

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: P998723

Luminaire Tested: S124R3DR-B1020DB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998723
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-B1020DB2750-4F0-XX-W2A-A_3500K
Description: Define 4 3in Regressed Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792
Light Source: -
Ballast/Driver: -

Summary

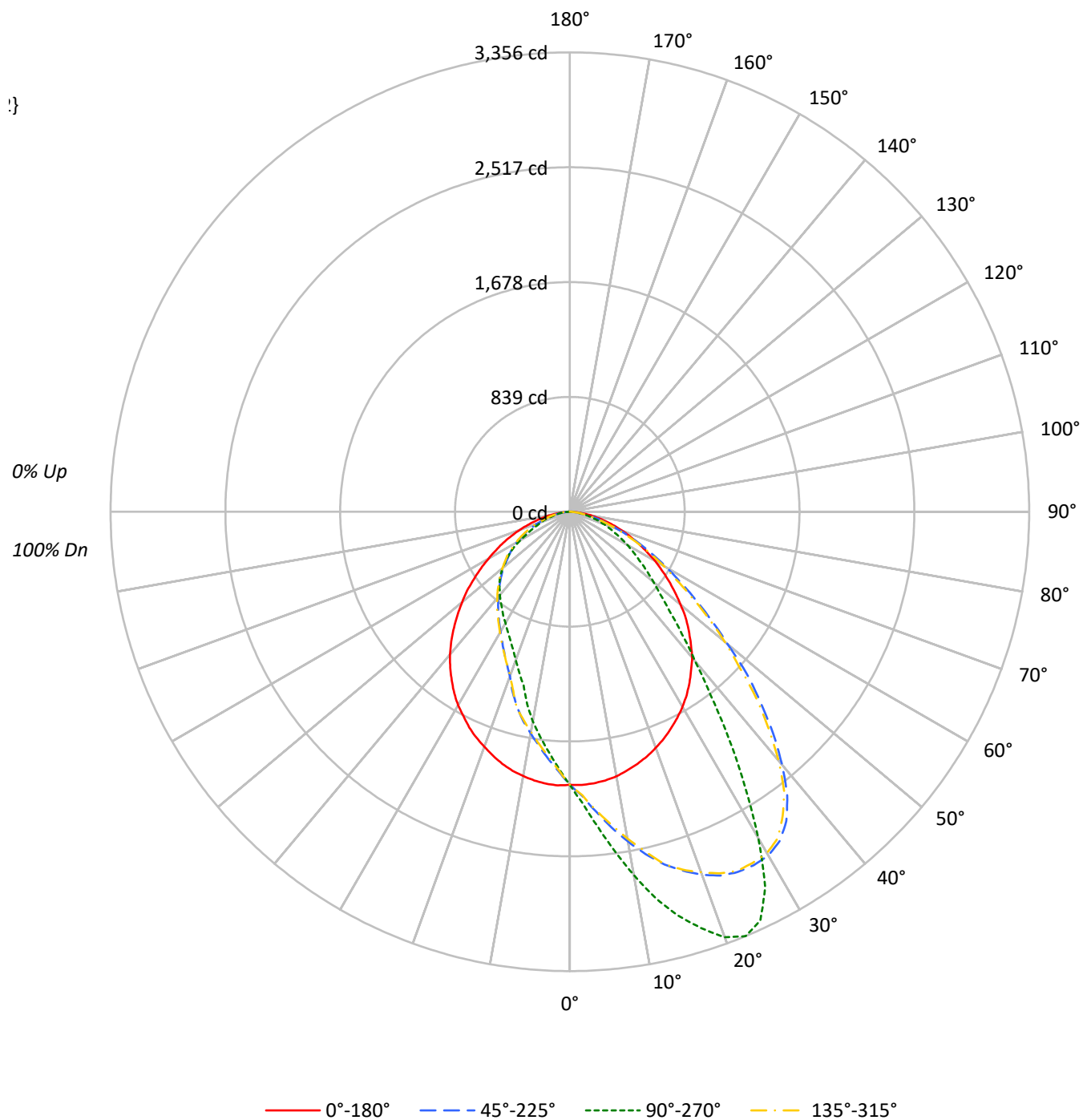
Lumens per Lamp: N/A
Luminaire Lumens: 5042.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
Input Voltage (V):
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	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°	16265	16265	16265	16265
5°	16300	18865	16327	14419
10°	16249	22318	16236	12869
15°	16092	25780	16092	11058
20°	15927	28703	15844	10000
25°	15719	29630	15647	9284
30°	15497	25939	15375	8853
35°	15167	20191	14976	8592
40°	14799	15141	14508	8452
45°	14160	11955	13809	8378
50°	13395	10093	13029	8136
55°	12568	8797	12155	7700
60°	11742	7916	11219	6816
65°	10699	6977	10358	5862
70°	9770	6285	9313	5288
75°	8759	5268	8154	4505
80°	7546	4452	6870	4226
85°	6166	3761	5108	3761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 24318 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.1	3.8
10°-20°	583.2	11.6
20°-30°	913.6	18.1
30°-40°	1014.5	20.1
40°-50°	899.0	17.8
50°-60°	700.6	13.9
60°-70°	458.3	9.1
70°-80°	224.9	4.5
80°-90°	54.8	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°	1690.0	33.5
0°-40°	2704.5	53.6
0°-60°	4304.1	85.4
0°-90°	5042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5042.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1995	1995	1995	1995	1995	
5°	1991	2305	1995	1762	1991	189
15°	1906	3054	1906	1310	1906	538
25°	1747	3293	1739	1032	1747	805
35°	1524	2028	1504	863	1524	952
45°	1228	1037	1197	726	1228	947
55°	884	619	855	542	884	790
65°	554	362	537	304	554	553
75°	278	167	259	143	278	295
85°	66	40	55	40	66	79
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°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	1997.8	2015.4	2025.1	2033.1	2049.2	2055.6	2068.5	2071.7	2084.6	2083.0	2078.1
5°	1991.3	2021.9	2044.4	2068.5	2097.4	2113.5	2131.2	2156.9	2169.7	2187.4	2198.7
7.5°	1980.1	2021.9	2058.8	2095.8	2142.4	2168.1	2190.6	2230.8	2264.6	2293.5	2325.6
10°	1962.4	2015.4	2070.1	2119.9	2184.2	2214.7	2248.5	2308.0	2354.6	2394.8	2446.2
12.5°	1935.1	2009.0	2070.1	2137.6	2219.6	2261.4	2306.4	2377.1	2431.7	2497.6	2561.9
15°	1906.2	1988.1	2068.5	2156.9	2250.1	2298.3	2343.3	2438.1	2521.7	2597.3	2668.0
17.5°	1874.0	1964.0	2052.4	2150.5	2263.0	2322.4	2375.5	2489.6	2581.2	2679.2	2749.9
20°	1835.4	1933.5	2034.7	2144.0	2271.0	2336.9	2396.4	2526.5	2627.8	2733.9	2822.3
22.5°	1793.7	1899.7	2010.6	2129.6	2261.4	2333.7	2402.8	2542.6	2659.9	2758.0	2876.9
25°	1747.0	1859.5	1973.7	2099.0	2246.9	2325.6	2396.4	2534.6	2659.9	2788.5	2904.2
