

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: P333686

Luminaire Tested: **S125RDIW-S850D770U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333686
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-S850D770U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6320.1 lumens
Efficiency: N/A
Efficacy: 140.4 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

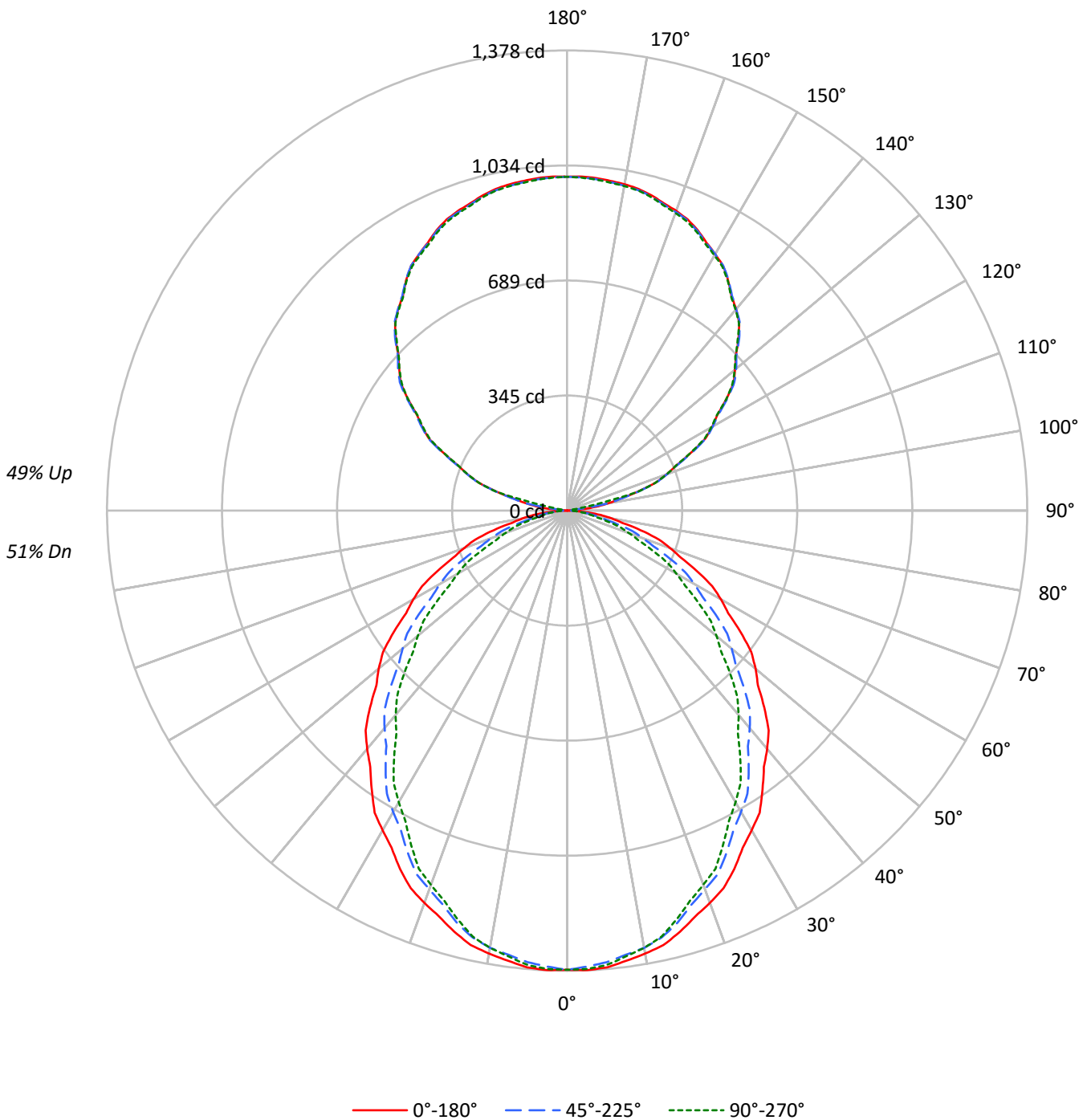
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51	51	51	51	51	51	51														
1	98	94	90	87	91	87	84	81	74	72	70	62	60	59	51	50	49	44	44	44	44	44	44	44														
2	90	82	76	71	83	76	71	67	65	61	58	55	52	50	45	43	42	37	37	37	37	37	37	37														
3	82	73	65	60	76	67	61	56	58	53	49	49	45	42	40	38	36	32	32	32	32	32	32	32														
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	36	33	31	27	27	27	27	27	27	27														
5	69	57	49	43	64	54	46	41	46	40	36	39	35	32	33	29	27	24	24	24	24	24	24	24														
6	64	52	44	38	59	48	41	36	42	36	32	35	31	28	30	26	24	21	21	21	21	21	21	21														
7	59	47	39	33	54	44	36	31	38	32	28	32	28	25	27	24	21	19	19	19	19	19	19	19														
8	55	42	35	29	50	40	33	28	34	29	25	30	25	22	25	22	19	17	17	17	17	17	17	17														
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15	15	15	15	15	15	15														
10	48	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	16	14	14	14	14	14	14	14														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



