

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: P242927

Luminaire Tested: **S125RDR-S1270D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242927
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-S1270D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3813.0 lumens
Efficiency: N/A
Efficacy: 92.8 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

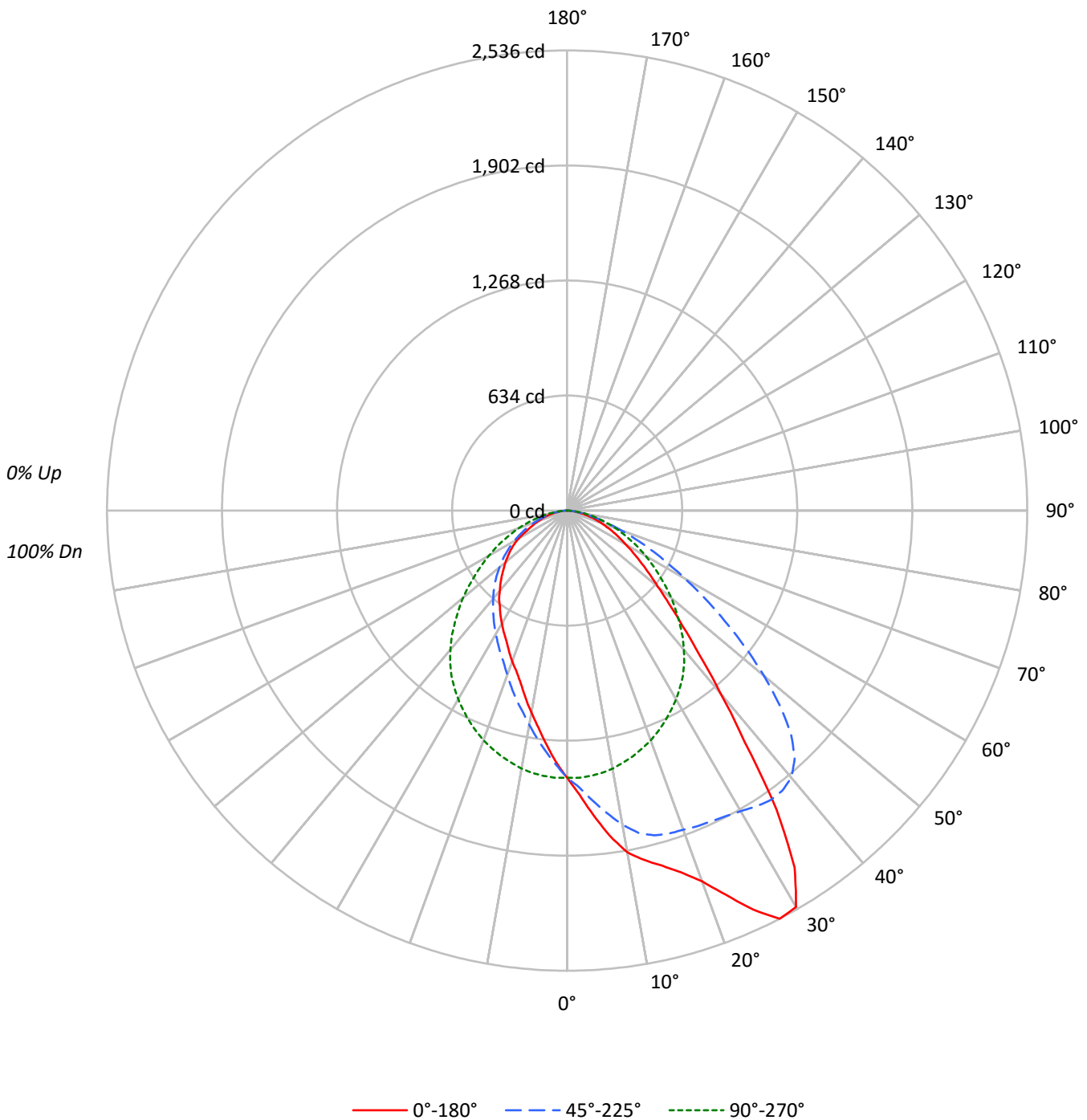
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10460	10460	10460
5°	12034	10473	9250
10°	13804	10421	8162
15°	14910	10313	7254
20°	16441	10190	6699
25°	19026	10025	6216
30°	20705	9852	5900
35°	17466	9650	5608
40°	12197	9287	5359
45°	9048	8799	5113
50°	7215	8289	4903
55°	6124	7658	4716
60°	5289	7093	4414
65°	4714	6481	3799
70°	4144	5939	3464
75°	3584	5143	3251
80°	2722	4326	2722
85°	2267	3401	2561



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	3.7
10°-20°	413.7	10.9
20°-30°	656.0	17.2
30°-40°	792.7	20.8
40°-50°	705.9	18.5
50°-60°	541.3	14.2
60°-70°	351.5	9.2
70°-80°	170.6	4.5
80°-90°	40.1	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°	1210.9	31.8
0°-40°	2003.6	52.5
0°-60°	3250.8	85.3
0°-90°	3813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3813.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1472	1472	1472	1472	1472	
5°	1687	1603	1468	1334	1296	168
15°	2026	1853	1402	1080	986	580
25°	2426	1888	1278	869	793	1117
35°	2013	1950	1112	708	646	1220
45°	900	1746	875	561	509	714
55°	494	1060	618	412	381	447
65°	280	505	385	264	226	278
75°	130	177	187	130	118	139
85°	28	30	42	33	31	33
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°	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7
2.5°	1567.1	1565.9	1568.3	1561.7	1562.3	1552.0	1552.0	1544.2	1533.9	1526.0	1522.4
5°	1686.7	1687.9	1685.5	1676.5	1670.4	1661.4	1651.1	1633.0	1617.9	1603.4	1591.9
7.5°	1808.8	1810.0	1802.1	1800.3	1784.6	1774.9	1752.0	1728.4	1707.9	1680.7	1661.4
10°	1912.7	1912.1	1903.6	1897.0	1883.7	1866.8	1844.4	1815.4	1788.2	1758.0	1729.0
12.5°	1973.1	1971.3	1970.1	1961.6	1949.5	1935.0	1916.9	1888.5	1853.5	1819.6	1784.6
15°	2026.3	2022.0	2014.2	2003.9	1986.4	1968.9	1947.7	1922.3	1890.3	1852.9	1821.5
