

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: P333441-927

Luminaire Tested: **S125DIW-S1090D770U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333441-927
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-S1090D770U927-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5627.8 lumens
Efficiency: N/A
Efficacy: 105.0 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-Direct

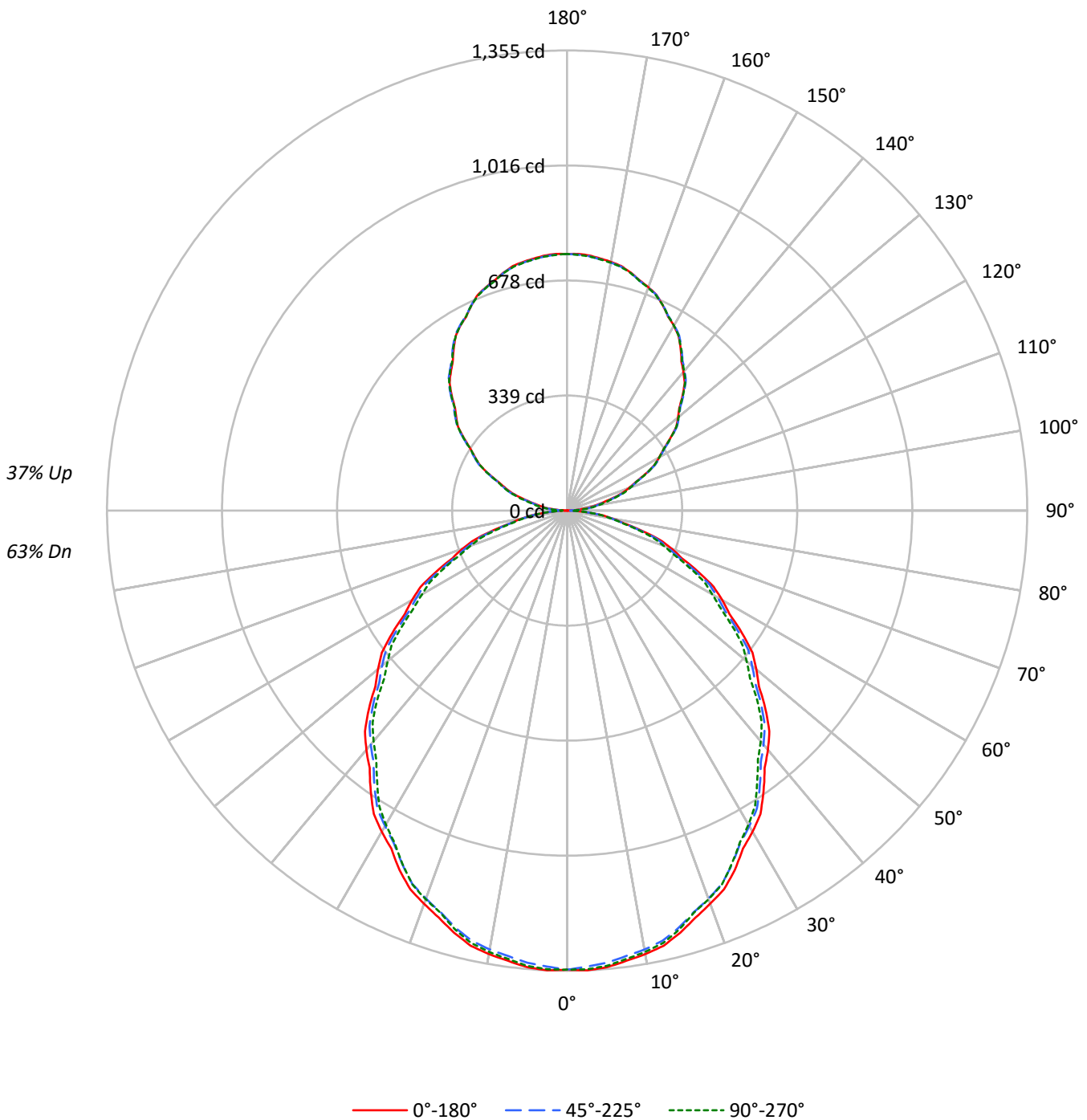
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	63
1	101	96	92	88	94	90	87	84	79	77	74	69	67	65	60	58	57	53
2	92	84	78	72	85	79	73	69	69	65	61	61	57	54	52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52	54	49	46	46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44	48	43	39	42	38	35	32
5	70	58	50	44	65	55	47	42	49	43	38	43	38	34	37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	29	24	21	19
9	52	39	32	26	49	37	30	25	33	28	23	30	25	21	26	22	19	17
10	48	36	29	24	45	34	28	23	31	25	21	28	23	19	24	21	18	16

