

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: P333281-830

Luminaire Tested: **S125DIP-S1090D1035U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333281-830
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: S125DIP-S1090D1035U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7396.6 lumens
Efficiency: N/A
Efficacy: 122.3 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

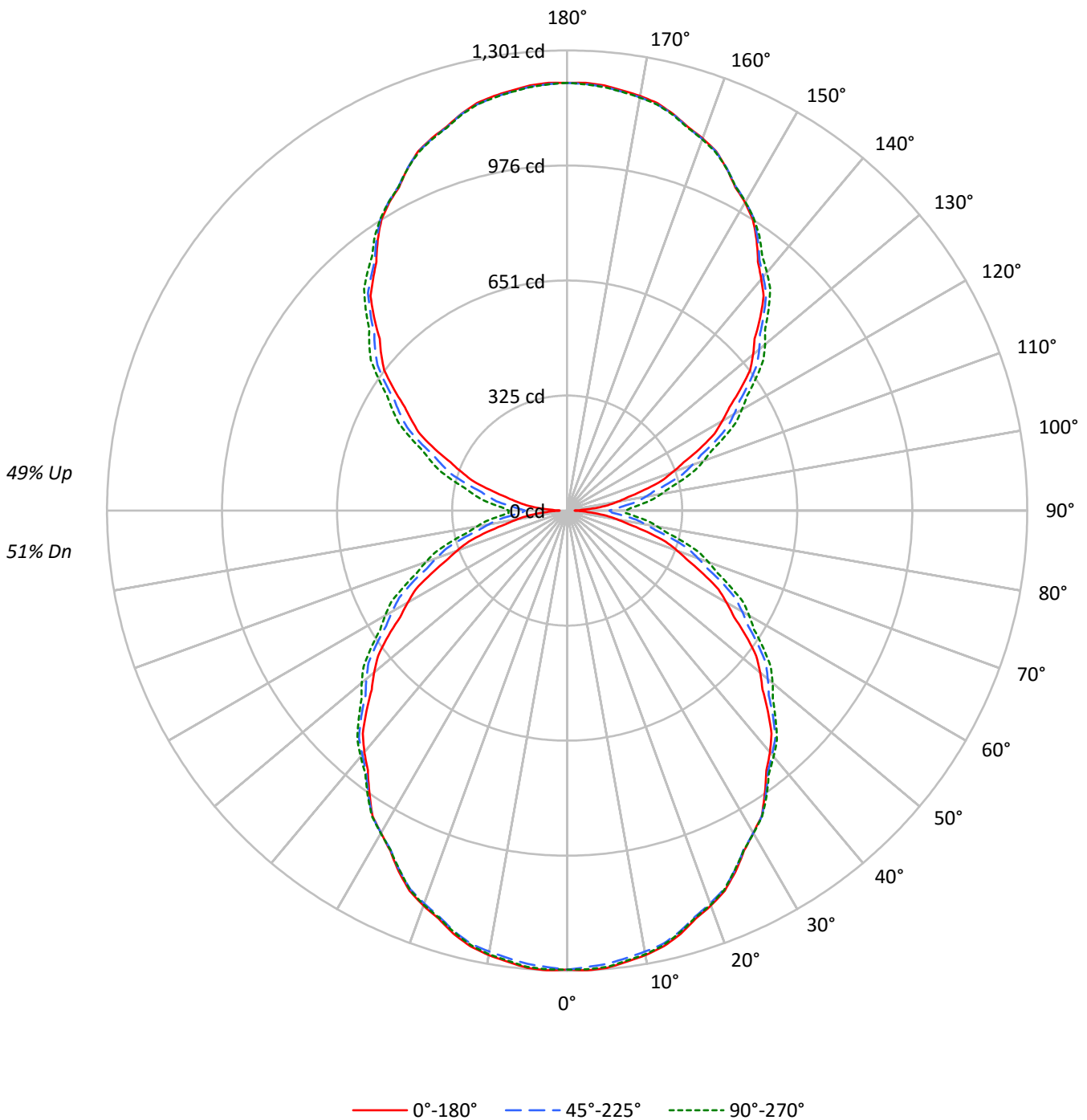
Input Watts (W): 60.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	97	93	88	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41
2	88	80	74	69	81	74	69	64	63	59	55	53	49	47	43	41	39	34
3	80	70	63	57	74	65	58	53	55	50	46	46	42	39	38	35	33	29
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	34	31	28	24
5	67	55	47	41	62	51	44	38	44	38	34	37	32	29	30	27	24	21
6	62	50	41	35	57	46	39	33	39	34	29	33	29	25	27	24	21	18
7	57	45	37	31	53	42	34	29	36	30	26	30	26	22	25	21	19	16
8	53	41	33	27	49	38	31	26	32	27	23	28	23	20	23	19	17	14
9	49	37	29	24	46	34	28	23	30	24	20	25	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	27	22	18	23	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	1.7
10°-20°	348.4	4.7
20°-30°	518.1	7.0
30°-40°	613.7	8.3
40°-50°	634.5	8.6
50°-60°	584.5	7.9
60°-70°	472.5	6.4
70°-80°	316.4	4.3
80°-90°	166.7	2.3
90°-100°	173.1	2.3
100°-110°	307.0	4.2
110°-120°	450.6	6.1
120°-130°	558.9	7.6
130°-140°	608.6	8.2
140°-150°	587.7	7.9
150°-160°	491.7	6.6
160°-170°	326.9	4.4
170°-180°	114.4	1.5
0°-30°	989.2	13.4
0°-40°	1602.9	21.7
0°-60°	2821.9	38.2
0°-90°	3777.6	51.1
90°-120°	930.7	12.6
90°-150°	2686.0	36.3
90°-180°	3619.0	48.9
0°-180°	7396.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	70	119	152	165	17
95°	78	114	165	199	211	78
105°	226	252	295	325	338	241
115°	413	427	461	482	490	409
125°	597	603	628	645	652	534
135°	772	777	786	802	806	595
145°	934	936	939	945	948	583
155°	1067	1067	1068	1071	1067	491
165°	1160	1159	1159	1162	1157	327
175°	1206	1203	1203	1208	1202	115
180°	1209	1209	1209	1209	1209	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.9	49.3	58.6	68.1	77.4	87.1	97.0	106.9	116.8	126.7	133.4
90°	21.3	32.0	42.7	53.4	64.2	75.1	86.1	97.3	108.3	119.4	127.0
92.5°	41.1	50.6	60.1	69.7	79.3	89.8	101.5	113.1	124.8	136.4	144.0
95°	77.7	85.5	93.2	101.0	108.8	118.5	130.3	141.9	153.6	165.3	173.1
97.5°	116.7	123.4	130.2	137.0	143.7	153.3	165.4	177.6	189.7	201.9	209.2
100°	145.7	151.7	157.6	163.5	169.5	178.3	190.1	201.9	213.7	225.4	233.2
102.5°	177.1	183.4	189.7	196.0	202.4	210.7	220.8	231.0	241.2	251.5	259.2
105°	226.0	231.6	237.1	242.7	248.3	255.9	265.7	275.4	285.1	294.9	301.8
107.5°	280.2	285.0	289.9	294.8	299.7	306.7	315.8	325.0	334.0	343.2	349.4
