

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: P1037264

Luminaire Tested: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K
Description: Define 3 Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

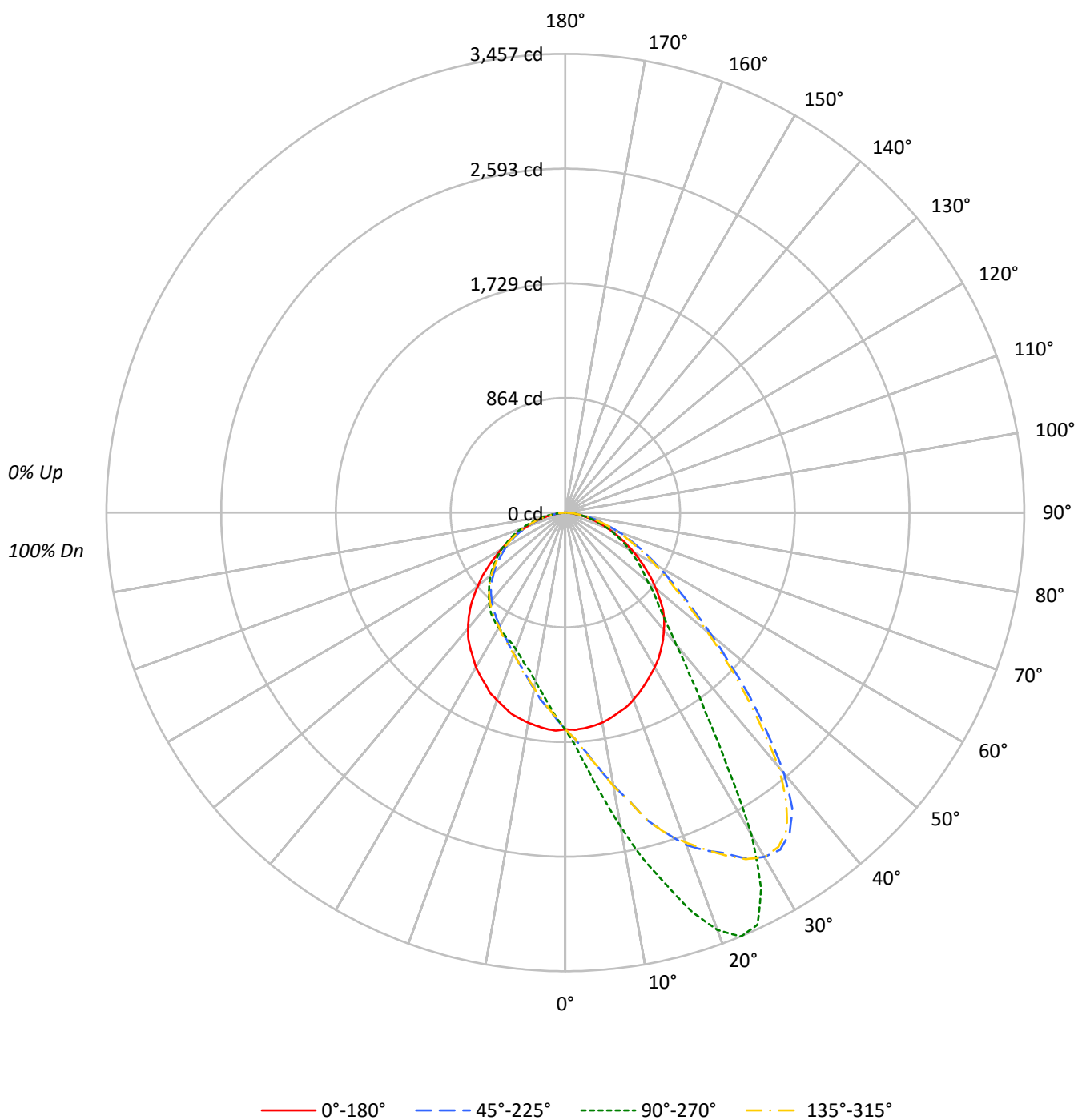
Lumens per Lamp: N/A
Luminaire Lumens: 4928.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.5
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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				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		0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102		100
1	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	87		85
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	74		72
3	92	82	74	68	89	80	73	67	77	71	66		75	69	65		72	68	64		62
4	84	73	65	58	82	72	64	58	69	62	57		67	61	56		65	60	56		53
5	78	66	57	51	76	64	56	50	62	55	50		60	54	49		59	53	49		47
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53	48	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	39	35		45	39	35		33
9	58	45	37	32	57	45	37	32	43	36	32		42	36	31		41	36	31		29
10	55	42	34	29	53	41	34	29	40	33	29		39	33	29		38	33	28		27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	17575	17575	17575	17575
5°	17625	20959	17676	15642
10°	17552	26233	17570	14128
15°	17348	32176	17490	13153
20°	17181	38331	17216	12523
25°	16911	40700	16949	12383
30°	16735	34885	16735	12448
35°	16507	24262	16403	12578
40°	16229	18274	16028	12538
45°	15871	15174	15414	12379
50°	14917	13591	14386	12266
55°	13866	12709	13302	12114
60°	12807	11922	12124	11989
65°	11645	11202	11082	11606
70°	10458	10505	9759	11053
75°	9145	9407	8555	10135
80°	7550	8238	6961	8728
85°	5866	6447	4693	5866

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 35°

Vertical Angle: 45°

Luminance: 35427 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.6	3.3
10°-20°	515.8	10.5
20°-30°	867.8	17.6
30°-40°	980.7	19.9
40°-50°	878.4	17.8
50°-60°	709.1	14.4
60°-70°	494.1	10.0
70°-80°	259.3	5.3
80°-90°	62.2	1.3
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°	1544.2	31.3
0°-40°	2524.9	51.2
0°-60°	4112.4	83.4
0°-90°	4928.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4928.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1633	1633	1633	1633	1633	
5°	1631	1940	1636	1448	1631	155
15°	1557	2887	1570	1180	1557	440
25°	1424	3427	1427	1043	1424	657
35°	1256	1846	1248	957	1256	786
45°	1043	997	1013	813	1043	797
55°	739	677	709	646	739	662
65°	457	440	435	456	457	455
75°	220	226	206	244	220	236
85°	48	52	38	48	48	58
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°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1637.5	1650.2	1656.5	1666.0	1675.5	1689.7	1694.5	1702.4	1699.2	1705.6	1708.7
5°	1631.2	1653.4	1672.3	1696.1	1718.2	1734.0	1749.9	1775.2	1794.2	1797.3	1811.6
7.5°	1620.1	1651.8	1685.0	1718.2	1760.9	1786.3	1814.7	1849.5	1878.0	1923.9	1941.3
