

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: P333283-927

Luminaire Tested: **S125DIP-S1090D1035U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333283-927  
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: S125DIP-S1090D1035U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6796.3 lumens  
Efficiency: N/A  
Efficacy: 112.3 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

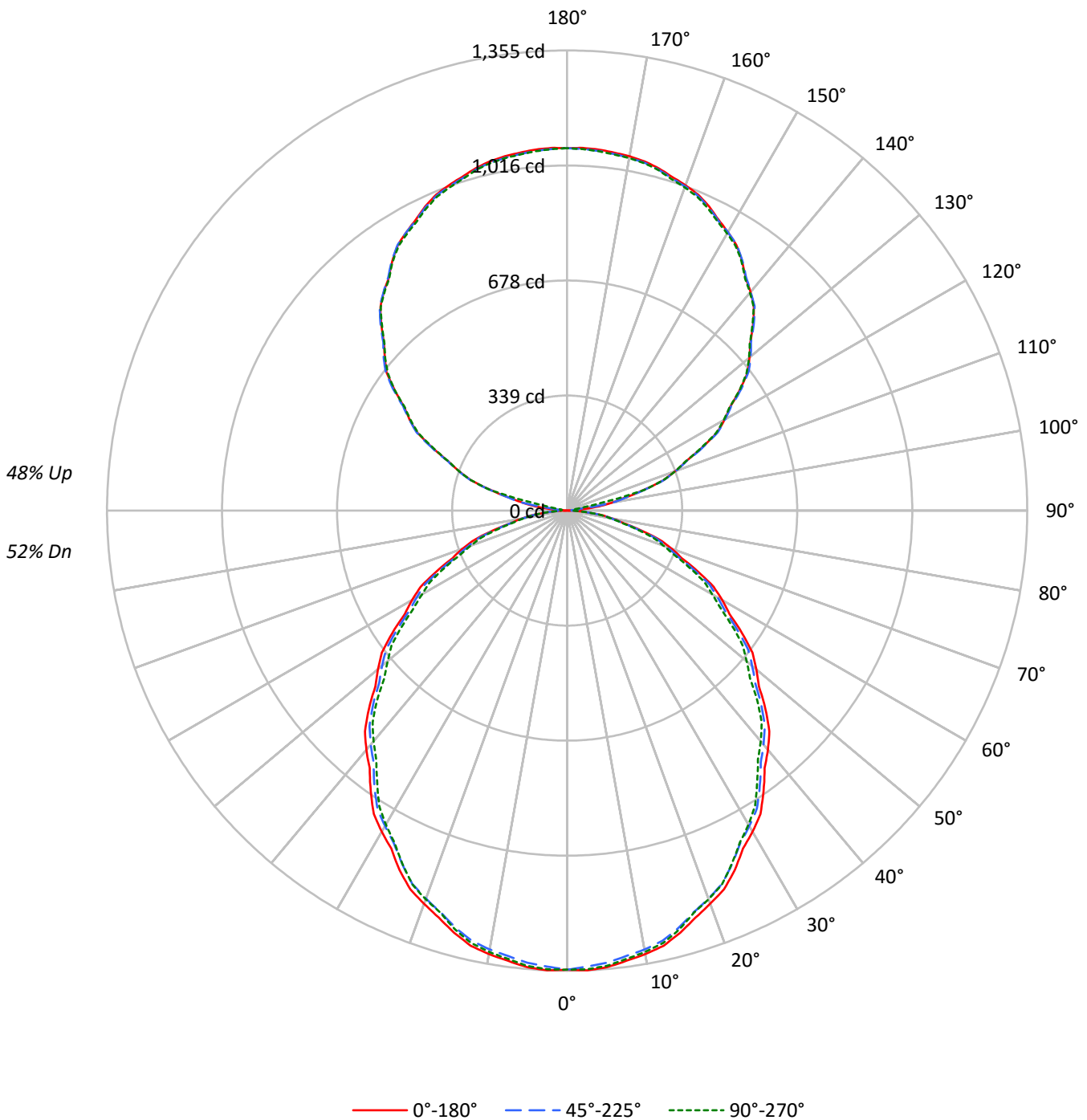
Input Watts (W): 60.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	99	99	99	99	84	84	84		70	70	70		58	58	58	52
1	98	94	90	86	91	87	83	80	74	71	69		62	60	59		51	50	49	43
2	89	82	76	70	82	76	70	66	65	61	57		54	51	49		45	43	41	36
3	81	72	65	59	75	67	60	55	57	52	48		48	44	41		40	37	35	31
4	75	64	56	50	69	59	52	47	51	45	41		43	39	35		35	32	30	26
5	68	57	49	42	63	53	45	40	45	40	35		38	34	31		32	29	26	23
6	63	51	43	37	58	47	40	35	41	35	31		35	30	27		29	26	23	20
7	58	46	38	32	54	43	36	31	37	31	27		32	27	24		26	23	20	18
8	54	42	34	29	50	39	32	27	34	28	24		29	24	21		24	21	18	16
9	50	38	31	25	47	36	29	24	31	25	22		27	22	19		22	19	17	14
10	47	35	28	23	44	33	26	22	29	23	19		25	20	17		21	17	15	13

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

	0°	45°	90°
0°	8730	8730	8730
5°	8749	8666	8722
10°	8697	8605	8655
15°	8602	8501	8538
20°	8467	8357	8372
25°	8322	8185	8177
30°	8143	7999	7959
35°	7950	7799	7689
40°	7754	7583	7474
45°	7541	7384	7237
50°	7306	7145	6931
55°	7080	6875	6683
60°	6810	6603	6368
65°	6487	6276	6062
70°	6180	5897	5695
75°	5629	5445	5255
80°	5013	4932	4813
85°	4357	4439	4194



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	1.9
10°-20°	360.0	5.3
20°-30°	531.6	7.8
30°-40°	620.3	9.1
40°-50°	623.0	9.2
50°-60°	546.9	8.0
60°-70°	407.5	6.0
70°-80°	233.0	3.4
80°-90°	70.0	1.0
90°-100°	38.8	0.6
100°-110°	239.0	3.5
110°-120°	433.4	6.4
120°-130°	556.2	8.2
130°-140°	598.3	8.8
140°-150°	561.6	8.3
150°-160°	454.3	6.7
160°-170°	293.8	4.3
170°-180°	101.3	1.5
0°-30°	1019.1	15.0
0°-40°	1639.4	24.1
0°-60°	2809.2	41.3
0°-90°	3519.7	51.8
90°-120°	711.2	10.5
