

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: P333417-930

Luminaire Tested: **S125DIW-S850D1050U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333417-930  
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-S850D1050U930-4F0-1E-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**

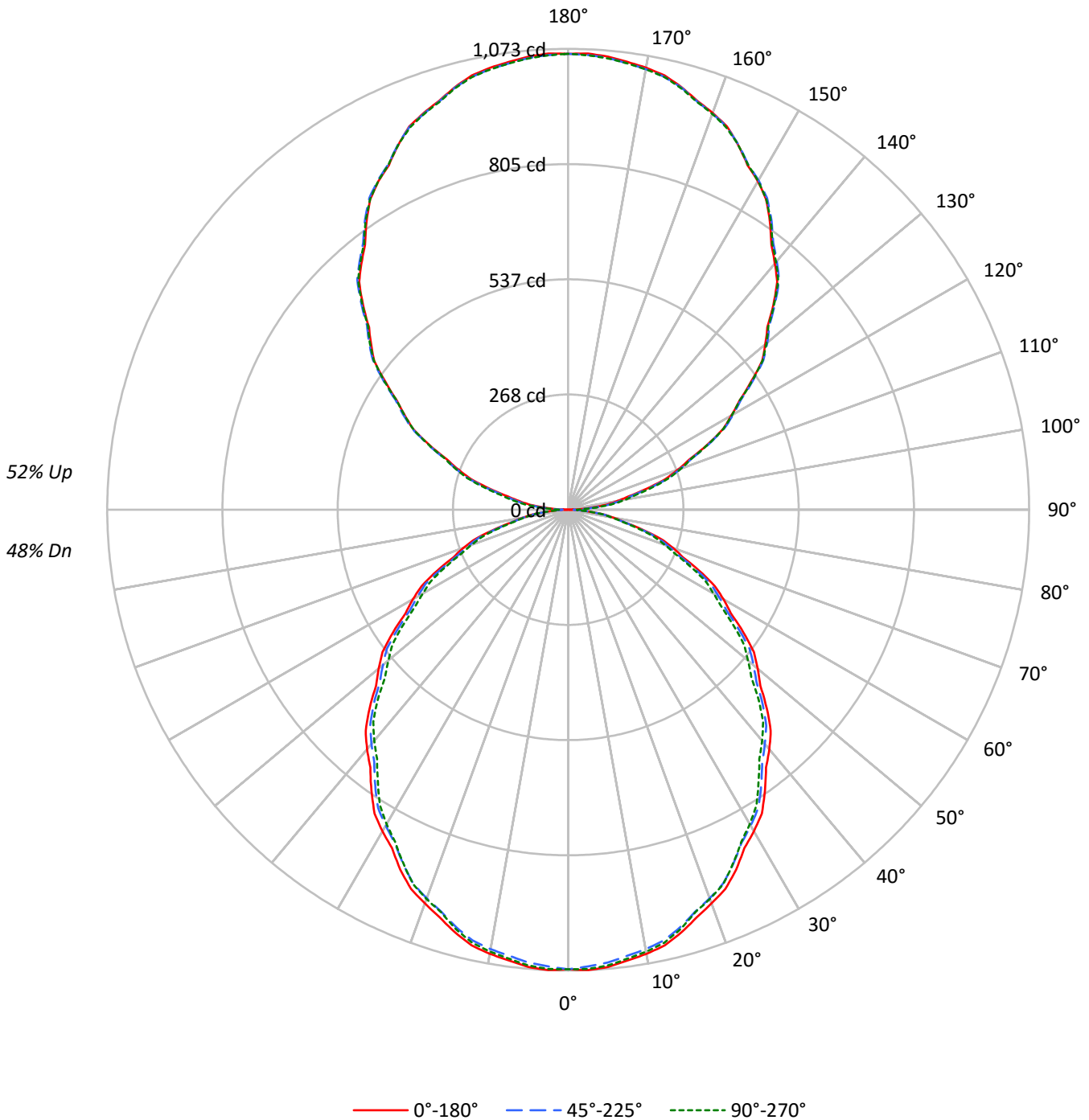
Lumens per Lamp: N/A  
Luminaire Lumens: 5749.6 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 52.6  
Input Voltage (V): 120  
Input Current (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: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

