

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: P333457-927

Luminaire Tested: **S125DIW-S1090D1560U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333457-927  
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-S1090D1560U927-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP 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: 7665.9 lumens  
Efficiency: N/A  
Efficacy: 100.1 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

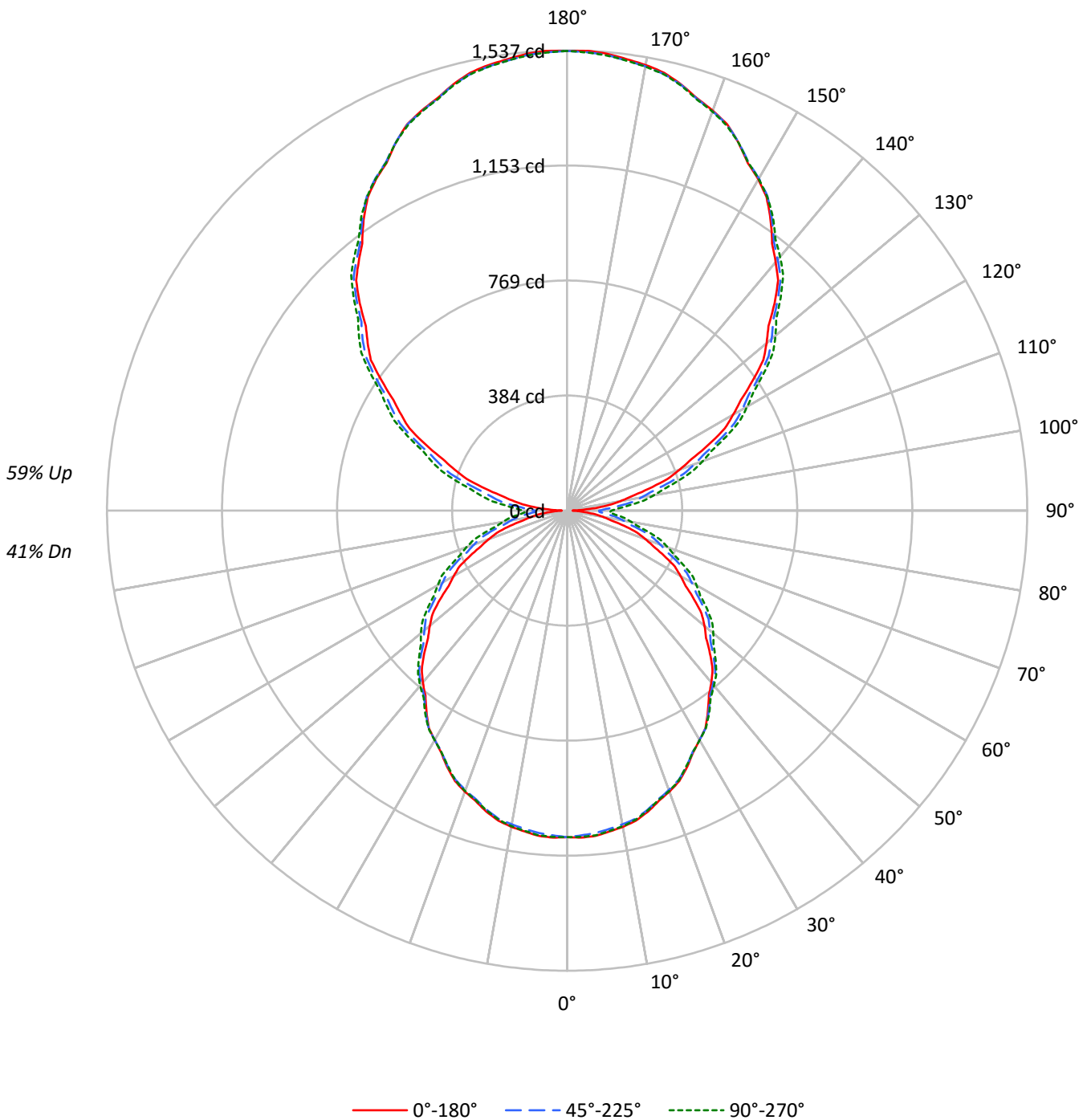
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	39	34
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	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	20	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	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	17	14	12	10

