.2	1441.7	1370.6	1251.8	1149.3	1079.6	1018.1	962.0	893.7	819.9
47.5°	1555.1	1425.3	1347.4	1270.9	1154.7	1065.9	997.6	945.7	897.8	829.5	762.5
50°	1445.8	1317.4	1254.5	1176.6	1070.0	986.6	917.0	873.2	836.3	769.4	709.2
52.5°	1307.8	1210.8	1150.6	1083.7	981.2	896.5	841.8	803.5	759.8	707.9	654.6
55°	1186.2	1096.0	1048.1	985.3	884.2	809.0	762.5	727.0	692.8	646.4	604.0
57.5°	1048.1	992.1	944.3	889.6	789.9	725.6	684.6	654.6	623.1	584.9	550.7
60°	903.3	877.3	830.9	787.1	702.4	646.4	612.2	584.9	554.8	523.4	494.7
62.5°	774.8	759.8	732.5	698.3	619.0	571.2	537.1	516.6	494.7	466.0	438.7
65°	653.2	646.4	620.4	595.8	541.2	498.8	468.7	456.4	431.8	410.0	385.4
67.5°	545.3	537.1	522.0	511.1	464.6	425.0	410.0	393.6	373.1	356.7	336.2
70°	435.9	434.6	425.0	411.3	386.7	358.0	343.0	332.1	311.6	299.3	284.2
72.5°	338.9	345.7	337.5	332.1	315.7	295.2	281.5	274.7	258.3	248.7	237.8
75°	252.8	258.3	262.4	252.8	248.7	239.1	226.8	220.0	211.8	198.1	194.0
77.5°	172.2	184.5	184.5	187.2	188.6	183.1	173.6	168.1	158.5	155.8	150.3
80°	113.4	124.4	125.7	128.5	132.6	132.6	125.7	124.4	114.8	113.4	109.3
82.5°	65.6	75.2	80.6	84.7	83.4	88.8	83.4	82.0	76.5	76.5	73.8
85°	35.5	36.9	39.6	42.4	45.1	47.8	47.8	46.5	45.1	43.7	41.0
87.5°	13.7	13.7	15.0	13.7	15.0	17.8	19.1	19.1	17.8	16.4	13.7
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: P1000414

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1668.6	1665.8	1663.1	1652.2	1642.6	1626.2	1612.5	1607.1	1605.7	1607.1	1603.0
5°	1620.7	1619.4	1609.8	1590.7	1572.9	1553.8	1540.1	1526.4	1518.2	1518.2	1508.7
7.5°	1575.6	1566.1	1557.9	1533.3	1512.8	1486.8	1466.3	1454.0	1447.2	1432.1	1432.1
10°	1527.8	1514.1	1503.2	1480.0	1449.9	1423.9	1398.0	1382.9	1370.6	1359.7	1355.6
12.5°	1480.0	1469.0	1448.5	1423.9	1393.9	1361.1	1333.8	1322.8	1294.1	1270.9	1272.3
15°	1434.9	1410.3	1400.7	1365.2	1329.7	1298.2	1258.6	1227.2	1203.9	1188.9	1169.8
17.5°	1384.3	1359.7	1341.9	1311.9	1265.4	1216.2	1178.0	1135.6	1112.4	1086.4	1074.1
20°	1328.3	1307.8	1294.1	1246.3	1190.3	1131.5	1089.1	1063.2	1037.2	1018.1	1007.1
22.5°	1280.5	1254.5	1238.1	1173.9	1112.4	1053.6	1020.8	998.9	977.1	960.7	955.2
25°	1219.0	1203.9	1164.3	1108.3	1033.1	993.5	964.8	936.1	923.8	912.9	900.6
27.5°	1168.4	1131.5	1104.2	1030.4	983.9	938.8	910.1	888.3	873.2	862.3	852.7
30°	1105.5	1071.4	1033.1	971.6	929.3	886.9	860.9	843.2	826.8	819.9	811.7
32.5°	1039.9	1008.5	971.6	922.4	870.5	837.7	817.2	798.1	787.1	780.3	770.7
35°	981.2	941.6	917.0	870.5	828.1	791.2	772.1	755.7	743.4	740.7	739.3
37.5°	918.3	888.3	865.0	817.2	781.7	750.2	732.5	714.7	707.9	706.5	701.0
40°	863.7	837.7	815.8	770.7	732.5	703.8	690.1	679.2	672.3	672.3	671.0
