

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: P998425

Luminaire Tested: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998425
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-21)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K
Description: Define 4 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

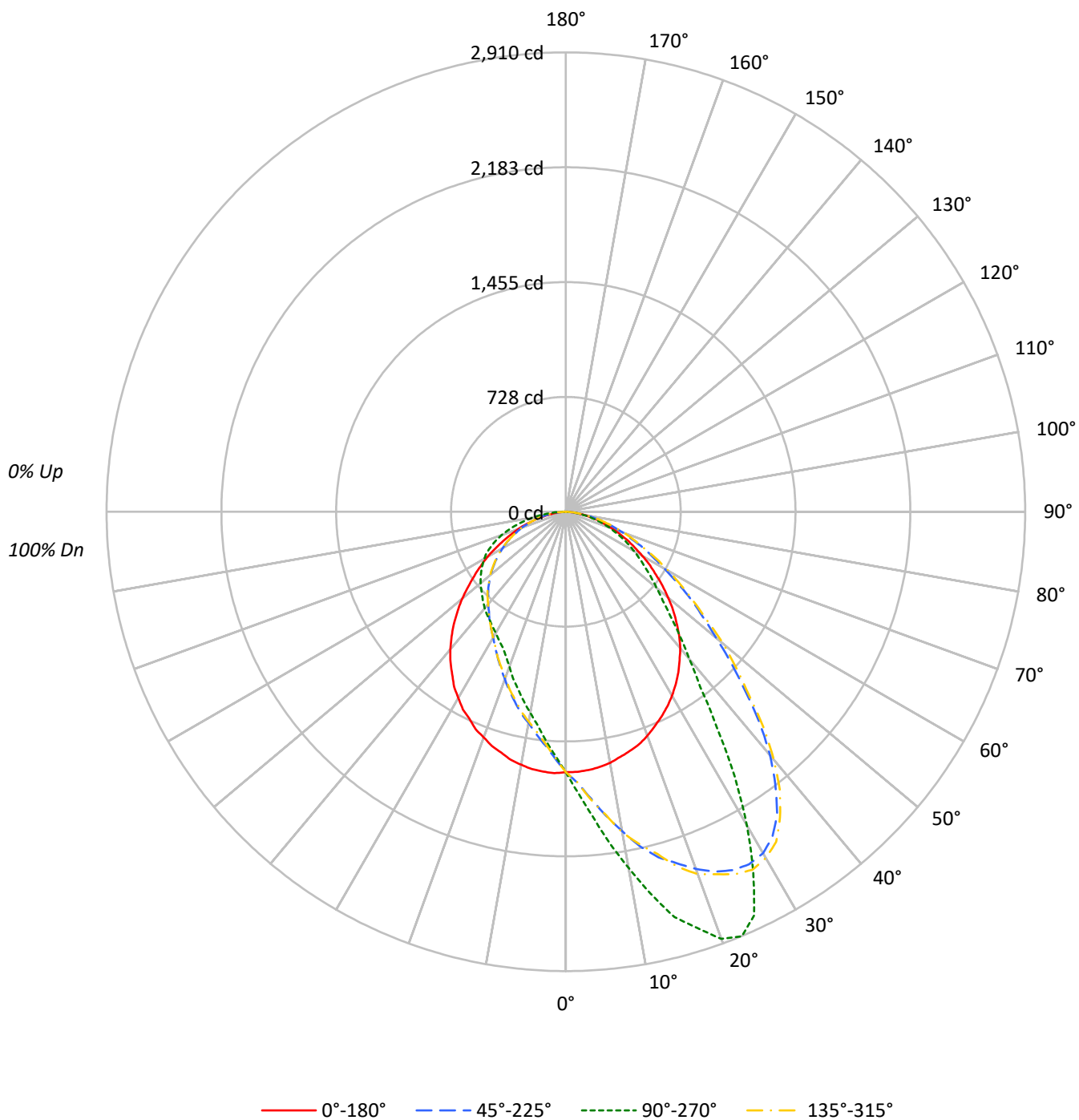
Lumens per Lamp: N/A
Luminaire Lumens: 4551.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.3 / 1.41
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	100			
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85			
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			
4	84	73	64	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53			
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	46			
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41			
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	36			
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33			
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	30			
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13449	13449	13449	13449
5°	13444	15838	13523	11901
10°	13373	18963	13475	10715
15°	13242	22437	13335	9839
20°	13103	24983	13197	9059
25°	12884	25387	13008	8520
30°	12673	21602	12827	8350
35°	12365	16609	12500	8352
40°	12000	12945	12116	8508
45°	11424	10794	11566	8651
50°	10730	9499	10886	8945
55°	9908	8704	10063	9305
60°	9115	8156	9383	9738
65°	8384	7593	8463	10097
70°	7525	6938	7689	10328
75°	6717	6200	6673	10202
80°	5518	5198	5452	9880
85°	4089	3836	3836	9459

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 145°

Vertical Angle: 45°

Luminance: 20768 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	3.5
10°-20°	495.4	10.9
20°-30°	787.1	17.3
30°-40°	874.6	19.2
40°-50°	795.3	17.5
50°-60°	649.9	14.3
60°-70°	463.9	10.2
70°-80°	255.3	5.6
80°-90°	69.0	1.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1443.0	31.7
0°-40°	2317.6	50.9
0°-60°	3762.8	82.7
0°-90°	4551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4551.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1649	1649	1649	1649	1649	
5°	1642	1935	1652	1454	1642	156
15°	1569	2658	1580	1166	1569	443
25°	1432	2822	1446	947	1432	660
35°	1242	1668	1256	839	1242	776
45°	991	936	1003	750	991	764
55°	697	612	708	654	697	627
65°	434	394	439	523	434	429
75°	213	197	212	324	213	224
85°	44	41	41	101	44	54
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1649.3	1665.7	1672.5	1677.9	1695.7	1701.2	1702.5	1710.7	1717.6	1718.9	1718.9
5°	1642.4	1668.4	1688.9	1708.0	1736.7	1749.0	1764.0	1780.4	1802.3	1816.0	1822.8
7.5°	1631.5	1669.8	1701.2	1734.0	1773.6	1798.2	1811.9	1855.6	1885.6	1910.2	1940.3
10°	1615.1	1664.3	1709.4	1757.2	1813.2	1843.3	1873.3	1926.6	1969.0	2016.8	2055.1
12.5°	1590.5	1654.7	1709.4	1776.3	1846.0	1881.5	1917.1	2010.0	2059.2	2101.5	2169.9
