

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: P333703-927

Luminaire Tested: **S125RDIW-S1090D470U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333703-927  
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-S1090D470U927-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4633.5 lumens  
Efficiency: N/A  
Efficacy: 100.3 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

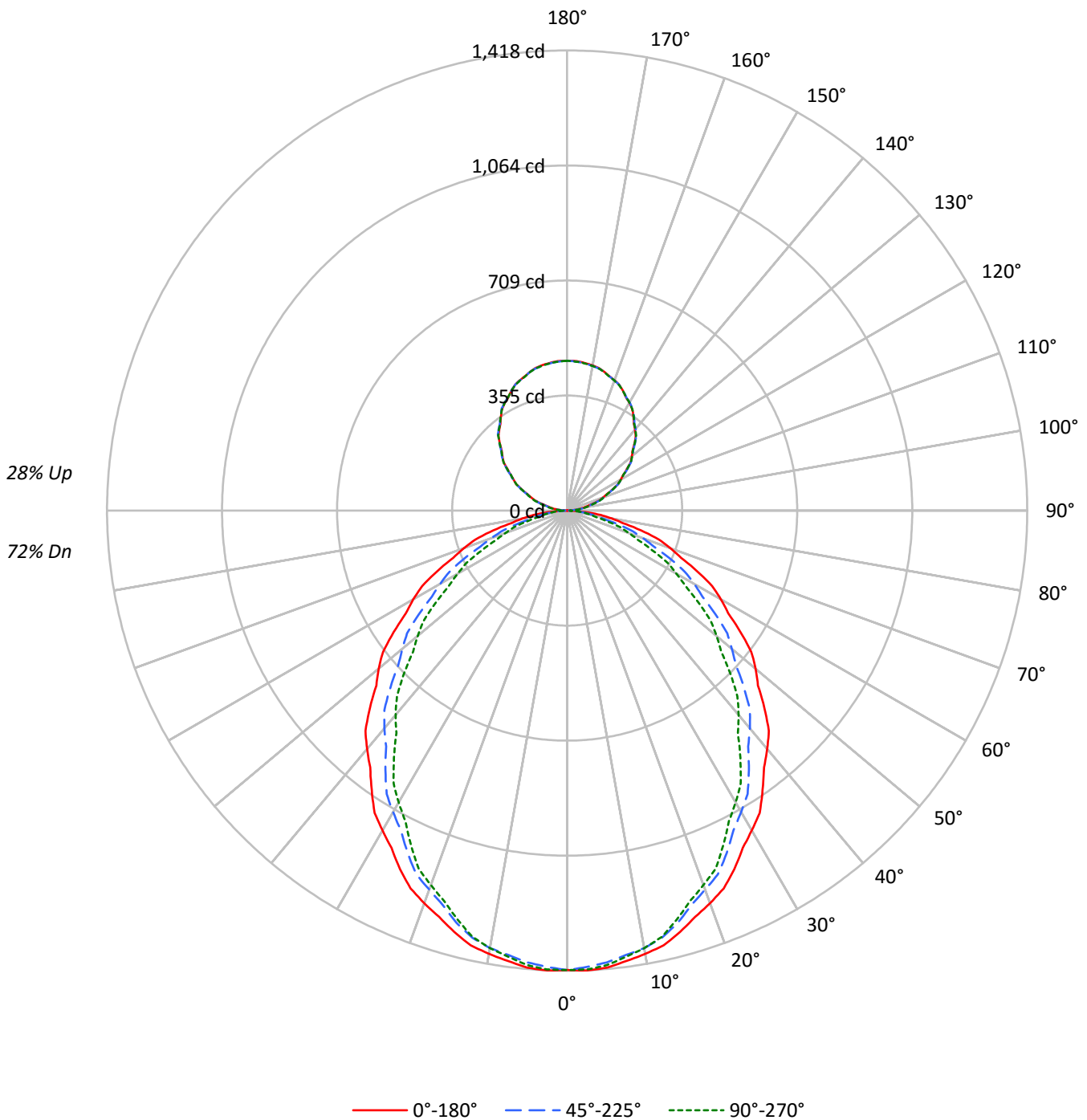
Input Watts (W): 46.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

