

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: P333577-927

Luminaire Tested: **S125RDIP-S850D1205U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333577-927  
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-S850D1205U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6389.9 lumens  
Efficiency: N/A  
Efficacy: 112.3 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

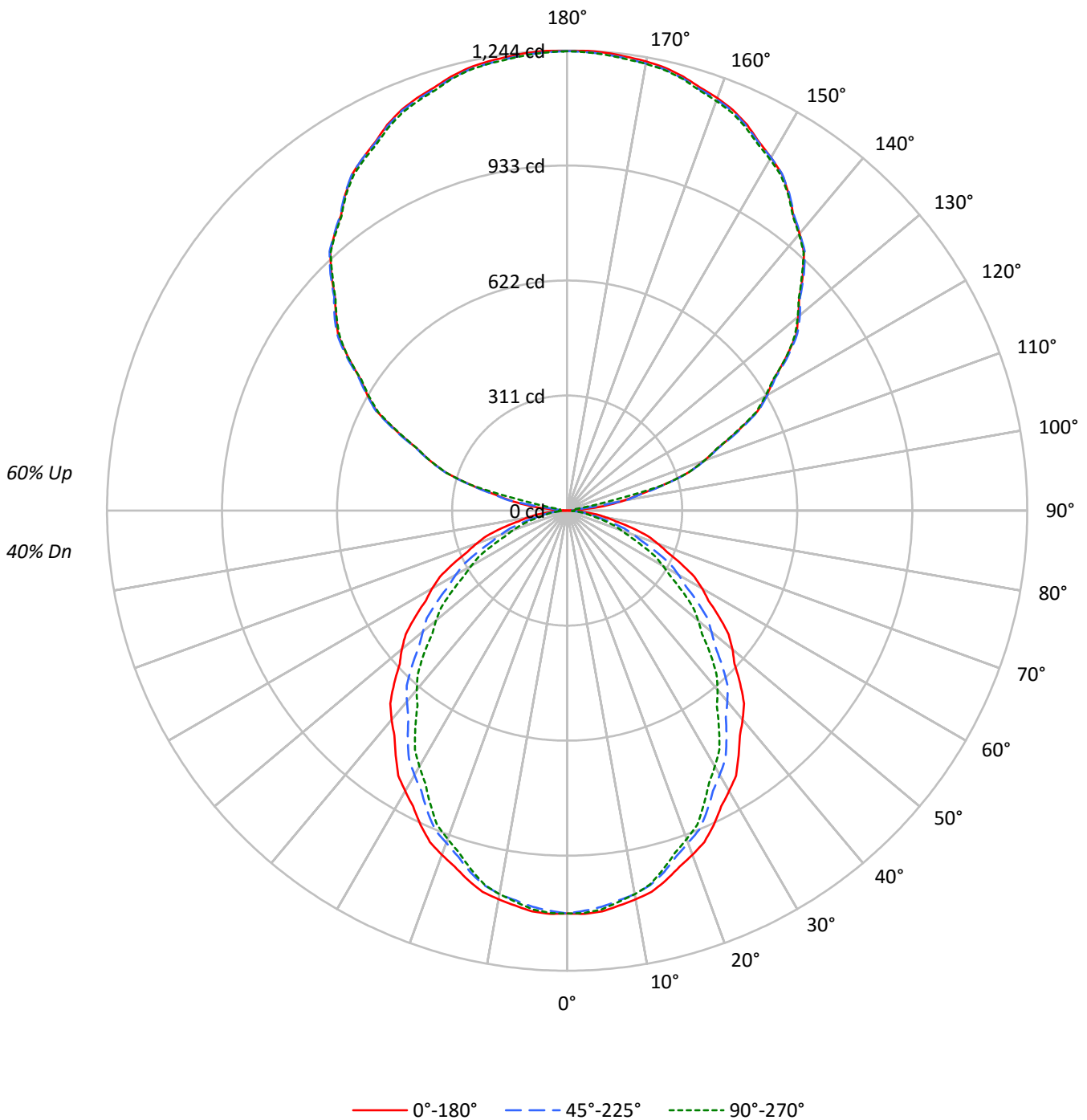
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	36	34	29
3	80	71	63	58	72	65	58	53	53	49	45	43	40	37	33	31	29	25
4	73	62	55	49	66	57	51	45	47	42	38	38	35	32	30	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	31	28	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	22	19	16
7	57	45	37	32	52	41	35	30	35	29	26	28	24	21	22	19	17	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	20	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	17	15	13	11

