

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242932

Luminaire Tested: **S125RDR-S1270D935-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242932  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S1270D935-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4026.8 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct

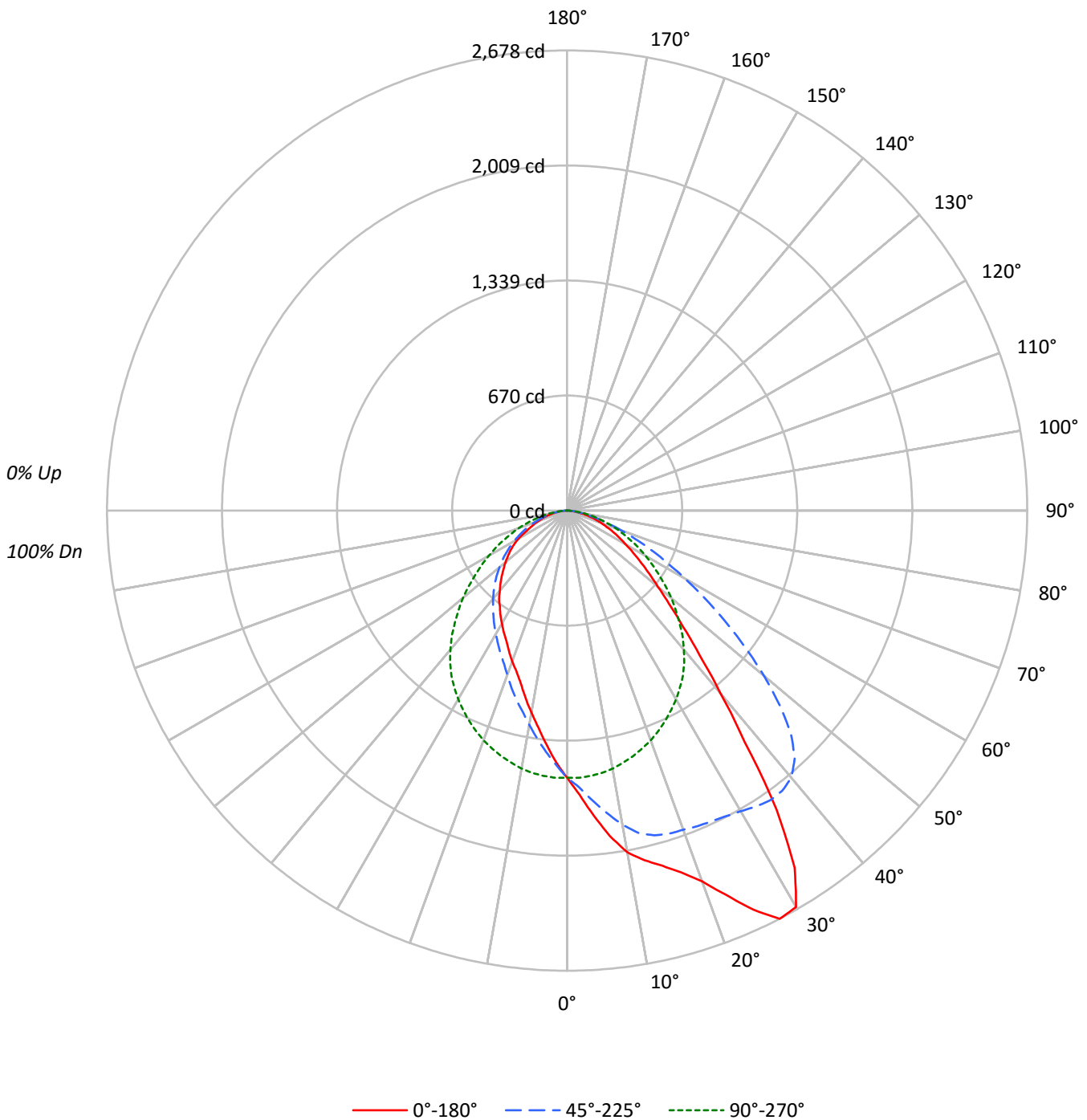
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	11046	11046	11046
5°	12709	11061	9768
10°	14578	11004	8619
15°	15745	10891	7661
20°	17362	10761	7074
25°	20093	10587	6565
30°	21866	10404	6231
35°	18444	10191	5923
40°	12881	9809	5659
45°	9555	9292	5400
50°	7618	8755	5178
55°	6467	8088	4980
60°	5586	7491	4661
65°	4978	6845	4013
70°	4374	6272	3659
75°	3784	5432	3433
80°	2873	4568	2873
85°	2389	3588	2707



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.0	3.7
10°-20°	436.9	10.9
20°-30°	692.8	17.2
30°-40°	837.2	20.8
40°-50°	745.5	18.5
50°-60°	571.6	14.2
60°-70°	371.2	9.2
70°-80°	180.1	4.5
80°-90°	42.4	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1278.8	31.8
0°-40°	2115.9	52.5
0°-60°	3433.1	85.3
0°-90°	4026.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4026.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1554	1554	1554	1554	1554	
5°	1781	1693	1550	1409	1369	177
15°	2140	1957	1480	1140	1041	612
25°	2562	1994	1350	918	837	1179
35°	2126	2060	1175	748	683	1288
45°	951	1844	924	593	537	754
55°	522	1119	653	435	402	473
65°	296	533	407	279	239	294
75°	138	187	198	138	125	147
85°	29	32	44	35	33	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2
2.5°	1655.0	1653.7	1656.2	1649.2	1649.9	1639.0	1639.0	1630.7	1619.9	1611.6	1607.8
5°	1781.3	1782.6	1780.0	1770.4	1764.1	1754.5	1743.6	1724.5	1708.6	1693.2	1681.1
7.5°	1910.2	1911.4	1903.1	1901.2	1884.6	1874.4	1850.2	1825.3	1803.6	1774.9	1754.5
10°	2019.9	2019.3	2010.3	2003.3	1989.3	1971.4	1947.8	1917.2	1888.5	1856.6	1825.9
12.5°	2083.7	2081.8	2080.5	2071.6	2058.8	2043.5	2024.4	1994.4	1957.4	1921.6	1884.6
15°	2139.8	2135.4	2127.1	2116.2	2097.7	2079.2	2056.9	2030.1	1996.3	1956.7	1923.6
17.5°	2207.5	2208.1	2195.3	2183.9	2159.6	2129.0	2095.8	2055.0	2011.6	1971.4	1938.2
