

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: P998422

Luminaire Tested: S124DR-B1020DB2750-4F0-XX-W2A-A_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998422
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_2700K
Description: Define 4 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

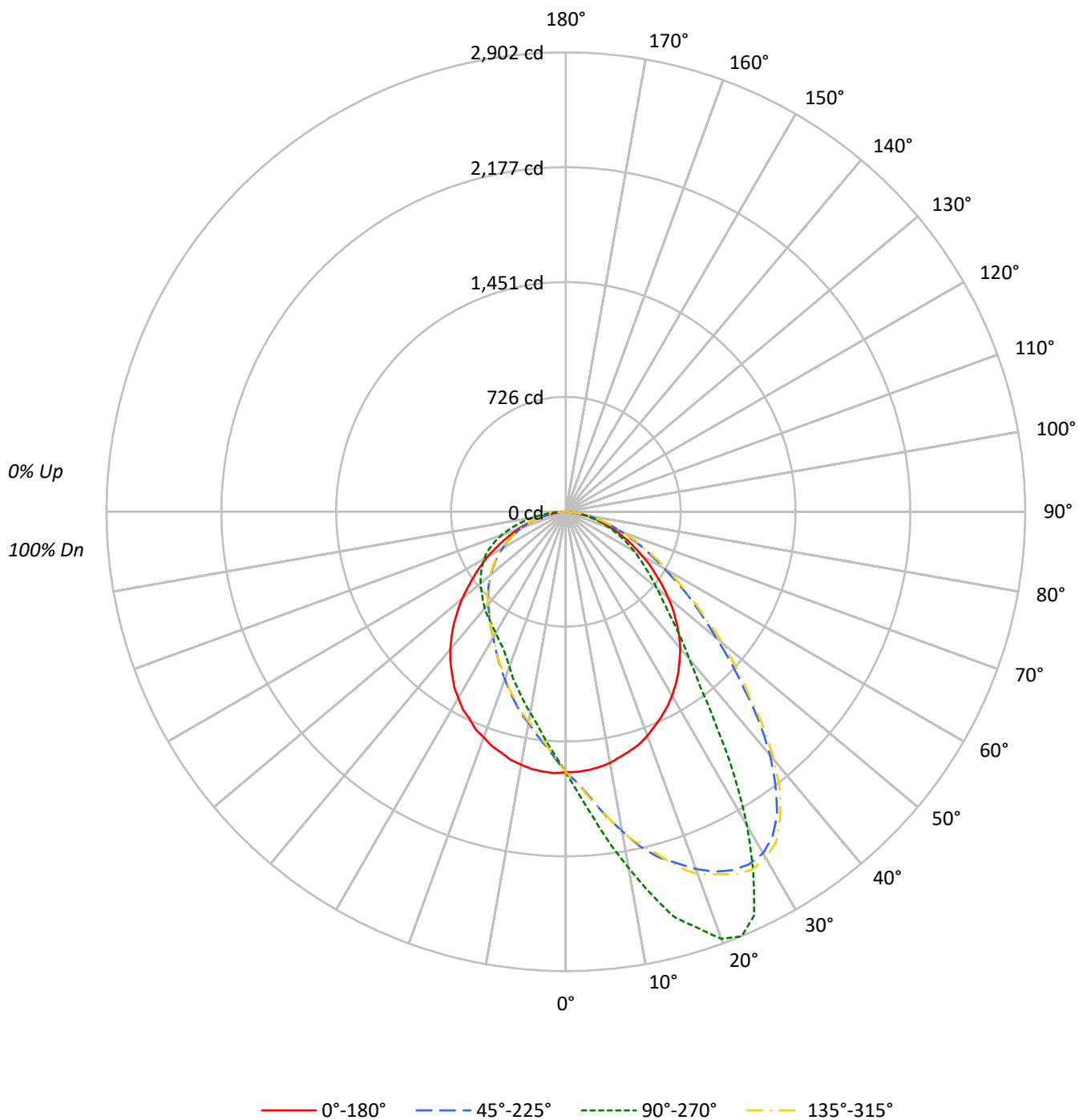
Lumens per Lamp: N/A
Luminaire Lumens: 4538.0 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.3 / 1.41
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): 120
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°	13410	13410	13410	13410
5°	13406	15793	13484	11867
10°	13335	18909	13436	10684
15°	13205	22373	13297	9811
20°	13065	24912	13160	9034
25°	12847	25315	12970	8495
30°	12637	21540	12791	8327
35°	12329	16561	12464	8328
40°	11966	12908	12082	8485
45°	11391	10763	11533	8626
50°	10699	9473	10856	8920
55°	9879	8678	10034	9278
60°	9089	8133	9355	9710
65°	8361	7571	8440	10068
70°	7503	6919	7668	10297
75°	6698	6182	6654	10173
80°	5504	5184	5438	9852
85°	4079	3827	3827	9431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 145°

Vertical Angle: 45°

Luminance: 20709 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.0	3.5
10°-20°	494.0	10.9
20°-30°	784.8	17.3
30°-40°	872.1	19.2
40°-50°	793.0	17.5
50°-60°	648.1	14.3
60°-70°	462.6	10.2
70°-80°	254.6	5.6
80°-90°	68.8	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°	1438.9	31.7
0°-40°	2310.9	50.9
0°-60°	3752.1	82.7
0°-90°	4538.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4538.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1644	1644	1644	1644	1644	
5°	1638	1929	1647	1450	1638	155
15°	1564	2650	1575	1162	1564	441
25°	1428	2814	1442	944	1428	658
35°	1238	1664	1252	837	1238	774
45°	988	933	1000	748	988	762
55°	695	610	706	653	695	625
65°	433	392	437	522	433	428
75°	213	196	211	323	213	223
85°	44	41	41	101	44	53
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°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1644.5	1660.9	1667.7	1673.2	1690.9	1696.3	1697.7	1705.9	1712.7	1714.0	1714.0
5°	1637.7	1663.6	1684.1	1703.1	1731.7	1744.0	1759.0	1775.3	1797.1	1810.8	1817.6
7.5°	1626.8	1665.0	1696.3	1729.0	1768.5	1793.1	1806.7	1850.3	1880.3	1904.8	1934.8
10°	1610.5	1659.5	1704.5	1752.2	1808.0	1838.0	1868.0	1921.1	1963.4	2011.1	2049.2
12.5°	1586.0	1650.0	1704.5	1771.3	1840.7	1876.2	1911.6	2004.2	2053.3	2095.5	2163.7
15°	1564.2	1628.2	1705.9	1774.0	1859.8	1913.0	1964.7	2024.7	2102.3	2193.6	2259.0
17.5°	1539.6	1620.0	1692.2	1787.6	1883.0	1933.4	1975.6	2068.3	2177.3	2267.2	2327.2
20°	1505.6	1587.3	1682.7	1783.5	1896.6	1936.1	1992.0	2116.0	2214.1	2302.6	2400.7
22.5°	1466.1	1561.4	1662.3	1759.0	1876.2	1959.3	2020.6	2129.6	2248.1	2350.3	2460.7
25°	1427.9	1531.5	1620.0	1752.2	1876.2	1932.0	2001.5	2131.0	2260.4	2384.4	2497.5