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	2.3
10°-20°	360.0	6.4
20°-30°	531.6	9.4
30°-40°	620.3	11.0
40°-50°	623.0	11.1
50°-60°	546.9	9.7
60°-70°	407.5	7.2
70°-80°	233.0	4.1
80°-90°	69.4	1.2
90°-100°	50.6	0.9
100°-110°	149.5	2.7
110°-120°	253.2	4.5
120°-130°	333.2	5.9
130°-140°	373.3	6.6
140°-150°	365.9	6.5
150°-160°	307.3	5.5
160°-170°	204.3	3.6
170°-180°	71.5	1.3
0°-30°	1019.1	18.1
0°-40°	1639.4	29.1
0°-60°	2809.2	49.9
0°-90°	3519.1	62.5
90°-120°	453.2	8.1
90°-150°	1525.6	27.1
90°-180°	2109.0	37.5
0°-180°	5627.8	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	5	9	12	14	5
95°	38	40	45	49	50	41
105°	134	137	140	144	146	143
115°	254	256	257	256	256	251
125°	370	373	374	373	372	331
135°	481	484	485	485	483	371
145°	583	585	587	587	585	364
155°	667	667	668	670	667	307
165°	725	724	724	726	723	204
175°	754	752	752	755	751	72
180°	756	756	756	756	756	



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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°	23.2	23.4	23.6	23.8	24.1	24.2	24.2	24.2	24.2	24.2	24.2
90°	0.6	1.7	2.7	3.7	4.8	5.8	6.7	7.6	8.5	9.4	10.1
92.5°	14.3	15.0	15.7	16.4	17.2	18.1	19.3	20.4	21.5	22.6	23.4
95°	38.3	38.5	38.7	39.0	39.3	40.1	41.4	42.7	44.0	45.3	46.2
97.5°	63.5	63.6	63.7	63.8	63.9	64.9	66.7	68.5	70.3	72.1	73.0
100°	82.3	82.3	82.3	82.3	82.3	83.2	84.8	86.6	88.2	90.0	91.2
102.5°	102.6	103.1	103.6	104.1	104.6	105.4	106.2	107.1	107.9	108.8	110.1
105°	134.1	134.8	135.4	136.0	136.7	137.4	138.2	138.9	139.7	140.5	141.3
107.5°	168.9	169.5	170.2	170.9	171.5	172.1	172.8	173.3	174.0	174.5	174.9
110°	192.9	193.5	194.2	194.9	195.5	196.0	196.4	196.8	197.2	197.6	198.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	217.4	217.7	218.0	218.4	218.7	219.1	219.6	220.1	220.6	221.1	221.3
115°	253.5	254.0	254.5	255.0	255.6	256.0	256.2	256.4	256.7	257.0	256.8
117.5°	289.7	289.9	290.2	290.4	290.7	290.9	291.1	291.4	291.6	291.8	291.9
120°	312.3	312.9	313.5	314.3	314.9	315.3	315.4	315.5	315.7	315.8	315.8
122.5°	336.8	337.0	337.2	337.5	337.7	337.9	338.3	338.7	339.0	339.3	339.2
125°	369.9	370.7	371.5	372.2	373.0	373.5	373.6	373.8	373.9	374.0	373.8
127.5°	405.2	405.6	406.1	406.5	406.9	407.3	407.4	407.6	407.7	407.9	407.7
130°	426.4	427.0	427.7	428.3	429.0	429.4	429.7	429.9	430.2	430.5	430.3
132.5°	447.5	448.6	449.6	450.8	451.8	452.3	452.3	452.2	452.2	452.1	452.0
135°	481.0	481.8	482.6	483.4	484.2	484.7	484.7	484.9	485.1	485.1	485.1
137.5°	512.5	513.3	514.0	514.8	515.6	516.1	516.4	516.7	517.0	517.3	517.5
140°	532.8	533.5	534.1	534.7	535.4	535.9	536.3	536.7	537.1	537.5	537.7
142.5°	553.0	553.6	554.1	554.7	555.2	555.7	556.3	556.7	557.2	557.7	557.9
145°	582.8	583.3	583.8	584.3	584.9	585.3	585.7	586.1	586.5	586.9	586.9
147.5°	610.3	610.6	610.9	611.2	611.5	611.7	612.0	612.4	612.7	613.0	613.3
150°	628.7	628.5	628.4	628.3	628.1	628.4	628.8	629.4	629.9	630.4	630.4
152.5°	643.7	643.9	644.0	644.3	644.4	644.6	644.8	645.1	645.2	645.5	645.8
155°	666.9	666.9	666.9	666.9	666.9	666.9	667.1	667.2	667.3	667.5	668.0
157.5°	687.6	687.3	687.0	686.7	686.4	686.3	686.5	686.6	686.7	686.9	687.4
160°	699.8	699.4	699.0	698.6	698.2	698.1	698.2	698.4	698.5	698.6	699.2
162.5°	710.7	710.3	710.0	709.8	709.5	709.3	709.4	709.4	709.4	709.5	710.1
165°	725.1	724.8	724.6	724.3	724.1	724.0	724.1	724.2	724.4	724.5	725.0
167.5°	737.4	736.8	736.3	735.8	735.2	735.0	735.0	735.0	735.0	735.0	735.8
170°	743.9	743.4	742.8	742.4	741.8	741.6	741.6	741.6	741.6	741.6	742.4
172.5°	748.6	748.1	747.6	747.0	746.6	746.2	746.2	746.2	746.2	746.2	747.0
175°	753.9	753.4	752.9	752.3	751.8	751.5	751.5	751.5	751.5	751.5	752.3
177.5°	756.6	756.2	755.7	755.3	754.9	754.7	754.6	754.5	754.4	754.2	754.9
180°	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7



