

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: P333722-935

Luminaire Tested: **S125RDIW-S1270D470U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333722-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-S1270D470U935-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 470 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5813.5 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

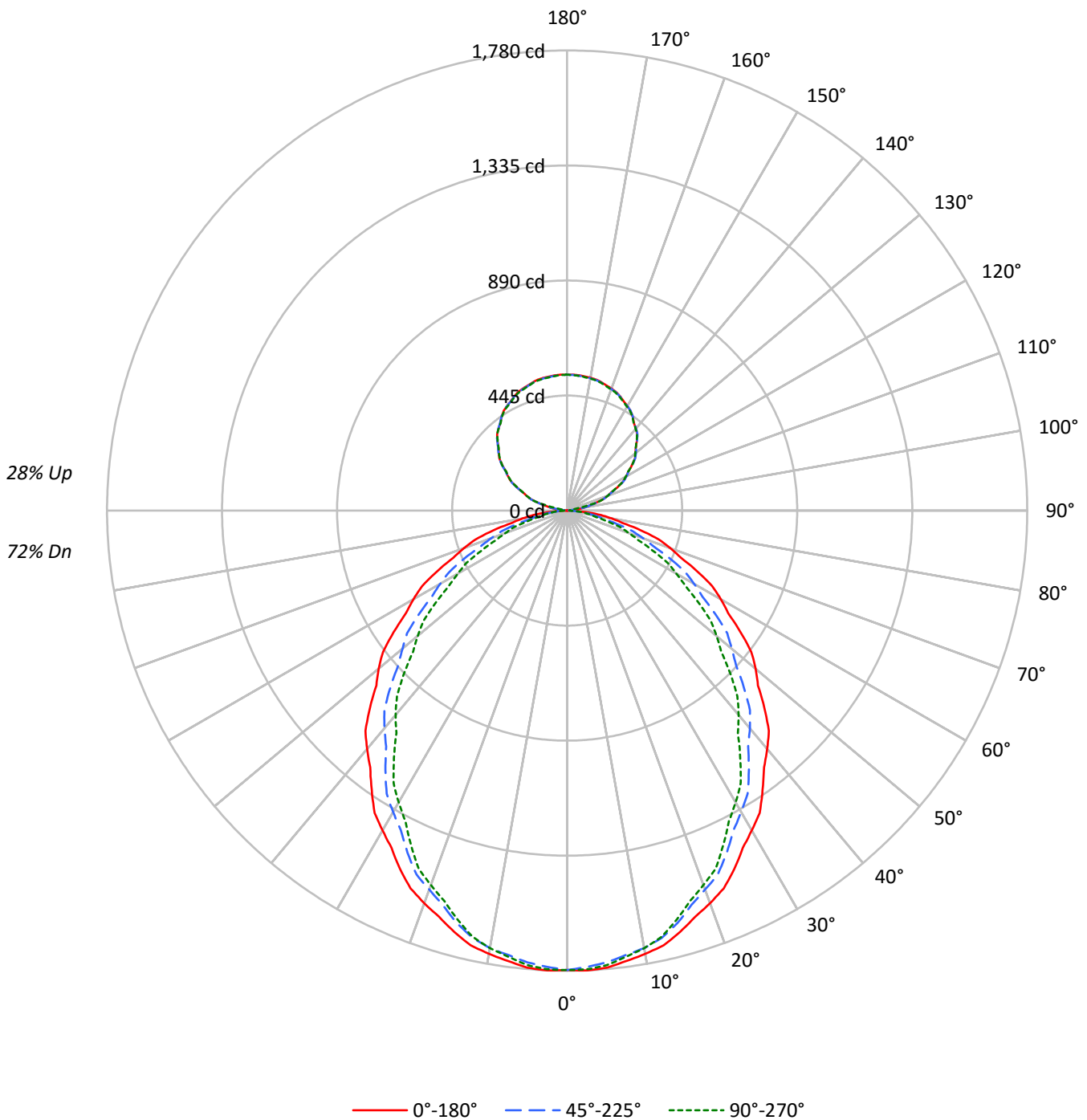
Input Watts (W): 52.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	99	95	91	98	94	90	87	85	82	80	76	74	72	68	67	65	62
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	56	52
3	86	76	69	63	81	73	66	61	66	61	56	60	55	52	54	50	48	44
4	79	68	60	54	75	65	57	52	59	53	48	53	49	45	48	44	41	38
5	73	61	52	46	69	58	51	45	53	47	42	48	43	39	44	39	36	33
6	67	55	46	41	64	52	45	39	48	42	37	44	38	34	40	35	32	29
7	62	50	42	36	59	48	40	35	44	37	33	40	35	31	36	32	29	26
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	33	29	26	24
9	54	42	34	29	51	40	33	28	37	31	26	34	29	25	31	27	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	23	29	24	21	19

