

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: P333416-840

Luminaire Tested: **S125DIW-S850D1050U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333416-840
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: S125DIW-S850D1050U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7683.6 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

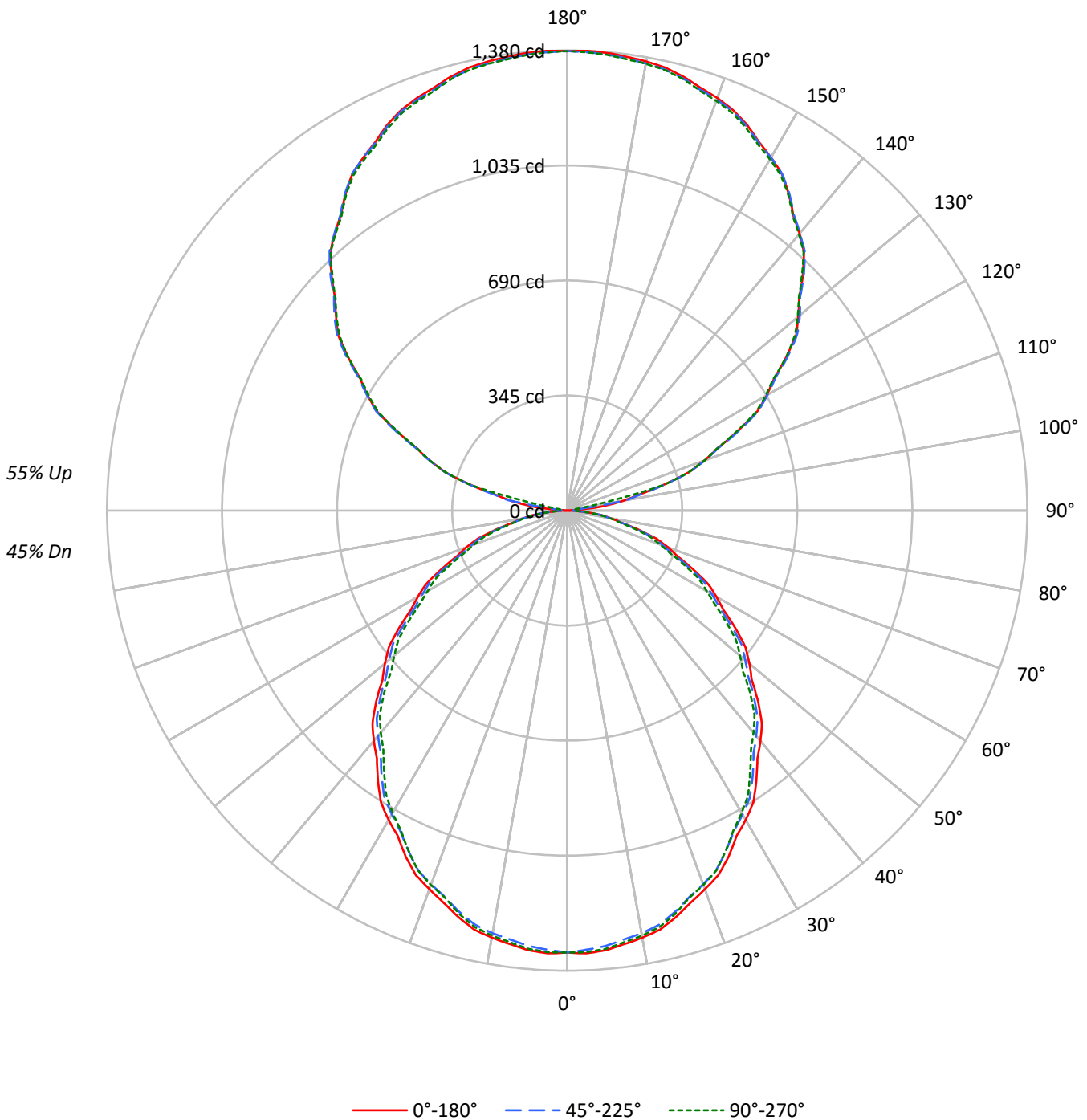
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	81	81	65	65	65	51	51	51	45
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	38
2	88	81	74	69	80	74	69	64	62	58	55	50	48	45	40	38	36	32
3	80	71	63	58	73	65	59	54	54	50	46	45	41	38	35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	28	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	49	37	30	25	45	35	28	23	29	24	20	25	20	18	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8561	8561	8561
5°	8581	8499	8554
10°	8529	8439	8487
15°	8436	8338	8372
20°	8304	8195	8210
25°	8161	8027	8020
30°	7986	7845	7806
35°	7798	7649	7541
40°	7605	7436	7331
45°	7395	7242	7099
50°	7166	7007	6797
55°	6944	6742	6554
60°	6679	6475	6245
65°	6363	6154	5946
70°	6060	5784	5586
75°	5522	5340	5155
80°	4917	4839	4720
85°	4276	4357	4113



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.6
10°-20°	353.1	4.6
20°-30°	521.3	6.8
30°-40°	608.3	7.9
40°-50°	611.0	8.0
50°-60°	536.3	7.0
60°-70°	399.6	5.2
70°-80°	228.5	3.0
80°-90°	69.4	0.9
90°-100°	50.1	0.7
100°-110°	308.6	4.0
110°-120°	559.7	7.3
120°-130°	718.2	9.3
130°-140°	772.5	10.1
140°-150°	725.1	9.4
150°-160°	586.6	7.6
160°-170°	379.4	4.9
170°-180°	130.8	1.7
0°-30°	999.4	13.0
0°-40°	1607.8	20.9
0°-60°	2755.1	35.9
0°-90°	3452.6	44.9
90°-120°	918.3	12.0
90°-150°	3134.2	40.8
90°-180°	4231.0	55.1
0°-180°	7683.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1324	1321	1311	1320	1319	125
15°	1262	1258	1247	1252	1252	355
25°	1145	1140	1126	1128	1125	527
35°	989	984	970	965	956	618
45°	810	805	793	781	777	624
55°	617	613	599	590	582	550
65°	416	414	403	394	389	413
75°	221	219	214	211	207	236
