

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: P333247

Luminaire Tested: **S125DIP-S850D1205U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333247
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: S125DIP-S850D1205U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8233.7 lumens
Efficiency: N/A
Efficacy: 144.7 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

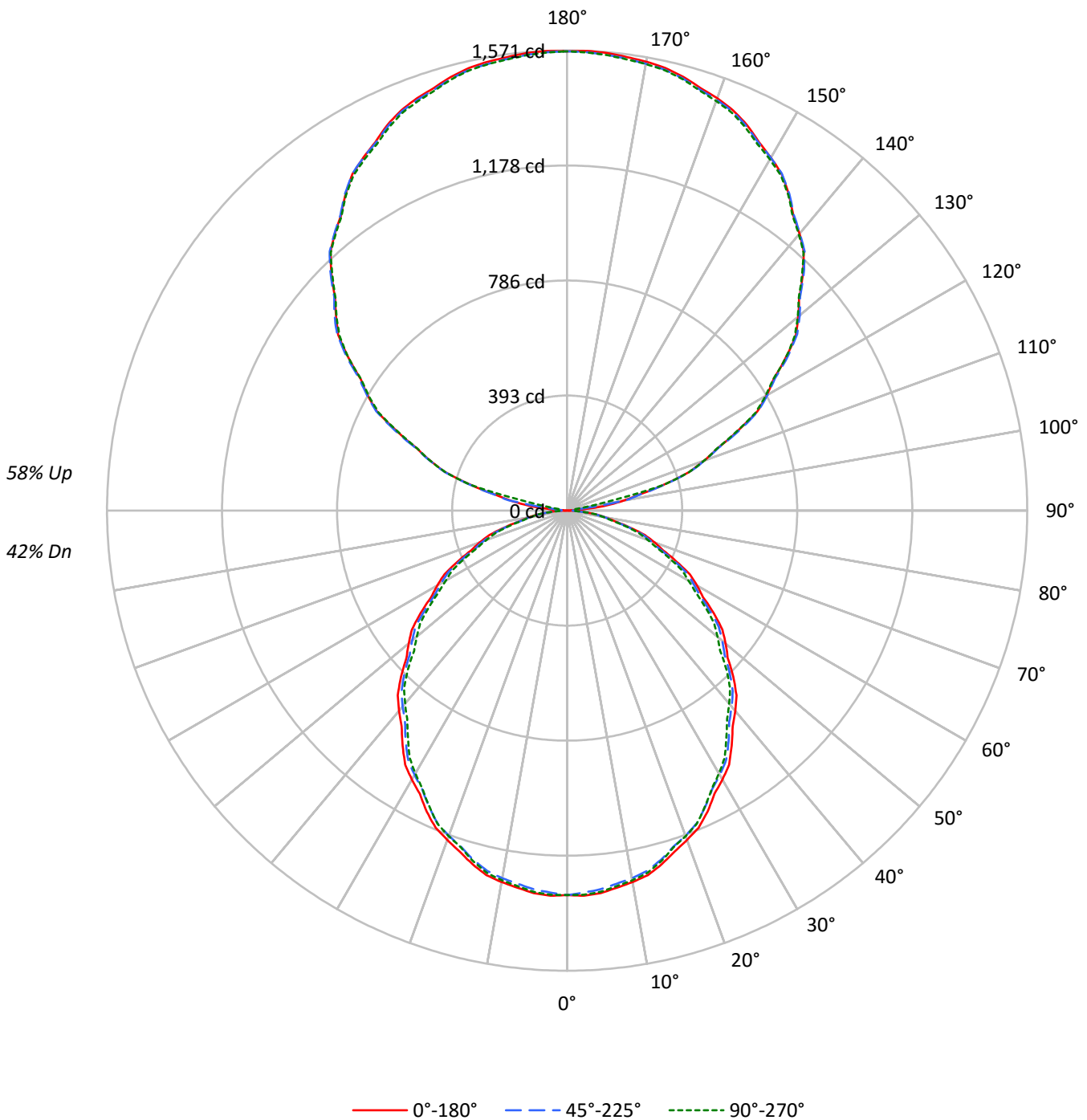
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	42
1	96	92	88	84	87	84	80	77	69	66	64	55	54	52	43	42	41	35
2	87	80	74	69	79	73	68	63	60	56	53	48	46	43	37	36	34	29
3	80	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	25
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	30	27	25	21
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	27	24	22	18
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19	16
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	28	48	37	30	26	31	26	22	26	22	19	20	17	15	13
9	49	37	29	24	45	34	27	23	29	23	20	23	20	17	19	16	14	12
10	46	34	27	22	42	31	25	20	26	21	18	22	18	15	17	15	12	10