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

	0°	45°	90°
0°	11479	11479	11479
5°	11505	11374	11444
10°	11418	11269	11269
15°	11282	11040	10950
20°	11109	10721	10592
25°	10905	10408	10178
30°	10651	10041	9721
35°	10394	9663	9208
40°	10151	9269	8703
45°	9858	8828	8153
50°	9562	8349	7580
55°	9221	7891	6969
60°	8878	7334	6311
65°	8472	6687	5559
70°	8010	5880	4791
75°	7369	4956	3985
80°	6490	3894	3347
85°	5476	3186	2986



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.1	2.9
10°-20°	467.1	8.0
20°-30°	677.3	11.7
30°-40°	771.9	13.3
40°-50°	752.4	12.9
50°-60°	633.3	10.9
60°-70°	444.0	7.6
70°-80°	228.2	3.9
80°-90°	58.7	1.0
90°-100°	19.1	0.3
100°-110°	117.7	2.0
110°-120°	213.4	3.7
120°-130°	273.9	4.7
130°-140°	294.6	5.1
140°-150°	276.5	4.8
150°-160°	223.7	3.8
160°-170°	144.7	2.5
170°-180°	49.9	0.9
0°-30°	1311.5	22.6
0°-40°	2083.3	35.8
0°-60°	3469.1	59.7
0°-90°	4200.0	72.2
90°-120°	350.2	6.0
90°-150°	1195.3	20.6
90°-180°	1614.0	27.8
0°-180°	5813.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1777	1777	1777	1777	1777	
5°	1775	1769	1754	1767	1765	168
15°	1687	1678	1651	1649	1638	475
25°	1530	1509	1460	1443	1428	704
35°	1318	1284	1226	1188	1168	825
45°	1079	1038	967	915	893	832
55°	819	774	701	642	619	732
65°	554	507	438	386	364	549
75°	295	254	199	170	160	313
85°	74	51	43	42	40	83
90°	0	4	6	8	9	4
95°	22	20	6	8	8	28
105°	114	116	116	116	116	121
115°	215	217	217	216	213	213
125°	306	308	308	307	306	273
135°	381	384	383	382	380	294
145°	442	443	443	443	441	276
155°	487	485	485	486	483	224
165°	514	512	512	514	511	145
175°	526	523	524	526	523	50
180°	526	526	526	526	526	