27.5°	1387.0	1483.8	1603.7	1708.6	1848.9	1910.2	1985.2	2126.9	2264.5	2388.5	2509.7
30°	1342.1	1445.6	1545.1	1669.1	1805.3	1884.3	1953.8	2107.8	2248.1	2377.6	2490.7
32.5°	1291.7	1389.8	1496.0	1613.2	1756.3	1836.7	1923.9	2081.9	2231.8	2343.5	2430.7
35°	1238.5	1338.0	1430.6	1550.5	1697.7	1778.1	1862.5	2036.9	2185.5	2276.7	2327.2
37.5°	1179.9	1273.9	1365.2	1483.8	1630.9	1716.8	1802.6	1971.5	2111.9	2188.2	2174.6
40°	1124.1	1208.5	1293.0	1404.7	1558.7	1650.0	1724.9	1895.2	2017.9	2050.6	2005.6
42.5°	1060.0	1132.2	1214.0	1328.4	1478.3	1564.2	1658.2	1813.5	1904.8	1891.2	1814.9
45°	987.8	1051.9	1133.6	1241.2	1393.8	1482.4	1561.4	1708.6	1775.3	1741.3	1602.3
47.5°	918.3	981.0	1047.8	1155.4	1303.9	1378.9	1459.2	1591.4	1629.6	1557.3	1418.4
50°	843.4	895.2	964.7	1066.8	1205.8	1284.8	1351.6	1457.9	1471.5	1382.9	1238.5
52.5°	771.2	814.8	881.5	982.4	1111.8	1174.5	1239.9	1333.9	1323.0	1231.7	1092.7
55°	694.9	735.8	797.1	889.7	1004.2	1064.1	1120.0	1203.1	1179.9	1085.9	964.7
57.5°	630.8	659.5	719.4	805.2	899.3	964.7	1012.3	1077.7	1042.3	948.3	835.2
60°	557.3	592.7	643.1	712.6	805.2	848.8	891.1	934.7	910.2	820.2	719.4
62.5°	490.5	517.8	561.4	628.1	700.3	739.8	784.8	812.1	787.5	704.4	619.9
65°	433.3	455.1	489.1	543.6	613.1	645.8	671.7	697.6	677.2	599.5	538.2
67.5°	370.6	389.7	418.3	461.9	520.5	543.6	568.2	585.9	562.7	510.9	451.0
70°	314.7	328.4	355.6	388.3	429.2	451.0	471.4	489.1	468.7	425.1	380.1
72.5°	257.5	268.4	292.9	316.1	352.9	367.9	382.9	396.5	389.7	348.8	312.0
75°	212.6	216.6	233.0	252.1	275.2	291.6	302.5	310.7	305.2	272.5	249.3
77.5°	160.8	166.2	178.5	193.5	213.9	223.5	230.3	238.4	231.6	205.7	189.4
80°	117.2	118.5	125.4	139.0	152.6	154.0	160.8	171.7	167.6	149.9	137.6
82.5°	74.9	79.0	81.8	89.9	99.5	102.2	106.3	109.0	107.6	96.7	92.7
85°	43.6	43.6	46.3	51.8	54.5	58.6	60.0	61.3	64.0	57.2	53.1
87.5°	19.1	20.4	20.4	21.8	24.5	24.5	25.9	27.3	28.6	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°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1718.1	1742.6	1753.5	1756.3	1771.3	1761.7	1765.8	1764.4	1775.3	1776.7	1776.7
5°	1843.5	1872.1	1881.6	1895.2	1915.7	1921.1	1917.0	1925.2	1940.2	1929.3	1945.7
7.5°	1975.6	2007.0	2028.8	2058.7	2065.6	2083.3	2094.2	2103.7	2106.4	2107.8	2110.5
10°	2098.3	2137.8	2167.7	2218.2	2229.1	2238.6	2286.3	2267.2	2291.7	2283.6	2286.3
12.5°	2197.7	2275.4	2299.9	2384.4	2392.6	2425.3	2422.5	2452.5	2458.0	2468.9	2458.0
15°	2328.5	2418.4	2458.0	2505.6	2532.9	2571.0	2577.9	2618.7	2635.1	2650.1	2635.1
17.5°	2448.4	2496.1	2596.9	2635.1	2652.8	2673.2	2725.0	2740.0	2764.5	2755.0	2782.2
20°	2508.4	2576.5	2682.8	2748.2	2775.4	2794.5	2838.1	2861.3	2870.8	2870.8	2873.5
22.5°	2561.5	2659.6	2738.6	2813.6	2838.1	2851.7	2877.6	2895.3	2899.4	2902.1	2904.9
25°	2609.2	2697.8	2761.8	2804.0	2813.6	2813.6	2828.6	2817.7	2799.9	2813.6	2821.7
