

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: P333578-940

Luminaire Tested: **S125RDIP-S850D1205U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333578-940  
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: S125RDIP-S850D1205U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6615.2 lumens  
Efficiency: N/A  
Efficacy: 116.3 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

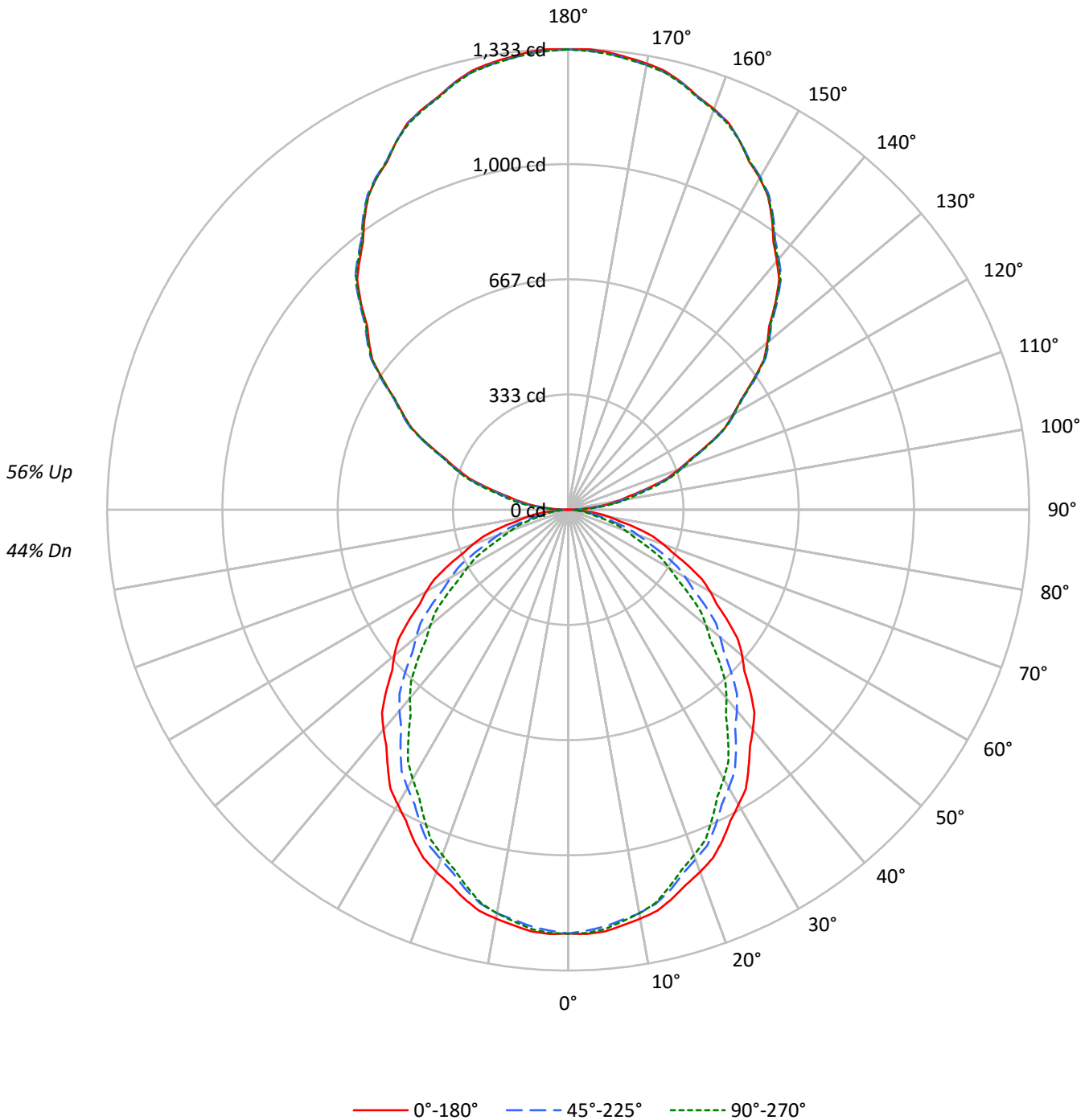
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	50	50	50	44
1	97	92	89	85	88	85	81	79	70	68	66	57	56	54	45	44	43	37
2	88	81	75	70	80	74	69	65	62	58	55	50	48	45	40	38	36	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	35	33	31	27
4	74	63	55	49	67	58	51	46	49	44	40	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	40	44	38	34	36	32	29	29	26	24	20
6	62	50	43	37	57	47	40	34	39	34	30	32	28	25	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	29	49	38	32	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13
10	46	35	28	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

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

	0°	45°	90°
0°	7919	7919	7919
5°	7937	7847	7895
10°	7877	7774	7774
15°	7783	7616	7554
20°	7663	7396	7307
25°	7524	7180	7021
30°	7348	6927	6706
35°	7171	6666	6352
40°	7003	6395	6004
45°	6801	6090	5624
50°	6597	5760	5230
55°	6361	5443	4808
60°	6124	5059	4354
65°	5845	4614	3834
70°	5527	4056	3305
75°	5085	3421	2750
80°	4478	2685	2310
85°	3772	2193	2060



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.3	1.7
10°-20°	322.2	4.9
20°-30°	467.2	7.1
30°-40°	532.5	8.0
40°-50°	519.1	7.8
50°-60°	436.9	6.6
60°-70°	306.3	4.6
70°-80°	157.4	2.4
80°-90°	42.7	0.6
90°-100°	89.2	1.3
100°-110°	263.4	4.0
110°-120°	446.1	6.7
120°-130°	587.0	8.9
130°-140°	657.8	9.9
140°-150°	644.7	9.7
150°-160°	541.5	8.2
160°-170°	359.9	5.4
170°-180°	126.0	1.9
0°-30°	904.7	13.7
0°-40°	1437.3	21.7
0°-60°	2393.2	36.2
0°-90°	2899.6	43.8
90°-120°	798.6	12.1
90°-150°	2688.1	40.6
90°-180°	3716.0	56.2
0°-180°	6615.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1224	1220	1210	1219	1218	116