15°	1568.6	1632.9	1710.7	1779.1	1865.1	1918.4	1970.4	2030.5	2108.4	2199.9	2265.5
17.5°	1544.0	1624.7	1697.1	1792.7	1888.4	1938.9	1981.3	2074.2	2183.5	2273.7	2333.8
20°	1509.9	1591.9	1687.5	1788.6	1902.0	1941.7	1997.7	2122.0	2220.4	2309.2	2407.6
22.5°	1470.3	1565.9	1667.0	1764.0	1881.5	1964.9	2026.4	2135.7	2254.6	2357.1	2467.7
25°	1432.0	1535.8	1624.7	1757.2	1881.5	1937.6	2007.3	2137.1	2266.9	2391.2	2504.6
27.5°	1391.0	1488.0	1608.3	1713.5	1854.2	1915.7	1990.9	2133.0	2271.0	2395.3	2516.9
30°	1345.9	1449.8	1549.5	1673.9	1810.5	1889.7	1959.4	2113.8	2254.6	2384.4	2497.8
32.5°	1295.4	1393.7	1500.3	1617.8	1761.3	1841.9	1929.4	2087.9	2238.2	2350.2	2437.7
35°	1242.1	1341.8	1434.7	1555.0	1702.5	1783.2	1867.9	2042.8	2191.7	2283.3	2333.8
37.5°	1183.3	1277.6	1369.1	1488.0	1635.6	1721.7	1807.8	1977.2	2117.9	2194.5	2180.8
40°	1127.3	1212.0	1296.7	1408.8	1563.2	1654.7	1729.9	1900.7	2023.7	2056.4	2011.4
42.5°	1063.1	1135.5	1217.5	1332.2	1482.6	1568.6	1662.9	1818.7	1910.2	1896.6	1820.1
45°	990.6	1054.9	1136.9	1244.8	1397.8	1486.7	1565.9	1713.5	1780.4	1746.3	1606.9
47.5°	921.0	983.8	1050.8	1158.7	1307.7	1382.8	1463.4	1596.0	1634.2	1561.8	1422.4
50°	845.8	897.7	967.4	1069.9	1209.3	1288.5	1355.5	1462.1	1475.7	1386.9	1242.1
52.5°	773.4	817.1	884.1	985.2	1115.0	1177.8	1243.4	1337.7	1326.8	1235.2	1095.9
55°	696.9	737.9	799.3	892.3	1007.0	1067.2	1123.2	1206.5	1183.3	1089.0	967.4
57.5°	632.6	661.3	721.5	807.5	901.8	967.4	1015.2	1080.8	1045.3	951.0	837.6
60°	558.9	594.4	644.9	714.6	807.5	851.3	893.6	937.4	912.8	822.6	721.5
62.5°	491.9	519.2	563.0	629.9	702.3	742.0	787.1	814.4	789.8	706.4	621.7
65°	434.5	456.4	490.5	545.2	614.9	647.7	673.6	699.6	679.1	601.2	539.7
67.5°	371.7	390.8	419.5	463.2	522.0	545.2	569.8	587.6	564.3	512.4	452.3
70°	315.6	329.3	356.6	389.4	430.4	452.3	472.8	490.5	470.0	426.3	381.2
72.5°	258.3	269.2	293.8	317.0	353.9	368.9	384.0	397.6	390.8	349.8	312.9
75°	213.2	217.3	233.7	252.8	276.0	292.4	303.3	311.5	306.1	273.3	250.1
77.5°	161.2	166.7	179.0	194.0	214.5	224.1	230.9	239.1	232.3	206.3	189.9
80°	117.5	118.9	125.7	139.4	153.0	154.4	161.2	172.2	168.1	150.3	138.0
82.5°	75.2	79.3	82.0	90.2	99.7	102.5	106.6	109.3	107.9	97.0	92.9
85°	43.7	43.7	46.5	51.9	54.7	58.8	60.1	61.5	64.2	57.4	53.3
87.5°	19.1	20.5	20.5	21.9	24.6	24.6	26.0	27.3	28.7	27.3	23.2
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1723.0	1747.6	1758.6	1761.3	1776.3	1766.8	1770.9	1769.5	1780.4	1781.8	1781.8
5°	1848.8	1877.4	1887.0	1900.7	1921.2	1926.6	1922.5	1930.7	1945.8	1934.8	1951.2
7.5°	1981.3	2012.7	2034.6	2064.6	2071.5	2089.2	2100.2	2109.7	2112.5	2113.8	2116.6
10°	2104.3	2143.9	2174.0	2224.5	2235.4	2245.0	2292.8	2273.7	2298.3	2290.1	2292.8
12.5°	2204.0	2281.9	2306.5	2391.2	2399.4	2432.2	2429.5	2459.5	2465.0	2475.9	2465.0
15°	2335.2	2425.4	2465.0	2512.8	2540.2	2578.4	2585.2	2626.2	2642.6	2657.7	2642.6
