

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: P333450-935

Luminaire Tested: **S125DIW-S1090D1340U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333450-935  
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: S125DIW-S1090D1340U935-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8293.2 lumens  
Efficiency: N/A  
Efficacy: 118.8 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

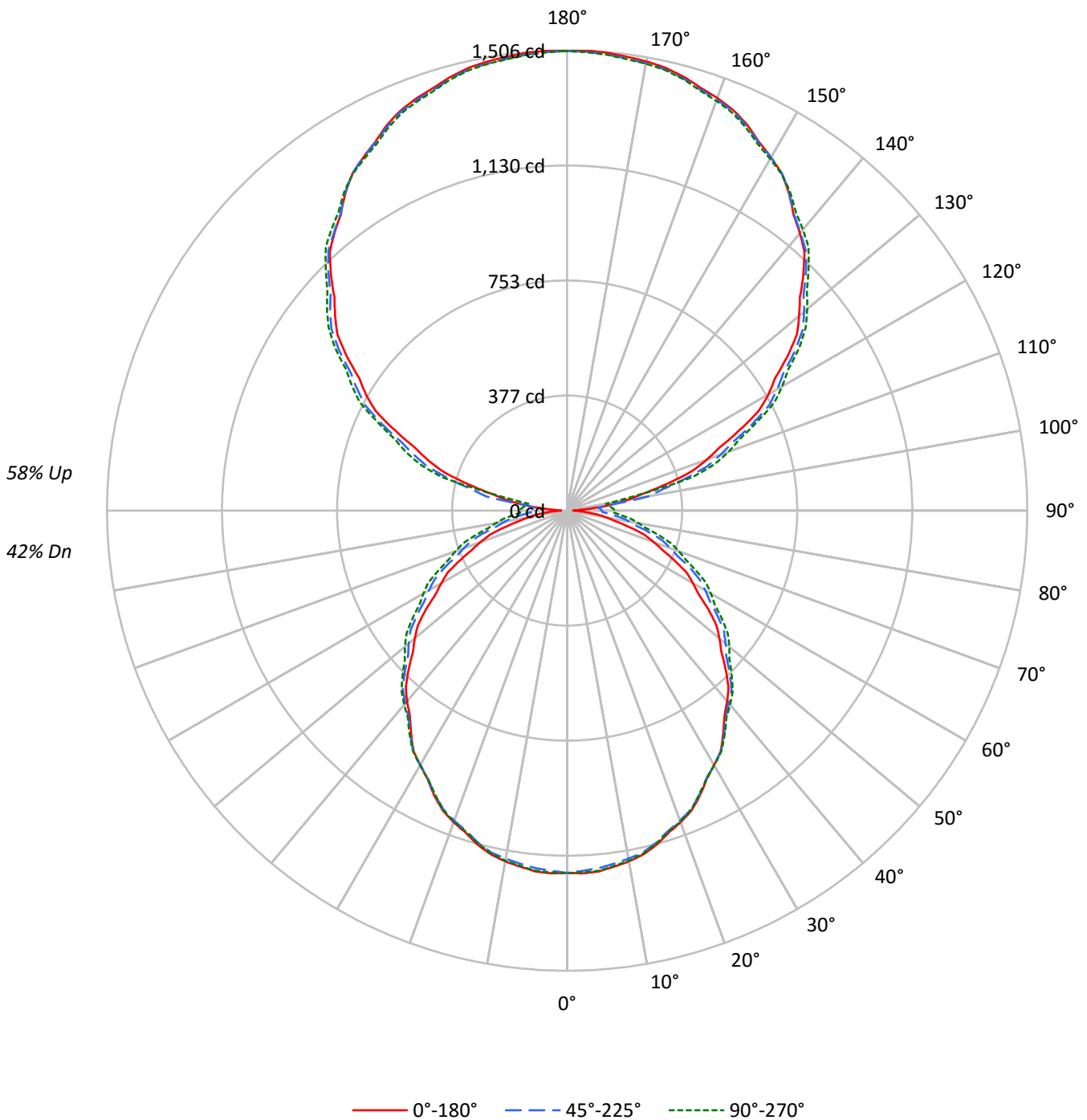
Input Watts (W): 69.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333450-935

CATALOG NUMBER: S125DIW-S1090D1340U935-4F0-1E-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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	42
1	95	91	87	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34
2	86	79	73	67	79	72	67	62	59	55	52	47	45	42	36	35	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	29	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	21	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	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	30	24	20	26	20	17	21	17	14	17	14	12	10

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

	0°	45°	90°
0°	7657	7657	7657
5°	7672	7516	7539
10°	7617	7381	7370
15°	7527	7221	7155
20°	7405	7022	6940
25°	7259	6810	6675
30°	7083	6575	6434
35°	6919	6361	6214
40°	6751	6134	5991
45°	6562	5941	5794
50°	6381	5731	5621
55°	6164	5532	5416
60°	5927	5306	5207
65°	5679	5069	4972
70°	5397	4745	4731
75°	4952	4435	4434
80°	4367	4057	4111
85°	3824	3802	4009



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.1	1.4
10°-20°	318.2	3.8
20°-30°	473.3	5.7
30°-40°	560.6	6.8
40°-50°	579.6	7.0
50°-60°	533.9	6.4
60°-70°	431.6	5.2
70°-80°	289.0	3.5
80°-90°	153.0	1.8
90°-100°	138.8	1.7
100°-110°	398.8	4.8
110°-120°	652.4	7.9
120°-130°	807.5	9.7
130°-140°	853.5	10.3
140°-150°	793.6	9.6
150°-160°	640.2	7.7
160°-170°	414.1	5.0
170°-180°	142.8	1.7
0°-30°	903.6	10.9
0°-40°	1464.2	17.7
0°-60°	2577.8	31.1
0°-90°	3451.5	41.6
90°-120°	1190.0	14.3
90°-150°	3644.6	43.9
90°-180°	4842.0	58.4
0°-180°	8293.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1186	1183	1175	1184	1183	112
