

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: P998453

Luminaire Tested: S124DR-B1195DB2750-4F0-XX-W2A-A_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998453
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-B1195DB2750-4F0-XX-W2A-A_3000K
Description: Define 4 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

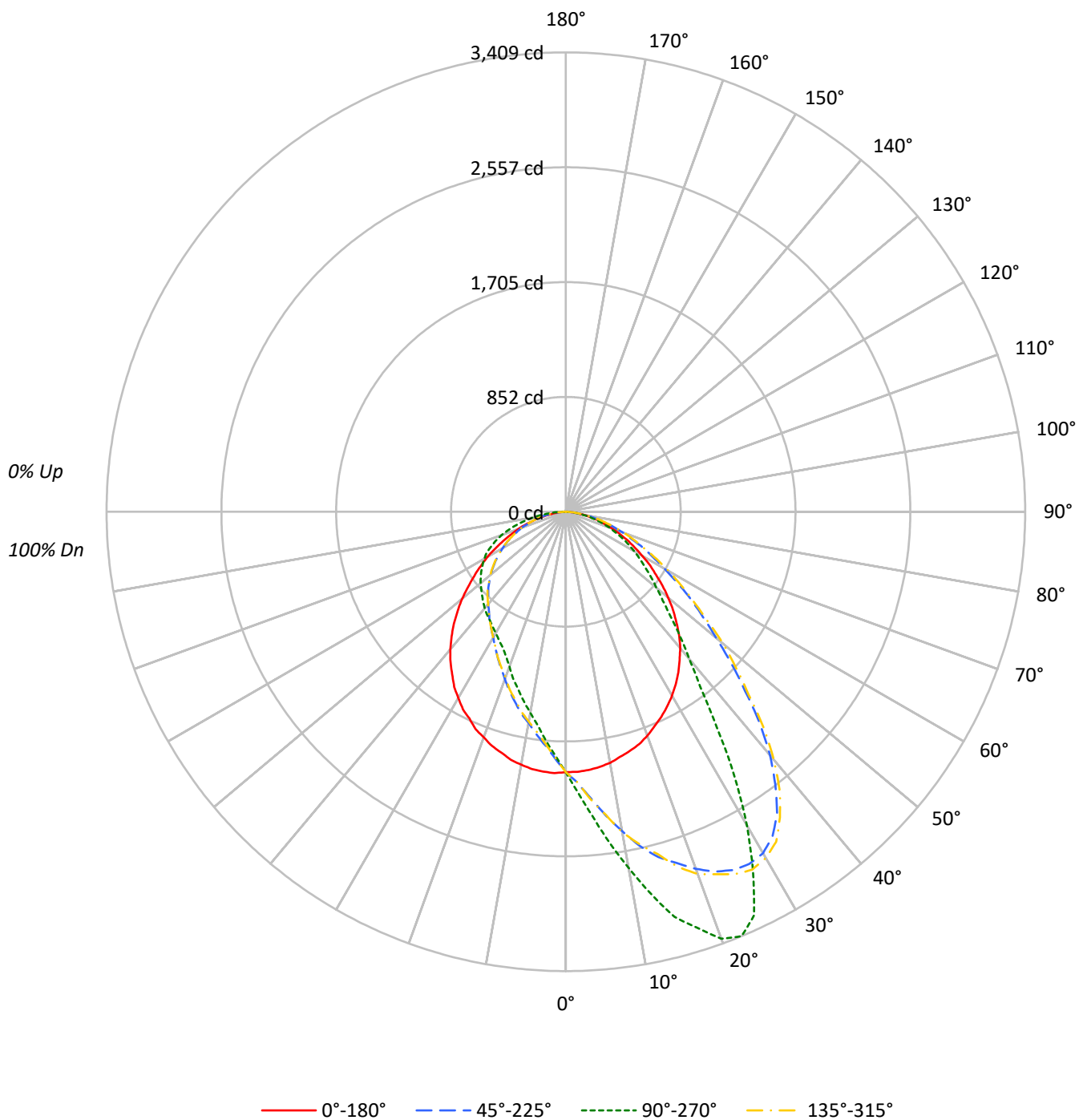
Lumens per Lamp: N/A
Luminaire Lumens: 5330.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.3 / 1.41
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	50	30	10
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°	15751	15751	15751	15751
5°	15746	18549	15838	13938
10°	15663	22209	15782	12549
15°	15509	26277	15617	11524
20°	15345	29260	15456	10609
25°	15090	29733	15234	9978
30°	14842	25300	15023	9779
35°	14481	19452	14640	9782
40°	14053	15162	14190	9966
45°	13380	12642	13546	10132
50°	12567	11126	12750	10476
55°	11604	10192	11786	10897
60°	10674	9552	10987	11405
65°	9819	8893	9912	11826
70°	8814	8128	9005	12095
75°	7864	7259	7814	11950
80°	6462	6086	6387	11571
85°	4790	4491	4491	11078

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 145°

Vertical Angle: 45°

Luminance: 24324 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.0	3.5
10°-20°	580.2	10.9
20°-30°	921.8	17.3
30°-40°	1024.3	19.2
40°-50°	931.5	17.5
50°-60°	761.2	14.3
60°-70°	543.3	10.2
70°-80°	299.0	5.6
80°-90°	80.8	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°	1690.0	31.7
0°-40°	2714.3	50.9
0°-60°	4406.9	82.7
0°-90°	5330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5330.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1932	1932	1932	1932	1932	
5°	1924	2266	1935	1703	1924	183
15°	1837	3113	1850	1365	1837	518
25°	1677	3305	1693	1109	1677	773
35°	1455	1954	1471	983	1455	909
45°	1160	1096	1175	879	1160	895
55°	816	717	829	766	816	734
65°	509	461	514	613	509	503
75°	250	230	248	379	250	262
85°	51	48	48	118	51	63
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°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	1931.6	1950.8	1958.8	1965.2	1986.0	1992.4	1994.0	2003.6	2011.6	2013.2	2013.2
5°	1923.6	1954.0	1978.0	2000.4	2034.0	2048.4	2066.0	2085.2	2110.8	2126.8	2134.8
7.5°	1910.8	1955.6	1992.4	2030.8	2077.2	2106.0	2122.0	2173.2	2208.4	2237.2	2272.4
10°	1891.6	1949.2	2002.0	2058.0	2123.6	2158.8	2194.0	2256.4	2306.0	2362.0	2406.8
12.5°	1862.7	1938.0	2002.0	2080.4	2162.0	2203.6	2245.2	2354.0	2411.6	2461.3	2541.3
15°	1837.1	1912.4	2003.6	2083.6	2184.4	2246.8	2307.6	2378.0	2469.3	2576.5	2653.3
17.5°	1808.3	1902.8	1987.6	2099.6	2211.6	2270.8	2320.4	2429.3	2557.3	2662.9	2733.3
20°	1768.3	1864.3	1976.4	2094.8	2227.6	2274.0	2339.6	2485.3	2600.5	2704.5	2819.7
22.5°	1721.9	1833.9	1952.4	2066.0	2203.6	2301.2	2373.2	2501.3	2640.5	2760.5	2890.1
25°	1677.1	1798.7	1902.8	2058.0	2203.6	2269.2	2350.8	2502.9	2654.9	2800.5	2933.3
