

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: P333565-830

Luminaire Tested: **S125RDIP-S850D810U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333565-830  
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: S125RDIP-S850D810U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6117.4 lumens  
Efficiency: N/A  
Efficacy: 133.3 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: General Diffuse

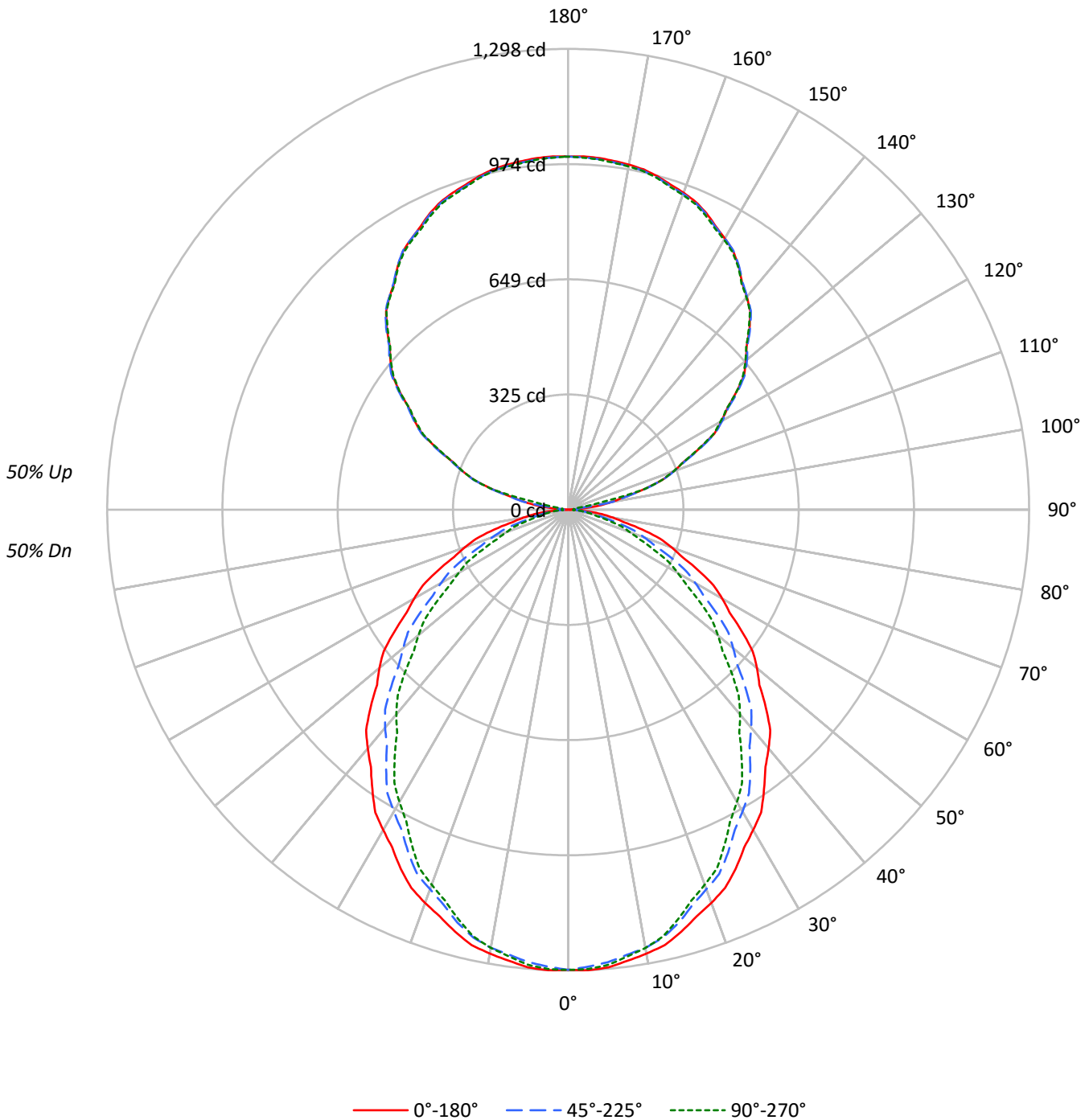
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	94	90	87	90	87	83	80	73	71	69	61	60	58	50	49	48	43				
2	89	82	76	71	82	76	71	66	65	61	57	54	51	49	44	42	41	36				
3	82	72	65	59	75	67	61	56	57	52	48	48	44	42	39	37	35	31				
4	75	64	56	50	69	60	53	47	51	46	41	43	39	36	35	32	30	27				
5	69	57	49	43	63	53	46	41	46	40	36	39	34	31	32	29	26	23				
6	63	51	43	38	58	48	41	36	41	36	31	35	31	27	29	26	23	20				
7	59	46	39	33	54	43	36	31	37	32	28	32	27	24	27	23	21	18				
8	54	42	35	29	50	39	33	28	34	29	25	29	25	22	24	21	19	16				
9	51	39	31	26	47	36	29	25	31	26	22	27	23	19	23	19	17	15				
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	21	18	15	13				

