

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

Luminaire Tested: **S125DIW-S850D1050U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333417
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-S850D1050U835-4F0-1E-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: 7052.1 lumens
Efficiency: N/A
Efficacy: 134.1 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

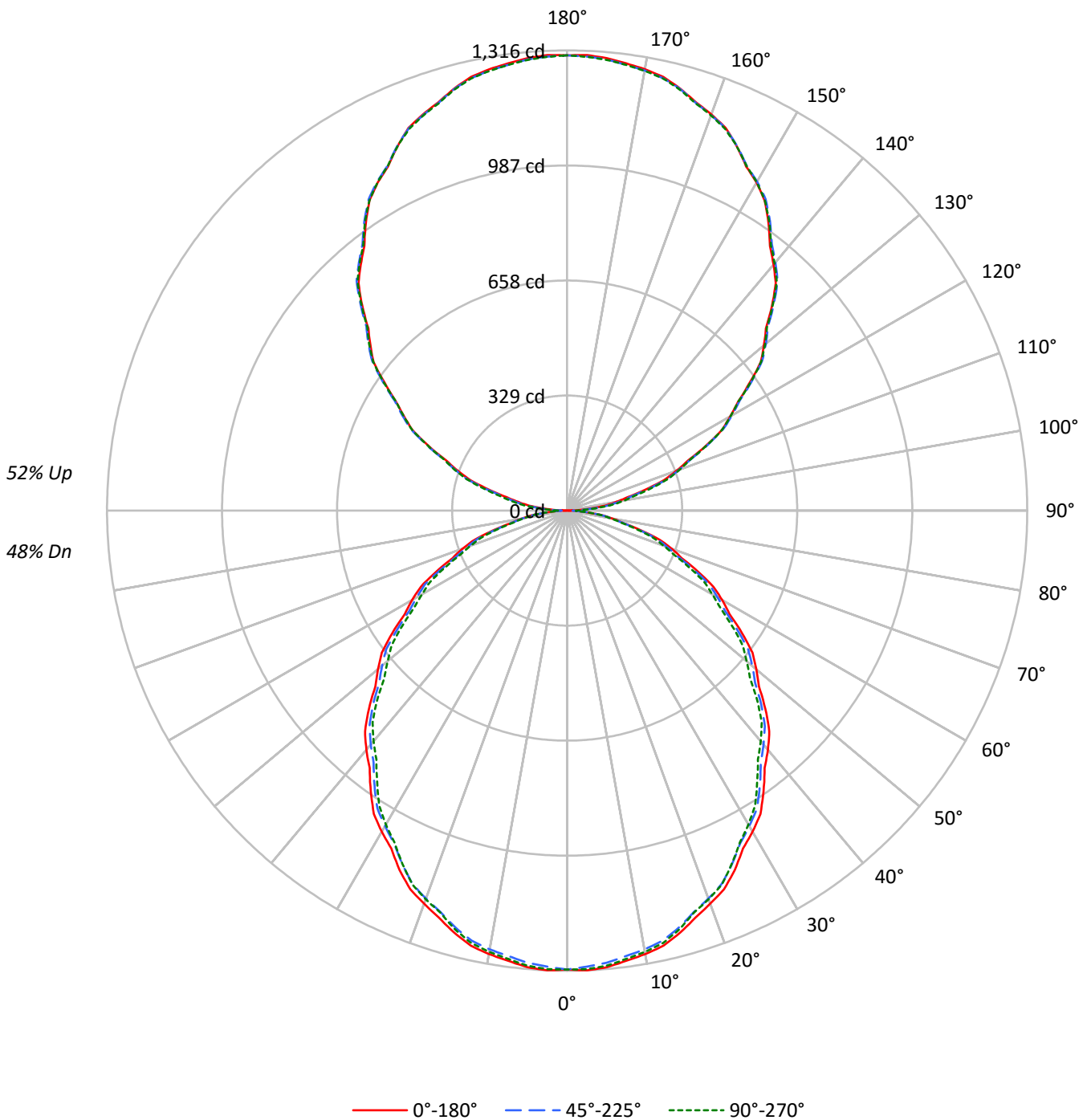
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48				48
1	97	93	89	86	89	86	82	79	72	70	68	60	58	56	48	47	46	41				41
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39	34				34
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33	29				29
4	74	63	55	49	68	58	51	46	50	44	40	41	37	34	34	31	28	25				25
5	68	56	48	42	62	52	45	40	44	39	34	37	33	30	30	27	25	21				21
6	62	50	42	36	57	47	40	34	40	34	30	33	29	26	27	24	22	19				19
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19	17				17
8	54	41	34	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15				15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13				13
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12				12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8478	8478	8478
5°	8497	8416	8470
10°	8445	8357	8405
15°	8354	8256	8291
20°	8223	8115	8130
25°	8082	7948	7941
30°	7908	7768	7730
35°	7722	7574	7468
40°	7530	7363	7259
45°	7323	7172	7029
50°	7095	6939	6731
55°	6876	6677	6490
60°	6613	6412	6185
65°	6301	6094	5888
70°	6001	5727	5531
75°	5467	5288	5105
80°	4868	4790	4675
85°	4231	4313	4076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	1.8
10°-20°	349.6	5.0
20°-30°	516.2	7.3
30°-40°	602.4	8.5
40°-50°	605.0	8.6
50°-60°	531.1	7.5
60°-70°	395.7	5.6
70°-80°	226.3	3.2
80°-90°	68.7	1.0
90°-100°	87.2	1.2
100°-110°	257.5	3.7
110°-120°	436.2	6.2
120°-130°	574.0	8.1
130°-140°	643.2	9.1
140°-150°	630.4	8.9
150°-160°	529.5	7.5
160°-170°	352.0	5.0
170°-180°	123.2	1.7
0°-30°	989.7	14.0
0°-40°	1592.1	22.6
0°-60°	2728.2	38.7
0°-90°	3418.8	48.5
90°-120°	780.9	11.1
90°-150°	2628.6	37.3
90°-180°	3633.0	51.5