27.5°	1629.1	1742.7	1883.6	2006.8	2171.6	2243.6	2331.6	2498.1	2659.7	2805.3	2947.7
30°	1576.3	1697.9	1814.7	1960.4	2120.4	2213.2	2294.8	2475.7	2640.5	2792.5	2925.3
32.5°	1517.1	1632.3	1757.1	1894.8	2062.8	2157.2	2259.6	2445.3	2621.3	2752.5	2854.9
35°	1454.7	1571.5	1680.3	1821.1	1994.0	2088.4	2187.6	2392.4	2566.9	2674.1	2733.3
37.5°	1385.9	1496.3	1603.5	1742.7	1915.6	2016.4	2117.2	2315.6	2480.5	2570.1	2554.1
40°	1320.2	1419.5	1518.7	1649.9	1830.7	1938.0	2026.0	2226.0	2370.0	2408.4	2355.6
42.5°	1245.0	1329.8	1425.9	1560.3	1736.3	1837.1	1947.6	2130.0	2237.2	2221.2	2131.6
45°	1160.2	1235.4	1331.4	1457.9	1637.1	1741.1	1833.9	2006.8	2085.2	2045.2	1882.0
47.5°	1078.6	1152.2	1230.6	1357.1	1531.5	1619.5	1713.9	1869.1	1914.0	1829.1	1665.9
50°	990.6	1051.4	1133.0	1253.0	1416.3	1509.1	1587.5	1712.3	1728.3	1624.3	1454.7
52.5°	905.8	957.0	1035.4	1153.8	1305.8	1379.5	1456.3	1566.7	1553.9	1446.7	1283.4
55°	816.2	864.2	936.2	1045.0	1179.4	1249.8	1315.4	1413.1	1385.9	1275.4	1133.0
57.5°	740.9	774.5	845.0	945.8	1056.2	1133.0	1189.0	1265.8	1224.2	1113.8	981.0
60°	654.5	696.1	755.3	837.0	945.8	997.0	1046.6	1097.8	1069.0	963.4	845.0
62.5°	576.1	608.1	659.3	737.7	822.6	869.0	921.8	953.8	925.0	827.4	728.1
65°	508.9	534.5	574.5	638.5	720.1	758.5	788.9	819.4	795.3	704.1	632.1
67.5°	435.3	457.7	491.3	542.5	611.3	638.5	667.3	688.1	660.9	600.1	529.7
70°	369.7	385.7	417.7	456.1	504.1	529.7	553.7	574.5	550.5	499.3	446.5
72.5°	302.5	315.3	344.1	371.3	414.5	432.1	449.7	465.7	457.7	409.7	366.5
75°	249.6	254.4	273.7	296.1	323.3	342.5	355.3	364.9	358.5	320.1	292.9
77.5°	188.8	195.2	209.6	227.2	251.2	262.4	270.5	280.1	272.1	241.6	222.4
80°	137.6	139.2	147.2	163.2	179.2	180.8	188.8	201.6	196.8	176.0	161.6
82.5°	88.0	92.8	96.0	105.6	116.8	120.0	124.8	128.0	126.4	113.6	108.8
85°	51.2	51.2	54.4	60.8	64.0	68.8	70.4	72.0	75.2	67.2	62.4
87.5°	22.4	24.0	24.0	25.6	28.8	28.8	30.4	32.0	33.6	32.0	27.2
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°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	2018.0	2046.8	2059.6	2062.8	2080.4	2069.2	2074.0	2072.4	2085.2	2086.8	2086.8
5°	2165.2	2198.8	2210.0	2226.0	2250.0	2256.4	2251.6	2261.2	2278.8	2266.0	2285.2
7.5°	2320.4	2357.2	2382.8	2418.1	2426.1	2446.9	2459.7	2470.9	2474.1	2475.7	2478.9
10°	2464.5	2510.9	2546.1	2605.3	2618.1	2629.3	2685.3	2662.9	2691.7	2682.1	2685.3
12.5°	2581.3	2672.5	2701.3	2800.5	2810.1	2848.5	2845.3	2880.5	2886.9	2899.7	2886.9
15°	2734.9	2840.5	2886.9	2942.9	2975.0	3019.8	3027.8	3075.8	3095.0	3112.6	3095.0
17.5°	2875.7	2931.7	3050.2	3095.0	3115.8	3139.8	3200.6	3218.2	3247.0	3235.8	3267.8
20°	2946.1	3026.2	3151.0	3227.8	3259.8	3282.2	3333.4	3360.6	3371.8	3371.8	3375.0
22.5°	3008.6	3123.8	3216.6	3304.6	3333.4	3349.4	3379.8	3400.6	3405.4	3408.6	3411.8
25°	3064.6	3168.6	3243.8	3293.4	3304.6	3304.6	3322.2	3309.4	3288.6	3304.6	3314.2