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

	0°	45°	90°
0°	8371	8371	8371
5°	8390	8294	8345
10°	8326	8217	8217
15°	8227	8050	7985
20°	8100	7818	7724
25°	7953	7590	7422
30°	7767	7322	7088
35°	7579	7046	6714
40°	7403	6759	6347
45°	7188	6437	5945
50°	6973	6089	5528
55°	6723	5754	5082
60°	6473	5349	4602
65°	6178	4876	4053
70°	5840	4288	3493
75°	5375	3616	2907
80°	4731	2838	2440
85°	3987	2319	2179



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.9	2.0
10°-20°	340.6	5.6
20°-30°	493.9	8.1
30°-40°	562.9	9.2
40°-50°	548.6	9.0
50°-60°	461.8	7.5
60°-70°	323.7	5.3
70°-80°	166.4	2.7
80°-90°	44.1	0.7
90°-100°	36.1	0.6
100°-110°	222.7	3.6
110°-120°	403.9	6.6
120°-130°	518.4	8.5
130°-140°	557.5	9.1
140°-150°	523.3	8.6
150°-160°	423.3	6.9
160°-170°	273.8	4.5
170°-180°	94.4	1.5
0°-30°	956.3	15.6
0°-40°	1519.2	24.8
0°-60°	2529.7	41.4
0°-90°	3063.9	50.1
90°-120°	662.7	10.8
90°-150°	2262.0	37.0
90°-180°	3054.0	49.9
0°-180°	6117.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1294	1290	1279	1289	1287	123
15°	1230	1224	1204	1203	1194	347
25°	1116	1100	1065	1052	1042	513
35°	961	937	894	866	852	602
45°	787	757	705	667	651	607
55°	597	564	511	468	451	534
65°	404	370	319	281	265	400
75°	215	185	145	124	116	228
85°	54	37	31	30	29	60
90°	1	7	12	15	18	4
95°	42	38	12	15	16	54
105°	217	219	220	220	219	230
115°	407	410	411	408	404	403
125°	579	584	584	581	579	517
135°	722	726	725	723	719	556
145°	837	838	838	839	834	523
155°	921	917	918	920	915	424
165°	972	968	969	972	967	275
175°	994	990	991	996	990	95
180°	994	994	994	994	994	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1298.4	1297.9	1297.3	1296.8	1296.3	1295.1	1293.5	1291.7	1290.0	1288.2	1290.0
5°	1294.1	1293.3	1292.3	1291.5	1290.6	1289.0	1286.6	1284.2	1281.8	1279.4	1281.6
7.5°	1281.4	1280.5	1279.7	1278.8	1278.1	1276.2	1273.4	1270.5	1267.6	1264.7	1266.2
10°	1269.6	1268.9	1268.3	1267.6	1267.0	1265.2	1262.2	1259.0	1256.0	1253.0	1253.6
12.5°	1256.3	1255.5	1254.6	1253.9	1253.0	1250.6	1246.4	1242.4	1238.3	1234.2	1234.6
15°	1230.5	1229.2	1227.9	1226.5	1225.2	1222.3	1217.8	1213.1	1208.6	1204.0	1203.8
17.5°	1201.3	1199.3	1197.3	1195.3	1193.3	1189.4	1183.6	1177.9	1172.1	1166.4	1165.4
20°	1178.6	1176.4	1174.2	1172.1	1169.9	1165.3	1158.4	1151.4	1144.4	1137.5	1136.4
22.5°	1153.5	1151.3	1149.1	1147.0	1144.8	1140.1	1132.7	1125.5	1118.1	1110.9	1108.7
25°	1116.0	1112.7	1109.4	1106.2	1102.9	1097.2	1089.2	1081.1	1073.1	1065.1	1062.2
27.5°	1072.9	1068.9	1065.0	1061.0	1057.1	1050.7	1042.2	1033.5	1024.9	1016.2	1012.3
30°	1041.5	1037.4	1033.3	1029.2	1025.0	1018.3	1009.3	1000.1	991.0	981.8	976.9
32.5°	1011.0	1006.2	1001.4	996.6	991.6	984.6	975.3	966.0	956.7	947.3	941.9
35°	961.3	956.0	950.8	945.6	940.4	932.8	923.1	913.3	903.5	893.7	887.4
37.5°	912.5	906.2	899.8	893.4	887.1	878.9	868.8	858.7	848.6	838.5	830.9
40°	878.1	871.6	865.0	858.5	852.0	843.5	833.0	822.6	812.2	801.7	793.4
42.5°	842.1	835.4	828.7	821.9	815.2	806.5	795.7	784.9	774.1	763.4	755.4
45°	787.0	780.7	774.4	768.1	761.8	752.6	740.6	728.8	716.8	704.8	696.1
47.5°	730.1	723.4	716.7	710.1	703.4	694.1	682.0	670.0	657.9	645.8	636.9
