

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: P333690-940

Luminaire Tested: **S125RDIW-S850D1050U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333690-940
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: S125RDIW-S850D1050U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6635.2 lumens
Efficiency: N/A
Efficacy: 126.1 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

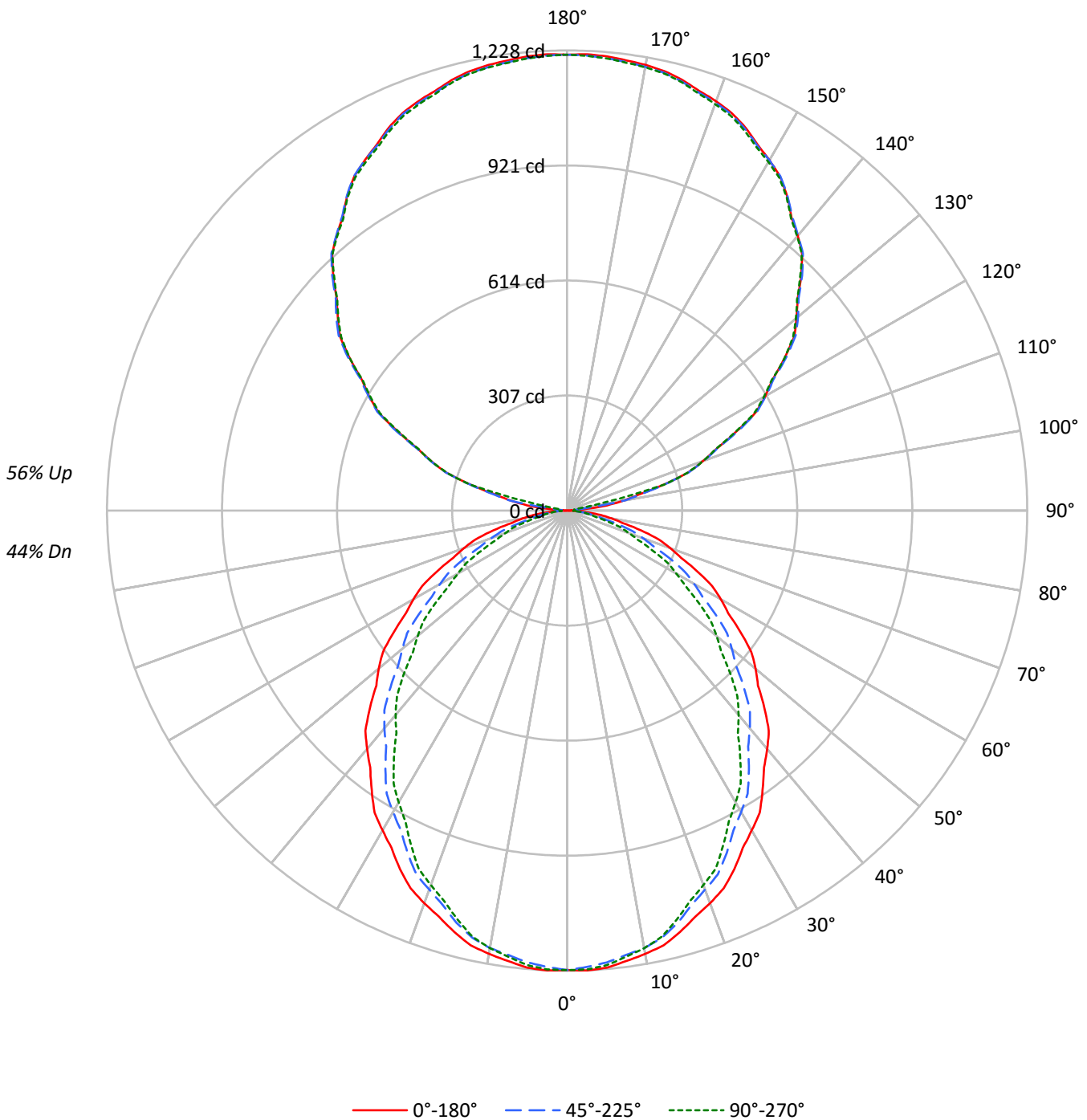
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		64	64	64		50	50	50	44
1	97	92	89	85	88	85	81	79	70	68	66		57	55	54		45	44	43	37
2	88	81	75	70	80	74	69	65	62	58	55		50	48	45		40	38	36	31
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	42	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	31	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	27	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	7.0
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°	42.3	0.6
90°-100°	44.2	0.7
100°-110°	272.5	4.1
110°-120°	494.2	7.4
120°-130°	634.2	9.6
130°-140°	682.1	10.3
140°-150°	640.3	9.6
150°-160°	517.9	7.8
160°-170°	335.0	5.0
170°-180°	115.5	1.7
0°-30°	904.7	13.6
0°-40°	1437.3	21.7
0°-60°	2393.2	36.1
0°-90°	2899.3	43.7
90°-120°	810.9	12.2
90°-150°	2767.5	41.7
90°-180°	3736.0	56.3
0°-180°	6635.2	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	22	5
95°	51	47	14	19	19	66
105°	265	269	269	269	268	281
115°	498	502	503	500	494	493
125°	708	714	714	711	708	632
135°	883	888	886	884	879	680
145°	1024	1025	1025	1026	1021	640
155°	1127	1122	1124	1126	1119	519
165°	1190	1184	1185	1190	1183	336
175°	1217	1212	1212	1218	1211	116
180°	1217	1217	1217	1217	1217	



