

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: P998761

Luminaire Tested: S124R3DR-B350DB2750-4F0-XX-W2A-A_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998761
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: S124R3DR-B350DB2750-4F0-XX-W2A-A_2700K
Description: Define 4 3in Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

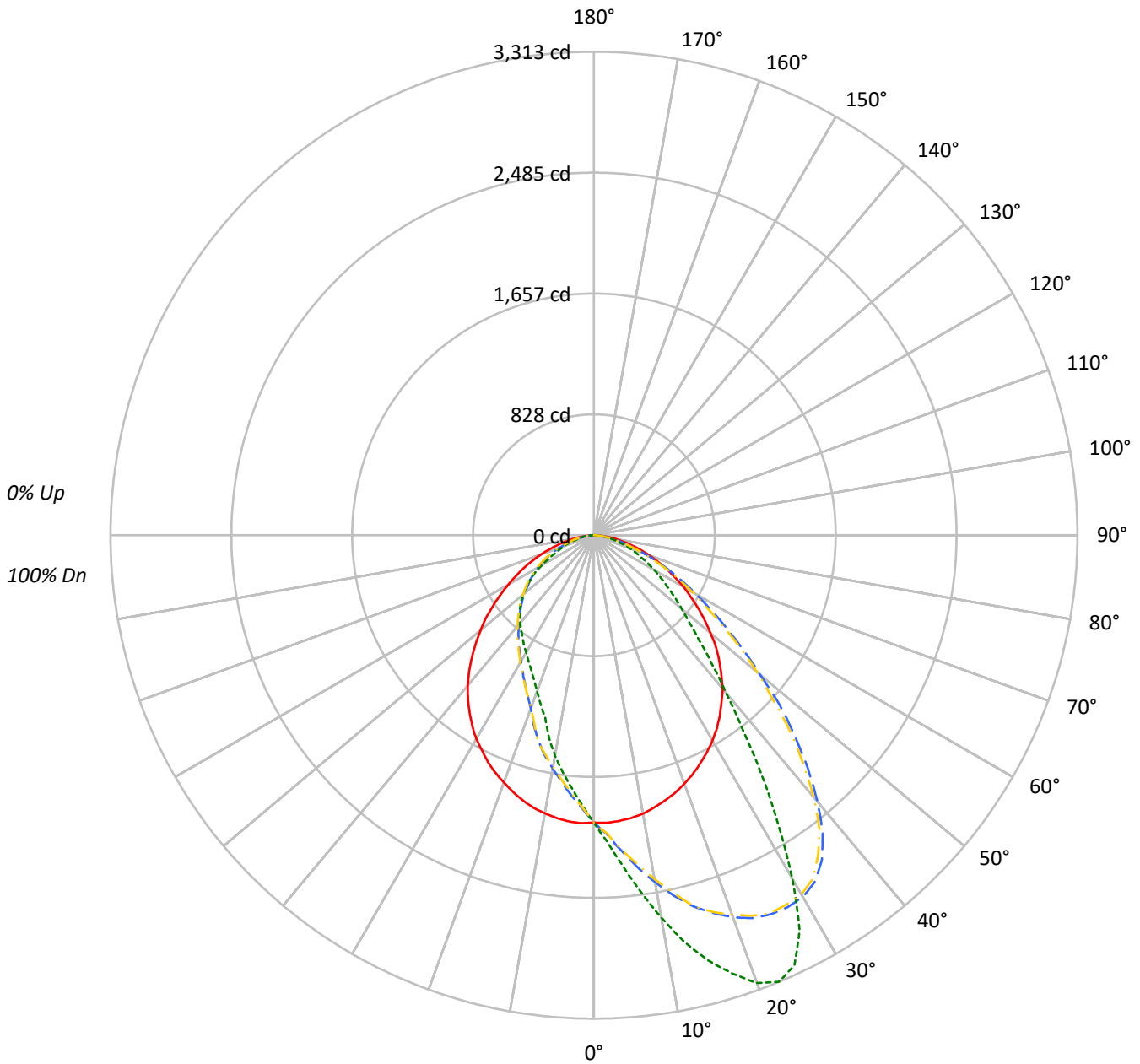
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4977.0 lumens
Efficiency: N/A
Efficacy: 81.2 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): 61.3
Input Voltage (V): 120
Input Current (A_{in}): 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



— 0°-180° - - 45°-225° - · - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	76	76	76	74
3	93	83	76	70	90	81	75	69	79	73	68	76	71	67	73	69	65	65	65	65	63
4	85	74	66	60	83	73	65	59	71	64	59	68	63	58	66	61	57	57	57	57	55
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	50	50	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	45	45	45	43
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	40	40	40	38
8	64	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	36	36	36	34
9	59	47	39	33	58	46	38	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16055	16055	16055	16055
5°	16090	18622	16116	14233
10°	16040	22031	16026	12703
15°	15885	25447	15885	10916
20°	15722	28333	15640	9871
25°	15516	29248	15445	9164
30°	15297	25605	15178	8739
35°	14972	19931	14783	8480
40°	14608	14945	14321	8342
45°	13978	11801	13630	8270
50°	13223	9962	12861	8030
55°	12406	8684	11999	7600
60°	11592	7814	11074	6727
65°	10560	6888	10224	5785
70°	9647	6204	9191	5219
75°	8649	5199	8047	4449
80°	7448	4395	6781	4170
85°	6082	3714	5043	3714

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°
 Vertical Angle: 45°
 Luminance: 24004 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.6	3.8
10°-20°	575.7	11.6
20°-30°	901.8	18.1
30°-40°	1001.4	20.1
40°-50°	887.4	17.8
50°-60°	691.6	13.9
60°-70°	452.4	9.1
70°-80°	222.0	4.5
80°-90°	54.1	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°	1668.2	33.5
0°-40°	2669.6	53.6
0°-60°	4248.6	85.4
0°-90°	4977.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4977.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1969	1969	1969	1969	1969	
5°	1966	2275	1969	1739	1966	187
15°	1882	3014	1882	1293	1882	531
25°	1724	3251	1717	1018	1724	795
35°	1504	2002	1485	852	1504	940
45°	1212	1023	1182	717	1212	935
55°	873	611	844	535	873	780
65°	547	357	530	300	547	546
75°	274	165	255	141	274	291
85°	65	40	54	40	65	78
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°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	1972.0	1989.5	1999.0	2006.9	2022.8	2029.1	2041.8	2045.0	2057.7	2056.1	2051.3
5°	1965.7	1995.8	2018.0	2041.8	2070.4	2086.2	2103.7	2129.1	2141.8	2159.2	2170.3
7.5°	1954.6	1995.8	2032.3	2068.8	2114.8	2140.2	2162.4	2202.1	2235.4	2263.9	2295.7