0°-180°	7052.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1313	1313	1313	1313	1313	
5°	1311	1308	1298	1307	1306	124
15°	1249	1246	1235	1240	1240	352
25°	1134	1128	1115	1117	1114	522
35°	979	975	961	955	947	612
45°	802	797	785	773	770	618
55°	611	607	593	584	576	545
65°	412	410	399	390	385	409
75°	219	217	212	209	205	234
85°	57	58	58	57	55	64
90°	1	9	16	21	24	7
95°	66	68	78	85	87	70
105°	231	236	242	248	251	247
115°	437	441	443	442	441	432
125°	637	643	644	642	641	571
135°	829	835	836	836	832	639
145°	1004	1008	1011	1011	1008	627
155°	1149	1149	1150	1154	1149	529
165°	1249	1247	1248	1252	1246	352
175°	1299	1295	1295	1300	1294	123
180°	1302	1302	1302	1302	1302	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1316.1	1315.5	1315.0	1314.4	1313.8	1312.6	1310.8	1309.0	1307.1	1305.3	1307.1
5°	1310.7	1310.2	1309.7	1309.3	1308.8	1307.4	1305.1	1302.8	1300.5	1298.2	1300.3
7.5°	1298.6	1298.2	1297.7	1297.2	1296.8	1295.3	1292.7	1290.2	1287.7	1285.1	1287.1
10°	1287.8	1287.4	1286.9	1286.4	1286.0	1284.5	1281.9	1279.4	1276.9	1274.3	1276.2
12.5°	1274.5	1273.7	1272.9	1272.0	1271.2	1269.6	1267.3	1264.9	1262.5	1260.2	1261.7
15°	1249.4	1248.7	1248.0	1247.3	1246.6	1245.0	1242.5	1239.9	1237.4	1234.8	1236.0
17.5°	1220.5	1219.5	1218.5	1217.5	1216.5	1214.6	1212.0	1209.4	1206.7	1204.1	1205.5
20°	1196.4	1196.0	1195.5	1195.0	1194.6	1192.8	1189.8	1186.8	1183.8	1180.8	1182.5
22.5°	1172.3	1171.5	1170.7	1169.8	1169.0	1167.2	1164.4	1161.5	1158.7	1155.9	1157.0
25°	1134.1	1133.0	1131.8	1130.6	1129.5	1127.4	1124.4	1121.4	1118.4	1115.4	1115.9
27.5°	1089.4	1088.8	1088.1	1087.4	1086.7	1084.8	1081.7	1078.6	1075.5	1072.4	1072.5
30°	1060.4	1059.7	1059.0	1058.3	1057.6	1055.5	1052.1	1048.6	1045.1	1041.7	1041.2
32.5°	1028.8	1027.7	1026.7	1025.6	1024.6	1022.5	1019.4	1016.3	1013.2	1010.1	1009.3
35°	979.4	978.4	977.5	976.6	975.7	973.6	970.4	967.1	963.9	960.7	959.5
37.5°	928.1	926.9	925.7	924.6	923.4	921.3	918.3	915.2	912.2	909.2	907.4
40°	893.2	892.0	890.9	889.7	888.5	886.4	883.1	879.9	876.7	873.4	871.4
42.5°	855.8	854.8	853.8	852.9	851.9	849.8	846.6	843.3	840.1	836.9	835.0
