

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: P333416-930

Luminaire Tested: **S125DIW-S850D1050U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333416-930  
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: S125DIW-S850D1050U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1050 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

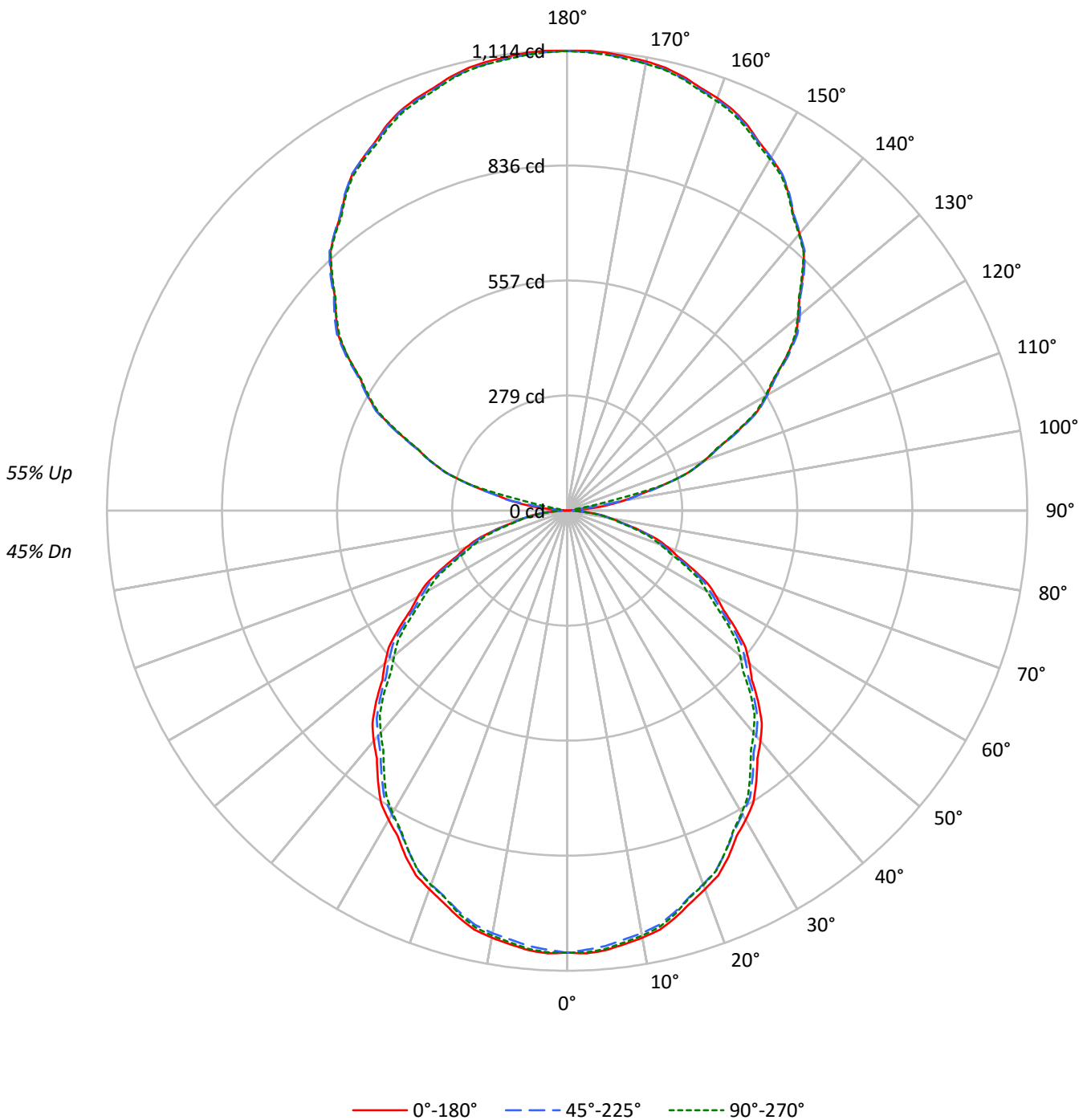
Lumens per Lamp: N/A  
Luminaire Lumens: 6203.2 lumens  
Efficiency: N/A  
Efficacy: 117.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 52.6  
Input Voltage (V): 120  
Input Current (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



TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

### Luminous Intensity Polar Plot





TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

**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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	38
2	88	81	74	69	80	74	69	64	62	58	55	50	48	45	40	38	36	32
3	80	71	63	58	73	65	59	54	54	50	46	45	41	38	35	33	31	27
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	28	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	49	37	30	25	45	35	28	23	29	24	20	25	20	18	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11