10°	1937.1	1989.5	2043.4	2092.6	2156.0	2186.2	2219.5	2278.2	2324.2	2363.9	2414.6
12.5°	1910.1	1983.1	2043.4	2110.0	2191.0	2232.2	2276.6	2346.4	2400.4	2465.4	2528.9
15°	1881.6	1962.5	2041.8	2129.1	2221.1	2268.7	2313.1	2406.7	2489.2	2563.8	2633.6
17.5°	1849.9	1938.7	2026.0	2122.7	2233.8	2292.5	2344.8	2457.5	2547.9	2644.7	2714.5
20°	1811.8	1908.6	2008.5	2116.4	2241.7	2306.8	2365.5	2494.0	2593.9	2698.6	2785.9
22.5°	1770.5	1875.2	1984.7	2102.1	2232.2	2303.6	2371.8	2509.8	2625.7	2722.4	2839.8
25°	1724.5	1835.6	1948.2	2072.0	2217.9	2295.7	2365.5	2501.9	2625.7	2752.6	2866.8
27.5°	1676.9	1791.2	1908.6	2038.6	2187.8	2263.9	2343.3	2474.9	2619.3	2757.3	2873.1
30°	1624.6	1735.6	1859.4	1983.1	2141.8	2217.9	2298.8	2441.6	2598.7	2736.7	2862.0
32.5°	1567.5	1681.7	1799.1	1927.6	2083.1	2165.6	2240.1	2402.0	2562.2	2698.6	2816.0
35°	1504.0	1611.9	1722.9	1854.6	2008.5	2083.1	2171.9	2340.1	2501.9	2646.3	2722.4
37.5°	1435.8	1538.9	1642.0	1772.1	1919.7	2010.1	2097.3	2267.1	2438.4	2535.2	2574.9
40°	1372.3	1462.7	1553.2	1678.5	1827.6	1921.2	2010.1	2186.2	2336.9	2411.5	2381.3
42.5°	1291.4	1385.0	1465.9	1581.7	1732.5	1819.7	1910.1	2092.6	2214.7	2244.9	2170.3
45°	1212.1	1289.8	1367.6	1480.2	1638.9	1713.4	1810.2	1979.9	2081.5	2054.5	1945.0
47.5°	1134.3	1197.8	1270.8	1380.3	1523.0	1611.9	1702.3	1849.9	1921.2	1883.2	1730.9
50°	1042.3	1105.8	1181.9	1277.1	1415.2	1500.8	1572.2	1708.7	1762.6	1669.0	1485.0
52.5°	955.1	1010.6	1075.6	1164.5	1296.2	1373.9	1451.6	1569.0	1586.5	1478.6	1285.1
55°	872.6	917.0	985.2	1056.6	1177.2	1259.7	1313.6	1413.6	1408.8	1274.0	1107.4
57.5°	786.9	828.2	874.2	948.7	1063.0	1124.8	1183.5	1270.8	1224.8	1110.5	945.6
60°	710.8	734.5	780.6	851.9	948.7	1002.7	1048.7	1096.3	1056.6	932.9	805.9
62.5°	626.7	653.6	687.0	744.1	829.7	880.5	913.8	934.4	893.2	798.0	682.2
65°	547.3	571.1	606.0	656.8	721.9	759.9	777.4	791.7	769.5	661.6	569.6
67.5°	475.9	491.8	523.5	556.9	626.7	636.2	660.0	666.3	621.9	539.4	466.4
70°	404.6	420.4	434.7	474.4	506.1	523.5	528.3	528.3	483.9	429.9	369.7
72.5°	337.9	347.4	361.7	388.7	406.1	418.8	425.2	417.2	376.0	331.6	287.2
75°	274.5	279.2	291.9	309.4	323.6	318.9	317.3	307.8	277.6	245.9	220.5
77.5°	211.0	214.2	228.5	233.2	233.2	238.0	231.6	222.1	196.7	172.9	161.8
80°	158.6	163.4	165.0	168.2	165.0	165.0	160.2	144.4	131.7	120.6	112.6
82.5°	109.5	112.6	114.2	109.5	112.6	107.9	99.9	88.8	80.9	79.3	76.2
85°	65.0	66.6	65.0	65.0	60.3	58.7	52.4	50.8	47.6	47.6	46.0
87.5°	31.7	30.1	27.0	23.8	23.8	22.2	23.8	20.6	23.8	22.2	20.6
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°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	2064.0	2081.5	2083.1	2098.9	2094.2	2086.2	2100.5	2091.0	2110.0	2103.7	2111.6
5°	2184.6	2208.4	2229.0	2241.7	2263.9	2259.2	2283.0	2275.0	2292.5	2275.0	2297.2
7.5°	2325.8	2365.5	2386.1	2419.4	2428.9	2430.5	2459.1	2465.4	2476.5	2465.4	2478.1
10°	2463.8	2511.4	2559.0	2586.0	2603.4	2627.2	2652.6	2663.7	2671.7	2660.6	2668.5
