

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: P333429-930

Luminaire Tested: **S125DIW-S850D1560U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333429-930  
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-S850D1560U930-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7197.5 lumens  
Efficiency: N/A  
Efficacy: 105.7 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: Semi-Indirect

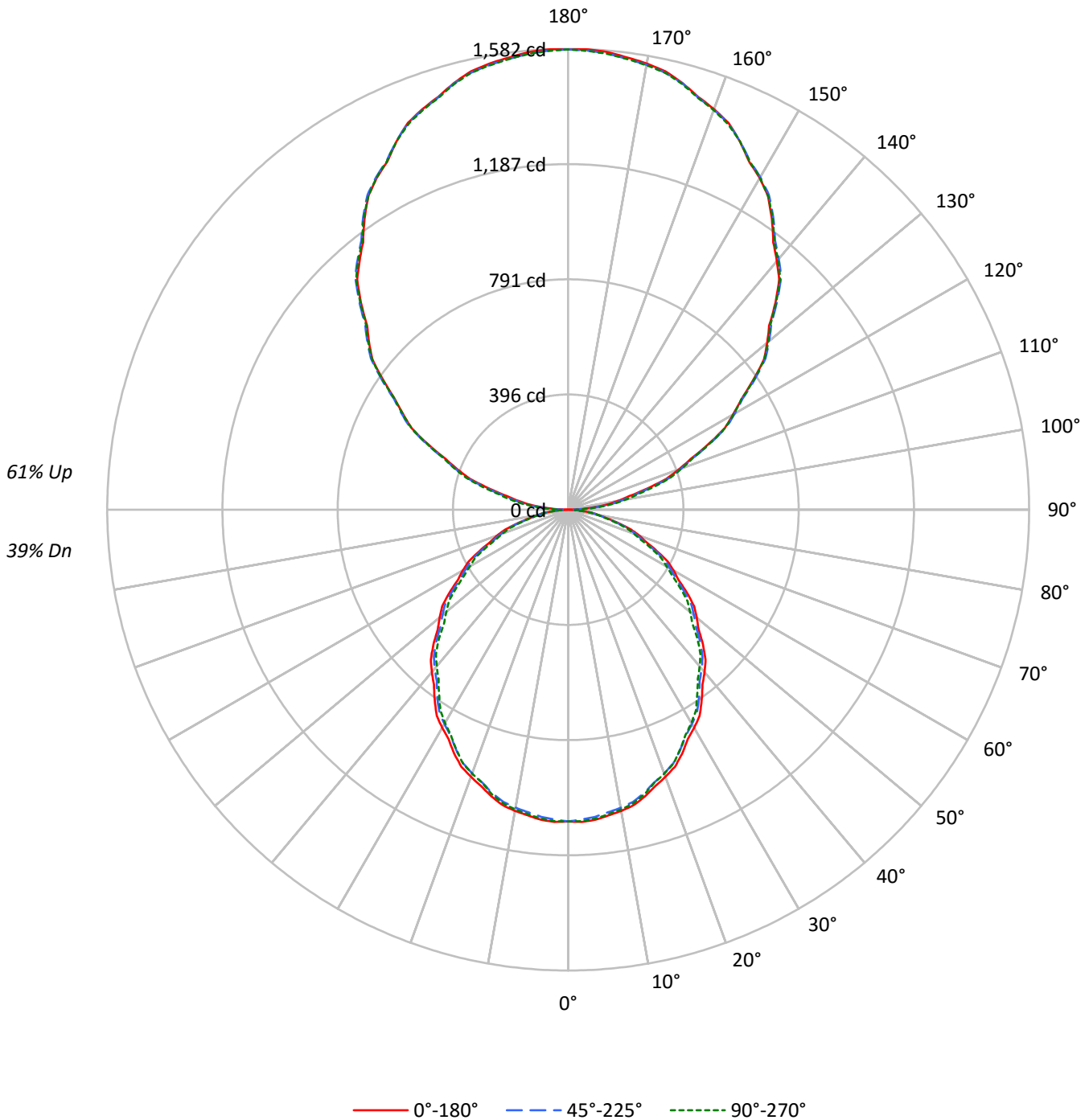
Input Watts (W): 68.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	91	87	84	86	83	79	77	67	65	63	53	52	50	40	39	39	33
2	87	79	73	68	78	72	67	63	59	55	52	47	44	42	35	34	32	27
3	79	70	62	57	71	64	57	52	52	47	44	41	38	36	31	29	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	30	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	16	14	12
9	49	37	29	24	44	34	27	23	28	23	19	23	19	16	18	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	15	16	14	12	10