17.5°	2455.4	2503.3	2604.4	2642.6	2660.4	2680.9	2732.8	2747.8	2772.4	2762.9	2790.2
20°	2515.6	2583.9	2690.5	2756.0	2783.4	2802.5	2846.2	2869.5	2879.0	2879.0	2881.8
22.5°	2568.8	2667.2	2746.5	2821.6	2846.2	2859.9	2885.9	2903.6	2907.7	2910.4	2913.2
25°	2616.7	2705.5	2769.7	2812.1	2821.6	2821.6	2836.7	2825.7	2808.0	2821.6	2829.8
27.5°	2616.7	2679.5	2708.2	2723.3	2723.3	2686.4	2664.5	2619.4	2581.1	2570.2	2594.8
30°	2572.9	2601.6	2562.0	2525.1	2496.4	2471.8	2385.7	2317.4	2303.8	2294.2	2331.1
32.5°	2471.8	2434.9	2357.1	2250.5	2208.1	2152.1	2085.1	2033.2	2001.8	1990.9	1982.7
35°	2292.8	2197.2	2096.1	1952.6	1922.5	1851.5	1759.9	1721.7	1669.8	1668.4	1686.1
37.5°	2097.4	1949.9	1840.6	1703.9	1661.6	1586.4	1500.3	1460.7	1425.2	1397.8	1430.6
40°	1869.2	1740.8	1574.1	1462.1	1401.9	1362.3	1289.9	1246.2	1229.8	1216.1	1236.6
42.5°	1656.1	1515.3	1385.5	1270.8	1221.6	1176.5	1128.7	1086.3	1074.0	1072.6	1087.7
45°	1444.3	1306.3	1186.0	1087.7	1056.2	1028.9	982.4	970.1	949.7	936.0	942.8
47.5°	1274.9	1132.8	1033.0	957.9	930.5	907.3	877.2	856.7	839.0	833.5	841.7
50°	1108.2	1012.5	910.0	847.2	826.7	804.8	781.6	762.5	754.3	748.8	754.3
52.5°	974.2	871.8	802.1	751.5	731.0	714.6	698.2	690.0	679.1	681.8	687.3
55°	854.0	763.8	705.1	668.2	655.9	649.0	628.5	619.0	614.9	612.2	614.9
57.5°	740.6	675.0	631.3	599.9	583.5	579.4	563.0	563.0	558.9	554.8	556.1
60°	650.4	594.4	552.0	527.4	524.7	517.9	506.9	505.6	496.0	500.1	501.5
62.5°	558.9	513.8	485.1	470.0	460.5	457.7	450.9	449.5	445.4	446.8	444.1
65°	486.4	449.5	420.9	408.6	404.5	403.1	397.6	393.5	390.8	393.5	390.8
67.5°	414.0	389.4	367.6	355.3	349.8	348.4	344.3	341.6	343.0	338.9	341.6
70°	345.7	321.1	307.4	300.6	297.9	293.8	293.8	293.8	293.8	291.0	289.7
72.5°	291.0	266.4	256.9	252.8	250.1	248.7	244.6	246.0	244.6	243.2	248.7
75°	230.9	215.9	206.3	202.2	205.0	200.9	196.8	199.5	195.4	196.8	202.2
77.5°	174.9	168.1	162.6	159.9	157.1	154.4	154.4	151.7	151.7	151.7	151.7
80°	127.1	125.7	116.1	114.8	114.8	112.0	112.0	112.0	112.0	110.7	112.0
82.5°	84.7	83.4	80.6	79.3	76.5	77.9	77.9	75.2	75.2	73.8	75.2
85°	49.2	49.2	46.5	45.1	43.7	45.1	42.4	41.0	42.4	41.0	42.4
87.5°	23.2	20.5	21.9	20.5	17.8	19.1	16.4	17.8	16.4	15.0	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1779.1	1775.0	1769.5	1769.5	1762.7	1762.7	1751.7	1732.6	1716.2	1710.7	1713.5
5°	1930.7	1932.1	1923.9	1917.1	1904.8	1895.2	1877.4	1843.3	1832.4	1810.5	1795.5
7.5°	2104.3	2098.8	2083.8	2072.8	2070.1	2048.2	2010.0	1969.0	1936.2	1914.3	1882.9
10°	2299.7	2277.8	2255.9	2249.1	2232.7	2195.8	2152.1	2107.0	2061.9	2014.1	1960.8
12.5°	2463.6	2421.3	2419.9	2403.5	2372.1	2351.6	2299.7	2235.4	2157.6	2104.3	2044.1
15°	2639.9	2600.3	2567.5	2537.4	2522.4	2462.3	2418.5	2337.9	2245.0	2187.6	2146.6
17.5°	2765.6	2747.8	2691.8	2678.2	2657.7	2588.0	2518.3	2439.0	2358.4	2277.8	2167.1
20°	2866.7	2855.8	2818.9	2799.8	2767.0	2712.3	2627.6	2536.1	2443.1	2328.4	2224.5