45°	801.8	800.8	799.9	799.0	798.1	796.2	793.5	790.7	787.9	785.2	782.4
47.5°	743.6	743.7	743.7	743.7	743.8	742.2	738.8	735.5	732.2	728.9	726.0
50°	706.2	705.5	704.8	704.1	703.5	701.7	699.0	696.2	693.4	690.6	687.6
52.5°	668.0	667.5	667.0	666.5	666.0	664.2	661.3	658.3	655.4	652.4	649.8
55°	610.7	610.0	609.3	608.6	607.9	605.9	602.7	599.5	596.2	593.0	590.9
57.5°	550.2	549.9	549.5	549.1	548.8	547.2	544.5	541.8	539.0	536.3	533.6
60°	512.0	511.1	510.2	509.2	508.3	506.6	504.0	501.5	499.0	496.4	494.1
62.5°	472.1	471.4	470.7	469.9	469.2	467.7	465.6	463.4	461.2	459.0	456.6
65°	412.3	411.8	411.4	410.9	410.5	409.0	406.4	403.9	401.3	398.8	396.7
67.5°	354.4	353.4	352.4	351.4	350.5	349.0	347.2	345.3	343.4	341.5	339.7
70°	317.8	316.6	315.5	314.3	313.2	311.6	309.5	307.4	305.3	303.3	301.9
72.5°	277.9	277.1	276.3	275.6	274.8	273.7	272.4	271.0	269.7	268.4	266.8
75°	219.1	218.7	218.2	217.8	217.3	216.5	215.3	214.2	213.0	211.9	211.2
77.5°	164.9	164.7	164.6	164.4	164.2	163.8	163.1	162.5	161.8	161.2	160.8
80°	130.9	130.9	130.9	130.9	130.9	130.6	130.2	129.7	129.2	128.8	128.6
82.5°	100.9	100.6	100.2	99.8	99.5	99.2	99.1	99.1	99.0	98.9	98.5
85°	57.1	57.4	57.6	57.8	58.0	58.2	58.2	58.2	58.2	58.2	57.9
87.5°	22.6	23.0	23.4	23.7	24.1	24.3	24.5	24.6	24.7	24.8	25.1
90°	1.0	2.8	4.6	6.4	8.2	9.9	11.5	13.1	14.6	16.2	17.3
92.5°	24.5	25.8	27.0	28.3	29.6	31.2	33.1	35.0	37.0	38.9	40.4
95°	65.9	66.3	66.8	67.2	67.7	69.0	71.3	73.5	75.8	78.0	79.6
97.5°	109.4	109.6	109.8	110.0	110.2	111.8	114.9	118.0	121.1	124.2	125.7
100°	141.9	141.9	141.9	141.9	141.9	143.3	146.2	149.2	152.1	155.0	157.1
102.5°	176.7	177.6	178.5	179.4	180.3	181.5	183.0	184.5	186.0	187.5	189.7
105°	231.0	232.1	233.3	234.4	235.5	236.8	238.1	239.5	240.8	242.2	243.5
107.5°	291.0	292.1	293.3	294.4	295.5	296.6	297.6	298.7	299.7	300.7	301.4
110°	332.3	333.5	334.6	335.7	336.9	337.8	338.4	339.1	339.8	340.5	341.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	374.5	375.1	375.7	376.3	376.8	377.6	378.4	379.3	380.1	381.0	381.3
115°	436.7	437.6	438.5	439.4	440.3	441.0	441.4	441.9	442.3	442.8	442.6
