

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: P333445-935

Luminaire Tested: **S125DIW-S1090D1050U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333445-935  
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-S1090D1050U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP 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: 6802.7 lumens  
Efficiency: N/A  
Efficacy: 111.2 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

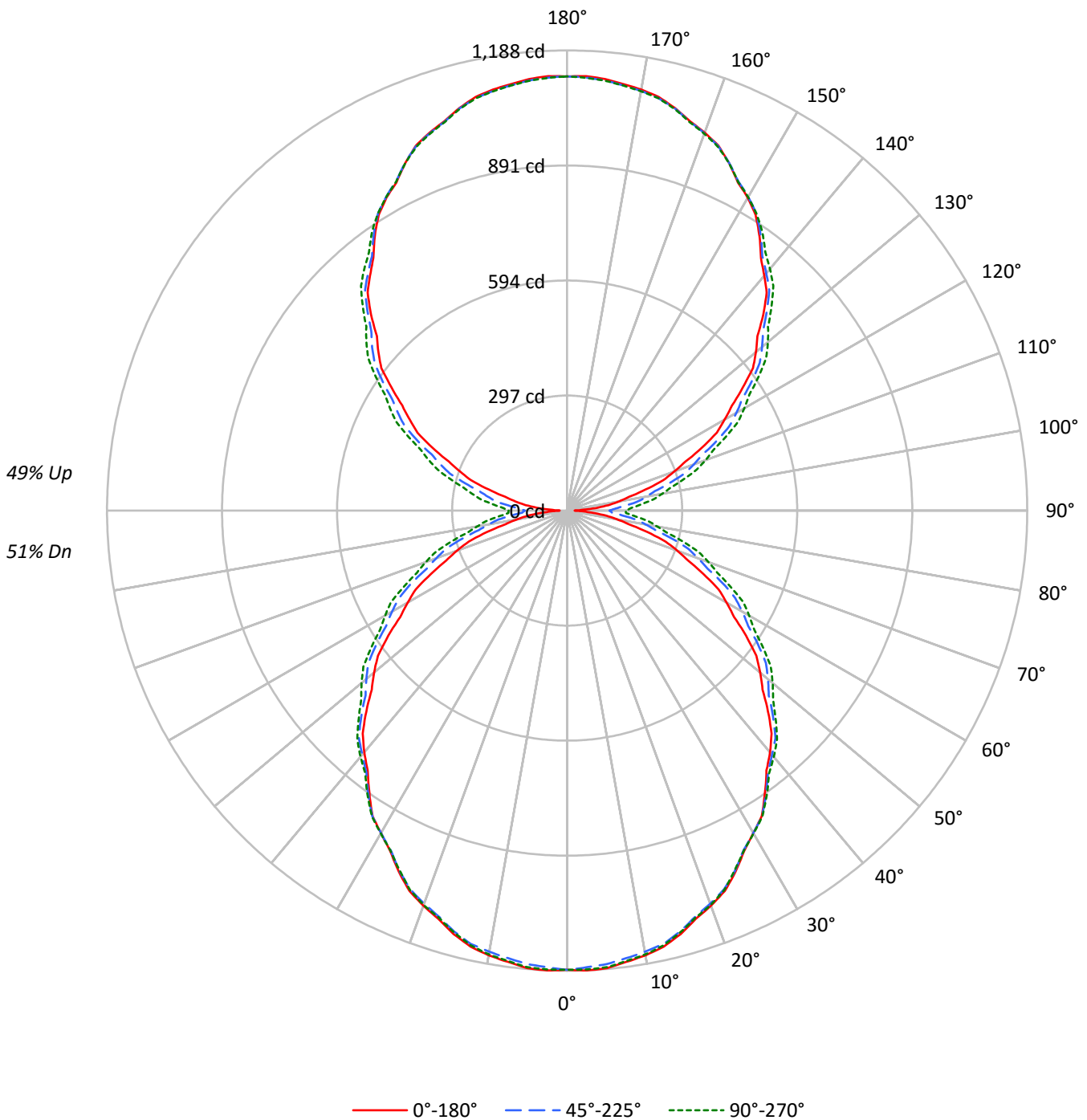
Input Watts (W): 61.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

**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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	97	93	88	85	89	85	82	79	72	70	67	60	58	56	49	48	46	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	47	43	40	39	34
3	80	70	63	57	74	65	58	53	55	50	46	46	42	39	38	35	32	28
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24
5	67	55	47	41	62	51	44	38	44	38	33	37	32	29	30	27	24	21
6	62	49	41	35	57	46	39	33	39	33	29	33	29	25	27	24	21	18
7	57	45	37	31	53	42	34	29	36	30	26	30	25	22	25	21	19	16
8	53	40	33	27	49	38	31	26	32	27	23	27	23	20	23	19	17	14
9	49	37	29	24	45	34	28	23	30	24	20	25	21	18	21	18	15	13
10	46	34	27	22	43	32	25	20	27	22	18	23	19	16	19	16	14	12