27.5°	3064.6	3138.2	3171.8	3189.4	3189.4	3146.2	3120.6	3067.8	3023.0	3010.2	3039.0
30°	3013.4	3047.0	3000.6	2957.4	2923.7	2894.9	2794.1	2714.1	2698.1	2686.9	2730.1
32.5°	2894.9	2851.7	2760.5	2635.7	2586.1	2520.5	2442.1	2381.2	2344.4	2331.6	2322.0
35°	2685.3	2573.3	2454.9	2286.8	2251.6	2168.4	2061.2	2016.4	1955.6	1954.0	1974.8
37.5°	2456.5	2283.6	2155.6	1995.6	1946.0	1857.9	1757.1	1710.7	1669.1	1637.1	1675.5
40°	2189.2	2038.8	1843.5	1712.3	1641.9	1595.5	1510.7	1459.5	1440.3	1424.3	1448.3
42.5°	1939.6	1774.7	1622.7	1488.3	1430.7	1377.9	1321.8	1272.2	1257.8	1256.2	1273.8
45°	1691.5	1529.9	1389.1	1273.8	1237.0	1205.0	1150.6	1136.2	1112.2	1096.2	1104.2
47.5°	1493.1	1326.6	1209.8	1121.8	1089.8	1062.6	1027.4	1003.4	982.6	976.2	985.8
50°	1297.8	1185.8	1065.8	992.2	968.2	942.6	915.4	893.0	883.4	877.0	883.4
52.5°	1141.0	1021.0	939.4	880.2	856.2	837.0	817.8	808.2	795.3	798.5	804.9
55°	1000.2	894.6	825.8	782.5	768.1	760.1	736.1	724.9	720.1	716.9	720.1
57.5°	867.4	790.5	739.3	702.5	683.3	678.5	659.3	659.3	654.5	649.7	651.3
60°	761.7	696.1	646.5	617.7	614.5	606.5	593.7	592.1	580.9	585.7	587.3
62.5°	654.5	601.7	568.1	550.5	539.3	536.1	528.1	526.5	521.7	523.3	520.1
65°	569.7	526.5	492.9	478.5	473.7	472.1	465.7	460.9	457.7	460.9	457.7
67.5°	484.9	456.1	430.5	416.1	409.7	408.1	403.3	400.1	401.7	396.9	400.1
70°	404.9	376.1	360.1	352.1	348.9	344.1	344.1	344.1	344.1	340.9	339.3
72.5°	340.9	312.1	300.9	296.1	292.9	291.3	286.5	288.1	286.5	284.9	291.3
75°	270.5	252.8	241.6	236.8	240.0	235.2	230.4	233.6	228.8	230.4	236.8
77.5°	204.8	196.8	190.4	187.2	184.0	180.8	180.8	177.6	177.6	177.6	177.6
80°	148.8	147.2	136.0	134.4	134.4	131.2	131.2	131.2	131.2	129.6	131.2
82.5°	99.2	97.6	94.4	92.8	89.6	91.2	91.2	88.0	88.0	86.4	88.0
85°	57.6	57.6	54.4	52.8	51.2	52.8	49.6	48.0	49.6	48.0	49.6
87.5°	27.2	24.0	25.6	24.0	20.8	22.4	19.2	20.8	19.2	17.6	20.8
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°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	2083.6	2078.8	2072.4	2072.4	2064.4	2064.4	2051.6	2029.2	2010.0	2003.6	2006.8
5°	2261.2	2262.8	2253.2	2245.2	2230.8	2219.6	2198.8	2158.8	2146.0	2120.4	2102.8
7.5°	2464.5	2458.1	2440.5	2427.7	2424.5	2398.8	2354.0	2306.0	2267.6	2242.0	2205.2
10°	2693.3	2667.7	2642.1	2634.1	2614.9	2571.7	2520.5	2467.7	2414.8	2358.8	2296.4
12.5°	2885.3	2835.7	2834.1	2814.9	2778.1	2754.1	2693.3	2618.1	2526.9	2464.5	2394.0
15°	3091.8	3045.4	3007.0	2971.8	2954.2	2883.7	2832.5	2738.1	2629.3	2562.1	2514.1
17.5°	3239.0	3218.2	3152.6	3136.6	3112.6	3031.0	2949.3	2856.5	2762.1	2667.7	2538.1
20°	3357.4	3344.6	3301.4	3279.0	3240.6	3176.6	3077.4	2970.2	2861.3	2726.9	2605.3
22.5°	3408.6	3392.6	3357.4	3338.2	3314.2	3259.8	3175.0	3053.4	2910.9	2790.9	2661.3
25°	3307.8	3336.6	3327.0	3319.0	3309.4	3277.4	3213.4	3106.2	2967.0	2830.9	2669.3
27.5°	3080.6	3130.2	3178.2	3184.6	3200.6	3213.4	3187.8	3111.0	2994.2	2850.1	2672.5