27.5°	2609.2	2671.9	2700.5	2715.5	2715.5	2678.7	2656.9	2611.9	2573.8	2562.9	2587.4
30°	2565.6	2594.2	2554.7	2517.9	2489.3	2464.8	2378.9	2310.8	2297.2	2287.6	2324.4
32.5°	2464.8	2428.0	2350.3	2244.0	2201.8	2145.9	2079.2	2027.4	1996.1	1985.2	1977.0
35°	2286.3	2190.9	2090.1	1947.0	1917.0	1846.2	1754.9	1716.8	1665.0	1663.6	1681.3
37.5°	2091.4	1944.3	1835.3	1699.0	1656.8	1581.9	1496.0	1456.5	1421.1	1393.8	1426.5
40°	1863.9	1735.8	1569.6	1457.9	1397.9	1358.4	1286.2	1242.6	1226.3	1212.6	1233.1
42.5°	1651.4	1511.0	1381.6	1267.1	1218.1	1173.1	1125.4	1083.2	1070.9	1069.6	1084.6
45°	1440.2	1302.6	1182.7	1084.6	1053.2	1026.0	979.6	967.4	946.9	933.3	940.1
47.5°	1271.2	1129.5	1030.1	955.1	927.9	904.7	874.7	854.3	836.6	831.1	839.3
50°	1105.0	1009.6	907.4	844.8	824.3	802.5	779.4	760.3	752.1	746.7	752.1
52.5°	971.5	869.3	799.8	749.4	728.9	712.6	696.2	688.1	677.2	679.9	685.3
55°	851.6	761.6	703.1	666.3	654.0	647.2	626.8	617.2	613.1	610.4	613.1
57.5°	738.5	673.1	629.5	598.1	581.8	577.7	561.4	561.4	557.3	553.2	554.5
60°	648.6	592.7	550.5	525.9	523.2	516.4	505.5	504.1	494.6	498.7	500.0
62.5°	557.3	512.3	483.7	468.7	459.2	456.4	449.6	448.3	444.2	445.5	442.8
65°	485.1	448.3	419.7	407.4	403.3	401.9	396.5	392.4	389.7	392.4	389.7
67.5°	412.8	388.3	366.5	354.3	348.8	347.4	343.4	340.6	342.0	337.9	340.6
70°	344.7	320.2	306.6	299.8	297.0	292.9	292.9	292.9	292.9	290.2	288.9
72.5°	290.2	265.7	256.2	252.1	249.3	248.0	243.9	245.3	243.9	242.5	248.0
75°	230.3	215.3	205.7	201.7	204.4	200.3	196.2	198.9	194.8	196.2	201.7
77.5°	174.4	167.6	162.1	159.4	156.7	154.0	154.0	151.2	151.2	151.2	151.2
80°	126.7	125.4	115.8	114.5	114.5	111.7	111.7	111.7	111.7	110.4	111.7
82.5°	84.5	83.1	80.4	79.0	76.3	77.7	77.7	74.9	74.9	73.6	74.9
85°	49.1	49.1	46.3	45.0	43.6	45.0	42.2	40.9	42.2	40.9	42.2
87.5°	23.2	20.4	21.8	20.4	17.7	19.1	16.4	17.7	16.4	15.0	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°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1774.0	1769.9	1764.4	1764.4	1757.6	1757.6	1746.7	1727.7	1711.3	1705.9	1708.6
5°	1925.2	1926.6	1918.4	1911.6	1899.3	1889.8	1872.1	1838.0	1827.1	1805.3	1790.3
7.5°	2098.3	2092.8	2077.8	2066.9	2064.2	2042.4	2004.2	1963.4	1930.7	1908.9	1877.5
10°	2293.1	2271.3	2249.5	2242.7	2226.3	2189.5	2145.9	2101.0	2056.0	2008.3	1955.2
12.5°	2456.6	2414.4	2413.0	2396.6	2365.3	2344.9	2293.1	2229.1	2151.4	2098.3	2038.3
15°	2632.4	2592.8	2560.1	2530.2	2515.2	2455.2	2411.6	2331.2	2238.6	2181.4	2140.5
17.5°	2757.7	2740.0	2684.1	2670.5	2650.1	2580.6	2511.1	2432.1	2351.7	2271.3	2160.9
20°	2858.5	2847.6	2810.8	2791.8	2759.1	2704.6	2620.1	2528.8	2436.2	2321.7	2218.2
22.5°	2902.1	2888.5	2858.5	2842.2	2821.7	2775.4	2703.2	2599.7	2478.4	2376.2	2265.8
25°	2816.3	2840.8	2832.6	2825.8	2817.7	2790.4	2735.9	2644.6	2526.1	2410.3	2272.7
27.5°	2622.8	2665.1	2705.9	2711.4	2725.0	2735.9	2714.1	2648.7	2549.2	2426.6	2275.4
