

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: P333417-840

Luminaire Tested: **S125DIW-S850D1050U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333417-840
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: S125DIW-S850D1050U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7121.7 lumens
Efficiency: N/A
Efficacy: 135.4 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

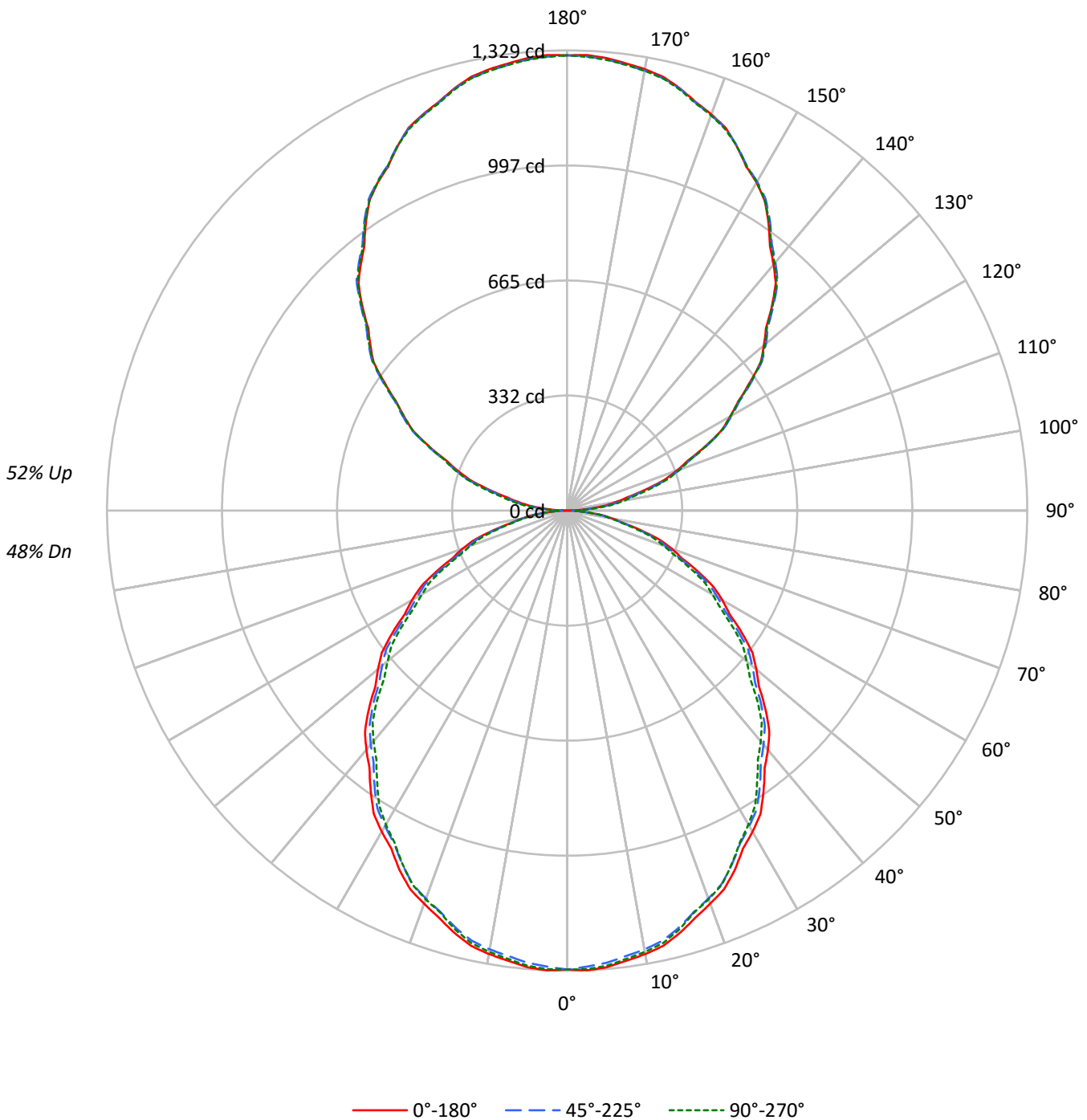
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48
1	97	93	89	86	89	86	82	79	72	70	68	60	58	56	48	47	46	41
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39	34
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33	29
4	74	63	55	49	68	58	51	46	50	44	40	41	37	34	34	31	28	25
5	68	56	48	42	62	52	45	40	44	39	34	37	33	30	30	27	25	21
6	62	50	42	36	57	47	40	34	40	34	30	33	29	26	27	24	22	19
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19	17
8	54	41	34	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12