10°	1605.9	1650.2	1697.7	1743.5	1802.1	1841.6	1876.4	1935.0	1993.5	2041.0	2085.3
12.5°	1583.7	1639.1	1700.8	1768.8	1844.8	1890.7	1938.1	2015.7	2104.3	2177.0	2224.5
15°	1556.8	1626.5	1705.6	1778.3	1862.2	1947.6	1998.3	2085.3	2211.9	2279.9	2401.7
17.5°	1534.7	1605.9	1685.0	1798.9	1912.8	1998.3	2034.6	2194.4	2281.5	2395.4	2533.0
20°	1499.9	1590.1	1691.3	1805.2	1952.4	2004.6	2078.9	2240.3	2347.9	2496.6	2665.9
22.5°	1463.5	1560.0	1681.8	1800.5	1965.0	2020.4	2121.7	2249.8	2420.7	2567.8	2754.5
25°	1423.9	1528.4	1651.8	1792.6	1954.0	2034.6	2129.6	2287.8	2472.9	2658.0	2830.5
27.5°	1384.4	1498.3	1626.5	1767.3	1923.9	2018.8	2113.8	2278.3	2515.6	2716.6	2936.5
30°	1346.4	1460.3	1588.5	1732.5	1897.0	1988.8	2078.9	2284.6	2548.8	2775.1	2996.6
32.5°	1305.3	1422.4	1556.8	1677.1	1843.2	1941.3	2042.6	2284.6	2569.4	2809.9	3012.4
35°	1256.2	1376.5	1492.0	1612.2	1776.8	1885.9	1999.8	2268.8	2588.4	2821.0	2946.0
37.5°	1208.8	1314.8	1414.4	1531.5	1704.0	1821.1	1952.4	2249.8	2578.9	2773.5	2808.3
40°	1155.0	1261.0	1341.7	1450.8	1632.8	1768.8	1901.7	2224.5	2537.8	2661.2	2559.9
42.5°	1102.8	1186.6	1256.2	1362.2	1560.0	1692.9	1836.9	2178.6	2457.1	2482.4	2254.6
45°	1042.6	1102.8	1164.5	1284.7	1480.9	1617.0	1776.8	2112.2	2327.3	2254.6	1966.6
47.5°	965.1	1018.9	1086.9	1197.7	1397.0	1537.9	1689.7	2026.7	2139.1	1987.2	1672.3
50°	890.8	936.6	999.9	1107.5	1308.4	1446.1	1607.5	1892.3	1947.6	1708.7	1441.3
52.5°	816.4	851.2	912.9	1020.5	1221.4	1354.3	1501.5	1754.6	1723.0	1466.7	1229.3
55°	738.9	768.9	827.5	933.5	1120.2	1246.7	1387.5	1585.3	1503.0	1259.4	1069.5
57.5°	662.9	694.6	754.7	843.3	1018.9	1142.3	1254.6	1409.7	1286.3	1091.7	924.0
60°	594.9	621.8	667.7	754.7	914.5	1014.2	1117.0	1223.0	1120.2	931.9	803.7
62.5°	523.7	549.0	591.7	670.8	808.5	897.1	979.4	1066.4	952.5	814.8	700.9
65°	457.2	477.8	517.4	590.1	702.5	775.3	841.7	901.8	810.1	683.5	598.1
67.5°	397.1	414.5	447.7	512.6	607.5	659.8	713.6	764.2	686.7	585.4	512.6
70°	332.3	346.5	376.6	424.0	500.0	553.8	593.3	631.3	561.7	481.0	431.9
72.5°	275.3	289.5	308.5	357.6	409.8	443.0	485.7	506.3	466.7	400.3	351.2
75°	219.9	231.0	248.4	280.0	329.1	351.2	378.1	394.0	357.6	313.3	283.2
77.5°	172.5	177.2	189.9	212.0	245.2	270.5	291.1	300.6	275.3	246.8	221.5
80°	121.8	128.2	137.6	156.6	181.9	189.9	202.5	213.6	197.8	172.5	156.6
82.5°	80.7	88.6	93.3	101.3	117.1	126.6	129.7	139.2	125.0	115.5	109.2
85°	47.5	50.6	52.2	57.0	64.9	69.6	74.4	75.9	72.8	71.2	64.9
87.5°	23.7	23.7	23.7	26.9	28.5	31.6	33.2	33.2	33.2	31.6	30.1
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°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1719.8	1723.0	1734.0	1742.0	1757.8	1756.2	1756.2	1754.6	1749.9	1757.8	1762.5
5°	1840.0	1866.9	1870.1	1904.9	1906.5	1920.7	1930.2	1922.3	1941.3	1939.7	1925.5
7.5°	1988.8	2025.2	2042.6	2075.8	2113.8	2104.3	2140.7	2147.0	2143.8	2159.6	2170.7
10°	2151.7	2215.0	2259.3	2321.0	2336.8	2346.3	2370.1	2390.6	2431.8	2400.1	2420.7