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	1.5
10°-20°	349.6	4.2
20°-30°	516.2	6.3
30°-40°	602.4	7.3
40°-50°	605.0	7.3
50°-60°	531.1	6.5
60°-70°	395.7	4.8
70°-80°	226.3	2.7
80°-90°	69.1	0.8
90°-100°	57.0	0.7
100°-110°	351.1	4.3
110°-120°	636.8	7.7
120°-130°	817.3	9.9
130°-140°	879.1	10.7
140°-150°	825.1	10.0
150°-160°	667.5	8.1
160°-170°	431.7	5.2
170°-180°	148.9	1.8
0°-30°	989.7	12.0
0°-40°	1592.1	19.3
0°-60°	2728.2	33.1
0°-90°	3419.3	41.5
90°-120°	1044.9	12.7
90°-150°	3566.4	43.3
90°-180°	4814.0	58.5
0°-180°	8233.7	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	10	19	24	28	6
95°	66	60	19	24	24	84
105°	342	346	346	346	345	362
115°	642	647	648	644	637	636
125°	912	920	920	916	912	815
135°	1138	1144	1142	1140	1133	877
145°	1319	1321	1321	1322	1316	825
155°	1453	1446	1448	1451	1442	669
165°	1533	1526	1527	1533	1525	433
175°	1568	1561	1562	1570	1561	149
180°	1568	1568	1568	1568	1568	



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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°	22.7	23.1	23.5	23.9	24.3	24.6	24.8	25.0	25.1	25.3	25.6
90°	1.2	3.2	5.3	7.4	9.4	11.4	13.2	15.0	16.8	18.6	19.9
92.5°	17.9	16.5	15.0	13.6	12.1	12.2	13.8	15.4	17.0	18.6	19.9
95°	66.2	65.5	64.7	63.9	63.1	57.9	48.0	38.2	28.4	18.6	19.9
97.5°	138.3	139.7	141.1	142.5	143.9	134.9	115.4	96.0	76.6	57.2	49.9
100°	194.1	194.9	195.6	196.4	197.2	198.1	199.1	200.2	201.2	202.2	163.7
102.5°	250.8	251.8	252.8	253.7	254.7	255.5	256.1	256.8	257.4	258.0	250.7
105°	341.7	342.7	343.7	344.8	345.8	346.3	346.3	346.3	346.3	346.3	346.3
107.5°	436.1	436.1	436.1	436.1	436.1	436.3	436.8	437.3	437.9	438.4	438.4
110°	497.4	497.4	497.4	497.4	497.4	497.7	498.2	498.7	499.2	499.7	499.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	555.1	555.7	556.3	556.9	557.5	558.0	558.3	558.6	558.9	559.2	558.3
115°	641.5	642.8	644.1	645.4	646.7	647.5	647.7	648.0	648.2	648.5	647.5
117.5°	731.0	731.0	730.9	730.9	730.8	731.3	732.3	733.2	734.2	735.2	733.9
120°	786.8	786.5	786.3	786.0	785.8	786.0	786.8	787.6	788.3	789.1	788.6
122.5°	836.1	837.1	838.0	839.0	840.0	840.7	841.0	841.4	841.8	842.1	841.6
125°	912.3	914.1	915.9	917.7	919.5	920.4	920.4	920.4	920.4	920.4	919.4
127.5°	985.1	986.4	987.6	988.9	990.2	990.8	990.6	990.5	990.3	990.2	989.6
130°	1029.7	1031.0	1032.3	1033.6	1034.9	1035.6	1035.9	1036.2	1036.4	1036.7	1035.9
132.5°	1074.3	1075.8	1077.3	1078.8	1080.3	1080.8	1080.2	1079.6	1079.1	1078.5	1078.4
135°	1137.8	1139.3	1140.9	1142.4	1144.0	1144.5	1144.0	1143.5	1142.9	1142.4	1141.9
137.5°	1196.1	1197.5	1198.8	1200.1	1201.5	1201.9	1201.5	1201.0	1200.5	1200.1	1200.2
140°	1234.2	1234.8	1235.3	1235.8	1236.3	1236.4	1236.2	1235.9	1235.7	1235.4	1235.9
142.5°	1268.6	1268.9	1269.3	1269.6	1269.9	1270.2	1270.6	1270.9	1271.3	1271.7	1271.8
145°	1319.1	1319.6	1320.1	1320.6	1321.1	1321.4	1321.4	1321.4	1321.4	1321.4	1321.7
147.5°	1363.2	1363.1	1363.0	1362.9	1362.8	1362.9	1363.2	1363.5	1363.9	1364.2	1364.5
150°	1391.1	1390.6	1390.1	1389.6	1389.1	1389.1	1389.6	1390.1	1390.6	1391.1	1391.6
152.5°	1418.1	1417.0	1415.8	1414.7	1413.5	1413.2	1413.8	1414.3	1414.8	1415.3	1415.8
155°	1452.7	1451.2	1449.6	1448.1	1446.5	1446.0	1446.5	1447.0	1447.6	1448.1	1448.9
157.5°	1479.5	1478.5	1477.6	1476.7	1475.7	1475.3	1475.4	1475.4	1475.5	1475.5	1476.3
160°	1498.1	1496.5	1495.0	1493.4	1491.9	1491.2	1491.5	1491.7	1492.0	1492.2	1493.3
162.5°	1512.9	1511.4	1509.8	1508.3	1506.7	1506.1	1506.3	1506.6	1506.9	1507.1	1508.6
165°	1532.9	1531.4	1529.8	1528.3	1526.7	1526.1	1526.3	1526.6	1526.8	1527.1	1528.7
167.5°	1547.8	1546.2	1544.6	1543.0	1541.4	1540.7	1541.0	1541.2	1541.5	1541.8	1543.6
170°	1556.2	1554.4	1552.5	1550.7	1548.9	1548.2	1548.4	1548.7	1548.9	1549.2	1551.3
172.5°	1561.7	1559.9	1558.1	1556.3	1554.5	1553.8	1554.3	1554.8	1555.2	1555.7	1557.6
175°	1567.8	1566.2	1564.7	1563.1	1561.6	1560.9	1561.2	1561.5	1561.7	1562.0	1564.0
177.5°	1570.6	1569.3	1568.1	1566.9	1565.6	1565.1	1565.3	1565.5	1565.7	1565.9	1567.4
180°	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8