90°-150°	2427.2	35.7
90°-180°	3277.0	48.2
0°-180°	6796.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1350	1347	1337	1346	1345	128
15°	1286	1283	1272	1277	1277	362
25°	1168	1162	1149	1150	1148	537
35°	1008	1004	989	984	975	631
45°	826	821	808	796	792	636
55°	629	625	611	601	594	561
65°	424	422	411	401	397	421
75°	226	223	218	215	211	241
85°	59	60	60	59	57	66
90°	1	7	13	17	19	5
95°	45	41	13	16	17	57
105°	232	236	236	236	235	246
115°	437	440	441	438	434	433
125°	621	626	626	623	621	554
135°	774	779	778	776	771	597
145°	898	899	899	900	895	561
155°	989	984	986	987	982	455
165°	1043	1039	1039	1043	1038	295
175°	1067	1063	1063	1069	1062	102
180°	1067	1067	1067	1067	1067	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1355.2	1354.6	1354.0	1353.4	1352.9	1351.6	1349.7	1347.8	1345.9	1344.0	1345.9
5°	1349.6	1349.2	1348.7	1348.2	1347.7	1346.3	1343.9	1341.6	1339.2	1336.8	1338.9
7.5°	1337.2	1336.7	1336.3	1335.8	1335.3	1333.7	1331.1	1328.5	1325.9	1323.3	1325.4
10°	1326.1	1325.6	1325.2	1324.7	1324.2	1322.6	1320.0	1317.4	1314.8	1312.2	1314.1
12.5°	1312.4	1311.5	1310.7	1309.8	1309.0	1307.3	1304.9	1302.5	1300.1	1297.6	1299.2
15°	1286.5	1285.8	1285.1	1284.4	1283.7	1282.0	1279.4	1276.8	1274.1	1271.5	1272.7
17.5°	1256.8	1255.8	1254.7	1253.6	1252.6	1250.7	1248.0	1245.3	1242.6	1239.8	1241.3
20°	1232.0	1231.5	1231.1	1230.6	1230.1	1228.3	1225.2	1222.1	1219.0	1215.9	1217.6
22.5°	1207.1	1206.3	1205.5	1204.6	1203.7	1201.8	1199.0	1196.0	1193.2	1190.3	1191.4
25°	1167.8	1166.6	1165.5	1164.3	1163.1	1160.9	1157.9	1154.8	1151.7	1148.6	1149.1
27.5°	1121.8	1121.1	1120.4	1119.7	1119.0	1117.1	1113.8	1110.6	1107.5	1104.3	1104.4
30°	1091.9	1091.2	1090.4	1089.7	1089.0	1086.9	1083.3	1079.7	1076.2	1072.6	1072.1
32.5°	1059.4	1058.3	1057.2	1056.1	1055.0	1052.9	1049.6	1046.5	1043.3	1040.1	1039.3
35°	1008.4	1007.5	1006.5	1005.6	1004.6	1002.5	999.2	995.9	992.5	989.2	988.0
37.5°	955.6	954.4	953.2	952.0	950.9	948.7	945.5	942.5	939.3	936.2	934.4
40°	919.7	918.5	917.3	916.2	915.0	912.7	909.3	906.0	902.7	899.4	897.2
