

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: P333711-940

Luminaire Tested: **S125RDIW-S1090D1050U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333711-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S1090D1050U940-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7007.6 lumens
Efficiency: N/A
Efficacy: 114.5 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: General Diffuse

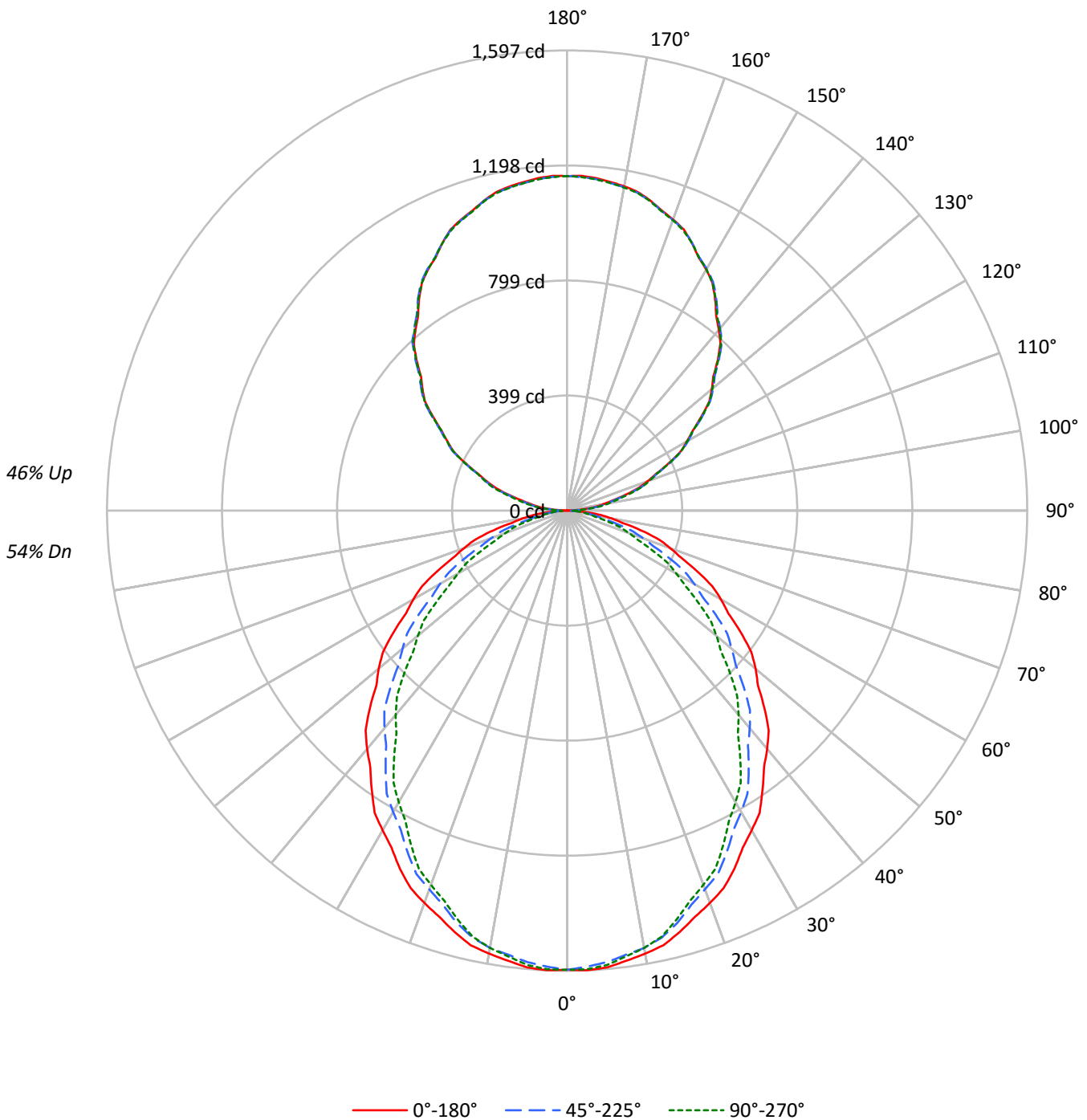
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	99	95	91	87	92	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	57	59	54	50	50	46	43	42	39	37	33
4	76	65	57	51	70	60	53	48	52	47	43	45	41	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	31	28	25
6	64	52	44	38	59	49	41	36	42	37	32	36	32	28	31	27	25	22
7	59	47	39	34	55	44	37	32	38	33	29	33	29	25	28	25	22	20
8	55	43	35	30	51	40	33	28	35	29	25	30	26	23	26	22	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	20	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10293	10293	10293
5°	10317	10200	10263
10°	10239	10105	10105
15°	10117	9900	9819
20°	9961	9614	9498
25°	9779	9333	9128
30°	9552	9004	8717
35°	9320	8665	8257
40°	9104	8312	7804
45°	8840	7916	7311
50°	8575	7486	6797
55°	8268	7076	6248
60°	7962	6577	5660
65°	7597	5997	4985
70°	7183	5274	4296
75°	6608	4447	3573
80°	5821	3492	2998
85°	4905	2853	2675