27.5°	1698.8	1814.5	1933.5	2065.3	2216.4	2293.5	2373.9	2507.3	2653.5	2793.3	2910.7
30°	1645.8	1758.3	1883.7	2009.0	2169.7	2246.9	2328.9	2473.5	2632.6	2772.4	2899.4
32.5°	1587.9	1703.6	1822.6	1952.8	2110.3	2193.8	2269.4	2433.3	2595.7	2733.9	2852.8
35°	1523.6	1632.9	1745.4	1878.8	2034.7	2110.3	2200.3	2370.6	2534.6	2680.8	2758.0
37.5°	1454.5	1559.0	1663.5	1795.3	1944.7	2036.3	2124.7	2296.7	2470.3	2568.3	2608.5
40°	1390.2	1481.9	1573.5	1700.4	1851.5	1946.3	2036.3	2214.7	2367.4	2443.0	2412.4
42.5°	1308.3	1403.1	1485.1	1602.4	1755.1	1843.5	1935.1	2119.9	2243.7	2274.2	2198.7
45°	1227.9	1306.7	1385.4	1499.5	1660.3	1735.8	1833.8	2005.8	2108.7	2081.3	1970.4
47.5°	1149.2	1213.4	1287.4	1398.3	1542.9	1632.9	1724.5	1874.0	1946.3	1907.8	1753.5
50°	1055.9	1120.2	1197.4	1293.8	1433.6	1520.4	1592.8	1731.0	1785.6	1690.8	1504.4
52.5°	967.5	1023.8	1089.7	1179.7	1313.1	1391.8	1470.6	1589.5	1607.2	1497.9	1301.8
55°	884.0	929.0	998.1	1070.4	1192.6	1276.1	1330.8	1432.0	1427.2	1290.6	1121.8
57.5°	797.2	839.0	885.6	961.1	1076.8	1139.5	1199.0	1287.4	1240.8	1125.1	957.9
60°	720.0	744.1	790.8	863.1	961.1	1015.8	1062.4	1110.6	1070.4	945.0	816.5
62.5°	634.9	662.2	695.9	753.8	840.6	892.0	925.8	946.6	904.9	808.4	691.1
65°	554.5	578.6	614.0	665.4	731.3	769.9	787.5	802.0	779.5	670.2	577.0
67.5°	482.2	498.2	530.4	564.1	634.9	644.5	668.6	675.0	630.0	546.5	472.5
70°	409.8	425.9	440.4	480.6	512.7	530.4	535.2	535.2	490.2	435.6	374.5
72.5°	342.3	352.0	366.4	393.8	411.4	424.3	430.7	422.7	380.9	335.9	290.9
75°	278.0	282.9	295.7	313.4	327.9	323.1	321.4	311.8	281.3	249.1	223.4
77.5°	213.8	217.0	231.4	236.3	236.3	241.1	234.7	225.0	199.3	175.2	163.9
80°	160.7	165.5	167.2	170.4	167.2	167.2	162.3	146.3	133.4	122.1	114.1
82.5°	110.9	114.1	115.7	110.9	114.1	109.3	101.3	90.0	82.0	80.4	77.1
85°	65.9	67.5	65.9	65.9	61.1	59.5	53.0	51.4	48.2	48.2	46.6
87.5°	32.1	30.5	27.3	24.1	24.1	22.5	24.1	20.9	24.1	22.5	20.9
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°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	2091.0	2108.7	2110.3	2126.3	2121.5	2113.5	2128.0	2118.3	2137.6	2131.2	2139.2
5°	2213.1	2237.2	2258.1	2271.0	2293.5	2288.7	2312.8	2304.7	2322.4	2304.7	2327.2
7.5°	2356.2	2396.4	2417.3	2451.0	2460.6	2462.3	2491.2	2497.6	2508.9	2497.6	2510.5
10°	2496.0	2544.2	2592.4	2619.8	2637.4	2661.5	2687.3	2698.5	2706.6	2695.3	2703.3
12.5°	2623.0	2698.5	2751.6	2806.2	2819.1	2839.9	2867.3	2864.1	2896.2	2889.8	2904.2
15°	2740.3	2823.9	2888.2	2931.6	2966.9	2984.6	3036.0	3039.2	3037.6	3053.7	3044.1
17.5°	2844.8	2915.5	3007.1	3063.4	3106.7	3106.7	3135.7	3195.1	3190.3	3188.7	3198.4
20°	2930.0	3010.3	3095.5	3190.3	3225.7	3232.1	3272.3	3302.8	3307.6	3307.6	3307.6
22.5°	2994.2	3089.1	3180.7	3248.2	3275.5	3298.0	3333.4	3352.7	3359.1	3355.9	3359.1
25°	3026.4	3116.4	3209.6	3270.7	3286.8	3299.6	3302.8	3314.1	3312.5	3293.2	3304.4