15°	1132	1133	1125	1132	1128	319
25°	1029	1032	1025	1029	1024	473
35°	890	898	895	898	898	557
45°	733	746	752	760	761	566
55°	564	582	601	613	618	504
65°	388	415	443	460	465	385
75°	214	244	281	304	310	227
85°	64	102	143	168	178	68
90°	20	66	113	144	157	15
95°	79	104	103	133	142	93
105°	338	362	396	418	426	358
115°	622	637	667	683	684	617
125°	880	887	910	923	926	785
135°	1094	1099	1105	1117	1117	843
145°	1266	1267	1268	1274	1272	791
155°	1393	1387	1389	1392	1384	642
165°	1470	1464	1465	1471	1463	415
175°	1504	1498	1498	1506	1497	143
180°	1504	1504	1504	1504	1504	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1188.4	1187.9	1187.5	1187.1	1186.7	1185.8	1184.3	1182.8	1181.5	1180.0	1181.5
5°	1185.6	1185.1	1184.6	1184.0	1183.5	1182.3	1180.5	1178.7	1176.9	1175.1	1177.2
7.5°	1175.1	1174.9	1174.7	1174.5	1174.3	1173.3	1171.4	1169.5	1167.7	1165.8	1167.6
10°	1165.8	1165.8	1165.8	1165.8	1165.8	1164.8	1162.7	1160.6	1158.6	1156.5	1158.3
12.5°	1152.8	1153.0	1153.2	1153.4	1153.7	1152.9	1151.2	1149.6	1148.0	1146.2	1147.7
15°	1132.1	1132.4	1132.6	1132.9	1133.2	1132.4	1130.6	1128.8	1127.0	1125.2	1126.7
17.5°	1105.1	1105.6	1106.1	1106.6	1107.2	1106.6	1104.7	1102.9	1101.1	1099.3	1100.5
20°	1085.6	1086.2	1086.7	1087.2	1087.7	1087.0	1085.2	1083.4	1081.6	1079.8	1080.6
22.5°	1063.2	1064.2	1065.1	1066.1	1067.0	1066.4	1064.5	1062.5	1060.4	1058.4	1059.4
25°	1028.6	1029.4	1030.2	1031.0	1031.7	1031.4	1029.8	1028.3	1026.7	1025.2	1026.2
27.5°	990.1	991.2	992.3	993.5	994.6	994.3	992.6	990.8	989.0	987.3	988.0
30°	961.2	962.8	964.3	965.9	967.4	967.4	965.9	964.3	962.8	961.2	961.7
32.5°	935.2	936.5	937.9	939.3	940.6	940.6	939.5	938.4	937.3	936.2	936.7
35°	890.4	892.2	894.0	895.8	897.6	898.1	897.3	896.6	895.8	895.0	895.8
37.5°	845.5	847.1	848.8	850.4	852.0	852.8	852.6	852.3	852.0	851.8	852.8
40°	814.8	816.8	818.9	821.0	823.0	824.0	823.7	823.5	823.2	822.9	824.0
42.5°	781.3	784.0	786.7	789.4	792.0	793.7	794.3	794.8	795.4	796.0	797.2
45°	733.4	736.2	739.1	741.9	744.8	746.8	748.1	749.4	750.7	752.0	753.8