12.5°	2338.4	2384.3	2442.8	2540.9	2590.0	2621.6	2632.7	2646.9	2675.4	2658.0	2659.6
15°	2495.1	2556.8	2656.4	2778.3	2792.5	2832.1	2822.6	2908.0	2949.1	2887.4	2922.2
17.5°	2658.0	2740.3	2859.0	2965.0	3025.1	3052.0	3077.3	3159.6	3156.4	3146.9	3154.8
20°	2762.4	2896.9	3044.1	3184.9	3202.3	3222.8	3290.9	3325.7	3319.4	3346.3	3363.7
22.5°	2909.6	3052.0	3208.6	3302.0	3341.5	3365.2	3419.0	3441.2	3450.7	3457.0	3445.9
25°	3033.0	3184.9	3300.4	3382.6	3406.4	3419.0	3436.4	3442.8	3438.0	3426.9	3436.4
27.5°	3116.8	3238.7	3317.8	3355.7	3343.1	3322.5	3289.3	3267.1	3218.1	3194.4	3222.8
30°	3151.7	3205.4	3229.2	3165.9	3102.6	3052.0	2988.7	2871.6	2779.8	2806.7	2770.4
32.5°	3096.3	3061.5	2947.6	2784.6	2735.5	2653.3	2474.5	2336.8	2341.6	2268.8	2298.9
35°	2933.3	2775.1	2559.9	2313.1	2248.2	2203.9	2007.8	1977.7	1914.4	1846.4	1865.4
37.5°	2645.4	2414.4	2153.3	1971.4	1874.9	1778.3	1667.6	1601.1	1563.2	1534.7	1556.8
40°	2294.1	2012.5	1797.3	1634.4	1552.1	1490.4	1414.4	1348.0	1305.3	1300.5	1308.4
42.5°	1949.2	1711.9	1514.1	1359.1	1332.2	1259.4	1210.3	1158.1	1145.5	1124.9	1136.0
45°	1650.2	1457.2	1294.2	1167.6	1136.0	1117.0	1056.9	1023.7	1009.4	996.8	1015.7
47.5°	1433.4	1230.9	1112.3	1036.3	1004.7	973.0	939.8	917.6	906.6	908.2	906.6
50°	1224.6	1075.9	971.4	912.9	893.9	871.8	844.9	830.6	825.9	811.6	822.7
52.5°	1053.7	946.1	873.3	818.0	803.7	787.9	765.8	757.9	746.8	743.6	743.6
55°	916.1	832.2	773.7	737.3	719.9	707.2	694.6	685.1	677.2	677.2	677.2
57.5°	808.5	735.7	693.0	661.3	655.0	642.4	628.1	628.1	617.0	615.5	620.2
60°	716.7	651.8	618.6	591.7	582.2	579.1	564.8	564.8	561.7	553.8	560.1
62.5°	623.4	575.9	547.4	526.9	517.4	517.4	506.3	498.4	498.4	500.0	496.8
65°	537.9	503.1	477.8	462.0	457.2	450.9	449.3	443.0	438.3	439.8	438.3
67.5°	462.0	435.1	417.7	405.0	397.1	394.0	389.2	389.2	386.0	387.6	379.7
70°	394.0	367.1	352.8	340.2	337.0	337.0	330.7	332.3	329.1	333.8	330.7
72.5°	324.3	303.8	292.7	288.0	284.8	283.2	280.0	276.9	275.3	278.5	276.9
75°	262.6	245.2	237.3	234.2	231.0	231.0	229.4	227.8	226.2	226.2	226.2
77.5°	204.1	193.0	183.5	186.7	181.9	183.5	178.8	178.8	180.4	178.8	178.8
80°	150.3	142.4	142.4	139.2	132.9	136.1	136.1	131.3	129.7	132.9	128.2
82.5°	99.7	98.1	94.9	93.3	90.2	91.8	90.2	88.6	87.0	90.2	87.0
85°	58.5	58.5	57.0	53.8	57.0	55.4	53.8	53.8	52.2	52.2	52.2
87.5°	30.1	26.9	26.9	25.3	26.9	23.7	25.3	23.7	22.2	23.7	22.2
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1749.9	1754.6	1742.0	1738.8	1738.8	1745.1	1740.4	1697.7	1705.6	1696.1	1692.9
5°	1942.9	1933.4	1920.7	1914.4	1906.5	1884.3	1882.8	1833.7	1824.2	1792.6	1778.3
7.5°	2154.9	2147.0	2109.0	2104.3	2101.1	2080.5	2028.3	1976.1	1938.1	1901.7	1866.9
10°	2397.0	2373.2	2355.8	2321.0	2303.6	2275.1	2207.1	2158.1	2093.2	2037.8	1965.0
12.5°	2688.1	2661.2	2602.6	2577.3	2555.2	2476.1	2408.0	2352.7	2226.1	2188.1	2097.9
15°	2901.7	2844.7	2838.4	2783.0	2779.8	2692.8	2563.1	2503.0	2404.9	2265.6	2172.3