30°	2774.9	2797.3	2894.9	2923.7	2946.1	3027.8	3075.8	3056.6	2967.0	2837.3	2674.1
32.5°	2382.8	2442.1	2541.3	2610.1	2670.9	2762.1	2886.9	2936.5	2904.5	2798.9	2637.3
35°	2011.6	2082.0	2197.2	2285.2	2346.0	2475.7	2622.9	2730.1	2770.1	2717.3	2573.3
37.5°	1707.5	1792.3	1894.8	1928.4	1998.8	2158.8	2362.0	2510.9	2608.5	2613.3	2501.3
40°	1478.7	1521.9	1603.5	1654.7	1723.5	1857.9	2056.4	2253.2	2400.4	2450.1	2390.8
42.5°	1285.0	1318.6	1379.5	1441.9	1504.3	1606.7	1789.1	1973.2	2171.6	2270.8	2269.2
45°	1131.4	1166.6	1208.2	1259.4	1302.6	1413.1	1557.1	1745.9	1917.2	2070.8	2109.2
47.5°	997.0	1027.4	1078.6	1101.0	1129.8	1233.8	1358.7	1534.7	1712.3	1888.4	1933.2
50°	897.8	923.4	958.6	973.0	1005.0	1081.8	1184.2	1326.6	1523.5	1685.1	1768.3
52.5°	808.2	827.4	854.6	865.8	888.2	945.8	1038.6	1150.6	1313.8	1480.3	1597.1
55°	731.3	744.1	763.3	776.1	792.1	843.4	912.2	1013.0	1153.8	1297.8	1411.5
57.5°	659.3	668.9	688.1	694.5	707.3	747.3	795.3	880.2	1009.8	1137.8	1248.2
60°	592.1	598.5	609.7	624.1	633.7	660.9	705.7	776.1	880.2	997.0	1086.6
62.5°	528.1	537.7	540.9	547.3	555.3	580.9	616.1	667.3	758.5	854.6	949.0
65°	462.5	470.5	476.9	478.5	486.5	505.7	537.7	582.5	641.7	724.9	813.0
67.5°	401.7	406.5	409.7	416.1	424.1	433.7	459.3	492.9	547.3	614.5	684.9
70°	345.7	345.7	350.5	352.1	361.7	372.9	384.1	416.1	464.1	518.5	566.5
72.5°	284.9	292.9	291.3	299.3	297.7	305.7	320.1	340.9	376.1	419.3	465.7
75°	232.0	236.8	236.8	236.8	240.0	246.4	254.4	273.7	300.9	336.1	363.3
77.5°	180.8	184.0	184.0	184.0	185.6	192.0	200.0	212.8	232.0	252.8	268.9
80°	129.6	132.8	132.8	136.0	136.0	137.6	145.6	152.0	161.6	177.6	193.6
82.5°	88.0	89.6	92.8	92.8	91.2	94.4	96.0	102.4	112.0	115.2	126.4
85°	48.0	49.6	51.2	51.2	52.8	56.0	54.4	60.8	60.8	67.2	70.4
87.5°	19.2	22.4	22.4	20.8	22.4	22.4	22.4	25.6	27.2	28.8	27.2
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: P998453

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	1992.4	1986.0	1981.2	1981.2	1966.8	1952.4	1944.4	1941.2	1938.0	1925.2	1907.6
5°	2074.0	2053.2	2038.8	2024.4	2000.4	1974.8	1949.2	1934.8	1914.0	1885.2	1864.3
7.5°	2165.2	2115.6	2099.6	2082.0	2034.0	1990.8	1955.6	1925.2	1891.6	1854.7	1817.9
10°	2242.0	2189.2	2154.0	2123.6	2061.2	2003.6	1950.8	1906.0	1862.7	1814.7	1769.9
12.5°	2315.6	2240.4	2203.6	2158.8	2093.2	2010.0	1941.2	1885.2	1821.1	1771.5	1717.1
15°	2418.1	2291.6	2230.8	2202.0	2114.0	2016.4	1933.2	1849.9	1797.1	1721.9	1673.9
17.5°	2434.1	2331.6	2291.6	2218.0	2112.4	2002.0	1906.0	1822.7	1742.7	1675.5	1613.1
20°	2490.1	2355.6	2291.6	2245.2	2106.0	1994.0	1888.4	1781.1	1704.3	1632.3	1561.9
22.5°	2525.3	2373.2	2306.0	2232.4	2099.6	1965.2	1840.3	1747.5	1653.1	1579.5	1523.5
25°	2515.7	2363.6	2288.4	2219.6	2058.0	1923.6	1811.5	1693.1	1605.1	1525.1	1451.5
27.5°	2510.9	2339.6	2259.6	2182.8	2030.8	1890.0	1749.1	1653.1	1555.5	1462.7	1408.3