27.5°	3032.8	3119.6	3180.7	3196.8	3188.7	3180.7	3129.2	3134.1	3119.6	3090.7	3101.9
30°	3003.9	3050.5	3048.9	2999.1	2984.6	2950.8	2904.2	2835.1	2778.9	2754.8	2762.8
32.5°	2899.4	2899.4	2841.6	2729.1	2679.2	2618.2	2534.6	2471.9	2398.0	2381.9	2412.4
35°	2754.8	2672.8	2566.7	2418.9	2343.3	2298.3	2153.7	2108.7	2046.0	2028.3	2042.8
37.5°	2529.8	2393.1	2238.9	2100.6	2036.3	1956.0	1829.0	1764.7	1719.7	1689.2	1703.6
40°	2277.4	2111.9	1951.2	1780.8	1710.1	1644.2	1549.4	1491.5	1419.2	1422.4	1427.2
42.5°	2036.3	1841.9	1661.9	1504.4	1436.9	1382.2	1316.3	1245.6	1219.9	1211.8	1203.8
45°	1780.8	1573.5	1404.7	1287.4	1226.3	1174.9	1113.8	1073.6	1043.1	1036.7	1044.7
47.5°	1539.7	1364.5	1203.8	1094.5	1044.7	1019.0	970.8	933.8	914.5	898.4	908.1
50°	1321.1	1157.2	1028.6	937.0	901.6	884.0	839.0	819.7	800.4	795.6	794.0
52.5°	1141.1	1001.3	890.4	816.5	789.1	779.5	745.7	718.4	702.4	707.2	710.4
55°	977.2	858.3	771.5	712.0	689.5	678.2	654.1	634.9	623.6	618.8	622.0
57.5°	832.5	729.7	667.0	618.8	601.1	596.3	570.6	564.1	556.1	551.3	551.3
60°	700.7	628.4	570.6	543.2	524.0	519.1	499.8	491.8	490.2	485.4	482.2
62.5°	589.8	530.4	490.2	461.3	453.2	451.6	438.8	429.1	424.3	421.1	421.1
65°	493.4	450.0	416.3	395.4	388.9	385.7	371.3	368.1	364.8	361.6	360.0
67.5°	411.4	372.9	348.8	334.3	326.3	327.9	319.8	313.4	313.4	311.8	310.2
70°	332.7	308.6	287.7	279.7	276.4	273.2	270.0	265.2	263.6	263.6	263.6
72.5°	262.0	245.9	234.7	229.8	226.6	223.4	220.2	220.2	220.2	218.6	218.6
75°	200.9	194.5	186.4	181.6	181.6	184.8	180.0	175.2	170.4	167.2	168.8
77.5°	151.1	147.9	143.0	135.0	136.6	133.4	133.4	130.2	131.8	131.8	128.6
80°	110.9	106.1	104.5	99.6	101.3	99.6	98.0	98.0	94.8	94.8	94.8
82.5°	77.1	72.3	72.3	70.7	69.1	69.1	67.5	67.5	69.1	65.9	65.9
85°	46.6	45.0	45.0	41.8	41.8	41.8	41.8	43.4	41.8	40.2	40.2
87.5°	20.9	22.5	20.9	19.3	19.3	19.3	17.7	17.7	16.1	17.7	17.7
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°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	2144.0	2132.8	2131.2	2131.2	2113.5	2123.1	2103.8	2083.0	2073.3	2073.3	2055.6
5°	2322.4	2311.2	2299.9	2282.2	2282.2	2272.6	2242.1	2211.5	2189.0	2169.7	2148.8
7.5°	2505.6	2494.4	2462.3	2444.6	2454.2	2434.9	2394.8	2343.3	2304.7	2274.2	2230.8
10°	2704.9	2674.4	2658.3	2648.7	2614.9	2594.0	2547.4	2471.9	2423.7	2383.5	2327.2
12.5°	2867.3	2876.9	2815.8	2820.7	2786.9	2758.0	2685.7	2613.3	2541.0	2484.8	2401.2
15°	3042.5	3013.5	2976.6	2947.6	2936.4	2901.0	2839.9	2743.5	2664.8	2576.4	2481.5
17.5°	3180.7	3158.2	3122.8	3095.5	3071.4	2986.2	2934.8	2849.6	2741.9	2655.1	2539.4
20°	3298.0	3277.1	3227.3	3209.6	3166.2	3105.1	3031.2	2899.4	2803.0	2708.2	2595.7
22.5°	3347.8	3326.9	3283.5	3261.0	3233.7	3174.3	3103.5	2978.2	2859.2	2740.3	2621.4
25°	3306.0	3306.0	3285.1	3277.1	3253.0	3200.0	3127.6	3021.6	2894.6	2766.0	2624.6
