

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: P333553-830

Luminaire Tested: **S125RDIP-S850D365U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333553-830  
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-S850D365U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4443.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 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

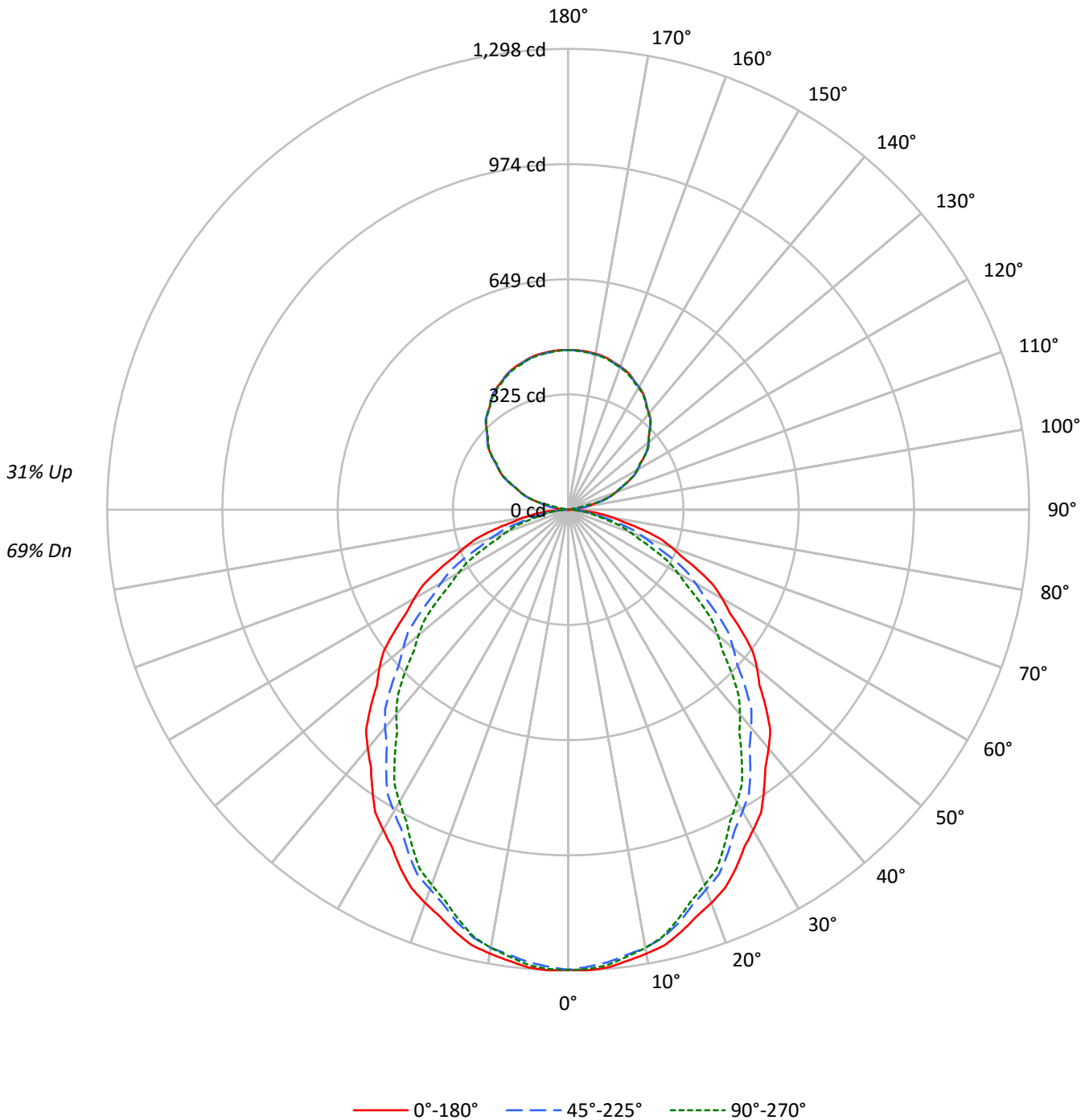
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	74	74	74	69
1	102	98	94	91	97	93	89	86	83	80	78	74	72	70	66	64	63	59
2	93	86	80	75	88	81	76	71	73	69	65	65	62	59	58	56	53	50
3	85	76	68	62	80	72	65	60	65	59	55	58	54	50	52	48	46	42
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	46	43	40	37
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	42	37	33	38	34	31	28
7	62	49	41	35	58	47	40	34	43	36	32	39	33	30	35	31	27	25
8	57	45	37	32	54	43	36	31	39	33	29	35	30	27	32	28	25	22
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	30	25	22	20
10	50	38	30	26	47	36	29	25	33	27	23	30	25	22	28	23	20	18

