

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: P333235-840

Luminaire Tested: **S125DIP-S850D1035U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333235-840  
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: S125DIP-S850D1035U840-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7493.3 lumens  
Efficiency: N/A  
Efficacy: 144.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

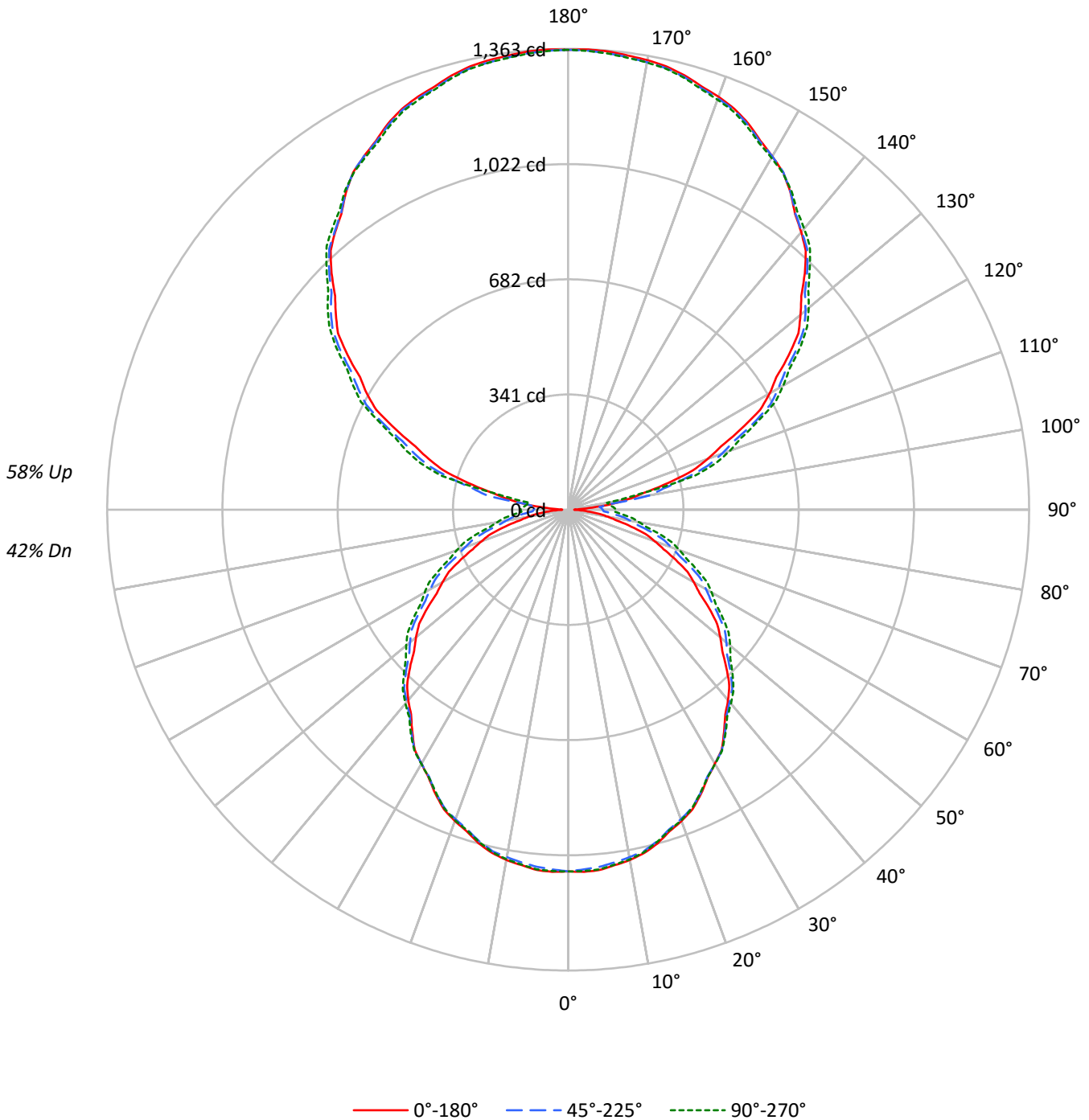
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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CATALOG NUMBER: S125DIP-S850D1035U840-4F0-1E-UDD-D

**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	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	73	67	79	72	67	62	59	55	52	47	45	42	36	35	33	28
3	79	69	62	56	71	63	57	51	52	47	43	42	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	21	17
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12
9	48	36	29	23	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	26	20	17	21	17	14	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6909	6909	6909
5°	6923	6782	6803
10°	6874	6661	6651
15°	6793	6515	6456
20°	6682	6336	6262
25°	6551	6144	6023
30°	6392	5934	5806
35°	6242	5740	5607
40°	6092	5535	5406
45°	5921	5360	5229
50°	5758	5171	5072
55°	5562	4992	4887
60°	5348	4788	4699
65°	5124	4575	4486
70°	4871	4283	4269
75°	4469	4001	4001
80°	3945	3661	3710
85°	3453	3433	3619



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	1.4
10°-20°	287.2	3.8
20°-30°	427.1	5.7
30°-40°	505.9	6.8
40°-50°	523.0	7.0
50°-60°	481.8	6.4
60°-70°	389.5	5.2
70°-80°	260.8	3.5
80°-90°	138.1	1.8
90°-100°	125.3	1.7
100°-110°	360.6	4.8
110°-120°	590.0	7.9
120°-130°	730.4	9.7
130°-140°	772.0	10.3
140°-150°	717.8	9.6
150°-160°	579.1	7.7
160°-170°	374.5	5.0
170°-180°	129.2	1.7
0°-30°	815.4	10.9
0°-40°	1321.2	17.6
0°-60°	2326.0	31.0
0°-90°	3114.4	41.6
90°-120°	1075.9	14.4
90°-150°	3296.1	44.0
90°-180°	4379.0	58.4
0°-180°	7493.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1068	101
15°	1022	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	808	811	811	503
45°	662	673	678	686	687	511
55°	509	526	542	553	558	455
65°	350	374	400	415	420	347
75°	193	221	254	274	280	205
85°	58	92	129	151	160	61
90°	18	59	102	130	142	14
95°	71	94	93	120	128	84
105°	306	327	358	378	386	324
115°	563	576	604	618	619	558
125°	796	803	823	835	838	710
135°	989	994	1000	1010	1010	762
145°	1146	1146	1146	1152	1151	716
155°	1260	1255	1256	1259	1251	580
