

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: P333687

Luminaire Tested: **S125RDIW-S850D770U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333687  
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-S850D770U835-4F0-1E-UDD-F1  
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, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5912.4 lumens  
Efficiency: N/A  
Efficacy: 131.4 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

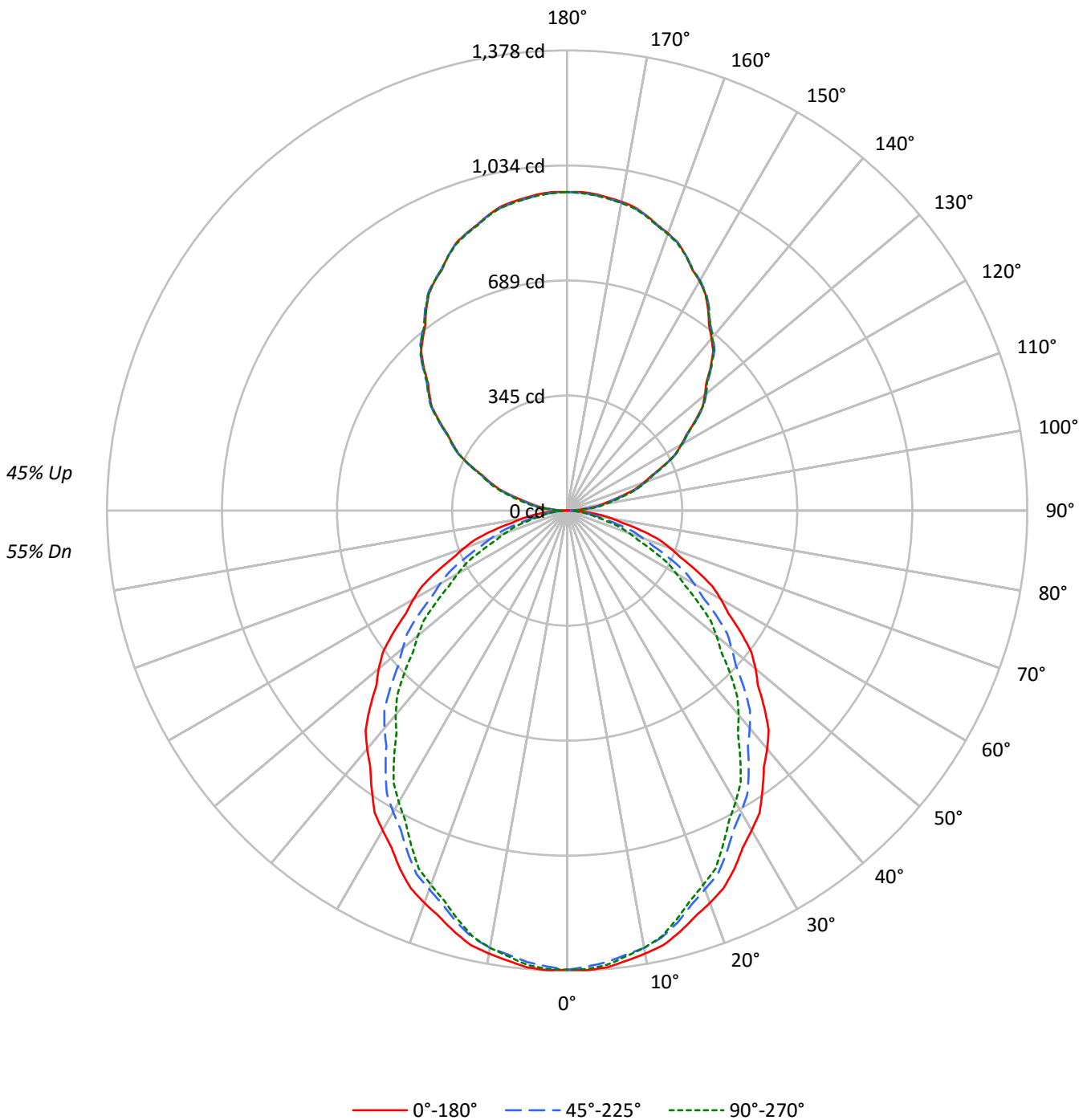
Input Watts (W): 45  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	88	92	88	85	82	76	73	71	65	63	61	54	53	52	47
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	48	46	44	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	33	29
5	70	58	50	44	64	54	47	42	47	42	37	41	36	33	34	31	29	25
6	64	52	44	38	59	49	42	36	43	37	33	37	32	29	31	28	25	22
7	59	47	39	34	55	44	37	32	39	33	29	34	29	26	29	25	22	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	26	23	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	21	24	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15