12.5°	2589.2	2663.7	2716.1	2770.0	2782.7	2803.3	2830.3	2827.1	2858.9	2852.5	2866.8
15°	2705.0	2787.5	2850.9	2893.8	2928.7	2946.1	2996.9	3000.1	2998.5	3014.3	3004.8
17.5°	2808.1	2877.9	2968.3	3023.9	3066.7	3066.7	3095.3	3154.0	3149.2	3147.6	3157.1
20°	2892.2	2971.5	3055.6	3149.2	3184.1	3190.4	3230.1	3260.2	3265.0	3265.0	3265.0
22.5°	2955.6	3049.2	3139.7	3206.3	3233.3	3255.5	3290.4	3309.4	3315.8	3312.6	3315.8
25°	2987.4	3076.2	3168.2	3228.5	3244.4	3257.1	3260.2	3271.4	3269.8	3250.7	3261.8
27.5°	2993.7	3079.4	3139.7	3155.5	3147.6	3139.7	3088.9	3093.7	3079.4	3050.8	3061.9
30°	2965.2	3011.2	3009.6	2960.4	2946.1	2912.8	2866.8	2798.6	2743.1	2719.3	2727.2
32.5°	2862.0	2862.0	2804.9	2693.9	2644.7	2584.4	2501.9	2440.0	2367.1	2351.2	2381.3
35°	2719.3	2638.3	2533.6	2387.7	2313.1	2268.7	2125.9	2081.5	2019.6	2002.2	2016.4
37.5°	2497.1	2362.3	2210.0	2073.6	2010.1	1930.8	1805.4	1742.0	1697.6	1667.4	1681.7
40°	2248.1	2084.7	1926.0	1757.8	1688.0	1623.0	1529.4	1472.3	1400.9	1404.0	1408.8
42.5°	2010.1	1818.1	1640.4	1485.0	1418.3	1364.4	1299.3	1229.5	1204.2	1196.2	1188.3
45°	1757.8	1553.2	1386.6	1270.8	1210.5	1159.7	1099.4	1059.8	1029.6	1023.3	1031.2
47.5°	1519.9	1346.9	1188.3	1080.4	1031.2	1005.8	958.2	921.8	902.7	886.9	896.4
50°	1304.1	1142.3	1015.4	924.9	890.0	872.6	828.2	809.1	790.1	785.3	783.7
52.5°	1126.4	988.4	878.9	805.9	779.0	769.5	736.1	709.2	693.3	698.1	701.2
55°	964.6	847.2	761.5	702.8	680.6	669.5	645.7	626.7	615.6	610.8	614.0
57.5°	821.8	720.3	658.4	610.8	593.3	588.6	563.2	556.9	548.9	544.2	544.2
60°	691.7	620.3	563.2	536.2	517.2	512.4	493.4	485.5	483.9	479.1	475.9
62.5°	582.2	523.5	483.9	455.3	447.4	445.8	433.1	423.6	418.8	415.7	415.7
65°	487.1	444.2	410.9	390.3	383.9	380.8	366.5	363.3	360.1	357.0	355.4
67.5°	406.1	368.1	344.3	330.0	322.1	323.6	315.7	309.4	309.4	307.8	306.2
70°	328.4	304.6	284.0	276.1	272.9	269.7	266.5	261.8	260.2	260.2	260.2
72.5°	258.6	242.7	231.6	226.9	223.7	220.5	217.3	217.3	217.3	215.8	215.8
75°	198.3	192.0	184.0	179.3	179.3	182.4	177.7	172.9	168.2	165.0	166.6
77.5°	149.1	146.0	141.2	133.3	134.9	131.7	131.7	128.5	130.1	130.1	126.9
80°	109.5	104.7	103.1	98.4	99.9	98.4	96.8	96.8	93.6	93.6	93.6
82.5°	76.2	71.4	71.4	69.8	68.2	68.2	66.6	66.6	68.2	65.0	65.0
85°	46.0	44.4	44.4	41.2	41.2	41.2	41.2	42.8	41.2	39.7	39.7
87.5°	20.6	22.2	20.6	19.0	19.0	19.0	17.5	17.5	15.9	17.5	17.5
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	2116.4	2105.3	2103.7	2103.7	2086.2	2095.8	2076.7	2056.1	2046.6	2046.6	2029.1
5°	2292.5	2281.4	2270.3	2252.8	2252.8	2243.3	2213.2	2183.0	2160.8	2141.8	2121.1
7.5°	2473.3	2462.2	2430.5	2413.1	2422.6	2403.5	2363.9	2313.1	2275.0	2244.9	2202.1
10°	2670.1	2639.9	2624.1	2614.5	2581.2	2560.6	2514.6	2440.0	2392.4	2352.8	2297.2
12.5°	2830.3	2839.8	2779.5	2784.3	2751.0	2722.4	2651.0	2579.6	2508.2	2452.7	2370.2
15°	3003.2	2974.7	2938.2	2909.6	2898.5	2863.6	2803.3	2708.1	2630.4	2543.2	2449.5
17.5°	3139.7	3117.5	3082.6	3055.6	3031.8	2947.7	2896.9	2812.9	2706.6	2620.9	2506.7