TEST NUMBER: P333722-935

CATALOG NUMBER: S125RDIW-S1270D470U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4
2.5°	1780.5	1779.9	1779.1	1778.4	1777.7	1776.2	1773.7	1771.3	1769.0	1766.6	1769.0
5°	1774.7	1773.5	1772.3	1771.1	1769.9	1767.6	1764.4	1761.1	1757.8	1754.5	1757.5
7.5°	1757.2	1756.1	1755.0	1753.8	1752.7	1750.2	1746.2	1742.2	1738.4	1734.4	1736.5
10°	1741.1	1740.2	1739.3	1738.4	1737.5	1735.0	1730.8	1726.6	1722.4	1718.3	1719.2
12.5°	1722.9	1721.7	1720.5	1719.4	1718.3	1714.9	1709.3	1703.7	1698.1	1692.5	1693.2
15°	1687.4	1685.6	1683.9	1682.0	1680.2	1676.2	1669.9	1663.7	1657.4	1651.1	1650.9
17.5°	1647.4	1644.7	1641.9	1639.2	1636.4	1631.1	1623.2	1615.3	1607.5	1599.6	1598.1
20°	1616.3	1613.3	1610.2	1607.3	1604.3	1598.0	1588.5	1579.0	1569.4	1559.9	1558.4
22.5°	1581.9	1578.9	1575.9	1573.0	1569.9	1563.5	1553.4	1543.4	1533.4	1523.4	1520.4
25°	1530.3	1525.9	1521.4	1516.9	1512.4	1504.7	1493.7	1482.6	1471.5	1460.5	1456.6
27.5°	1471.3	1465.9	1460.4	1455.0	1449.6	1441.0	1429.1	1417.3	1405.5	1393.7	1388.3
30°	1428.3	1422.6	1416.9	1411.4	1405.7	1396.5	1384.0	1371.5	1358.9	1346.4	1339.5
32.5°	1386.5	1379.8	1373.2	1366.6	1359.9	1350.2	1337.5	1324.7	1311.9	1299.2	1291.6
35°	1318.3	1311.0	1303.9	1296.8	1289.6	1279.3	1265.8	1252.5	1239.1	1225.6	1216.9
37.5°	1251.4	1242.7	1234.0	1225.3	1216.5	1205.2	1191.5	1177.6	1163.7	1149.9	1139.5
40°	1204.1	1195.2	1186.2	1177.2	1168.4	1156.7	1142.4	1128.1	1113.7	1099.4	1088.1
42.5°	1154.8	1145.6	1136.3	1127.1	1118.0	1106.0	1091.2	1076.4	1061.6	1046.8	1036.0
45°	1079.3	1070.7	1062.0	1053.3	1044.7	1032.2	1015.7	999.4	982.9	966.6	954.6
47.5°	1001.2	992.0	982.9	973.8	964.7	951.8	935.3	918.8	902.2	885.7	873.4
50°	951.7	941.9	932.0	922.2	912.4	899.0	881.9	865.0	847.9	831.0	818.4
52.5°	898.0	887.9	877.9	867.8	857.7	844.6	828.6	812.6	796.5	780.5	767.0
55°	818.9	809.3	799.8	790.2	780.7	767.6	750.9	734.2	717.5	700.8	687.3
57.5°	738.8	728.7	718.4	708.3	698.0	684.9	668.8	652.6	636.5	620.4	607.3
60°	687.3	676.8	666.4	656.0	645.6	632.2	616.1	600.0	583.9	567.8	554.7
62.5°	632.6	622.6	612.6	602.6	592.7	579.5	563.2	546.8	530.5	514.1	502.0
65°	554.4	544.2	534.2	524.0	513.8	500.8	485.1	469.2	453.4	437.6	425.7
67.5°	476.8	466.7	456.5	446.4	436.3	423.6	408.5	393.3	378.2	363.0	352.1
70°	424.2	414.1	403.9	393.7	383.7	371.1	356.2	341.3	326.3	311.4	302.2
72.5°	372.6	362.7	352.8	342.9	333.0	321.1	307.1	293.2	279.2	265.3	256.8
75°	295.3	286.4	277.4	268.5	259.5	248.8	236.3	223.8	211.2	198.6	192.1
77.5°	218.5	211.4	204.2	197.1	189.9	181.3	171.3	161.3	151.3	141.2	136.6
80°	174.5	167.4	160.2	153.0	145.9	138.1	129.8	121.4	113.0	104.7	102.0
82.5°	131.6	125.1	118.6	112.2	105.8	99.7	93.9	88.3	82.5	76.8	75.5
85°	73.9	68.4	63.1	57.7	52.3	48.9	47.4	46.0	44.4	43.0	42.6
87.5°	24.8	23.2	21.7	20.1	18.7	17.8	17.7	17.6	17.5	17.4	17.5
90°	0.4	1.1	1.8	2.5	3.2	3.8	4.4	5.0	5.6	6.2	6.6
92.5°	6.0	5.5	5.0	4.6	4.0	4.0	4.6	5.2	5.7	6.2	6.6
95°	22.2	22.0	21.7	21.4	21.2	19.4	16.1	12.8	9.6	6.2	6.6
97.5°	46.3	46.8	47.3	47.8	48.2	45.2	38.7	32.2	25.7	19.2	16.7
100°	65.0	65.3	65.6	65.9	66.1	66.4	66.7	67.1	67.4	67.8	54.8
102.5°	84.0	84.4	84.7	85.1	85.4	85.7	85.8	86.0	86.3	86.4	84.0
105°	114.5	114.9	115.2	115.5	115.9	116.1	116.1	116.1	116.1	116.1	116.1
107.5°	146.1	146.1	146.1	146.1	146.1	146.2	146.4	146.5	146.7	146.9	147.0
110°	166.7	166.7	166.7	166.7	166.7	166.8	166.9	167.1	167.3	167.5	167.2