15°	1164	1158	1139	1138	1130	328
25°	1056	1041	1008	996	985	486
35°	910	886	846	819	806	569
45°	745	716	667	631	616	574
55°	565	534	483	443	427	505
65°	382	350	302	266	251	379
75°	204	175	137	118	110	216
85°	51	35	30	29	28	57
90°	1	9	17	22	25	6
95°	67	70	80	87	89	72
105°	236	242	248	254	257	252
115°	447	451	453	452	451	442
125°	652	658	659	657	656	584
135°	848	854	855	855	851	653
145°	1027	1031	1034	1034	1031	642
155°	1175	1175	1176	1180	1175	541
165°	1278	1276	1277	1280	1274	360
175°	1328	1324	1324	1330	1323	126
180°	1332	1332	1332	1332	1332	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1228.3	1227.9	1227.4	1226.9	1226.4	1225.3	1223.7	1222.0	1220.4	1218.7	1220.4
5°	1224.3	1223.5	1222.6	1221.8	1221.0	1219.5	1217.2	1215.0	1212.6	1210.4	1212.5
7.5°	1212.3	1211.5	1210.7	1209.9	1209.2	1207.4	1204.7	1201.9	1199.3	1196.5	1197.9
10°	1201.1	1200.5	1199.9	1199.3	1198.6	1196.9	1194.1	1191.1	1188.3	1185.4	1186.0
12.5°	1188.6	1187.8	1187.0	1186.2	1185.4	1183.1	1179.2	1175.4	1171.5	1167.6	1168.1
15°	1164.1	1162.9	1161.6	1160.4	1159.1	1156.4	1152.1	1147.7	1143.4	1139.1	1138.9
17.5°	1136.5	1134.6	1132.7	1130.9	1128.9	1125.2	1119.8	1114.4	1108.9	1103.5	1102.5
20°	1115.0	1112.9	1110.9	1108.8	1106.8	1102.4	1095.9	1089.3	1082.7	1076.1	1075.1
22.5°	1091.3	1089.2	1087.2	1085.1	1083.1	1078.6	1071.7	1064.8	1057.8	1051.0	1048.9
25°	1055.8	1052.7	1049.5	1046.5	1043.4	1038.0	1030.5	1022.8	1015.2	1007.6	1005.0
27.5°	1015.0	1011.3	1007.5	1003.8	1000.1	994.1	986.0	977.8	969.6	961.4	957.7
30°	985.3	981.4	977.6	973.7	969.7	963.4	954.8	946.2	937.5	928.9	924.2
32.5°	956.4	951.9	947.4	942.8	938.2	931.5	922.7	913.9	905.1	896.3	891.1
35°	909.5	904.5	899.6	894.6	889.7	882.5	873.3	864.1	854.8	845.5	839.5
37.5°	863.3	857.3	851.3	845.3	839.3	831.5	822.0	812.3	802.8	793.3	786.1
40°	830.7	824.6	818.3	812.2	806.0	798.0	788.1	778.2	768.4	758.5	750.6
42.5°	796.7	790.3	784.0	777.6	771.2	763.0	752.8	742.6	732.4	722.2	714.7
45°	744.6	738.6	732.6	726.7	720.7	712.0	700.7	689.5	678.1	666.8	658.5