20°	3255.5	3234.9	3185.7	3168.2	3125.4	3065.1	2992.1	2862.0	2766.8	2673.2	2562.2
22.5°	3304.7	3284.0	3241.2	3219.0	3192.0	3133.3	3063.5	2939.8	2822.4	2705.0	2587.6
25°	3263.4	3263.4	3242.8	3234.9	3211.1	3158.7	3087.3	2982.6	2857.3	2730.4	2590.7
27.5°	3063.5	3103.2	3117.5	3125.4	3125.4	3127.0	3077.8	2976.3	2854.1	2730.4	2584.4
30°	2774.8	2841.4	2900.1	2917.6	2947.7	2981.0	3001.7	2952.5	2843.0	2712.9	2567.0
32.5°	2411.5	2497.1	2606.6	2633.6	2674.8	2774.8	2830.3	2850.9	2790.6	2676.4	2520.9
35°	2049.8	2157.6	2224.3	2306.8	2344.8	2492.4	2616.1	2690.7	2676.4	2608.2	2467.0
37.5°	1734.0	1795.9	1876.8	1964.1	2040.2	2181.4	2335.3	2479.7	2538.4	2505.1	2398.8
40°	1431.0	1504.0	1600.8	1672.2	1724.5	1865.7	2056.1	2213.2	2341.7	2362.3	2297.2
42.5°	1216.8	1289.8	1348.5	1426.3	1467.5	1603.9	1772.1	1968.8	2121.1	2202.1	2173.5
45°	1051.8	1096.3	1143.9	1188.3	1239.1	1359.6	1515.1	1730.9	1902.2	2016.4	2027.5
47.5°	907.5	947.1	988.4	1029.6	1058.2	1151.8	1294.6	1470.7	1657.9	1815.0	1876.8
50°	805.9	825.0	855.1	878.9	912.2	993.1	1107.4	1259.7	1458.0	1627.7	1708.7
52.5°	706.0	729.8	753.6	774.2	796.4	853.5	958.2	1089.9	1261.3	1435.8	1535.7
55°	621.9	640.9	663.2	677.4	690.1	740.9	820.2	921.8	1069.3	1234.3	1358.0
57.5°	553.7	561.6	580.7	588.6	602.9	644.1	701.2	791.7	910.6	1070.9	1172.4
60°	479.1	495.0	509.3	515.6	526.7	555.3	594.9	679.0	782.1	899.5	1015.4
62.5°	418.8	425.2	436.3	444.2	452.2	482.3	515.6	579.1	656.8	755.2	861.5
65°	363.3	366.5	372.8	383.9	388.7	410.9	429.9	475.9	548.9	623.5	729.8
67.5°	306.2	309.4	317.3	323.6	328.4	342.7	363.3	396.6	436.3	518.8	577.5
70°	261.8	261.8	266.5	269.7	274.5	280.8	291.9	317.3	353.8	406.1	460.1
72.5°	218.9	218.9	218.9	223.7	223.7	228.5	234.8	252.3	277.6	318.9	353.8
75°	169.8	171.3	174.5	174.5	176.1	182.4	187.2	192.0	204.7	231.6	263.4
77.5°	128.5	131.7	133.3	130.1	133.3	133.3	139.6	146.0	152.3	160.2	184.0
80°	95.2	96.8	93.6	95.2	95.2	98.4	101.5	99.9	103.1	112.6	119.0
82.5°	63.5	65.0	65.0	65.0	65.0	69.8	69.8	68.2	69.8	71.4	73.0
85°	39.7	38.1	38.1	39.7	38.1	38.1	39.7	41.2	39.7	41.2	42.8
87.5°	17.5	17.5	17.5	17.5	15.9	15.9	17.5	15.9	17.5	15.9	14.3
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: P998761
 CATALOG NUMBER: S124R3DR-B350DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	2019.6	2011.7	2006.9	2005.3	1991.1	1983.1	1978.4	1975.2	1970.4	1957.7	1946.6
5°	2095.8	2073.6	2062.4	2049.8	2027.5	2002.2	1981.5	1968.8	1953.0	1927.6	1903.8
7.5°	2167.2	2133.8	2111.6	2094.2	2056.1	2014.8	1981.5	1954.6	1924.4	1889.5	1856.2
10°	2241.7	2187.8	2159.2	2132.3	2076.7	2022.8	1975.2	1935.5	1892.7	1846.7	1810.2
12.5°	2300.4	2229.0	2197.3	2159.2	2091.0	2027.5	1967.3	1913.3	1857.8	1808.6	1756.3
15°	2368.6	2279.8	2243.3	2194.1	2100.5	2018.0	1940.3	1881.6	1824.5	1751.5	1696.0
17.5°	2408.3	2305.2	2252.8	2210.0	2108.5	2008.5	1918.1	1845.1	1778.5	1705.5	1646.8
20°	2448.0	2330.6	2271.9	2211.6	2091.0	1984.7	1889.5	1802.3	1732.5	1653.1	1592.8