42.5°	881.2	880.2	879.2	878.2	877.2	875.0	871.7	868.4	865.1	861.7	859.8
45°	825.6	824.7	823.7	822.8	821.8	819.9	817.1	814.2	811.4	808.5	805.6
47.5°	765.7	765.7	765.8	765.9	765.9	764.2	760.8	757.3	753.9	750.5	747.6
50°	727.2	726.5	725.8	725.1	724.4	722.5	719.7	716.8	714.0	711.1	708.1
52.5°	687.9	687.3	686.8	686.3	685.8	684.0	681.0	677.9	674.9	671.8	669.1
55°	628.8	628.1	627.4	626.7	626.0	623.9	620.6	617.3	613.9	610.6	608.5
57.5°	566.6	566.2	565.9	565.5	565.1	563.5	560.6	557.9	555.1	552.2	549.5
60°	527.2	526.2	525.3	524.3	523.4	521.7	519.0	516.4	513.8	511.2	508.8
62.5°	486.2	485.4	484.7	483.9	483.2	481.6	479.3	477.1	474.9	472.7	470.1
65°	424.5	424.1	423.6	423.1	422.6	421.1	418.5	415.9	413.3	410.7	408.5
67.5°	364.9	363.8	362.9	361.9	360.9	359.4	357.4	355.5	353.6	351.6	349.8
70°	327.3	326.1	324.9	323.7	322.5	320.8	318.7	316.6	314.4	312.3	310.9
72.5°	286.2	285.3	284.6	283.8	283.0	281.9	280.5	279.1	277.7	276.3	274.7
75°	225.6	225.1	224.7	224.2	223.7	222.9	221.7	220.5	219.4	218.2	217.5
77.5°	169.8	169.6	169.4	169.3	169.1	168.7	167.9	167.3	166.7	166.0	165.6
80°	134.8	134.8	134.8	134.8	134.8	134.5	134.0	133.6	133.1	132.6	132.4
82.5°	103.9	103.5	103.2	102.8	102.4	102.2	102.1	102.0	101.9	101.8	101.4
85°	58.8	59.0	59.3	59.5	59.7	59.9	59.9	59.9	59.9	59.9	59.7
87.5°	23.3	23.5	23.8	24.1	24.4	24.6	24.6	24.6	24.7	24.8	25.0
90°	0.8	2.2	3.6	5.0	6.4	7.8	9.0	10.2	11.4	12.7	13.5
92.5°	12.2	11.2	10.2	9.2	8.2	8.3	9.3	10.5	11.6	12.7	13.5
95°	45.1	44.5	44.0	43.5	43.0	39.4	32.7	26.0	19.3	12.7	13.5
97.5°	94.1	95.1	96.0	97.0	97.9	91.8	78.6	65.4	52.1	38.9	34.0
100°	132.1	132.6	133.2	133.6	134.2	134.8	135.5	136.3	136.9	137.6	111.5
102.5°	170.7	171.3	172.1	172.7	173.3	173.9	174.4	174.8	175.2	175.6	170.6
105°	232.5	233.2	233.9	234.6	235.4	235.7	235.7	235.7	235.7	235.7	235.7
107.5°	296.8	296.8	296.8	296.8	296.8	296.9	297.3	297.6	298.0	298.3	298.4
110°	338.5	338.5	338.5	338.5	338.5	338.7	339.1	339.5	339.8	340.1	339.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	377.8	378.2	378.6	379.1	379.5	379.8	380.0	380.2	380.4	380.6	379.9
