

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: P333244-935

Luminaire Tested: **S125DIP-S850D1205U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333244-935  
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-S850D1205U935-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6973.0 lumens  
Efficiency: N/A  
Efficacy: 122.5 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: Semi-Indirect

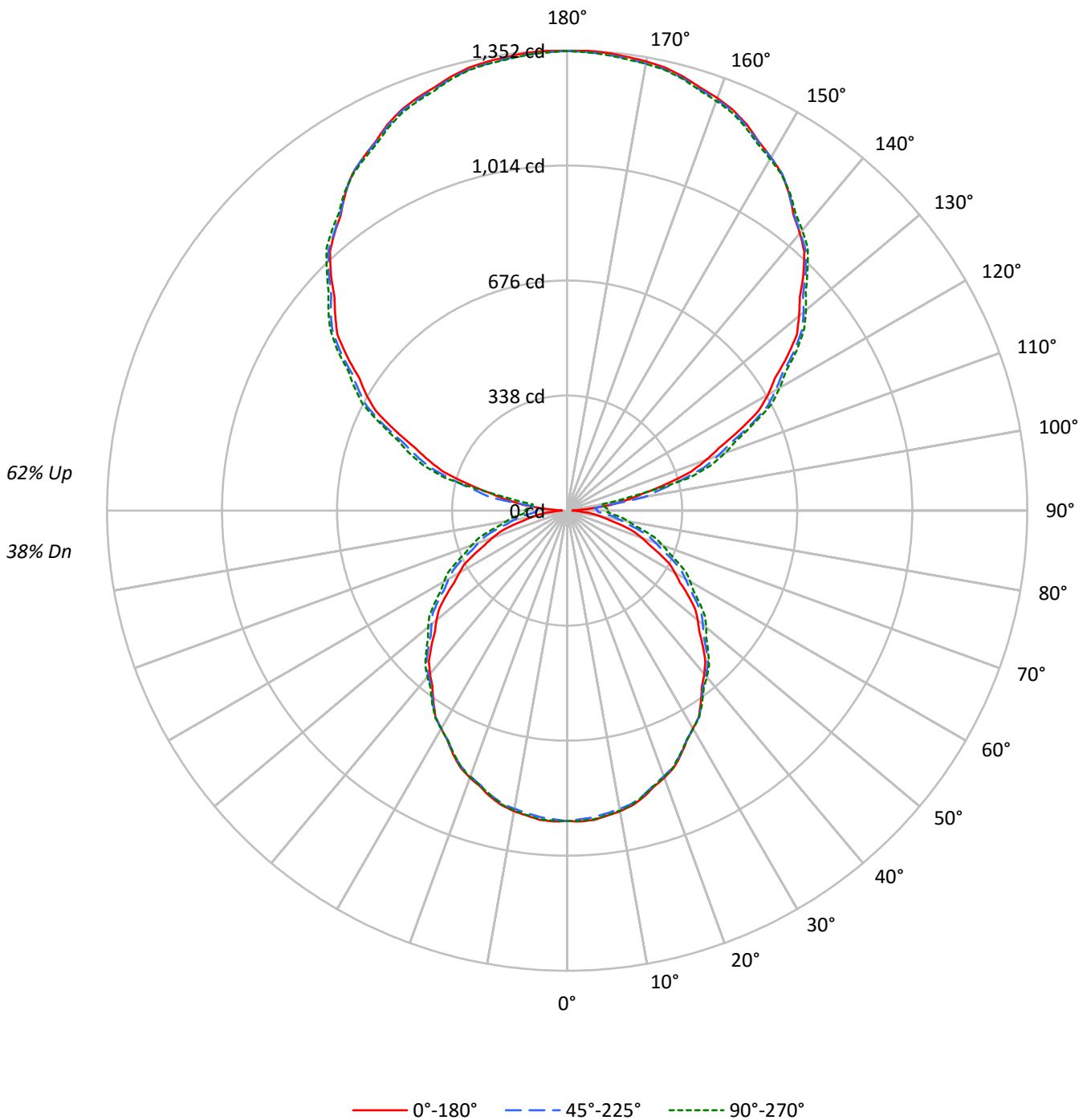
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333244-935

CATALOG NUMBER: S125DIP-S850D1205U935-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333244-935

CATALOG NUMBER: S125DIP-S850D1205U935-4F0-1E-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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	90	86	82	86	82	78	75	66	64	62	52	50	49	39	38	37	31
2	86	78	72	67	78	71	66	61	58	54	51	45	43	40	34	32	31	25
3	78	69	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	61	53	47	64	55	48	43	45	40	36	35	32	29	27	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	55	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	30	24	21	24	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	25	21	40	30	24	19	25	20	16	20	16	14	15	13	11	9