85°	58	59	59	58	56	64
90°	1	9	16	21	24	6
95°	58	53	16	21	21	74
105°	300	304	304	304	303	318
115°	564	569	570	566	560	559
125°	802	808	809	805	802	716
135°	1000	1006	1004	1002	996	770
145°	1159	1161	1161	1162	1156	725
155°	1277	1271	1273	1275	1268	588
165°	1347	1341	1342	1347	1340	380
175°	1378	1372	1373	1380	1372	131
180°	1378	1378	1378	1378	1378	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6
2.5°	1329.1	1328.5	1328.0	1327.4	1326.8	1325.5	1323.7	1321.9	1320.0	1318.2	1320.0
5°	1323.6	1323.1	1322.6	1322.2	1321.7	1320.3	1318.0	1315.7	1313.3	1311.0	1313.1
7.5°	1311.4	1311.0	1310.5	1310.0	1309.6	1308.1	1305.5	1302.9	1300.4	1297.8	1299.8
10°	1300.5	1300.1	1299.6	1299.1	1298.7	1297.2	1294.5	1292.0	1289.5	1286.9	1288.8
12.5°	1287.1	1286.3	1285.5	1284.5	1283.7	1282.1	1279.8	1277.4	1275.0	1272.6	1274.1
15°	1261.7	1261.0	1260.3	1259.6	1258.9	1257.3	1254.8	1252.1	1249.6	1247.0	1248.2
17.5°	1232.5	1231.5	1230.5	1229.5	1228.5	1226.6	1224.0	1221.3	1218.6	1216.0	1217.4
20°	1208.2	1207.8	1207.3	1206.8	1206.4	1204.6	1201.5	1198.5	1195.5	1192.4	1194.2
22.5°	1183.9	1183.1	1182.2	1181.3	1180.5	1178.7	1175.9	1173.0	1170.1	1167.3	1168.4
25°	1145.3	1144.2	1143.0	1141.8	1140.6	1138.5	1135.5	1132.5	1129.4	1126.4	1126.9
27.5°	1100.1	1099.5	1098.8	1098.1	1097.4	1095.5	1092.4	1089.2	1086.1	1083.0	1083.1
30°	1070.9	1070.2	1069.4	1068.7	1068.0	1065.9	1062.5	1058.9	1055.4	1052.0	1051.5
32.5°	1038.9	1037.8	1036.8	1035.7	1034.7	1032.6	1029.5	1026.3	1023.2	1020.1	1019.3
35°	989.1	988.1	987.1	986.2	985.3	983.2	980.0	976.6	973.4	970.2	969.0
37.5°	937.3	936.0	934.8	933.7	932.5	930.4	927.4	924.2	921.2	918.2	916.4
40°	902.0	900.8	899.7	898.5	897.3	895.1	891.8	888.6	885.3	882.0	880.0
42.5°	864.2	863.2	862.2	861.3	860.3	858.2	855.0	851.6	848.4	845.2	843.2
45°	809.7	808.7	807.8	806.9	806.0	804.1	801.3	798.5	795.7	792.9	790.1
47.5°	750.9	751.0	751.0	751.0	751.1	749.5	746.1	742.8	739.4	736.1	733.2
50°	713.2	712.5	711.8	711.0	710.4	708.6	705.9	703.1	700.2	697.4	694.4
52.5°	674.6	674.1	673.6	673.1	672.6	670.8	667.8	664.8	661.9	658.8	656.2