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CATALOG NUMBER: S125RDIW-S850D770U835-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	2.0
10°-20°	361.3	5.7
20°-30°	524.0	8.3
30°-40°	597.2	9.4
40°-50°	582.1	9.2
50°-60°	490.0	7.8
60°-70°	343.5	5.4
70°-80°	176.6	2.8
80°-90°	46.7	0.7
90°-100°	36.3	0.6
100°-110°	223.9	3.5
110°-120°	406.0	6.4
120°-130°	521.1	8.2
130°-140°	560.5	8.9
140°-150°	526.1	8.3
150°-160°	425.5	6.7
160°-170°	275.2	4.4
170°-180°	94.9	1.5
0°-30°	1014.6	16.1
0°-40°	1611.8	25.5
0°-60°	2683.9	42.5
0°-90°	3250.6	51.4
90°-120°	666.2	10.5
90°-150°	2273.8	36.0
90°-180°	3069.0	48.6
0°-180°	6320.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	1	7	12	15	18	4
95°	42	39	12	15	16	54
105°	218	221	221	221	220	231
115°	409	413	414	410	406	405
125°	582	587	587	584	582	519
135°	725	730	728	727	722	559
145°	841	842	842	843	839	526
155°	926	922	923	925	920	427
165°	977	973	974	978	972	276
175°	1000	995	996	1001	995	95
180°	1000	1000	1000	1000	1000	



TEST NUMBER: P333686

CATALOG NUMBER: S125RDIW-S850D770U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.3	18.2	17.2	16.2	15.1	14.7	14.7	14.7	14.8	14.8	15.0
90°	0.7	2.1	3.4	4.7	6.0	7.2	8.4	9.6	10.7	11.9	12.7
92.5°	11.4	10.5	9.6	8.6	7.7	7.8	8.8	9.8	10.8	11.9	12.7
95°	42.2	41.7	41.2	40.8	40.3	36.9	30.6	24.4	18.1	11.9	12.7
97.5°	88.2	89.1	90.0	90.8	91.7	86.0	73.6	61.2	48.8	36.5	31.8
100°	123.7	124.2	124.7	125.2	125.7	126.3	127.0	127.6	128.3	128.9	104.4
102.5°	159.9	160.5	161.2	161.8	162.4	162.9	163.3	163.7	164.1	164.5	159.9
105°	217.8	218.5	219.2	219.8	220.5	220.8	220.8	220.8	220.8	220.8	220.8
107.5°	278.0	278.0	278.0	278.0	278.0	278.2	278.5	278.8	279.2	279.5	279.5
110°	317.1	317.1	317.1	317.1	317.1	317.3	317.6	318.0	318.3	318.6	318.1



TEST NUMBER: P333686

CATALOG NUMBER: S125RDIW-S850D770U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	353.9	354.3	354.7	355.1	355.5	355.8	356.0	356.2	356.4	356.6	355.9
115°	409.0	409.8	410.7	411.5	412.3	412.8	413.0	413.1	413.3	413.5	412.8
117.5°	466.1	466.0	466.0	466.0	465.9	466.2	466.9	467.5	468.1	468.7	467.9
120°	501.6	501.5	501.3	501.1	501.0	501.1	501.6	502.1	502.6	503.1	502.8
122.5°	533.0	533.7	534.3	534.9	535.6	536.0	536.2	536.4	536.7	536.9	536.6
125°	581.7	582.8	584.0	585.1	586.3	586.8	586.8	586.8	586.8	586.8	586.2
127.5°	628.0	628.9	629.7	630.5	631.3	631.7	631.6	631.5	631.4	631.3	630.9
130°	656.5	657.3	658.1	659.0	659.8	660.3	660.4	660.6	660.8	660.9	660.4
132.5°	684.9	685.9	686.9	687.8	688.8	689.1	688.7	688.3	688.0	687.6	687.5
135°	725.4	726.4	727.4	728.4	729.4	729.7	729.4	729.0	728.7	728.4	728.0
137.5°	762.6	763.5	764.3	765.2	766.0	766.3	766.0	765.7	765.4	765.1	765.2
140°	786.9	787.2	787.6	787.9	788.2	788.3	788.1	788.0	787.8	787.6	788.0
142.5°	808.8	809.0	809.2	809.4	809.6	809.8	810.1	810.3	810.5	810.8	810.8
145°	841.0	841.3	841.7	842.0	842.3	842.5	842.5	842.5	842.5	842.5	842.6
147.5°	869.2	869.1	869.0	869.0	868.9	869.0	869.2	869.3	869.5	869.7	869.9
150°	886.9	886.6	886.3	885.9	885.6	885.6	885.9	886.3	886.6	886.9	887.3
152.5°	904.1	903.4	902.7	902.0	901.2	901.0	901.4	901.7	902.0	902.3	902.7
155°	926.2	925.2	924.2	923.2	922.3	921.9	922.3	922.6	922.9	923.2	923.7
157.5°	943.2	942.7	942.1	941.5	940.9	940.6	940.6	940.7	940.7	940.7	941.3
160°	955.1	954.1	953.1	952.1	951.2	950.7	950.9	951.1	951.2	951.4	952.1
162.5°	964.6	963.6	962.6	961.6	960.6	960.2	960.4	960.6	960.7	960.9	961.8
165°	977.3	976.3	975.4	974.4	973.4	973.0	973.1	973.3	973.5	973.6	974.6
167.5°	986.8	985.8	984.8	983.8	982.7	982.3	982.5	982.6	982.8	983.0	984.1
170°	992.2	991.0	989.8	988.7	987.5	987.0	987.2	987.4	987.5	987.7	989.0
172.5°	995.7	994.6	993.4	992.2	991.1	990.7	991.0	991.3	991.6	991.9	993.0
175°	999.6	998.6	997.6	996.6	995.6	995.2	995.4	995.5	995.7	995.9	997.2
177.5°	1001.3	1000.5	999.8	999.0	998.2	997.8	998.0	998.1	998.2	998.4	999.3
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6