22.5°	2910.4	2896.8	2866.7	2850.3	2829.8	2783.4	2711.0	2607.1	2485.5	2383.0	2272.3
25°	2824.4	2849.0	2840.8	2833.9	2825.7	2798.4	2743.7	2652.2	2533.3	2417.2	2279.2
27.5°	2630.3	2672.7	2713.7	2719.2	2732.8	2743.7	2721.9	2656.3	2556.6	2433.6	2281.9
30°	2369.4	2388.5	2471.8	2496.4	2515.6	2585.2	2626.2	2609.8	2533.3	2422.6	2283.3
32.5°	2034.6	2085.1	2169.9	2228.6	2280.5	2358.4	2465.0	2507.4	2480.0	2389.8	2251.8
35°	1717.6	1777.7	1876.1	1951.2	2003.2	2113.8	2239.5	2331.1	2365.3	2320.2	2197.2
37.5°	1458.0	1530.4	1617.8	1646.5	1706.6	1843.3	2016.8	2143.9	2227.2	2231.3	2135.7
40°	1262.6	1299.5	1369.1	1412.9	1471.6	1586.4	1755.8	1923.9	2049.6	2092.0	2041.4
42.5°	1097.2	1125.9	1177.8	1231.1	1284.4	1371.9	1527.6	1684.8	1854.2	1938.9	1937.6
45°	966.1	996.1	1031.6	1075.4	1112.3	1206.5	1329.5	1490.8	1637.0	1768.1	1800.9
47.5°	851.3	877.2	921.0	940.1	964.7	1053.5	1160.1	1310.4	1462.1	1612.4	1650.6
50°	766.6	788.4	818.5	830.8	858.1	923.7	1011.1	1132.8	1300.8	1438.8	1509.9
52.5°	690.0	706.4	729.7	739.2	758.4	807.5	886.8	982.4	1121.8	1263.9	1363.7
55°	624.4	635.4	651.8	662.7	676.4	720.1	778.9	864.9	985.2	1108.2	1205.2
57.5°	563.0	571.2	587.6	593.0	604.0	638.1	679.1	751.5	862.2	971.5	1065.8
60°	505.6	511.0	520.6	532.9	541.1	564.3	602.6	662.7	751.5	851.3	927.8
62.5°	450.9	459.1	461.8	467.3	474.1	496.0	526.1	569.8	647.7	729.7	810.3
65°	394.9	401.7	407.2	408.6	415.4	431.8	459.1	497.4	547.9	619.0	694.1
67.5°	343.0	347.1	349.8	355.3	362.1	370.3	392.2	420.9	467.3	524.7	584.8
70°	295.1	295.1	299.2	300.6	308.8	318.4	327.9	355.3	396.3	442.7	483.7
72.5°	243.2	250.1	248.7	255.5	254.2	261.0	273.3	291.0	321.1	358.0	397.6
75°	198.1	202.2	202.2	202.2	205.0	210.4	217.3	233.7	256.9	286.9	310.2
77.5°	154.4	157.1	157.1	157.1	158.5	164.0	170.8	181.7	198.1	215.9	229.6
80°	110.7	113.4	113.4	116.1	116.1	117.5	124.3	129.8	138.0	151.7	165.3
82.5°	75.2	76.5	79.3	79.3	77.9	80.6	82.0	87.5	95.6	98.4	107.9
85°	41.0	42.4	43.7	43.7	45.1	47.8	46.5	51.9	51.9	57.4	60.1
87.5°	16.4	19.1	19.1	17.8	19.1	19.1	19.1	21.9	23.2	24.6	23.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P998425

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1701.2	1695.7	1691.6	1691.6	1679.3	1667.0	1660.2	1657.5	1654.7	1643.8	1628.8
5°	1770.9	1753.1	1740.8	1728.5	1708.0	1686.1	1664.3	1652.0	1634.2	1609.6	1591.9
7.5°	1848.8	1806.4	1792.7	1777.7	1736.7	1699.8	1669.8	1643.8	1615.1	1583.7	1552.2
10°	1914.3	1869.2	1839.2	1813.2	1759.9	1710.7	1665.7	1627.4	1590.5	1549.5	1511.2
12.5°	1977.2	1913.0	1881.5	1843.3	1787.3	1716.2	1657.5	1609.6	1555.0	1512.6	1466.2
15°	2064.6	1956.7	1904.8	1880.2	1805.0	1721.7	1650.6	1579.6	1534.5	1470.3	1429.3
17.5°	2078.3	1990.9	1956.7	1893.8	1803.7	1709.4	1627.4	1556.3	1488.0	1430.6	1377.3
20°	2126.1	2011.4	1956.7	1917.1	1798.2	1702.5	1612.4	1520.8	1455.2	1393.7	1333.6