47.5°	690.7	684.4	678.1	671.8	665.5	656.7	645.2	633.8	622.4	611.0	602.5
50°	656.6	649.8	643.0	636.2	629.5	620.2	608.4	596.7	585.0	573.3	564.6
52.5°	619.6	612.6	605.6	598.7	591.7	582.7	571.7	560.6	549.5	538.4	529.1
55°	564.9	558.3	551.8	545.2	538.6	529.5	518.0	506.5	495.0	483.4	474.1
57.5°	509.7	502.7	495.6	488.6	481.6	472.5	461.4	450.2	439.2	428.0	419.0
60°	474.1	467.0	459.8	452.5	445.3	436.2	425.1	413.9	402.9	391.7	382.7
62.5°	436.4	429.5	422.7	415.7	408.8	399.8	388.5	377.3	366.0	354.7	346.3
65°	382.5	375.5	368.5	361.5	354.5	345.5	334.7	323.7	312.8	301.9	293.6
67.5°	329.0	321.9	315.0	308.0	301.0	292.2	281.8	271.3	260.9	250.4	242.9
70°	292.7	285.6	278.7	271.6	264.7	256.0	245.8	235.4	225.2	214.8	208.5
72.5°	257.1	250.2	243.4	236.6	229.8	221.5	211.9	202.2	192.6	183.0	177.1
75°	203.8	197.6	191.4	185.2	179.1	171.7	163.0	154.4	145.7	137.1	132.5
77.5°	150.8	145.8	140.9	136.0	131.0	125.1	118.2	111.3	104.3	97.5	94.3
80°	120.4	115.5	110.5	105.6	100.7	95.3	89.5	83.7	78.0	72.2	70.4
82.5°	90.8	86.3	81.9	77.4	72.9	68.8	64.8	60.9	56.9	53.0	52.1
85°	50.9	47.3	43.5	39.9	36.1	33.7	32.7	31.7	30.7	29.6	29.4
87.5°	17.2	16.5	15.7	14.9	14.1	13.8	14.0	14.1	14.3	14.4	14.6
90°	1.1	2.9	4.7	6.6	8.4	10.2	11.8	13.4	15.0	16.6	17.7
92.5°	25.1	26.4	27.6	29.0	30.2	31.8	33.9	35.8	37.8	39.8	41.3
95°	67.3	67.8	68.3	68.8	69.2	70.5	72.9	75.2	77.5	79.8	81.4
97.5°	111.9	112.1	112.3	112.4	112.6	114.3	117.5	120.6	123.9	127.1	128.6
100°	145.1	145.1	145.1	145.1	145.1	146.6	149.5	152.6	155.5	158.5	160.6
102.5°	180.7	181.6	182.5	183.5	184.4	185.7	187.2	188.7	190.2	191.7	193.9
105°	236.2	237.4	238.5	239.7	240.9	242.1	243.5	244.9	246.3	247.6	249.1
107.5°	297.6	298.7	299.9	301.0	302.2	303.3	304.3	305.4	306.5	307.6	308.3
110°	339.9	341.0	342.1	343.3	344.5	345.4	346.1	346.8	347.5	348.1	348.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	383.0	383.6	384.1	384.8	385.4	386.1	387.0	387.9	388.7	389.6	389.9
115°	446.6	447.5	448.4	449.3	450.3	450.9	451.5	451.9	452.4	452.8	452.6
117.5°	510.4	510.9	511.3	511.7	512.1	512.5	512.9	513.4	513.7	514.2	514.3