17.5°	3132.7	3082.0	3042.5	2976.0	2966.5	2884.3	2789.3	2642.2	2534.6	2401.7	2283.0
20°	3302.0	3275.1	3207.0	3180.1	3124.8	3055.1	2957.0	2775.1	2643.8	2510.9	2365.3
22.5°	3436.4	3409.5	3355.7	3319.4	3287.7	3197.5	3080.5	2925.4	2745.0	2571.0	2420.7
25°	3434.9	3426.9	3404.8	3387.4	3363.7	3297.2	3199.1	3050.4	2849.5	2658.0	2449.2
27.5°	3240.3	3262.4	3300.4	3319.4	3314.6	3305.1	3249.7	3124.8	2944.4	2716.6	2482.4
30°	2835.2	2915.9	2987.1	3082.0	3110.5	3180.1	3211.8	3140.6	2996.6	2784.6	2525.1
32.5°	2351.1	2468.2	2623.2	2675.4	2765.6	2900.1	3050.4	3077.3	2987.1	2824.1	2552.0
35°	1928.6	2025.2	2145.4	2227.7	2308.4	2526.7	2716.6	2881.1	2911.2	2803.6	2545.7
37.5°	1596.4	1664.4	1770.4	1840.0	1914.4	2101.1	2366.9	2580.5	2730.8	2734.0	2528.3
40°	1355.9	1386.0	1477.7	1528.4	1599.6	1760.9	1998.3	2276.7	2496.6	2597.9	2482.4
42.5°	1148.6	1188.2	1264.1	1302.1	1348.0	1488.8	1645.4	1909.7	2181.8	2398.5	2397.0
45°	1025.2	1053.7	1088.5	1120.2	1172.4	1256.2	1435.0	1632.8	1893.8	2139.1	2235.6
47.5°	916.1	943.0	977.8	987.3	1022.1	1101.2	1210.3	1382.8	1626.5	1870.1	2052.1
50°	824.3	846.5	870.2	887.6	903.4	968.3	1050.6	1196.1	1390.7	1626.5	1852.7
52.5°	753.1	768.9	789.5	799.0	813.2	860.7	924.0	1031.6	1191.4	1406.5	1626.5
55°	686.7	697.7	710.4	726.2	732.5	767.3	816.4	908.2	1026.8	1219.8	1428.7
57.5°	625.0	629.7	637.6	647.1	655.0	685.1	727.8	789.5	893.9	1042.6	1240.4
60°	555.3	568.0	572.7	582.2	587.0	610.7	643.9	696.1	776.8	905.0	1053.7
62.5°	496.8	504.7	512.6	517.4	528.4	536.4	563.2	610.7	677.2	772.1	906.6
65°	444.6	447.7	452.5	457.2	460.4	469.9	495.2	526.9	577.5	661.3	765.8
67.5°	384.5	387.6	394.0	395.5	398.7	411.4	425.6	452.5	495.2	558.5	643.9
70°	325.9	330.7	333.8	337.0	341.7	346.5	362.3	384.5	417.7	462.0	528.4
72.5°	275.3	280.0	280.0	283.2	281.6	288.0	303.8	319.6	341.7	378.1	436.7
75°	224.7	224.7	227.8	229.4	231.0	237.3	243.7	256.3	273.7	302.2	338.6
77.5°	177.2	175.6	178.8	178.8	178.8	183.5	189.9	196.2	207.3	227.8	256.3
80°	129.7	129.7	132.9	134.5	131.3	132.9	136.1	142.4	150.3	164.5	180.4
82.5°	85.4	91.8	90.2	91.8	90.2	93.3	94.9	96.5	99.7	106.0	117.1
85°	52.2	52.2	52.2	53.8	52.2	53.8	53.8	53.8	55.4	58.5	63.3
87.5°	22.2	22.2	22.2	23.7	22.2	22.2	23.7	22.2	23.7	23.7	25.3
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: P1037264

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1677.1	1672.3	1672.3	1669.2	1659.7	1642.3	1640.7	1643.9	1634.4	1624.9	1610.6
5°	1759.4	1729.3	1719.8	1710.3	1691.3	1659.7	1647.0	1635.9	1618.5	1598.0	1575.8
7.5°	1829.0	1786.3	1773.6	1756.2	1718.2	1673.9	1645.4	1621.7	1598.0	1569.5	1542.6
10°	1916.0	1854.3	1824.2	1798.9	1746.7	1685.0	1642.3	1607.5	1569.5	1534.7	1499.9
12.5°	2014.1	1914.4	1904.9	1843.2	1783.1	1691.3	1639.1	1588.5	1537.9	1495.1	1458.7
15°	2096.4	1987.2	1947.6	1906.5	1791.0	1677.1	1626.5	1569.5	1511.0	1465.1	1411.3
17.5°	2148.6	2058.4	1974.5	1919.2	1798.9	1697.7	1599.6	1534.7	1473.0	1409.7	1365.4