**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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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.3	2.2
10°-20°	361.3	6.1
20°-30°	524.0	8.9
30°-40°	597.2	10.1
40°-50°	582.1	9.8
50°-60°	490.0	8.3
60°-70°	343.5	5.8
70°-80°	176.6	3.0
80°-90°	46.7	0.8
90°-100°	63.9	1.1
100°-110°	188.7	3.2
110°-120°	319.6	5.4
120°-130°	420.6	7.1
130°-140°	471.2	8.0
140°-150°	461.9	7.8
150°-160°	387.9	6.6
160°-170°	257.9	4.4
170°-180°	90.2	1.5
0°-30°	1014.6	17.2
0°-40°	1611.8	27.3
0°-60°	2683.9	45.4
0°-90°	3250.6	55.0
90°-120°	572.1	9.7
90°-150°	1925.8	32.6
90°-180°	2662.0	45.0
0°-180°	5912.4	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	16	18	5
95°	48	50	57	62	64	52
105°	169	173	177	182	184	181
115°	320	323	324	324	323	316
125°	467	471	472	471	470	418
135°	607	612	612	612	610	468
145°	736	739	741	741	739	460
155°	842	842	843	845	842	388
165°	915	914	915	917	913	258
175°	952	949	949	953	948	90
180°	954	954	954	954	954	



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**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	7.3	8.4	9.6	10.7	11.9	12.7
92.5°	18.0	18.9	19.8	20.7	21.7	22.8	24.3	25.7	27.1	28.5	29.6
95°	48.3	48.6	48.9	49.2	49.6	50.6	52.2	53.9	55.5	57.2	58.3
97.5°	80.2	80.3	80.4	80.6	80.7	81.9	84.2	86.5	88.7	91.0	92.1
100°	103.9	103.9	103.9	103.9	103.9	105.0	107.1	109.3	111.4	113.6	115.1
102.5°	129.5	130.1	130.8	131.4	132.1	133.0	134.1	135.2	136.2	137.3	139.0
105°	169.3	170.1	170.9	171.7	172.6	173.5	174.5	175.4	176.4	177.4	178.4
107.5°	213.2	214.0	214.9	215.7	216.5	217.3	218.1	218.8	219.6	220.3	220.8
110°	243.5	244.3	245.1	246.0	246.8	247.4	247.9	248.4	248.9	249.4	249.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	274.4	274.8	275.2	275.7	276.1	276.6	277.2	277.9	278.5	279.1	279.4
115°	320.0	320.6	321.3	321.9	322.6	323.1	323.4	323.7	324.1	324.4	324.2
117.5°	365.7	366.0	366.3	366.6	366.9	367.2	367.5	367.8	368.1	368.4	368.5
120°	394.2	395.0	395.8	396.7	397.5	398.0	398.1	398.3	398.5	398.6	398.6
122.5°	425.1	425.4	425.7	426.0	426.3	426.6	427.0	427.5	427.9	428.3	428.2
125°	466.9	467.9	468.9	469.9	470.9	471.5	471.6	471.8	472.0	472.1	471.8
127.5°	511.5	512.0	512.6	513.2	513.7	514.1	514.3	514.5	514.7	514.9	514.7
130°	538.2	539.0	539.9	540.7	541.5	542.1	542.4	542.7	543.1	543.4	543.2
132.5°	564.9	566.3	567.6	569.0	570.3	571.0	570.9	570.8	570.8	570.7	570.6
135°	607.2	608.2	609.2	610.2	611.2	611.8	611.9	612.1	612.3	612.4	612.4
137.5°	647.0	648.0	648.9	649.9	650.9	651.5	651.9	652.2	652.6	653.0	653.2
140°	672.6	673.4	674.2	675.0	675.9	676.5	677.0	677.5	678.0	678.5	678.8
142.5°	698.1	698.8	699.5	700.2	700.9	701.5	702.2	702.8	703.4	704.0	704.2
145°	735.7	736.3	737.0	737.6	738.3	738.9	739.4	739.9	740.4	740.9	740.9
147.5°	770.4	770.8	771.1	771.5	771.9	772.2	772.6	773.0	773.4	773.8	774.2
150°	793.6	793.4	793.2	793.1	792.9	793.2	793.8	794.5	795.1	795.8	795.8
152.5°	812.6	812.8	813.0	813.3	813.5	813.7	814.0	814.3	814.5	814.8	815.2
155°	841.8	841.8	841.8	841.8	841.8	841.9	842.1	842.2	842.4	842.6	843.2
157.5°	868.0	867.6	867.2	866.9	866.5	866.4	866.6	866.7	866.9	867.1	867.7
160°	883.4	882.9	882.4	881.9	881.4	881.2	881.4	881.6	881.7	881.9	882.6
162.5°	897.1	896.7	896.3	896.0	895.6	895.4	895.5	895.5	895.5	895.6	896.4
165°	915.3	915.0	914.7	914.3	914.0	913.9	914.1	914.2	914.4	914.6	915.2
167.5°	930.8	930.1	929.4	928.8	928.1	927.8	927.8	927.8	927.8	927.8	928.8
170°	939.1	938.4	937.7	937.1	936.4	936.1	936.1	936.1	936.1	936.1	937.1
172.5°	945.0	944.3	943.7	943.0	942.4	942.0	942.0	942.0	942.0	942.0	943.0
175°	951.7	951.0	950.4	949.7	949.0	948.7	948.7	948.7	948.7	948.7	949.7
177.5°	955.1	954.6	954.0	953.5	953.0	952.7	952.5	952.4	952.3	952.1	952.9
180°	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9