20°	2295.5	2293.6	2280.8	2251.5	2222.8	2181.9	2142.4	2089.4	2033.3	1976.5	1932.5
22.5°	2421.8	2416.1	2402.7	2361.9	2313.4	2257.9	2192.2	2124.5	2053.7	1987.4	1926.1
25°	2562.2	2558.4	2532.2	2487.5	2425.0	2344.0	2264.9	2176.2	2078.6	1993.7	1923.6
27.5°	2678.3	2670.7	2647.0	2604.9	2543.7	2456.3	2347.2	2232.3	2116.2	2004.6	1908.2
30°	2664.3	2673.8	2671.3	2654.1	2610.7	2534.1	2435.2	2301.9	2157.1	2019.9	1899.3
32.5°	2463.9	2472.2	2500.9	2547.5	2561.6	2542.4	2474.8	2354.2	2203.0	2042.2	1892.3
35°	2125.8	2137.3	2180.7	2248.9	2338.3	2412.9	2428.2	2361.9	2227.2	2059.5	1885.3
37.5°	1695.8	1770.4	1799.8	1869.3	2009.7	2145.6	2263.6	2290.4	2217.7	2055.6	1877.0
40°	1388.3	1403.6	1468.7	1549.7	1663.3	1806.2	1994.4	2130.3	2134.7	2030.1	1850.2
42.5°	1138.2	1158.6	1198.2	1258.8	1351.9	1494.8	1690.7	1880.8	1983.5	1959.9	1815.1
45°	950.6	965.3	997.8	1047.6	1122.2	1240.3	1407.4	1614.8	1779.4	1843.8	1746.8
47.5°	803.9	811.5	841.5	881.7	939.1	1028.4	1164.3	1351.9	1547.8	1678.6	1653.0
50°	689.0	698.0	719.7	748.4	794.9	867.7	971.0	1121.0	1324.5	1493.5	1527.4
52.5°	599.7	606.7	618.2	645.0	681.4	733.1	811.5	943.6	1121.6	1304.1	1393.4
55°	521.9	527.0	537.8	553.1	583.8	624.0	696.1	789.8	937.9	1119.0	1233.9
57.5°	455.5	458.1	464.5	479.8	502.1	532.1	587.0	672.4	779.6	950.0	1076.3
60°	393.0	395.6	404.5	414.1	430.6	457.4	498.3	553.8	655.9	790.5	918.7
62.5°	343.2	344.5	347.1	356.6	370.7	389.8	419.8	462.5	538.5	652.7	772.0
65°	296.0	296.7	297.9	305.6	314.5	329.8	350.9	382.8	444.0	533.4	640.5
67.5°	248.8	250.1	254.6	257.1	268.0	275.6	289.0	314.5	361.7	425.5	512.3
70°	210.5	209.9	214.4	217.6	220.7	230.3	238.6	258.4	285.2	331.1	400.7
72.5°	174.8	172.9	174.2	174.8	179.3	185.0	193.3	203.5	222.7	250.7	299.9
75°	137.8	138.4	138.4	139.7	142.9	145.5	148.0	154.4	165.9	186.9	215.6
77.5°	103.4	102.1	105.3	105.3	107.8	111.0	112.9	115.5	119.9	129.5	146.7
80°	70.2	70.2	70.8	72.7	72.1	73.4	76.6	79.1	84.9	90.0	95.1
82.5°	49.8	49.1	49.8	49.8	49.8	51.0	51.7	51.7	53.0	54.9	58.1
85°	29.3	29.3	30.0	30.0	30.6	30.6	31.3	31.3	31.3	31.9	32.5
87.5°	14.0	13.4	12.8	12.8	13.4	14.7	14.0	13.4	13.4	13.4	14.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2