110°	317.5	322.0	326.4	330.8	335.3	341.8	350.3	358.9	367.4	376.0	382.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	356.7	360.0	363.3	366.5	369.8	375.6	384.1	392.6	401.1	409.5	415.0
115°	413.2	416.0	418.9	421.7	424.4	429.8	437.5	445.3	453.1	460.8	465.7
117.5°	469.9	471.6	473.3	474.9	476.6	481.1	488.4	495.8	503.1	510.5	515.4
120°	506.1	507.9	509.8	511.7	513.6	517.9	524.6	531.3	538.0	544.8	549.6
122.5°	544.1	544.9	545.7	546.5	547.2	551.0	557.9	564.7	571.5	578.3	582.8
125°	597.0	597.9	598.9	599.9	600.9	604.3	610.1	616.0	621.9	627.7	631.9
127.5°	652.1	652.6	653.0	653.5	653.8	656.6	661.4	666.3	671.2	676.1	680.0
130°	686.1	686.8	687.6	688.3	689.1	691.6	696.1	700.4	704.7	709.2	712.9
132.5°	718.9	720.6	722.2	723.9	725.6	727.8	730.8	733.8	736.8	739.7	743.5
135°	772.3	773.3	774.2	775.1	776.2	777.8	780.0	782.1	784.3	786.5	790.1
137.5°	822.5	823.4	824.4	825.4	826.4	827.6	829.1	830.5	831.9	833.3	836.9
140°	853.8	854.9	855.9	857.0	858.0	858.9	859.9	860.8	861.7	862.6	866.1
142.5°	886.2	886.8	887.5	888.2	888.8	889.6	890.4	891.3	892.1	893.0	895.9
145°	933.8	934.3	934.9	935.5	936.0	936.6	937.3	937.8	938.5	939.1	940.6
147.5°	976.6	977.0	977.5	978.0	978.4	978.9	979.4	979.9	980.3	980.9	981.8
150°	1005.9	1005.7	1005.5	1005.3	1005.1	1005.4	1006.3	1007.1	1007.9	1008.7	1008.7
152.5°	1030.0	1030.3	1030.6	1030.9	1031.1	1031.5	1031.8	1032.2	1032.5	1032.8	1033.3
155°	1067.1	1067.1	1067.1	1067.1	1067.1	1067.1	1067.4	1067.6	1067.8	1068.0	1068.8
157.5°	1100.2	1099.8	1099.3	1098.8	1098.3	1098.3	1098.4	1098.6	1098.9	1099.1	1099.9
160°	1119.7	1119.2	1118.5	1117.9	1117.3	1117.1	1117.3	1117.5	1117.7	1117.9	1118.7
162.5°	1137.1	1136.6	1136.1	1135.7	1135.3	1135.0	1135.1	1135.1	1135.2	1135.2	1136.2
165°	1160.3	1159.8	1159.4	1159.0	1158.6	1158.5	1158.7	1158.9	1159.0	1159.3	1160.2
167.5°	1179.8	1178.9	1178.2	1177.3	1176.5	1176.0	1176.0	1176.0	1176.0	1176.0	1177.3
170°	1190.3	1189.5	1188.6	1187.9	1187.0	1186.6	1186.6	1186.6	1186.6	1186.6	1187.9
172.5°	1197.9	1197.0	1196.2	1195.3	1194.6	1194.1	1194.1	1194.1	1194.1	1194.1	1195.3
175°	1206.4	1205.5	1204.7	1203.8	1203.0	1202.6	1202.6	1202.6	1202.6	1202.6	1203.8
177.5°	1210.7	1210.0	1209.4	1208.6	1208.0	1207.6	1207.4	1207.2	1207.1	1206.9	1208.0
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	140.2	146.8	153.5	158.0	160.0	162.1	164.3	166.4
90°	134.5	142.0	149.6	154.7	157.3	159.9	162.5	165.1
92.5°	151.7	159.4	167.0	172.1	174.6	176.9	179.4	181.8
95°	180.7	188.4	196.0	201.1	203.5	205.9	208.3	210.8
97.5°	216.5	223.9	231.2	235.9	238.1	240.3	242.4	244.6
100°	241.0	248.8	256.7	261.6	263.7	265.9	268.0	270.1
102.5°	266.9	274.8	282.5	287.5	289.8	292.1	294.4	296.6
105°	308.7	315.6	322.5	327.3	329.9	332.5	335.1	337.7
107.5°	355.6	361.8	368.1	372.0	373.7	375.4	377.2	378.9
110°	388.0	394.0	400.0	403.9	405.7	407.4	409.2	410.9