TEST NUMBER: P333711-940

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	2.1
10°-20°	418.8	6.0
20°-30°	607.3	8.7
30°-40°	692.2	9.9
40°-50°	674.7	9.6
50°-60°	567.9	8.1
60°-70°	398.1	5.7
70°-80°	204.6	2.9
80°-90°	54.2	0.8
90°-100°	77.8	1.1
100°-110°	229.6	3.3
110°-120°	388.9	5.6
120°-130°	511.9	7.3
130°-140°	573.6	8.2
140°-150°	562.1	8.0
150°-160°	472.2	6.7
160°-170°	313.9	4.5
170°-180°	109.8	1.6
0°-30°	1176.0	16.8
0°-40°	1868.2	26.7
0°-60°	3110.9	44.4
0°-90°	3767.8	53.8
90°-120°	696.4	9.9
90°-150°	2344.0	33.4
90°-180°	3240.0	46.2
0°-180°	7007.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1591	1586	1573	1585	1583	151
15°	1513	1505	1481	1479	1469	426
25°	1372	1353	1310	1294	1281	631
35°	1182	1152	1099	1065	1047	740
45°	968	931	867	820	800	746
55°	734	694	628	576	555	657
65°	497	455	392	346	326	492
75°	265	228	178	153	143	280
85°	66	45	38	37	36	74
90°	1	8	14	19	22	6
95°	59	61	70	76	78	63
105°	206	211	216	221	224	220
115°	389	393	395	394	393	385
125°	568	573	575	573	572	509
135°	739	744	745	745	742	569
145°	895	899	902	902	899	560
155°	1025	1025	1026	1029	1025	472
165°	1114	1112	1113	1116	1111	314
175°	1158	1155	1155	1160	1154	110
180°	1161	1161	1161	1161	1161	