22.5°	2156.2	2026.4	1969.0	1906.1	1792.7	1677.9	1571.4	1492.1	1411.5	1348.6	1300.8
25°	2148.0	2018.2	1954.0	1895.2	1757.2	1642.4	1546.8	1445.7	1370.5	1302.2	1239.3
27.5°	2143.9	1997.7	1929.4	1863.8	1734.0	1613.7	1493.5	1411.5	1328.1	1248.9	1202.4
30°	2133.0	1971.7	1892.5	1821.4	1686.1	1560.4	1458.0	1362.3	1279.0	1206.5	1145.1
32.5°	2096.1	1928.0	1851.5	1775.0	1634.2	1508.5	1404.7	1315.9	1232.5	1157.3	1098.6
35°	2046.9	1876.1	1792.7	1712.1	1571.4	1444.3	1348.6	1255.7	1177.8	1105.4	1049.4
37.5°	1997.7	1816.0	1738.1	1645.2	1515.3	1382.8	1284.4	1201.1	1128.7	1053.5	992.0
40°	1926.6	1744.9	1658.8	1579.6	1427.9	1303.6	1213.4	1138.2	1067.2	996.1	944.2
42.5°	1829.6	1667.0	1578.2	1490.8	1348.6	1225.7	1138.2	1071.3	1004.3	945.6	888.2
45°	1731.2	1572.7	1493.5	1415.6	1261.2	1145.1	1064.4	1002.9	946.9	882.7	836.2
47.5°	1612.4	1478.5	1399.2	1322.7	1176.5	1060.3	986.5	929.2	877.2	823.9	780.2
50°	1490.8	1374.6	1302.2	1222.9	1083.6	978.3	905.9	858.1	815.7	765.2	729.7
52.5°	1359.6	1258.5	1197.0	1120.5	997.5	900.5	826.7	778.9	743.3	706.4	675.0
55°	1220.2	1146.4	1080.8	1019.3	903.2	815.7	750.2	707.8	683.2	649.0	621.7
57.5°	1094.5	1023.4	983.8	914.1	813.0	726.9	675.0	639.5	610.8	590.3	568.4
60°	963.3	905.9	862.2	811.6	722.8	650.4	595.8	575.3	545.2	530.2	520.6
62.5°	837.6	796.6	755.6	717.4	638.1	569.8	528.8	502.8	485.1	470.0	461.8
65°	718.7	680.5	651.8	617.6	552.0	497.4	459.1	438.6	420.9	416.8	407.2
67.5°	602.6	586.2	554.8	527.4	471.4	429.1	400.4	374.4	364.8	360.7	352.5
70°	504.2	485.1	460.5	437.3	394.9	358.0	332.0	322.5	308.8	307.4	297.9
72.5°	415.4	392.2	374.4	356.6	325.2	292.4	278.7	265.1	258.3	252.8	248.7
75°	329.3	312.9	300.6	285.6	258.3	236.4	217.3	211.8	207.7	206.3	203.6
77.5°	246.0	235.0	229.6	214.5	195.4	176.3	168.1	159.9	159.9	157.1	158.5
80°	174.9	168.1	161.2	153.0	136.6	128.4	121.6	116.1	113.4	112.0	113.4
82.5°	110.7	106.6	105.2	99.7	88.8	84.7	79.3	75.2	75.2	75.2	75.2
85°	61.5	61.5	61.5	53.3	49.2	45.1	42.4	41.0	41.0	41.0	42.4
87.5°	26.0	26.0	21.9	21.9	20.5	17.8	16.4	16.4	17.8	17.8	19.1
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: P998425

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1624.7	1619.2	1621.9	1608.3	1596.0	1578.2	1563.2	1560.4	1557.7	1565.9	1560.4
5°	1578.2	1571.4	1564.5	1548.1	1523.5	1508.5	1486.7	1485.3	1477.1	1464.8	1467.5
7.5°	1527.6	1523.5	1514.0	1488.0	1466.2	1440.2	1422.4	1407.4	1400.6	1389.6	1385.5
10°	1486.7	1471.6	1463.4	1434.7	1408.8	1381.4	1358.2	1347.3	1335.0	1325.4	1318.6
12.5°	1430.6	1426.5	1403.3	1380.1	1358.2	1326.8	1309.0	1277.6	1261.2	1269.4	1266.7
15°	1393.7	1374.6	1369.1	1336.3	1299.5	1279.0	1246.2	1225.7	1218.8	1206.5	1191.5
17.5°	1344.5	1332.2	1313.1	1283.1	1240.7	1212.0	1188.8	1169.6	1161.4	1145.1	1132.8
20°	1298.1	1277.6	1262.6	1235.2	1194.2	1157.3	1128.7	1116.4	1095.9	1082.2	1075.4
22.5°	1255.7	1240.7	1218.8	1177.8	1142.3	1106.8	1072.6	1054.9	1035.7	1027.5	1016.6