**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	79	76	74	72	68	67	65	62
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	55	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°	9144	9144	9144
5°	9166	9061	9117
10°	9096	8977	8977
15°	8988	8795	8723
20°	8849	8541	8438
25°	8688	8292	8109
30°	8486	7999	7744
35°	8280	7698	7335
40°	8088	7384	6933
45°	7853	7033	6495
50°	7618	6650	6038
55°	7346	6286	5551
60°	7073	5842	5028
65°	6748	5327	4429
70°	6381	4685	3816
75°	5871	3950	3174
80°	5170	3102	2663
85°	4357	2534	2379



TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.1	2.9
10°-20°	372.1	8.0
20°-30°	539.6	11.6
30°-40°	614.9	13.3
40°-50°	599.4	12.9
50°-60°	504.6	10.9
60°-70°	353.7	7.6
70°-80°	181.8	3.9
80°-90°	46.9	1.0
90°-100°	30.9	0.7
100°-110°	91.2	2.0
110°-120°	154.6	3.3
120°-130°	203.4	4.4
130°-140°	227.9	4.9
140°-150°	223.4	4.8
150°-160°	187.6	4.0
160°-170°	124.7	2.7
170°-180°	43.6	0.9
0°-30°	1044.8	22.5
0°-40°	1659.7	35.8
0°-60°	2763.6	59.6
0°-90°	3346.0	72.2
90°-120°	276.7	6.0
90°-150°	931.5	20.1
90°-180°	1287.0	27.8
0°-180°	4633.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1414	1409	1398	1408	1406	134
15°	1344	1337	1315	1314	1305	379
25°	1219	1202	1164	1150	1138	561
35°	1050	1023	976	946	930	657
45°	860	827	770	729	711	663
55°	652	617	558	512	493	583
65°	442	404	349	307	290	437
75°	235	202	158	136	127	249
85°	59	40	34	33	32	66
90°	0	3	6	8	9	4
95°	23	24	28	30	31	25
105°	82	84	86	88	89	87
115°	155	156	157	157	156	153
125°	226	228	228	228	227	202
135°	294	296	296	296	295	226
145°	356	357	358	358	357	222
155°	407	407	408	409	407	187
165°	443	442	442	444	442	125
175°	460	459	459	461	458	44
180°	461	461	461	461	461	



TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1418.5	1417.9	1417.4	1416.7	1416.2	1415.0	1413.1	1411.2	1409.3	1407.4	1409.3
5°	1413.8	1412.9	1411.9	1411.0	1410.0	1408.2	1405.6	1403.0	1400.3	1397.7	1400.1
7.5°	1399.9	1399.0	1398.0	1397.2	1396.2	1394.2	1391.1	1388.0	1384.8	1381.7	1383.4
10°	1387.0	1386.3	1385.6	1384.9	1384.2	1382.2	1378.9	1375.5	1372.2	1368.9	1369.6
12.5°	1372.5	1371.6	1370.7	1369.8	1368.9	1366.2	1361.8	1357.2	1352.8	1348.3	1348.8
15°	1344.3	1342.8	1341.4	1340.0	1338.6	1335.4	1330.4	1325.4	1320.4	1315.4	1315.2
17.5°	1312.4	1310.2	1308.1	1305.8	1303.6	1299.4	1293.2	1286.9	1280.6	1274.3	1273.1
20°	1287.6	1285.2	1282.9	1280.5	1278.1	1273.1	1265.5	1257.9	1250.3	1242.7	1241.5
22.5°	1260.2	1257.8	1255.5	1253.1	1250.7	1245.5	1237.5	1229.5	1221.5	1213.5	1211.2
25°	1219.2	1215.6	1212.0	1208.5	1204.9	1198.7	1189.9	1181.1	1172.4	1163.6	1160.5
27.5°	1172.1	1167.8	1163.4	1159.1	1154.8	1148.0	1138.5	1129.1	1119.7	1110.2	1106.0
30°	1137.9	1133.4	1128.9	1124.3	1119.8	1112.5	1102.6	1092.6	1082.6	1072.6	1067.1
32.5°	1104.5	1099.2	1093.9	1088.7	1083.4	1075.7	1065.5	1055.3	1045.1	1035.0	1029.0
35°	1050.2	1044.5	1038.8	1033.1	1027.4	1019.1	1008.4	997.8	987.1	976.4	969.5
37.5°	996.9	990.0	983.0	976.1	969.2	960.2	949.1	938.1	927.1	916.1	907.8
40°	959.3	952.1	945.0	937.9	930.7	921.5	910.1	898.7	887.2	875.8	866.8
42.5°	919.9	912.6	905.3	897.9	890.7	881.1	869.3	857.5	845.7	833.9	825.3
45°	859.8	852.9	846.1	839.2	832.3	822.3	809.2	796.1	783.1	770.0	760.5
47.5°	797.6	790.3	783.0	775.8	768.5	758.3	745.1	731.9	718.7	705.6	695.8
50°	758.2	750.4	742.5	734.7	726.8	716.1	702.6	689.0	675.5	661.9	652.0
52.5°	715.4	707.4	699.3	691.3	683.3	672.9	660.1	647.3	634.5	621.8	611.0
55°	652.4	644.8	637.2	629.5	621.9	611.5	598.2	584.9	571.6	558.3	547.6
57.5°	588.6	580.5	572.4	564.2	556.1	545.7	532.8	520.0	507.2	494.3	483.9
60°	547.6	539.2	530.9	522.6	514.3	503.7	490.8	478.0	465.2	452.3	441.9
62.5°	503.9	496.0	488.1	480.1	472.1	461.7	448.7	435.6	422.6	409.6	399.9
65°	441.6	433.6	425.5	417.4	409.3	399.0	386.4	373.8	361.2	348.6	339.1
67.5°	379.9	371.8	363.7	355.6	347.5	337.5	325.3	313.3	301.3	289.1	280.5
70°	337.9	329.9	321.8	313.7	305.6	295.6	283.8	271.9	260.0	248.1	240.7
72.5°	296.9	289.0	281.1	273.2	265.3	255.8	244.7	233.5	222.4	211.4	204.5
75°	235.3	228.1	221.0	213.9	206.8	198.2	188.2	178.2	168.3	158.3	153.0
77.5°	174.1	168.4	162.7	157.0	151.3	144.4	136.5	128.5	120.5	112.5	108.8
80°	139.0	133.3	127.6	121.9	116.2	110.0	103.4	96.7	90.1	83.4	81.3
82.5°	104.8	99.7	94.5	89.4	84.3	79.5	74.9	70.3	65.8	61.2	60.2
85°	58.8	54.5	50.2	45.9	41.7	39.0	37.8	36.6	35.4	34.2	34.0
87.5°	19.7	18.5	17.3	16.2	15.0	14.3	14.2	14.1	14.0	13.9	14.1
90°	0.4	1.0	1.7	2.3	2.9	3.5	4.0	4.6	5.1	5.8	6.2
92.5°	8.7	9.1	9.6	10.1	10.5	11.0	11.7	12.4	13.1	13.8	14.3
95°	23.4	23.5	23.7	23.8	24.0	24.5	25.3	26.1	26.9	27.6	28.2
97.5°	38.7	38.8	38.9	39.0	39.1	39.6	40.7	41.8	42.9	44.0	44.5
100°	50.3	50.3	50.3	50.3	50.3	50.8	51.8	52.8	53.9	54.9	55.7
102.5°	62.6	62.9	63.3	63.6	63.9	64.3	64.9	65.4	65.9	66.4	67.2
105°	81.8	82.2	82.6	83.0	83.5	83.9	84.4	84.8	85.3	85.8	86.3
107.5°	103.1	103.5	103.9	104.3	104.7	105.1	105.4	105.8	106.2	106.5	106.8
110°	117.8	118.2	118.6	119.0	119.4	119.7	119.9	120.2	120.4	120.6	120.9



TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	132.7	132.9	133.1	133.3	133.6	133.8	134.1	134.4	134.7	135.0	135.1
115°	154.7	155.0	155.4	155.7	156.1	156.3	156.5	156.6	156.8	156.9	156.9
117.5°	176.9	177.0	177.1	177.3	177.4	177.6	177.8	177.8	178.0	178.2	178.2
120°	190.7	191.1	191.5	191.9	192.3	192.5	192.6	192.7	192.7	192.8	192.8
122.5°	205.6	205.7	205.9	206.0	206.1	206.4	206.5	206.8	207.0	207.2	207.1
125°	225.9	226.3	226.8	227.3	227.8	228.1	228.1	228.2	228.3	228.4	228.2
127.5°	247.4	247.6	248.0	248.2	248.5	248.7	248.7	248.8	248.9	249.1	249.0
130°	260.3	260.7	261.1	261.5	261.9	262.2	262.4	262.5	262.7	262.8	262.8
132.5°	273.2	273.9	274.6	275.2	275.8	276.2	276.2	276.1	276.1	276.0	275.9
135°	293.7	294.2	294.7	295.2	295.6	295.9	296.0	296.0	296.1	296.2	296.2
137.5°	312.9	313.4	313.9	314.3	314.8	315.1	315.3	315.4	315.6	315.8	315.9
140°	325.3	325.7	326.1	326.5	326.9	327.3	327.5	327.7	328.0	328.2	328.4
142.5°	337.6	337.9	338.3	338.7	339.0	339.3	339.6	339.9	340.2	340.6	340.6
145°	355.8	356.2	356.5	356.8	357.1	357.4	357.6	357.8	358.1	358.3	358.3
147.5°	372.6	372.8	373.0	373.1	373.4	373.5	373.7	373.9	374.1	374.3	374.5
150°	383.8	383.7	383.7	383.6	383.5	383.7	384.0	384.3	384.6	384.9	384.9
152.5°	393.0	393.2	393.2	393.3	393.5	393.6	393.7	393.9	394.0	394.1	394.3
155°	407.2	407.2	407.2	407.2	407.2	407.2	407.3	407.3	407.4	407.5	407.8
157.5°	419.8	419.6	419.5	419.3	419.1	419.1	419.1	419.2	419.3	419.4	419.7
160°	427.3	427.1	426.7	426.5	426.3	426.2	426.3	426.4	426.4	426.5	426.9
162.5°	433.9	433.7	433.6	433.3	433.2	433.1	433.1	433.1	433.2	433.2	433.6
165°	442.7	442.5	442.4	442.2	442.0	442.0	442.1	442.2	442.3	442.4	442.7
167.5°	450.2	449.9	449.6	449.2	448.9	448.8	448.8	448.8	448.8	448.8	449.2
170°	454.2	453.8	453.5	453.2	452.9	452.7	452.7	452.7	452.7	452.7	453.2
172.5°	457.1	456.8	456.5	456.1	455.8	455.7	455.7	455.7	455.7	455.7	456.1
175°	460.3	459.9	459.6	459.3	459.0	458.8	458.8	458.8	458.8	458.8	459.3
177.5°	461.9	461.7	461.4	461.2	460.9	460.7	460.7	460.7	460.6	460.5	460.9
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4



TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1411.2	1413.1	1415.0	1415.8	1415.6	1415.5	1415.2	1415.1
5°	1402.5	1404.9	1407.2	1408.2	1407.7	1407.2	1406.8	1406.3
7.5°	1385.1	1386.7	1388.4	1388.9	1388.4	1387.9	1387.3	1386.8
10°	1370.3	1371.0	1371.7	1371.7	1371.0	1370.3	1369.6	1368.9
12.5°	1349.4	1349.9	1350.4	1350.1	1349.0	1348.0	1346.9	1345.8
15°	1314.9	1314.7	1314.5	1313.3	1311.1	1309.0	1306.9	1304.7
17.5°	1271.9	1270.7	1269.6	1268.1	1266.3	1264.6	1262.8	1261.1
20°	1240.3	1239.1	1237.9	1236.3	1234.1	1232.0	1229.9	1227.7
22.5°	1208.9	1206.6	1204.3	1202.2	1200.5	1198.7	1196.9	1195.2
25°	1157.4	1154.3	1151.2	1148.3	1145.7	1143.1	1140.5	1137.9
27.5°	1101.6	1097.3	1093.0	1089.6	1087.0	1084.5	1082.0	1079.5
30°	1061.7	1056.2	1050.8	1046.9	1044.8	1042.7	1040.5	1038.4
32.5°	1022.9	1016.8	1010.8	1006.5	1003.8	1001.1	998.3	995.6
35°	962.6	955.7	948.8	943.7	940.4	937.1	933.7	930.4
37.5°	899.5	891.3	883.0	877.3	874.0	870.8	867.5	864.3
40°	857.8	848.7	839.7	833.8	830.9	828.1	825.2	822.4
42.5°	816.7	807.9	799.3	792.9	788.7	784.6	780.4	776.2
45°	751.0	741.5	732.0	725.4	721.8	718.3	714.7	711.1
47.5°	686.0	676.2	666.5	659.6	655.6	651.6	647.8	643.8
50°	642.0	632.0	622.0	615.3	611.7	608.2	604.6	601.0
52.5°	600.3	589.5	578.8	571.6	568.1	564.5	560.9	557.4
55°	536.9	526.2	515.5	508.2	504.4	500.6	496.8	493.0
57.5°	473.4	463.0	452.5	445.5	442.2	438.8	435.4	432.1
60°	431.4	421.0	410.5	403.5	400.0	396.4	392.8	389.3
62.5°	390.2	380.5	370.8	364.2	360.6	357.0	353.5	349.9
65°	329.6	320.1	310.6	304.0	300.5	296.9	293.3	289.8
67.5°	271.8	263.1	254.4	248.6	245.7	242.9	240.0	237.2
70°	233.4	226.0	218.6	213.5	210.6	207.8	204.9	202.1
72.5°	197.7	190.9	184.1	179.7	177.8	175.9	174.0	172.1
75°	147.8	142.6	137.4	133.9	132.2	130.6	128.9	127.2
77.5°	105.2	101.6	97.8	95.4	94.2	92.9	91.7	90.5
80°	79.1	77.0	74.9	73.5	73.0	72.6	72.1	71.6
82.5°	59.2	58.1	57.2	56.6	56.2	55.9	55.7	55.4
85°	33.7	33.5	33.3	33.0	32.8	32.6	32.3	32.1
87.5°	14.2	14.3	14.3	14.3	14.1	14.0	13.9	13.7
90°	6.6	7.0	7.4	7.7	7.9	8.2	8.4	8.6
92.5°	14.8	15.4	15.9	16.2	16.4	16.6	16.8	17.0
95°	28.8	29.3	29.9	30.3	30.4	30.6	30.7	30.9
97.5°	45.1	45.6	46.1	46.4	46.5	46.7	46.7	46.8
100°	56.4	57.1	57.8	58.2	58.4	58.5	58.7	58.9
102.5°	68.0	68.8	69.6	70.0	70.3	70.5	70.7	71.0
105°	86.7	87.2	87.7	88.1	88.3	88.6	88.8	89.0
107.5°	107.0	107.3	107.5	107.7	107.7	107.6	107.6	107.6
110°	121.1	121.4	121.6	121.7	121.6	121.5	121.4	121.4