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**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	15.5	15.4	15.3	15.2
90°	13.5	14.4	15.2	15.8	16.3	16.8	17.3	17.8
92.5°	30.7	31.8	32.9	33.6	34.0	34.3	34.7	35.0
95°	59.5	60.6	61.8	62.5	62.9	63.2	63.5	63.8
97.5°	93.2	94.3	95.4	96.0	96.2	96.4	96.6	96.8
100°	116.5	118.0	119.5	120.4	120.8	121.1	121.4	121.7
102.5°	140.6	142.2	143.8	144.8	145.3	145.8	146.2	146.7
105°	179.4	180.4	181.4	182.1	182.6	183.1	183.6	184.1
107.5°	221.3	221.8	222.3	222.5	222.5	222.5	222.4	222.4
110°	250.4	250.9	251.4	251.6	251.4	251.2	251.1	250.9





TEST NUMBER: P333687

CATALOG NUMBER: S125RDIW-S850D770U835-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	279.6	279.8	280.0	280.0	279.7	279.4	279.1	278.8
115°	324.1	323.9	323.7	323.6	323.4	323.3	323.1	322.9
117.5°	368.6	368.7	368.9	368.6	368.0	367.3	366.6	366.0
120°	398.6	398.6	398.6	398.3	397.7	397.0	396.3	395.7
122.5°	428.1	427.9	427.8	427.5	426.9	426.4	425.9	425.4
125°	471.5	471.1	470.8	470.6	470.4	470.2	470.1	469.9
127.5°	514.6	514.4	514.2	514.0	513.7	513.3	513.0	512.7
130°	543.1	542.9	542.7	542.5	542.2	541.8	541.5	541.2
132.5°	570.4	570.2	570.1	569.7	569.3	568.8	568.4	567.9
135°	612.4	612.4	612.4	612.1	611.4	610.8	610.1	609.5
137.5°	653.4	653.6	653.8	653.4	652.6	651.8	651.0	650.1
140°	679.2	679.5	679.8	679.6	678.8	677.9	677.1	676.3
142.5°	704.4	704.6	704.8	704.5	703.7	702.9	702.0	701.2
145°	740.9	740.9	740.9	740.6	740.1	739.6	739.1	738.6
147.5°	774.6	775.0	775.4	775.0	773.9	772.8	771.7	770.6
150°	795.8	795.8	795.8	795.6	795.3	795.0	794.6	794.3
152.5°	815.6	816.0	816.4	816.3	815.7	815.1	814.5	813.9
155°	843.9	844.5	845.2	845.1	844.3	843.5	842.6	841.8
157.5°	868.4	869.0	869.7	869.5	868.4	867.3	866.2	865.1
160°	883.2	883.9	884.5	884.5	883.6	882.8	882.0	881.2
162.5°	897.2	897.9	898.7	898.7	897.7	896.7	895.8	894.8
165°	915.9	916.6	917.2	917.0	916.1	915.1	914.1	913.1
167.5°	929.8	930.8	931.7	931.7	930.7	929.7	928.7	927.6
170°	938.1	939.1	940.1	940.0	938.8	937.7	936.5	935.4
172.5°	944.0	945.0	946.0	946.0	945.0	943.9	942.9	941.9
175°	950.7	951.7	952.7	952.6	951.4	950.3	949.1	948.0
177.5°	953.7	954.5	955.3	955.2	954.3	953.4	952.5	951.5
180°	953.9	953.9	953.9	953.9	953.9	953.9	953.9	953.9

(END OF REPORT)