TEST NUMBER: P333722-935

CATALOG NUMBER: S125RDIW-S1270D470U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	186.1	186.2	186.4	186.7	186.8	187.0	187.1	187.3	187.4	187.4	187.1
115°	215.0	215.4	215.9	216.3	216.7	217.0	217.1	217.1	217.2	217.3	217.0
117.5°	245.0	245.0	245.0	245.0	245.0	245.1	245.4	245.7	246.1	246.4	246.0
120°	263.7	263.6	263.6	263.5	263.4	263.5	263.7	264.0	264.2	264.5	264.3
122.5°	280.3	280.5	280.9	281.2	281.5	281.7	281.9	282.0	282.1	282.2	282.1
125°	305.7	306.3	306.9	307.5	308.2	308.5	308.5	308.5	308.5	308.5	308.2
127.5°	330.1	330.6	331.1	331.5	331.9	332.1	332.0	332.0	331.9	331.8	331.7
130°	345.1	345.5	345.9	346.4	346.8	347.1	347.2	347.2	347.3	347.4	347.2
132.5°	360.1	360.6	361.1	361.5	362.1	362.2	362.1	361.9	361.6	361.4	361.4
135°	381.3	381.9	382.4	382.9	383.4	383.6	383.4	383.2	383.1	382.9	382.7
137.5°	400.9	401.3	401.7	402.3	402.7	402.9	402.7	402.5	402.3	402.2	402.3
140°	413.6	413.8	414.0	414.1	414.3	414.4	414.3	414.2	414.1	414.1	414.2
142.5°	425.2	425.3	425.4	425.5	425.6	425.7	425.9	425.9	426.1	426.2	426.2
145°	442.1	442.3	442.5	442.6	442.8	442.9	442.9	442.9	442.9	442.9	443.0
147.5°	456.9	456.8	456.8	456.8	456.8	456.8	456.9	457.0	457.1	457.2	457.3
150°	466.2	466.1	465.9	465.7	465.5	465.5	465.7	465.9	466.1	466.2	466.4
152.5°	475.3	474.9	474.5	474.2	473.7	473.6	473.8	474.0	474.2	474.3	474.5
155°	486.9	486.4	485.9	485.3	484.8	484.7	484.8	485.0	485.2	485.3	485.6
157.5°	495.8	495.5	495.2	494.9	494.6	494.5	494.5	494.5	494.5	494.6	494.8
160°	502.0	501.5	501.0	500.5	500.0	499.8	499.9	500.0	500.1	500.2	500.5
162.5°	507.0	506.5	506.0	505.5	505.0	504.8	504.9	505.0	505.1	505.1	505.6
165°	513.8	513.2	512.7	512.2	511.7	511.4	511.5	511.6	511.7	511.8	512.3
167.5°	518.8	518.2	517.7	517.1	516.6	516.3	516.4	516.5	516.6	516.7	517.4
170°	521.6	521.0	520.3	519.7	519.1	518.8	518.9	519.0	519.1	519.2	519.9
172.5°	523.4	522.8	522.2	521.6	521.0	520.8	520.9	521.1	521.2	521.4	522.0
175°	525.5	525.0	524.4	523.9	523.4	523.1	523.2	523.3	523.4	523.5	524.2
177.5°	526.4	526.0	525.6	525.1	524.7	524.5	524.6	524.7	524.8	524.9	525.3
180°	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5



