

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: P333573-940

Luminaire Tested: **S125RDIP-S850D1035U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333573-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIP-S850D1035U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6210.2 lumens  
Efficiency: N/A  
Efficacy: 119.4 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

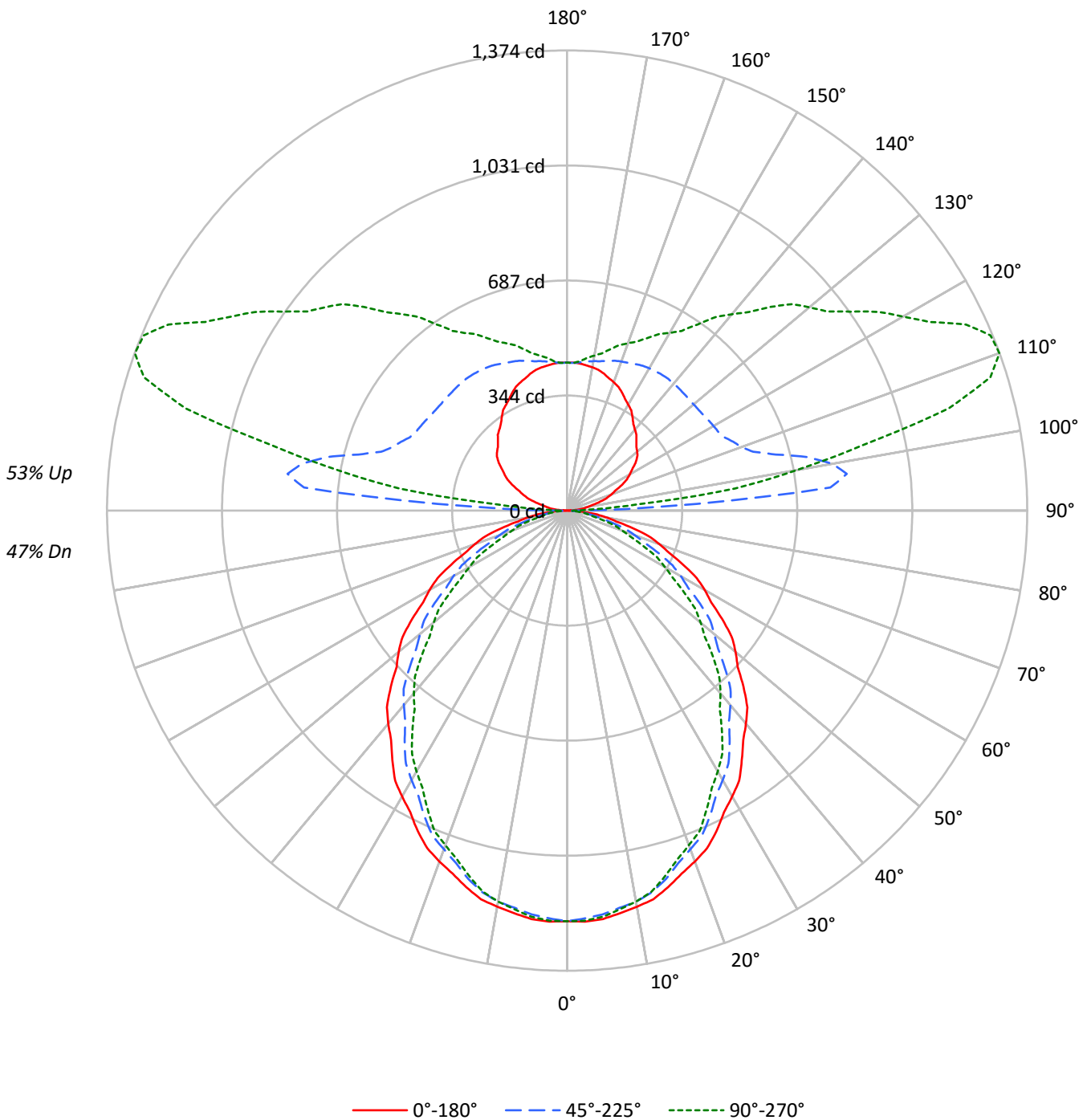
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

### Luminous Intensity Polar Plot





TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

**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	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47				47
1	97	93	89	86	89	86	82	79	72	69	67	59	57	56	47	46	45				40	
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	42	40	38				34	
3	81	72	65	59	74	66	60	55	56	51	47	46	43	40	37	35	33				29	
4	74	64	56	50	68	59	52	47	50	45	40	41	37	34	33	31	28				25	
5	68	57	49	43	62	52	45	40	44	39	35	37	33	30	30	27	25				22	
6	63	51	43	37	58	47	40	35	40	35	31	34	29	26	27	24	22				19	
7	58	46	38	33	53	43	36	31	36	31	27	31	26	23	25	22	20				17	
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	18				15	
9	50	38	31	26	46	35	29	24	30	25	21	26	22	19	21	18	16				14	
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	14				13	