165°	1330	1324	1325	1330	1323	376
175°	1360	1355	1355	1362	1354	129
180°	1360	1360	1360	1360	1360	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1072.3	1072.0	1071.6	1071.2	1070.8	1070.0	1068.6	1067.3	1066.0	1064.7	1066.0
5°	1069.8	1069.3	1068.8	1068.3	1067.9	1066.8	1065.2	1063.6	1062.0	1060.4	1062.2
7.5°	1060.4	1060.2	1060.0	1059.8	1059.6	1058.6	1057.0	1055.3	1053.6	1052.0	1053.6
10°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.1	1049.1	1047.3	1045.4	1043.6	1045.2
12.5°	1040.2	1040.4	1040.6	1040.8	1041.0	1040.3	1038.8	1037.3	1035.8	1034.3	1035.6
15°	1021.6	1021.8	1022.0	1022.2	1022.5	1021.8	1020.2	1018.5	1016.8	1015.2	1016.6
17.5°	997.2	997.6	998.2	998.6	999.1	998.5	996.8	995.2	993.6	992.0	993.0
20°	979.6	980.1	980.5	981.0	981.5	980.9	979.3	977.7	975.9	974.3	975.0
22.5°	959.5	960.3	961.1	962.0	962.8	962.3	960.5	958.7	956.8	955.0	955.9
25°	928.2	928.9	929.6	930.3	931.0	930.6	929.3	927.9	926.5	925.0	925.9
27.5°	893.3	894.4	895.4	896.5	897.5	897.2	895.6	894.0	892.4	890.9	891.5
30°	867.4	868.8	870.2	871.5	872.9	872.9	871.5	870.2	868.8	867.4	867.9
32.5°	843.8	845.1	846.3	847.5	848.7	848.8	847.8	846.8	845.8	844.8	845.2
35°	803.3	805.1	806.7	808.3	809.9	810.4	809.7	809.0	808.3	807.6	808.3
37.5°	762.9	764.4	765.9	767.4	768.9	769.5	769.2	769.0	768.8	768.6	769.5
40°	735.2	737.1	738.9	740.8	742.7	743.5	743.3	743.1	742.8	742.6	743.5
42.5°	705.0	707.4	709.8	712.3	714.7	716.2	716.7	717.2	717.7	718.2	719.3
45°	661.8	664.4	666.9	669.4	672.1	673.9	675.1	676.2	677.4	678.5	680.2
47.5°	617.5	620.0	622.3	624.7	627.0	629.2	631.3	633.3	635.2	637.2	639.6
50°	587.3	589.9	592.5	595.0	597.5	600.2	602.7	605.3	607.8	610.4	613.0
52.5°	555.4	558.6	561.7	564.8	567.9	571.1	574.2	577.3	580.5	583.6	586.3
55°	508.7	512.4	516.1	519.9	523.6	527.4	531.1	534.8	538.5	542.2	544.8
57.5°	460.8	465.3	469.8	474.2	478.8	483.1	487.5	491.7	495.9	500.3	503.2
60°	429.0	433.6	438.3	442.9	447.6	452.3	457.0	461.6	466.3	470.9	474.4
62.5°	397.9	402.5	407.3	411.9	416.6	421.4	426.5	431.5	436.5	441.5	445.5
65°	350.3	355.7	361.0	366.4	371.7	377.2	382.8	388.4	394.0	399.6	403.1
67.5°	305.4	310.6	315.8	320.9	326.1	331.5	337.2	343.0	348.6	354.3	358.5
70°	272.7	278.0	283.4	288.8	294.2	299.8	305.9	311.9	318.0	324.1	328.5
72.5°	240.9	246.3	251.9	257.4	263.0	269.0	275.7	282.4	288.9	295.6	300.3
75°	193.0	199.0	205.1	211.2	217.2	224.0	231.5	238.9	246.3	253.8	258.4
77.5°	147.0	154.0	161.1	168.0	175.0	182.1	189.2	196.4	203.6	210.9	215.9