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

	0°	45°	90°
0°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.1	1.3
10°-20°	292.8	3.8
20°-30°	435.5	5.7
30°-40°	515.8	6.7
40°-50°	533.3	7.0
50°-60°	491.3	6.4
60°-70°	397.1	5.2
70°-80°	265.9	3.5
80°-90°	141.3	1.8
90°-100°	180.2	2.4
100°-110°	360.7	4.7
110°-120°	552.6	7.2
120°-130°	698.6	9.1
130°-140°	767.9	10.0
140°-150°	745.3	9.7
150°-160°	624.3	8.1
160°-170°	415.0	5.4
170°-180°	145.2	1.9
0°-30°	831.4	10.8
0°-40°	1347.2	17.6
0°-60°	2371.8	30.9
0°-90°	3176.1	41.4
90°-120°	1093.5	14.3
90°-150°	3305.2	43.1
90°-180°	4490.0	58.6
0°-180°	7665.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	62	107	136	148	16
95°	92	123	170	201	212	94
105°	282	306	344	372	384	301
115°	521	535	564	581	587	515
125°	756	763	784	799	803	676
135°	980	986	994	1007	1009	755
145°	1185	1189	1192	1197	1198	740
155°	1355	1355	1356	1360	1355	624
165°	1473	1471	1472	1476	1470	415
175°	1532	1527	1527	1533	1526	145
180°	1535	1535	1535	1535	1535	



TEST NUMBER: P333457-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.6	41.7	49.7	57.7	65.8	74.0	82.4	90.9	99.3	107.7	113.5
90°	18.3	28.0	37.8	47.5	57.2	67.0	77.0	86.9	96.9	106.8	113.6
92.5°	44.3	52.8	61.4	69.9	78.4	87.9	98.5	109.0	119.6	130.2	137.2
95°	91.6	98.3	105.0	111.7	118.4	127.1	137.8	148.6	159.3	170.1	177.1
97.5°	141.6	147.4	153.2	159.0	164.8	173.3	184.8	196.3	207.7	219.2	225.9
100°	179.0	184.0	189.0	194.0	199.0	207.0	218.1	229.1	240.2	251.2	258.6
102.5°	219.3	225.0	230.6	236.3	241.9	249.4	258.6	267.7	276.9	286.1	293.4
105°	282.0	287.2	292.3	297.4	302.5	309.5	318.2	326.9	335.6	344.4	350.7
107.5°	351.5	356.0	360.6	365.1	369.7	376.0	384.0	392.1	400.2	408.3	413.8
110°	399.3	403.5	407.7	411.9	416.1	421.9	429.4	436.8	444.3	451.7	457.0



TEST NUMBER: P333457-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	449.1	452.0	455.0	458.0	461.0	466.2	473.6	481.1	488.6	496.1	500.7
115°	521.3	524.1	526.8	529.5	532.3	536.9	543.7	550.4	557.1	563.8	567.8
117.5°	593.9	595.5	597.0	598.6	600.2	604.1	610.5	616.8	623.1	629.4	633.7
120°	639.8	641.8	643.8	645.9	647.9	651.8	657.5	663.3	669.0	674.7	678.7
122.5°	688.6	689.4	690.2	691.0	691.8	695.2	701.2	707.2	713.1	719.1	722.7
125°	755.7	757.1	758.5	759.9	761.2	764.4	769.4	774.4	779.4	784.4	787.7
127.5°	826.4	827.0	827.8	828.4	829.0	831.5	835.7	840.0	844.1	848.3	851.6
130°	869.4	870.4	871.6	872.7	873.8	876.2	880.1	883.9	887.8	891.7	894.7
132.5°	911.6	913.7	915.8	917.9	920.0	922.3	924.8	927.2	929.7	932.2	935.3
135°	979.5	980.8	982.1	983.5	984.8	986.5	988.4	990.4	992.3	994.2	997.3
137.5°	1043.2	1044.6	1046.0	1047.3	1048.7	1050.0	1051.4	1052.8	1054.2	1055.6	1058.8
140°	1083.5	1084.8	1086.2	1087.5	1088.8	1090.0	1091.0	1092.1	1093.1	1094.2	1097.3
142.5°	1124.6	1125.5	1126.5	1127.4	1128.3	1129.3	1130.4	1131.4	1132.4	1133.5	1136.1
145°	1185.0	1185.9	1186.7	1187.6	1188.4	1189.1	1189.9	1190.7	1191.5	1192.3	1193.5
147.5°	1239.9	1240.5	1241.0	1241.7	1242.2	1242.9	1243.5	1244.1	1244.8	1245.4	1246.4
150°	1277.2	1276.9	1276.7	1276.4	1276.1	1276.5	1277.6	1278.7	1279.7	1280.8	1280.8
152.5°	1307.7	1308.1	1308.5	1308.8	1309.2	1309.6	1310.1	1310.5	1310.9	1311.4	1312.0
155°	1354.9	1354.9	1354.9	1354.9	1354.9	1354.9	1355.3	1355.5	1355.7	1356.1	1357.1
157.5°	1396.9	1396.3	1395.7	1395.1	1394.6	1394.4	1394.6	1395.0	1395.2	1395.4	1396.5
160°	1421.7	1420.9	1420.1	1419.4	1418.6	1418.3	1418.6	1418.8	1419.1	1419.4	1420.4
162.5°	1443.8	1443.1	1442.6	1442.0	1441.4	1441.1	1441.1	1441.2	1441.3	1441.3	1442.6
165°	1473.1	1472.6	1472.0	1471.6	1471.0	1470.8	1471.2	1471.4	1471.6	1472.0	1473.0
167.5°	1497.9	1496.9	1495.9	1494.8	1493.7	1493.2	1493.2	1493.2	1493.2	1493.2	1494.8
170°	1511.3	1510.3	1509.2	1508.2	1507.1	1506.6	1506.6	1506.6	1506.6	1506.6	1508.2
172.5°	1520.9	1519.9	1518.8	1517.7	1516.6	1516.2	1516.2	1516.2	1516.2	1516.2	1517.7
175°	1531.7	1530.6	1529.5	1528.4	1527.4	1526.9	1526.9	1526.9	1526.9	1526.9	1528.4
177.5°	1537.2	1536.3	1535.5	1534.6	1533.7	1533.2	1533.0	1532.8	1532.6	1532.4	1533.7
180°	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2