TEST NUMBER: P333711-940

CATALOG NUMBER: S125RDIW-S1090D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1596.7	1596.1	1595.4	1594.7	1594.1	1592.8	1590.6	1588.5	1586.4	1584.2	1586.4
5°	1591.4	1590.4	1589.3	1588.2	1587.2	1585.1	1582.2	1579.2	1576.3	1573.3	1576.0
7.5°	1575.7	1574.8	1573.7	1572.7	1571.6	1569.4	1565.8	1562.4	1558.8	1555.3	1557.2
10°	1561.3	1560.5	1559.7	1558.9	1558.1	1555.9	1552.1	1548.4	1544.6	1540.9	1541.7
12.5°	1544.9	1543.9	1542.9	1541.9	1540.9	1537.8	1532.9	1527.8	1522.8	1517.7	1518.3
15°	1513.1	1511.5	1509.9	1508.3	1506.7	1503.2	1497.5	1491.9	1486.3	1480.7	1480.4
17.5°	1477.3	1474.8	1472.4	1469.9	1467.4	1462.7	1455.6	1448.6	1441.5	1434.4	1433.1
20°	1449.4	1446.7	1444.0	1441.4	1438.7	1433.1	1424.5	1415.9	1407.4	1398.8	1397.5
22.5°	1418.5	1415.9	1413.2	1410.5	1407.8	1402.0	1393.0	1384.0	1375.0	1366.0	1363.4
25°	1372.3	1368.3	1364.3	1360.3	1356.3	1349.3	1339.4	1329.5	1319.6	1309.7	1306.3
27.5°	1319.4	1314.5	1309.6	1304.8	1299.8	1292.2	1281.6	1271.0	1260.3	1249.7	1244.9
30°	1280.9	1275.8	1270.7	1265.6	1260.5	1252.3	1241.1	1229.8	1218.6	1207.4	1201.2
32.5°	1243.2	1237.3	1231.4	1225.5	1219.5	1210.9	1199.4	1187.9	1176.4	1165.0	1158.2
35°	1182.1	1175.7	1169.3	1162.9	1156.5	1147.2	1135.1	1123.1	1111.1	1099.0	1091.3
37.5°	1122.1	1114.4	1106.5	1098.8	1090.9	1080.8	1068.4	1056.0	1043.6	1031.2	1021.8
40°	1079.8	1071.7	1063.7	1055.7	1047.7	1037.2	1024.4	1011.6	998.7	985.9	975.7
42.5°	1035.5	1027.3	1019.0	1010.8	1002.6	991.8	978.5	965.3	952.0	938.7	929.0
45°	967.9	960.1	952.3	944.6	936.8	925.6	910.9	896.2	881.5	866.7	856.0
47.5°	897.8	889.6	881.4	873.3	865.0	853.5	838.7	823.9	809.0	794.2	783.2
50°	853.5	844.6	835.8	827.0	818.1	806.1	790.9	775.6	760.4	745.1	733.9
52.5°	805.3	796.3	787.2	778.2	769.2	757.4	743.1	728.6	714.3	699.9	687.8
55°	734.3	725.8	717.2	708.6	700.1	688.3	673.3	658.4	643.4	628.4	616.4
57.5°	662.5	653.4	644.3	635.1	626.0	614.2	599.8	585.3	570.9	556.4	544.7
60°	616.4	607.0	597.6	588.3	578.9	566.9	552.5	538.1	523.6	509.2	497.4
62.5°	567.2	558.3	549.4	540.4	531.5	519.7	505.1	490.4	475.7	461.0	450.1
65°	497.1	488.0	478.9	469.8	460.7	449.2	435.0	420.8	406.6	392.4	381.7
67.5°	427.6	418.5	409.4	400.3	391.2	379.9	366.2	352.7	339.1	325.5	315.8
70°	380.4	371.3	362.2	353.1	344.0	332.8	319.4	306.0	292.7	279.3	271.0
72.5°	334.2	325.3	316.4	307.6	298.6	287.9	275.4	262.9	250.4	237.9	230.2
75°	264.8	256.8	248.8	240.8	232.7	223.1	211.9	200.6	189.4	178.2	172.3
77.5°	196.0	189.6	183.2	176.7	170.3	162.6	153.6	144.6	135.6	126.6	122.5
80°	156.5	150.1	143.7	137.2	130.8	123.9	116.4	108.9	101.4	93.9	91.5
82.5°	118.0	112.2	106.4	100.7	94.9	89.4	84.3	79.1	74.0	68.8	67.8
85°	66.2	61.3	56.5	51.7	46.9	43.9	42.5	41.2	39.9	38.5	38.3
87.5°	22.3	21.1	20.0	18.8	17.7	17.0	17.1	17.2	17.3	17.3	17.6
90°	0.9	2.5	4.1	5.7	7.3	8.8	10.3	11.7	13.0	14.4	15.4
92.5°	21.8	23.0	24.1	25.2	26.4	27.8	29.5	31.2	33.0	34.7	36.0
95°	58.8	59.1	59.6	59.9	60.4	61.5	63.6	65.5	67.6	69.6	71.0
97.5°	97.6	97.7	97.9	98.1	98.3	99.7	102.5	105.2	108.0	110.8	112.1
100°	126.5	126.5	126.5	126.5	126.5	127.8	130.4	133.0	135.6	138.2	140.1
102.5°	157.6	158.4	159.2	160.0	160.8	161.8	163.2	164.5	165.9	167.2	169.2
105°	206.0	207.0	208.0	209.0	210.0	211.2	212.3	213.6	214.7	216.0	217.1
107.5°	259.5	260.5	261.5	262.5	263.5	264.5	265.4	266.4	267.2	268.1	268.8
110°	296.3	297.4	298.4	299.3	300.4	301.2	301.8	302.4	303.0	303.6	304.2