80°	118.6	125.5	132.5	139.5	146.5	153.9	161.9	169.8	177.7	185.6	190.8
82.5°	92.5	99.9	107.2	114.6	122.0	129.7	137.8	145.9	154.0	162.2	167.1
85°	57.7	65.3	73.1	80.8	88.5	96.3	104.5	112.7	120.9	129.0	134.1
87.5°	32.9	40.7	48.6	56.4	64.2	72.2	80.5	88.7	96.9	105.1	110.8
90°	17.8	27.1	36.3	45.5	54.8	64.1	73.6	83.1	92.6	102.1	108.7
92.5°	30.6	36.3	41.9	47.6	53.2	60.8	70.3	79.8	89.3	98.8	105.0
95°	71.1	76.4	81.9	87.3	92.7	95.0	94.4	93.9	93.3	92.7	99.0
97.5°	132.4	139.1	145.7	152.4	159.1	157.7	148.6	139.4	130.2	120.9	119.5
100°	180.0	185.5	191.1	196.6	202.2	209.1	217.5	225.9	234.2	242.6	214.1
102.5°	228.3	233.7	239.0	244.4	249.7	256.4	264.2	272.0	279.8	287.6	286.0
105°	305.9	310.5	315.2	319.7	324.4	330.2	337.2	344.2	351.1	358.2	362.8
107.5°	386.5	389.7	392.8	396.0	399.2	404.3	411.5	418.7	425.9	433.0	437.7
110°	438.9	441.7	444.5	447.3	450.1	454.9	461.9	468.9	475.8	482.9	486.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	488.9	491.7	494.4	497.3	500.0	504.7	511.3	518.0	524.5	531.2	534.5
115°	562.9	565.6	568.4	571.2	573.9	578.5	584.7	591.0	597.2	603.5	606.8
117.5°	639.4	640.5	641.6	642.6	643.6	647.4	654.0	660.6	667.1	673.7	676.5
120°	687.9	688.3	688.8	689.3	689.7	693.1	699.0	705.1	711.1	717.2	720.6
122.5°	729.8	730.9	732.2	733.4	734.5	737.8	743.4	748.8	754.3	759.8	763.2
125°	795.8	797.1	798.4	799.7	801.0	804.1	808.7	813.3	818.1	822.7	825.6
127.5°	857.8	858.7	859.6	860.5	861.3	863.6	867.3	871.0	874.7	878.4	881.3
130°	896.6	897.4	898.3	899.2	900.1	902.2	905.7	909.2	912.7	916.1	918.8
132.5°	934.4	935.6	936.9	938.2	939.4	941.1	943.1	945.1	947.2	949.2	952.3
135°	989.3	990.4	991.5	992.6	993.7	994.8	996.0	997.2	998.4	999.6	1002.2
137.5°	1039.7	1040.7	1041.6	1042.6	1043.6	1044.2	1044.6	1045.0	1045.4	1045.8	1048.6
140°	1071.9	1072.4	1072.8	1073.2	1073.7	1073.9	1073.9	1073.9	1073.9	1073.9	1076.9
142.5°	1101.8	1101.8	1101.9	1102.0	1102.1	1102.3	1102.7	1103.0	1103.4	1103.7	1106.0
145°	1145.5	1145.7	1145.9	1146.1	1146.4	1146.5	1146.5	1146.5	1146.5	1146.5	1147.8
147.5°	1182.8	1182.7	1182.6	1182.5	1182.3	1182.5	1182.8	1183.1	1183.3	1183.6	1184.2
150°	1207.0	1206.5	1206.1	1205.6	1205.2	1205.2	1205.6	1206.1	1206.5	1207.0	1207.4
152.5°	1230.3	1229.4	1228.4	1227.4	1226.4	1226.2	1226.6	1227.0	1227.5	1227.9	1228.4
155°	1260.4	1259.1	1257.7	1256.4	1255.1	1254.6	1255.1	1255.5	1255.9	1256.4	1257.1
157.5°	1283.5	1282.7	1282.0	1281.2	1280.4	1280.0	1280.0	1280.1	1280.1	1280.2	1280.9