117.5°	499.1	499.5	499.9	500.3	500.8	501.2	501.6	502.0	502.4	502.8	503.0
120°	538.0	539.2	540.3	541.4	542.5	543.2	543.4	543.7	543.9	544.1	544.1
122.5°	580.2	580.6	581.0	581.4	581.8	582.3	582.9	583.5	584.1	584.7	584.5
125°	637.3	638.7	640.0	641.4	642.7	643.5	643.8	644.0	644.2	644.4	644.0
127.5°	698.1	698.9	699.7	700.4	701.2	701.7	702.0	702.3	702.5	702.8	702.6
130°	734.6	735.7	736.9	738.0	739.1	739.9	740.4	740.8	741.3	741.7	741.5
132.5°	771.1	772.9	774.8	776.6	778.5	779.4	779.3	779.2	779.1	779.0	778.8
135°	828.8	830.2	831.5	832.9	834.3	835.0	835.3	835.5	835.7	835.9	835.9
137.5°	883.2	884.5	885.8	887.1	888.4	889.3	889.8	890.3	890.8	891.3	891.5
140°	918.0	919.1	920.3	921.4	922.5	923.4	924.1	924.8	925.4	926.1	926.6
142.5°	952.9	953.8	954.8	955.7	956.7	957.6	958.4	959.3	960.1	961.0	961.2
145°	1004.1	1005.0	1005.9	1006.8	1007.7	1008.5	1009.2	1009.9	1010.6	1011.2	1011.2
147.5°	1051.6	1052.1	1052.6	1053.0	1053.5	1054.1	1054.6	1055.1	1055.7	1056.2	1056.8
150°	1083.2	1083.0	1082.7	1082.5	1082.3	1082.6	1083.5	1084.4	1085.3	1086.2	1086.2
152.5°	1109.1	1109.4	1109.7	1110.1	1110.4	1110.7	1111.1	1111.4	1111.8	1112.2	1112.7
155°	1149.0	1149.0	1149.0	1149.0	1149.0	1149.1	1149.4	1149.6	1149.8	1150.1	1151.0
157.5°	1184.7	1184.2	1183.7	1183.2	1182.7	1182.6	1182.8	1183.0	1183.3	1183.5	1184.4
160°	1205.8	1205.1	1204.4	1203.8	1203.1	1202.9	1203.1	1203.3	1203.5	1203.8	1204.7
162.5°	1224.4	1223.9	1223.4	1222.9	1222.4	1222.2	1222.3	1222.3	1222.4	1222.4	1223.5
165°	1249.4	1248.9	1248.4	1248.0	1247.5	1247.4	1247.7	1247.9	1248.1	1248.3	1249.2
167.5°	1270.4	1269.5	1268.6	1267.7	1266.8	1266.4	1266.4	1266.4	1266.4	1266.4	1267.7
170°	1281.8	1280.9	1280.0	1279.1	1278.2	1277.7	1277.7	1277.7	1277.7	1277.7	1279.1
172.5°	1289.9	1289.0	1288.1	1287.2	1286.3	1285.8	1285.8	1285.8	1285.8	1285.8	1287.2
175°	1299.0	1298.1	1297.2	1296.3	1295.4	1294.9	1294.9	1294.9	1294.9	1294.9	1296.3
177.5°	1303.7	1302.9	1302.2	1301.5	1300.8	1300.3	1300.1	1300.0	1299.8	1299.6	1300.7
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1309.0	1310.8	1312.6	1313.5	1313.3	1313.1	1312.9	1312.7