TEST NUMBER: P333711-940

CATALOG NUMBER: S125RDIW-S1090D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	333.9	334.5	335.0	335.6	336.0	336.7	337.4	338.2	338.9	339.7	340.0
115°	389.4	390.2	391.0	391.8	392.6	393.2	393.6	394.0	394.4	394.8	394.7
117.5°	445.1	445.4	445.8	446.1	446.6	446.9	447.3	447.6	448.0	448.4	448.5
120°	479.7	480.8	481.8	482.8	483.8	484.4	484.6	484.8	485.0	485.2	485.2
122.5°	517.4	517.7	518.1	518.4	518.8	519.2	519.8	520.3	520.8	521.4	521.2
125°	568.3	569.5	570.7	571.9	573.1	573.8	574.1	574.3	574.4	574.6	574.3
127.5°	622.5	623.2	623.9	624.6	625.3	625.7	626.0	626.2	626.4	626.7	626.5
130°	655.1	656.0	657.1	658.1	659.1	659.8	660.2	660.6	661.0	661.4	661.2
132.5°	687.6	689.2	690.9	692.5	694.2	695.0	694.9	694.8	694.7	694.6	694.5
135°	739.0	740.3	741.5	742.7	744.0	744.6	744.8	745.0	745.2	745.4	745.4
137.5°	787.6	788.7	789.9	791.0	792.2	793.0	793.4	793.9	794.3	794.8	795.0
140°	818.6	819.6	820.6	821.6	822.6	823.4	824.0	824.7	825.2	825.8	826.3
142.5°	849.7	850.5	851.4	852.2	853.1	853.9	854.6	855.4	856.1	856.9	857.1
145°	895.4	896.2	897.0	897.8	898.6	899.3	899.9	900.5	901.2	901.7	901.7
147.5°	937.7	938.2	938.6	939.0	939.4	940.0	940.4	940.8	941.4	941.8	942.4
150°	965.9	965.7	965.5	965.3	965.1	965.4	966.2	967.0	967.8	968.6	968.6
152.5°	989.0	989.3	989.5	989.9	990.2	990.4	990.8	991.0	991.4	991.8	992.2
155°	1024.6	1024.6	1024.6	1024.6	1024.6	1024.7	1024.9	1025.1	1025.3	1025.6	1026.4
157.5°	1056.4	1056.0	1055.5	1055.1	1054.6	1054.5	1054.7	1054.9	1055.2	1055.3	1056.1
160°	1075.2	1074.6	1074.0	1073.4	1072.8	1072.6	1072.8	1073.0	1073.2	1073.4	1074.2
162.5°	1091.8	1091.4	1090.9	1090.5	1090.0	1089.8	1089.9	1089.9	1090.0	1090.0	1091.0
165°	1114.1	1113.7	1113.2	1112.9	1112.4	1112.3	1112.6	1112.8	1112.9	1113.1	1113.9
167.5°	1132.8	1132.0	1131.2	1130.4	1129.6	1129.3	1129.3	1129.3	1129.3	1129.3	1130.4
170°	1143.0	1142.2	1141.4	1140.6	1139.8	1139.3	1139.3	1139.3	1139.3	1139.3	1140.6
172.5°	1150.2	1149.4	1148.6	1147.8	1147.0	1146.6	1146.6	1146.6	1146.6	1146.6	1147.8
175°	1158.3	1157.5	1156.7	1155.9	1155.1	1154.7	1154.7	1154.7	1154.7	1154.7	1155.9
177.5°	1162.5	1161.8	1161.2	1160.6	1159.9	1159.5	1159.3	1159.2	1159.0	1158.9	1159.8
180°	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0