47.5°	684.4	687.0	689.7	692.2	694.9	697.3	699.6	701.8	704.0	706.2	708.9
50°	650.9	653.8	656.6	659.4	662.3	665.1	668.0	670.8	673.6	676.5	679.3
52.5°	615.5	619.1	622.5	625.9	629.4	632.8	636.4	639.8	643.3	646.7	649.8
55°	563.7	567.8	572.0	576.1	580.2	584.4	588.5	592.6	596.8	600.9	603.7
57.5°	510.7	515.7	520.6	525.6	530.5	535.5	540.2	544.9	549.7	554.4	557.7
60°	475.4	480.5	485.7	490.9	496.0	501.2	506.4	511.5	516.7	521.9	525.7
62.5°	441.0	446.2	451.3	456.5	461.7	467.0	472.6	478.2	483.8	489.3	493.6
65°	388.2	394.2	400.1	406.0	412.0	418.0	424.2	430.4	436.6	442.8	446.7
67.5°	338.5	344.2	349.9	355.7	361.4	367.4	373.8	380.0	386.3	392.6	397.4
70°	302.2	308.2	314.1	320.0	326.0	332.3	339.0	345.7	352.4	359.1	364.0
72.5°	266.9	273.0	279.1	285.3	291.4	298.2	305.6	312.9	320.2	327.5	332.9
75°	213.9	220.6	227.3	234.0	240.7	248.2	256.5	264.8	273.0	281.3	286.5
77.5°	163.0	170.7	178.5	186.2	194.0	201.8	209.7	217.7	225.7	233.6	239.3
80°	131.3	139.1	146.8	154.5	162.3	170.6	179.3	188.1	196.9	205.7	211.4
82.5°	102.5	110.6	118.8	127.0	135.2	143.7	152.7	161.7	170.7	179.7	185.2
85°	63.9	72.4	80.9	89.5	98.0	106.8	115.8	124.8	133.9	142.9	148.6
87.5°	36.5	45.1	53.8	62.5	71.1	80.0	89.2	98.3	107.5	116.6	122.7
90°	19.7	30.0	40.2	50.5	60.7	71.1	81.6	92.1	102.6	113.1	120.4
92.5°	33.9	40.1	46.4	52.7	59.0	67.3	77.8	88.3	98.9	109.4	116.4
95°	78.7	84.6	90.6	96.6	102.5	105.2	104.6	103.9	103.3	102.7	109.6
97.5°	146.4	153.8	161.2	168.5	175.9	174.5	164.4	154.2	144.0	133.9	132.3
100°	199.0	205.1	211.3	217.5	223.6	231.4	240.6	249.9	259.1	268.4	236.9
102.5°	252.4	258.4	264.3	270.3	276.2	283.5	292.2	300.8	309.5	318.1	316.4
105°	338.2	343.4	348.4	353.6	358.7	365.2	372.9	380.6	388.4	396.1	401.3
107.5°	427.3	430.8	434.4	437.9	441.3	447.1	455.0	463.0	470.9	478.8	484.0
110°	485.3	488.4	491.5	494.6	497.7	503.1	510.8	518.5	526.2	534.0	538.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	540.5	543.6	546.7	549.7	552.8	558.0	565.3	572.7	580.1	587.4	591.1
115°	622.3	625.3	628.4	631.5	634.6	639.6	646.5	653.4	660.4	667.4	671.1
117.5°	707.0	708.2	709.3	710.4	711.5	715.7	723.1	730.4	737.7	744.9	748.0