**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



TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.1	1.6
10°-20°	318.2	4.7
20°-30°	473.3	7.0
30°-40°	560.6	8.2
40°-50°	579.6	8.5
50°-60°	533.9	7.8
60°-70°	431.6	6.3
70°-80°	289.0	4.2
80°-90°	152.3	2.2
90°-100°	159.2	2.3
100°-110°	283.7	4.2
110°-120°	417.1	6.1
120°-130°	517.9	7.6
130°-140°	564.1	8.3
140°-150°	544.9	8.0
150°-160°	455.9	6.7
160°-170°	303.0	4.5
170°-180°	106.1	1.6
0°-30°	903.6	13.3
0°-40°	1464.2	21.5
0°-60°	2577.8	37.9
0°-90°	3450.8	50.7
90°-120°	860.1	12.6
90°-150°	2486.9	36.6
90°-180°	3352.0	49.3
0°-180°	6802.7	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	64	109	139	151	16
95°	72	105	152	182	194	72
105°	209	233	272	300	312	224
115°	383	396	426	446	453	379
125°	553	559	582	598	603	495
135°	716	720	729	743	746	552
145°	866	868	871	876	878	541
155°	989	989	990	993	989	455
165°	1076	1074	1075	1078	1073	303
175°	1118	1115	1115	1120	1114	106
180°	1121	1121	1121	1121	1121	



TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

**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°	36.4	45.0	53.6	62.2	70.8	79.6	88.6	97.6	106.7	115.8	121.9
90°	19.5	29.3	39.1	48.9	58.7	68.7	78.9	89.0	99.1	109.3	116.1
92.5°	37.9	46.6	55.3	64.1	72.8	82.5	93.2	103.8	114.4	125.1	132.1
95°	71.8	79.0	86.0	93.2	100.2	109.2	119.9	130.6	141.3	152.1	159.0
97.5°	108.0	114.2	120.4	126.6	132.8	141.4	152.6	163.7	174.9	186.0	192.7
100°	134.9	140.3	145.8	151.2	156.6	164.7	175.5	186.3	197.1	207.8	215.1
102.5°	164.0	169.8	175.6	181.3	187.2	194.7	204.1	213.4	222.7	232.0	239.2
105°	209.4	214.5	219.6	224.7	229.8	236.8	245.7	254.6	263.6	272.4	278.8
107.5°	259.6	264.1	268.5	273.1	277.6	284.0	292.3	300.7	308.9	317.3	323.0
110°	294.3	298.3	302.5	306.5	310.6	316.5	324.3	332.2	339.9	347.8	353.3



TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	330.6	333.6	336.6	339.5	342.5	347.9	355.7	363.4	371.2	378.9	383.9
115°	383.0	385.6	388.1	390.7	393.3	398.1	405.3	412.3	419.5	426.5	431.0
117.5°	435.6	437.1	438.7	440.1	441.7	445.8	452.5	459.3	466.0	472.6	477.2
120°	469.1	470.8	472.5	474.3	476.0	480.0	486.1	492.2	498.3	504.5	508.9
122.5°	504.5	505.1	505.8	506.5	507.3	510.7	516.9	523.2	529.4	535.7	539.8
125°	553.4	554.3	555.2	556.1	557.0	560.2	565.5	570.8	576.3	581.6	585.3
127.5°	604.6	605.0	605.4	605.8	606.1	608.6	613.1	617.6	622.0	626.5	630.2
130°	636.0	636.7	637.4	638.1	638.9	641.2	645.2	649.2	653.2	657.2	660.6
132.5°	666.5	668.0	669.5	671.1	672.6	674.8	677.4	680.2	682.9	685.6	689.0
135°	715.9	716.9	717.7	718.7	719.6	721.0	723.1	725.0	727.0	729.0	732.4
137.5°	762.5	763.4	764.3	765.3	766.2	767.2	768.6	769.9	771.2	772.5	775.8
140°	791.6	792.6	793.5	794.4	795.5	796.3	797.2	798.1	798.8	799.7	803.0
142.5°	821.6	822.2	822.8	823.4	824.0	824.8	825.5	826.3	827.1	827.9	830.5
145°	865.7	866.3	866.8	867.3	867.8	868.3	868.9	869.5	870.1	870.6	871.9
147.5°	905.4	905.9	906.3	906.6	907.1	907.6	908.0	908.4	909.0	909.4	910.2
150°	932.6	932.5	932.2	932.0	931.9	932.1	932.9	933.7	934.4	935.2	935.2
152.5°	954.9	955.2	955.5	955.8	956.1	956.3	956.7	956.9	957.3	957.6	958.0
155°	989.3	989.3	989.3	989.3	989.3	989.4	989.6	989.8	990.0	990.2	991.0
157.5°	1020.0	1019.6	1019.2	1018.7	1018.3	1018.2	1018.4	1018.6	1018.8	1019.0	1019.8
160°	1038.2	1037.6	1037.0	1036.5	1035.9	1035.7	1035.9	1036.0	1036.2	1036.5	1037.2
162.5°	1054.2	1053.8	1053.3	1052.9	1052.5	1052.3	1052.4	1052.4	1052.5	1052.5	1053.4
165°	1075.7	1075.3	1074.9	1074.5	1074.1	1074.0	1074.3	1074.4	1074.6	1074.8	1075.6
167.5°	1093.8	1093.0	1092.3	1091.5	1090.7	1090.4	1090.4	1090.4	1090.4	1090.4	1091.5
170°	1103.6	1102.9	1102.1	1101.3	1100.5	1100.1	1100.1	1100.1	1100.1	1100.1	1101.3
172.5°	1110.6	1109.8	1109.1	1108.3	1107.5	1107.1	1107.1	1107.1	1107.1	1107.1	1108.3
175°	1118.4	1117.7	1116.9	1116.1	1115.3	1114.9	1114.9	1114.9	1114.9	1114.9	1116.1
177.5°	1122.5	1121.8	1121.2	1120.6	1120.0	1119.6	1119.4	1119.3	1119.1	1119.0	1119.9
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0



TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

**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°	128.0	134.1	140.3	144.3	146.3	148.2	150.1	152.1
90°	123.1	130.0	136.9	141.5	144.0	146.4	148.7	151.1
92.5°	139.1	146.1	153.2	157.7	160.0	162.2	164.5	166.7
95°	166.1	173.1	180.2	184.8	187.0	189.2	191.4	193.6
97.5°	199.4	206.1	212.8	217.1	219.1	221.1	223.1	225.2
100°	222.2	229.4	236.5	241.1	243.1	245.0	246.9	248.8
102.5°	246.3	253.4	260.5	265.1	267.3	269.3	271.4	273.5
105°	285.1	291.4	297.7	302.1	304.5	306.9	309.3	311.7
107.5°	328.6	334.3	340.1	343.7	345.3	346.8	348.4	349.9
110°	358.8	364.2	369.7	373.2	374.9	376.5	378.2	379.7





TEST NUMBER: P333445-935

CATALOG NUMBER: S125DIW-S1090D1050U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	388.9	393.8	398.8	402.0	403.5	404.9	406.4	407.9
115°	435.5	440.0	444.4	447.3	448.7	450.0	451.3	452.7
117.5°	481.7	486.3	490.9	493.6	494.6	495.6	496.5	497.5
120°	513.3	517.7	522.1	524.7	525.5	526.2	527.0	527.8
122.5°	543.7	547.8	551.8	554.3	555.3	556.1	557.1	558.0
125°	589.1	592.8	596.6	599.0	600.1	601.2	602.3	603.4
127.5°	633.8	637.4	641.0	643.3	644.5	645.6	646.7	647.8
130°	664.1	667.4	670.9	673.0	674.0	674.9	675.8	676.7
132.5°	692.4	695.9	699.3	701.3	701.8	702.3	702.9	703.4
135°	735.7	739.1	742.4	744.4	744.9	745.5	746.0	746.5
137.5°	779.0	782.3	785.6	787.3	787.4	787.4	787.5	787.6
140°	806.2	809.4	812.6	814.2	814.3	814.4	814.5	814.5
142.5°	833.2	835.9	838.5	839.9	839.9	840.0	840.1	840.2
145°	873.2	874.5	875.8	876.7	877.2	877.6	878.0	878.5
147.5°	911.2	912.1	912.9	912.9	912.1	911.2	910.3	909.6
150°	935.2	935.2	935.2	935.1	935.0	934.9	934.8	934.6
152.5°	958.5	959.0	959.4	959.3	958.7	958.0	957.4	956.7
155°	991.8	992.6	993.3	993.2	992.2	991.3	990.3	989.3
157.5°	1020.5	1021.3	1022.1	1021.8	1020.5	1019.3	1018.0	1016.8
160°	1038.0	1038.8	1039.6	1039.4	1038.5	1037.5	1036.6	1035.5
162.5°	1054.4	1055.2	1056.2	1056.1	1055.0	1053.9	1052.7	1051.6
165°	1076.3	1077.1	1077.9	1077.7	1076.6	1075.4	1074.3	1073.1
167.5°	1092.7	1093.8	1095.0	1095.0	1093.8	1092.6	1091.4	1090.2
170°	1102.4	1103.6	1104.7	1104.7	1103.3	1102.0	1100.6	1099.2
172.5°	1109.4	1110.6	1111.7	1111.7	1110.5	1109.3	1108.1	1106.9
175°	1117.2	1118.4	1119.6	1119.5	1118.2	1116.8	1115.4	1114.0
177.5°	1120.8	1121.8	1122.7	1122.6	1121.5	1120.4	1119.4	1118.3
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0

(END OF REPORT)