**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°	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: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	1.8
10°-20°	285.1	5.0
20°-30°	420.9	7.3
30°-40°	491.1	8.5
40°-50°	493.3	8.6
50°-60°	433.0	7.5
60°-70°	322.6	5.6
70°-80°	184.5	3.2
80°-90°	56.0	1.0
90°-100°	71.1	1.2
100°-110°	210.0	3.7
110°-120°	355.6	6.2
120°-130°	468.0	8.1
130°-140°	524.4	9.1
140°-150°	514.0	8.9
150°-160°	431.7	7.5
160°-170°	287.0	5.0
170°-180°	100.4	1.7
0°-30°	806.9	14.0
0°-40°	1298.0	22.6
0°-60°	2224.3	38.7
0°-90°	2787.4	48.5
90°-120°	636.7	11.1
90°-150°	2143.1	37.3
90°-180°	2962.0	51.5
0°-180°	5749.6	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	5
95°	54	56	64	69	71	57
105°	188	193	198	202	205	201
115°	356	359	361	360	359	352
125°	520	524	525	524	523	465
135°	676	680	682	681	678	521
145°	819	822	824	824	822	512
155°	937	937	938	940	937	431
165°	1019	1017	1018	1021	1016	287
175°	1059	1056	1056	1060	1055	101
180°	1062	1062	1062	1062	1062	



TEST NUMBER: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

**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	20.0	20.1	20.1	20.2	20.5
90°	0.8	2.3	3.8	5.2	6.7	8.1	9.4	10.7	11.9	13.2	14.1
92.5°	20.0	21.0	22.0	23.1	24.1	25.4	27.0	28.5	30.2	31.7	32.9
95°	53.7	54.1	54.5	54.8	55.2	56.3	58.1	59.9	61.8	63.6	64.9
97.5°	89.2	89.4	89.5	89.7	89.8	91.2	93.7	96.2	98.7	101.3	102.5
100°	115.7	115.7	115.7	115.7	115.7	116.8	119.2	121.6	124.0	126.4	128.1
102.5°	144.1	144.8	145.5	146.3	147.0	148.0	149.2	150.4	151.6	152.9	154.7
105°	188.3	189.2	190.2	191.1	192.0	193.1	194.1	195.3	196.3	197.5	198.5
107.5°	237.3	238.1	239.1	240.0	240.9	241.8	242.6	243.5	244.3	245.2	245.7
110°	270.9	271.9	272.8	273.7	274.7	275.4	275.9	276.5	277.0	277.6	278.1



TEST NUMBER: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	305.3	305.8	306.3	306.8	307.2	307.9	308.5	309.2	309.9	310.6	310.9
115°	356.0	356.8	357.5	358.2	359.0	359.5	359.9	360.3	360.6	361.0	360.9
117.5°	406.9	407.2	407.6	407.9	408.3	408.6	409.0	409.3	409.6	409.9	410.1
120°	438.6	439.6	440.5	441.4	442.3	442.9	443.0	443.3	443.4	443.6	443.6
122.5°	473.0	473.4	473.7	474.0	474.3	474.7	475.2	475.7	476.2	476.7	476.5
125°	519.6	520.7	521.8	522.9	524.0	524.6	524.9	525.1	525.2	525.4	525.1
127.5°	569.2	569.8	570.5	571.0	571.7	572.1	572.3	572.6	572.7	573.0	572.8
130°	598.9	599.8	600.8	601.7	602.6	603.2	603.6	604.0	604.4	604.7	604.5
132.5°	628.7	630.1	631.7	633.2	634.7	635.4	635.4	635.3	635.2	635.1	635.0
135°	675.7	676.9	677.9	679.1	680.2	680.8	681.0	681.2	681.3	681.5	681.5
137.5°	720.1	721.1	722.2	723.3	724.3	725.0	725.5	725.9	726.3	726.7	726.8
140°	748.4	749.3	750.3	751.2	752.1	752.8	753.4	754.0	754.5	755.0	755.5
142.5°	776.9	777.6	778.4	779.2	780.0	780.7	781.4	782.1	782.8	783.5	783.7
145°	818.6	819.4	820.1	820.8	821.6	822.2	822.8	823.4	823.9	824.4	824.4
147.5°	857.4	857.8	858.2	858.5	858.9	859.4	859.8	860.2	860.7	861.1	861.6
150°	883.1	883.0	882.7	882.6	882.4	882.6	883.4	884.1	884.8	885.6	885.6
152.5°	904.2	904.5	904.7	905.1	905.3	905.6	905.9	906.1	906.4	906.8	907.2
155°	936.8	936.8	936.8	936.8	936.8	936.9	937.1	937.3	937.4	937.7	938.4
157.5°	965.9	965.5	965.1	964.7	964.3	964.2	964.3	964.5	964.7	964.9	965.6
160°	983.1	982.5	981.9	981.5	980.9	980.7	980.9	981.0	981.2	981.5	982.2
162.5°	998.3	997.8	997.4	997.0	996.6	996.5	996.5	996.5	996.6	996.6	997.5
165°	1018.6	1018.2	1017.8	1017.5	1017.1	1017.0	1017.2	1017.4	1017.6	1017.7	1018.5
167.5°	1035.8	1035.0	1034.3	1033.6	1032.8	1032.5	1032.5	1032.5	1032.5	1032.5	1033.6
170°	1045.1	1044.3	1043.6	1042.8	1042.1	1041.7	1041.7	1041.7	1041.7	1041.7	1042.8
172.5°	1051.7	1050.9	1050.2	1049.5	1048.7	1048.3	1048.3	1048.3	1048.3	1048.3	1049.5
175°	1059.1	1058.3	1057.6	1056.9	1056.1	1055.7	1055.7	1055.7	1055.7	1055.7	1056.9
177.5°	1062.9	1062.3	1061.7	1061.1	1060.5	1060.1	1060.0	1059.9	1059.7	1059.6	1060.5
180°	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5