17.5°	2090.3	2090.9	2078.8	2067.9	2045.0	2016.0	1984.6	1945.9	1904.8	1866.8	1835.4
20°	2173.7	2171.9	2159.8	2132.0	2104.8	2066.1	2028.7	1978.5	1925.4	1871.6	1829.9
22.5°	2293.3	2287.8	2275.2	2236.5	2190.6	2138.0	2075.8	2011.8	1944.7	1881.9	1823.9
25°	2426.2	2422.6	2397.8	2355.5	2296.3	2219.6	2144.7	2060.7	1968.3	1887.9	1821.5
27.5°	2536.1	2528.9	2506.5	2466.7	2408.7	2325.9	2222.6	2113.9	2003.9	1898.2	1807.0
30°	2522.9	2531.9	2529.5	2513.2	2472.1	2399.6	2306.0	2179.7	2042.6	1912.7	1798.5
32.5°	2333.2	2341.0	2368.2	2412.3	2425.6	2407.5	2343.4	2229.2	2086.1	1933.8	1791.9
35°	2013.0	2023.8	2064.9	2129.6	2214.1	2284.8	2299.3	2236.5	2109.0	1950.1	1785.2
37.5°	1605.8	1676.5	1704.3	1770.1	1903.0	2031.7	2143.5	2168.8	2100.0	1946.5	1777.4
40°	1314.6	1329.1	1390.7	1467.4	1575.0	1710.3	1888.5	2017.2	2021.4	1922.3	1752.0
42.5°	1077.8	1097.1	1134.6	1192.0	1280.2	1415.5	1601.0	1781.0	1878.2	1855.9	1718.8
45°	900.2	914.1	944.9	992.0	1062.7	1174.4	1332.7	1529.1	1684.9	1745.9	1654.1
47.5°	761.2	768.5	796.9	834.9	889.3	973.9	1102.5	1280.2	1465.6	1589.5	1565.3
50°	652.5	660.9	681.5	708.6	752.7	821.6	919.5	1061.5	1254.2	1414.3	1446.3
52.5°	567.9	574.5	585.4	610.8	645.2	694.1	768.5	893.5	1062.1	1234.8	1319.4
55°	494.2	499.0	509.3	523.8	552.8	590.8	659.1	747.9	888.1	1059.6	1168.4
57.5°	431.4	433.8	439.8	454.3	475.5	503.8	555.8	636.8	738.2	899.6	1019.2
60°	372.1	374.6	383.0	392.1	407.8	433.2	471.8	524.4	621.0	748.5	870.0
62.5°	325.0	326.2	328.6	337.7	351.0	369.1	397.5	438.0	509.9	618.0	731.0
65°	280.3	280.9	282.1	289.4	297.8	312.3	332.3	362.5	420.5	505.1	606.5
67.5°	235.6	236.8	241.0	243.5	253.7	261.0	273.7	297.8	342.5	403.0	485.1
70°	199.4	198.8	203.0	206.0	209.0	218.1	225.9	244.7	270.0	313.5	379.4
72.5°	165.5	163.7	164.9	165.5	169.8	175.2	183.1	192.7	210.8	237.4	283.9
75°	130.5	131.1	131.1	132.3	135.3	137.7	140.2	146.2	157.1	177.0	204.2
77.5°	97.9	96.7	99.7	99.7	102.1	105.1	106.9	109.3	113.6	122.6	139.0
80°	66.5	66.5	67.1	68.9	68.3	69.5	72.5	74.9	80.3	85.2	90.0
82.5°	47.1	46.5	47.1	47.1	47.1	48.3	48.9	48.9	50.1	52.0	55.0
85°	27.8	27.8	28.4	28.4	29.0	29.0	29.6	29.6	29.6	30.2	30.8
87.5°	13.3	12.7	12.1	12.1	12.7	13.9	13.3	12.7	12.7	12.7	13.3