**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	2.7
10°-20°	340.6	7.7
20°-30°	493.9	11.1
30°-40°	562.9	12.7
40°-50°	548.6	12.3
50°-60°	461.8	10.4
60°-70°	323.7	7.3
70°-80°	166.4	3.7
80°-90°	43.0	1.0
90°-100°	16.3	0.4
100°-110°	100.7	2.3
110°-120°	182.6	4.1
120°-130°	234.3	5.3
130°-140°	252.0	5.7
140°-150°	236.5	5.3
150°-160°	191.3	4.3
160°-170°	123.8	2.8
170°-180°	42.7	1.0
0°-30°	956.3	21.5
0°-40°	1519.2	34.2
0°-60°	2529.7	56.9
0°-90°	3062.8	68.9
90°-120°	299.6	6.7
90°-150°	1022.4	23.0
90°-180°	1380.0	31.1
0°-180°	4443.0	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°	0	3	5	7	8	3
95°	19	17	5	7	7	24
105°	98	99	99	99	99	104
115°	184	186	186	185	183	182
125°	262	264	264	263	262	234
135°	326	328	328	327	325	251
145°	378	379	379	379	377	236
155°	416	415	415	416	414	192
165°	439	438	438	440	437	124
175°	449	448	448	450	447	43
180°	449	449	449	449	449	



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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°	18.1	17.0	15.8	14.8	13.7	13.1	13.0	12.9	12.9	12.8	12.9
90°	0.4	0.9	1.5	2.1	2.7	3.3	3.8	4.3	4.8	5.4	5.7
92.5°	5.1	4.7	4.3	3.9	3.5	3.5	4.0	4.4	4.9	5.4	5.7
95°	18.9	18.8	18.6	18.3	18.1	16.6	13.8	10.9	8.1	5.4	5.7
97.5°	39.7	40.1	40.4	40.8	41.3	38.6	33.1	27.5	22.0	16.4	14.3
100°	55.6	55.9	56.1	56.3	56.6	56.7	57.1	57.4	57.7	58.0	46.9
102.5°	71.9	72.2	72.5	72.8	73.0	73.2	73.4	73.6	73.8	74.0	71.9
105°	97.9	98.2	98.6	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2
107.5°	125.0	125.0	125.0	125.0	125.0	125.1	125.3	125.4	125.5	125.6	125.6
110°	142.6	142.6	142.6	142.6	142.6	142.7	142.8	143.0	143.1	143.3	143.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.1	159.3	159.5	159.7	159.9	159.9	160.0	160.1	160.2	160.3	160.0
115°	183.9	184.3	184.6	185.0	185.4	185.6	185.7	185.8	185.9	185.9	185.6
117.5°	209.5	209.5	209.5	209.5	209.5	209.6	209.9	210.2	210.5	210.8	210.4
120°	225.6	225.5	225.5	225.4	225.3	225.4	225.6	225.7	226.0	226.2	226.1
122.5°	239.7	240.0	240.3	240.5	240.8	241.0	241.1	241.2	241.3	241.4	241.3
125°	261.6	262.0	262.6	263.1	263.6	263.9	263.9	263.9	263.9	263.9	263.5
127.5°	282.4	282.8	283.1	283.5	283.9	284.1	284.0	284.0	283.9	283.9	283.7
130°	295.2	295.6	296.0	296.3	296.7	296.9	297.0	297.0	297.1	297.2	297.0
132.5°	308.0	308.4	308.9	309.2	309.7	309.8	309.7	309.5	309.3	309.2	309.2
135°	326.2	326.6	327.1	327.5	327.9	328.1	327.9	327.8	327.6	327.5	327.3
137.5°	342.9	343.3	343.7	344.0	344.4	344.6	344.4	344.3	344.1	344.0	344.0
140°	353.8	354.0	354.1	354.3	354.4	354.5	354.4	354.3	354.2	354.2	354.3
142.5°	363.7	363.8	363.9	363.9	364.0	364.1	364.3	364.4	364.5	364.6	364.6
145°	378.1	378.3	378.4	378.6	378.7	378.8	378.8	378.8	378.8	378.8	378.9
147.5°	390.8	390.8	390.8	390.7	390.7	390.7	390.8	390.9	391.0	391.1	391.2
150°	398.8	398.7	398.5	398.3	398.2	398.2	398.3	398.5	398.7	398.8	399.0
152.5°	406.5	406.2	405.9	405.6	405.2	405.1	405.3	405.5	405.6	405.8	405.9
155°	416.5	416.0	415.6	415.1	414.7	414.5	414.7	414.8	415.0	415.1	415.4
157.5°	424.1	423.9	423.6	423.3	423.1	422.9	422.9	423.0	423.0	423.0	423.2
160°	429.4	429.0	428.6	428.1	427.7	427.5	427.5	427.6	427.7	427.8	428.1
162.5°	433.8	433.3	432.8	432.3	432.0	431.8	431.9	431.9	432.0	432.1	432.4
165°	439.4	439.0	438.6	438.1	437.7	437.5	437.5	437.6	437.7	437.8	438.2
167.5°	443.7	443.3	442.8	442.3	441.9	441.7	441.8	441.9	442.0	442.0	442.5
170°	446.1	445.6	445.1	444.6	444.0	443.8	443.9	443.9	444.0	444.1	444.7
172.5°	447.7	447.2	446.7	446.2	445.6	445.4	445.5	445.7	445.8	446.0	446.5
175°	449.4	449.0	448.6	448.1	447.7	447.5	447.5	447.6	447.7	447.8	448.4
177.5°	450.3	449.9	449.5	449.2	448.8	448.7	448.7	448.8	448.8	448.9	449.3
180°	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4