50°	694.0	686.8	679.7	672.5	665.3	655.5	643.1	630.7	618.3	606.0	596.8
52.5°	654.9	647.5	640.2	632.8	625.5	616.0	604.3	592.6	580.8	569.1	559.3
55°	597.1	590.1	583.2	576.3	569.3	559.7	547.5	535.4	523.2	511.0	501.1
57.5°	538.8	531.3	523.9	516.4	509.1	499.5	487.7	475.9	464.2	452.4	442.9
60°	501.1	493.6	486.0	478.3	470.7	461.1	449.3	437.5	425.8	414.1	404.5
62.5°	461.3	454.0	446.8	439.4	432.2	422.6	410.7	398.8	386.8	374.9	366.1
65°	404.3	396.9	389.5	382.1	374.7	365.2	353.7	342.1	330.6	319.1	310.4
67.5°	347.7	340.3	332.9	325.6	318.1	308.9	297.8	286.8	275.8	264.7	256.7
70°	309.3	301.9	294.5	287.1	279.7	270.6	259.8	248.8	238.0	227.1	220.4
72.5°	271.7	264.5	257.3	250.1	242.9	234.1	223.9	213.8	203.6	193.4	187.2
75°	215.4	208.9	202.3	195.8	189.3	181.4	172.3	163.2	154.0	144.9	140.1
77.5°	159.4	154.1	148.9	143.7	138.5	132.2	124.9	117.6	110.3	103.0	99.6
80°	127.2	122.1	116.8	111.6	106.4	100.8	94.6	88.5	82.5	76.3	74.4
82.5°	96.0	91.2	86.5	81.8	77.1	72.7	68.5	64.4	60.1	56.0	55.0
85°	53.8	50.0	46.0	42.1	38.2	35.6	34.6	33.5	32.4	31.3	31.1
87.5°	18.2	17.2	16.2	15.3	14.3	13.9	13.9	13.9	14.0	14.1	14.2
90°	0.8	2.1	3.4	4.7	5.9	7.2	8.4	9.5	10.7	11.8	12.6
92.5°	11.3	10.5	9.5	8.6	7.7	7.7	8.8	9.8	10.7	11.8	12.6
95°	42.0	41.6	41.0	40.5	40.1	36.7	30.4	24.2	18.0	11.8	12.6
97.5°	87.8	88.6	89.4	90.4	91.2	85.6	73.2	60.9	48.5	36.3	31.7
100°	123.1	123.6	124.0	124.6	125.1	125.6	126.3	127.0	127.6	128.3	103.9
102.5°	159.1	159.7	160.3	160.9	161.6	162.0	162.5	162.9	163.2	163.6	159.0
105°	216.7	217.4	218.0	218.7	219.3	219.6	219.6	219.6	219.6	219.6	219.6
107.5°	276.5	276.5	276.5	276.5	276.5	276.7	277.0	277.4	277.7	278.1	278.1
110°	315.5	315.5	315.5	315.5	315.5	315.7	315.9	316.3	316.6	317.0	316.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	352.0	352.4	352.8	353.3	353.6	353.9	354.1	354.3	354.5	354.7	354.1
115°	406.9	407.7	408.5	409.3	410.2	410.7	410.9	410.9	411.1	411.3	410.7
117.5°	463.6	463.6	463.5	463.5	463.5	463.8	464.4	465.1	465.7	466.3	465.4
120°	499.0	498.9	498.7	498.5	498.3	498.5	499.0	499.5	500.0	500.5	500.2
122.5°	530.3	530.9	531.5	532.2	532.7	533.2	533.4	533.7	533.9	534.1	533.8
125°	578.6	579.8	580.9	582.1	583.2	583.8	583.8	583.8	583.8	583.8	583.2
127.5°	624.8	625.6	626.4	627.3	628.0	628.4	628.3	628.2	628.1	628.0	627.6
130°	653.1	653.9	654.7	655.5	656.4	656.9	657.0	657.1	657.3	657.5	657.0
132.5°	681.4	682.3	683.2	684.2	685.2	685.5	685.1	684.8	684.4	684.0	683.9
135°	721.6	722.6	723.6	724.6	725.6	725.9	725.6	725.2	724.9	724.6	724.2
137.5°	758.7	759.5	760.3	761.2	762.0	762.3	762.0	761.8	761.5	761.1	761.2
140°	782.8	783.2	783.4	783.8	784.1	784.2	784.0	783.9	783.7	783.5	783.9
142.5°	804.6	804.8	805.0	805.2	805.4	805.6	805.9	806.1	806.3	806.5	806.6
145°	836.6	837.0	837.3	837.6	837.9	838.1	838.1	838.1	838.1	838.1	838.3
147.5°	864.6	864.6	864.5	864.4	864.4	864.4	864.6	864.8	865.1	865.3	865.4
150°	882.3	882.0	881.7	881.4	881.0	881.0	881.4	881.7	882.0	882.3	882.7
152.5°	899.5	898.7	898.0	897.3	896.5	896.4	896.6	897.0	897.3	897.7	898.0
155°	921.4	920.4	919.5	918.4	917.5	917.1	917.5	917.8	918.1	918.4	918.9