30°	2498.1	2309.2	2216.4	2133.2	1974.8	1827.5	1707.5	1595.5	1497.9	1413.1	1341.0
32.5°	2454.9	2258.0	2168.4	2078.8	1914.0	1766.7	1645.1	1541.1	1443.5	1355.5	1286.6
35°	2397.2	2197.2	2099.6	2005.2	1840.3	1691.5	1579.5	1470.7	1379.5	1294.6	1229.0
37.5°	2339.6	2126.8	2035.6	1926.8	1774.7	1619.5	1504.3	1406.7	1321.8	1233.8	1161.8
40°	2256.4	2043.6	1942.8	1849.9	1672.3	1526.7	1421.1	1333.0	1249.8	1166.6	1105.8
42.5°	2142.8	1952.4	1848.3	1745.9	1579.5	1435.5	1333.0	1254.6	1176.2	1107.4	1040.2
45°	2027.6	1841.9	1749.1	1657.9	1477.1	1341.0	1246.6	1174.6	1109.0	1033.8	979.4
47.5°	1888.4	1731.5	1638.7	1549.1	1377.9	1241.8	1155.4	1088.2	1027.4	965.0	913.8
50°	1745.9	1609.9	1525.1	1432.3	1269.0	1145.8	1061.0	1005.0	955.4	896.2	854.6
52.5°	1592.3	1473.9	1401.9	1312.2	1168.2	1054.6	968.2	912.2	870.6	827.4	790.5
55°	1429.1	1342.7	1265.8	1193.8	1057.8	955.4	878.6	829.0	800.1	760.1	728.1
57.5°	1281.8	1198.6	1152.2	1070.6	952.2	851.4	790.5	748.9	715.3	691.3	665.7
60°	1128.2	1061.0	1009.8	950.6	846.6	761.7	697.7	673.7	638.5	620.9	609.7
62.5°	981.0	933.0	885.0	840.2	747.3	667.3	619.3	588.9	568.1	550.5	540.9
65°	841.8	796.9	763.3	723.3	646.5	582.5	537.7	513.7	492.9	488.1	476.9
67.5°	705.7	686.5	649.7	617.7	552.1	502.5	468.9	438.5	427.3	422.5	412.9
70°	590.5	568.1	539.3	512.1	462.5	419.3	388.9	377.7	361.7	360.1	348.9
72.5°	486.5	459.3	438.5	417.7	380.9	342.5	326.5	310.5	302.5	296.1	291.3
75°	385.7	366.5	352.1	334.5	302.5	276.9	254.4	248.0	243.2	241.6	238.4
77.5°	288.1	275.3	268.9	251.2	228.8	206.4	196.8	187.2	187.2	184.0	185.6
80°	204.8	196.8	188.8	179.2	160.0	150.4	142.4	136.0	132.8	131.2	132.8
82.5°	129.6	124.8	123.2	116.8	104.0	99.2	92.8	88.0	88.0	88.0	88.0
85°	72.0	72.0	72.0	62.4	57.6	52.8	49.6	48.0	48.0	48.0	49.6
87.5°	30.4	30.4	25.6	25.6	24.0	20.8	19.2	19.2	20.8	20.8	22.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P998453

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	1902.8	1896.4	1899.6	1883.6	1869.1	1848.3	1830.7	1827.5	1824.3	1833.9	1827.5
5°	1848.3	1840.3	1832.3	1813.1	1784.3	1766.7	1741.1	1739.5	1729.9	1715.5	1718.7
7.5°	1789.1	1784.3	1773.1	1742.7	1717.1	1686.7	1665.9	1648.3	1640.3	1627.5	1622.7
10°	1741.1	1723.5	1713.9	1680.3	1649.9	1617.9	1590.7	1577.9	1563.5	1552.3	1544.3
12.5°	1675.5	1670.7	1643.5	1616.3	1590.7	1553.9	1533.1	1496.3	1477.1	1486.7	1483.5
15°	1632.3	1609.9	1603.5	1565.1	1521.9	1497.9	1459.5	1435.5	1427.5	1413.1	1395.5
17.5°	1574.7	1560.3	1537.9	1502.7	1453.1	1419.5	1392.3	1369.9	1360.3	1341.0	1326.6
20°	1520.3	1496.3	1478.7	1446.7	1398.7	1355.5	1321.8	1307.4	1283.4	1267.4	1259.4
22.5°	1470.7	1453.1	1427.5	1379.5	1337.8	1296.2	1256.2	1235.4	1213.0	1203.4	1190.6
25°	1409.9	1381.1	1363.5	1310.6	1265.8	1232.2	1195.4	1168.2	1155.4	1139.4	1136.2
27.5°	1350.7	1323.4	1302.6	1256.2	1201.8	1158.6	1136.2	1117.0	1094.6	1094.6	1086.6