TEST NUMBER: P333686

CATALOG NUMBER: S125RDIW-S850D770U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	15.2	15.3	15.5	15.5	15.4	15.4	15.3	15.2
90°	13.5	14.3	15.1	15.8	16.3	16.8	17.3	17.8
92.5°	13.5	14.3	15.1	15.7	15.9	16.1	16.4	16.6
95°	13.5	14.3	15.1	15.6	15.6	15.6	15.6	15.6
97.5°	27.2	22.5	17.9	15.6	15.6	15.6	15.6	15.6
100°	79.9	55.3	30.8	18.2	17.5	16.9	16.2	15.6
102.5°	155.2	150.6	145.9	138.0	126.8	115.6	104.4	93.2
105°	220.8	220.8	220.8	220.7	220.6	220.4	220.2	220.1
107.5°	279.6	279.6	279.6	279.4	278.9	278.4	277.9	277.4
110°	317.6	317.1	316.6	316.5	316.6	316.8	317.0	317.1



TEST NUMBER: P333686

CATALOG NUMBER: S125RDIW-S850D770U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	355.3	354.7	354.0	353.6	353.4	353.2	352.9	352.7
115°	412.1	411.5	410.8	410.0	409.0	408.0	407.0	406.0
117.5°	467.0	466.2	465.3	464.7	464.2	463.8	463.4	463.0
120°	502.5	502.1	501.8	501.2	500.4	499.6	498.8	497.9
122.5°	536.2	535.9	535.6	534.9	534.0	533.0	532.1	531.1
125°	585.5	584.9	584.2	583.6	583.1	582.6	582.2	581.7
127.5°	630.6	630.2	629.9	629.1	627.8	626.6	625.4	624.2
130°	660.0	659.5	659.0	658.3	657.5	656.7	655.8	655.0
132.5°	687.4	687.3	687.2	686.8	685.9	685.1	684.3	683.5
135°	727.7	727.4	727.1	726.4	725.4	724.4	723.4	722.4
137.5°	765.3	765.3	765.4	765.0	764.1	763.3	762.4	761.6
140°	788.3	788.6	789.0	788.6	787.6	786.7	785.7	784.7
142.5°	810.9	811.0	811.0	810.6	809.6	808.6	807.6	806.6
145°	842.8	843.0	843.1	842.7	841.7	840.7	839.8	838.8
147.5°	870.1	870.3	870.5	870.0	868.9	867.7	866.5	865.3
150°	887.6	887.9	888.3	887.8	886.4	885.1	883.8	882.5
152.5°	903.0	903.3	903.7	903.2	902.0	900.9	899.7	898.5
155°	924.2	924.7	925.2	924.8	923.5	922.2	920.9	919.5
157.5°	941.8	942.3	942.8	942.4	941.1	939.8	938.5	937.2
160°	952.7	953.4	954.0	953.7	952.4	951.1	949.8	948.4
162.5°	962.7	963.6	964.6	964.3	962.9	961.4	960.0	958.5
165°	975.6	976.6	977.6	977.4	976.1	974.8	973.5	972.1
167.5°	985.3	986.5	987.7	987.6	986.1	984.6	983.1	981.6
170°	990.3	991.7	993.0	992.9	991.4	989.9	988.4	987.0
172.5°	994.2	995.4	996.6	996.4	995.0	993.5	992.0	990.5
175°	998.5	999.8	1001.1	1001.0	999.6	998.1	996.6	995.1
177.5°	1000.2	1001.1	1002.1	1002.0	1000.9	999.9	998.8	997.8
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6

(END OF REPORT)