**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



TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.3	1.9
10°-20°	322.2	5.2
20°-30°	467.2	7.5
30°-40°	532.5	8.6
40°-50°	519.1	8.4
50°-60°	436.9	7.0
60°-70°	306.3	4.9
70°-80°	157.4	2.5
80°-90°	42.2	0.7
90°-100°	320.0	5.2
100°-110°	688.0	11.1
110°-120°	645.7	10.4
120°-130°	523.3	8.4
130°-140°	419.9	6.8
140°-150°	316.9	5.1
150°-160°	223.1	3.6
160°-170°	131.5	2.1
170°-180°	42.8	0.7
0°-30°	904.7	14.6
0°-40°	1437.3	23.1
0°-60°	2393.2	38.5
0°-90°	2899.2	46.7
90°-120°	1653.7	26.6
90°-150°	2913.7	46.9
90°-180°	3311.0	53.3
0°-180°	6210.2	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	8	14	19	20	4
95°	29	87	789	358	209	31
105°	101	141	645	1271	1180	106
115°	180	217	518	1117	1314	177
125°	249	292	497	888	1035	221
135°	292	351	493	745	860	227
145°	340	389	495	616	678	213
155°	388	418	482	545	569	179
165°	424	435	463	491	498	119
175°	441	441	444	450	448	42
180°	442	442	442	442	442	



TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

**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	16.2	15.4	14.6	13.8	13.6	13.6	13.7	13.7	14.0	14.2
90°	0.9	1.8	3.6	5.4	7.1	8.9	9.8	11.6	12.5	14.3	15.2
92.5°	10.9	13.2	20.7	31.7	47.0	73.0	121.6	203.1	291.6	287.0	232.3
95°	29.3	30.2	37.4	47.2	66.8	106.8	202.1	397.9	643.6	788.7	771.8
97.5°	48.8	49.8	54.8	64.6	82.2	111.1	174.2	317.6	574.7	842.3	976.5
100°	62.3	64.1	67.7	77.4	94.3	121.1	172.7	288.4	512.7	803.8	1026.4
102.5°	77.3	78.3	81.1	91.7	107.2	133.1	179.1	276.3	465.7	736.2	996.5
105°	100.6	100.6	105.0	114.0	128.2	153.1	192.3	271.5	420.2	645.3	900.9
107.5°	123.4	125.2	129.4	136.7	151.5	174.0	211.9	279.7	400.9	582.9	803.3
110°	139.7	141.5	145.1	153.1	166.5	189.6	226.1	287.5	395.2	553.7	747.7



TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	156.1	157.9	160.8	168.8	182.1	204.6	239.6	297.5	395.2	536.6	706.4
115°	179.9	181.6	184.2	192.3	205.6	227.9	260.8	312.5	397.9	518.1	661.4
117.5°	201.2	203.8	206.7	214.7	229.9	251.4	282.6	329.6	403.8	509.0	634.5
120°	215.4	218.1	221.7	229.7	244.8	267.1	298.2	340.9	409.5	504.7	619.6
122.5°	230.4	232.3	235.1	243.2	259.8	282.0	313.2	353.7	414.5	501.1	606.7
125°	249.2	251.0	255.5	263.5	280.4	303.5	333.0	371.2	422.8	496.7	589.3
127.5°	264.0	266.7	272.4	282.6	300.5	323.7	352.0	387.2	432.3	494.5	573.3
130°	273.3	276.0	283.1	294.6	313.3	336.4	364.1	397.9	438.0	493.1	562.6
132.5°	280.4	283.7	292.3	305.3	324.8	347.9	375.5	407.2	444.3	493.1	554.0
135°	291.9	295.5	306.2	320.5	339.1	363.2	390.7	420.2	453.1	493.1	543.9
137.5°	306.6	309.2	319.2	333.5	351.8	376.6	401.6	429.8	461.1	494.2	534.8
140°	315.1	317.8	328.5	342.7	359.6	383.7	409.5	436.2	464.7	494.9	530.6
142.5°	325.1	327.1	337.0	351.2	367.5	390.0	414.5	439.7	466.8	495.6	527.0
145°	340.0	341.8	350.7	363.2	379.2	399.7	422.8	445.1	469.1	494.9	521.7
147.5°	355.7	356.8	364.4	376.0	389.9	407.9	428.2	448.3	470.0	492.6	516.1
150°	365.0	366.8	373.0	384.6	397.0	412.1	431.8	450.4	470.0	490.4	511.8
152.5°	375.0	376.0	381.6	391.6	403.4	417.1	435.3	451.8	469.3	487.7	506.8
155°	388.1	388.1	393.4	402.3	411.3	423.7	438.8	453.1	467.3	482.5	498.5
157.5°	399.8	399.7	403.9	411.6	419.5	428.9	441.8	454.0	465.0	477.2	490.6
160°	407.7	406.8	410.4	416.6	423.7	431.8	443.3	454.0	462.9	473.6	484.3
162.5°	414.1	413.2	416.8	422.3	428.0	434.6	444.7	453.3	460.7	469.3	478.6
165°	423.7	422.0	424.6	429.1	432.7	438.0	445.1	452.2	457.5	462.9	470.0
167.5°	430.2	429.3	430.9	433.4	435.9	439.2	445.1	450.0	452.5	456.6	461.6
170°	434.4	433.5	434.4	436.2	438.0	440.6	445.1	448.6	450.4	453.1	456.6
172.5°	437.3	435.7	436.6	438.3	439.3	440.6	444.3	447.2	447.5	448.8	451.7
175°	440.6	438.8	439.7	440.6	440.6	440.6	443.3	445.1	444.2	444.2	445.1
177.5°	442.2	440.8	440.8	441.5	440.8	440.8	442.2	442.9	441.5	441.5	442.2
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5



TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

**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°	14.4	14.5	14.7	15.0	14.8	14.6	14.6	14.4
90°	16.1	16.9	17.8	19.6	19.6	19.6	20.5	20.5
92.5°	157.7	114.5	86.1	73.0	61.6	59.5	58.2	56.8
95°	640.1	504.7	395.2	320.5	257.3	230.6	223.5	209.2
97.5°	953.2	858.3	751.6	647.6	592.7	542.8	517.0	505.6
100°	1094.9	1051.3	959.6	867.0	805.6	741.5	708.6	694.4
102.5°	1142.6	1169.5	1125.5	1062.8	997.2	951.6	915.8	905.1
105°	1114.5	1236.4	1275.6	1265.8	1237.3	1208.0	1190.2	1179.5
107.5°	1014.1	1176.8	1277.4	1323.8	1338.3	1338.1	1332.2	1325.1
110°	940.0	1109.1	1234.7	1310.4	1350.4	1367.3	1373.5	1373.5





TEST NUMBER: P333573-940

CATALOG NUMBER: S125RDIP-S850D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	881.6	1042.2	1169.1	1258.4	1316.9	1345.9	1361.5	1367.8
115°	808.2	946.3	1068.2	1165.2	1234.7	1277.4	1302.3	1313.9
117.5°	760.9	879.9	984.9	1073.9	1143.4	1187.5	1212.2	1219.3
120°	735.3	842.1	940.0	1018.3	1084.2	1126.9	1151.0	1158.2
122.5°	716.0	815.0	902.2	975.6	1034.4	1073.5	1097.6	1104.0
125°	688.1	778.9	856.3	920.4	970.3	1006.7	1026.4	1035.3
127.5°	659.6	744.4	816.6	876.6	921.9	954.0	972.6	976.5
130°	641.9	720.1	789.6	847.5	892.0	921.3	939.1	944.5
132.5°	624.0	697.3	760.4	816.1	860.6	890.0	906.3	912.4
135°	600.8	662.3	719.3	770.0	809.1	838.6	854.5	859.9
137.5°	581.3	631.0	678.3	721.4	756.4	783.2	798.0	803.8
140°	570.6	612.4	653.4	690.8	723.7	746.9	760.2	764.6
142.5°	561.3	596.7	632.0	664.4	692.4	711.9	724.6	728.3
145°	549.2	576.8	604.4	628.5	649.8	664.9	674.8	678.3
147.5°	537.9	560.3	581.5	599.6	616.5	628.7	634.4	636.0
150°	531.5	551.0	567.9	584.0	597.3	608.0	611.5	612.4
152.5°	524.3	541.7	557.2	569.7	580.9	589.5	593.0	593.9
155°	513.6	527.9	540.4	550.1	559.0	565.3	567.9	568.8
157.5°	502.9	514.7	524.3	532.0	539.0	544.0	546.5	546.4
160°	495.8	504.7	513.6	519.9	526.1	530.6	532.4	531.5
162.5°	488.0	496.1	503.6	509.2	514.0	517.7	518.1	517.9
165°	477.2	483.4	488.7	493.1	496.7	498.5	498.5	498.5
167.5°	466.8	470.9	475.0	478.2	480.0	481.6	480.9	480.7
170°	461.1	463.8	466.5	468.2	470.0	470.9	470.9	470.0
172.5°	454.7	457.4	459.3	460.4	460.7	462.4	460.9	460.0
175°	447.7	447.7	449.5	449.5	449.5	450.4	448.6	447.7
177.5°	442.9	443.6	443.6	443.6	442.9	443.6	441.5	441.5
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5

(END OF REPORT)