115°	436.7	437.5	438.4	439.3	440.1	440.7	440.8	441.0	441.2	441.3	440.7
117.5°	497.5	497.5	497.4	497.4	497.4	497.7	498.4	499.0	499.7	500.3	499.5
120°	535.5	535.3	535.1	535.0	534.8	535.0	535.5	536.0	536.5	537.1	536.7
122.5°	569.0	569.7	570.4	571.0	571.7	572.1	572.4	572.7	572.9	573.1	572.7
125°	620.9	622.1	623.4	624.6	625.8	626.5	626.5	626.5	626.5	626.5	625.7
127.5°	670.4	671.3	672.2	673.0	673.9	674.3	674.2	674.1	674.0	673.9	673.5
130°	700.8	701.7	702.6	703.5	704.3	704.8	705.0	705.2	705.4	705.5	705.0
132.5°	731.2	732.2	733.2	734.2	735.2	735.5	735.1	734.8	734.4	734.0	733.9
135°	774.4	775.4	776.5	777.5	778.6	779.0	778.6	778.2	777.8	777.5	777.1
137.5°	814.0	815.0	815.9	816.8	817.7	818.0	817.7	817.4	817.1	816.7	816.8
140°	840.0	840.3	840.7	841.1	841.4	841.5	841.3	841.1	841.0	840.8	841.1
142.5°	863.4	863.6	863.9	864.0	864.3	864.5	864.7	865.0	865.2	865.5	865.5
145°	897.8	898.1	898.4	898.8	899.1	899.4	899.4	899.4	899.4	899.4	899.5
147.5°	927.8	927.7	927.6	927.6	927.5	927.6	927.8	928.0	928.2	928.4	928.7
150°	946.8	946.4	946.1	945.7	945.4	945.4	945.7	946.1	946.4	946.8	947.1
152.5°	965.1	964.4	963.6	962.8	962.0	961.9	962.2	962.5	962.9	963.2	963.6
155°	988.7	987.7	986.6	985.6	984.5	984.1	984.5	984.8	985.2	985.6	986.1
157.5°	1006.9	1006.2	1005.7	1005.0	1004.4	1004.1	1004.1	1004.2	1004.2	1004.2	1004.8
160°	1019.5	1018.5	1017.5	1016.4	1015.3	1014.9	1015.1	1015.3	1015.4	1015.6	1016.3
162.5°	1029.7	1028.6	1027.5	1026.5	1025.5	1025.0	1025.2	1025.4	1025.6	1025.7	1026.7
165°	1043.3	1042.2	1041.2	1040.1	1039.1	1038.6	1038.8	1038.9	1039.2	1039.3	1040.4
167.5°	1053.4	1052.3	1051.2	1050.1	1049.1	1048.6	1048.8	1048.9	1049.1	1049.3	1050.6
170°	1059.1	1057.9	1056.6	1055.4	1054.2	1053.7	1053.8	1054.0	1054.2	1054.4	1055.7
172.5°	1062.9	1061.7	1060.4	1059.2	1058.0	1057.6	1057.8	1058.1	1058.4	1058.8	1060.0
175°	1067.0	1066.0	1064.9	1063.8	1062.8	1062.4	1062.6	1062.7	1062.9	1063.0	1064.5
177.5°	1068.9	1068.1	1067.2	1066.4	1065.6	1065.2	1065.3	1065.5	1065.6	1065.7	1066.8
180°	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1347.8	1349.7	1351.6	1352.5	1352.3	1352.1	1351.9	1351.8