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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°	25.8	26.1	26.4	26.4	26.2	25.9	25.7	25.5
90°	21.2	22.5	23.8	24.8	25.6	26.3	27.1	27.9
92.5°	21.2	22.5	23.8	24.6	24.9	25.3	25.7	26.0
95°	21.2	22.5	23.8	24.4	24.4	24.4	24.4	24.4
97.5°	42.6	35.3	28.0	24.4	24.4	24.4	24.4	24.4
100°	125.3	86.8	48.3	28.5	27.5	26.5	25.4	24.4
102.5°	243.4	236.2	228.9	216.5	198.9	181.3	163.8	146.2
105°	346.3	346.3	346.3	346.2	345.9	345.7	345.4	345.2
107.5°	438.5	438.5	438.6	438.2	437.4	436.7	435.9	435.1
110°	498.2	497.4	496.6	496.4	496.6	496.9	497.2	497.4



TEST NUMBER: P333247

CATALOG NUMBER: S125DIP-S850D1205U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	557.3	556.3	555.3	554.6	554.3	553.9	553.6	553.2
115°	646.4	645.4	644.4	643.1	641.5	640.0	638.4	636.9
117.5°	732.5	731.2	729.8	728.8	728.1	727.5	726.8	726.1
120°	788.1	787.6	787.1	786.2	784.9	783.6	782.3	781.0
122.5°	841.1	840.6	840.1	839.0	837.5	836.0	834.6	833.1
125°	918.4	917.3	916.3	915.4	914.6	913.9	913.1	912.3
127.5°	989.0	988.5	987.9	986.7	984.8	982.8	980.9	979.0
130°	1035.1	1034.3	1033.6	1032.5	1031.2	1030.0	1028.7	1027.4
132.5°	1078.2	1078.0	1077.9	1077.2	1075.9	1074.6	1073.3	1072.0
135°	1141.4	1140.9	1140.4	1139.3	1137.8	1136.2	1134.7	1133.1
137.5°	1200.3	1200.4	1200.5	1199.9	1198.5	1197.2	1195.8	1194.5
140°	1236.4	1236.9	1237.5	1236.9	1235.4	1233.9	1232.3	1230.8
142.5°	1271.9	1272.0	1272.1	1271.4	1269.8	1268.3	1266.7	1265.2
145°	1321.9	1322.2	1322.4	1321.8	1320.2	1318.7	1317.1	1315.6
147.5°	1364.8	1365.1	1365.4	1364.6	1362.8	1360.9	1359.1	1357.2
150°	1392.2	1392.7	1393.2	1392.4	1390.4	1388.3	1386.2	1384.2
152.5°	1416.3	1416.9	1417.4	1416.7	1414.8	1413.0	1411.1	1409.3
155°	1449.6	1450.4	1451.2	1450.5	1448.5	1446.4	1444.3	1442.3
157.5°	1477.2	1478.0	1478.8	1478.2	1476.1	1474.1	1472.0	1469.9
160°	1494.3	1495.3	1496.4	1495.9	1493.8	1491.7	1489.7	1487.6
162.5°	1510.0	1511.5	1512.9	1512.5	1510.2	1507.9	1505.7	1503.4
165°	1530.2	1531.8	1533.3	1533.0	1531.0	1528.9	1526.8	1524.8
167.5°	1545.5	1547.3	1549.2	1549.0	1546.6	1544.3	1542.0	1539.7
170°	1553.3	1555.4	1557.5	1557.3	1555.0	1552.7	1550.4	1548.0
172.5°	1559.4	1561.3	1563.1	1562.9	1560.6	1558.3	1555.9	1553.6
175°	1566.1	1568.2	1570.2	1570.1	1567.8	1565.5	1563.1	1560.8
177.5°	1568.8	1570.3	1571.7	1571.6	1570.0	1568.3	1566.6	1565.0
180°	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8	1567.8

(END OF REPORT)