55°	616.7	616.0	615.3	614.6	613.9	611.9	608.6	605.4	602.1	598.8	596.7
57.5°	555.6	555.3	554.9	554.5	554.2	552.6	549.9	547.1	544.3	541.6	538.9
60°	517.1	516.1	515.2	514.2	513.3	511.6	509.0	506.4	503.9	501.3	499.0
62.5°	476.8	476.1	475.3	474.5	473.8	472.3	470.2	468.0	465.7	463.5	461.1
65°	416.4	415.9	415.5	415.0	414.5	413.0	410.4	407.9	405.3	402.7	400.6
67.5°	357.9	356.9	355.9	354.9	354.0	352.4	350.6	348.7	346.8	344.9	343.1
70°	320.9	319.7	318.6	317.4	316.3	314.7	312.6	310.4	308.3	306.3	304.9
72.5°	280.6	279.8	279.0	278.3	277.5	276.4	275.1	273.7	272.4	271.0	269.4
75°	221.3	220.9	220.4	219.9	219.4	218.6	217.4	216.3	215.1	214.0	213.3
77.5°	166.5	166.3	166.2	166.0	165.8	165.4	164.7	164.1	163.4	162.8	162.4
80°	132.2	132.2	132.2	132.2	132.2	131.9	131.5	131.0	130.5	130.1	129.9
82.5°	101.9	101.6	101.2	100.8	100.5	100.2	100.1	100.1	100.0	99.9	99.5
85°	57.7	58.0	58.2	58.4	58.6	58.8	58.8	58.8	58.8	58.8	58.5
87.5°	22.8	23.2	23.6	23.9	24.3	24.5	24.6	24.8	24.9	25.0	25.3
90°	1.0	2.8	4.6	6.5	8.3	10.0	11.6	13.1	14.7	16.4	17.5
92.5°	15.8	14.4	13.2	11.9	10.6	10.7	12.1	13.5	14.9	16.4	17.5
95°	58.2	57.6	56.9	56.1	55.5	50.8	42.2	33.6	24.9	16.4	17.5
97.5°	121.6	122.8	124.0	125.2	126.4	118.6	101.5	84.4	67.4	50.3	43.8
100°	170.6	171.3	171.9	172.6	173.3	174.1	175.0	175.9	176.8	177.7	143.9
102.5°	220.5	221.3	222.2	223.0	223.9	224.6	225.1	225.6	226.2	226.7	220.4
105°	300.2	301.1	302.1	303.0	303.9	304.4	304.4	304.4	304.4	304.4	304.4
107.5°	383.2	383.2	383.2	383.2	383.2	383.4	383.8	384.4	384.8	385.3	385.3
110°	437.2	437.2	437.2	437.2	437.2	437.4	437.8	438.3	438.7	439.2	438.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	487.8	488.4	488.9	489.4	490.0	490.4	490.7	490.9	491.2	491.5	490.6
115°	563.8	564.9	566.0	567.1	568.4	569.0	569.3	569.5	569.7	569.9	569.0
117.5°	642.5	642.4	642.4	642.3	642.3	642.7	643.5	644.4	645.2	646.1	644.9
120°	691.5	691.3	690.9	690.7	690.5	690.7	691.5	692.2	692.8	693.5	693.1
122.5°	734.8	735.6	736.5	737.3	738.2	738.8	739.1	739.4	739.7	740.0	739.6