27.5°	3103.5	3143.7	3158.2	3166.2	3166.2	3167.8	3118.0	3015.1	2891.4	2766.0	2618.2
30°	2811.0	2878.5	2938.0	2955.7	2986.2	3020.0	3040.9	2991.0	2880.1	2748.3	2600.5
32.5°	2443.0	2529.8	2640.7	2668.0	2709.8	2811.0	2867.3	2888.2	2827.1	2711.4	2553.9
35°	2076.5	2185.8	2253.3	2336.9	2375.5	2524.9	2650.3	2725.8	2711.4	2642.3	2499.2
37.5°	1756.7	1819.4	1901.3	1989.7	2066.9	2209.9	2365.8	2512.1	2571.5	2537.8	2430.1
40°	1449.7	1523.6	1621.7	1694.0	1747.0	1890.1	2083.0	2242.1	2372.3	2393.1	2327.2
42.5°	1232.7	1306.7	1366.1	1444.9	1486.7	1624.9	1795.3	1994.6	2148.8	2230.8	2201.9
45°	1065.6	1110.6	1158.8	1203.8	1255.2	1377.4	1534.9	1753.5	1927.1	2042.8	2054.0
47.5°	919.3	959.5	1001.3	1043.1	1072.0	1166.8	1311.5	1489.9	1679.5	1838.7	1901.3
50°	816.5	835.8	866.3	890.4	924.1	1006.1	1121.8	1276.1	1477.0	1649.0	1731.0
52.5°	715.2	739.3	763.4	784.3	806.8	864.7	970.8	1104.2	1277.7	1454.5	1555.8
55°	630.0	649.3	671.8	686.3	699.1	750.6	830.9	933.8	1083.3	1250.4	1375.8
57.5°	560.9	569.0	588.2	596.3	610.7	652.5	710.4	802.0	922.5	1084.9	1187.7
60°	485.4	501.5	515.9	522.3	533.6	562.5	602.7	687.9	792.4	911.3	1028.6
62.5°	424.3	430.7	442.0	450.0	458.1	488.6	522.3	586.6	665.4	765.0	872.7
65°	368.1	371.3	377.7	388.9	393.8	416.3	435.6	482.2	556.1	631.6	739.3
67.5°	310.2	313.4	321.4	327.9	332.7	347.2	368.1	401.8	442.0	525.6	585.0
70°	265.2	265.2	270.0	273.2	278.0	284.5	295.7	321.4	358.4	411.4	466.1
72.5°	221.8	221.8	221.8	226.6	226.6	231.4	237.9	255.5	281.3	323.1	358.4
75°	172.0	173.6	176.8	176.8	178.4	184.8	189.7	194.5	207.3	234.7	266.8
77.5°	130.2	133.4	135.0	131.8	135.0	135.0	141.4	147.9	154.3	162.3	186.4
80°	96.4	98.0	94.8	96.4	96.4	99.6	102.9	101.3	104.5	114.1	120.5
82.5°	64.3	65.9	65.9	65.9	65.9	70.7	70.7	69.1	70.7	72.3	73.9
85°	40.2	38.6	38.6	40.2	38.6	38.6	40.2	41.8	40.2	41.8	43.4
87.5°	17.7	17.7	17.7	17.7	16.1	16.1	17.7	16.1	17.7	16.1	14.5
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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CATALOG NUMBER: S124R3DR-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	2046.0	2037.9	2033.1	2031.5	2017.1	2009.0	2004.2	2001.0	1996.2	1983.3	1972.1
5°	2123.1	2100.6	2089.4	2076.5	2054.0	2028.3	2007.4	1994.6	1978.5	1952.8	1928.7
7.5°	2195.5	2161.7	2139.2	2121.5	2083.0	2041.2	2007.4	1980.1	1949.6	1914.2	1880.4
10°	2271.0	2216.4	2187.4	2160.1	2103.8	2049.2	2001.0	1960.8	1917.4	1870.8	1833.8
12.5°	2330.5	2258.1	2226.0	2187.4	2118.3	2054.0	1992.9	1938.3	1882.0	1832.2	1779.2
15°	2399.6	2309.6	2272.6	2222.8	2128.0	2044.4	1965.6	1906.2	1848.3	1774.4	1718.1
17.5°	2439.8	2335.3	2282.2	2238.9	2136.0	2034.7	1943.1	1869.2	1801.7	1727.8	1668.3
20°	2479.9	2361.0	2301.5	2240.5	2118.3	2010.6	1914.2	1825.8	1755.1	1674.7	1613.6
22.5°	2492.8	2354.6	2291.9	2235.6	2107.1	1986.5	1875.6	1785.6	1703.6	1623.3	1554.2
25°	2492.8	2353.0	2279.0	2206.7	2071.7	1947.9	1837.0	1739.0	1647.4	1567.0	1497.9