157.5°	938.3	937.7	937.2	936.6	935.9	935.7	935.8	935.8	935.8	935.9	936.3
160°	950.2	949.1	948.2	947.2	946.2	945.8	945.9	946.1	946.3	946.4	947.1
162.5°	959.6	958.6	957.6	956.6	955.6	955.3	955.4	955.5	955.7	955.9	956.8
165°	972.2	971.3	970.3	969.3	968.3	967.9	968.1	968.3	968.4	968.6	969.6
167.5°	981.7	980.7	979.7	978.6	977.6	977.2	977.3	977.5	977.7	977.9	979.0
170°	987.0	985.8	984.7	983.5	982.4	981.9	982.0	982.2	982.4	982.6	983.9
172.5°	990.5	989.4	988.3	987.1	985.9	985.5	985.8	986.1	986.4	986.7	987.9
175°	994.4	993.3	992.4	991.5	990.4	990.0	990.1	990.3	990.5	990.7	992.0
177.5°	996.2	995.3	994.6	993.8	993.0	992.7	992.8	992.9	993.1	993.2	994.1
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1291.7	1293.5	1295.1	1296.0	1295.8	1295.6	1295.4	1295.2
5°	1283.7	1285.9	1288.1	1289.0	1288.5	1288.1	1287.7	1287.2
7.5°	1267.8	1269.3	1270.8	1271.3	1270.8	1270.4	1269.9	1269.4
10°	1254.2	1254.9	1255.6	1255.6	1254.9	1254.2	1253.6	1253.0
12.5°	1235.1	1235.6	1236.1	1235.9	1234.8	1233.8	1232.8	1231.8
15°	1203.6	1203.3	1203.2	1202.1	1200.1	1198.2	1196.2	1194.2
17.5°	1164.2	1163.2	1162.1	1160.7	1159.1	1157.5	1155.9	1154.3
20°	1135.3	1134.2	1133.1	1131.6	1129.6	1127.7	1125.7	1123.8
22.5°	1106.5	1104.5	1102.3	1100.4	1098.8	1097.2	1095.6	1094.0
25°	1059.4	1056.6	1053.8	1051.1	1048.7	1046.3	1044.0	1041.5
27.5°	1008.3	1004.4	1000.4	997.3	995.0	992.7	990.4	988.1
30°	971.9	966.9	961.8	958.4	956.4	954.4	952.4	950.5
32.5°	936.3	930.8	925.3	921.2	918.8	916.3	913.8	911.3
35°	881.1	874.8	868.5	863.8	860.7	857.7	854.7	851.6
37.5°	823.4	815.8	808.2	803.0	800.0	797.0	794.1	791.2
40°	785.1	776.9	768.6	763.2	760.6	758.0	755.4	752.8
42.5°	747.5	739.6	731.7	725.8	722.0	718.1	714.3	710.5
45°	687.4	678.7	670.0	664.0	660.7	657.5	654.2	650.9
47.5°	627.9	619.0	610.0	603.7	600.1	596.5	592.9	589.3
50°	587.7	578.5	569.4	563.2	560.0	556.7	553.4	550.2
52.5°	549.5	539.6	529.8	523.2	520.0	516.7	513.5	510.2
55°	491.4	481.6	471.8	465.1	461.8	458.3	454.8	451.3
57.5°	433.3	423.8	414.2	407.8	404.7	401.6	398.6	395.5
60°	394.9	385.3	375.8	369.4	366.1	362.9	359.6	356.3
62.5°	357.1	348.3	339.4	333.4	330.1	326.8	323.6	320.3
65°	301.7	293.0	284.3	278.3	275.0	271.8	268.5	265.2
67.5°	248.7	240.8	232.8	227.5	225.0	222.3	219.7	217.2
70°	213.6	206.9	200.1	195.5	192.8	190.2	187.7	185.0
72.5°	181.0	174.7	168.5	164.6	162.8	161.1	159.4	157.6
75°	135.3	130.5	125.7	122.6	121.0	119.5	118.0	116.5
77.5°	96.2	92.9	89.5	87.4	86.2	85.1	84.0	82.8
80°	72.5	70.5	68.5	67.3	66.9	66.4	66.0	65.6
82.5°	54.2	53.3	52.3	51.7	51.5	51.3	51.0	50.7
85°	30.9	30.6	30.4	30.3	30.0	29.8	29.6	29.4
87.5°	14.4	14.6	14.8	14.8	14.7	14.6	14.6	14.5
90°	13.5	14.2	15.1	15.7	16.2	16.7	17.2	17.7
92.5°	13.5	14.2	15.1	15.6	15.8	16.0	16.3	16.5
95°	13.5	14.2	15.1	15.5	15.5	15.5	15.5	15.5
97.5°	27.1	22.4	17.8	15.5	15.5	15.5	15.5	15.5
100°	79.5	55.0	30.6	18.1	17.4	16.8	16.1	15.5
102.5°	154.4	149.8	145.2	137.3	126.1	115.0	103.9	92.7
105°	219.6	219.6	219.6	219.6	219.4	219.2	219.0	219.0
107.5°	278.1	278.1	278.1	278.0	277.5	276.9	276.4	276.0
110°	315.9	315.5	315.0	314.8	315.0	315.2	315.3	315.5