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

	0°	45°	90°
0°	7035	7035	7035
5°	7052	6971	7014
10°	6998	6906	6906
15°	6915	6766	6711
20°	6808	6570	6491
25°	6683	6379	6238
30°	6528	6154	5957
35°	6370	5922	5643
40°	6222	5681	5334
45°	6042	5411	4997
50°	5861	5117	4646
55°	5650	4835	4271
60°	5441	4495	3867
65°	5193	4099	3406
70°	4910	3603	2936
75°	4517	3039	2443
80°	3976	2388	2049
85°	3349	1949	1830



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	1.6
10°-20°	286.2	4.5
20°-30°	415.1	6.5
30°-40°	473.1	7.4
40°-50°	461.1	7.2
50°-60°	388.2	6.1
60°-70°	272.1	4.3
70°-80°	139.9	2.2
80°-90°	37.9	0.6
90°-100°	45.1	0.7
100°-110°	278.2	4.4
110°-120°	504.5	7.9
120°-130°	647.4	10.1
130°-140°	696.4	10.9
140°-150°	653.6	10.2
150°-160°	528.7	8.3
160°-170°	342.0	5.4
170°-180°	117.9	1.8
0°-30°	803.8	12.6
0°-40°	1276.8	20.0
0°-60°	2126.1	33.3
0°-90°	2576.0	40.3
90°-120°	827.8	13.0
90°-150°	2825.2	44.2
90°-180°	3814.0	59.7
0°-180°	6389.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1088	1084	1075	1083	1082	103
15°	1034	1029	1012	1011	1004	291
25°	938	925	895	885	875	431
35°	808	787	751	728	716	506
45°	662	636	592	561	547	510
55°	502	474	429	394	379	449
65°	340	311	268	236	223	336
75°	181	156	122	104	98	192
85°	45	31	26	26	25	51
90°	1	8	15	19	22	4
95°	52	48	15	19	19	67
105°	271	274	274	274	274	287
115°	508	513	514	510	504	504
125°	723	729	729	726	723	645
135°	901	906	905	903	898	694
145°	1045	1047	1047	1047	1042	653
155°	1151	1146	1147	1149	1143	530
165°	1214	1209	1210	1215	1208	343
175°	1242	1237	1237	1244	1236	118
180°	1242	1242	1242	1242	1242	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1091.2	1090.8	1090.4	1090.0	1089.5	1088.5	1087.1	1085.6	1084.2	1082.7	1084.2
5°	1087.7	1087.0	1086.2	1085.4	1084.7	1083.4	1081.3	1079.3	1077.3	1075.3	1077.1
7.5°	1077.0	1076.3	1075.5	1074.8	1074.2	1072.6	1070.2	1067.8	1065.4	1063.0	1064.2
10°	1067.1	1066.5	1066.0	1065.4	1064.9	1063.3	1060.8	1058.2	1055.7	1053.1	1053.6
12.5°	1055.9	1055.2	1054.5	1053.8	1053.1	1051.1	1047.6	1044.2	1040.8	1037.3	1037.7
15°	1034.2	1033.1	1032.0	1030.9	1029.8	1027.3	1023.5	1019.6	1015.8	1011.9	1011.8
17.5°	1009.6	1008.0	1006.3	1004.6	1002.9	999.7	994.8	990.0	985.2	980.3	979.5
20°	990.5	988.7	986.9	985.1	983.3	979.4	973.6	967.7	961.9	956.0	955.1
22.5°	969.5	967.7	965.8	964.0	962.2	958.2	952.0	945.9	939.8	933.7	931.8
25°	937.9	935.2	932.4	929.7	926.9	922.2	915.4	908.6	901.9	895.2	892.8
27.5°	901.7	898.4	895.1	891.8	888.4	883.1	875.9	868.6	861.4	854.1	850.8
30°	875.4	871.9	868.5	865.0	861.5	855.9	848.3	840.6	832.9	825.2	821.0
32.5°	849.7	845.7	841.6	837.6	833.5	827.5	819.8	811.9	804.1	796.2	791.6
35°	807.9	803.5	799.2	794.7	790.4	784.0	775.9	767.6	759.4	751.1	745.8
37.5°	766.9	761.6	756.3	750.9	745.6	738.7	730.2	721.7	713.2	704.7	698.4
40°	738.0	732.5	727.0	721.5	716.1	708.9	700.1	691.3	682.6	673.8	666.9
42.5°	707.7	702.1	696.5	690.8	685.2	677.9	668.8	659.7	650.6	641.6	634.9
45°	661.5	656.2	650.9	645.5	640.2	632.6	622.5	612.5	602.5	592.4	585.0
47.5°	613.6	608.0	602.4	596.8	591.2	583.4	573.2	563.1	552.9	542.8	535.3
50°	583.3	577.3	571.2	565.2	559.2	551.0	540.5	530.1	519.7	509.3	501.6