27.5°	2467.1	2320.8	2243.7	2177.8	2037.9	1904.6	1790.4	1682.8	1594.4	1514.0	1435.2
30°	2434.9	2274.2	2197.1	2118.3	1983.3	1856.3	1732.6	1632.9	1539.7	1448.1	1377.4
32.5°	2394.8	2224.4	2139.2	2058.8	1915.8	1784.0	1669.9	1571.9	1483.5	1388.6	1309.9
35°	2336.9	2150.5	2055.6	1984.9	1846.7	1710.1	1600.8	1504.4	1419.2	1321.1	1235.9
37.5°	2263.0	2083.0	1986.5	1899.7	1756.7	1631.3	1528.5	1435.2	1351.7	1261.7	1166.8
40°	2176.2	1988.1	1904.6	1812.9	1661.9	1542.9	1446.5	1362.9	1279.3	1194.2	1102.5
42.5°	2078.1	1891.7	1798.5	1710.1	1565.4	1448.1	1358.1	1282.6	1205.4	1126.7	1028.6
45°	1960.8	1785.6	1695.6	1612.0	1472.2	1351.7	1269.7	1197.4	1131.5	1051.1	964.3
47.5°	1829.0	1676.3	1584.7	1494.7	1358.1	1253.6	1173.3	1112.2	1055.9	975.6	896.8
50°	1700.4	1549.4	1475.4	1383.8	1258.4	1160.4	1078.4	1027.0	983.6	904.9	834.1
52.5°	1538.1	1424.0	1353.3	1274.5	1154.0	1054.3	990.0	945.0	893.6	832.5	769.9
55°	1395.1	1289.0	1232.7	1158.8	1039.9	951.5	896.8	855.0	814.9	760.2	710.4
57.5°	1232.7	1166.8	1110.6	1046.3	929.0	853.4	805.2	769.9	732.9	687.9	647.7
60°	1062.4	1031.8	977.2	925.8	826.1	760.2	720.0	687.9	652.5	615.6	581.8
62.5°	911.3	893.6	861.5	821.3	728.1	671.8	631.6	607.5	581.8	548.1	515.9
65°	768.2	760.2	729.7	700.7	636.5	586.6	551.3	536.8	507.9	482.2	453.2
67.5°	641.3	631.6	614.0	601.1	546.5	499.8	482.2	462.9	438.8	419.5	395.4
70°	512.7	511.1	499.8	483.8	454.8	421.1	403.4	390.6	366.4	352.0	334.3
72.5°	398.6	406.6	397.0	390.6	371.3	347.2	331.1	323.1	303.8	292.5	279.7
75°	297.3	303.8	308.6	297.3	292.5	281.3	266.8	258.8	249.1	233.0	228.2
77.5°	202.5	217.0	217.0	220.2	221.8	215.4	204.1	197.7	186.4	183.2	176.8
80°	133.4	146.3	147.9	151.1	155.9	155.9	147.9	146.3	135.0	133.4	128.6
82.5°	77.1	88.4	94.8	99.6	98.0	104.5	98.0	96.4	90.0	90.0	86.8
85°	41.8	43.4	46.6	49.8	53.0	56.3	56.3	54.6	53.0	51.4	48.2
87.5°	16.1	16.1	17.7	16.1	17.7	20.9	22.5	22.5	20.9	19.3	16.1
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: P998723

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	1962.4	1959.2	1956.0	1943.1	1931.9	1912.6	1896.5	1890.1	1888.5	1890.1	1885.3
5°	1906.2	1904.6	1893.3	1870.8	1849.9	1827.4	1811.3	1795.3	1785.6	1785.6	1774.4
7.5°	1853.1	1841.9	1832.2	1803.3	1779.2	1748.7	1724.5	1710.1	1702.0	1684.4	1684.4
10°	1796.9	1780.8	1767.9	1740.6	1705.3	1674.7	1644.2	1626.5	1612.0	1599.2	1594.4
12.5°	1740.6	1727.8	1703.6	1674.7	1639.4	1600.8	1568.6	1555.8	1522.0	1494.7	1496.3
15°	1687.6	1658.6	1647.4	1605.6	1563.8	1526.9	1480.2	1443.3	1416.0	1398.3	1375.8
17.5°	1628.1	1599.2	1578.3	1542.9	1488.3	1430.4	1385.4	1335.6	1308.3	1277.7	1263.3
20°	1562.2	1538.1	1522.0	1465.8	1399.9	1330.8	1281.0	1250.4	1219.9	1197.4	1184.5
22.5°	1506.0	1475.4	1456.1	1380.6	1308.3	1239.2	1200.6	1174.9	1149.2	1129.9	1123.4
25°	1433.6	1416.0	1369.3	1303.5	1215.1	1168.4	1134.7	1100.9	1086.5	1073.6	1059.2