120°	760.5	761.0	761.6	762.1	762.6	766.2	772.9	779.6	786.3	793.0	796.9
122.5°	806.8	808.1	809.4	810.8	812.1	815.8	821.8	827.9	834.0	840.1	843.8
125°	879.8	881.2	882.7	884.2	885.6	889.0	894.1	899.3	904.5	909.6	912.7
127.5°	948.4	949.3	950.4	951.3	952.3	954.8	958.9	963.0	967.1	971.2	974.5
130°	991.2	992.1	993.2	994.1	995.1	997.6	1001.4	1005.2	1009.1	1013.0	1015.8
132.5°	1033.0	1034.4	1035.9	1037.2	1038.6	1040.4	1042.7	1044.9	1047.1	1049.4	1052.8
135°	1093.7	1094.9	1096.1	1097.3	1098.6	1099.8	1101.2	1102.5	1103.8	1105.1	1108.0
137.5°	1149.4	1150.5	1151.6	1152.7	1153.7	1154.5	1154.9	1155.4	1155.8	1156.2	1159.3
140°	1185.1	1185.5	1186.0	1186.5	1187.1	1187.3	1187.3	1187.3	1187.3	1187.3	1190.7
142.5°	1218.1	1218.1	1218.2	1218.3	1218.4	1218.7	1219.1	1219.4	1219.9	1220.3	1222.8
145°	1266.4	1266.7	1266.9	1267.1	1267.4	1267.5	1267.5	1267.5	1267.5	1267.5	1269.0
147.5°	1307.6	1307.5	1307.4	1307.3	1307.3	1307.3	1307.6	1307.9	1308.2	1308.5	1309.2
150°	1334.4	1333.9	1333.4	1332.9	1332.4	1332.4	1332.9	1333.4	1333.9	1334.4	1334.9
152.5°	1360.2	1359.2	1358.1	1357.0	1355.9	1355.6	1356.1	1356.6	1357.1	1357.5	1358.1
155°	1393.4	1392.0	1390.5	1389.1	1387.5	1387.1	1387.5	1388.0	1388.5	1389.1	1389.7
157.5°	1419.1	1418.2	1417.3	1416.4	1415.6	1415.1	1415.1	1415.2	1415.3	1415.3	1416.1
160°	1436.9	1435.5	1434.0	1432.4	1431.0	1430.4	1430.6	1430.9	1431.2	1431.4	1432.4
162.5°	1451.2	1449.8	1448.2	1446.7	1445.3	1444.7	1444.9	1445.2	1445.4	1445.6	1447.0
165°	1470.4	1468.9	1467.4	1465.9	1464.5	1463.8	1464.0	1464.3	1464.6	1464.8	1466.3
167.5°	1484.6	1483.2	1481.6	1480.1	1478.5	1477.9	1478.1	1478.3	1478.6	1478.9	1480.7
170°	1492.7	1491.0	1489.2	1487.5	1485.7	1485.0	1485.2	1485.5	1485.7	1486.0	1488.0
172.5°	1498.1	1496.3	1494.6	1492.8	1491.1	1490.5	1490.9	1491.3	1491.8	1492.2	1494.0
175°	1503.8	1502.4	1500.9	1499.3	1497.9	1497.3	1497.5	1497.8	1498.1	1498.2	1500.2
177.5°	1506.5	1505.3	1504.2	1503.0	1501.8	1501.2	1501.5	1501.7	1501.8	1502.0	1503.5
180°	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1182.8	1184.3	1185.8	1186.4	1186.2	1185.9	1185.8	1185.6