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

	0°	45°	90°
0°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	1.2
10°-20°	244.8	3.5
20°-30°	364.1	5.2
30°-40°	431.3	6.2
40°-50°	445.9	6.4
50°-60°	410.8	5.9
60°-70°	332.0	4.8
70°-80°	222.4	3.2
80°-90°	118.1	1.7
90°-100°	113.8	1.6
100°-110°	350.0	5.0
110°-120°	580.3	8.3
120°-130°	721.8	10.4
130°-140°	764.8	11.0
140°-150°	712.0	10.2
150°-160°	574.7	8.2
160°-170°	371.7	5.3
170°-180°	128.2	1.8
0°-30°	695.2	10.0
0°-40°	1126.5	16.2
0°-60°	1983.2	28.4
0°-90°	2655.7	38.1
90°-120°	1044.1	15.0
90°-150°	3242.8	46.5
90°-180°	4317.0	61.9
0°-180°	6973.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	15	52	89	114	124	12
95°	69	87	81	105	112	82
105°	302	321	347	365	370	320
115°	558	570	593	605	605	553
125°	789	796	813	823	825	704
135°	982	986	991	1000	999	756
145°	1137	1138	1138	1143	1141	710
155°	1251	1245	1247	1249	1242	576
165°	1320	1314	1315	1320	1313	373
175°	1350	1344	1345	1352	1344	128
180°	1350	1350	1350	1350	1350	



TEST NUMBER: P333244-935

CATALOG NUMBER: S125DIP-S850D1205U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.1	34.8	41.5	48.2	54.9	61.8	68.9	76.0	83.1	90.1	94.9
90°	15.3	23.4	31.6	39.7	47.9	56.1	64.4	72.7	81.0	89.4	95.1
92.5°	28.3	32.9	37.5	42.2	46.8	53.3	61.6	69.9	78.2	86.4	92.0
95°	68.6	73.2	77.7	82.1	86.6	88.1	86.4	84.6	83.0	81.3	86.8
97.5°	129.7	135.4	141.3	147.1	153.0	150.8	140.7	130.4	120.3	110.0	108.0
100°	176.9	181.8	186.7	191.5	196.3	202.3	209.6	216.9	224.1	231.4	202.4
102.5°	225.1	229.8	234.5	239.2	243.8	249.6	256.3	263.0	269.8	276.5	274.2
105°	302.2	306.3	310.4	314.4	318.5	323.6	329.5	335.4	341.4	347.4	351.4
107.5°	382.5	385.1	387.8	390.5	393.2	397.7	403.8	410.0	416.1	422.3	426.3
110°	434.5	437.0	439.3	441.7	444.1	448.2	454.3	460.3	466.3	472.3	475.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	484.1	486.6	489.0	491.5	494.0	498.0	503.7	509.4	515.0	520.6	523.5
115°	557.8	560.3	562.7	565.2	567.7	571.7	577.0	582.5	587.8	593.2	595.9
117.5°	633.9	634.7	635.6	636.5	637.3	640.7	646.4	652.1	657.9	663.6	665.8
120°	681.9	682.3	682.7	683.0	683.4	686.2	691.5	696.7	701.9	707.1	710.1
122.5°	723.6	724.7	725.8	726.9	728.1	731.0	735.7	740.5	745.2	749.9	752.7
125°	789.1	790.4	791.8	793.2	794.5	797.2	801.2	805.1	809.1	813.0	815.4
127.5°	850.8	851.7	852.6	853.6	854.5	856.5	859.6	862.7	865.9	869.0	871.4
130°	889.2	890.2	891.0	892.0	892.9	894.8	897.9	900.9	903.9	906.9	909.0
132.5°	927.0	928.2	929.4	930.7	931.9	933.4	935.0	936.8	938.4	940.0	942.7
135°	981.5	982.6	983.7	984.8	985.9	987.0	987.9	988.9	989.8	990.8	992.9
137.5°	1031.5	1032.4	1033.5	1034.5	1035.4	1036.1	1036.4	1036.6	1036.9	1037.2	1039.7
140°	1063.6	1064.0	1064.5	1064.9	1065.3	1065.6	1065.6	1065.5	1065.5	1065.5	1068.1
142.5°	1093.2	1093.3	1093.4	1093.6	1093.6	1093.8	1094.2	1094.6	1094.9	1095.3	1097.2
145°	1136.6	1136.9	1137.1	1137.4	1137.6	1137.7	1137.7	1137.7	1137.7	1137.7	1138.9
147.5°	1173.7	1173.6	1173.5	1173.5	1173.4	1173.5	1173.7	1174.0	1174.3	1174.6	1175.1
150°	1197.7	1197.3	1196.9	1196.4	1196.0	1196.0	1196.4	1196.9	1197.3	1197.7	1198.2
152.5°	1221.0	1220.0	1219.0	1218.1	1217.0	1216.8	1217.3	1217.7	1218.1	1218.6	1219.0
155°	1250.8	1249.5	1248.1	1246.8	1245.4	1245.0	1245.4	1245.9	1246.4	1246.8	1247.5
157.5°	1273.8	1273.0	1272.2	1271.4	1270.6	1270.2	1270.3	1270.3	1270.4	1270.4	1271.1
160°	1289.9	1288.5	1287.2	1285.8	1284.5	1283.9	1284.2	1284.4	1284.6	1284.8	1285.7
162.5°	1302.6	1301.3	1299.9	1298.6	1297.3	1296.8	1296.9	1297.2	1297.4	1297.6	1298.9
165°	1319.8	1318.5	1317.2	1315.9	1314.5	1314.0	1314.1	1314.4	1314.6	1314.8	1316.2
167.5°	1332.7	1331.3	1329.9	1328.5	1327.1	1326.5	1326.8	1327.0	1327.2	1327.5	1329.0
170°	1339.9	1338.3	1336.7	1335.2	1333.6	1333.0	1333.2	1333.4	1333.6	1333.9	1335.7
172.5°	1344.6	1343.1	1341.5	1340.0	1338.4	1337.8	1338.3	1338.7	1339.0	1339.5	1341.1
175°	1349.9	1348.5	1347.2	1345.8	1344.5	1343.9	1344.2	1344.5	1344.6	1344.9	1346.6
177.5°	1352.3	1351.2	1350.1	1349.1	1348.0	1347.6	1347.7	1347.9	1348.1	1348.2	1349.5
180°	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	99.7	104.5	109.3	112.4	114.0	115.5	117.0	118.6
90°	100.7	106.4	112.1	115.9	118.0	120.0	122.1	124.2
92.5°	97.6	103.1	108.6	112.2	113.9	115.5	117.3	119.0
95°	92.2	97.7	103.2	106.7	108.1	109.4	110.8	112.2
97.5°	105.8	103.8	101.7	101.3	102.6	104.0	105.3	106.7
100°	173.4	144.5	115.5	101.2	101.5	101.8	102.1	102.4
102.5°	272.0	269.8	267.5	259.4	245.5	231.5	217.6	203.7
105°	355.3	359.3	363.3	365.8	367.0	368.2	369.4	370.5
107.5°	430.3	434.3	438.2	440.5	441.1	441.6	442.2	442.8
110°	478.5	481.6	484.7	487.1	488.7	490.3	492.0	493.5