TEST NUMBER: P333565-830

CATALOG NUMBER: S125RDIP-S850D810U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.5	352.8	352.2	351.8	351.6	351.3	351.1	350.9
115°	410.0	409.3	408.7	407.8	406.9	405.9	404.9	404.0
117.5°	464.6	463.7	462.9	462.2	461.8	461.4	461.0	460.5
120°	499.8	499.5	499.2	498.6	497.8	497.0	496.2	495.3
122.5°	533.5	533.1	532.8	532.2	531.2	530.3	529.3	528.4
125°	582.5	581.8	581.2	580.6	580.1	579.6	579.1	578.6
127.5°	627.3	627.0	626.6	625.8	624.6	623.4	622.2	620.9
130°	656.5	656.0	655.5	654.9	654.0	653.3	652.4	651.6
132.5°	683.8	683.7	683.6	683.2	682.4	681.6	680.7	680.0
135°	724.0	723.6	723.3	722.6	721.6	720.7	719.6	718.7
137.5°	761.3	761.3	761.4	761.0	760.2	759.3	758.5	757.6
140°	784.2	784.6	784.9	784.6	783.5	782.6	781.6	780.6
142.5°	806.7	806.7	806.8	806.3	805.4	804.4	803.4	802.4
145°	838.4	838.6	838.8	838.3	837.4	836.4	835.4	834.4
147.5°	865.6	865.8	866.0	865.5	864.3	863.2	862.0	860.8
150°	883.0	883.4	883.6	883.2	881.8	880.5	879.2	877.9
152.5°	898.3	898.6	899.0	898.5	897.4	896.2	895.0	893.8
155°	919.5	919.9	920.4	920.0	918.7	917.4	916.1	914.7
157.5°	936.9	937.5	937.9	937.5	936.2	934.9	933.6	932.3
160°	947.7	948.4	949.0	948.8	947.4	946.1	944.8	943.5
162.5°	957.7	958.7	959.5	959.3	957.8	956.4	955.0	953.6
165°	970.5	971.5	972.5	972.3	971.0	969.7	968.4	967.0
167.5°	980.2	981.4	982.6	982.4	980.9	979.5	978.0	976.6
170°	985.1	986.5	987.8	987.7	986.3	984.8	983.3	981.8
172.5°	989.0	990.2	991.5	991.3	989.8	988.4	986.8	985.3
175°	993.3	994.6	995.9	995.8	994.4	992.9	991.5	990.0
177.5°	995.0	995.9	996.8	996.8	995.7	994.7	993.6	992.6
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4

(END OF REPORT)