TEST NUMBER: P333722-935

CATALOG NUMBER: S125RDIW-S1270D470U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4	1777.4
2.5°	1771.3	1773.7	1776.2	1777.2	1777.0	1776.8	1776.5	1776.2
5°	1760.5	1763.5	1766.4	1767.6	1767.0	1766.4	1765.8	1765.2
7.5°	1738.5	1740.7	1742.8	1743.4	1742.8	1742.1	1741.5	1740.9
10°	1720.0	1721.0	1721.8	1721.8	1721.0	1720.0	1719.2	1718.3
12.5°	1693.8	1694.4	1695.1	1694.8	1693.4	1692.0	1690.7	1689.3
15°	1650.5	1650.3	1649.9	1648.5	1645.8	1643.1	1640.4	1637.7
17.5°	1596.6	1595.1	1593.6	1591.8	1589.6	1587.3	1585.2	1582.9
20°	1556.9	1555.4	1553.9	1551.8	1549.1	1546.4	1543.8	1541.1
22.5°	1517.5	1514.6	1511.7	1509.1	1506.9	1504.7	1502.4	1500.3
25°	1452.8	1448.9	1445.0	1441.4	1438.1	1434.9	1431.6	1428.3
27.5°	1382.9	1377.4	1372.0	1367.7	1364.5	1361.3	1358.1	1355.0
30°	1332.7	1325.9	1319.0	1314.2	1311.6	1308.8	1306.1	1303.5
32.5°	1284.0	1276.4	1268.9	1263.3	1260.0	1256.5	1253.2	1249.7
35°	1208.3	1199.6	1191.0	1184.6	1180.4	1176.2	1172.1	1167.9
37.5°	1129.1	1118.8	1108.4	1101.1	1097.1	1093.0	1089.0	1084.9
40°	1076.8	1065.4	1054.1	1046.6	1043.0	1039.5	1035.9	1032.3
42.5°	1025.1	1014.3	1003.4	995.3	990.1	984.8	979.6	974.3
45°	942.6	930.7	918.8	910.6	906.1	901.6	897.2	892.7
47.5°	861.2	848.9	836.5	827.9	822.9	818.0	813.0	808.1
50°	805.9	793.3	780.8	772.3	767.8	763.4	758.9	754.4
52.5°	753.5	740.0	726.5	717.6	713.1	708.6	704.1	699.6
55°	673.9	660.5	647.0	637.9	633.2	628.4	623.6	618.9
57.5°	594.2	581.1	567.9	559.3	555.0	550.8	546.6	542.3
60°	541.6	528.5	515.3	506.5	502.0	497.6	493.1	488.6
62.5°	489.8	477.6	465.5	457.1	452.6	448.2	443.7	439.2
65°	413.8	401.8	389.9	381.7	377.2	372.7	368.2	363.8
67.5°	341.1	330.2	319.3	312.0	308.5	304.9	301.4	297.7
70°	292.9	283.7	274.5	268.0	264.4	260.9	257.3	253.7
72.5°	248.2	239.7	231.1	225.7	223.3	220.9	218.5	216.1
75°	185.5	179.0	172.5	168.1	166.0	163.9	161.9	159.7
77.5°	132.0	127.4	122.9	119.8	118.2	116.7	115.1	113.6
80°	99.4	96.7	93.9	92.3	91.7	91.1	90.6	90.0
82.5°	74.3	73.0	71.8	70.9	70.6	70.3	69.9	69.6
85°	42.4	42.1	41.8	41.5	41.2	40.9	40.6	40.3
87.5°	17.6	17.7	17.7	17.7	17.5	17.3	17.1	16.9
90°	7.1	7.5	7.9	8.4	8.6	8.9	9.1	9.4
92.5°	7.1	7.5	7.9	8.3	8.4	8.5	8.6	8.7
95°	7.1	7.5	7.9	8.2	8.2	8.2	8.2	8.2
97.5°	14.3	11.9	9.4	8.2	8.2	8.2	8.2	8.2
100°	42.0	29.1	16.2	9.6	9.2	8.9	8.5	8.2
102.5°	81.6	79.1	76.7	72.6	66.6	60.8	54.8	49.0
105°	116.1	116.1	116.1	116.1	116.0	115.9	115.8	115.7
107.5°	147.0	147.0	147.0	146.9	146.6	146.4	146.1	145.9
110°	166.9	166.7	166.4	166.3	166.4	166.5	166.6	166.7