22.5°	2460.7	2324.2	2262.3	2206.8	2079.9	1960.9	1851.4	1762.6	1681.7	1602.4	1534.1
25°	2460.7	2322.6	2249.7	2178.3	2045.0	1922.8	1813.4	1716.6	1626.2	1546.8	1478.6
27.5°	2435.3	2290.9	2214.7	2149.7	2011.7	1880.0	1767.4	1661.1	1573.8	1494.5	1416.7
30°	2403.5	2244.9	2168.7	2091.0	1957.7	1832.4	1710.2	1611.9	1519.9	1429.4	1359.6
32.5°	2363.9	2195.7	2111.6	2032.3	1891.1	1761.0	1648.4	1551.6	1464.3	1370.7	1293.0
35°	2306.8	2122.7	2029.1	1959.3	1822.9	1688.0	1580.1	1485.0	1400.9	1304.1	1220.0
37.5°	2233.8	2056.1	1960.9	1875.2	1734.0	1610.3	1508.8	1416.7	1334.2	1245.4	1151.8
40°	2148.1	1962.5	1880.0	1789.6	1640.4	1523.0	1427.8	1345.3	1262.9	1178.8	1088.3
42.5°	2051.3	1867.3	1775.3	1688.0	1545.2	1429.4	1340.6	1266.0	1189.9	1112.1	1015.4
45°	1935.5	1762.6	1673.8	1591.3	1453.2	1334.2	1253.3	1181.9	1116.9	1037.6	951.9
47.5°	1805.4	1654.7	1564.3	1475.4	1340.6	1237.5	1158.1	1097.9	1042.3	963.0	885.3
50°	1678.5	1529.4	1456.4	1366.0	1242.2	1145.5	1064.5	1013.8	970.9	893.2	823.4
52.5°	1518.3	1405.6	1335.8	1258.1	1139.1	1040.7	977.3	932.9	882.1	821.8	759.9
55°	1377.1	1272.4	1216.8	1143.9	1026.5	939.2	885.3	844.0	804.4	750.4	701.2
57.5°	1216.8	1151.8	1096.3	1032.8	917.0	842.4	794.8	759.9	723.4	679.0	639.4
60°	1048.7	1018.5	964.6	913.8	815.5	750.4	710.8	679.0	644.1	607.6	574.3
62.5°	899.5	882.1	850.4	810.7	718.7	663.2	623.5	599.7	574.3	541.0	509.3
65°	758.3	750.4	720.3	691.7	628.3	579.1	544.2	529.9	501.3	475.9	447.4
67.5°	633.0	623.5	606.0	593.3	539.4	493.4	475.9	456.9	433.1	414.1	390.3
70°	506.1	504.5	493.4	477.5	449.0	415.7	398.2	385.5	361.7	347.4	330.0
72.5°	393.5	401.4	391.9	385.5	366.5	342.7	326.8	318.9	299.8	288.7	276.1
75°	293.5	299.8	304.6	293.5	288.7	277.6	263.4	255.4	245.9	230.0	225.3
77.5°	199.9	214.2	214.2	217.3	218.9	212.6	201.5	195.1	184.0	180.9	174.5
80°	131.7	144.4	146.0	149.1	153.9	153.9	146.0	144.4	133.3	131.7	126.9
82.5°	76.2	87.3	93.6	98.4	96.8	103.1	96.8	95.2	88.8	88.8	85.7
85°	41.2	42.8	46.0	49.2	52.4	55.5	55.5	53.9	52.4	50.8	47.6
87.5°	15.9	15.9	17.5	15.9	17.5	20.6	22.2	22.2	20.6	19.0	15.9
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: P998761
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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	1937.1	1933.9	1930.8	1918.1	1907.0	1887.9	1872.1	1865.7	1864.1	1865.7	1861.0
5°	1881.6	1880.0	1868.9	1846.7	1826.1	1803.8	1788.0	1772.1	1762.6	1762.6	1751.5
7.5°	1829.2	1818.1	1808.6	1780.0	1756.3	1726.1	1702.3	1688.0	1680.1	1662.6	1662.6
10°	1773.7	1757.8	1745.1	1718.2	1683.3	1653.1	1623.0	1605.5	1591.3	1578.6	1573.8
12.5°	1718.2	1705.5	1681.7	1653.1	1618.2	1580.1	1548.4	1535.7	1502.4	1475.4	1477.0
15°	1665.8	1637.3	1626.2	1584.9	1543.7	1507.2	1461.2	1424.7	1397.7	1380.3	1358.0
17.5°	1607.1	1578.6	1557.9	1523.0	1469.1	1412.0	1367.6	1318.4	1291.4	1261.3	1247.0
20°	1542.1	1518.3	1502.4	1446.9	1381.8	1313.6	1264.4	1234.3	1204.2	1181.9	1169.2