TEST NUMBER: P333244-935

CATALOG NUMBER: S125DIP-S850D1205U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	526.2	529.0	531.8	533.6	534.8	535.9	536.9	538.0
115°	598.6	601.3	604.0	605.3	605.1	604.9	604.9	604.7
117.5°	668.0	670.3	672.4	674.0	674.8	675.5	676.3	677.1
120°	713.0	715.9	718.8	720.4	720.5	720.6	720.7	720.7
122.5°	755.4	758.3	761.0	762.3	762.2	762.2	762.1	762.0
125°	817.7	819.9	822.3	823.5	823.9	824.2	824.5	824.8
127.5°	873.9	876.3	878.8	879.8	879.3	878.8	878.3	877.8
130°	911.1	913.3	915.3	916.4	916.2	916.1	916.0	915.8
132.5°	945.4	948.0	950.6	951.8	951.6	951.2	951.0	950.7
135°	995.1	997.2	999.4	1000.2	999.9	999.5	999.2	998.8
137.5°	1042.1	1044.5	1046.9	1047.9	1047.6	1047.2	1046.9	1046.5
140°	1070.7	1073.3	1076.0	1077.0	1076.5	1076.0	1075.4	1074.9
142.5°	1099.2	1101.1	1103.1	1103.8	1103.3	1102.7	1102.2	1101.6
145°	1140.1	1141.3	1142.6	1142.9	1142.4	1141.9	1141.3	1140.7
147.5°	1175.7	1176.3	1176.9	1176.6	1175.4	1174.1	1172.9	1171.6
150°	1198.7	1199.1	1199.5	1198.9	1197.4	1195.8	1194.2	1192.7
152.5°	1219.4	1220.0	1220.4	1219.8	1218.2	1216.7	1215.1	1213.6
155°	1248.1	1248.8	1249.5	1248.9	1247.2	1245.4	1243.5	1241.8
157.5°	1271.9	1272.6	1273.2	1272.7	1270.9	1269.2	1267.4	1265.6
160°	1286.6	1287.5	1288.4	1288.0	1286.2	1284.4	1282.6	1280.8
162.5°	1300.1	1301.4	1302.6	1302.3	1300.3	1298.3	1296.4	1294.4
165°	1317.5	1318.9	1320.2	1319.9	1318.2	1316.4	1314.6	1312.9
167.5°	1330.7	1332.2	1333.9	1333.7	1331.6	1329.6	1327.7	1325.7
170°	1337.4	1339.2	1341.0	1340.8	1338.9	1336.9	1334.9	1332.8
172.5°	1342.6	1344.3	1345.8	1345.7	1343.7	1341.7	1339.6	1337.6
175°	1348.4	1350.2	1351.9	1351.9	1349.9	1347.9	1345.8	1343.8
177.5°	1350.7	1352.0	1353.2	1353.1	1351.8	1350.3	1348.8	1347.5
180°	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9	1349.9

(END OF REPORT)