TEST NUMBER: P333722-935

CATALOG NUMBER: S125RDIW-S1270D470U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	186.8	186.4	186.1	185.9	185.8	185.6	185.5	185.4
115°	216.6	216.3	215.9	215.5	215.0	214.5	214.0	213.4
117.5°	245.5	245.0	244.6	244.3	244.0	243.8	243.6	243.4
120°	264.2	264.0	263.8	263.5	263.0	262.6	262.2	261.7
122.5°	281.9	281.7	281.5	281.2	280.7	280.2	279.7	279.2
125°	307.8	307.5	307.1	306.8	306.5	306.3	306.0	305.7
127.5°	331.5	331.3	331.1	330.7	330.0	329.4	328.7	328.1
130°	346.9	346.6	346.4	346.0	345.6	345.2	344.7	344.3
132.5°	361.4	361.3	361.3	361.0	360.6	360.2	359.7	359.3
135°	382.5	382.4	382.2	381.9	381.3	380.8	380.3	379.8
137.5°	402.3	402.3	402.3	402.2	401.7	401.2	400.8	400.4
140°	414.4	414.6	414.7	414.6	414.1	413.5	413.0	412.5
142.5°	426.3	426.3	426.4	426.1	425.6	425.1	424.6	424.0
145°	443.1	443.2	443.2	443.0	442.5	442.0	441.4	440.9
147.5°	457.4	457.5	457.6	457.4	456.8	456.2	455.5	454.9
150°	466.6	466.7	466.9	466.7	466.0	465.3	464.6	463.9
152.5°	474.7	474.8	475.0	474.8	474.2	473.6	472.9	472.3
155°	485.9	486.1	486.4	486.1	485.4	484.7	484.1	483.4
157.5°	495.1	495.3	495.6	495.4	494.7	494.0	493.4	492.7
160°	500.8	501.2	501.5	501.4	500.7	500.0	499.3	498.6
162.5°	506.1	506.6	507.0	507.0	506.2	505.4	504.6	503.9
165°	512.9	513.4	513.9	513.8	513.2	512.4	511.7	511.0
167.5°	518.0	518.6	519.2	519.2	518.3	517.5	516.8	516.0
170°	520.6	521.3	522.0	521.9	521.2	520.4	519.6	518.8
172.5°	522.6	523.2	523.9	523.8	523.1	522.3	521.5	520.7
175°	524.9	525.6	526.2	526.2	525.5	524.7	523.9	523.1
177.5°	525.8	526.2	526.8	526.8	526.2	525.6	525.0	524.5
180°	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5

(END OF REPORT)