20°	2211.9	2080.5	2007.8	1933.4	1814.7	1681.8	1583.7	1503.0	1427.1	1370.1	1316.4
22.5°	2275.1	2097.9	2037.8	1957.1	1817.9	1666.0	1555.3	1474.6	1387.5	1330.6	1272.1
25°	2268.8	2123.3	2023.6	1955.5	1786.3	1651.8	1522.0	1427.1	1346.4	1273.6	1215.1
27.5°	2273.6	2094.8	1993.5	1914.4	1764.1	1631.2	1487.2	1387.5	1303.7	1227.8	1166.0
30°	2275.1	2052.1	1963.5	1868.5	1723.0	1582.2	1447.7	1346.4	1257.8	1175.5	1120.2
32.5°	2270.4	2017.2	1906.5	1821.1	1658.1	1534.7	1401.8	1294.2	1204.0	1128.1	1075.9
35°	2259.3	1976.1	1848.0	1740.4	1591.6	1466.7	1359.1	1248.3	1151.8	1082.2	1022.1
37.5°	2229.3	1931.8	1786.3	1680.2	1514.1	1387.5	1292.6	1200.9	1107.5	1025.2	974.6
40°	2207.1	1871.7	1724.5	1609.1	1430.3	1306.9	1227.8	1140.7	1049.0	974.6	925.6
42.5°	2156.5	1814.7	1661.3	1523.6	1348.0	1221.4	1147.1	1077.4	998.3	925.6	881.3
45°	2074.2	1753.0	1583.7	1444.5	1257.8	1137.6	1069.5	1012.6	943.0	873.3	829.0
47.5°	1958.7	1664.4	1501.5	1362.2	1169.2	1047.4	979.4	936.6	881.3	822.7	784.7
50°	1833.7	1567.9	1417.6	1280.0	1083.8	965.1	898.7	859.1	822.7	768.9	732.5
52.5°	1670.8	1465.1	1321.1	1189.8	992.0	878.1	819.6	791.1	753.1	715.1	683.5
55°	1512.5	1332.2	1213.5	1088.5	901.8	795.8	738.9	708.8	686.7	655.0	629.7
57.5°	1329.0	1208.8	1099.6	985.7	818.0	721.5	667.7	631.3	617.0	602.8	579.1
60°	1159.7	1068.0	979.4	884.4	731.0	643.9	591.7	563.2	549.0	539.5	523.7
62.5°	1004.7	933.5	857.5	781.6	642.4	563.2	523.7	495.2	482.6	481.0	466.7
65°	855.9	805.3	743.6	669.3	560.1	490.5	452.5	435.1	420.9	420.9	409.8
67.5°	707.2	672.4	623.4	571.2	485.7	420.9	386.0	370.2	362.3	362.3	354.4
70°	588.6	564.8	520.5	474.6	400.3	351.2	324.3	310.1	305.4	306.9	300.6
72.5°	477.8	452.5	416.1	382.9	327.5	291.1	272.1	256.3	248.4	250.0	248.4
75°	370.2	357.6	325.9	300.6	256.3	231.0	213.6	205.7	199.4	200.9	197.8
77.5°	278.5	259.5	242.1	224.7	197.8	177.2	163.0	155.1	150.3	150.3	150.3
80°	189.9	186.7	172.5	163.0	140.8	125.0	113.9	112.3	107.6	107.6	107.6
82.5°	123.4	115.5	107.6	101.3	88.6	79.1	74.4	71.2	69.6	68.0	71.2
85°	68.0	63.3	60.1	53.8	49.0	44.3	39.6	38.0	36.4	38.0	36.4
87.5°	26.9	22.2	22.2	20.6	19.0	17.4	17.4	14.2	14.2	12.7	12.7
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: P1037264

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1607.5	1605.9	1609.1	1599.6	1583.7	1575.8	1553.7	1548.9	1547.3	1548.9	1550.5
5°	1563.2	1561.6	1556.8	1541.0	1522.0	1507.8	1480.9	1479.3	1469.8	1460.3	1465.1
7.5°	1520.4	1514.1	1504.6	1484.1	1458.7	1442.9	1420.8	1405.0	1392.3	1384.4	1378.1
10°	1477.7	1468.2	1458.7	1431.8	1400.2	1376.5	1349.6	1336.9	1322.7	1316.4	1310.0
12.5°	1422.4	1412.9	1395.5	1363.8	1344.8	1314.8	1287.9	1275.2	1267.3	1254.6	1246.7
15°	1378.1	1359.1	1349.6	1316.4	1276.8	1273.6	1224.6	1221.4	1205.6	1205.6	1192.9
17.5°	1327.4	1313.2	1295.8	1262.6	1234.1	1205.6	1180.3	1170.8	1156.6	1153.4	1147.1
20°	1278.4	1259.4	1253.1	1219.8	1189.8	1155.0	1128.1	1118.6	1112.3	1105.9	1110.7