30°	1291.4	1272.2	1240.2	1195.4	1144.2	1102.6	1077.0	1059.4	1051.4	1045.0	1043.4
32.5°	1232.2	1206.6	1187.4	1126.6	1088.2	1049.8	1030.6	1016.2	1006.6	1005.0	1006.6
35°	1171.4	1142.6	1123.4	1069.0	1030.6	995.4	987.4	974.6	969.8	968.2	976.2
37.5°	1107.4	1085.0	1061.0	1016.2	973.0	952.2	936.2	931.4	929.8	939.4	942.6
40°	1048.2	1029.0	1006.6	958.6	926.6	904.2	896.2	891.4	897.8	907.4	912.2
42.5°	992.2	965.0	947.4	904.2	875.4	862.6	853.0	853.0	859.4	870.6	878.6
45°	933.0	912.2	894.6	856.2	830.6	816.2	814.6	816.2	824.2	832.2	841.8
47.5°	875.4	854.6	835.4	803.3	780.9	772.9	771.3	772.9	785.7	796.9	808.2
50°	822.6	800.1	782.5	752.1	734.5	724.9	726.5	734.5	744.1	760.1	774.5
52.5°	760.1	744.1	728.1	700.9	684.9	678.5	683.3	689.7	707.3	718.5	736.1
55°	699.3	684.9	672.1	651.3	638.5	633.7	636.9	646.5	660.9	680.1	700.9
57.5°	643.3	627.3	614.5	600.1	585.7	587.3	588.9	601.7	619.3	636.9	660.9
60°	580.9	571.3	560.1	542.5	536.1	536.1	540.9	555.3	571.3	600.1	620.9
62.5°	524.9	512.1	504.1	492.9	483.3	484.9	496.1	508.9	528.1	552.1	579.3
65°	467.3	452.9	446.5	436.9	433.7	435.3	443.3	462.5	483.3	504.1	529.7
67.5°	403.3	398.5	392.1	382.5	385.7	387.3	395.3	411.3	433.7	454.5	483.3
70°	348.9	339.3	337.7	329.7	329.7	334.5	350.5	361.7	382.5	404.9	435.3
72.5°	291.3	283.3	283.3	276.9	281.7	286.5	294.5	310.5	329.7	352.1	377.7
75°	232.0	228.8	232.0	228.8	228.8	236.8	246.4	259.2	280.1	304.1	324.9
77.5°	179.2	179.2	177.6	182.4	182.4	187.2	200.0	212.8	228.8	248.0	270.5
80°	131.2	131.2	131.2	136.0	140.8	140.8	148.8	164.8	179.2	192.0	212.8
82.5°	89.6	89.6	89.6	92.8	99.2	99.2	108.8	118.4	134.4	145.6	155.2
85°	54.4	54.4	52.8	56.0	57.6	62.4	70.4	76.8	84.8	94.4	104.0
87.5°	24.0	24.0	25.6	27.2	28.8	32.0	35.2	38.4	46.4	49.6	54.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P998453

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	1822.7	1821.1	1813.1	1816.3	1806.7	1809.9	1814.7	1816.3	1822.7	1817.9	1816.3
5°	1710.7	1707.5	1702.7	1697.9	1696.3	1702.7	1691.5	1694.7	1697.9	1702.7	1709.1
7.5°	1619.5	1617.9	1613.1	1605.1	1601.9	1598.7	1600.3	1611.5	1609.9	1608.3	1619.5
10°	1536.3	1537.9	1528.3	1526.7	1517.1	1515.5	1517.1	1520.3	1525.1	1531.5	1533.1
12.5°	1449.9	1470.7	1453.1	1446.7	1432.3	1440.3	1443.5	1429.1	1437.1	1441.9	1465.9
15°	1395.5	1385.9	1374.7	1374.7	1368.3	1365.1	1357.1	1368.3	1374.7	1384.3	1381.1
17.5°	1320.2	1304.2	1297.8	1291.4	1293.0	1299.4	1281.8	1307.4	1307.4	1312.2	1304.2
20°	1254.6	1241.8	1233.8	1230.6	1225.8	1222.6	1221.0	1227.4	1237.0	1240.2	1248.2
22.5°	1185.8	1185.8	1173.0	1168.2	1165.0	1160.2	1168.2	1163.4	1169.8	1176.2	1189.0
25°	1128.2	1128.2	1123.4	1117.0	1112.2	1109.0	1113.8	1112.2	1117.0	1125.0	1128.2
27.5°	1081.8	1077.0	1075.4	1073.8	1072.2	1073.8	1072.2	1077.0	1081.8	1083.4	1080.2
30°	1041.8	1037.0	1038.6	1038.6	1040.2	1038.6	1037.0	1041.8	1043.4	1040.2	1041.8
32.5°	1005.0	1005.0	1008.2	1009.8	1009.8	1011.4	1013.0	1009.8	1011.4	1006.6	1008.2