125°	801.7	803.3	805.0	806.5	808.1	808.9	808.9	808.9	808.9	808.9	808.0
127.5°	865.7	866.9	868.0	869.1	870.2	870.7	870.6	870.5	870.3	870.2	869.7
130°	904.9	906.1	907.2	908.3	909.5	910.1	910.4	910.6	910.8	911.0	910.4
132.5°	944.1	945.4	946.7	948.1	949.4	949.8	949.3	948.8	948.3	947.9	947.7
135°	999.9	1001.3	1002.6	1004.0	1005.3	1005.8	1005.3	1004.9	1004.4	1004.0	1003.5
137.5°	1051.2	1052.4	1053.5	1054.7	1055.9	1056.3	1055.9	1055.5	1055.0	1054.6	1054.7
140°	1084.7	1085.1	1085.6	1086.0	1086.5	1086.6	1086.4	1086.1	1085.9	1085.7	1086.1
142.5°	1114.9	1115.2	1115.5	1115.7	1116.0	1116.3	1116.6	1116.9	1117.2	1117.5	1117.6
145°	1159.2	1159.7	1160.1	1160.6	1161.0	1161.2	1161.2	1161.2	1161.2	1161.2	1161.5
147.5°	1198.0	1198.0	1197.9	1197.8	1197.7	1197.8	1198.0	1198.3	1198.6	1198.8	1199.1
150°	1222.5	1222.1	1221.6	1221.2	1220.7	1220.7	1221.2	1221.6	1222.1	1222.5	1223.0
152.5°	1246.3	1245.3	1244.3	1243.2	1242.2	1242.0	1242.4	1242.9	1243.3	1243.7	1244.3
155°	1276.7	1275.4	1273.9	1272.6	1271.2	1270.8	1271.2	1271.7	1272.1	1272.6	1273.2
157.5°	1300.2	1299.4	1298.6	1297.8	1296.9	1296.6	1296.6	1296.6	1296.7	1296.7	1297.5
160°	1316.6	1315.1	1313.8	1312.4	1311.1	1310.5	1310.7	1311.0	1311.2	1311.4	1312.3
162.5°	1329.6	1328.3	1326.9	1325.5	1324.1	1323.5	1323.8	1324.0	1324.2	1324.4	1325.8
165°	1347.2	1345.8	1344.4	1343.1	1341.7	1341.1	1341.4	1341.6	1341.8	1342.0	1343.4
167.5°	1360.2	1358.9	1357.5	1356.0	1354.6	1354.0	1354.2	1354.4	1354.7	1354.9	1356.6
170°	1367.6	1366.0	1364.4	1362.8	1361.2	1360.6	1360.8	1361.0	1361.2	1361.5	1363.3
172.5°	1372.5	1370.9	1369.3	1367.8	1366.1	1365.5	1365.9	1366.3	1366.8	1367.2	1368.8
175°	1377.8	1376.4	1375.0	1373.7	1372.3	1371.8	1372.0	1372.2	1372.5	1372.7	1374.5
177.5°	1380.3	1379.2	1378.1	1377.0	1375.9	1375.4	1375.6	1375.8	1375.9	1376.1	1377.5
180°	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6
2.5°	1321.9	1323.7	1325.5	1326.5	1326.3	1326.1	1325.9	1325.6
5°	1315.2	1317.3	1319.4	1320.3	1320.1	1319.9	1319.6	1319.4
7.5°	1301.9	1303.9	1306.0	1306.9	1306.7	1306.5	1306.2	1306.0