120°	550.2	551.3	552.5	553.7	554.8	555.5	555.7	556.0	556.2	556.4	556.4
122.5°	593.3	593.8	594.1	594.6	594.9	595.5	596.1	596.7	597.3	597.9	597.7
125°	651.8	653.2	654.5	655.9	657.3	658.1	658.4	658.5	658.8	659.1	658.5
127.5°	714.0	714.7	715.5	716.3	717.1	717.6	717.9	718.2	718.5	718.7	718.5
130°	751.3	752.4	753.6	754.7	755.8	756.7	757.2	757.6	758.0	758.5	758.3
132.5°	788.5	790.4	792.4	794.2	796.1	797.0	796.9	796.8	796.7	796.7	796.4
135°	847.7	849.0	850.4	851.8	853.2	854.0	854.2	854.4	854.6	854.9	854.9
137.5°	903.1	904.5	905.8	907.1	908.5	909.5	909.9	910.4	911.0	911.4	911.7
140°	938.8	940.0	941.1	942.3	943.4	944.3	945.0	945.7	946.4	947.1	947.5
142.5°	974.5	975.4	976.4	977.3	978.3	979.3	980.1	981.0	981.9	982.8	983.0
145°	1026.9	1027.8	1028.8	1029.7	1030.6	1031.4	1032.1	1032.8	1033.4	1034.1	1034.1
147.5°	1075.4	1075.8	1076.4	1076.9	1077.4	1077.9	1078.5	1079.1	1079.6	1080.1	1080.7
150°	1107.7	1107.5	1107.2	1107.1	1106.8	1107.1	1108.0	1108.9	1109.9	1110.8	1110.8
152.5°	1134.3	1134.5	1134.9	1135.2	1135.5	1135.9	1136.2	1136.6	1137.0	1137.4	1137.9
155°	1175.1	1175.1	1175.1	1175.1	1175.1	1175.2	1175.5	1175.6	1175.9	1176.1	1177.1
157.5°	1211.6	1211.0	1210.5	1210.1	1209.5	1209.3	1209.6	1209.9	1210.1	1210.3	1211.2
160°	1233.1	1232.4	1231.7	1231.0	1230.3	1230.1	1230.3	1230.6	1230.8	1231.0	1231.9
162.5°	1252.1	1251.7	1251.2	1250.6	1250.1	1249.9	1249.9	1250.0	1250.0	1250.1	1251.2
165°	1277.6	1277.2	1276.8	1276.3	1275.8	1275.7	1275.9	1276.1	1276.4	1276.6	1277.6
167.5°	1299.2	1298.2	1297.4	1296.5	1295.5	1295.0	1295.0	1295.0	1295.0	1295.0	1296.5
170°	1310.8	1309.9	1308.9	1308.1	1307.2	1306.6	1306.6	1306.6	1306.6	1306.6	1308.1
172.5°	1319.1	1318.2	1317.2	1316.3	1315.5	1314.9	1314.9	1314.9	1314.9	1314.9	1316.3
175°	1328.4	1327.5	1326.6	1325.6	1324.7	1324.3	1324.3	1324.3	1324.3	1324.3	1325.6
177.5°	1333.2	1332.5	1331.7	1331.0	1330.3	1329.8	1329.6	1329.5	1329.2	1329.0	1330.2
180°	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1222.0	1223.7	1225.3	1226.1	1225.9	1225.7	1225.6	1225.4