42.5°	815.8	788.5	766.6	725.6	691.5	665.5	650.5	639.5	636.8	638.2	636.8
45°	762.5	739.3	717.4	675.1	646.4	627.2	610.8	605.4	601.3	602.6	604.0
47.5°	712.0	692.8	671.0	636.8	604.0	583.5	574.0	568.5	568.5	568.5	571.2
50°	666.9	645.0	625.9	590.3	560.3	543.9	535.7	528.9	530.2	531.6	533.0
52.5°	613.6	594.4	580.8	545.3	523.4	502.9	493.3	494.7	493.3	493.3	496.1
55°	567.1	548.0	534.3	501.5	479.7	466.0	457.8	453.7	455.1	452.3	457.8
57.5°	515.2	498.8	489.2	457.8	438.7	426.4	419.5	412.7	415.4	414.1	412.7
60°	470.1	451.0	435.9	414.1	397.7	382.6	378.5	371.7	374.4	371.7	370.3
62.5°	418.2	403.1	392.2	370.3	356.7	344.4	334.8	330.7	329.3	325.2	321.1
65°	366.2	358.0	347.1	325.2	311.6	302.0	296.5	292.4	291.1	280.1	267.8
67.5°	318.4	312.9	302.0	285.6	273.3	263.7	255.5	248.7	240.5	232.3	225.5
70°	273.3	265.1	258.3	243.2	232.3	222.7	214.5	206.3	202.2	194.0	191.3
72.5°	229.6	221.4	214.5	200.9	191.3	181.8	179.0	169.5	165.4	164.0	164.0
75°	184.5	177.7	173.6	161.3	153.1	146.2	142.1	139.4	136.7	133.9	129.8
77.5°	140.8	136.7	133.9	125.7	118.9	114.8	113.4	103.9	101.1	98.4	95.7
80°	102.5	101.1	98.4	91.6	88.8	79.3	79.3	76.5	75.2	75.2	75.2
82.5°	69.7	67.0	65.6	58.8	57.4	56.0	54.7	53.3	54.7	53.3	54.7
85°	36.9	35.5	34.2	34.2	34.2	34.2	34.2	34.2	34.2	32.8	34.2
87.5°	13.7	13.7	13.7	13.7	12.3	13.7	13.7	12.3	13.7	13.7	13.7
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: P1000414

CATALOG NUMBER: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1603.0	1608.4	1601.6	1605.7	1596.1	1594.8	1596.1	1596.1	1597.5	1598.9	1600.2
5°	1512.8	1511.4	1503.2	1497.7	1493.6	1497.7	1500.5	1503.2	1500.5	1503.2	1504.6
7.5°	1428.0	1423.9	1419.8	1410.3	1413.0	1410.3	1418.5	1414.4	1414.4	1421.2	1426.7
10°	1352.9	1344.7	1341.9	1331.0	1322.8	1321.5	1331.0	1335.1	1339.2	1341.9	1352.9
12.5°	1255.9	1243.6	1234.0	1238.1	1214.9	1224.4	1227.2	1221.7	1238.1	1257.2	1246.3
15°	1152.0	1153.4	1134.2	1127.4	1108.3	1113.7	1115.1	1128.8	1142.4	1141.1	1157.5
17.5°	1075.5	1067.3	1050.9	1049.5	1041.3	1045.4	1044.0	1055.0	1050.9	1057.7	1071.4
20°	1004.4	998.9	985.3	979.8	982.5	979.8	981.2	982.5	986.6	1001.7	998.9
22.5°	948.4	941.6	941.6	934.7	926.5	923.8	930.6	934.7	940.2	942.9	949.8
25°	899.2	893.7	886.9	882.8	876.0	877.3	881.4	886.9	891.0	896.5	901.9
27.5°	848.6	848.6	841.8	840.4	837.7	836.3	841.8	844.5	844.5	848.6	854.1
30°	809.0	809.0	802.2	800.8	799.4	799.4	803.5	804.9	806.3	810.4	813.1
32.5°	770.7	769.4	766.6	768.0	766.6	768.0	768.0	769.4	772.1	773.5	778.9
35°	735.2	736.6	733.8	733.8	732.5	733.8	736.6	737.9	739.3	742.0	742.0
37.5°	701.0	703.8	702.4	706.5	706.5	706.5	706.5	709.2	709.2	709.2	707.9
40°	671.0	671.0	669.6	672.3	675.1	675.1	676.4	676.4	677.8	677.8	676.4