5°	1179.2	1181.3	1183.4	1184.3	1184.0	1183.8	1183.5	1183.3
7.5°	1169.4	1171.2	1173.0	1173.8	1173.5	1173.3	1173.0	1172.8
10°	1160.1	1161.9	1163.7	1164.5	1164.2	1164.0	1163.7	1163.5
12.5°	1149.1	1150.5	1151.8	1152.2	1151.6	1150.9	1150.2	1149.5
15°	1128.3	1129.8	1131.4	1131.6	1130.6	1129.5	1128.5	1127.5
17.5°	1101.7	1102.9	1104.1	1104.3	1103.7	1103.1	1102.5	1101.9
20°	1081.3	1082.1	1082.9	1083.3	1083.3	1083.3	1083.3	1083.3
22.5°	1060.4	1061.4	1062.3	1062.5	1061.9	1061.3	1060.7	1060.1
25°	1027.3	1028.3	1029.3	1029.2	1027.9	1026.6	1025.3	1024.0
27.5°	988.7	989.5	990.2	990.3	989.8	989.4	988.9	988.4
30°	962.3	962.8	963.3	963.5	963.2	962.9	962.7	962.4
32.5°	937.2	937.7	938.2	938.3	938.1	937.8	937.5	937.3
35°	896.6	897.3	898.1	898.5	898.5	898.5	898.5	898.5
37.5°	853.9	854.9	855.9	856.4	856.3	856.2	856.0	855.9
40°	825.0	826.0	827.1	827.9	828.4	828.9	829.4	829.9
42.5°	798.4	799.7	800.9	801.6	801.7	801.8	801.9	802.0
45°	755.6	757.4	759.2	760.3	760.5	760.8	761.0	761.3
47.5°	711.5	714.1	716.8	718.3	718.9	719.5	720.1	720.7
50°	682.2	685.0	687.9	689.7	690.4	691.2	692.0	692.8
52.5°	652.8	655.8	658.9	660.7	661.2	661.9	662.5	663.0
55°	606.6	609.4	612.3	614.2	615.3	616.3	617.3	618.4
57.5°	560.9	564.2	567.5	569.5	570.2	571.0	571.8	572.6
60°	529.6	533.5	537.4	539.7	540.4	541.2	542.0	542.8
62.5°	497.9	502.2	506.5	509.1	510.1	511.1	512.0	513.1
65°	450.6	454.4	458.3	460.8	461.8	462.9	463.9	464.9
67.5°	402.0	406.7	411.5	414.5	415.8	417.2	418.4	419.8
70°	368.9	373.8	378.8	382.0	383.6	385.1	386.7	388.2
72.5°	338.2	343.5	348.8	352.1	353.2	354.3	355.4	356.6
75°	291.6	296.8	302.0	305.1	306.4	307.7	309.0	310.3
77.5°	245.0	250.6	256.3	259.7	260.7	261.7	262.8	263.8
80°	217.1	222.7	228.4	231.8	232.8	233.8	234.9	235.9
82.5°	190.6	196.1	201.6	205.3	207.2	209.0	210.9	212.7
85°	154.3	160.0	165.7	169.5	171.6	173.7	175.7	177.8
87.5°	128.9	135.1	141.3	145.3	147.3	149.3	151.3	153.2
90°	127.5	134.7	141.9	146.7	149.3	151.8	154.4	157.0
92.5°	123.4	130.4	137.3	141.9	144.0	146.2	148.4	150.5
95°	116.5	123.5	130.4	134.7	136.6	138.4	140.2	142.0
97.5°	130.8	129.2	127.6	127.8	129.5	131.2	133.0	134.7