22.5°	1486.5	1456.4	1437.4	1362.8	1291.4	1223.2	1185.1	1159.7	1134.3	1115.3	1109.0
25°	1415.2	1397.7	1351.7	1286.6	1199.4	1153.4	1120.1	1086.7	1072.5	1059.8	1045.5
27.5°	1356.5	1313.6	1281.9	1196.2	1142.3	1089.9	1056.6	1031.2	1013.8	1001.1	990.0
30°	1283.5	1243.8	1199.4	1128.0	1078.8	1029.6	999.5	978.9	959.8	951.9	942.4
32.5°	1207.3	1170.8	1128.0	1070.9	1010.6	972.5	948.7	926.5	913.8	905.9	894.8
35°	1139.1	1093.1	1064.5	1010.6	961.4	918.6	896.4	877.3	863.1	859.9	858.3
37.5°	1066.1	1031.2	1004.3	948.7	907.5	871.0	850.4	829.7	821.8	820.2	813.9
40°	1002.7	972.5	947.1	894.8	850.4	817.0	801.2	788.5	780.6	780.6	779.0
42.5°	947.1	915.4	890.0	842.4	802.8	772.6	755.2	742.5	739.3	740.9	739.3
45°	885.3	858.3	832.9	783.7	750.4	728.2	709.2	702.8	698.1	699.6	701.2
47.5°	826.6	804.4	779.0	739.3	701.2	677.4	666.3	660.0	660.0	660.0	663.2
50°	774.2	748.8	726.6	685.4	650.5	631.4	621.9	614.0	615.6	617.1	618.7
52.5°	712.3	690.1	674.3	633.0	607.6	583.8	572.7	574.3	572.7	572.7	575.9
55°	658.4	636.2	620.3	582.2	556.9	541.0	531.5	526.7	528.3	525.1	531.5
57.5°	598.1	579.1	568.0	531.5	509.3	495.0	487.1	479.1	482.3	480.7	479.1
60°	545.8	523.5	506.1	480.7	461.7	444.2	439.5	431.5	434.7	431.5	429.9
62.5°	485.5	468.0	455.3	429.9	414.1	399.8	388.7	383.9	382.3	377.6	372.8
65°	425.2	415.7	403.0	377.6	361.7	350.6	344.3	339.5	337.9	325.2	311.0
67.5°	369.7	363.3	350.6	331.6	317.3	306.2	296.7	288.7	279.2	269.7	261.8
70°	317.3	307.8	299.8	282.4	269.7	258.6	249.1	239.6	234.8	225.3	222.1
72.5°	266.5	257.0	249.1	233.2	222.1	211.0	207.8	196.7	192.0	190.4	190.4
75°	214.2	206.2	201.5	187.2	177.7	169.8	165.0	161.8	158.6	155.5	150.7
77.5°	163.4	158.6	155.5	146.0	138.0	133.3	131.7	120.6	117.4	114.2	111.1
80°	119.0	117.4	114.2	106.3	103.1	92.0	92.0	88.8	87.3	87.3	87.3
82.5°	80.9	77.7	76.2	68.2	66.6	65.0	63.5	61.9	63.5	61.9	63.5
85°	42.8	41.2	39.7	39.7	39.7	39.7	39.7	39.7	39.7	38.1	39.7
87.5°	15.9	15.9	15.9	15.9	14.3	15.9	15.9	14.3	15.9	15.9	15.9
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: P998761

CATALOG NUMBER: S124R3DR-B350DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	1861.0	1867.3	1859.4	1864.1	1853.0	1851.4	1853.0	1853.0	1854.6	1856.2	1857.8
5°	1756.3	1754.7	1745.1	1738.8	1734.0	1738.8	1742.0	1745.1	1742.0	1745.1	1746.7
7.5°	1657.9	1653.1	1648.4	1637.3	1640.4	1637.3	1646.8	1642.0	1642.0	1650.0	1656.3
10°	1570.6	1561.1	1557.9	1545.2	1535.7	1534.1	1545.2	1550.0	1554.8	1557.9	1570.6
12.5°	1458.0	1443.7	1432.6	1437.4	1410.4	1421.5	1424.7	1418.3	1437.4	1459.6	1446.9
15°	1337.4	1339.0	1316.8	1308.9	1286.6	1293.0	1294.6	1310.4	1326.3	1324.7	1343.8
17.5°	1248.6	1239.1	1220.0	1218.4	1208.9	1213.7	1212.1	1224.8	1220.0	1227.9	1243.8
20°	1166.1	1159.7	1143.9	1137.5	1140.7	1137.5	1139.1	1140.7	1145.5	1162.9	1159.7
22.5°	1101.0	1093.1	1093.1	1085.2	1075.6	1072.5	1080.4	1085.2	1091.5	1094.7	1102.6
25°	1043.9	1037.6	1029.6	1024.9	1016.9	1018.5	1023.3	1029.6	1034.4	1040.7	1047.1