5°	1341.1	1343.2	1345.4	1346.3	1346.1	1345.8	1345.6	1345.4
7.5°	1327.5	1329.6	1331.7	1332.6	1332.4	1332.1	1331.9	1331.7
10°	1316.0	1317.9	1319.8	1320.6	1320.4	1320.2	1319.9	1319.7
12.5°	1300.7	1302.2	1303.7	1304.5	1304.4	1304.3	1304.3	1304.2
15°	1273.9	1275.1	1276.3	1276.9	1276.9	1276.9	1276.9	1276.9
17.5°	1242.9	1244.3	1245.8	1245.9	1244.8	1243.6	1242.4	1241.2
20°	1219.2	1220.9	1222.6	1222.8	1221.6	1220.4	1219.2	1218.1
22.5°	1192.5	1193.6	1194.6	1194.8	1194.0	1193.2	1192.4	1191.5
25°	1149.5	1150.0	1150.5	1150.3	1149.6	1148.9	1148.2	1147.5
27.5°	1104.5	1104.5	1104.7	1104.4	1103.7	1103.0	1102.2	1101.5
30°	1071.7	1071.2	1070.7	1070.2	1069.4	1068.7	1068.0	1067.3
32.5°	1038.4	1037.5	1036.7	1035.6	1034.4	1033.1	1031.7	1030.5
35°	986.8	985.6	984.4	982.9	981.0	979.1	977.2	975.3
37.5°	932.6	930.9	929.2	927.7	926.6	925.5	924.4	923.4
40°	895.1	892.9	890.8	889.4	888.7	888.0	887.2	886.5
42.5°	857.9	855.9	854.0	852.4	851.4	850.2	849.1	848.0
45°	802.8	799.9	797.1	795.3	794.6	793.8	793.1	792.4
47.5°	744.7	741.8	738.9	736.7	735.0	733.3	731.7	730.0
50°	705.0	701.9	698.8	696.4	694.7	693.1	691.4	689.8
52.5°	666.4	663.7	661.0	658.7	656.8	655.0	653.2	651.3
55°	606.3	604.2	602.1	600.2	598.5	596.8	595.2	593.5
57.5°	546.8	544.0	541.2	539.4	538.5	537.6	536.7	535.8
60°	506.4	504.1	501.7	499.6	498.0	496.3	494.6	493.0
62.5°	467.5	465.0	462.4	460.5	459.2	458.0	456.6	455.3
65°	406.4	404.3	402.1	400.5	399.6	398.6	397.7	396.7
67.5°	348.0	346.2	344.4	343.2	342.6	342.1	341.5	341.0
70°	309.4	308.0	306.6	305.4	304.4	303.5	302.5	301.6
72.5°	273.1	271.5	269.9	268.6	267.7	266.7	265.8	264.8
75°	216.7	216.0	215.3	214.4	213.5	212.5	211.6	210.6
77.5°	165.1	164.7	164.3	163.7	163.0	162.4	161.7	161.1
80°	132.1	131.9	131.7	131.3	130.8	130.3	129.8	129.4
82.5°	100.9	100.5	100.1	99.8	99.7	99.7	99.6	99.4
85°	59.4	59.2	58.9	58.5	58.1	57.6	57.1	56.6
87.5°	25.1	25.3	25.5	25.4	25.2	24.9	24.6	24.3
90°	14.4	15.3	16.2	16.9	17.4	17.9	18.5	19.0
92.5°	14.4	15.3	16.2	16.7	17.0	17.2	17.5	17.7
95°	14.4	15.3	16.2	16.6	16.6	16.6	16.6	16.6