5°	1302.4	1304.4	1306.5	1307.4	1307.2	1307.0	1306.7	1306.5
7.5°	1289.2	1291.2	1293.2	1294.1	1293.9	1293.7	1293.4	1293.2
10°	1278.0	1279.9	1281.7	1282.5	1282.3	1282.0	1281.8	1281.6
12.5°	1263.1	1264.6	1266.1	1266.8	1266.8	1266.7	1266.7	1266.6
15°	1237.2	1238.3	1239.5	1240.0	1240.0	1240.0	1240.0	1240.0
17.5°	1207.0	1208.4	1209.8	1210.0	1208.8	1207.7	1206.5	1205.4
20°	1184.1	1185.7	1187.3	1187.5	1186.4	1185.2	1184.1	1182.9
22.5°	1158.0	1159.1	1160.2	1160.3	1159.5	1158.7	1157.9	1157.2
25°	1116.3	1116.8	1117.3	1117.1	1116.5	1115.8	1115.1	1114.4
27.5°	1072.6	1072.7	1072.8	1072.5	1071.8	1071.1	1070.4	1069.7
30°	1040.8	1040.3	1039.8	1039.3	1038.6	1037.9	1037.2	1036.5
32.5°	1008.4	1007.6	1006.8	1005.7	1004.5	1003.2	1002.0	1000.8
35°	958.4	957.2	956.1	954.6	952.7	950.9	949.0	947.2
37.5°	905.7	904.0	902.3	900.9	899.9	898.8	897.8	896.7
40°	869.3	867.2	865.1	863.7	863.0	862.4	861.7	861.0
42.5°	833.1	831.2	829.3	827.8	826.8	825.7	824.6	823.6
45°	779.6	776.8	774.1	772.3	771.7	771.0	770.3	769.6
47.5°	723.2	720.4	717.6	715.4	713.8	712.2	710.5	708.9
50°	684.6	681.6	678.6	676.3	674.7	673.1	671.5	669.9
52.5°	647.2	644.5	641.9	639.7	637.9	636.1	634.3	632.5
55°	588.9	586.8	584.7	582.9	581.2	579.6	578.0	576.4
57.5°	531.0	528.3	525.6	523.8	522.9	522.1	521.2	520.3
60°	491.8	489.5	487.2	485.2	483.6	482.0	480.4	478.8
62.5°	454.1	451.6	449.1	447.2	446.0	444.7	443.5	442.2
65°	394.7	392.6	390.5	389.0	388.1	387.2	386.2	385.3
67.5°	338.0	336.2	334.5	333.3	332.8	332.2	331.6	331.1
70°	300.5	299.1	297.7	296.6	295.6	294.7	293.8	292.9
72.5°	265.2	263.7	262.1	260.8	259.9	259.0	258.1	257.1
75°	210.5	209.8	209.1	208.3	207.4	206.4	205.5	204.6
77.5°	160.4	159.9	159.5	159.0	158.3	157.7	157.1	156.4
80°	128.3	128.1	127.9	127.5	127.1	126.6	126.1	125.7
82.5°	98.0	97.6	97.2	97.0	96.9	96.8	96.7	96.6
85°	57.7	57.5	57.2	56.9	56.4	56.0	55.5	55.0
87.5°	25.3	25.5	25.7	25.7	25.5	25.3	25.0	24.8
90°	18.5	19.6	20.7	21.6	22.3	23.0	23.6	24.3
92.5°	41.9	43.4	44.9	45.8	46.3	46.8	47.3	47.8
95°	81.2	82.7	84.3	85.3	85.8	86.2	86.7	87.1