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	1.4
10°-20°	285.1	4.0
20°-30°	420.9	5.8
30°-40°	491.1	6.8
40°-50°	493.3	6.9
50°-60°	433.0	6.0
60°-70°	322.6	4.5
70°-80°	184.5	2.6
80°-90°	57.1	0.8
90°-100°	105.8	1.5
100°-110°	312.5	4.3
110°-120°	529.3	7.4
120°-130°	696.6	9.7
130°-140°	780.6	10.8
140°-150°	765.0	10.6
150°-160°	642.6	8.9
160°-170°	427.1	5.9
170°-180°	149.5	2.1
0°-30°	806.9	11.2
0°-40°	1298.0	18.0
0°-60°	2224.3	30.9
0°-90°	2788.5	38.7
90°-120°	947.6	13.2
90°-150°	3189.8	44.3
90°-180°	4409.0	61.3
0°-180°	7197.5	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	11	20	26	30	7
95°	80	83	95	103	106	85
105°	280	287	294	301	305	299
115°	530	535	537	536	535	524
125°	773	780	782	780	778	692
135°	1006	1013	1014	1014	1010	775
145°	1218	1223	1227	1227	1223	761
155°	1394	1394	1396	1400	1394	642
165°	1516	1514	1515	1519	1512	428
175°	1576	1572	1571	1578	1570	150
180°	1580	1580	1580	1580	1580	



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**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°	18.5	19.0	19.4	19.8	20.3	20.6	20.9	21.1	21.3	21.5	21.9
90°	1.2	3.4	5.6	7.8	9.9	12.0	13.9	15.8	17.8	19.6	21.0
92.5°	29.8	31.3	32.9	34.3	35.9	37.8	40.2	42.5	44.8	47.2	49.0
95°	79.9	80.5	81.0	81.5	82.1	83.7	86.5	89.2	92.0	94.7	96.6
97.5°	132.8	133.0	133.2	133.5	133.7	135.7	139.4	143.2	147.0	150.7	152.5
100°	172.1	172.1	172.1	172.1	172.1	173.9	177.5	181.0	184.6	188.1	190.6
102.5°	214.4	215.6	216.6	217.7	218.8	220.3	222.1	223.9	225.7	227.5	230.2
105°	280.4	281.7	283.1	284.5	285.8	287.3	288.9	290.6	292.2	293.9	295.5
107.5°	353.1	354.5	355.9	357.3	358.6	360.0	361.2	362.4	363.7	364.9	365.7
110°	403.3	404.7	406.0	407.4	408.8	409.9	410.7	411.5	412.3	413.1	413.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	454.4	455.2	455.9	456.6	457.3	458.2	459.2	460.2	461.3	462.4	462.7
115°	529.9	531.1	532.1	533.2	534.3	535.2	535.7	536.2	536.8	537.4	537.0
117.5°	605.7	606.2	606.7	607.2	607.6	608.1	608.6	609.1	609.6	610.2	610.3
120°	652.9	654.3	655.7	657.0	658.4	659.2	659.5	659.7	660.0	660.3	660.3
122.5°	704.1	704.6	705.1	705.6	706.0	706.6	707.4	708.1	708.7	709.5	709.2
125°	773.4	775.0	776.7	778.4	780.0	781.0	781.2	781.5	781.8	782.0	781.5
127.5°	847.2	848.2	849.1	849.9	850.9	851.6	851.9	852.2	852.6	852.9	852.6
130°	891.4	892.8	894.2	895.5	896.9	897.9	898.5	898.9	899.5	900.1	899.8
132.5°	935.7	938.0	940.2	942.5	944.7	945.7	945.7	945.5	945.4	945.3	945.0
135°	1005.8	1007.5	1009.1	1010.7	1012.4	1013.3	1013.6	1013.9	1014.2	1014.4	1014.4
137.5°	1071.7	1073.3	1074.9	1076.4	1078.1	1079.1	1079.8	1080.4	1080.9	1081.6	1081.9
140°	1114.0	1115.4	1116.7	1118.1	1119.5	1120.5	1121.4	1122.3	1123.1	1123.9	1124.4
142.5°	1156.3	1157.5	1158.6	1159.8	1160.9	1162.0	1163.0	1164.1	1165.1	1166.1	1166.4
145°	1218.5	1219.6	1220.7	1221.8	1222.9	1223.8	1224.7	1225.5	1226.3	1227.1	1227.1
147.5°	1276.1	1276.7	1277.2	1277.9	1278.5	1279.1	1279.8	1280.4	1281.1	1281.7	1282.4
150°	1314.4	1314.2	1313.9	1313.6	1313.4	1313.8	1314.8	1316.0	1317.0	1318.2	1318.2
152.5°	1345.9	1346.3	1346.7	1347.0	1347.4	1347.9	1348.3	1348.7	1349.2	1349.6	1350.3
155°	1394.4	1394.4	1394.4	1394.4	1394.4	1394.5	1394.8	1395.1	1395.3	1395.6	1396.7
157.5°	1437.6	1437.0	1436.5	1435.8	1435.3	1435.1	1435.3	1435.7	1435.9	1436.1	1437.3
160°	1463.2	1462.4	1461.6	1460.8	1460.0	1459.7	1460.0	1460.2	1460.5	1460.8	1461.8
162.5°	1485.9	1485.2	1484.7	1484.1	1483.4	1483.2	1483.2	1483.3	1483.4	1483.4	1484.7
165°	1516.1	1515.6	1515.0	1514.5	1513.9	1513.8	1514.1	1514.3	1514.6	1514.9	1516.0
167.5°	1541.6	1540.6	1539.5	1538.4	1537.3	1536.8	1536.8	1536.8	1536.8	1536.8	1538.4
170°	1555.4	1554.4	1553.2	1552.2	1551.1	1550.5	1550.5	1550.5	1550.5	1550.5	1552.2
172.5°	1565.3	1564.2	1563.1	1562.0	1560.9	1560.4	1560.4	1560.4	1560.4	1560.4	1562.0
175°	1576.4	1575.2	1574.2	1573.0	1572.0	1571.4	1571.4	1571.4	1571.4	1571.4	1573.0
177.5°	1582.0	1581.1	1580.3	1579.4	1578.5	1577.9	1577.8	1577.5	1577.3	1577.1	1578.4
180°	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1