2.5°	1607.8	1603.3	1595.0	1587.3	1577.8	1569.5	1563.7	1556.7	1547.8	1536.9	1528.0
5°	1667.7	1653.7	1635.2	1619.2	1598.8	1582.9	1566.3	1550.3	1534.4	1514.0	1496.1
7.5°	1734.1	1706.6	1681.1	1647.9	1618.0	1591.8	1566.3	1540.1	1515.2	1487.2	1461.0
10°	1794.0	1759.0	1720.0	1675.4	1634.5	1595.6	1559.9	1524.8	1487.8	1455.3	1420.2
12.5°	1850.2	1802.3	1756.4	1697.1	1646.0	1596.3	1548.4	1502.5	1462.3	1417.6	1379.3
15°	1879.5	1834.9	1785.1	1716.2	1647.9	1590.5	1536.9	1480.2	1431.0	1383.8	1341.7
17.5°	1896.8	1849.6	1792.1	1725.1	1651.8	1580.3	1512.7	1452.1	1395.9	1341.7	1295.1
20°	1889.1	1843.8	1784.5	1721.3	1641.6	1566.3	1491.6	1422.7	1358.3	1300.2	1249.8
22.5°	1870.6	1823.4	1766.6	1699.0	1624.3	1543.3	1462.3	1387.6	1319.4	1258.8	1202.6
25°	1852.1	1788.3	1729.6	1664.5	1592.4	1513.3	1431.0	1350.0	1277.9	1216.7	1156.7
27.5°	1834.2	1757.0	1684.3	1621.8	1544.6	1473.1	1392.7	1309.2	1233.9	1172.0	1110.8
30°	1808.1	1718.8	1636.5	1563.1	1491.0	1424.0	1348.7	1267.7	1189.9	1125.4	1062.9
32.5°	1775.5	1679.2	1586.7	1499.3	1430.4	1364.0	1297.7	1221.1	1145.8	1078.9	1015.1
35°	1749.4	1628.2	1529.9	1440.0	1362.8	1298.3	1237.1	1174.6	1098.6	1029.7	967.8
37.5°	1713.0	1579.7	1468.7	1370.4	1290.0	1226.2	1177.1	1117.8	1047.0	980.0	922.5
40°	1680.5	1526.1	1401.7	1304.7	1219.2	1150.9	1105.6	1057.2	994.0	932.1	874.7
42.5°	1637.1	1477.0	1334.0	1232.0	1145.8	1080.8	1034.8	994.0	943.6	886.2	823.7
45°	1577.8	1410.6	1264.5	1156.0	1069.3	1004.8	962.1	924.5	884.3	830.7	777.1
47.5°	1506.9	1347.4	1193.7	1074.4	990.8	930.2	888.1	856.8	827.5	780.9	726.7
50°	1418.3	1265.8	1116.5	1001.7	911.1	854.3	815.4	791.8	765.6	724.1	680.7
52.5°	1313.6	1181.6	1036.1	918.1	833.9	781.5	744.5	720.9	700.5	668.6	627.8
55°	1202.6	1083.3	949.3	842.8	764.3	710.7	675.0	652.7	639.9	611.2	578.7
57.5°	1076.9	985.1	863.8	759.9	689.0	635.4	608.6	588.9	574.2	553.1	528.9
60°	944.2	884.3	778.4	680.7	616.9	566.5	542.9	527.0	513.6	496.4	478.5
62.5°	809.6	770.1	681.4	601.0	543.6	503.4	481.7	467.7	451.7	441.5	424.3
65°	692.2	653.3	589.5	523.8	469.6	435.8	419.8	407.0	397.5	384.7	372.6
67.5°	562.1	544.2	497.0	447.9	408.3	375.8	361.7	351.5	340.7	333.0	324.1
70°	444.0	436.4	405.1	375.1	338.8	318.4	305.6	301.8	287.7	280.1	274.3