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°	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7
2.5°	1522.4	1518.2	1510.3	1503.1	1494.0	1486.2	1480.7	1474.1	1465.6	1455.4	1446.9
5°	1579.2	1565.9	1548.4	1533.3	1514.0	1498.9	1483.1	1468.0	1452.9	1433.6	1416.7
7.5°	1642.0	1616.1	1591.9	1560.5	1532.1	1507.3	1483.1	1458.4	1434.8	1408.2	1383.5
10°	1698.8	1665.6	1628.7	1586.5	1547.8	1510.9	1477.1	1443.9	1408.8	1378.0	1344.8
12.5°	1752.0	1706.7	1663.2	1607.0	1558.7	1511.5	1466.2	1422.7	1384.7	1342.4	1306.1
15°	1779.8	1737.5	1690.4	1625.1	1560.5	1506.1	1455.4	1401.6	1355.1	1310.4	1270.5
17.5°	1796.1	1751.4	1697.0	1633.6	1564.1	1496.4	1432.4	1375.0	1321.8	1270.5	1226.4
20°	1788.8	1745.9	1689.8	1629.9	1554.4	1483.1	1412.5	1347.2	1286.2	1231.2	1183.5
22.5°	1771.3	1726.6	1672.8	1608.8	1538.1	1461.4	1384.7	1314.0	1249.3	1192.0	1138.8
25°	1753.8	1693.4	1637.8	1576.2	1507.9	1433.0	1355.1	1278.3	1210.1	1152.1	1095.3
27.5°	1736.9	1663.8	1594.9	1535.7	1462.6	1394.9	1318.8	1239.7	1168.4	1109.8	1051.8
30°	1712.1	1627.5	1549.6	1480.1	1411.9	1348.4	1277.1	1200.4	1126.7	1065.7	1006.5
32.5°	1681.3	1590.1	1502.5	1419.7	1354.5	1291.6	1228.8	1156.3	1085.0	1021.6	961.2
35°	1656.5	1541.7	1448.7	1363.5	1290.4	1229.4	1171.4	1112.2	1040.3	975.1	916.5
37.5°	1622.1	1495.8	1390.7	1297.7	1221.6	1161.1	1114.6	1058.4	991.4	927.9	873.6
40°	1591.3	1445.1	1327.3	1235.5	1154.5	1089.9	1047.0	1001.0	941.2	882.6	828.3
42.5°	1550.2	1398.6	1263.2	1166.6	1085.0	1023.4	979.9	941.2	893.5	839.1	779.9
45°	1494.0	1335.7	1197.4	1094.7	1012.5	951.5	911.0	875.4	837.3	786.6	735.8
47.5°	1427.0	1275.9	1130.3	1017.4	938.2	880.8	841.0	811.3	783.6	739.5	688.1
50°	1343.0	1198.6	1057.2	948.5	862.7	808.9	772.1	749.7	725.0	685.7	644.6
52.5°	1243.9	1118.9	981.1	869.3	789.6	740.1	705.0	682.7	663.3	633.1	594.5
55°	1138.8	1025.8	898.9	798.1	723.8	673.0	639.2	618.0	605.9	578.8	547.9
57.5°	1019.8	932.8	818.0	719.5	652.5	601.7	576.3	557.6	543.7	523.8	500.8
60°	894.1	837.3	737.0	644.6	584.2	536.5	514.1	499.0	486.3	470.0	453.1
62.5°	766.6	729.2	645.2	569.1	514.7	476.7	456.1	442.8	427.7	418.1	401.7
65°	655.5	618.6	558.2	496.0	444.6	412.6	397.5	385.4	376.4	364.3	352.8
67.5°	532.2	515.3	470.6	424.1	386.6	355.8	342.5	332.9	322.6	315.4	306.9