10°	1290.6	1292.5	1294.3	1295.2	1294.9	1294.6	1294.4	1294.2
12.5°	1275.6	1277.1	1278.6	1279.3	1279.3	1279.2	1279.2	1279.1
15°	1249.4	1250.5	1251.7	1252.2	1252.2	1252.2	1252.2	1252.2
17.5°	1218.9	1220.3	1221.7	1221.9	1220.7	1219.6	1218.4	1217.3
20°	1195.8	1197.4	1199.0	1199.2	1198.1	1196.9	1195.8	1194.6
22.5°	1169.4	1170.5	1171.6	1171.7	1170.9	1170.1	1169.3	1168.6
25°	1127.3	1127.8	1128.3	1128.1	1127.5	1126.8	1126.1	1125.4
27.5°	1083.2	1083.3	1083.4	1083.1	1082.4	1081.7	1081.0	1080.3
30°	1051.1	1050.6	1050.1	1049.6	1048.8	1048.1	1047.4	1046.7
32.5°	1018.3	1017.5	1016.7	1015.6	1014.4	1013.1	1011.9	1010.7
35°	967.9	966.6	965.5	964.0	962.1	960.3	958.4	956.5
37.5°	914.6	912.9	911.2	909.8	908.8	907.7	906.7	905.5
40°	877.9	875.8	873.6	872.2	871.5	870.9	870.2	869.5
42.5°	841.3	839.4	837.5	836.0	835.0	833.8	832.7	831.7
45°	787.3	784.5	781.7	779.9	779.3	778.6	777.9	777.2
47.5°	730.3	727.5	724.7	722.5	720.8	719.2	717.5	715.9
50°	691.4	688.3	685.3	683.0	681.4	679.7	678.1	676.5
52.5°	653.6	650.9	648.2	646.0	644.2	642.4	640.6	638.7
55°	594.7	592.6	590.5	588.7	586.9	585.3	583.7	582.1
57.5°	536.2	533.5	530.8	529.0	528.1	527.3	526.3	525.4
60°	496.7	494.3	492.0	490.0	488.4	486.8	485.1	483.5
62.5°	458.6	456.1	453.5	451.6	450.4	449.1	447.9	446.6
65°	398.6	396.5	394.4	392.8	391.9	391.0	390.0	389.1
67.5°	341.3	339.5	337.8	336.6	336.1	335.5	334.9	334.4
70°	303.5	302.1	300.6	299.5	298.5	297.6	296.7	295.8
72.5°	267.8	266.3	264.7	263.4	262.5	261.6	260.6	259.6
75°	212.6	211.9	211.2	210.4	209.4	208.4	207.5	206.6
77.5°	162.0	161.5	161.1	160.6	159.9	159.3	158.6	157.9
80°	129.6	129.4	129.2	128.8	128.4	127.8	127.3	126.9
82.5°	99.0	98.6	98.2	98.0	97.9	97.8	97.7	97.6
85°	58.3	58.1	57.8	57.5	57.0	56.6	56.0	55.5
87.5°	25.5	25.8	26.0	26.0	25.8	25.5	25.2	25.0
90°	18.6	19.8	20.9	21.8	22.5	23.1	23.8	24.5
92.5°	18.6	19.8	20.9	21.6	21.9	22.2	22.5	22.9
95°	18.6	19.8	20.9	21.4	21.4	21.4	21.4	21.4
97.5°	37.5	31.0	24.6	21.4	21.4	21.4	21.4	21.4
100°	110.1	76.2	42.4	25.0	24.1	23.2	22.3	21.4