27.5°	1374.2	1330.8	1298.6	1211.8	1157.2	1104.2	1070.4	1044.7	1027.0	1014.2	1002.9
30°	1300.2	1260.1	1215.1	1142.7	1092.9	1043.1	1012.5	991.7	972.4	964.3	954.7
32.5°	1223.1	1186.1	1142.7	1084.9	1023.8	985.2	961.1	938.6	925.8	917.7	906.5
35°	1154.0	1107.4	1078.4	1023.8	974.0	930.6	908.1	888.8	874.3	871.1	869.5
37.5°	1080.0	1044.7	1017.4	961.1	919.3	882.4	861.5	840.6	832.5	830.9	824.5
40°	1015.8	985.2	959.5	906.5	861.5	827.7	811.6	798.8	790.8	790.8	789.1
42.5°	959.5	927.4	901.6	853.4	813.3	782.7	765.0	752.2	749.0	750.6	749.0
45°	896.8	869.5	843.8	794.0	760.2	737.7	718.4	712.0	707.2	708.8	710.4
47.5°	837.4	814.9	789.1	749.0	710.4	686.3	675.0	668.6	668.6	668.6	671.8
50°	784.3	758.6	736.1	694.3	659.0	639.7	630.0	622.0	623.6	625.2	626.8
52.5°	721.6	699.1	683.1	641.3	615.6	591.5	580.2	581.8	580.2	580.2	583.4
55°	667.0	644.5	628.4	589.8	564.1	548.1	538.4	533.6	535.2	532.0	538.4
57.5°	605.9	586.6	575.4	538.4	515.9	501.5	493.4	485.4	488.6	487.0	485.4
60°	552.9	530.4	512.7	487.0	467.7	450.0	445.2	437.2	440.4	437.2	435.6
62.5°	491.8	474.1	461.3	435.6	419.5	405.0	393.8	388.9	387.3	382.5	377.7
65°	430.7	421.1	408.2	382.5	366.4	355.2	348.8	343.9	342.3	329.5	315.0
67.5°	374.5	368.1	355.2	335.9	321.4	310.2	300.5	292.5	282.9	273.2	265.2
70°	321.4	311.8	303.8	286.1	273.2	262.0	252.3	242.7	237.9	228.2	225.0
72.5°	270.0	260.4	252.3	236.3	225.0	213.8	210.5	199.3	194.5	192.9	192.9
75°	217.0	208.9	204.1	189.7	180.0	172.0	167.2	163.9	160.7	157.5	152.7
77.5°	165.5	160.7	157.5	147.9	139.8	135.0	133.4	122.1	118.9	115.7	112.5
80°	120.5	118.9	115.7	107.7	104.5	93.2	93.2	90.0	88.4	88.4	88.4
82.5°	82.0	78.8	77.1	69.1	67.5	65.9	64.3	62.7	64.3	62.7	64.3
85°	43.4	41.8	40.2	40.2	40.2	40.2	40.2	40.2	40.2	38.6	40.2
87.5°	16.1	16.1	16.1	16.1	14.5	16.1	16.1	14.5	16.1	16.1	16.1
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: P998723

CATALOG NUMBER: S124R3DR-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	1885.3	1891.7	1883.7	1888.5	1877.2	1875.6	1877.2	1877.2	1878.8	1880.4	1882.0
5°	1779.2	1777.6	1767.9	1761.5	1756.7	1761.5	1764.7	1767.9	1764.7	1767.9	1769.5
7.5°	1679.5	1674.7	1669.9	1658.6	1661.9	1658.6	1668.3	1663.5	1663.5	1671.5	1677.9
10°	1591.1	1581.5	1578.3	1565.4	1555.8	1554.2	1565.4	1570.2	1575.1	1578.3	1591.1
12.5°	1477.0	1462.6	1451.3	1456.1	1428.8	1440.1	1443.3	1436.9	1456.1	1478.6	1465.8
15°	1354.9	1356.5	1334.0	1326.0	1303.5	1309.9	1311.5	1327.6	1343.6	1342.0	1361.3
17.5°	1264.9	1255.2	1235.9	1234.3	1224.7	1229.5	1227.9	1240.8	1235.9	1244.0	1260.1
20°	1181.3	1174.9	1158.8	1152.4	1155.6	1152.4	1154.0	1155.6	1160.4	1178.1	1174.9
22.5°	1115.4	1107.4	1107.4	1099.3	1089.7	1086.5	1094.5	1099.3	1105.8	1109.0	1117.0
25°	1057.5	1051.1	1043.1	1038.3	1030.2	1031.8	1036.7	1043.1	1047.9	1054.3	1060.8
27.5°	998.1	998.1	990.0	988.4	985.2	983.6	990.0	993.3	993.3	998.1	1004.5