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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	16.4	15.5	14.7	13.9	13.6	13.6	13.7	13.9	14.0	14.2
90°	0.9	2.5	4.1	5.7	7.3	8.8	10.3	11.6	13.0	14.4	15.4
92.5°	13.9	12.8	11.7	10.5	9.4	9.5	10.7	11.9	13.2	14.4	15.4
95°	51.4	50.8	50.2	49.6	49.0	44.9	37.3	29.7	22.0	14.4	15.4
97.5°	107.4	108.4	109.5	110.6	111.6	104.7	89.6	74.5	59.5	44.4	38.7
100°	150.6	151.2	151.8	152.4	153.0	153.7	154.5	155.3	156.1	156.9	127.1
102.5°	194.7	195.4	196.2	196.9	197.7	198.3	198.8	199.2	199.7	200.2	194.6
105°	265.1	265.9	266.7	267.5	268.3	268.8	268.8	268.8	268.8	268.8	268.8
107.5°	338.4	338.4	338.4	338.4	338.4	338.6	338.9	339.4	339.7	340.2	340.2
110°	386.0	386.0	386.0	386.0	386.0	386.2	386.6	387.0	387.4	387.8	387.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	430.7	431.2	431.7	432.1	432.7	433.0	433.3	433.5	433.7	434.0	433.2
115°	497.8	498.8	499.8	500.8	501.9	502.4	502.7	502.8	503.0	503.2	502.4
117.5°	567.3	567.2	567.2	567.1	567.1	567.5	568.2	569.0	569.7	570.5	569.4
120°	610.6	610.4	610.1	609.9	609.8	609.9	610.6	611.2	611.7	612.3	612.0
122.5°	648.8	649.5	650.3	651.0	651.8	652.4	652.6	652.9	653.2	653.4	653.1
125°	707.9	709.4	710.8	712.1	713.5	714.3	714.3	714.3	714.3	714.3	713.5
127.5°	764.4	765.4	766.4	767.4	768.4	768.8	768.7	768.7	768.5	768.4	767.9
130°	799.1	800.0	801.0	802.0	803.1	803.6	803.9	804.1	804.2	804.4	803.9
132.5°	833.7	834.8	836.0	837.1	838.3	838.7	838.2	837.8	837.3	837.0	836.8
135°	882.9	884.1	885.3	886.5	887.7	888.1	887.7	887.3	886.9	886.5	886.1
137.5°	928.2	929.3	930.2	931.3	932.4	932.7	932.4	932.0	931.6	931.2	931.3
140°	957.8	958.1	958.6	958.9	959.4	959.5	959.3	959.0	958.9	958.7	959.0
142.5°	984.4	984.7	985.0	985.2	985.4	985.7	986.0	986.2	986.5	986.8	986.9
145°	1023.6	1024.0	1024.4	1024.8	1025.2	1025.4	1025.4	1025.4	1025.4	1025.4	1025.6
147.5°	1057.8	1057.8	1057.7	1057.7	1057.6	1057.7	1057.8	1058.1	1058.4	1058.5	1058.8
150°	1079.5	1079.1	1078.7	1078.3	1077.9	1077.9	1078.3	1078.7	1079.1	1079.5	1080.0
152.5°	1100.5	1099.6	1098.7	1097.8	1096.9	1096.7	1097.1	1097.5	1097.9	1098.2	1098.7
155°	1127.3	1126.1	1124.9	1123.7	1122.5	1122.1	1122.5	1122.9	1123.3	1123.7	1124.3
157.5°	1148.1	1147.4	1146.7	1145.9	1145.1	1144.9	1144.9	1144.9	1145.0	1145.0	1145.7
160°	1162.5	1161.3	1160.1	1158.9	1157.7	1157.2	1157.4	1157.6	1157.8	1158.0	1158.8
162.5°	1174.0	1172.9	1171.6	1170.5	1169.2	1168.7	1168.9	1169.1	1169.3	1169.5	1170.6
165°	1189.5	1188.4	1187.1	1186.0	1184.7	1184.2	1184.5	1184.6	1184.8	1185.0	1186.2
167.5°	1201.0	1199.9	1198.6	1197.4	1196.1	1195.6	1195.8	1196.0	1196.2	1196.4	1197.8
170°	1207.6	1206.2	1204.8	1203.4	1201.9	1201.4	1201.6	1201.8	1201.9	1202.2	1203.8
172.5°	1211.9	1210.5	1209.1	1207.7	1206.3	1205.8	1206.1	1206.5	1206.8	1207.2	1208.6
175°	1216.6	1215.4	1214.2	1213.0	1211.7	1211.3	1211.5	1211.7	1211.9	1212.1	1213.7
177.5°	1218.8	1217.8	1216.8	1215.8	1215.0	1214.5	1214.7	1214.9	1215.0	1215.1	1216.3
180°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6