TEST NUMBER: P333711-940

CATALOG NUMBER: S125RDIW-S1090D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1588.5	1590.6	1592.8	1593.7	1593.5	1593.3	1593.0	1592.9
5°	1578.7	1581.4	1584.0	1585.1	1584.6	1584.0	1583.5	1583.0
7.5°	1559.1	1560.9	1562.8	1563.4	1562.8	1562.3	1561.7	1561.0
10°	1542.5	1543.3	1544.1	1544.1	1543.3	1542.5	1541.7	1540.9
12.5°	1518.9	1519.5	1520.1	1519.7	1518.5	1517.3	1516.1	1514.8
15°	1480.2	1479.9	1479.6	1478.3	1475.9	1473.5	1471.1	1468.6
17.5°	1431.7	1430.4	1429.1	1427.5	1425.4	1423.4	1421.5	1419.5
20°	1396.2	1394.8	1393.5	1391.6	1389.2	1386.8	1384.4	1382.0
22.5°	1360.8	1358.2	1355.6	1353.3	1351.3	1349.3	1347.3	1345.3
25°	1302.8	1299.3	1295.8	1292.6	1289.7	1286.7	1283.8	1280.9
27.5°	1240.0	1235.2	1230.3	1226.5	1223.6	1220.8	1217.9	1215.1
30°	1195.1	1188.9	1182.8	1178.5	1176.1	1173.7	1171.3	1168.9
32.5°	1151.5	1144.6	1137.8	1132.9	1129.9	1126.9	1123.7	1120.7
35°	1083.5	1075.8	1068.0	1062.3	1058.5	1054.8	1051.1	1047.3
37.5°	1012.5	1003.3	993.9	987.5	983.8	980.2	976.5	972.9
40°	965.5	955.4	945.2	938.5	935.3	932.1	928.9	925.7
42.5°	919.3	909.5	899.7	892.5	887.8	883.2	878.4	873.7
45°	845.3	834.6	823.9	816.5	812.5	808.5	804.5	800.5
47.5°	772.2	761.2	750.2	742.4	738.0	733.5	729.2	724.7
50°	722.6	711.4	700.2	692.6	688.6	684.6	680.6	676.5
52.5°	675.7	663.6	651.5	643.5	639.4	635.4	631.4	627.4
55°	604.3	592.3	580.2	572.0	567.8	563.5	559.2	554.9
57.5°	532.9	521.1	509.3	501.5	497.8	493.9	490.1	486.3
60°	485.6	473.9	462.1	454.2	450.2	446.2	442.2	438.2
62.5°	439.3	428.3	417.4	409.9	405.9	401.9	397.9	393.9
65°	371.0	360.3	349.6	342.2	338.2	334.2	330.2	326.2
67.5°	305.9	296.1	286.3	279.8	276.6	273.4	270.2	267.0
70°	262.7	254.4	246.1	240.3	237.1	233.9	230.7	227.5
72.5°	222.6	214.9	207.2	202.3	200.2	198.0	195.9	193.8
75°	166.4	160.5	154.6	150.7	148.8	147.0	145.1	143.2
77.5°	118.4	114.3	110.1	107.4	106.0	104.6	103.3	101.8
80°	89.1	86.7	84.3	82.8	82.2	81.7	81.1	80.6
82.5°	66.6	65.5	64.4	63.7	63.3	63.0	62.7	62.3
85°	38.0	37.7	37.5	37.2	36.9	36.6	36.4	36.1
87.5°	17.7	17.9	18.1	18.2	18.1	18.0	17.9	17.8
90°	16.5	17.5	18.5	19.3	19.9	20.5	21.0	21.7
92.5°	37.4	38.7	40.0	40.8	41.3	41.7	42.2	42.6
95°	72.4	73.7	75.2	76.1	76.5	76.9	77.3	77.7
97.5°	113.4	114.8	116.1	116.8	117.1	117.3	117.6	117.8
100°	141.9	143.7	145.4	146.6	147.0	147.4	147.8	148.2
102.5°	171.1	173.1	175.0	176.3	176.8	177.5	178.0	178.5
105°	218.4	219.5	220.8	221.7	222.3	222.8	223.5	224.1
107.5°	269.4	270.0	270.5	270.9	270.8	270.8	270.7	270.7
110°	304.8	305.4	306.0	306.2	306.0	305.8	305.6	305.4