30°	951.5	951.5	943.4	941.8	940.2	940.2	945.0	946.6	948.3	953.1	956.3
32.5°	906.5	904.9	901.6	903.3	901.6	903.3	903.3	904.9	908.1	909.7	916.1
35°	864.7	866.3	863.1	863.1	861.5	863.1	866.3	867.9	869.5	872.7	872.7
37.5°	824.5	827.7	826.1	830.9	830.9	830.9	830.9	834.1	834.1	834.1	832.5
40°	789.1	789.1	787.5	790.8	794.0	794.0	795.6	795.6	797.2	797.2	795.6
42.5°	749.0	752.2	757.0	758.6	761.8	760.2	765.0	763.4	765.0	761.8	758.6
45°	712.0	712.0	718.4	724.9	726.5	726.5	726.5	729.7	726.5	721.6	720.0
47.5°	671.8	675.0	678.2	686.3	687.9	687.9	687.9	687.9	684.7	684.7	684.7
50°	631.6	633.2	634.9	638.1	642.9	641.3	641.3	641.3	647.7	641.3	642.9
52.5°	583.4	585.0	586.6	593.1	591.5	591.5	593.1	593.1	597.9	596.3	593.1
55°	535.2	535.2	538.4	538.4	538.4	541.6	543.2	546.5	544.8	546.5	548.1
57.5°	487.0	483.8	482.2	482.2	487.0	485.4	487.0	487.0	493.4	496.6	498.2
60°	430.7	430.7	429.1	419.5	419.5	417.9	422.7	425.9	429.1	443.6	442.0
62.5°	372.9	366.4	360.0	361.6	352.0	356.8	353.6	356.8	366.4	377.7	379.3
65°	315.0	310.2	303.8	302.2	298.9	303.8	302.2	303.8	308.6	315.0	323.1
67.5°	263.6	262.0	258.8	257.2	257.2	257.2	260.4	260.4	262.0	266.8	271.6
70°	225.0	223.4	225.0	221.8	223.4	221.8	223.4	225.0	226.6	228.2	233.0
72.5°	189.7	189.7	189.7	186.4	189.7	188.0	188.0	189.7	191.3	192.9	196.1
75°	151.1	147.9	144.6	141.4	139.8	143.0	144.6	143.0	147.9	154.3	154.3
77.5°	114.1	112.5	112.5	112.5	114.1	112.5	115.7	114.1	115.7	115.7	118.9
80°	88.4	86.8	88.4	88.4	86.8	90.0	88.4	88.4	90.0	91.6	90.0
82.5°	64.3	65.9	64.3	64.3	64.3	67.5	64.3	64.3	64.3	65.9	65.9
85°	40.2	40.2	40.2	40.2	41.8	40.2	41.8	40.2	43.4	41.8	41.8
87.5°	14.5	16.1	17.7	17.7	17.7	17.7	16.1	17.7	19.3	17.7	19.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6	1994.6
2.5°	1888.5	1896.5	1893.3	1882.0	1886.9	1896.5	1906.2	1919.0	1927.1	1933.5	1936.7
5°	1777.6	1792.0	1788.8	1788.8	1795.3	1811.3	1827.4	1854.7	1864.4	1875.6	1891.7
7.5°	1679.5	1690.8	1700.4	1703.6	1713.3	1734.2	1755.1	1785.6	1809.7	1822.6	1832.2
10°	1592.8	1600.8	1615.3	1623.3	1632.9	1658.6	1689.2	1721.3	1745.4	1767.9	1780.8
12.5°	1481.9	1514.0	1533.3	1546.1	1559.0	1597.6	1621.7	1657.0	1686.0	1706.9	1726.1
15°	1358.1	1396.7	1407.9	1457.7	1489.9	1520.4	1557.4	1599.2	1626.5	1650.6	1676.3
17.5°	1253.6	1281.0	1293.8	1346.8	1374.2	1422.4	1475.4	1528.5	1570.2	1587.9	1613.6
20°	1187.7	1202.2	1227.9	1245.6	1274.5	1330.8	1388.6	1452.9	1515.6	1533.3	1559.0
22.5°	1120.2	1139.5	1157.2	1181.3	1203.8	1242.4	1300.2	1371.0	1438.5	1470.6	1501.1
25°	1059.2	1078.4	1089.7	1115.4	1136.3	1174.9	1215.1	1287.4	1367.7	1395.1	1443.3
27.5°	1010.9	1022.2	1041.5	1052.7	1076.8	1112.2	1149.2	1203.8	1282.6	1329.2	1375.8
30°	962.7	970.8	986.8	1002.9	1020.6	1044.7	1086.5	1139.5	1211.8	1252.0	1298.6
32.5°	914.5	927.4	937.0	948.3	967.5	996.5	1025.4	1076.8	1134.7	1179.7	1226.3