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**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°	22.1	22.3	22.7	22.7	22.6	22.4	22.3	22.2
90°	22.4	23.8	25.1	26.3	27.1	27.9	28.7	29.5
92.5°	50.8	52.6	54.5	55.6	56.3	56.8	57.4	58.0
95°	98.5	100.4	102.3	103.5	104.1	104.7	105.2	105.7
97.5°	154.3	156.1	157.9	159.1	159.4	159.7	160.0	160.4
100°	193.1	195.5	198.0	199.5	200.0	200.6	201.1	201.6
102.5°	232.8	235.5	238.1	239.9	240.7	241.4	242.2	243.0
105°	297.2	298.8	300.4	301.7	302.5	303.3	304.1	304.9
107.5°	366.6	367.4	368.2	368.6	368.5	368.5	368.4	368.4
110°	414.8	415.6	416.5	416.7	416.5	416.1	415.9	415.6





TEST NUMBER: P333429-930

CATALOG NUMBER: S125DIW-S850D1560U930-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	463.1	463.5	463.8	463.8	463.3	462.8	462.4	461.9
115°	536.8	536.5	536.2	536.0	535.7	535.4	535.2	534.9
117.5°	610.6	610.8	611.0	610.6	609.4	608.4	607.3	606.2
120°	660.3	660.3	660.3	659.7	658.7	657.5	656.5	655.4
122.5°	709.1	708.8	708.6	708.1	707.2	706.3	705.4	704.6
125°	781.0	780.4	779.8	779.4	779.2	778.9	778.6	778.4
127.5°	852.3	852.1	851.7	851.3	850.8	850.3	849.7	849.1
130°	899.5	899.3	898.9	898.5	898.1	897.5	896.9	896.4
132.5°	944.8	944.5	944.2	943.7	943.0	942.2	941.4	940.6
135°	1014.4	1014.4	1014.4	1013.9	1012.8	1011.7	1010.6	1009.5
137.5°	1082.2	1082.6	1082.9	1082.4	1081.0	1079.6	1078.2	1076.8
140°	1124.9	1125.5	1126.0	1125.6	1124.3	1122.9	1121.5	1120.1
142.5°	1166.8	1167.1	1167.5	1166.9	1165.6	1164.2	1162.9	1161.5
145°	1227.1	1227.1	1227.1	1226.7	1225.9	1225.1	1224.3	1223.4
147.5°	1283.0	1283.7	1284.3	1283.8	1281.9	1280.0	1278.2	1276.4
150°	1318.2	1318.2	1318.2	1317.8	1317.3	1316.8	1316.2	1315.6
152.5°	1351.0	1351.6	1352.3	1352.1	1351.1	1350.1	1349.2	1348.2
155°	1397.7	1398.9	1400.0	1399.9	1398.5	1397.1	1395.7	1394.4
157.5°	1438.4	1439.5	1440.6	1440.2	1438.4	1436.6	1434.8	1433.0
160°	1463.0	1464.0	1465.2	1465.0	1463.6	1462.2	1460.9	1459.5
162.5°	1486.0	1487.4	1488.7	1488.5	1486.9	1485.3	1483.8	1482.1
165°	1517.0	1518.2	1519.2	1519.0	1517.4	1515.7	1514.1	1512.4
167.5°	1540.0	1541.6	1543.3	1543.3	1541.6	1539.9	1538.2	1536.5
170°	1553.8	1555.4	1557.1	1557.0	1555.0	1553.1	1551.2	1549.3
172.5°	1563.7	1565.3	1566.9	1566.9	1565.2	1563.5	1561.8	1560.2
175°	1574.8	1576.4	1578.0	1577.8	1576.0	1574.0	1572.1	1570.2
177.5°	1579.7	1581.0	1582.3	1582.3	1580.7	1579.2	1577.6	1576.1
180°	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1	1580.1

(END OF REPORT)