30°	2362.6	2381.7	2464.8	2489.3	2508.4	2577.9	2618.7	2602.4	2526.1	2415.7	2276.7
32.5°	2028.8	2079.2	2163.7	2222.2	2274.0	2351.7	2458.0	2500.2	2472.9	2383.0	2245.4
35°	1712.7	1772.6	1870.7	1945.7	1997.4	2107.8	2233.1	2324.4	2358.5	2313.5	2190.9
37.5°	1453.8	1526.0	1613.2	1641.8	1701.8	1838.0	2011.1	2137.8	2220.9	2225.0	2129.6
40°	1259.0	1295.7	1365.2	1408.8	1467.4	1581.9	1750.8	1918.4	2043.8	2086.0	2035.6
42.5°	1094.1	1122.7	1174.5	1227.6	1280.8	1368.0	1523.3	1680.0	1848.9	1933.4	1932.0
45°	963.3	993.3	1028.7	1072.3	1109.1	1203.1	1325.7	1486.5	1632.3	1763.1	1795.8
47.5°	848.8	874.7	918.3	937.4	961.9	1050.5	1156.8	1306.6	1457.9	1607.8	1645.9
50°	764.4	786.2	816.1	828.4	855.7	921.1	1008.3	1129.5	1297.1	1434.7	1505.6
52.5°	688.1	704.4	727.6	737.1	756.2	805.2	884.3	979.6	1118.6	1260.3	1359.8
55°	622.7	633.6	649.9	660.8	674.4	718.0	776.6	862.5	982.4	1105.0	1201.7
57.5°	561.4	569.5	585.9	591.3	602.2	636.3	677.2	749.4	859.7	968.7	1062.8
60°	504.1	509.6	519.1	531.4	539.6	562.7	600.9	660.8	749.4	848.8	925.1
62.5°	449.6	457.8	460.5	466.0	472.8	494.6	524.6	568.2	645.8	727.6	808.0
65°	393.8	400.6	406.0	407.4	414.2	430.6	457.8	496.0	546.4	617.2	692.2
67.5°	342.0	346.1	348.8	354.3	361.1	369.2	391.0	419.7	466.0	523.2	583.2
70°	294.3	294.3	298.4	299.8	307.9	317.5	327.0	354.3	395.1	441.5	482.3
72.5°	242.5	249.3	248.0	254.8	253.4	260.2	272.5	290.2	320.2	357.0	396.5
75°	197.6	201.7	201.7	201.7	204.4	209.8	216.6	233.0	256.2	286.1	309.3
77.5°	154.0	156.7	156.7	156.7	158.1	163.5	170.3	181.2	197.6	215.3	228.9
80°	110.4	113.1	113.1	115.8	115.8	117.2	124.0	129.4	137.6	151.2	164.9
82.5°	74.9	76.3	79.0	79.0	77.7	80.4	81.8	87.2	95.4	98.1	107.6
85°	40.9	42.2	43.6	43.6	45.0	47.7	46.3	51.8	51.8	57.2	60.0
87.5°	16.4	19.1	19.1	17.7	19.1	19.1	19.1	21.8	23.2	24.5	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: P998422

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1696.3	1690.9	1686.8	1686.8	1674.5	1662.3	1655.4	1652.7	1650.0	1639.1	1624.1
5°	1765.8	1748.1	1735.8	1723.6	1703.1	1681.3	1659.5	1647.3	1629.6	1605.0	1587.3
7.5°	1843.5	1801.2	1787.6	1772.6	1731.7	1695.0	1665.0	1639.1	1610.5	1579.1	1547.8
10°	1908.9	1863.9	1833.9	1808.0	1754.9	1705.9	1660.9	1622.7	1586.0	1545.1	1506.9
12.5°	1971.5	1907.5	1876.2	1838.0	1782.2	1711.3	1652.7	1605.0	1550.5	1508.3	1462.0
15°	2058.7	1951.1	1899.3	1874.8	1799.9	1716.8	1645.9	1575.1	1530.1	1466.1	1425.2
17.5°	2072.4	1985.2	1951.1	1888.4	1798.5	1704.5	1622.7	1551.9	1483.8	1426.5	1373.4
20°	2120.1	2005.6	1951.1	1911.6	1793.1	1697.7	1607.8	1516.5	1451.1	1389.8	1329.8
22.5°	2150.0	2020.6	1963.4	1900.7	1787.6	1673.2	1566.9	1487.9	1407.5	1344.8	1297.1
25°	2141.9	2012.4	1948.4	1889.8	1752.2	1637.7	1542.4	1441.5	1366.6	1298.5	1235.8
27.5°	2137.8	1992.0	1923.9	1858.5	1729.0	1609.1	1489.2	1407.5	1324.4	1245.3	1199.0