70°	420.5	413.2	383.6	355.2	320.8	301.5	289.4	285.8	272.5	265.2	259.8
72.5°	321.4	319.0	305.1	287.6	265.8	249.5	238.6	234.4	227.2	221.7	218.7
75°	233.8	235.0	232.0	219.3	210.2	199.4	189.7	187.3	181.2	176.4	173.4
77.5°	159.5	165.5	164.3	163.7	159.5	151.6	147.4	145.6	139.0	137.1	136.5
80°	101.5	108.1	114.2	113.6	112.4	110.6	107.5	105.7	102.7	100.9	99.7
82.5°	59.2	65.2	70.1	74.3	74.3	72.5	70.7	70.1	70.1	68.9	68.9
85°	32.0	33.2	35.0	39.3	42.3	42.9	42.3	41.7	39.9	40.5	41.1
87.5°	13.9	13.9	14.5	14.5	13.9	16.9	18.7	19.3	18.1	16.9	15.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7	1471.7
2.5°	1440.9	1432.4	1426.4	1414.3	1405.8	1402.2	1395.5	1393.7	1400.4	1395.5	1394.9
5°	1404.0	1386.5	1372.6	1358.7	1343.6	1333.9	1319.4	1317.0	1313.4	1307.9	1306.7
7.5°	1361.1	1339.4	1323.0	1300.1	1281.4	1266.3	1248.1	1240.9	1237.3	1230.6	1219.7
10°	1317.6	1290.4	1266.3	1243.3	1218.5	1198.6	1180.5	1166.6	1157.5	1149.1	1145.4
12.5°	1274.7	1246.9	1214.3	1185.3	1156.9	1134.0	1113.4	1105.6	1095.3	1085.0	1075.4
15°	1230.0	1193.2	1159.3	1127.3	1103.7	1079.6	1060.3	1047.0	1031.9	1027.6	1011.3
17.5°	1182.3	1147.9	1108.0	1073.5	1047.0	1021.6	1000.4	984.7	973.3	956.9	949.1
20°	1138.2	1095.3	1056.6	1025.8	995.6	964.2	942.4	929.8	918.9	906.2	900.2
22.5°	1091.1	1049.4	1009.5	972.0	941.2	910.4	896.5	883.2	870.6	859.1	850.6
25°	1045.1	1002.9	961.2	923.7	891.7	869.3	851.2	836.1	829.5	818.0	809.5
27.5°	999.2	954.5	912.2	873.0	848.2	825.8	811.3	799.3	786.6	776.3	768.5
30°	955.1	909.2	862.1	832.5	805.9	784.8	768.5	757.0	747.9	738.9	733.4
32.5°	911.0	863.3	822.8	790.2	765.4	747.9	731.0	720.1	710.5	700.2	693.5
35°	863.3	815.0	781.1	749.7	725.0	708.0	696.6	680.9	673.0	665.8	659.1
37.5°	820.4	774.5	737.0	709.9	686.9	670.6	655.5	647.6	637.4	631.3	625.9
40°	772.1	731.0	697.8	668.8	653.1	634.3	620.4	609.6	602.3	593.9	587.8
42.5°	728.6	691.1	659.1	633.7	613.2	598.1	584.8	573.9	564.3	558.8	554.0
45°	688.1	650.0	618.6	594.5	576.3	561.2	547.3	541.9	529.8	522.6	520.2
47.5°	645.8	611.4	580.6	558.2	539.5	525.6	512.3	500.2	494.2	486.9	483.3
50°	602.9	570.3	541.9	520.2	502.0	486.3	474.2	467.0	457.9	451.3	446.5
52.5°	560.0	530.4	502.0	481.5	466.4	450.7	436.8	429.5	421.1	417.5	414.4