TEST NUMBER: P333711-940

CATALOG NUMBER: S125RDIW-S1090D1050U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	340.3	340.5	340.8	340.8	340.5	340.1	339.7	339.4
115°	394.4	394.2	394.0	393.9	393.6	393.4	393.2	393.1
117.5°	448.6	448.8	449.0	448.6	447.8	447.0	446.2	445.4
120°	485.2	485.2	485.2	484.8	484.0	483.2	482.4	481.6
122.5°	521.0	520.8	520.7	520.3	519.7	519.0	518.4	517.7
125°	573.8	573.5	573.0	572.7	572.6	572.3	572.1	571.9
127.5°	626.2	626.1	625.9	625.6	625.2	624.8	624.4	624.0
130°	661.0	660.8	660.6	660.3	659.9	659.5	659.1	658.7
132.5°	694.2	694.0	693.8	693.5	692.9	692.3	691.8	691.2
135°	745.4	745.4	745.4	745.0	744.2	743.4	742.6	741.8
137.5°	795.2	795.5	795.7	795.3	794.3	793.4	792.3	791.3
140°	826.6	827.1	827.4	827.2	826.2	825.1	824.1	823.1
142.5°	857.4	857.6	857.9	857.5	856.5	855.5	854.5	853.5
145°	901.7	901.7	901.7	901.4	900.8	900.2	899.6	899.0
147.5°	942.8	943.3	943.8	943.3	942.0	940.6	939.2	937.9
150°	968.6	968.6	968.6	968.4	968.0	967.6	967.1	966.8
152.5°	992.7	993.2	993.6	993.5	992.8	992.1	991.3	990.6
155°	1027.2	1028.0	1028.8	1028.6	1027.6	1026.6	1025.6	1024.6
157.5°	1056.9	1057.7	1058.5	1058.3	1056.9	1055.6	1054.3	1053.0
160°	1075.0	1075.8	1076.7	1076.5	1075.5	1074.5	1073.5	1072.5
162.5°	1092.0	1092.9	1093.9	1093.8	1092.6	1091.5	1090.3	1089.1
165°	1114.7	1115.5	1116.3	1116.2	1115.0	1113.7	1112.6	1111.3
167.5°	1131.7	1132.8	1134.1	1134.1	1132.8	1131.6	1130.3	1129.1
170°	1141.7	1143.0	1144.2	1144.1	1142.6	1141.3	1139.9	1138.4
172.5°	1149.0	1150.2	1151.4	1151.4	1150.1	1148.9	1147.6	1146.4
175°	1157.1	1158.3	1159.6	1159.4	1158.1	1156.6	1155.2	1153.8
177.5°	1160.8	1161.8	1162.7	1162.6	1161.5	1160.4	1159.3	1158.2
180°	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0	1161.0

(END OF REPORT)