52.5°	550.4	544.2	538.1	531.9	525.7	517.7	507.9	498.0	488.1	478.3	470.1
55°	501.8	496.0	490.2	484.3	478.5	470.4	460.2	450.0	439.7	429.4	421.2
57.5°	452.8	446.6	440.3	434.0	427.9	419.8	409.9	400.0	390.1	380.2	372.2
60°	421.2	414.9	408.4	402.0	395.6	387.5	377.6	367.7	357.9	348.0	340.0
62.5°	387.7	381.6	375.5	369.3	363.2	355.2	345.2	335.2	325.1	315.1	307.7
65°	339.8	333.6	327.3	321.2	314.9	307.0	297.3	287.6	277.9	268.2	260.9
67.5°	292.2	286.0	279.8	273.6	267.4	259.6	250.3	241.1	231.8	222.4	215.8
70°	260.0	253.7	247.6	241.3	235.1	227.4	218.3	209.1	200.0	190.8	185.2
72.5°	228.4	222.3	216.3	210.2	204.1	196.8	188.2	179.7	171.1	162.6	157.3
75°	181.0	175.5	170.0	164.5	159.1	152.5	144.8	137.1	129.4	121.8	117.7
77.5°	134.0	129.5	125.2	120.8	116.4	111.1	105.0	98.9	92.7	86.6	83.7
80°	106.9	102.6	98.2	93.8	89.4	84.7	79.5	74.4	69.3	64.2	62.5
82.5°	80.6	76.7	72.7	68.8	64.8	61.1	57.6	54.1	50.5	47.1	46.3
85°	45.2	42.0	38.7	35.4	32.1	29.9	29.1	28.1	27.3	26.3	26.1
87.5°	15.3	14.7	13.9	13.2	12.5	12.3	12.4	12.5	12.7	12.8	13.0
90°	1.0	2.5	4.2	5.9	7.4	9.0	10.5	11.9	13.3	14.7	15.8
92.5°	14.2	13.1	11.9	10.8	9.6	9.7	10.9	12.2	13.5	14.7	15.8
95°	52.4	51.9	51.3	50.6	50.0	45.9	38.0	30.3	22.5	14.7	15.8
97.5°	109.6	110.7	111.8	112.9	114.0	106.9	91.4	76.0	60.7	45.3	39.5
100°	153.8	154.4	155.0	155.6	156.2	156.9	157.7	158.6	159.4	160.2	129.7
102.5°	198.7	199.5	200.3	201.0	201.8	202.4	202.9	203.4	203.9	204.4	198.6
105°	270.7	271.5	272.3	273.1	273.9	274.3	274.3	274.3	274.3	274.3	274.3
107.5°	345.5	345.5	345.5	345.5	345.5	345.6	346.0	346.4	346.9	347.3	347.3
110°	394.0	394.0	394.0	394.0	394.0	394.3	394.7	395.1	395.5	395.9	395.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	439.7	440.2	440.7	441.2	441.6	442.0	442.3	442.5	442.8	443.0	442.3
115°	508.2	509.2	510.2	511.3	512.3	512.9	513.1	513.3	513.5	513.7	512.9
117.5°	579.1	579.1	579.0	579.0	578.9	579.3	580.1	580.8	581.6	582.4	581.4
120°	623.3	623.1	622.9	622.7	622.5	622.7	623.3	623.9	624.5	625.1	624.7
122.5°	662.3	663.1	663.8	664.6	665.4	666.0	666.2	666.5	666.9	667.1	666.7
125°	722.7	724.1	725.6	727.0	728.4	729.1	729.1	729.1	729.1	729.1	728.3
127.5°	780.4	781.4	782.4	783.4	784.4	784.9	784.7	784.7	784.5	784.4	783.9
130°	815.7	816.7	817.8	818.8	819.8	820.4	820.6	820.9	821.0	821.3	820.6
132.5°	851.0	852.2	853.4	854.6	855.8	856.2	855.7	855.2	854.8	854.4	854.3
135°	901.3	902.5	903.8	905.0	906.3	906.7	906.3	905.9	905.4	905.0	904.6
137.5°	947.5	948.6	949.7	950.7	951.8	952.1	951.8	951.4	951.0	950.7	950.8
140°	977.7	978.2	978.6	979.0	979.4	979.5	979.3	979.1	978.9	978.7	979.1
142.5°	1005.0	1005.2	1005.5	1005.8	1006.0	1006.2	1006.5	1006.8	1007.1	1007.4	1007.5
145°	1045.0	1045.4	1045.8	1046.2	1046.6	1046.8	1046.8	1046.8	1046.8	1046.8	1047.0
147.5°	1079.9	1079.8	1079.7	1079.7	1079.6	1079.7	1079.9	1080.1	1080.5	1080.7	1080.9
150°	1102.0	1101.6	1101.2	1100.8	1100.4	1100.4	1100.8	1101.2	1101.6	1102.0	1102.4
152.5°	1123.4	1122.5	1121.6	1120.7	1119.7	1119.5	1120.0	1120.4	1120.8	1121.2	1121.6
155°	1150.8	1149.6	1148.3	1147.2	1145.9	1145.5	1145.9	1146.3	1146.8	1147.2	1147.8