TEST NUMBER: P333457-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	119.2	124.9	130.7	134.5	136.3	138.2	140.0	141.8
90°	120.4	127.2	134.0	138.6	141.1	143.5	146.0	148.5
92.5°	144.2	151.2	158.3	162.9	165.2	167.4	169.6	171.9
95°	184.3	191.3	198.4	203.0	205.3	207.5	209.6	211.8
97.5°	232.7	239.4	246.1	250.5	252.5	254.4	256.3	258.3
100°	266.0	273.4	280.7	285.4	287.4	289.3	291.3	293.3
102.5°	300.9	308.2	315.7	320.4	322.6	324.8	326.9	329.2
105°	357.0	363.4	369.7	374.1	376.6	379.1	381.5	384.0
107.5°	419.3	424.8	430.3	433.7	435.1	436.6	438.0	439.4
110°	462.3	467.6	472.9	476.3	477.7	479.1	480.5	481.9





TEST NUMBER: P333457-927

CATALOG NUMBER: S125DIW-S1090D1560U927-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	505.5	510.2	514.8	517.8	519.0	520.1	521.3	522.5
115°	571.8	575.8	579.9	582.4	583.6	584.8	585.9	587.1
117.5°	637.9	642.1	646.4	648.8	649.4	649.9	650.5	651.0
120°	682.8	686.8	690.9	693.1	693.5	693.8	694.2	694.5
122.5°	726.4	730.0	733.6	735.8	736.3	736.9	737.4	738.1
125°	791.0	794.2	797.6	799.6	800.6	801.5	802.4	803.4
127.5°	854.8	858.1	861.3	863.4	864.3	865.1	865.9	866.8
130°	897.8	900.9	903.9	905.8	906.4	907.0	907.8	908.4
132.5°	938.3	941.4	944.4	946.1	946.3	946.7	946.9	947.1
135°	1000.4	1003.5	1006.5	1008.2	1008.3	1008.4	1008.5	1008.7
137.5°	1061.8	1064.9	1068.1	1069.4	1069.1	1068.7	1068.3	1067.9
140°	1100.4	1103.6	1106.7	1108.1	1107.7	1107.3	1107.0	1106.6
142.5°	1138.6	1141.1	1143.8	1144.8	1144.5	1144.1	1143.7	1143.3
145°	1194.7	1195.9	1197.1	1197.8	1197.9	1198.1	1198.3	1198.4
147.5°	1247.4	1248.5	1249.4	1249.3	1247.9	1246.5	1245.2	1243.8
150°	1280.8	1280.8	1280.8	1280.6	1280.3	1280.0	1279.8	1279.5
152.5°	1312.6	1313.3	1313.9	1313.8	1312.9	1311.9	1311.1	1310.1
155°	1358.1	1359.2	1360.3	1360.2	1358.8	1357.5	1356.1	1354.9
157.5°	1397.6	1398.7	1399.7	1399.4	1397.6	1395.8	1394.1	1392.3
160°	1421.5	1422.5	1423.6	1423.5	1422.1	1420.8	1419.5	1418.2
162.5°	1443.9	1445.2	1446.4	1446.3	1444.8	1443.2	1441.7	1440.1
165°	1474.0	1475.1	1476.2	1475.9	1474.3	1472.7	1471.2	1469.5
167.5°	1496.4	1497.9	1499.5	1499.5	1497.9	1496.3	1494.6	1492.9
170°	1509.7	1511.3	1512.9	1512.8	1510.9	1509.1	1507.2	1505.4
172.5°	1519.3	1520.9	1522.5	1522.5	1520.8	1519.2	1517.5	1515.9
175°	1530.1	1531.7	1533.3	1533.1	1531.3	1529.4	1527.6	1525.7
177.5°	1534.9	1536.2	1537.5	1537.4	1535.9	1534.4	1532.9	1531.4
180°	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2	1535.2

(END OF REPORT)