35°	874.3	879.1	892.0	904.9	917.7	943.4	974.0	1023.8	1075.2	1110.6	1152.4
37.5°	830.9	839.0	848.6	853.4	874.3	890.4	922.5	961.1	1022.2	1044.7	1086.5
40°	797.2	795.6	805.2	813.3	822.9	848.6	867.9	909.7	957.9	993.3	1019.0
42.5°	755.4	755.4	758.6	768.2	781.1	797.2	819.7	855.0	904.9	930.6	961.1
45°	721.6	716.8	718.4	724.9	732.9	749.0	771.5	802.0	851.8	872.7	904.9
47.5°	681.5	676.6	676.6	683.1	689.5	700.7	718.4	753.8	794.0	821.3	845.4
50°	636.5	638.1	636.5	641.3	644.5	655.7	675.0	704.0	740.9	763.4	790.8
52.5°	594.7	591.5	589.8	593.1	599.5	607.5	628.4	654.1	689.5	712.0	736.1
55°	543.2	546.5	546.5	546.5	556.1	559.3	575.4	601.1	636.5	654.1	676.6
57.5°	496.6	495.0	498.2	496.6	504.7	515.9	528.8	548.1	583.4	601.1	622.0
60°	445.2	446.8	448.4	448.4	454.8	466.1	480.6	498.2	527.2	544.8	564.1
62.5°	382.5	390.6	398.6	401.8	411.4	419.5	429.1	448.4	474.1	487.0	504.7
65°	323.1	334.3	345.6	353.6	360.0	368.1	380.9	398.6	419.5	432.3	450.0
67.5°	271.6	279.7	294.1	302.2	315.0	324.7	332.7	347.2	372.9	377.7	392.2
70°	234.7	237.9	244.3	250.7	265.2	273.2	282.9	297.3	316.6	327.9	335.9
72.5°	197.7	199.3	202.5	208.9	215.4	225.0	236.3	249.1	266.8	271.6	282.9
75°	157.5	167.2	167.2	172.0	176.8	181.6	191.3	204.1	215.4	223.4	229.8
77.5°	117.3	122.1	125.4	133.4	139.8	144.6	151.1	160.7	167.2	173.6	178.4
80°	91.6	93.2	94.8	94.8	98.0	104.5	110.9	117.3	125.4	128.6	133.4
82.5°	67.5	67.5	67.5	70.7	72.3	73.9	73.9	77.1	85.2	88.4	93.2
85°	43.4	43.4	43.4	43.4	45.0	46.6	48.2	49.8	49.8	49.8	53.0
87.5°	17.7	20.9	19.3	20.9	20.9	20.9	20.9	22.5	22.5	24.1	24.1
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: P998723

CATALOG NUMBER: S124R3DR-B1020DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1994.6	1994.6	1994.6	1994.6
2.5°	1949.6	1959.2	1975.3	1997.8
5°	1904.6	1931.9	1957.6	1991.3
7.5°	1864.4	1896.5	1931.9	1980.1
10°	1817.8	1857.9	1902.9	1962.4
12.5°	1763.1	1819.4	1870.8	1935.1
15°	1722.9	1764.7	1830.6	1906.2
17.5°	1666.7	1722.9	1788.8	1874.0
20°	1613.6	1673.1	1747.0	1835.4
22.5°	1557.4	1624.9	1698.8	1793.7
25°	1499.5	1571.9	1645.8	1747.0
27.5°	1446.5	1512.4	1596.0	1698.8
30°	1382.2	1457.7	1538.1	1645.8
32.5°	1319.5	1398.3	1480.2	1587.9
35°	1252.0	1330.8	1420.8	1523.6
37.5°	1186.1	1272.9	1354.9	1454.5
40°	1113.8	1203.8	1289.0	1390.2
42.5°	1043.1	1136.3	1221.5	1308.3
45°	977.2	1068.8	1145.9	1227.9
47.5°	914.5	996.5	1075.2	1149.2
50°	853.4	922.5	994.9	1055.9
52.5°	789.1	855.0	912.9	967.5
55°	731.3	782.7	834.1	884.0
57.5°	662.2	713.6	758.6	797.2
60°	604.3	636.5	679.9	720.0
62.5°	538.4	575.4	609.1	634.9
65°	474.1	506.3	532.0	554.5
67.5°	419.5	438.8	458.1	482.2
70°	353.6	369.7	392.2	409.8
72.5°	297.3	310.2	321.4	342.3
75°	241.1	252.3	258.8	278.0
77.5°	186.4	197.7	202.5	213.8
80°	143.0	144.6	151.1	160.7
82.5°	98.0	101.3	102.9	110.9
85°	56.3	64.3	62.7	65.9
87.5°	24.1	25.7	28.9	32.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)