TEST NUMBER: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

**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°	15.1	16.0	16.9	17.6	18.2	18.8	19.2	19.8
92.5°	34.2	35.4	36.6	37.3	37.7	38.2	38.6	39.0
95°	66.2	67.4	68.7	69.5	70.0	70.3	70.7	71.0
97.5°	103.7	104.9	106.2	106.8	107.0	107.3	107.5	107.7
100°	129.7	131.3	133.0	134.0	134.4	134.8	135.1	135.5
102.5°	156.5	158.2	160.0	161.2	161.7	162.2	162.7	163.2
105°	199.7	200.7	201.9	202.7	203.3	203.7	204.3	204.9
107.5°	246.3	246.9	247.4	247.7	247.6	247.6	247.5	247.5
110°	278.7	279.2	279.8	280.0	279.8	279.6	279.4	279.2





TEST NUMBER: P333417-930

CATALOG NUMBER: S125DIW-S850D1050U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	311.1	311.4	311.6	311.6	311.3	311.0	310.6	310.3
115°	360.6	360.4	360.3	360.1	359.9	359.7	359.5	359.4
117.5°	410.2	410.3	410.5	410.2	409.4	408.7	408.0	407.2
120°	443.6	443.6	443.6	443.3	442.5	441.8	441.1	440.3
122.5°	476.4	476.2	476.1	475.7	475.2	474.5	473.9	473.4
125°	524.6	524.3	523.9	523.7	523.5	523.3	523.1	522.9
127.5°	572.6	572.4	572.3	572.0	571.6	571.3	570.9	570.5
130°	604.4	604.1	604.0	603.7	603.3	603.0	602.6	602.3
132.5°	634.7	634.5	634.4	634.1	633.5	633.0	632.5	631.9
135°	681.5	681.5	681.5	681.2	680.4	679.7	679.0	678.2
137.5°	727.1	727.3	727.5	727.2	726.3	725.4	724.4	723.5
140°	755.8	756.2	756.5	756.3	755.4	754.4	753.5	752.6
142.5°	783.9	784.2	784.4	784.0	783.1	782.2	781.3	780.3
145°	824.4	824.4	824.4	824.2	823.6	823.0	822.6	822.0
147.5°	862.0	862.4	862.9	862.5	861.3	860.0	858.8	857.5
150°	885.6	885.6	885.6	885.4	885.0	884.7	884.3	883.9
152.5°	907.6	908.1	908.5	908.4	907.8	907.1	906.4	905.7
155°	939.1	939.9	940.6	940.4	939.6	938.7	937.8	936.8
157.5°	966.4	967.1	967.8	967.6	966.4	965.2	963.9	962.8
160°	982.9	983.7	984.4	984.2	983.3	982.4	981.5	980.6
162.5°	998.4	999.2	1000.1	1000.0	999.0	997.9	996.9	995.8
165°	1019.2	1019.9	1020.7	1020.5	1019.5	1018.3	1017.2	1016.1
167.5°	1034.7	1035.8	1036.9	1036.9	1035.8	1034.6	1033.5	1032.3
170°	1043.9	1045.1	1046.1	1046.0	1044.7	1043.5	1042.2	1040.9
172.5°	1050.5	1051.7	1052.7	1052.7	1051.6	1050.4	1049.3	1048.1
175°	1057.9	1059.1	1060.2	1060.1	1058.8	1057.5	1056.2	1054.9
177.5°	1061.4	1062.3	1063.1	1063.0	1062.0	1060.9	1060.0	1058.9
180°	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5	1061.5

(END OF REPORT)