42.5°	636.8	639.5	643.6	645.0	647.7	646.4	650.5	649.1	650.5	647.7	645.0
45°	605.4	605.4	610.8	616.3	617.7	617.7	617.7	620.4	617.7	613.6	612.2
47.5°	571.2	574.0	576.7	583.5	584.9	584.9	584.9	584.9	582.1	582.1	582.1
50°	537.1	538.4	539.8	542.5	546.6	545.3	545.3	545.3	550.7	545.3	546.6
52.5°	496.1	497.4	498.8	504.3	502.9	502.9	504.3	504.3	508.4	507.0	504.3
55°	455.1	455.1	457.8	457.8	457.8	460.5	461.9	464.6	463.3	464.6	466.0
57.5°	414.1	411.3	410.0	410.0	414.1	412.7	414.1	414.1	419.5	422.3	423.6
60°	366.2	366.2	364.9	356.7	356.7	355.3	359.4	362.1	364.9	377.2	375.8
62.5°	317.0	311.6	306.1	307.5	299.3	303.4	300.6	303.4	311.6	321.1	322.5
65°	267.8	263.7	258.3	256.9	254.2	258.3	256.9	258.3	262.4	267.8	274.7
67.5°	224.1	222.7	220.0	218.6	218.6	218.6	221.4	221.4	222.7	226.8	230.9
70°	191.3	190.0	191.3	188.6	190.0	188.6	190.0	191.3	192.7	194.0	198.1
72.5°	161.3	161.3	161.3	158.5	161.3	159.9	159.9	161.3	162.6	164.0	166.7
75°	128.5	125.7	123.0	120.3	118.9	121.6	123.0	121.6	125.7	131.2	131.2
77.5°	97.0	95.7	95.7	95.7	97.0	95.7	98.4	97.0	98.4	98.4	101.1
80°	75.2	73.8	75.2	75.2	73.8	76.5	75.2	75.2	76.5	77.9	76.5
82.5°	54.7	56.0	54.7	54.7	54.7	57.4	54.7	54.7	54.7	56.0	56.0
85°	34.2	34.2	34.2	34.2	35.5	34.2	35.5	34.2	36.9	35.5	35.5
87.5°	12.3	13.7	15.0	15.0	15.0	15.0	13.7	15.0	16.4	15.0	16.4
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: P1000414

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9	1695.9
2.5°	1605.7	1612.5	1609.8	1600.2	1604.3	1612.5	1620.7	1631.7	1638.5	1644.0	1646.7
5°	1511.4	1523.7	1521.0	1521.0	1526.4	1540.1	1553.8	1577.0	1585.2	1594.8	1608.4
7.5°	1428.0	1437.6	1445.8	1448.5	1456.7	1474.5	1492.3	1518.2	1538.7	1549.7	1557.9
10°	1354.2	1361.1	1373.4	1380.2	1388.4	1410.3	1436.2	1463.6	1484.1	1503.2	1514.1
12.5°	1260.0	1287.3	1303.7	1314.6	1325.6	1358.3	1378.8	1408.9	1433.5	1451.3	1467.7
15°	1154.7	1187.5	1197.1	1239.5	1266.8	1292.8	1324.2	1359.7	1382.9	1403.4	1425.3
17.5°	1065.9	1089.1	1100.1	1145.2	1168.4	1209.4	1254.5	1299.6	1335.1	1350.1	1372.0
20°	1009.9	1022.2	1044.0	1059.1	1083.7	1131.5	1180.7	1235.4	1288.7	1303.7	1325.6
22.5°	952.5	968.9	983.9	1004.4	1023.5	1056.3	1105.5	1165.7	1223.1	1250.4	1276.4
25°	900.6	917.0	926.5	948.4	966.1	998.9	1033.1	1094.6	1162.9	1186.2	1227.2
27.5°	859.6	869.1	885.5	895.1	915.6	945.7	977.1	1023.5	1090.5	1130.1	1169.8
30°	818.6	825.4	839.1	852.7	867.8	888.3	923.8	968.9	1030.4	1064.5	1104.2
32.5°	777.6	788.5	796.7	806.3	822.7	847.3	871.9	915.6	964.8	1003.0	1042.7
35°	743.4	747.5	758.4	769.4	780.3	802.2	828.1	870.5	914.2	944.3	979.8
37.5°	706.5	713.3	721.5	725.6	743.4	757.1	784.4	817.2	869.1	888.3	923.8
40°	677.8	676.4	684.6	691.5	699.7	721.5	737.9	773.5	814.5	844.5	866.4