30°	2126.9	1966.1	1887.1	1816.2	1681.3	1556.0	1453.8	1358.4	1275.3	1203.1	1141.8
32.5°	2090.1	1922.5	1846.2	1769.9	1629.6	1504.2	1400.7	1312.1	1229.0	1154.0	1095.5
35°	2041.0	1870.7	1787.6	1707.2	1566.9	1440.2	1344.8	1252.1	1174.5	1102.3	1046.4
37.5°	1992.0	1810.8	1733.1	1640.5	1511.0	1378.9	1280.8	1197.6	1125.4	1050.5	989.2
40°	1921.1	1739.9	1654.1	1575.1	1423.8	1299.8	1209.9	1135.0	1064.1	993.3	941.5
42.5°	1824.4	1662.3	1573.7	1486.5	1344.8	1222.2	1135.0	1068.2	1001.4	942.9	885.6
45°	1726.3	1568.2	1489.2	1411.6	1257.6	1141.8	1061.4	1000.1	944.2	880.2	833.9
47.5°	1607.8	1474.2	1395.2	1318.9	1173.1	1057.3	983.7	926.5	874.7	821.6	778.0
50°	1486.5	1370.7	1298.5	1219.4	1080.5	975.6	903.3	855.7	813.4	763.0	727.6
52.5°	1355.7	1254.9	1193.6	1117.3	994.6	897.9	824.3	776.6	741.2	704.4	673.1
55°	1216.7	1143.1	1077.7	1016.4	900.6	813.4	748.0	705.8	681.3	647.2	619.9
57.5°	1091.4	1020.5	981.0	911.5	810.7	724.9	673.1	637.7	609.0	588.6	566.8
60°	960.6	903.3	859.7	809.3	720.8	648.6	594.1	573.6	543.6	528.7	519.1
62.5°	835.2	794.3	753.5	715.3	636.3	568.2	527.3	501.4	483.7	468.7	460.5
65°	716.7	678.5	649.9	615.9	550.5	496.0	457.8	437.4	419.7	415.6	406.0
67.5°	600.9	584.5	553.2	525.9	470.1	427.8	399.2	373.3	363.8	359.7	351.5
70°	502.8	483.7	459.2	436.0	393.8	357.0	331.1	321.6	307.9	306.6	297.0
72.5°	414.2	391.0	373.3	355.6	324.3	291.6	278.0	264.3	257.5	252.1	248.0
75°	328.4	312.0	299.8	284.8	257.5	235.7	216.6	211.2	207.1	205.7	203.0
77.5°	245.3	234.4	228.9	213.9	194.8	175.8	167.6	159.4	159.4	156.7	158.1
80°	174.4	167.6	160.8	152.6	136.3	128.1	121.3	115.8	113.1	111.7	113.1
82.5°	110.4	106.3	104.9	99.5	88.6	84.5	79.0	74.9	74.9	74.9	74.9
85°	61.3	61.3	61.3	53.1	49.1	45.0	42.2	40.9	40.9	40.9	42.2
87.5°	25.9	25.9	21.8	21.8	20.4	17.7	16.4	16.4	17.7	17.7	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: P998422

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1620.0	1614.6	1617.3	1603.7	1591.4	1573.7	1558.7	1556.0	1553.3	1561.4	1556.0
5°	1573.7	1566.9	1560.1	1543.7	1519.2	1504.2	1482.4	1481.0	1472.9	1460.6	1463.3
7.5°	1523.3	1519.2	1509.7	1483.8	1462.0	1436.1	1418.4	1403.4	1396.6	1385.7	1381.6
10°	1482.4	1467.4	1459.2	1430.6	1404.7	1377.5	1354.3	1343.4	1331.2	1321.6	1314.8
12.5°	1426.5	1422.5	1399.3	1376.1	1354.3	1323.0	1305.3	1273.9	1257.6	1265.8	1263.0
15°	1389.8	1370.7	1365.2	1332.5	1295.7	1275.3	1242.6	1222.2	1215.4	1203.1	1188.1
17.5°	1340.7	1328.4	1309.4	1279.4	1237.2	1208.5	1185.4	1166.3	1158.1	1141.8	1129.5
20°	1294.4	1273.9	1259.0	1231.7	1190.8	1154.0	1125.4	1113.2	1092.7	1079.1	1072.3
22.5°	1252.1	1237.2	1215.4	1174.5	1139.1	1103.6	1069.6	1051.9	1032.8	1024.6	1013.7
25°	1200.4	1175.8	1160.9	1115.9	1077.7	1049.1	1017.8	994.6	983.7	970.1	967.4
27.5°	1150.0	1126.8	1109.1	1069.6	1023.2	986.5	967.4	951.0	932.0	932.0	925.1