TEST NUMBER: P333281-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.4	425.8	431.3	434.8	436.4	438.0	439.6	441.2
115°	470.6	475.5	480.3	483.5	485.0	486.5	488.0	489.5
117.5°	520.4	525.4	530.4	533.4	534.4	535.6	536.6	537.7
120°	554.4	559.2	564.0	566.8	567.7	568.5	569.4	570.2
122.5°	587.1	591.5	596.0	598.7	599.7	600.8	601.8	602.9
125°	635.9	640.1	644.1	646.8	648.0	649.2	650.4	651.7
127.5°	684.0	688.1	692.0	694.6	695.8	697.0	698.2	699.5
130°	716.6	720.4	724.2	726.5	727.5	728.5	729.5	730.5
132.5°	747.2	750.9	754.7	756.9	757.5	758.1	758.7	759.3
135°	793.8	797.5	801.2	803.3	803.9	804.5	805.0	805.6
137.5°	840.5	844.0	847.6	849.5	849.6	849.6	849.7	849.8
140°	869.7	873.2	876.8	878.5	878.6	878.7	878.8	878.8
142.5°	898.7	901.6	904.6	906.1	906.2	906.3	906.3	906.4
145°	942.0	943.4	944.8	945.7	946.2	946.7	947.3	947.7
147.5°	982.8	983.7	984.7	984.8	983.8	982.9	981.9	981.1
150°	1008.7	1008.7	1008.7	1008.7	1008.5	1008.4	1008.2	1008.1
152.5°	1033.9	1034.3	1034.8	1034.7	1034.1	1033.3	1032.6	1032.0
155°	1069.7	1070.5	1071.4	1071.3	1070.3	1069.1	1068.1	1067.1
157.5°	1100.7	1101.5	1102.4	1102.1	1100.8	1099.4	1098.0	1096.6
160°	1119.6	1120.4	1121.2	1121.2	1120.1	1119.1	1118.0	1116.9
162.5°	1137.2	1138.2	1139.3	1139.2	1137.9	1136.7	1135.5	1134.3
165°	1160.9	1161.8	1162.6	1162.4	1161.2	1159.9	1158.7	1157.4
167.5°	1178.6	1179.8	1181.1	1181.0	1179.8	1178.5	1177.1	1175.8
170°	1189.1	1190.3	1191.6	1191.5	1190.1	1188.5	1187.1	1185.6
172.5°	1196.7	1197.9	1199.1	1199.1	1197.8	1196.6	1195.2	1193.9
175°	1205.1	1206.4	1207.6	1207.5	1206.1	1204.6	1203.1	1201.6
177.5°	1208.9	1209.9	1210.9	1210.9	1209.7	1208.5	1207.3	1206.2
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2

(END OF REPORT)