42.5°	642.3	642.3	645.0	653.2	664.1	677.8	696.9	727.0	769.4	791.2	817.2
45°	613.6	609.5	610.8	616.3	623.1	636.8	655.9	681.9	724.3	742.0	769.4
47.5°	579.4	575.3	575.3	580.8	586.2	595.8	610.8	640.9	675.1	698.3	718.8
50°	541.2	542.5	541.2	545.3	548.0	557.6	574.0	598.5	630.0	649.1	672.3
52.5°	505.6	502.9	501.5	504.3	509.7	516.6	534.3	556.2	586.2	605.4	625.9
55°	461.9	464.6	464.6	464.6	472.8	475.6	489.2	511.1	541.2	556.2	575.3
57.5°	422.3	420.9	423.6	422.3	429.1	438.7	449.6	466.0	496.1	511.1	528.9
60°	378.5	379.9	381.3	381.3	386.7	396.3	408.6	423.6	448.2	463.3	479.7
62.5°	325.2	332.1	338.9	341.6	349.8	356.7	364.9	381.3	403.1	414.1	429.1
65°	274.7	284.2	293.8	300.6	306.1	312.9	323.9	338.9	356.7	367.6	382.6
67.5°	230.9	237.8	250.1	256.9	267.8	276.0	282.9	295.2	317.0	321.1	333.4
70°	199.5	202.2	207.7	213.2	225.5	232.3	240.5	252.8	269.2	278.8	285.6
72.5°	168.1	169.5	172.2	177.7	183.1	191.3	200.9	211.8	226.8	230.9	240.5
75°	133.9	142.1	142.1	146.2	150.3	154.4	162.6	173.6	183.1	190.0	195.4
77.5°	99.8	103.9	106.6	113.4	118.9	123.0	128.5	136.7	142.1	147.6	151.7
80°	77.9	79.3	80.6	80.6	83.4	88.8	94.3	99.8	106.6	109.3	113.4
82.5°	57.4	57.4	57.4	60.1	61.5	62.9	62.9	65.6	72.4	75.2	79.3
85°	36.9	36.9	36.9	36.9	38.3	39.6	41.0	42.4	42.4	42.4	45.1
87.5°	15.0	17.8	16.4	17.8	17.8	17.8	17.8	19.1	19.1	20.5	20.5
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: P1000414

CATALOG NUMBER: SA4XXRDP-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1695.9	1695.9	1695.9	1695.9
2.5°	1657.6	1665.8	1679.5	1698.6
5°	1619.4	1642.6	1664.5	1693.2
7.5°	1585.2	1612.5	1642.6	1683.6
10°	1545.6	1579.7	1618.0	1668.6
12.5°	1499.1	1546.9	1590.7	1645.3
15°	1464.9	1500.5	1556.5	1620.7
17.5°	1417.1	1464.9	1521.0	1593.4
20°	1372.0	1422.6	1485.4	1560.6
22.5°	1324.2	1381.6	1444.4	1525.1
25°	1275.0	1336.5	1399.3	1485.4
27.5°	1229.9	1285.9	1357.0	1444.4
30°	1175.2	1239.5	1307.8	1399.3
32.5°	1121.9	1188.9	1258.6	1350.1
35°	1064.5	1131.5	1208.0	1295.5
37.5°	1008.5	1082.3	1152.0	1236.7
40°	947.0	1023.5	1096.0	1182.1
42.5°	886.9	966.1	1038.6	1112.4
45°	830.9	908.8	974.3	1044.0
47.5°	777.6	847.3	914.2	977.1
50°	725.6	784.4	845.9	897.8
52.5°	671.0	727.0	776.2	822.7
55°	621.8	665.5	709.2	751.6
57.5°	563.0	606.7	645.0	677.8
60°	513.8	541.2	578.0	612.2
62.5°	457.8	489.2	517.9	539.8
65°	403.1	430.5	452.3	471.5
67.5°	356.7	373.1	389.5	410.0
70°	300.6	314.3	333.4	348.5
72.5°	252.8	263.7	273.3	291.1
75°	205.0	214.5	220.0	236.4
77.5°	158.5	168.1	172.2	181.8
80°	121.6	123.0	128.5	136.7
82.5°	83.4	86.1	87.5	94.3
85°	47.8	54.7	53.3	56.0
87.5°	20.5	21.9	24.6	27.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)