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



TEST NUMBER: P333417-840

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.8
10°-20°	353.1	5.0
20°-30°	521.3	7.3
30°-40°	608.3	8.5
40°-50°	611.0	8.6
50°-60°	536.3	7.5
60°-70°	399.6	5.6
70°-80°	228.5	3.2
80°-90°	69.4	1.0
90°-100°	88.1	1.2
100°-110°	260.1	3.7
110°-120°	440.5	6.2
120°-130°	579.7	8.1
130°-140°	649.6	9.1
140°-150°	636.6	8.9
150°-160°	534.7	7.5
160°-170°	355.4	5.0
170°-180°	124.4	1.7
0°-30°	999.4	14.0
0°-40°	1607.8	22.6
0°-60°	2755.1	38.7
0°-90°	3452.6	48.5
90°-120°	788.6	11.1
90°-150°	2654.6	37.3
90°-180°	3669.0	51.5
0°-180°	7121.7	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	7
95°	67	69	79	86	88	71
105°	233	238	245	251	254	249
115°	441	445	447	446	445	436
125°	644	649	651	649	648	576
135°	837	843	844	844	840	645
145°	1014	1018	1021	1021	1018	634
155°	1160	1160	1161	1165	1160	534
165°	1262	1260	1261	1264	1259	356
175°	1312	1308	1308	1313	1307	125
180°	1315	1315	1315	1315	1315	



TEST NUMBER: P333417-840

CATALOG NUMBER: S125DIW-S850D1050U840-4F0-1E-UDD-F1

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	24.7	24.8	24.9	25.0	25.3
90°	1.0	2.8	4.6	6.5	8.3	10.0	11.6	13.2	14.7	16.4	17.5
92.5°	24.7	26.1	27.3	28.6	29.9	31.5	33.4	35.3	37.4	39.3	40.8
95°	66.6	67.0	67.5	67.9	68.4	69.7	72.0	74.2	76.5	78.8	80.4
97.5°	110.5	110.7	110.9	111.1	111.3	112.9	116.0	119.2	122.3	125.4	126.9
100°	143.3	143.3	143.3	143.3	143.3	144.7	147.6	150.7	153.6	156.5	158.6
102.5°	178.4	179.4	180.3	181.2	182.1	183.3	184.8	186.3	187.8	189.3	191.6
105°	233.3	234.4	235.6	236.7	237.8	239.1	240.4	241.9	243.2	244.6	245.9
107.5°	293.9	295.0	296.2	297.3	298.4	299.5	300.5	301.6	302.7	303.7	304.4
110°	335.6	336.8	337.9	339.0	340.2	341.1	341.7	342.4	343.2	343.9	344.5



TEST NUMBER: P333417-840

CATALOG NUMBER: S125DIW-S850D1050U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	378.2	378.8	379.4	380.0	380.5	381.3	382.1	383.0	383.8	384.8	385.1
115°	441.0	441.9	442.8	443.7	444.6	445.4	445.8	446.3	446.7	447.2	447.0
117.5°	504.0	504.4	504.8	505.2	505.7	506.1	506.5	507.0	507.4	507.8	508.0
120°	543.3	544.5	545.6	546.7	547.9	548.6	548.8	549.1	549.3	549.5	549.5
122.5°	585.9	586.3	586.7	587.1	587.5	588.0	588.7	589.3	589.9	590.5	590.3
125°	643.6	645.0	646.3	647.7	649.0	649.8	650.2	650.4	650.6	650.8	650.4
127.5°	705.0	705.8	706.6	707.3	708.1	708.6	708.9	709.2	709.4	709.7	709.5
130°	741.8	743.0	744.2	745.3	746.4	747.2	747.7	748.1	748.6	749.0	748.8
132.5°	778.7	780.5	782.4	784.3	786.2	787.1	787.0	786.9	786.8	786.7	786.5
135°	837.0	838.4	839.7	841.1	842.5	843.2	843.5	843.7	843.9	844.1	844.1
137.5°	891.9	893.2	894.5	895.9	897.2	898.1	898.6	899.1	899.6	900.1	900.3
140°	927.1	928.2	929.4	930.5	931.6	932.5	933.2	933.9	934.5	935.2	935.7
142.5°	962.3	963.2	964.2	965.1	966.1	967.0	967.9	968.8	969.6	970.5	970.7
145°	1014.0	1014.9	1015.8	1016.7	1017.6	1018.4	1019.2	1019.9	1020.6	1021.2	1021.2
147.5°	1062.0	1062.5	1063.0	1063.4	1063.9	1064.5	1065.0	1065.5	1066.1	1066.6	1067.2
150°	1093.9	1093.7	1093.4	1093.2	1093.0	1093.3	1094.2	1095.1	1096.0	1096.9	1096.9
152.5°	1120.0	1120.3	1120.6	1121.1	1121.4	1121.7	1122.1	1122.4	1122.8	1123.2	1123.7
155°	1160.3	1160.3	1160.3	1160.3	1160.3	1160.4	1160.7	1160.9	1161.1	1161.4	1162.4
157.5°	1196.4	1195.9	1195.4	1194.9	1194.4	1194.3	1194.5	1194.7	1195.0	1195.2	1196.1
160°	1217.7	1217.0	1216.3	1215.7	1215.0	1214.8	1215.0	1215.2	1215.4	1215.7	1216.6
162.5°	1236.5	1236.0	1235.5	1235.0	1234.5	1234.3	1234.4	1234.4	1234.5	1234.5	1235.6
165°	1261.7	1261.2	1260.7	1260.3	1259.8	1259.7	1260.0	1260.2	1260.4	1260.6	1261.5
167.5°	1282.9	1282.0	1281.1	1280.2	1279.3	1278.9	1278.9	1278.9	1278.9	1278.9	1280.2
170°	1294.4	1293.5	1292.6	1291.7	1290.8	1290.3	1290.3	1290.3	1290.3	1290.3	1291.7
172.5°	1302.6	1301.7	1300.8	1299.9	1299.0	1298.5	1298.5	1298.5	1298.5	1298.5	1299.9
175°	1311.8	1310.9	1310.0	1309.1	1308.2	1307.7	1307.7	1307.7	1307.7	1307.7	1309.1
177.5°	1316.6	1315.8	1315.0	1314.3	1313.6	1313.1	1312.9	1312.8	1312.6	1312.4	1313.5
180°	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8