97.5°	29.0	24.1	19.1	16.6	16.6	16.6	16.6	16.6
100°	85.2	59.1	32.9	19.4	18.7	18.0	17.3	16.6
102.5°	165.6	160.7	155.7	147.3	135.4	123.4	111.5	99.5
105°	235.7	235.7	235.7	235.6	235.4	235.3	235.1	234.9
107.5°	298.4	298.5	298.5	298.3	297.7	297.2	296.7	296.1
110°	339.1	338.5	338.0	337.9	338.0	338.2	338.3	338.5





TEST NUMBER: P333283-927

CATALOG NUMBER: S125DIP-S1090D1035U927-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	379.3	378.6	378.0	377.5	377.2	377.0	376.8	376.5
115°	440.0	439.3	438.6	437.7	436.7	435.5	434.5	433.5
117.5°	498.5	497.6	496.7	496.0	495.6	495.1	494.6	494.2
120°	536.4	536.0	535.7	535.0	534.2	533.3	532.4	531.6
122.5°	572.4	572.1	571.7	571.0	570.1	569.0	568.0	567.0
125°	625.0	624.3	623.6	623.1	622.5	621.9	621.5	620.9
127.5°	673.1	672.7	672.3	671.5	670.2	668.9	667.7	666.3
130°	704.5	703.9	703.5	702.7	701.9	701.0	700.1	699.2
132.5°	733.8	733.7	733.6	733.1	732.2	731.3	730.5	729.6
135°	776.8	776.5	776.1	775.4	774.4	773.3	772.2	771.2
137.5°	816.9	817.0	817.1	816.6	815.7	814.8	813.9	812.9
140°	841.5	841.9	842.2	841.9	840.8	839.7	838.7	837.7
142.5°	865.6	865.7	865.8	865.3	864.2	863.2	862.1	861.0
145°	899.7	899.8	900.0	899.6	898.6	897.5	896.4	895.4
147.5°	928.8	929.1	929.3	928.8	927.5	926.2	925.0	923.7
150°	947.5	947.8	948.2	947.7	946.3	944.8	943.4	942.1
152.5°	963.9	964.3	964.6	964.2	962.9	961.6	960.4	959.1
155°	986.6	987.1	987.7	987.2	985.8	984.4	983.0	981.6
157.5°	1005.4	1005.9	1006.5	1006.1	1004.6	1003.2	1001.8	1000.4
160°	1017.0	1017.7	1018.4	1018.0	1016.7	1015.3	1013.8	1012.4
162.5°	1027.7	1028.6	1029.7	1029.4	1027.9	1026.3	1024.8	1023.2
165°	1041.4	1042.5	1043.5	1043.4	1042.0	1040.5	1039.2	1037.8
167.5°	1051.9	1053.1	1054.4	1054.2	1052.7	1051.1	1049.5	1047.9
170°	1057.2	1058.6	1060.0	1059.9	1058.3	1056.8	1055.2	1053.6
172.5°	1061.3	1062.6	1063.8	1063.7	1062.1	1060.5	1058.9	1057.4
175°	1065.9	1067.3	1068.7	1068.6	1067.0	1065.4	1063.8	1062.2
177.5°	1067.7	1068.7	1069.7	1069.6	1068.5	1067.4	1066.3	1065.1
180°	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0	1067.0

(END OF REPORT)