27.5°	985.2	985.2	977.3	975.7	972.5	970.9	977.3	980.5	980.5	985.2	991.6
30°	939.2	939.2	931.3	929.7	928.1	928.1	932.9	934.4	936.0	940.8	944.0
32.5°	894.8	893.2	890.0	891.6	890.0	891.6	891.6	893.2	896.4	898.0	904.3
35°	853.5	855.1	851.9	851.9	850.4	851.9	855.1	856.7	858.3	861.5	861.5
37.5°	813.9	817.0	815.5	820.2	820.2	820.2	820.2	823.4	823.4	823.4	821.8
40°	779.0	779.0	777.4	780.6	783.7	783.7	785.3	785.3	786.9	786.9	785.3
42.5°	739.3	742.5	747.2	748.8	752.0	750.4	755.2	753.6	755.2	752.0	748.8
45°	702.8	702.8	709.2	715.5	717.1	717.1	717.1	720.3	717.1	712.3	710.8
47.5°	663.2	666.3	669.5	677.4	679.0	679.0	679.0	679.0	675.8	675.8	675.8
50°	623.5	625.1	626.7	629.8	634.6	633.0	633.0	633.0	639.4	633.0	634.6
52.5°	575.9	577.5	579.1	585.4	583.8	583.8	585.4	585.4	590.2	588.6	585.4
55°	528.3	528.3	531.5	531.5	531.5	534.6	536.2	539.4	537.8	539.4	541.0
57.5°	480.7	477.5	475.9	475.9	480.7	479.1	480.7	480.7	487.1	490.2	491.8
60°	425.2	425.2	423.6	414.1	414.1	412.5	417.2	420.4	423.6	437.9	436.3
62.5°	368.1	361.7	355.4	357.0	347.4	352.2	349.0	352.2	361.7	372.8	374.4
65°	311.0	306.2	299.8	298.3	295.1	299.8	298.3	299.8	304.6	311.0	318.9
67.5°	260.2	258.6	255.4	253.8	253.8	253.8	257.0	257.0	258.6	263.4	268.1
70°	222.1	220.5	222.1	218.9	220.5	218.9	220.5	222.1	223.7	225.3	230.0
72.5°	187.2	187.2	187.2	184.0	187.2	185.6	185.6	187.2	188.8	190.4	193.6
75°	149.1	146.0	142.8	139.6	138.0	141.2	142.8	141.2	146.0	152.3	152.3
77.5°	112.6	111.1	111.1	111.1	112.6	111.1	114.2	112.6	114.2	114.2	117.4
80°	87.3	85.7	87.3	87.3	85.7	88.8	87.3	87.3	88.8	90.4	88.8
82.5°	63.5	65.0	63.5	63.5	63.5	66.6	63.5	63.5	63.5	65.0	65.0
85°	39.7	39.7	39.7	39.7	41.2	39.7	41.2	39.7	42.8	41.2	41.2
87.5°	14.3	15.9	17.5	17.5	17.5	17.5	15.9	17.5	19.0	17.5	19.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P998761
 CATALOG NUMBER: S124R3DR-B350DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8	1968.8
2.5°	1864.1	1872.1	1868.9	1857.8	1862.5	1872.1	1881.6	1894.3	1902.2	1908.6	1911.7
5°	1754.7	1768.9	1765.8	1765.8	1772.1	1788.0	1803.8	1830.8	1840.3	1851.4	1867.3
7.5°	1657.9	1669.0	1678.5	1681.7	1691.2	1711.8	1732.5	1762.6	1786.4	1799.1	1808.6
10°	1572.2	1580.1	1594.4	1602.4	1611.9	1637.3	1667.4	1699.1	1722.9	1745.1	1757.8
12.5°	1462.7	1494.5	1513.5	1526.2	1538.9	1577.0	1600.8	1635.7	1664.2	1684.9	1703.9
15°	1340.6	1378.7	1389.8	1439.0	1470.7	1500.8	1537.3	1578.6	1605.5	1629.3	1654.7
17.5°	1237.5	1264.4	1277.1	1329.5	1356.5	1404.0	1456.4	1508.8	1550.0	1567.5	1592.8
20°	1172.4	1186.7	1212.1	1229.5	1258.1	1313.6	1370.7	1434.2	1496.1	1513.5	1538.9
22.5°	1105.8	1124.8	1142.3	1166.1	1188.3	1226.4	1283.5	1353.3	1419.9	1451.6	1481.8
25°	1045.5	1064.5	1075.6	1101.0	1121.7	1159.7	1199.4	1270.8	1350.1	1377.1	1424.7
27.5°	997.9	1009.0	1028.0	1039.2	1063.0	1097.9	1134.3	1188.3	1266.0	1312.0	1358.0
30°	950.3	958.2	974.1	990.0	1007.4	1031.2	1072.5	1124.8	1196.2	1235.9	1281.9