157.5°	1172.0	1171.2	1170.5	1169.8	1169.0	1168.7	1168.8	1168.8	1168.9	1168.9	1169.5
160°	1186.8	1185.5	1184.3	1183.0	1181.9	1181.3	1181.5	1181.7	1181.9	1182.1	1183.0
162.5°	1198.5	1197.3	1196.0	1194.8	1193.6	1193.1	1193.3	1193.5	1193.7	1193.9	1195.1
165°	1214.3	1213.1	1211.9	1210.7	1209.4	1208.9	1209.1	1209.3	1209.5	1209.7	1211.0
167.5°	1226.1	1224.9	1223.6	1222.3	1221.1	1220.5	1220.8	1220.9	1221.1	1221.4	1222.8
170°	1232.8	1231.4	1229.9	1228.4	1227.0	1226.5	1226.6	1226.9	1227.0	1227.2	1228.9
172.5°	1237.2	1235.7	1234.3	1232.9	1231.4	1230.9	1231.3	1231.7	1232.0	1232.4	1233.9
175°	1242.0	1240.7	1239.5	1238.3	1237.1	1236.5	1236.8	1237.0	1237.2	1237.4	1239.0
177.5°	1244.2	1243.2	1242.2	1241.3	1240.2	1239.8	1240.0	1240.2	1240.3	1240.5	1241.7
180°	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1085.6	1087.1	1088.5	1089.3	1089.1	1088.9	1088.8	1088.6
5°	1079.0	1080.8	1082.6	1083.4	1083.0	1082.6	1082.3	1081.9
7.5°	1065.6	1066.8	1068.1	1068.5	1068.1	1067.7	1067.3	1066.9
10°	1054.2	1054.7	1055.3	1055.3	1054.7	1054.2	1053.6	1053.1
12.5°	1038.1	1038.5	1038.9	1038.7	1037.8	1037.0	1036.2	1035.3
15°	1011.6	1011.4	1011.2	1010.3	1008.7	1007.0	1005.4	1003.7
17.5°	978.5	977.6	976.7	975.6	974.2	972.9	971.5	970.2
20°	954.2	953.2	952.4	951.1	949.4	947.8	946.1	944.5
22.5°	930.0	928.3	926.5	924.9	923.5	922.2	920.8	919.5
25°	890.4	888.0	885.7	883.4	881.4	879.4	877.4	875.4
27.5°	847.5	844.1	840.8	838.2	836.3	834.3	832.4	830.4
30°	816.8	812.6	808.3	805.5	803.8	802.2	800.5	798.8
32.5°	787.0	782.3	777.7	774.3	772.2	770.2	768.0	766.0
35°	740.5	735.2	729.9	726.0	723.4	720.9	718.4	715.7
37.5°	692.1	685.6	679.3	674.9	672.4	669.9	667.4	665.0
40°	659.9	653.0	646.0	641.4	639.3	637.1	634.9	632.7
42.5°	628.3	621.6	615.0	610.0	606.8	603.6	600.3	597.1
45°	577.7	570.5	563.1	558.1	555.3	552.6	549.9	547.1
47.5°	527.8	520.2	512.7	507.4	504.4	501.4	498.3	495.3
50°	493.9	486.2	478.6	473.3	470.6	467.9	465.1	462.4
52.5°	461.8	453.5	445.3	439.7	437.0	434.3	431.6	428.8
55°	413.0	404.8	396.6	390.9	388.1	385.2	382.2	379.3
57.5°	364.2	356.2	348.1	342.8	340.2	337.5	335.0	332.4
60°	331.9	323.8	315.8	310.5	307.7	305.0	302.2	299.4
62.5°	300.2	292.7	285.3	280.2	277.4	274.6	272.0	269.2
65°	253.6	246.3	238.9	233.9	231.2	228.5	225.7	222.9
67.5°	209.1	202.4	195.7	191.2	189.1	186.9	184.7	182.5
70°	179.5	173.9	168.2	164.3	162.1	159.9	157.7	155.5
72.5°	152.1	146.9	141.6	138.3	136.8	135.4	134.0	132.5
75°	113.8	109.7	105.7	103.1	101.7	100.4	99.2	97.9
77.5°	80.9	78.1	75.3	73.4	72.5	71.5	70.6	69.6
80°	60.9	59.3	57.6	56.6	56.2	55.8	55.5	55.1
82.5°	45.6	44.8	44.0	43.5	43.3	43.1	42.9	42.6
85°	26.0	25.7	25.6	25.4	25.2	25.0	24.9	24.7
87.5°	13.2	13.5	13.6	13.7	13.7	13.7	13.6	13.6
90°	16.8	17.8	18.9	19.6	20.3	20.8	21.5	22.1
92.5°	16.8	17.8	18.9	19.5	19.7	20.0	20.4	20.6
95°	16.8	17.8	18.9	19.3	19.3	19.3	19.3	19.3
97.5°	33.7	28.0	22.2	19.3	19.3	19.3	19.3	19.3
100°	99.3	68.8	38.3	22.6	21.8	21.0	20.1	19.3
102.5°	192.8	187.1	181.3	171.5	157.6	143.6	129.8	115.8
105°	274.3	274.3	274.3	274.3	274.0	273.9	273.6	273.5
107.5°	347.4	347.4	347.5	347.1	346.5	345.9	345.3	344.7
110°	394.7	394.0	393.4	393.2	393.4	393.6	393.9	394.0