TEST NUMBER: P333703-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	135.2	135.3	135.5	135.5	135.3	135.1	135.0	134.8
115°	156.8	156.7	156.6	156.5	156.5	156.4	156.3	156.2
117.5°	178.3	178.3	178.4	178.3	178.0	177.7	177.3	177.0
120°	192.8	192.8	192.8	192.7	192.3	192.0	191.7	191.4
122.5°	207.1	207.0	206.9	206.8	206.5	206.3	206.0	205.7
125°	228.1	227.9	227.8	227.6	227.5	227.4	227.4	227.3
127.5°	248.9	248.8	248.7	248.6	248.4	248.3	248.1	248.0
130°	262.7	262.6	262.5	262.4	262.2	262.1	261.9	261.7
132.5°	275.8	275.8	275.7	275.6	275.4	275.1	274.9	274.6
135°	296.2	296.2	296.2	296.0	295.7	295.4	295.1	294.8
137.5°	316.0	316.1	316.2	316.1	315.7	315.3	314.8	314.4
140°	328.5	328.7	328.8	328.7	328.3	327.9	327.5	327.1
142.5°	340.7	340.8	340.9	340.7	340.3	339.9	339.5	339.1
145°	358.3	358.3	358.3	358.2	358.0	357.7	357.5	357.3
147.5°	374.6	374.9	375.0	374.9	374.3	373.8	373.2	372.7
150°	384.9	384.9	384.9	384.8	384.7	384.5	384.4	384.2
152.5°	394.5	394.7	394.8	394.8	394.5	394.3	394.0	393.6
155°	408.1	408.4	408.8	408.8	408.4	408.0	407.6	407.2
157.5°	420.0	420.3	420.6	420.6	420.0	419.5	419.0	418.4
160°	427.2	427.5	427.9	427.8	427.4	427.0	426.6	426.2
162.5°	434.0	434.3	434.7	434.7	434.2	433.7	433.2	432.8
165°	443.0	443.3	443.6	443.5	443.1	442.6	442.1	441.6
167.5°	449.7	450.2	450.7	450.7	450.1	449.6	449.2	448.7
170°	453.7	454.2	454.7	454.6	454.1	453.5	453.0	452.4
172.5°	456.6	457.1	457.6	457.6	457.0	456.5	456.1	455.6
175°	459.8	460.3	460.8	460.7	460.2	459.6	459.1	458.5
177.5°	461.3	461.7	462.1	462.0	461.6	461.1	460.7	460.3
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4

(END OF REPORT)