30°	1099.5	1083.2	1055.9	1017.8	974.2	938.8	917.0	902.0	895.2	889.7	888.4
32.5°	1049.1	1027.3	1011.0	959.2	926.5	893.8	877.5	865.2	857.0	855.7	857.0
35°	997.4	972.8	956.5	910.2	877.5	847.5	840.7	829.8	825.7	824.3	831.1
37.5°	942.9	923.8	903.3	865.2	828.4	810.7	797.1	793.0	791.6	799.8	802.5
40°	892.4	876.1	857.0	816.1	788.9	769.8	763.0	758.9	764.4	772.5	776.6
42.5°	844.8	821.6	806.6	769.8	745.3	734.4	726.2	726.2	731.7	741.2	748.0
45°	794.3	776.6	761.6	728.9	707.1	694.9	693.5	694.9	701.7	708.5	716.7
47.5°	745.3	727.6	711.2	684.0	664.9	658.1	656.7	658.1	669.0	678.5	688.1
50°	700.3	681.3	666.3	640.4	625.4	617.2	618.6	625.4	633.6	647.2	659.5
52.5°	647.2	633.6	619.9	596.8	583.2	577.7	581.8	587.2	602.2	611.8	626.8
55°	595.4	583.2	572.3	554.5	543.6	539.6	542.3	550.5	562.7	579.1	596.8
57.5°	547.7	534.1	523.2	510.9	498.7	500.0	501.4	512.3	527.3	542.3	562.7
60°	494.6	486.4	476.9	461.9	456.4	456.4	460.5	472.8	486.4	510.9	528.7
62.5°	446.9	436.0	429.2	419.7	411.5	412.8	422.4	433.3	449.6	470.1	493.2
65°	397.9	385.6	380.1	372.0	369.2	370.6	377.4	393.8	411.5	429.2	451.0
67.5°	343.4	339.3	333.8	325.6	328.4	329.7	336.5	350.2	369.2	387.0	411.5
70°	297.0	288.9	287.5	280.7	280.7	284.8	298.4	307.9	325.6	344.7	370.6
72.5°	248.0	241.2	241.2	235.7	239.8	243.9	250.7	264.3	280.7	299.8	321.6
75°	197.6	194.8	197.6	194.8	194.8	201.7	209.8	220.7	238.4	258.9	276.6
77.5°	152.6	152.6	151.2	155.3	155.3	159.4	170.3	181.2	194.8	211.2	230.3
80°	111.7	111.7	111.7	115.8	119.9	119.9	126.7	140.3	152.6	163.5	181.2
82.5°	76.3	76.3	76.3	79.0	84.5	84.5	92.7	100.8	114.5	124.0	132.2
85°	46.3	46.3	45.0	47.7	49.1	53.1	60.0	65.4	72.2	80.4	88.6
87.5°	20.4	20.4	21.8	23.2	24.5	27.3	30.0	32.7	39.5	42.2	46.3
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: P998422

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1551.9	1550.5	1543.7	1546.4	1538.3	1541.0	1545.1	1546.4	1551.9	1547.8	1546.4
5°	1456.5	1453.8	1449.7	1445.6	1444.3	1449.7	1440.2	1442.9	1445.6	1449.7	1455.2
7.5°	1378.9	1377.5	1373.4	1366.6	1363.9	1361.1	1362.5	1372.0	1370.7	1369.3	1378.9
10°	1308.0	1309.4	1301.2	1299.8	1291.7	1290.3	1291.7	1294.4	1298.5	1303.9	1305.3
12.5°	1234.4	1252.1	1237.2	1231.7	1219.4	1226.3	1229.0	1216.7	1223.5	1227.6	1248.1
15°	1188.1	1179.9	1170.4	1170.4	1164.9	1162.2	1155.4	1164.9	1170.4	1178.6	1175.8
17.5°	1124.1	1110.4	1105.0	1099.5	1100.9	1106.4	1091.4	1113.2	1113.2	1117.3	1110.4
20°	1068.2	1057.3	1050.5	1047.8	1043.7	1041.0	1039.6	1045.0	1053.2	1055.9	1062.8
22.5°	1009.6	1009.6	998.7	994.6	991.9	987.8	994.6	990.5	996.0	1001.4	1012.3
25°	960.6	960.6	956.5	951.0	946.9	944.2	948.3	946.9	951.0	957.8	960.6
27.5°	921.1	917.0	915.6	914.2	912.9	914.2	912.9	917.0	921.1	922.4	919.7
30°	887.0	882.9	884.3	884.3	885.6	884.3	882.9	887.0	888.4	885.6	887.0
32.5°	855.7	855.7	858.4	859.7	859.7	861.1	862.5	859.7	861.1	857.0	858.4