32.5°	902.7	915.4	924.9	936.0	955.1	983.6	1012.2	1063.0	1120.1	1164.5	1210.5
35°	863.1	867.8	880.5	893.2	905.9	931.3	961.4	1010.6	1061.4	1096.3	1137.5
37.5°	820.2	828.2	837.7	842.4	863.1	878.9	910.6	948.7	1009.0	1031.2	1072.5
40°	786.9	785.3	794.8	802.8	812.3	837.7	856.7	898.0	945.6	980.5	1005.8
42.5°	745.7	745.7	748.8	758.3	771.0	786.9	809.1	844.0	893.2	918.6	948.7
45°	712.3	707.6	709.2	715.5	723.4	739.3	761.5	791.7	840.8	861.5	893.2
47.5°	672.7	667.9	667.9	674.3	680.6	691.7	709.2	744.1	783.7	810.7	834.5
50°	628.3	629.8	628.3	633.0	636.2	647.3	666.3	694.9	731.4	753.6	780.6
52.5°	587.0	583.8	582.2	585.4	591.8	599.7	620.3	645.7	680.6	702.8	726.6
55°	536.2	539.4	539.4	539.4	548.9	552.1	568.0	593.3	628.3	645.7	667.9
57.5°	490.2	488.6	491.8	490.2	498.2	509.3	522.0	541.0	575.9	593.3	614.0
60°	439.5	441.0	442.6	442.6	449.0	460.1	474.4	491.8	520.4	537.8	556.9
62.5°	377.6	385.5	393.5	396.6	406.1	414.1	423.6	442.6	468.0	480.7	498.2
65°	318.9	330.0	341.1	349.0	355.4	363.3	376.0	393.5	414.1	426.8	444.2
67.5°	268.1	276.1	290.3	298.3	311.0	320.5	328.4	342.7	368.1	372.8	387.1
70°	231.6	234.8	241.1	247.5	261.8	269.7	279.2	293.5	312.5	323.6	331.6
72.5°	195.1	196.7	199.9	206.2	212.6	222.1	233.2	245.9	263.4	268.1	279.2
75°	155.5	165.0	165.0	169.8	174.5	179.3	188.8	201.5	212.6	220.5	226.9
77.5°	115.8	120.6	123.7	131.7	138.0	142.8	149.1	158.6	165.0	171.3	176.1
80°	90.4	92.0	93.6	93.6	96.8	103.1	109.5	115.8	123.7	126.9	131.7
82.5°	66.6	66.6	66.6	69.8	71.4	73.0	73.0	76.2	84.1	87.3	92.0
85°	42.8	42.8	42.8	42.8	44.4	46.0	47.6	49.2	49.2	49.2	52.4
87.5°	17.5	20.6	19.0	20.6	20.6	20.6	20.6	22.2	22.2	23.8	23.8
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: P998761
 CATALOG NUMBER: S124R3DR-B350DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1968.8	1968.8	1968.8	1968.8
2.5°	1924.4	1933.9	1949.8	1972.0
5°	1880.0	1907.0	1932.4	1965.7
7.5°	1840.3	1872.1	1907.0	1954.6
10°	1794.3	1834.0	1878.4	1937.1
12.5°	1740.4	1795.9	1846.7	1910.1
15°	1700.7	1742.0	1807.0	1881.6
17.5°	1645.2	1700.7	1765.8	1849.9
20°	1592.8	1651.5	1724.5	1811.8
22.5°	1537.3	1603.9	1676.9	1770.5
25°	1480.2	1551.6	1624.6	1724.5
27.5°	1427.8	1492.9	1575.4	1676.9
30°	1364.4	1439.0	1518.3	1624.6
32.5°	1302.5	1380.3	1461.2	1567.5
35°	1235.9	1313.6	1402.5	1504.0
37.5°	1170.8	1256.5	1337.4	1435.8
40°	1099.4	1188.3	1272.4	1372.3
42.5°	1029.6	1121.7	1205.7	1291.4
45°	964.6	1055.0	1131.2	1212.1
47.5°	902.7	983.6	1061.4	1134.3
50°	842.4	910.6	982.0	1042.3
52.5°	779.0	844.0	901.1	955.1
55°	721.9	772.6	823.4	872.6
57.5°	653.6	704.4	748.8	786.9
60°	596.5	628.3	671.1	710.8
62.5°	531.5	568.0	601.3	626.7
65°	468.0	499.7	525.1	547.3
67.5°	414.1	433.1	452.2	475.9
70°	349.0	364.9	387.1	404.6
72.5°	293.5	306.2	317.3	337.9
75°	238.0	249.1	255.4	274.5
77.5°	184.0	195.1	199.9	211.0
80°	141.2	142.8	149.1	158.6
82.5°	96.8	99.9	101.5	109.5
85°	55.5	63.5	61.9	65.0
87.5°	23.8	25.4	28.6	31.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)