TEST NUMBER: P333577-927

CATALOG NUMBER: S125RDIP-S850D1205U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	441.5	440.7	439.9	439.3	439.1	438.8	438.6	438.2
115°	512.1	511.3	510.5	509.5	508.2	507.0	505.7	504.5
117.5°	580.3	579.2	578.1	577.3	576.8	576.3	575.8	575.2
120°	624.3	623.9	623.5	622.8	621.8	620.8	619.7	618.7
122.5°	666.3	665.9	665.5	664.6	663.5	662.3	661.2	660.0
125°	727.5	726.7	725.9	725.2	724.5	724.0	723.3	722.7
127.5°	783.5	783.1	782.6	781.6	780.1	778.6	777.1	775.5
130°	820.0	819.4	818.8	817.9	816.9	815.9	814.9	813.9
132.5°	854.1	854.0	853.9	853.3	852.3	851.3	850.2	849.2
135°	904.2	903.8	903.4	902.5	901.3	900.1	898.9	897.6
137.5°	950.9	950.9	951.0	950.5	949.4	948.4	947.3	946.3
140°	979.5	979.9	980.3	979.9	978.7	977.5	976.2	975.0
142.5°	1007.6	1007.7	1007.7	1007.2	1005.9	1004.7	1003.5	1002.3
145°	1047.2	1047.4	1047.6	1047.1	1045.8	1044.7	1043.4	1042.2
147.5°	1081.2	1081.4	1081.6	1081.0	1079.6	1078.1	1076.7	1075.1
150°	1102.9	1103.3	1103.7	1103.0	1101.5	1099.8	1098.1	1096.5
152.5°	1122.0	1122.4	1122.8	1122.3	1120.8	1119.4	1117.8	1116.4
155°	1148.3	1149.0	1149.6	1149.1	1147.5	1145.8	1144.1	1142.6
157.5°	1170.2	1170.8	1171.5	1171.0	1169.3	1167.8	1166.1	1164.4
160°	1183.8	1184.6	1185.4	1185.0	1183.4	1181.7	1180.1	1178.5
162.5°	1196.2	1197.4	1198.5	1198.2	1196.4	1194.5	1192.8	1191.0
165°	1212.2	1213.5	1214.7	1214.4	1212.8	1211.2	1209.5	1207.9
167.5°	1224.3	1225.7	1227.2	1227.1	1225.2	1223.4	1221.5	1219.7
170°	1230.5	1232.2	1233.8	1233.7	1231.8	1230.0	1228.2	1226.3
172.5°	1235.3	1236.8	1238.3	1238.1	1236.3	1234.5	1232.6	1230.7
175°	1240.6	1242.3	1243.9	1243.8	1242.0	1240.2	1238.3	1236.4
177.5°	1242.8	1244.0	1245.1	1245.0	1243.7	1242.4	1241.0	1239.8
180°	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0	1242.0

(END OF REPORT)