35°	829.8	832.5	835.2	836.6	837.9	836.6	839.3	837.9	835.2	832.5	831.1
37.5°	803.9	806.6	812.1	813.4	817.5	818.9	816.1	816.1	814.8	809.3	806.6
40°	776.6	779.4	786.2	790.3	793.0	797.1	794.3	794.3	788.9	783.4	779.4
42.5°	750.7	756.2	763.0	767.1	772.5	772.5	772.5	769.8	763.0	757.6	753.5
45°	724.9	726.2	735.8	742.6	748.0	748.0	748.0	743.9	739.8	728.9	723.5
47.5°	696.2	700.3	711.2	718.0	723.5	724.9	724.9	720.8	712.6	703.1	696.2
50°	664.9	671.7	684.0	693.5	700.3	703.1	699.0	696.2	686.7	675.8	667.6
52.5°	634.9	643.1	658.1	666.3	675.8	677.2	675.8	671.7	660.8	645.8	639.0
55°	605.0	611.8	628.1	641.7	649.9	652.6	649.9	643.1	629.5	614.5	607.7
57.5°	572.3	581.8	599.5	613.1	622.7	624.0	621.3	614.5	603.6	584.5	575.0
60°	538.2	550.5	568.2	581.8	594.1	595.4	592.7	583.2	569.5	550.5	542.3
62.5°	504.1	513.7	534.1	549.1	558.6	565.4	560.0	550.5	536.8	517.8	505.5
65°	464.6	478.2	496.0	509.6	520.5	521.8	519.1	510.9	496.0	475.5	466.0
67.5°	426.5	436.0	453.7	471.4	475.5	479.6	475.5	467.3	455.1	437.4	423.7
70°	380.1	388.3	410.1	422.4	427.8	431.9	429.2	421.0	410.1	393.8	382.9
72.5°	333.8	340.6	361.1	370.6	381.5	380.1	378.8	373.3	358.3	347.4	340.6
75°	284.8	292.9	306.6	318.8	322.9	322.9	322.9	318.8	309.3	291.6	284.8
77.5°	239.8	243.9	254.8	261.6	265.7	267.1	265.7	258.9	253.4	241.2	237.1
80°	183.9	194.8	203.0	204.4	209.8	209.8	209.8	207.1	201.7	189.4	188.0
82.5°	139.0	141.7	149.9	154.0	156.7	155.3	155.3	149.9	148.5	141.7	139.0
85°	94.0	98.1	96.7	102.2	103.6	100.8	100.8	103.6	96.7	98.1	94.0
87.5°	51.8	51.8	54.5	53.1	58.6	58.6	55.9	57.2	54.5	53.1	51.8
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: P998422

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5	1644.5
2.5°	1546.4	1554.6	1546.4	1551.9	1554.6	1561.4	1564.2	1576.4	1580.5	1590.0	1590.0
5°	1453.8	1457.9	1459.2	1464.7	1470.1	1483.8	1493.3	1511.0	1531.5	1534.2	1546.4
7.5°	1378.9	1385.7	1396.6	1392.5	1402.0	1422.5	1434.7	1456.5	1477.0	1487.9	1502.8
10°	1312.1	1320.3	1324.4	1328.4	1346.2	1363.9	1382.9	1397.9	1425.2	1441.5	1453.8
12.5°	1257.6	1250.8	1259.0	1273.9	1294.4	1305.3	1331.2	1354.3	1374.8	1392.5	1403.4
15°	1186.7	1192.2	1200.4	1226.3	1231.7	1259.0	1268.5	1294.4	1332.5	1348.9	1362.5
17.5°	1118.6	1136.3	1152.7	1162.2	1178.6	1200.4	1227.6	1256.2	1280.8	1299.8	1316.2
20°	1064.1	1081.8	1091.4	1098.2	1114.5	1144.5	1170.4	1205.8	1237.2	1252.1	1273.9
22.5°	1020.5	1020.5	1034.1	1054.6	1064.1	1092.7	1114.5	1152.7	1186.7	1205.8	1226.3
25°	966.0	974.2	985.1	1002.8	1016.4	1039.6	1070.9	1103.6	1140.4	1156.8	1182.7
27.5°	921.1	930.6	945.6	949.7	963.3	983.7	1016.4	1051.9	1090.0	1107.7	1129.5
30°	887.0	892.4	897.9	906.1	918.3	936.0	963.3	994.6	1041.0	1054.6	1081.8
32.5°	857.0	859.7	862.5	869.3	876.1	893.8	915.6	949.7	987.8	1008.3	1032.8
35°	829.8	827.0	828.4	832.5	839.3	846.1	869.3	897.9	933.3	957.8	976.9