35°	974.6	977.8	981.0	982.6	984.2	982.6	985.8	984.2	981.0	977.8	976.2
37.5°	944.2	947.4	953.8	955.4	960.2	961.8	958.6	958.6	957.0	950.6	947.4
40°	912.2	915.4	923.4	928.2	931.4	936.2	933.0	933.0	926.6	920.2	915.4
42.5°	881.8	888.2	896.2	901.0	907.4	907.4	907.4	904.2	896.2	889.8	885.0
45°	851.4	853.0	864.2	872.2	878.6	878.6	878.6	873.8	869.0	856.2	849.8
47.5°	817.8	822.6	835.4	843.4	849.8	851.4	851.4	846.6	837.0	825.8	817.8
50°	780.9	788.9	803.3	814.6	822.6	825.8	821.0	817.8	806.6	793.7	784.1
52.5°	745.7	755.3	772.9	782.5	793.7	795.3	793.7	788.9	776.1	758.5	750.5
55°	710.5	718.5	737.7	753.7	763.3	766.5	763.3	755.3	739.3	721.7	713.7
57.5°	672.1	683.3	704.1	720.1	731.3	732.9	729.7	721.7	708.9	686.5	675.3
60°	632.1	646.5	667.3	683.3	697.7	699.3	696.1	684.9	668.9	646.5	636.9
62.5°	592.1	603.3	627.3	644.9	656.1	664.1	657.7	646.5	630.5	608.1	593.7
65°	545.7	561.7	582.5	598.5	611.3	612.9	609.7	600.1	582.5	558.5	547.3
67.5°	500.9	512.1	532.9	553.7	558.5	563.3	558.5	548.9	534.5	513.7	497.7
70°	446.5	456.1	481.7	496.1	502.5	507.3	504.1	494.5	481.7	462.5	449.7
72.5°	392.1	400.1	424.1	435.3	448.1	446.5	444.9	438.5	420.9	408.1	400.1
75°	334.5	344.1	360.1	374.5	379.3	379.3	379.3	374.5	363.3	342.5	334.5
77.5°	281.7	286.5	299.3	307.3	312.1	313.7	312.1	304.1	297.7	283.3	278.5
80°	216.0	228.8	238.4	240.0	246.4	246.4	246.4	243.2	236.8	222.4	220.8
82.5°	163.2	166.4	176.0	180.8	184.0	182.4	182.4	176.0	174.4	166.4	163.2
85°	110.4	115.2	113.6	120.0	121.6	118.4	118.4	121.6	113.6	115.2	110.4
87.5°	60.8	60.8	64.0	62.4	68.8	68.8	65.6	67.2	64.0	62.4	60.8
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: P998453

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6	1931.6
2.5°	1816.3	1825.9	1816.3	1822.7	1825.9	1833.9	1837.1	1851.5	1856.3	1867.5	1867.5
5°	1707.5	1712.3	1713.9	1720.3	1726.7	1742.7	1753.9	1774.7	1798.7	1801.9	1816.3
7.5°	1619.5	1627.5	1640.3	1635.5	1646.7	1670.7	1685.1	1710.7	1734.7	1747.5	1765.1
10°	1541.1	1550.7	1555.5	1560.3	1581.1	1601.9	1624.3	1641.9	1673.9	1693.1	1707.5
12.5°	1477.1	1469.1	1478.7	1496.3	1520.3	1533.1	1563.5	1590.7	1614.7	1635.5	1648.3
15°	1393.9	1400.3	1409.9	1440.3	1446.7	1478.7	1489.9	1520.3	1565.1	1584.3	1600.3
17.5°	1313.8	1334.6	1353.9	1365.1	1384.3	1409.9	1441.9	1475.5	1504.3	1526.7	1545.9
20°	1249.8	1270.6	1281.8	1289.8	1309.0	1344.3	1374.7	1416.3	1453.1	1470.7	1496.3
22.5°	1198.6	1198.6	1214.6	1238.6	1249.8	1283.4	1309.0	1353.9	1393.9	1416.3	1440.3
25°	1134.6	1144.2	1157.0	1177.8	1193.8	1221.0	1257.8	1296.2	1339.4	1358.7	1389.1
27.5°	1081.8	1093.0	1110.6	1115.4	1131.4	1155.4	1193.8	1235.4	1280.2	1301.0	1326.6
30°	1041.8	1048.2	1054.6	1064.2	1078.6	1099.4	1131.4	1168.2	1222.6	1238.6	1270.6
32.5°	1006.6	1009.8	1013.0	1021.0	1029.0	1049.8	1075.4	1115.4	1160.2	1184.2	1213.0
35°	974.6	971.4	973.0	977.8	985.8	993.8	1021.0	1054.6	1096.2	1125.0	1147.4