22.5°	1227.8	1211.9	1196.1	1166.0	1143.9	1109.1	1093.3	1083.8	1074.3	1071.1	1072.7
25°	1178.7	1164.5	1148.6	1118.6	1094.9	1066.4	1052.1	1047.4	1042.6	1042.6	1041.1
27.5°	1131.2	1117.0	1102.8	1075.9	1052.1	1031.6	1020.5	1015.7	1011.0	1014.2	1017.3
30°	1082.2	1069.5	1056.9	1033.1	1014.2	995.2	988.8	985.7	984.1	992.0	992.0
32.5°	1037.9	1026.8	1017.3	995.2	976.2	960.4	955.6	957.2	958.8	963.5	966.7
35°	992.0	984.1	974.6	955.6	939.8	925.6	927.1	927.1	930.3	938.2	944.5
37.5°	950.9	939.8	931.9	916.1	903.4	890.8	895.5	900.2	903.4	912.9	916.1
40°	901.8	897.1	890.8	874.9	863.9	862.3	863.9	867.0	873.3	878.1	882.8
42.5°	862.3	855.9	848.0	835.4	825.9	827.5	829.0	832.2	835.4	843.3	848.0
45°	818.0	813.2	806.9	795.8	787.9	789.5	791.1	791.1	794.2	803.7	806.9
47.5°	768.9	770.5	762.6	751.5	746.8	746.8	746.8	749.9	757.9	761.0	762.6
50°	721.5	718.3	716.7	705.6	702.5	700.9	702.5	704.1	715.1	713.6	718.3
52.5°	670.8	670.8	669.3	662.9	658.2	658.2	655.0	662.9	666.1	669.3	674.0
55°	621.8	617.0	615.5	612.3	606.0	604.4	607.5	617.0	620.2	623.4	628.1
57.5°	568.0	568.0	564.8	560.1	560.1	560.1	560.1	566.4	571.2	574.3	583.8
60°	518.9	512.6	507.9	507.9	507.9	506.3	515.8	515.8	525.3	526.9	530.0
62.5°	460.4	457.2	454.1	455.7	454.1	457.2	460.4	466.7	468.3	473.1	477.8
65°	405.0	405.0	401.9	411.4	405.0	405.0	412.9	412.9	416.1	420.9	427.2
67.5°	351.2	352.8	349.7	349.7	352.8	354.4	356.0	362.3	363.9	370.2	378.1
70°	295.9	299.0	300.6	297.4	300.6	303.8	306.9	308.5	314.8	318.0	322.8
72.5°	246.8	250.0	245.2	246.8	248.4	251.6	253.1	256.3	259.5	269.0	272.1
75°	197.8	196.2	194.6	200.9	197.8	204.1	205.7	205.7	208.8	216.8	219.9
77.5°	151.9	151.9	153.5	150.3	155.1	153.5	155.1	159.8	164.5	164.5	177.2
80°	106.0	109.2	109.2	109.2	110.8	112.3	109.2	117.1	118.7	118.7	123.4
82.5°	68.0	69.6	68.0	71.2	71.2	74.4	72.8	74.4	77.5	80.7	82.3
85°	36.4	36.4	39.6	39.6	38.0	39.6	38.0	39.6	42.7	42.7	44.3
87.5°	12.7	12.7	12.7	12.7	14.2	12.7	14.2	14.2	12.7	12.7	17.4
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: P1037264

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1548.9	1550.5	1544.2	1539.4	1552.1	1544.2	1544.2	1545.8	1542.6	1547.3	1545.8
5°	1461.9	1463.5	1452.4	1455.6	1449.3	1447.7	1446.1	1455.6	1454.0	1452.4	1455.6
7.5°	1376.5	1376.5	1371.7	1368.6	1368.6	1363.8	1370.1	1368.6	1371.7	1371.7	1376.5
10°	1305.3	1308.4	1300.5	1292.6	1291.0	1292.6	1292.6	1294.2	1295.8	1306.9	1305.3
12.5°	1246.7	1242.0	1240.4	1235.7	1227.8	1224.6	1221.4	1238.8	1234.1	1234.1	1234.1
15°	1181.9	1192.9	1191.4	1177.1	1174.0	1180.3	1177.1	1177.1	1192.9	1191.4	1189.8
17.5°	1147.1	1143.9	1140.7	1132.8	1134.4	1132.8	1134.4	1134.4	1143.9	1143.9	1143.9
20°	1107.5	1101.2	1101.2	1098.0	1098.0	1093.3	1099.6	1101.2	1107.5	1107.5	1109.1
22.5°	1072.7	1068.0	1068.0	1066.4	1069.5	1063.2	1069.5	1071.1	1071.1	1075.9	1075.9
25°	1042.6	1039.5	1039.5	1042.6	1042.6	1042.6	1042.6	1049.0	1044.2	1045.8	1044.2