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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°	24.4	24.5	24.6	24.6	24.2	23.9	23.7	23.4
90°	10.7	11.4	12.0	12.5	12.9	13.3	13.7	14.1
92.5°	24.3	25.2	26.1	26.6	26.9	27.2	27.5	27.7
95°	47.1	48.0	49.0	49.5	49.8	50.1	50.3	50.5
97.5°	73.8	74.7	75.6	76.0	76.2	76.4	76.5	76.7
100°	92.3	93.5	94.7	95.4	95.7	95.9	96.2	96.4
102.5°	111.4	112.6	113.9	114.7	115.1	115.5	115.8	116.2
105°	142.1	142.9	143.7	144.3	144.7	145.0	145.4	145.8
107.5°	175.3	175.7	176.1	176.3	176.3	176.3	176.2	176.2
110°	198.4	198.8	199.2	199.3	199.2	199.0	198.9	198.8



TEST NUMBER: P333441-927

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	221.5	221.7	221.8	221.8	221.6	221.3	221.1	220.9
115°	256.7	256.6	256.4	256.4	256.2	256.1	256.0	255.8
117.5°	292.0	292.1	292.2	292.0	291.5	291.0	290.4	289.9
120°	315.8	315.8	315.8	315.5	315.1	314.5	313.9	313.5
122.5°	339.1	339.0	338.9	338.7	338.2	337.8	337.4	337.0
125°	373.5	373.2	373.0	372.8	372.6	372.5	372.4	372.2
127.5°	407.7	407.5	407.3	407.2	406.9	406.6	406.4	406.2
130°	430.2	430.1	429.9	429.8	429.5	429.2	429.0	428.7
132.5°	451.9	451.7	451.6	451.3	451.0	450.6	450.3	449.9
135°	485.1	485.1	485.1	484.9	484.3	483.9	483.3	482.8
137.5°	517.6	517.8	517.9	517.6	517.0	516.3	515.7	515.0
140°	538.1	538.3	538.5	538.4	537.7	537.0	536.4	535.8
142.5°	558.0	558.2	558.3	558.1	557.5	556.8	556.1	555.5
145°	586.9	586.9	586.9	586.7	586.3	585.9	585.5	585.1
147.5°	613.6	613.9	614.3	613.9	613.1	612.2	611.3	610.5
150°	630.4	630.4	630.4	630.3	630.0	629.8	629.5	629.2
152.5°	646.1	646.4	646.7	646.7	646.2	645.7	645.2	644.8
155°	668.5	669.0	669.6	669.5	668.8	668.2	667.5	666.9
157.5°	687.9	688.4	689.0	688.8	687.9	687.1	686.2	685.3
160°	699.7	700.2	700.7	700.7	700.0	699.3	698.7	698.1
162.5°	710.7	711.3	711.9	711.9	711.1	710.3	709.6	708.8
165°	725.6	726.1	726.6	726.4	725.7	724.9	724.1	723.3
167.5°	736.6	737.4	738.1	738.1	737.3	736.5	735.7	734.8
170°	743.1	743.9	744.7	744.7	743.7	742.8	741.9	741.0
172.5°	747.8	748.6	749.4	749.4	748.6	747.7	746.9	746.2
175°	753.1	753.9	754.7	754.6	753.7	752.8	751.9	751.0
177.5°	755.5	756.1	756.8	756.7	756.0	755.3	754.6	753.8
180°	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7

(END OF REPORT)