5°	1214.5	1216.6	1218.6	1219.5	1219.1	1218.6	1218.3	1217.8
7.5°	1199.4	1200.9	1202.3	1202.7	1202.3	1201.8	1201.4	1201.0
10°	1186.6	1187.2	1187.8	1187.8	1187.2	1186.6	1186.0	1185.4
12.5°	1168.5	1168.9	1169.4	1169.2	1168.2	1167.2	1166.4	1165.4
15°	1138.7	1138.4	1138.3	1137.3	1135.4	1133.5	1131.7	1129.8
17.5°	1101.4	1100.5	1099.4	1098.1	1096.6	1095.1	1093.6	1092.1
20°	1074.1	1073.0	1072.0	1070.6	1068.7	1066.8	1065.0	1063.2
22.5°	1046.9	1044.9	1042.9	1041.1	1039.6	1038.0	1036.5	1035.0
25°	1002.3	999.6	996.9	994.4	992.1	989.9	987.7	985.3
27.5°	954.0	950.2	946.5	943.5	941.4	939.1	937.0	934.8
30°	919.4	914.7	909.9	906.7	904.8	902.9	901.1	899.2
32.5°	885.8	880.6	875.4	871.6	869.2	866.9	864.5	862.2
35°	833.6	827.6	821.6	817.3	814.3	811.5	808.6	805.7
37.5°	779.0	771.8	764.6	759.6	756.9	754.0	751.3	748.5
40°	742.8	735.0	727.2	722.0	719.6	717.1	714.6	712.2
42.5°	707.2	699.7	692.2	686.6	683.1	679.4	675.7	672.2
45°	650.3	642.1	633.8	628.2	625.1	622.1	618.9	615.8
47.5°	594.1	585.6	577.1	571.1	567.8	564.4	560.9	557.5
50°	556.0	547.3	538.7	532.8	529.8	526.6	523.5	520.5
52.5°	519.9	510.5	501.2	495.0	492.0	488.8	485.8	482.7
55°	464.9	455.7	446.4	440.1	436.8	433.5	430.3	427.0
57.5°	409.9	400.9	391.8	385.8	382.9	380.0	377.1	374.2
60°	373.6	364.5	355.5	349.5	346.3	343.3	340.2	337.1
62.5°	337.9	329.5	321.1	315.4	312.3	309.2	306.1	303.0
65°	285.4	277.2	268.9	263.3	260.2	257.2	254.0	250.9
67.5°	235.3	227.8	220.3	215.3	212.9	210.4	207.9	205.5
70°	202.1	195.7	189.3	184.9	182.4	179.9	177.5	175.0
72.5°	171.2	165.3	159.4	155.7	154.0	152.4	150.8	149.1
75°	128.0	123.5	119.0	116.0	114.5	113.1	111.6	110.2
77.5°	91.0	87.9	84.7	82.7	81.6	80.5	79.5	78.4
80°	68.6	66.7	64.8	63.7	63.3	62.9	62.4	62.1
82.5°	51.3	50.4	49.5	49.0	48.7	48.5	48.2	48.0
85°	29.2	29.0	28.8	28.6	28.4	28.2	28.0	27.8
87.5°	14.9	15.2	15.3	15.4	15.4	15.4	15.3	15.3
90°	18.9	20.1	21.2	22.1	22.8	23.5	24.2	24.9
92.5°	42.8	44.3	45.8	46.9	47.3	47.9	48.4	48.9
95°	83.0	84.6	86.2	87.3	87.7	88.2	88.6	89.1
97.5°	130.1	131.6	133.1	134.0	134.3	134.6	134.8	135.1