72.5°	339.4	336.9	322.2	303.7	280.7	263.5	252.0	247.5	239.9	234.1	231.0
75°	246.9	248.2	245.0	231.6	222.0	210.5	200.3	197.8	191.4	186.3	183.1
77.5°	168.4	174.8	173.5	172.9	168.4	160.1	155.7	153.8	146.7	144.8	144.2
80°	107.2	114.2	120.6	119.9	118.7	116.8	113.6	111.6	108.5	106.5	105.3
82.5°	62.5	68.9	74.0	78.5	78.5	76.6	74.6	74.0	74.0	72.7	72.7
85°	33.8	35.1	37.0	41.5	44.7	45.3	44.7	44.0	42.1	42.7	43.4
87.5°	14.7	14.7	15.3	15.3	14.7	17.9	19.8	20.4	19.1	17.9	16.6
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2	1554.2
2.5°	1521.6	1512.7	1506.3	1493.5	1484.6	1480.8	1473.8	1471.9	1478.9	1473.8	1473.1
5°	1482.7	1464.2	1449.5	1434.9	1418.9	1408.7	1393.4	1390.8	1387.0	1381.3	1380.0
7.5°	1437.4	1414.4	1397.2	1373.0	1353.2	1337.2	1318.1	1310.4	1306.6	1299.6	1288.1
10°	1391.5	1362.8	1337.2	1313.0	1286.8	1265.8	1246.6	1232.0	1222.4	1213.5	1209.6
12.5°	1346.2	1316.8	1282.4	1251.7	1221.8	1197.5	1175.8	1167.5	1156.7	1145.8	1135.6
15°	1299.0	1260.0	1224.3	1190.5	1165.6	1140.1	1119.7	1105.6	1089.7	1085.2	1068.0
17.5°	1248.6	1212.2	1170.1	1133.7	1105.6	1078.9	1056.5	1039.9	1027.8	1010.6	1002.3
20°	1202.0	1156.7	1115.9	1083.3	1051.4	1018.2	995.3	981.9	970.4	957.0	950.6
22.5°	1152.2	1108.2	1066.1	1026.5	994.0	961.5	946.8	932.8	919.4	907.2	898.3
25°	1103.7	1059.1	1015.1	975.5	941.7	918.1	898.9	883.0	876.0	863.8	854.9
27.5°	1055.2	1008.0	963.4	921.9	895.7	872.1	856.8	844.1	830.7	819.8	811.5
30°	1008.7	960.2	910.4	879.2	851.1	828.8	811.5	799.4	789.8	780.3	774.5
32.5°	962.1	911.7	869.0	834.5	808.3	789.8	772.0	760.5	750.3	739.4	732.4
35°	911.7	860.7	824.9	791.8	765.6	747.7	735.6	719.0	710.7	703.1	696.1
37.5°	866.4	817.9	778.4	749.6	725.4	708.2	692.2	683.9	673.1	666.7	661.0
40°	815.4	772.0	736.9	706.3	689.7	669.9	655.2	643.7	636.1	627.2	620.8
42.5°	769.4	729.9	696.1	669.3	647.6	631.6	617.6	606.1	595.9	590.1	585.0
45°	726.7	686.5	653.3	627.8	608.6	592.7	578.0	572.3	559.5	551.9	549.3
47.5°	682.0	645.7	613.1	589.5	569.7	555.1	541.0	528.3	521.9	514.2	510.4
50°	636.7	602.3	572.3	549.3	530.2	513.6	500.8	493.2	483.6	476.6	471.5
52.5°	591.4	560.2	530.2	508.5	492.5	475.9	461.3	453.6	444.7	440.9	437.7
55°	548.7	514.9	489.3	467.7	450.4	435.1	421.7	414.1	408.3	403.9	402.6