37.5°	803.9	798.4	797.1	797.1	799.8	808.0	825.7	850.2	888.4	908.8	927.9
40°	775.3	769.8	767.1	765.7	764.4	769.8	783.4	808.0	837.9	857.0	878.8
42.5°	748.0	742.6	735.8	734.4	731.7	734.4	743.9	767.1	793.0	812.1	829.8
45°	720.8	711.2	703.1	697.6	699.0	694.9	701.7	719.4	749.4	761.6	779.4
47.5°	690.8	679.9	669.0	663.5	658.1	660.8	663.5	678.5	704.4	716.7	734.4
50°	662.2	647.2	634.9	628.1	624.0	621.3	624.0	639.0	658.1	669.0	684.0
52.5°	629.5	614.5	602.2	591.3	585.9	581.8	583.2	596.8	614.5	625.4	640.4
55°	599.5	580.4	564.1	550.5	546.4	545.0	543.6	553.2	568.2	579.1	591.3
57.5°	565.4	546.4	528.7	512.3	504.1	502.8	502.8	505.5	524.6	532.7	539.6
60°	531.4	510.9	491.9	476.9	464.6	460.5	459.2	464.6	474.2	482.3	491.9
62.5°	493.2	472.8	449.6	436.0	423.7	412.8	416.9	418.3	431.9	436.0	444.2
65°	456.4	433.3	414.2	392.4	378.8	372.0	369.2	372.0	382.9	384.2	389.7
67.5°	414.2	392.4	369.2	354.3	342.0	329.7	327.0	327.0	332.5	336.5	343.4
70°	373.3	351.5	325.6	309.3	297.0	286.1	282.0	280.7	284.8	287.5	294.3
72.5°	325.6	303.8	284.8	267.1	252.1	243.9	239.8	237.1	241.2	243.9	245.3
75°	275.2	257.5	238.4	220.7	211.2	203.0	197.6	193.5	196.2	196.2	196.2
77.5°	227.5	209.8	194.8	182.6	170.3	160.8	156.7	152.6	154.0	154.0	156.7
80°	177.1	164.9	152.6	141.7	130.8	122.6	119.9	115.8	113.1	111.7	111.7
82.5°	130.8	121.3	110.4	100.8	95.4	87.2	84.5	79.0	79.0	77.7	77.7
85°	87.2	81.8	70.9	64.0	60.0	55.9	53.1	50.4	46.3	46.3	45.0
87.5°	46.3	43.6	40.9	32.7	32.7	28.6	27.3	25.9	21.8	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: P998422

CATALOG NUMBER: S124DR-B1020DB2750-4F0-XX-W2A-A_2700K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1644.5	1644.5	1644.5	1644.5
2.5°	1599.6	1613.2	1625.5	1644.5
5°	1564.2	1583.2	1609.1	1637.7
7.5°	1523.3	1553.3	1587.3	1626.8
10°	1485.1	1519.2	1562.8	1610.5
12.5°	1445.6	1486.5	1534.2	1586.0
15°	1400.7	1441.5	1494.7	1564.2
17.5°	1359.8	1408.8	1466.1	1539.6
20°	1312.1	1358.4	1421.1	1505.6
22.5°	1269.9	1323.0	1392.5	1466.1
25°	1223.5	1269.9	1339.3	1427.9
27.5°	1177.2	1234.4	1301.2	1387.0
30°	1132.2	1179.9	1252.1	1342.1
32.5°	1083.2	1140.4	1207.2	1291.7
35°	1030.1	1084.6	1147.2	1238.5
37.5°	982.4	1035.5	1099.5	1179.9
40°	929.2	985.1	1043.7	1124.1
42.5°	877.5	927.9	986.5	1060.0
45°	827.0	870.6	923.8	987.8
47.5°	775.3	812.1	861.1	918.3
50°	719.4	758.9	795.7	843.4
52.5°	667.6	701.7	731.7	771.2
55°	617.2	640.4	664.9	694.9
57.5°	564.1	581.8	599.5	630.8
60°	510.9	527.3	536.8	557.3
62.5°	459.2	466.0	478.2	490.5
65°	401.9	411.5	418.3	433.3
67.5°	350.2	354.3	361.1	370.6
70°	295.7	305.2	307.9	314.7
72.5°	249.3	253.4	256.2	257.5
75°	197.6	201.7	204.4	212.6
77.5°	155.3	154.0	159.4	160.8
80°	114.5	110.4	111.7	117.2
82.5°	74.9	76.3	74.9	74.9
85°	46.3	45.0	42.2	43.6
87.5°	20.4	20.4	19.1	19.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)