100°	162.6	164.8	166.8	168.1	168.5	169.0	169.5	170.0
102.5°	196.2	198.5	200.7	202.2	202.9	203.5	204.1	204.7
105°	250.4	251.8	253.2	254.2	254.9	255.6	256.3	257.0
107.5°	308.9	309.6	310.3	310.7	310.6	310.6	310.5	310.4
110°	349.6	350.3	350.9	351.2	350.9	350.7	350.4	350.3





TEST NUMBER: P333578-940

CATALOG NUMBER: S125RDIP-S850D1205U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	390.3	390.6	390.9	390.8	390.5	390.0	389.6	389.2
115°	452.4	452.1	451.9	451.7	451.5	451.2	450.9	450.8
117.5°	514.5	514.7	514.9	514.5	513.6	512.7	511.8	510.9
120°	556.4	556.4	556.4	556.0	555.1	554.1	553.2	552.3
122.5°	597.5	597.4	597.2	596.7	595.9	595.2	594.5	593.8
125°	658.1	657.6	657.2	656.8	656.7	656.4	656.1	655.9
127.5°	718.3	718.0	717.8	717.5	717.0	716.5	716.0	715.6
130°	758.0	757.8	757.6	757.2	756.8	756.3	755.8	755.4
132.5°	796.2	795.9	795.7	795.3	794.6	794.0	793.4	792.7
135°	854.9	854.9	854.9	854.4	853.5	852.6	851.7	850.7
137.5°	912.0	912.3	912.6	912.1	911.0	909.8	908.7	907.5
140°	948.0	948.5	949.0	948.6	947.4	946.3	945.1	944.0
142.5°	983.3	983.6	983.8	983.4	982.2	981.1	980.0	978.8
145°	1034.1	1034.1	1034.1	1033.8	1033.1	1032.4	1031.7	1031.0
147.5°	1081.3	1081.8	1082.4	1081.8	1080.3	1078.7	1077.2	1075.6
150°	1110.8	1110.8	1110.8	1110.6	1110.1	1109.6	1109.2	1108.8
152.5°	1138.4	1139.0	1139.5	1139.4	1138.6	1137.7	1136.9	1136.1
155°	1177.9	1178.8	1179.8	1179.6	1178.5	1177.3	1176.3	1175.1
157.5°	1212.1	1213.1	1214.0	1213.7	1212.2	1210.7	1209.2	1207.6
160°	1232.9	1233.8	1234.7	1234.6	1233.4	1232.3	1231.1	1230.0
162.5°	1252.3	1253.4	1254.5	1254.4	1253.0	1251.7	1250.4	1249.0
165°	1278.4	1279.3	1280.3	1280.1	1278.7	1277.3	1275.9	1274.5
167.5°	1297.8	1299.2	1300.6	1300.6	1299.1	1297.7	1296.3	1294.9
170°	1309.4	1310.8	1312.2	1312.1	1310.5	1308.9	1307.2	1305.6
172.5°	1317.7	1319.1	1320.4	1320.4	1319.0	1317.6	1316.2	1314.7
175°	1327.0	1328.4	1329.8	1329.7	1328.1	1326.5	1324.8	1323.2
177.5°	1331.2	1332.4	1333.5	1333.4	1332.1	1330.8	1329.5	1328.2
180°	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5	1331.5

(END OF REPORT)