57.5°	499.6	472.1	447.9	428.7	410.2	395.6	383.4	376.4	371.3	370.7	366.2
60°	451.7	427.5	405.8	384.7	369.4	356.0	345.8	337.5	332.4	331.8	330.5
62.5°	403.9	380.9	361.1	343.2	329.8	317.1	307.5	297.9	295.4	291.6	288.4
65°	356.6	335.6	319.0	304.3	289.7	278.8	269.2	263.5	256.5	252.6	245.6
67.5°	310.1	292.8	276.9	264.8	252.6	241.8	233.5	225.2	220.1	216.9	211.2
70°	264.1	251.4	235.4	222.0	213.1	204.8	198.4	188.8	185.7	183.1	180.6
72.5°	220.7	209.9	197.1	186.9	178.0	170.3	162.7	159.5	156.3	153.8	152.5
75°	180.6	169.7	158.2	150.6	144.2	137.8	134.0	130.8	129.5	128.9	126.3
77.5°	140.4	134.0	124.4	117.4	112.9	110.4	106.5	105.3	105.9	102.7	102.1
80°	101.4	98.3	90.6	88.0	84.9	82.3	80.4	77.2	74.0	72.7	70.8
82.5°	68.9	65.7	63.8	59.3	56.8	55.5	53.6	53.0	54.2	52.3	51.7
85°	40.2	37.0	35.7	35.1	33.8	35.1	34.5	33.8	33.2	32.5	33.2
87.5°	15.9	15.9	15.3	16.6	14.7	15.3	15.3	14.7	14.7	14.7	14.0
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: P242932

CATALOG NUMBER: S125RDR-S1270D935-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1554.2	1554.2	1554.2	1554.2
2.5°	1472.5	1465.5	1463.6	1466.1
5°	1373.6	1367.2	1370.4	1369.1
7.5°	1290.0	1281.7	1272.2	1274.7
10°	1201.3	1195.0	1191.1	1194.3
12.5°	1126.7	1123.5	1120.3	1117.8
15°	1060.3	1052.7	1049.5	1041.2
17.5°	996.5	994.0	985.7	980.0
20°	941.0	938.5	930.2	935.3
22.5°	895.1	888.7	887.5	884.3
25°	852.4	844.1	840.9	837.1
27.5°	809.0	804.5	800.0	798.8
30°	766.9	762.4	759.2	759.2
32.5°	729.2	726.0	722.8	722.2
35°	692.9	687.8	686.5	682.7
37.5°	654.6	650.1	650.1	650.8
40°	618.2	615.0	614.4	609.9
42.5°	579.3	578.0	575.5	574.2
45°	544.8	540.4	540.4	537.2
47.5°	508.5	504.7	505.3	501.5
50°	472.1	470.2	469.6	468.3
52.5°	435.8	435.1	438.3	435.1
55°	403.9	401.9	405.8	401.9
57.5°	366.2	364.9	368.8	366.2
60°	329.2	325.4	327.3	327.9
62.5°	285.2	283.3	284.5	280.7
65°	244.4	242.4	239.9	238.6
67.5°	212.5	206.7	206.7	208.0
70°	176.7	176.7	176.1	176.1
72.5°	151.8	151.2	149.9	149.3
75°	126.3	127.0	125.7	125.0
77.5°	98.9	95.7	97.0	95.7
80°	70.8	70.2	72.1	70.2
82.5°	52.3	51.7	52.3	51.0
85°	33.8	33.2	32.5	33.2
87.5°	14.7	14.0	14.0	14.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)