102.5°	213.9	207.5	201.2	190.3	174.8	159.4	143.9	128.5
105°	304.4	304.4	304.4	304.3	304.1	303.8	303.6	303.4
107.5°	385.4	385.4	385.5	385.2	384.5	383.7	383.0	382.4
110°	437.8	437.2	436.5	436.3	436.5	436.7	436.9	437.2



TEST NUMBER: P333416-840

CATALOG NUMBER: S125DIW-S850D1050U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	489.8	488.9	488.1	487.5	487.2	486.8	486.5	486.1
115°	568.0	567.1	566.2	565.1	563.8	562.4	561.1	559.7
117.5°	643.8	642.6	641.4	640.5	640.0	639.3	638.7	638.1
120°	692.6	692.2	691.7	690.8	689.7	688.6	687.5	686.3
122.5°	739.1	738.7	738.2	737.4	736.1	734.8	733.5	732.2
125°	807.1	806.2	805.3	804.5	803.9	803.1	802.4	801.7
127.5°	869.2	868.7	868.2	867.1	865.5	863.7	862.0	860.4
130°	909.7	909.0	908.3	907.4	906.3	905.1	904.0	902.9
132.5°	947.6	947.4	947.3	946.6	945.5	944.3	943.2	942.1
135°	1003.1	1002.6	1002.2	1001.3	999.9	998.6	997.1	995.8
137.5°	1054.8	1054.9	1055.0	1054.5	1053.3	1052.1	1051.0	1049.8
140°	1086.6	1087.0	1087.5	1087.0	1085.7	1084.3	1083.0	1081.6
142.5°	1117.7	1117.8	1117.9	1117.3	1115.9	1114.6	1113.2	1111.9
145°	1161.7	1162.0	1162.2	1161.6	1160.2	1158.9	1157.5	1156.2
147.5°	1199.4	1199.7	1199.9	1199.3	1197.6	1196.0	1194.4	1192.8
150°	1223.5	1224.0	1224.4	1223.7	1221.8	1220.0	1218.2	1216.4
152.5°	1244.7	1245.2	1245.6	1245.1	1243.3	1241.7	1240.1	1238.5
155°	1273.9	1274.7	1275.4	1274.8	1272.9	1271.1	1269.3	1267.5
157.5°	1298.2	1298.9	1299.6	1299.1	1297.3	1295.5	1293.6	1291.8
160°	1313.2	1314.1	1315.0	1314.5	1312.8	1311.0	1309.2	1307.4
162.5°	1327.1	1328.3	1329.6	1329.2	1327.2	1325.2	1323.2	1321.2
165°	1344.7	1346.2	1347.5	1347.3	1345.4	1343.6	1341.8	1340.0
167.5°	1358.2	1359.8	1361.5	1361.3	1359.2	1357.2	1355.1	1353.1
170°	1365.1	1367.0	1368.8	1368.6	1366.5	1364.5	1362.5	1360.4
172.5°	1370.5	1372.1	1373.7	1373.5	1371.5	1369.4	1367.4	1365.3
175°	1376.3	1378.2	1380.0	1379.9	1377.8	1375.7	1373.7	1371.7
177.5°	1378.7	1380.0	1381.3	1381.2	1379.7	1378.3	1376.8	1375.3
180°	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8

(END OF REPORT)