25°	1203.8	1179.2	1164.2	1119.1	1080.8	1052.1	1020.7	997.5	986.5	972.9	970.1
27.5°	1153.2	1130.0	1112.3	1072.6	1026.2	989.3	970.1	953.8	934.6	934.6	927.8
30°	1102.7	1086.3	1059.0	1020.7	977.0	941.5	919.6	904.6	897.7	892.3	890.9
32.5°	1052.1	1030.3	1013.9	962.0	929.2	896.4	880.0	867.7	859.5	858.1	859.5
35°	1000.2	975.6	959.2	912.8	880.0	849.9	843.1	832.1	828.0	826.7	833.5
37.5°	945.6	926.4	905.9	867.7	830.8	813.0	799.3	795.2	793.9	802.1	804.8
40°	895.0	878.6	859.5	818.5	791.2	772.0	765.2	761.1	766.6	774.8	778.9
42.5°	847.2	823.9	808.9	772.0	747.4	736.5	728.3	728.3	733.8	743.3	750.2
45°	796.6	778.9	763.8	731.0	709.2	696.9	695.5	696.9	703.7	710.5	718.7
47.5°	747.4	729.7	713.3	685.9	666.8	660.0	658.6	660.0	670.9	680.5	690.0
50°	702.3	683.2	668.2	642.2	627.2	619.0	620.3	627.2	635.4	649.0	661.3
52.5°	649.0	635.4	621.7	598.5	584.8	579.4	583.5	588.9	604.0	613.5	628.5
55°	597.1	584.8	573.9	556.1	545.2	541.1	543.8	552.0	564.3	580.7	598.5
57.5°	549.3	535.6	524.7	512.4	500.1	501.5	502.8	513.8	528.8	543.8	564.3
60°	496.0	487.8	478.2	463.2	457.7	457.7	461.8	474.1	487.8	512.4	530.2
62.5°	448.2	437.3	430.4	420.9	412.7	414.0	423.6	434.5	450.9	471.4	494.6
65°	399.0	386.7	381.2	373.0	370.3	371.7	378.5	394.9	412.7	430.4	452.3
67.5°	344.3	340.2	334.8	326.6	329.3	330.7	337.5	351.2	370.3	388.1	412.7
70°	297.9	289.7	288.3	281.5	281.5	285.6	299.2	308.8	326.6	345.7	371.7
72.5°	248.7	241.9	241.9	236.4	240.5	244.6	251.4	265.1	281.5	300.6	322.5
75°	198.1	195.4	198.1	195.4	195.4	202.2	210.4	221.4	239.1	259.6	277.4
77.5°	153.0	153.0	151.7	155.8	155.8	159.9	170.8	181.7	195.4	211.8	230.9
80°	112.0	112.0	112.0	116.1	120.2	120.2	127.1	140.7	153.0	164.0	181.7
82.5°	76.5	76.5	76.5	79.3	84.7	84.7	92.9	101.1	114.8	124.3	132.5
85°	46.5	46.5	45.1	47.8	49.2	53.3	60.1	65.6	72.4	80.6	88.8
87.5°	20.5	20.5	21.9	23.2	24.6	27.3	30.1	32.8	39.6	42.4	46.5
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: P998425

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1556.3	1555.0	1548.1	1550.9	1542.7	1545.4	1549.5	1550.9	1556.3	1552.2	1550.9
5°	1460.7	1458.0	1453.9	1449.8	1448.4	1453.9	1444.3	1447.0	1449.8	1453.9	1459.3
7.5°	1382.8	1381.4	1377.3	1370.5	1367.8	1365.0	1366.4	1376.0	1374.6	1373.2	1382.8
10°	1311.8	1313.1	1304.9	1303.6	1295.4	1294.0	1295.4	1298.1	1302.2	1307.7	1309.0
12.5°	1238.0	1255.7	1240.7	1235.2	1222.9	1229.8	1232.5	1220.2	1227.0	1231.1	1251.6
15°	1191.5	1183.3	1173.7	1173.7	1168.3	1165.5	1158.7	1168.3	1173.7	1181.9	1179.2
17.5°	1127.3	1113.6	1108.2	1102.7	1104.1	1109.5	1094.5	1116.4	1116.4	1120.5	1113.6
20°	1071.3	1060.3	1053.5	1050.8	1046.7	1043.9	1042.6	1048.0	1056.2	1059.0	1065.8
22.5°	1012.5	1012.5	1001.6	997.5	994.7	990.6	997.5	993.4	998.8	1004.3	1015.2
25°	963.3	963.3	959.2	953.8	949.7	946.9	951.0	949.7	953.8	960.6	963.3
27.5°	923.7	919.6	918.2	916.9	915.5	916.9	915.5	919.6	923.7	925.1	922.3