55°	519.6	487.5	463.4	442.8	426.5	412.0	399.3	392.1	386.6	382.4	381.2
57.5°	473.0	447.1	424.1	406.0	388.5	374.6	363.1	356.4	351.6	351.0	346.8
60°	427.7	404.8	384.2	364.3	349.8	337.1	327.4	319.6	314.8	314.1	312.9
62.5°	382.4	360.7	341.9	325.0	312.3	300.3	291.2	282.1	279.7	276.1	273.1
65°	337.7	317.8	302.1	288.2	274.3	264.0	254.9	249.5	242.9	239.2	232.6
67.5°	293.6	277.3	262.2	250.7	239.2	229.0	221.1	213.3	208.4	205.4	200.0
70°	250.1	238.0	222.9	210.2	201.8	193.9	187.9	178.8	175.8	173.4	171.0
72.5°	209.0	198.8	186.7	177.0	168.6	161.3	154.1	151.0	148.0	145.6	144.4
75°	171.0	160.7	149.8	142.6	136.5	130.5	126.9	123.8	122.6	122.0	119.6
77.5°	132.9	126.9	117.8	111.2	106.9	104.5	100.9	99.7	100.3	97.3	96.7
80°	96.1	93.0	85.8	83.4	80.3	77.9	76.1	73.1	70.1	68.9	67.1
82.5°	65.2	62.2	60.4	56.2	53.8	52.6	50.7	50.1	51.4	49.5	48.9
85°	38.1	35.0	33.8	33.2	32.0	33.2	32.6	32.0	31.4	30.8	31.4
87.5°	15.1	15.1	14.5	15.7	13.9	14.5	14.5	13.9	13.9	13.9	13.3
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: P242927

CATALOG NUMBER: S125RDR-S1270D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1471.7	1471.7	1471.7	1471.7
2.5°	1394.3	1387.7	1385.9	1388.3
5°	1300.7	1294.7	1297.7	1296.5
7.5°	1221.6	1213.7	1204.6	1207.1
10°	1137.6	1131.5	1127.9	1130.9
12.5°	1066.9	1063.9	1060.9	1058.4
15°	1004.1	996.8	993.8	985.9
17.5°	943.7	941.2	933.4	927.9
20°	891.1	888.7	880.8	885.7
22.5°	847.6	841.6	840.3	837.3
25°	807.1	799.3	796.2	792.6
27.5°	766.0	761.8	757.6	756.4
30°	726.2	721.9	718.9	718.9
32.5°	690.5	687.5	684.5	683.9
35°	656.1	651.3	650.0	646.4
37.5°	619.8	615.6	615.6	616.2
40°	585.4	582.4	581.8	577.6
42.5°	548.6	547.3	544.9	543.7
45°	515.9	511.7	511.7	508.7
47.5°	481.5	477.9	478.5	474.8
50°	447.1	445.2	444.6	443.4
52.5°	412.6	412.0	415.0	412.0
55°	382.4	380.6	384.2	380.6
57.5°	346.8	345.6	349.2	346.8
60°	311.7	308.1	309.9	310.5
62.5°	270.0	268.2	269.4	265.8
65°	231.4	229.6	227.2	225.9
67.5°	201.2	195.7	195.7	196.9
70°	167.3	167.3	166.7	166.7
72.5°	143.8	143.2	142.0	141.4
75°	119.6	120.2	119.0	118.4
77.5°	93.6	90.6	91.8	90.6
80°	67.1	66.5	68.3	66.5
82.5°	49.5	48.9	49.5	48.3
85°	32.0	31.4	30.8	31.4
87.5°	13.9	13.3	13.3	13.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)