37.5°	944.2	937.8	936.2	936.2	939.4	949.0	969.8	998.6	1043.4	1067.4	1089.8
40°	910.6	904.2	901.0	899.4	897.8	904.2	920.2	949.0	984.2	1006.6	1032.2
42.5°	878.6	872.2	864.2	862.6	859.4	862.6	873.8	901.0	931.4	953.8	974.6
45°	846.6	835.4	825.8	819.4	821.0	816.2	824.2	845.0	880.2	894.6	915.4
47.5°	811.4	798.5	785.7	779.3	772.9	776.1	779.3	796.9	827.4	841.8	862.6
50°	777.7	760.1	745.7	737.7	732.9	729.7	732.9	750.5	772.9	785.7	803.3
52.5°	739.3	721.7	707.3	694.5	688.1	683.3	684.9	700.9	721.7	734.5	752.1
55°	704.1	681.7	662.5	646.5	641.7	640.1	638.5	649.7	667.3	680.1	694.5
57.5°	664.1	641.7	620.9	601.7	592.1	590.5	590.5	593.7	616.1	625.7	633.7
60°	624.1	600.1	577.7	560.1	545.7	540.9	539.3	545.7	556.9	566.5	577.7
62.5°	579.3	555.3	528.1	512.1	497.7	484.9	489.7	491.3	507.3	512.1	521.7
65°	536.1	508.9	486.5	460.9	444.9	436.9	433.7	436.9	449.7	451.3	457.7
67.5°	486.5	460.9	433.7	416.1	401.7	387.3	384.1	384.1	390.5	395.3	403.3
70°	438.5	412.9	382.5	363.3	348.9	336.1	331.3	329.7	334.5	337.7	345.7
72.5°	382.5	356.9	334.5	313.7	296.1	286.5	281.7	278.5	283.3	286.5	288.1
75°	323.3	302.5	280.1	259.2	248.0	238.4	232.0	227.2	230.4	230.4	230.4
77.5°	267.2	246.4	228.8	214.4	200.0	188.8	184.0	179.2	180.8	180.8	184.0
80°	208.0	193.6	179.2	166.4	153.6	144.0	140.8	136.0	132.8	131.2	131.2
82.5°	153.6	142.4	129.6	118.4	112.0	102.4	99.2	92.8	92.8	91.2	91.2
85°	102.4	96.0	83.2	75.2	70.4	65.6	62.4	59.2	54.4	54.4	52.8
87.5°	54.4	51.2	48.0	38.4	38.4	33.6	32.0	30.4	25.6	27.2	27.2
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: P998453

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-A_3000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1931.6	1931.6	1931.6	1931.6
2.5°	1878.7	1894.8	1909.2	1931.6
5°	1837.1	1859.5	1890.0	1923.6
7.5°	1789.1	1824.3	1864.3	1910.8
10°	1744.3	1784.3	1835.5	1891.6
12.5°	1697.9	1745.9	1801.9	1862.7
15°	1645.1	1693.1	1755.5	1837.1
17.5°	1597.1	1654.7	1721.9	1808.3
20°	1541.1	1595.5	1669.1	1768.3
22.5°	1491.5	1553.9	1635.5	1721.9
25°	1437.1	1491.5	1573.1	1677.1
27.5°	1382.7	1449.9	1528.3	1629.1
30°	1329.8	1385.9	1470.7	1576.3
32.5°	1272.2	1339.4	1417.9	1517.1
35°	1209.8	1273.8	1347.5	1454.7
37.5°	1153.8	1216.2	1291.4	1385.9
40°	1091.4	1157.0	1225.8	1320.2
42.5°	1030.6	1089.8	1158.6	1245.0
45°	971.4	1022.6	1085.0	1160.2
47.5°	910.6	953.8	1011.4	1078.6
50°	845.0	891.4	934.6	990.6
52.5°	784.1	824.2	859.4	905.8
55°	724.9	752.1	780.9	816.2
57.5°	662.5	683.3	704.1	740.9
60°	600.1	619.3	630.5	654.5
62.5°	539.3	547.3	561.7	576.1
65°	472.1	483.3	491.3	508.9
67.5°	411.3	416.1	424.1	435.3
70°	347.3	358.5	361.7	369.7
72.5°	292.9	297.7	300.9	302.5
75°	232.0	236.8	240.0	249.6
77.5°	182.4	180.8	187.2	188.8
80°	134.4	129.6	131.2	137.6
82.5°	88.0	89.6	88.0	88.0
85°	54.4	52.8	49.6	51.2
87.5°	24.0	24.0	22.4	22.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)