160°	1299.7	1298.4	1297.1	1295.7	1294.3	1293.7	1294.0	1294.2	1294.4	1294.6	1295.6
162.5°	1312.6	1311.3	1309.9	1308.6	1307.3	1306.7	1306.9	1307.2	1307.4	1307.6	1308.9
165°	1330.0	1328.6	1327.3	1326.0	1324.6	1324.0	1324.2	1324.4	1324.7	1324.9	1326.3
167.5°	1342.9	1341.5	1340.1	1338.7	1337.4	1336.8	1337.0	1337.2	1337.4	1337.7	1339.3
170°	1350.1	1348.6	1347.0	1345.4	1343.8	1343.2	1343.4	1343.6	1343.8	1344.1	1345.8
172.5°	1354.9	1353.4	1351.8	1350.3	1348.7	1348.2	1348.5	1348.9	1349.3	1349.7	1351.3
175°	1360.2	1358.9	1357.6	1356.1	1354.8	1354.3	1354.5	1354.7	1354.9	1355.1	1357.0
177.5°	1362.6	1361.6	1360.5	1359.4	1358.4	1357.9	1358.1	1358.3	1358.5	1358.6	1359.9
180°	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1067.3	1068.6	1070.0	1070.6	1070.4	1070.2	1070.0	1069.8
5°	1064.1	1065.9	1067.8	1068.6	1068.3	1068.1	1067.9	1067.7
7.5°	1055.2	1056.8	1058.4	1059.1	1058.9	1058.7	1058.4	1058.2
10°	1046.8	1048.4	1050.1	1050.8	1050.6	1050.4	1050.1	1049.9
12.5°	1036.8	1038.1	1039.4	1039.7	1039.1	1038.4	1037.8	1037.2
15°	1018.0	1019.5	1020.9	1021.1	1020.2	1019.2	1018.2	1017.3
17.5°	994.1	995.2	996.2	996.5	995.9	995.4	994.8	994.3
20°	975.7	976.4	977.1	977.4	977.4	977.4	977.4	977.4
22.5°	956.8	957.7	958.6	958.8	958.2	957.7	957.0	956.5
25°	927.0	927.9	928.8	928.7	927.5	926.3	925.1	924.0
27.5°	892.1	892.8	893.4	893.6	893.1	892.7	892.3	891.9
30°	868.3	868.8	869.2	869.4	869.1	868.9	868.7	868.4
32.5°	845.7	846.1	846.6	846.7	846.5	846.3	846.0	845.8
35°	809.0	809.7	810.4	810.7	810.7	810.7	810.7	810.7
37.5°	770.4	771.3	772.2	772.7	772.6	772.5	772.4	772.3
40°	744.4	745.4	746.3	747.0	747.4	747.9	748.4	748.8
42.5°	720.4	721.5	722.7	723.3	723.4	723.5	723.6	723.7
45°	681.9	683.5	685.1	686.0	686.3	686.5	686.7	687.0
47.5°	642.0	644.4	646.7	648.2	648.7	649.2	649.7	650.3
50°	615.5	618.1	620.7	622.3	623.0	623.7	624.4	625.1
52.5°	589.1	591.8	594.5	596.2	596.7	597.2	597.7	598.2
55°	547.3	550.0	552.5	554.2	555.1	556.1	557.0	558.0
57.5°	506.1	509.1	512.0	513.8	514.5	515.2	515.9	516.6
60°	477.9	481.4	484.9	487.0	487.7	488.4	489.1	489.8
62.5°	449.3	453.1	457.1	459.4	460.3	461.2	462.0	462.9
65°	406.6	410.1	413.5	415.8	416.8	417.7	418.6	419.5
67.5°	362.7	367.0	371.2	374.0	375.2	376.4	377.6	378.8
70°	333.0	337.4	341.8	344.7	346.1	347.5	348.9	350.3
72.5°	305.2	309.9	314.8	317.7	318.7	319.7	320.7	321.7
75°	263.2	267.8	272.5	275.4	276.5	277.7	278.8	280.0
77.5°	221.1	226.2	231.4	234.4	235.3	236.2	237.1	238.1
80°	195.9	201.1	206.1	209.1	210.2	211.1	212.0	212.9