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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°	14.4	14.6	14.8	14.9	14.8	14.8	14.7	14.7
90°	16.4	17.5	18.5	19.3	19.9	20.4	21.0	21.7
92.5°	16.4	17.5	18.5	19.1	19.4	19.6	19.9	20.2
95°	16.4	17.5	18.5	18.9	18.9	18.9	18.9	18.9
97.5°	33.1	27.4	21.8	18.9	18.9	18.9	18.9	18.9
100°	97.2	67.3	37.5	22.1	21.3	20.5	19.7	18.9
102.5°	188.9	183.2	177.6	168.0	154.4	140.7	127.1	113.4
105°	268.8	268.8	268.8	268.7	268.5	268.2	268.0	267.9
107.5°	340.3	340.3	340.4	340.1	339.5	338.9	338.2	337.7
110°	386.6	386.0	385.4	385.2	385.4	385.6	385.8	386.0



TEST NUMBER: P333690-940

CATALOG NUMBER: S125RDIW-S850D1050U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	432.5	431.7	431.0	430.4	430.2	429.8	429.5	429.3
115°	501.6	500.8	500.0	499.0	497.8	496.6	495.4	494.2
117.5°	568.5	567.4	566.3	565.5	565.1	564.5	564.0	563.5
120°	611.5	611.2	610.7	610.0	609.0	608.1	607.1	606.0
122.5°	652.6	652.3	651.8	651.1	650.0	648.8	647.6	646.5
125°	712.7	711.9	711.1	710.3	709.8	709.2	708.6	707.9
127.5°	767.5	767.0	766.6	765.6	764.2	762.7	761.2	759.7
130°	803.3	802.6	802.0	801.2	800.2	799.2	798.3	797.3
132.5°	836.7	836.5	836.4	835.9	834.9	833.8	832.9	831.9
135°	885.7	885.3	884.9	884.1	882.9	881.7	880.5	879.3
137.5°	931.4	931.5	931.6	931.1	930.1	929.0	928.0	926.9
140°	959.5	959.8	960.3	959.8	958.7	957.4	956.3	955.0
142.5°	986.9	987.0	987.1	986.6	985.3	984.2	982.9	981.8
145°	1025.8	1026.0	1026.2	1025.7	1024.5	1023.3	1022.1	1020.9
147.5°	1059.1	1059.4	1059.5	1059.0	1057.5	1056.1	1054.6	1053.2
150°	1080.3	1080.8	1081.1	1080.5	1078.9	1077.3	1075.7	1074.1
152.5°	1099.0	1099.5	1099.8	1099.4	1097.9	1096.4	1095.0	1093.6
155°	1124.9	1125.5	1126.1	1125.6	1124.0	1122.4	1120.8	1119.2
157.5°	1146.3	1146.9	1147.5	1147.1	1145.5	1143.9	1142.3	1140.7
160°	1159.6	1160.4	1161.2	1160.7	1159.2	1157.6	1156.0	1154.4
162.5°	1171.8	1172.9	1174.0	1173.7	1171.9	1170.2	1168.4	1166.6
165°	1187.4	1188.7	1189.8	1189.6	1188.0	1186.4	1184.8	1183.2
167.5°	1199.3	1200.7	1202.2	1202.0	1200.2	1198.4	1196.6	1194.8
170°	1205.4	1207.0	1208.6	1208.4	1206.7	1204.9	1203.1	1201.2
172.5°	1210.1	1211.6	1213.0	1212.8	1211.0	1209.2	1207.4	1205.6
175°	1215.3	1216.9	1218.5	1218.4	1216.6	1214.8	1213.0	1211.2
177.5°	1217.4	1218.5	1219.7	1219.6	1218.3	1217.0	1215.8	1214.4
180°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6

(END OF REPORT)