27.5°	1015.7	1017.3	1018.9	1020.5	1018.9	1020.5	1022.1	1025.2	1026.8	1025.2	1022.1
30°	990.4	995.2	996.8	996.8	999.9	1001.5	1003.1	1003.1	1004.7	999.9	1003.1
32.5°	971.4	971.4	974.6	976.2	979.4	980.9	980.9	984.1	982.5	977.8	979.4
35°	944.5	944.5	950.9	954.0	958.8	957.2	958.8	958.8	960.4	957.2	952.5
37.5°	917.6	920.8	920.8	927.1	928.7	930.3	928.7	931.9	930.3	927.1	925.6
40°	886.0	884.4	886.0	890.8	892.3	892.3	892.3	895.5	895.5	895.5	893.9
42.5°	846.5	851.2	849.6	854.4	852.8	852.8	855.9	859.1	860.7	855.9	857.5
45°	808.5	808.5	811.6	811.6	813.2	813.2	819.6	816.4	819.6	816.4	818.0
47.5°	767.3	768.9	768.9	770.5	773.7	776.8	773.7	775.3	775.3	776.8	773.7
50°	721.5	721.5	724.6	729.4	735.7	732.5	731.0	737.3	732.5	732.5	729.4
52.5°	674.0	678.7	680.3	685.1	689.8	691.4	693.0	689.8	691.4	686.7	688.2
55°	628.1	629.7	636.0	640.8	645.5	645.5	643.9	645.5	647.1	640.8	640.8
57.5°	582.2	587.0	593.3	593.3	599.6	599.6	598.1	598.1	599.6	594.9	593.3
60°	533.2	537.9	545.8	545.8	555.3	556.9	553.8	550.6	550.6	545.8	547.4
62.5°	481.0	485.7	490.5	498.4	504.7	501.5	507.9	501.5	503.1	493.6	493.6
65°	435.1	436.7	444.6	452.5	452.5	455.7	452.5	454.1	449.3	449.3	443.0
67.5°	381.3	381.3	389.2	397.1	405.0	405.0	405.0	400.3	400.3	395.5	395.5
70°	333.8	332.3	340.2	344.9	349.7	351.2	348.1	346.5	343.3	338.6	337.0
72.5°	275.3	278.5	286.4	289.5	297.4	295.9	303.8	294.3	294.3	286.4	284.8
75°	223.1	226.2	234.2	238.9	243.7	243.7	248.4	243.7	237.3	234.2	232.6
77.5°	177.2	175.6	181.9	189.9	191.4	189.9	193.0	191.4	185.1	185.1	181.9
80°	126.6	131.3	137.6	136.1	142.4	140.8	140.8	137.6	137.6	132.9	136.1
82.5°	83.9	88.6	90.2	88.6	90.2	93.3	94.9	93.3	93.3	90.2	91.8
85°	44.3	44.3	47.5	49.0	47.5	47.5	49.0	53.8	50.6	47.5	50.6
87.5°	14.2	12.7	12.7	14.2	12.7	12.7	14.2	14.2	15.8	15.8	15.8
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: P1037264

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8	1632.8
2.5°	1550.5	1553.7	1555.3	1548.9	1544.2	1552.1	1563.2	1571.1	1577.4	1585.3	1590.1
5°	1458.7	1469.8	1469.8	1473.0	1477.7	1485.6	1506.2	1520.4	1533.1	1542.6	1550.5
7.5°	1381.2	1389.1	1393.9	1401.8	1409.7	1420.8	1444.5	1465.1	1484.1	1495.1	1507.8
10°	1311.6	1317.9	1325.8	1330.6	1344.8	1360.7	1390.7	1408.1	1430.3	1447.7	1463.5
12.5°	1245.2	1267.3	1272.1	1270.5	1283.1	1300.5	1330.6	1357.5	1381.2	1398.6	1416.0
15°	1197.7	1205.6	1215.1	1213.5	1240.4	1245.2	1270.5	1302.1	1333.8	1344.8	1360.7
17.5°	1145.5	1158.1	1167.6	1172.4	1180.3	1197.7	1221.4	1245.2	1286.3	1287.9	1329.0
20°	1104.3	1117.0	1123.3	1129.7	1134.4	1155.0	1175.5	1202.4	1235.7	1253.1	1275.2
22.5°	1077.4	1083.8	1088.5	1093.3	1099.6	1110.7	1136.0	1166.0	1188.2	1207.2	1221.4
25°	1045.8	1052.1	1058.5	1061.6	1066.4	1072.7	1091.7	1115.4	1147.1	1159.7	1174.0
27.5°	1023.7	1023.7	1026.8	1026.8	1033.1	1039.5	1053.7	1075.9	1101.2	1117.0	1136.0
30°	999.9	998.3	999.9	998.3	996.8	1006.2	1018.9	1037.9	1055.3	1074.3	1086.9