30°	889.5	885.4	886.8	886.8	888.2	886.8	885.4	889.5	890.9	888.2	889.5
32.5°	858.1	858.1	860.8	862.2	862.2	863.6	864.9	862.2	863.6	859.5	860.8
35°	832.1	834.9	837.6	839.0	840.3	839.0	841.7	840.3	837.6	834.9	833.5
37.5°	806.2	808.9	814.4	815.7	819.8	821.2	818.5	818.5	817.1	811.6	808.9
40°	778.9	781.6	788.4	792.5	795.2	799.3	796.6	796.6	791.2	785.7	781.6
42.5°	752.9	758.4	765.2	769.3	774.8	774.8	774.8	772.0	765.2	759.7	755.6
45°	726.9	728.3	737.9	744.7	750.2	750.2	750.2	746.1	742.0	731.0	725.6
47.5°	698.2	702.3	713.3	720.1	725.6	726.9	726.9	722.8	714.6	705.1	698.2
50°	666.8	673.6	685.9	695.5	702.3	705.1	701.0	698.2	688.7	677.7	669.5
52.5°	636.7	644.9	660.0	668.2	677.7	679.1	677.7	673.6	662.7	647.7	640.8
55°	606.7	613.5	629.9	643.6	651.8	654.5	651.8	644.9	631.3	616.3	609.4
57.5°	573.9	583.5	601.2	614.9	624.4	625.8	623.1	616.3	605.3	586.2	576.6
60°	539.7	552.0	569.8	583.5	595.8	597.1	594.4	584.8	571.2	552.0	543.8
62.5°	505.6	515.1	535.6	550.7	560.2	567.1	561.6	552.0	538.4	519.2	506.9
65°	465.9	479.6	497.4	511.0	522.0	523.3	520.6	512.4	497.4	476.9	467.3
67.5°	427.7	437.3	455.0	472.8	476.9	481.0	476.9	468.7	456.4	438.6	425.0
70°	381.2	389.4	411.3	423.6	429.1	433.2	430.4	422.2	411.3	394.9	384.0
72.5°	334.8	341.6	362.1	371.7	382.6	381.2	379.9	374.4	359.4	348.4	341.6
75°	285.6	293.8	307.4	319.7	323.8	323.8	323.8	319.7	310.2	292.4	285.6
77.5°	240.5	244.6	255.5	262.4	266.4	267.8	266.4	259.6	254.2	241.9	237.8
80°	184.5	195.4	203.6	205.0	210.4	210.4	210.4	207.7	202.2	189.9	188.6
82.5°	139.4	142.1	150.3	154.4	157.1	155.8	155.8	150.3	148.9	142.1	139.4
85°	94.3	98.4	97.0	102.5	103.8	101.1	101.1	103.8	97.0	98.4	94.3
87.5°	51.9	51.9	54.7	53.3	58.8	58.8	56.0	57.4	54.7	53.3	51.9
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: P998425

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3	1649.3
2.5°	1550.9	1559.1	1550.9	1556.3	1559.1	1565.9	1568.6	1580.9	1585.0	1594.6	1594.6
5°	1458.0	1462.1	1463.4	1468.9	1474.4	1488.0	1497.6	1515.3	1535.8	1538.6	1550.9
7.5°	1382.8	1389.6	1400.6	1396.5	1406.0	1426.5	1438.8	1460.7	1481.2	1492.1	1507.1
10°	1315.9	1324.0	1328.1	1332.2	1350.0	1367.8	1386.9	1401.9	1429.3	1445.7	1458.0
12.5°	1261.2	1254.4	1262.6	1277.6	1298.1	1309.0	1335.0	1358.2	1378.7	1396.5	1407.4
15°	1190.1	1195.6	1203.8	1229.8	1235.2	1262.6	1272.1	1298.1	1336.3	1352.7	1366.4
17.5°	1121.8	1139.6	1156.0	1165.5	1181.9	1203.8	1231.1	1259.8	1284.4	1303.6	1320.0
20°	1067.2	1084.9	1094.5	1101.3	1117.7	1147.8	1173.7	1209.3	1240.7	1255.7	1277.6
22.5°	1023.4	1023.4	1037.1	1057.6	1067.2	1095.9	1117.7	1156.0	1190.1	1209.3	1229.8
25°	968.8	977.0	987.9	1005.7	1019.3	1042.6	1074.0	1106.8	1143.7	1160.1	1186.0
27.5°	923.7	933.3	948.3	952.4	966.1	986.5	1019.3	1054.9	1093.1	1110.9	1132.8
30°	889.5	895.0	900.5	908.7	921.0	938.7	966.1	997.5	1043.9	1057.6	1084.9
32.5°	859.5	862.2	864.9	871.8	878.6	896.4	918.2	952.4	990.6	1011.1	1035.7