TEST NUMBER: P333417-840

CATALOG NUMBER: S125DIW-S850D1050U840-4F0-1E-UDD-F1

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°	18.7	19.8	20.9	21.8	22.5	23.2	23.8	24.5
92.5°	42.3	43.8	45.3	46.3	46.8	47.3	47.8	48.3
95°	82.0	83.5	85.1	86.1	86.6	87.1	87.6	88.0
97.5°	128.5	130.0	131.5	132.3	132.6	132.9	133.2	133.4
100°	160.7	162.7	164.7	166.0	166.4	166.9	167.3	167.8
102.5°	193.8	196.0	198.2	199.7	200.3	201.0	201.6	202.2
105°	247.3	248.6	250.0	251.1	251.8	252.4	253.1	253.8
107.5°	305.1	305.8	306.4	306.8	306.7	306.7	306.6	306.6
110°	345.2	345.9	346.6	346.8	346.6	346.3	346.1	345.9



TEST NUMBER: P333417-840

CATALOG NUMBER: S125DIW-S850D1050U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.4	385.7	386.0	386.0	385.6	385.2	384.8	384.4
115°	446.7	446.5	446.3	446.1	445.8	445.6	445.4	445.1
117.5°	508.1	508.3	508.5	508.1	507.2	506.2	505.3	504.4
120°	549.5	549.5	549.5	549.1	548.2	547.2	546.3	545.4
122.5°	590.1	589.9	589.7	589.3	588.5	587.7	587.0	586.3
125°	649.8	649.4	648.9	648.6	648.4	648.1	647.9	647.7
127.5°	709.2	709.0	708.8	708.5	708.0	707.6	707.1	706.7
130°	748.6	748.3	748.1	747.8	747.3	746.9	746.4	746.0
132.5°	786.2	786.0	785.8	785.4	784.7	784.1	783.5	782.7
135°	844.1	844.1	844.1	843.7	842.8	841.9	841.0	840.1
137.5°	900.6	900.9	901.1	900.7	899.6	898.5	897.3	896.2
140°	936.1	936.6	937.1	936.8	935.6	934.4	933.3	932.2
142.5°	971.0	971.3	971.6	971.1	970.0	968.9	967.8	966.5
145°	1021.2	1021.2	1021.2	1020.9	1020.2	1019.5	1018.9	1018.1
147.5°	1067.7	1068.2	1068.8	1068.3	1066.8	1065.2	1063.7	1062.2
150°	1096.9	1096.9	1096.9	1096.7	1096.2	1095.8	1095.3	1094.9
152.5°	1124.2	1124.8	1125.3	1125.2	1124.4	1123.6	1122.7	1121.9
155°	1163.3	1164.2	1165.1	1164.9	1163.8	1162.7	1161.5	1160.3
157.5°	1197.0	1197.9	1198.8	1198.5	1197.0	1195.5	1194.0	1192.5
160°	1217.5	1218.4	1219.3	1219.1	1218.0	1216.9	1215.8	1214.6
162.5°	1236.7	1237.7	1238.8	1238.7	1237.4	1236.1	1234.8	1233.4
165°	1262.4	1263.3	1264.3	1264.0	1262.7	1261.3	1260.0	1258.6
167.5°	1281.6	1282.9	1284.3	1284.3	1282.9	1281.5	1280.1	1278.7
170°	1293.0	1294.4	1295.8	1295.7	1294.0	1292.5	1290.9	1289.3
172.5°	1301.2	1302.6	1303.9	1303.9	1302.5	1301.1	1299.7	1298.3
175°	1310.4	1311.8	1313.2	1313.0	1311.5	1309.9	1308.3	1306.7
177.5°	1314.6	1315.8	1316.8	1316.7	1315.5	1314.1	1312.9	1311.6
180°	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8

(END OF REPORT)