32.5°	976.2	974.6	974.6	976.2	969.9	974.6	980.9	998.3	1017.3	1026.8	1041.1
35°	950.9	947.7	947.7	947.7	944.5	941.4	947.7	963.5	976.2	988.8	999.9
37.5°	925.6	920.8	920.8	917.6	914.5	909.7	909.7	922.4	939.8	944.5	958.8
40°	890.8	890.8	887.6	886.0	882.8	879.7	874.9	886.0	901.8	906.6	917.6
42.5°	855.9	851.2	849.6	849.6	849.6	844.9	841.7	849.6	859.1	867.0	873.3
45°	816.4	813.2	814.8	813.2	810.1	808.5	806.9	810.1	821.1	824.3	832.2
47.5°	773.7	772.1	772.1	770.5	768.9	770.5	764.2	772.1	775.3	778.4	784.7
50°	729.4	727.8	726.2	724.6	724.6	726.2	724.6	724.6	731.0	734.1	740.4
52.5°	685.1	680.3	680.3	678.7	678.7	675.6	678.7	680.3	683.5	686.7	689.8
55°	637.6	637.6	632.9	632.9	629.7	629.7	631.3	629.7	636.0	639.2	639.2
57.5°	591.7	585.4	587.0	583.8	580.7	579.1	579.1	582.2	585.4	585.4	588.6
60°	542.7	536.4	534.8	528.4	531.6	526.9	528.4	528.4	534.8	531.6	534.8
62.5°	493.6	485.7	481.0	477.8	477.8	479.4	476.2	474.6	477.8	481.0	487.3
65°	441.4	436.7	431.9	427.2	427.2	425.6	428.8	424.0	422.4	424.0	427.2
67.5°	387.6	382.9	378.1	373.4	375.0	370.2	367.1	371.8	368.6	370.2	373.4
70°	335.4	332.3	322.8	319.6	318.0	319.6	318.0	314.8	319.6	318.0	319.6
72.5°	283.2	280.0	275.3	267.4	267.4	265.8	264.2	264.2	262.6	262.6	262.6
75°	232.6	226.2	221.5	219.9	216.8	215.2	213.6	210.4	212.0	213.6	210.4
77.5°	180.4	172.5	170.9	170.9	166.1	166.1	167.7	166.1	164.5	164.5	164.5
80°	132.9	126.6	126.6	123.4	120.2	120.2	120.2	120.2	118.7	117.1	118.7
82.5°	85.4	83.9	82.3	82.3	85.4	79.1	82.3	80.7	79.1	79.1	77.5
85°	47.5	49.0	47.5	49.0	45.9	47.5	47.5	47.5	45.9	47.5	44.3
87.5°	17.4	17.4	17.4	19.0	19.0	19.0	19.0	19.0	20.6	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1037264

CATALOG NUMBER: S123DS-B1165DB2750-4F0-XX-W2A-A_3500K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1632.8	1632.8	1632.8	1632.8
2.5°	1598.0	1602.7	1618.5	1637.5
5°	1566.3	1579.0	1601.1	1631.2
7.5°	1531.5	1550.5	1582.2	1620.1
10°	1492.0	1518.9	1558.4	1605.9
12.5°	1449.3	1484.1	1534.7	1583.7
15°	1422.4	1457.2	1503.0	1556.8
17.5°	1370.1	1411.3	1458.7	1534.7
20°	1316.4	1362.2	1423.9	1499.9
22.5°	1275.2	1324.3	1382.8	1463.5
25°	1226.2	1276.8	1340.1	1423.9
27.5°	1174.0	1224.6	1295.8	1384.4
30°	1134.4	1183.5	1251.5	1346.4
32.5°	1086.9	1134.4	1205.6	1305.3
35°	1033.1	1086.9	1155.0	1256.2
37.5°	992.0	1041.1	1112.3	1208.8
40°	947.7	990.4	1060.0	1155.0
42.5°	900.2	947.7	1007.8	1102.8
45°	855.9	890.8	952.5	1042.6
47.5°	808.5	848.0	895.5	965.1
50°	757.9	791.1	843.3	890.8
52.5°	708.8	735.7	780.0	816.4
55°	656.6	683.5	716.7	738.9
57.5°	607.5	626.5	648.7	662.9
60°	547.4	566.4	580.7	594.9
62.5°	493.6	507.9	515.8	523.7
65°	438.3	446.2	450.9	457.2
67.5°	378.1	386.0	387.6	397.1
70°	322.8	324.3	327.5	332.3
72.5°	270.5	273.7	272.1	275.3
75°	216.8	219.9	216.8	219.9
77.5°	164.5	167.7	167.7	172.5
80°	118.7	120.2	121.8	121.8
82.5°	77.5	82.3	79.1	80.7
85°	44.3	45.9	45.9	47.5
87.5°	20.6	22.2	20.6	23.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)