82.5°	172.0	176.9	181.9	185.2	186.9	188.5	190.3	192.0
85°	139.3	144.4	149.6	153.0	154.9	156.7	158.6	160.5
87.5°	116.3	121.9	127.5	131.2	133.0	134.7	136.4	138.3
90°	115.1	121.6	128.1	132.5	134.7	137.0	139.4	141.7
92.5°	111.4	117.6	123.9	128.1	130.1	132.0	133.9	135.8
95°	105.2	111.5	117.6	121.6	123.3	124.9	126.5	128.2
97.5°	118.1	116.6	115.2	115.3	116.9	118.5	120.1	121.7
100°	185.6	157.1	128.6	114.6	115.1	115.6	116.1	116.6
102.5°	284.4	282.8	281.1	273.5	259.6	245.8	232.0	218.1
105°	367.5	372.1	376.8	379.8	381.2	382.6	384.1	385.5
107.5°	442.3	447.0	451.6	454.3	455.1	455.9	456.7	457.5
110°	490.4	494.1	497.9	500.7	502.5	504.4	506.2	508.2





TEST NUMBER: P333235-840

CATALOG NUMBER: S125DIP-S850D1035U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	538.0	541.3	544.7	547.0	548.4	549.7	551.0	552.3
115°	610.2	613.4	616.7	618.4	618.4	618.5	618.5	618.6
117.5°	679.3	682.2	684.9	686.8	687.8	688.8	689.8	690.8
120°	724.2	727.7	731.2	733.2	733.4	733.7	734.0	734.3
122.5°	766.5	769.7	773.1	774.8	774.9	775.0	775.1	775.2
125°	828.4	831.2	834.0	835.7	836.2	836.7	837.2	837.7
127.5°	884.3	887.3	890.2	891.5	891.2	890.9	890.6	890.3
130°	921.4	923.9	926.6	927.9	928.0	928.0	928.0	928.1
132.5°	955.4	958.6	961.7	963.1	963.0	962.9	962.7	962.6
135°	1004.7	1007.3	1009.9	1011.1	1010.9	1010.8	1010.6	1010.4
137.5°	1051.5	1054.3	1057.1	1058.4	1058.2	1058.0	1057.7	1057.5
140°	1079.9	1083.0	1086.0	1087.3	1086.9	1086.4	1086.0	1085.6
142.5°	1108.3	1110.5	1112.9	1113.8	1113.4	1113.0	1112.6	1112.2
145°	1149.2	1150.6	1152.1	1152.5	1152.1	1151.7	1151.2	1150.8
147.5°	1184.9	1185.5	1186.1	1185.9	1184.7	1183.5	1182.2	1181.0
150°	1207.9	1208.3	1208.7	1208.2	1206.6	1205.1	1203.6	1201.9
152.5°	1228.8	1229.3	1229.7	1229.2	1227.6	1226.1	1224.5	1222.8
155°	1257.7	1258.4	1259.1	1258.5	1256.7	1254.9	1253.1	1251.3
157.5°	1281.6	1282.3	1283.0	1282.5	1280.7	1278.9	1277.1	1275.4
160°	1296.5	1297.4	1298.3	1297.8	1296.1	1294.2	1292.4	1290.6
162.5°	1310.1	1311.3	1312.6	1312.2	1310.3	1308.3	1306.4	1304.3
165°	1327.6	1329.0	1330.3	1330.1	1328.3	1326.5	1324.7	1322.9
167.5°	1340.9	1342.5	1344.1	1343.9	1341.9	1339.9	1337.9	1335.8
170°	1347.7	1349.5	1351.3	1351.1	1349.1	1347.2	1345.1	1343.1
172.5°	1352.9	1354.5	1356.1	1355.9	1353.9	1351.9	1349.9	1348.0
175°	1358.8	1360.6	1362.3	1362.2	1360.2	1358.2	1356.1	1354.1
177.5°	1361.1	1362.4	1363.6	1363.5	1362.1	1360.7	1359.3	1357.8
180°	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2	1360.2

(END OF REPORT)