97.5°	127.2	128.7	130.2	131.0	131.3	131.6	131.9	132.1
100°	159.1	161.1	163.1	164.4	164.8	165.3	165.7	166.2
102.5°	191.9	194.1	196.3	197.7	198.3	199.0	199.6	200.2
105°	244.9	246.2	247.6	248.6	249.3	249.9	250.6	251.3
107.5°	302.1	302.8	303.4	303.8	303.7	303.7	303.6	303.6
110°	341.8	342.5	343.2	343.4	343.2	342.9	342.7	342.5



TEST NUMBER: P333417

CATALOG NUMBER: S125DIW-S850D1050U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	381.6	381.9	382.2	382.2	381.8	381.4	381.0	380.6
115°	442.3	442.1	441.9	441.7	441.4	441.2	441.0	440.8
117.5°	503.1	503.3	503.5	503.1	502.2	501.3	500.4	499.5
120°	544.1	544.1	544.1	543.7	542.8	541.9	541.0	540.1
122.5°	584.3	584.1	583.9	583.5	582.8	582.0	581.3	580.6
125°	643.5	643.1	642.6	642.3	642.1	641.8	641.6	641.4
127.5°	702.3	702.1	701.9	701.6	701.1	700.7	700.2	699.8
130°	741.3	741.0	740.8	740.5	740.0	739.6	739.1	738.7
132.5°	778.5	778.3	778.1	777.7	777.0	776.4	775.8	775.1
135°	835.9	835.9	835.9	835.5	834.6	833.7	832.8	831.9
137.5°	891.8	892.1	892.3	891.9	890.8	889.7	888.5	887.4
140°	927.0	927.5	927.9	927.6	926.5	925.3	924.2	923.1
142.5°	961.5	961.8	962.1	961.6	960.5	959.4	958.3	957.1
145°	1011.2	1011.2	1011.2	1010.9	1010.2	1009.5	1008.9	1008.2
147.5°	1057.3	1057.8	1058.4	1057.9	1056.4	1054.8	1053.3	1051.8
150°	1086.2	1086.2	1086.2	1086.0	1085.5	1085.1	1084.6	1084.2
152.5°	1113.2	1113.8	1114.3	1114.2	1113.4	1112.6	1111.7	1110.9
155°	1151.9	1152.8	1153.7	1153.5	1152.4	1151.3	1150.2	1149.0
157.5°	1185.3	1186.2	1187.1	1186.8	1185.3	1183.8	1182.3	1180.9
160°	1205.6	1206.5	1207.4	1207.2	1206.1	1205.0	1203.9	1202.7
162.5°	1224.6	1225.6	1226.7	1226.6	1225.3	1224.0	1222.7	1221.4
165°	1250.1	1251.0	1251.9	1251.7	1250.4	1249.0	1247.7	1246.3
167.5°	1269.1	1270.4	1271.8	1271.8	1270.4	1269.0	1267.6	1266.2
170°	1280.4	1281.8	1283.1	1283.0	1281.4	1279.9	1278.3	1276.7
172.5°	1288.5	1289.9	1291.2	1291.2	1289.8	1288.4	1287.0	1285.6
175°	1297.6	1299.0	1300.4	1300.2	1298.7	1297.1	1295.5	1293.9
177.5°	1301.8	1302.9	1303.9	1303.8	1302.6	1301.3	1300.1	1298.8
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0

(END OF REPORT)