35°	832.1	829.4	830.8	834.9	841.7	848.5	871.8	900.5	936.0	960.6	979.7
37.5°	806.2	800.7	799.3	799.3	802.1	810.3	828.0	852.6	890.9	911.4	930.5
40°	777.5	772.0	769.3	767.9	766.6	772.0	785.7	810.3	840.3	859.5	881.3
42.5°	750.2	744.7	737.9	736.5	733.8	736.5	746.1	769.3	795.2	814.4	832.1
45°	722.8	713.3	705.1	699.6	701.0	696.9	703.7	721.5	751.5	763.8	781.6
47.5°	692.8	681.8	670.9	665.4	660.0	662.7	665.4	680.5	706.4	718.7	736.5
50°	664.1	649.0	636.7	629.9	625.8	623.1	625.8	640.8	660.0	670.9	685.9
52.5°	631.3	616.3	604.0	593.0	587.6	583.5	584.8	598.5	616.3	627.2	642.2
55°	601.2	582.1	565.7	552.0	547.9	546.6	545.2	554.8	569.8	580.7	593.0
57.5°	567.1	547.9	530.2	513.8	505.6	504.2	504.2	506.9	526.1	534.3	541.1
60°	532.9	512.4	493.3	478.2	465.9	461.8	460.5	465.9	475.5	483.7	493.3
62.5°	494.6	474.1	450.9	437.3	425.0	414.0	418.1	419.5	433.2	437.3	445.4
65°	457.7	434.5	415.4	393.5	379.9	373.0	370.3	373.0	384.0	385.3	390.8
67.5°	415.4	393.5	370.3	355.3	343.0	330.7	327.9	327.9	333.4	337.5	344.3
70°	374.4	352.5	326.6	310.2	297.9	286.9	282.8	281.5	285.6	288.3	295.1
72.5°	326.6	304.7	285.6	267.8	252.8	244.6	240.5	237.8	241.9	244.6	246.0
75°	276.0	258.3	239.1	221.4	211.8	203.6	198.1	194.0	196.8	196.8	196.8
77.5°	228.2	210.4	195.4	183.1	170.8	161.2	157.1	153.0	154.4	154.4	157.1
80°	177.6	165.3	153.0	142.1	131.2	123.0	120.2	116.1	113.4	112.0	112.0
82.5°	131.2	121.6	110.7	101.1	95.6	87.5	84.7	79.3	79.3	77.9	77.9
85°	87.5	82.0	71.1	64.2	60.1	56.0	53.3	50.6	46.5	46.5	45.1
87.5°	46.5	43.7	41.0	32.8	32.8	28.7	27.3	26.0	21.9	23.2	23.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P998425

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1649.3	1649.3	1649.3	1649.3
2.5°	1604.2	1617.8	1630.1	1649.3
5°	1568.6	1587.8	1613.7	1642.4
7.5°	1527.6	1557.7	1591.9	1631.5
10°	1489.4	1523.5	1567.3	1615.1
12.5°	1449.8	1490.8	1538.6	1590.5
15°	1404.7	1445.7	1498.9	1568.6
17.5°	1363.7	1412.9	1470.3	1544.0
20°	1315.9	1362.3	1425.2	1509.9
22.5°	1273.5	1326.8	1396.5	1470.3
25°	1227.0	1273.5	1343.2	1432.0
27.5°	1180.6	1238.0	1304.9	1391.0
30°	1135.5	1183.3	1255.7	1345.9
32.5°	1086.3	1143.7	1210.6	1295.4
35°	1033.0	1087.7	1150.5	1242.1
37.5°	985.2	1038.5	1102.7	1183.3
40°	931.9	987.9	1046.7	1127.3
42.5°	880.0	930.5	989.3	1063.1
45°	829.4	873.1	926.4	990.6
47.5°	777.5	814.4	863.6	921.0
50°	721.5	761.1	798.0	845.8
52.5°	669.5	703.7	733.8	773.4
55°	619.0	642.2	666.8	696.9
57.5°	565.7	583.5	601.2	632.6
60°	512.4	528.8	538.4	558.9
62.5°	460.5	467.3	479.6	491.9
65°	403.1	412.7	419.5	434.5
67.5°	351.2	355.3	362.1	371.7
70°	296.5	306.1	308.8	315.6
72.5°	250.1	254.2	256.9	258.3
75°	198.1	202.2	205.0	213.2
77.5°	155.8	154.4	159.9	161.2
80°	114.8	110.7	112.0	117.5
82.5°	75.2	76.5	75.2	75.2
85°	46.5	45.1	42.4	43.7
87.5°	20.5	20.5	19.1	19.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)