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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°	13.0	13.0	13.1	13.1	12.9	12.8	12.7	12.5
90°	6.0	6.4	6.8	7.1	7.4	7.5	7.7	8.0
92.5°	6.0	6.4	6.8	7.1	7.2	7.3	7.4	7.4
95°	6.0	6.4	6.8	7.0	7.0	7.0	7.0	7.0
97.5°	12.3	10.1	8.0	7.0	7.0	7.0	7.0	7.0
100°	35.9	24.9	13.9	8.2	7.9	7.6	7.3	7.0
102.5°	69.7	67.7	65.6	62.0	57.0	52.0	46.9	41.9
105°	99.2	99.2	99.2	99.2	99.2	99.1	99.1	99.0
107.5°	125.7	125.7	125.7	125.6	125.5	125.2	125.0	124.7
110°	142.8	142.6	142.4	142.3	142.4	142.4	142.5	142.6





TEST NUMBER: P333553-830

CATALOG NUMBER: S125RDIP-S850D365U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	159.8	159.5	159.2	159.0	158.9	158.8	158.7	158.6
115°	185.3	185.0	184.7	184.4	183.9	183.5	183.0	182.6
117.5°	210.0	209.6	209.2	209.0	208.8	208.6	208.4	208.2
120°	225.9	225.7	225.6	225.4	225.0	224.6	224.2	223.9
122.5°	241.1	241.0	240.8	240.5	240.1	239.7	239.2	238.8
125°	263.3	263.0	262.7	262.4	262.2	262.0	261.7	261.6
127.5°	283.5	283.3	283.2	282.9	282.3	281.7	281.3	280.7
130°	296.7	296.5	296.3	296.0	295.7	295.3	294.9	294.5
132.5°	309.1	309.1	309.0	308.8	308.4	308.0	307.6	307.4
135°	327.3	327.1	326.9	326.6	326.2	325.7	325.3	324.8
137.5°	344.1	344.1	344.1	343.9	343.6	343.2	342.8	342.4
140°	354.5	354.6	354.8	354.6	354.2	353.7	353.3	352.8
142.5°	364.6	364.7	364.7	364.5	364.0	363.5	363.2	362.7
145°	379.0	379.0	379.1	378.9	378.5	378.1	377.6	377.1
147.5°	391.2	391.3	391.4	391.2	390.7	390.1	389.6	389.1
150°	399.1	399.3	399.4	399.2	398.6	398.0	397.4	396.8
152.5°	406.0	406.1	406.3	406.1	405.6	405.1	404.5	404.0
155°	415.6	415.8	416.0	415.8	415.3	414.6	414.1	413.5
157.5°	423.5	423.7	424.0	423.8	423.2	422.5	422.0	421.4
160°	428.4	428.7	429.0	428.9	428.2	427.6	427.1	426.5
162.5°	432.9	433.3	433.8	433.6	432.9	432.3	431.7	431.0
165°	438.7	439.1	439.6	439.5	438.9	438.3	437.7	437.2
167.5°	443.1	443.6	444.1	444.0	443.4	442.7	442.1	441.4
170°	445.3	445.9	446.5	446.5	445.8	445.2	444.4	443.7
172.5°	447.0	447.6	448.1	448.1	447.4	446.7	446.0	445.4
175°	448.9	449.6	450.2	450.2	449.4	448.7	448.1	447.4
177.5°	449.8	450.2	450.5	450.5	450.1	449.6	449.1	448.7
180°	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4

(END OF REPORT)