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

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	1.6
10°-20°	285.1	4.6
20°-30°	420.9	6.8
30°-40°	491.1	7.9
40°-50°	493.3	8.0
50°-60°	433.0	7.0
60°-70°	322.6	5.2
70°-80°	184.5	3.0
80°-90°	56.0	0.9
90°-100°	40.4	0.7
100°-110°	249.1	4.0
110°-120°	451.8	7.3
120°-130°	579.9	9.3
130°-140°	623.7	10.1
140°-150°	585.4	9.4
150°-160°	473.6	7.6
160°-170°	306.3	4.9
170°-180°	105.6	1.7
0°-30°	806.9	13.0
0°-40°	1298.0	20.9
0°-60°	2224.3	35.9
0°-90°	2787.4	44.9
90°-120°	741.4	12.0
90°-150°	2530.3	40.8
90°-180°	3416.0	55.1
0°-180°	6203.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	52
90°	1	7	13	17	20	4
95°	47	43	13	17	17	60
105°	242	246	246	246	245	257
115°	455	459	460	457	452	451
125°	647	653	653	650	647	578
135°	807	812	811	809	804	622
145°	936	937	938	938	933	585
155°	1031	1026	1027	1029	1023	475
165°	1088	1083	1084	1088	1082	307
175°	1112	1108	1108	1114	1107	106
180°	1112	1112	1112	1112	1112	



TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.4	18.8	19.1	19.3	19.6	19.8	19.9	20.1	20.1	20.2	20.5
90°	0.8	2.3	3.8	5.2	6.7	8.1	9.4	10.6	11.9	13.2	14.1
92.5°	12.7	11.7	10.7	9.6	8.6	8.6	9.8	10.9	12.1	13.2	14.1
95°	47.0	46.5	45.9	45.3	44.8	41.0	34.1	27.1	20.1	13.2	14.1
97.5°	98.2	99.1	100.1	101.1	102.1	95.7	81.9	68.2	54.4	40.6	35.4
100°	137.7	138.3	138.8	139.3	139.9	140.6	141.3	142.0	142.8	143.5	116.2
102.5°	178.0	178.6	179.4	180.0	180.8	181.3	181.7	182.1	182.6	183.0	177.9
105°	242.4	243.1	243.9	244.6	245.3	245.7	245.7	245.7	245.7	245.7	245.7
107.5°	309.4	309.4	309.4	309.4	309.4	309.6	309.9	310.3	310.6	311.0	311.0
110°	352.9	352.9	352.9	352.9	352.9	353.1	353.4	353.8	354.2	354.6	354.0



TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	393.8	394.3	394.7	395.1	395.6	395.9	396.2	396.3	396.6	396.8	396.1
115°	455.2	456.1	457.0	457.9	458.9	459.3	459.6	459.7	459.9	460.1	459.3
117.5°	518.7	518.6	518.6	518.5	518.5	518.9	519.5	520.2	520.9	521.6	520.7
120°	558.2	558.1	557.8	557.7	557.5	557.7	558.2	558.8	559.3	559.9	559.5
122.5°	593.2	593.9	594.6	595.3	596.0	596.5	596.7	597.0	597.2	597.5	597.1
125°	647.3	648.6	649.9	651.1	652.4	653.1	653.1	653.1	653.1	653.1	652.3
127.5°	698.9	699.9	700.7	701.6	702.5	703.0	702.9	702.8	702.6	702.5	702.1
130°	730.6	731.5	732.4	733.3	734.3	734.7	735.0	735.2	735.3	735.5	735.0
132.5°	762.2	763.3	764.3	765.4	766.5	766.8	766.4	766.0	765.6	765.2	765.1
135°	807.2	808.4	809.4	810.6	811.6	812.0	811.6	811.3	810.9	810.6	810.2
137.5°	848.6	849.6	850.5	851.5	852.5	852.8	852.5	852.2	851.7	851.4	851.5
140°	875.7	876.0	876.4	876.8	877.2	877.3	877.1	876.9	876.7	876.5	876.9
142.5°	900.1	900.3	900.6	900.7	901.0	901.2	901.5	901.7	902.0	902.2	902.3
145°	935.9	936.3	936.6	937.0	937.3	937.5	937.5	937.5	937.5	937.5	937.8
147.5°	967.2	967.2	967.1	967.0	966.9	967.0	967.2	967.4	967.7	967.8	968.1
150°	987.0	986.7	986.3	985.9	985.5	985.5	985.9	986.3	986.7	987.0	987.4
152.5°	1006.2	1005.3	1004.5	1003.7	1002.9	1002.7	1003.1	1003.5	1003.8	1004.1	1004.5
155°	1030.7	1029.6	1028.5	1027.4	1026.3	1026.0	1026.3	1026.7	1027.0	1027.4	1027.9
157.5°	1049.7	1049.0	1048.4	1047.7	1047.0	1046.8	1046.8	1046.8	1046.8	1046.8	1047.5
160°	1062.9	1061.8	1060.7	1059.6	1058.5	1058.0	1058.2	1058.4	1058.6	1058.7	1059.5
162.5°	1073.4	1072.4	1071.2	1070.2	1069.0	1068.5	1068.8	1068.9	1069.1	1069.3	1070.3
165°	1087.6	1086.5	1085.4	1084.3	1083.2	1082.7	1083.0	1083.1	1083.3	1083.5	1084.6
167.5°	1098.1	1097.1	1095.9	1094.8	1093.6	1093.2	1093.3	1093.5	1093.7	1093.9	1095.2
170°	1104.1	1102.9	1101.6	1100.2	1098.9	1098.5	1098.6	1098.8	1098.9	1099.2	1100.7
172.5°	1108.1	1106.8	1105.5	1104.2	1102.9	1102.4	1102.8	1103.1	1103.4	1103.8	1105.1
175°	1112.3	1111.3	1110.1	1109.1	1107.9	1107.5	1107.7	1107.8	1108.1	1108.2	1109.7
177.5°	1114.4	1113.5	1112.6	1111.7	1110.8	1110.4	1110.6	1110.8	1110.8	1111.0	1112.1
180°	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3



TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	20.6	20.8	21.0	21.0	20.8	20.6	20.4	20.2
90°	15.0	16.0	16.9	17.6	18.2	18.7	19.2	19.8
92.5°	15.0	16.0	16.9	17.4	17.7	17.9	18.2	18.5
95°	15.0	16.0	16.9	17.3	17.3	17.3	17.3	17.3
97.5°	30.2	25.0	19.9	17.3	17.3	17.3	17.3	17.3
100°	88.9	61.6	34.2	20.2	19.5	18.8	18.0	17.3
102.5°	172.7	167.5	162.4	153.6	141.1	128.7	116.2	103.7
105°	245.7	245.7	245.7	245.6	245.5	245.2	245.1	244.9
107.5°	311.1	311.1	311.2	311.0	310.4	309.8	309.2	308.8
110°	353.4	352.9	352.4	352.2	352.4	352.5	352.7	352.9





TEST NUMBER: P333416-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	395.4	394.7	394.0	393.5	393.3	393.0	392.7	392.5
115°	458.6	457.9	457.1	456.2	455.2	454.0	453.0	451.8
117.5°	519.8	518.8	517.8	517.1	516.7	516.2	515.7	515.2
120°	559.1	558.8	558.4	557.7	556.8	556.0	555.1	554.1
122.5°	596.7	596.4	596.0	595.3	594.3	593.2	592.2	591.1
125°	651.6	650.9	650.1	649.5	649.0	648.4	647.8	647.3
127.5°	701.7	701.3	700.9	700.0	698.7	697.3	695.9	694.6
130°	734.4	733.9	733.3	732.5	731.6	730.8	729.9	729.0
132.5°	765.0	764.8	764.8	764.3	763.4	762.4	761.5	760.6
135°	809.8	809.4	809.1	808.4	807.2	806.2	805.0	804.0
137.5°	851.6	851.7	851.7	851.3	850.4	849.4	848.5	847.5
140°	877.3	877.6	878.0	877.6	876.5	875.4	874.3	873.2
142.5°	902.4	902.5	902.5	902.0	900.9	899.8	898.7	897.6
145°	937.9	938.1	938.2	937.8	936.7	935.6	934.5	933.4
147.5°	968.3	968.6	968.7	968.2	966.9	965.6	964.3	963.0
150°	987.7	988.1	988.5	987.9	986.4	985.0	983.5	982.0
152.5°	1004.9	1005.3	1005.6	1005.2	1003.8	1002.5	1001.2	999.9
155°	1028.5	1029.1	1029.6	1029.2	1027.7	1026.2	1024.7	1023.3
157.5°	1048.1	1048.6	1049.2	1048.8	1047.3	1045.9	1044.4	1042.9
160°	1060.2	1060.9	1061.7	1061.3	1059.9	1058.4	1057.0	1055.5
162.5°	1071.4	1072.4	1073.4	1073.1	1071.5	1069.9	1068.3	1066.7
165°	1085.7	1086.8	1087.9	1087.7	1086.2	1084.8	1083.3	1081.8
167.5°	1096.5	1097.8	1099.2	1099.0	1097.3	1095.7	1094.1	1092.4
170°	1102.1	1103.6	1105.1	1104.9	1103.3	1101.6	1100.0	1098.3
172.5°	1106.4	1107.7	1109.1	1108.9	1107.3	1105.5	1103.9	1102.3
175°	1111.2	1112.6	1114.1	1114.0	1112.3	1110.7	1109.1	1107.4
177.5°	1113.0	1114.1	1115.2	1115.1	1113.9	1112.7	1111.6	1110.4
180°	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3	1112.3

(END OF REPORT)