100°	205.3	173.9	142.4	126.9	127.5	128.0	128.6	129.2
102.5°	314.6	312.8	311.1	302.6	287.2	272.0	256.7	241.3
105°	406.5	411.6	416.8	420.2	421.7	423.3	424.8	426.4
107.5°	489.1	494.3	499.5	502.5	503.3	504.2	505.1	505.9
110°	542.3	546.5	550.6	553.7	555.8	557.8	559.9	562.0





TEST NUMBER: P333450-935

CATALOG NUMBER: S125DIW-S1090D1340U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	594.9	598.7	602.4	605.0	606.5	608.0	609.3	610.8
115°	674.7	678.4	682.0	683.9	683.9	684.0	684.1	684.2
117.5°	751.1	754.2	757.3	759.5	760.6	761.7	762.8	764.0
120°	800.7	804.7	808.6	810.6	811.0	811.2	811.6	811.9
122.5°	847.5	851.2	854.8	856.7	856.9	857.0	857.0	857.2
125°	915.9	919.0	922.2	924.0	924.6	925.1	925.7	926.3
127.5°	977.8	981.0	984.3	985.8	985.4	985.1	984.7	984.4
130°	1018.7	1021.6	1024.5	1026.0	1026.0	1026.1	1026.1	1026.1
132.5°	1056.4	1059.8	1063.2	1064.9	1064.8	1064.6	1064.5	1064.3
135°	1110.9	1113.7	1116.5	1117.9	1117.8	1117.5	1117.3	1117.1
137.5°	1162.5	1165.7	1168.8	1170.3	1170.0	1169.8	1169.5	1169.2
140°	1194.0	1197.3	1200.7	1202.1	1201.7	1201.2	1200.8	1200.3
142.5°	1225.3	1227.9	1230.4	1231.4	1231.0	1230.5	1230.0	1229.6
145°	1270.6	1272.1	1273.7	1274.2	1273.8	1273.3	1272.8	1272.4
147.5°	1309.9	1310.6	1311.4	1311.0	1309.8	1308.5	1307.1	1305.8
150°	1335.4	1335.8	1336.4	1335.8	1334.0	1332.3	1330.6	1328.9
152.5°	1358.6	1359.1	1359.5	1358.9	1357.2	1355.5	1353.8	1352.0
155°	1390.5	1391.2	1392.0	1391.4	1389.4	1387.4	1385.4	1383.5
157.5°	1416.9	1417.7	1418.5	1417.9	1415.9	1413.9	1412.0	1410.0
160°	1433.4	1434.3	1435.4	1434.9	1432.9	1430.9	1428.9	1426.9
162.5°	1448.4	1449.8	1451.2	1450.8	1448.6	1446.4	1444.2	1442.1
165°	1467.7	1469.3	1470.8	1470.5	1468.5	1466.5	1464.6	1462.6
167.5°	1482.5	1484.2	1486.0	1485.7	1483.5	1481.4	1479.1	1476.9
170°	1490.0	1491.9	1493.9	1493.8	1491.6	1489.4	1487.1	1484.9
172.5°	1495.8	1497.6	1499.3	1499.2	1496.9	1494.7	1492.5	1490.2
175°	1502.2	1504.2	1506.1	1506.1	1503.8	1501.6	1499.3	1497.1
177.5°	1504.9	1506.2	1507.6	1507.5	1505.9	1504.3	1502.7	1501.2
180°	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8

(END OF REPORT)