

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: P333271-830

Luminaire Tested: **S125DIP-S1090D810U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333271-830
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-S1090D810U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7075.4 lumens
Efficiency: N/A
Efficacy: 130.1 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

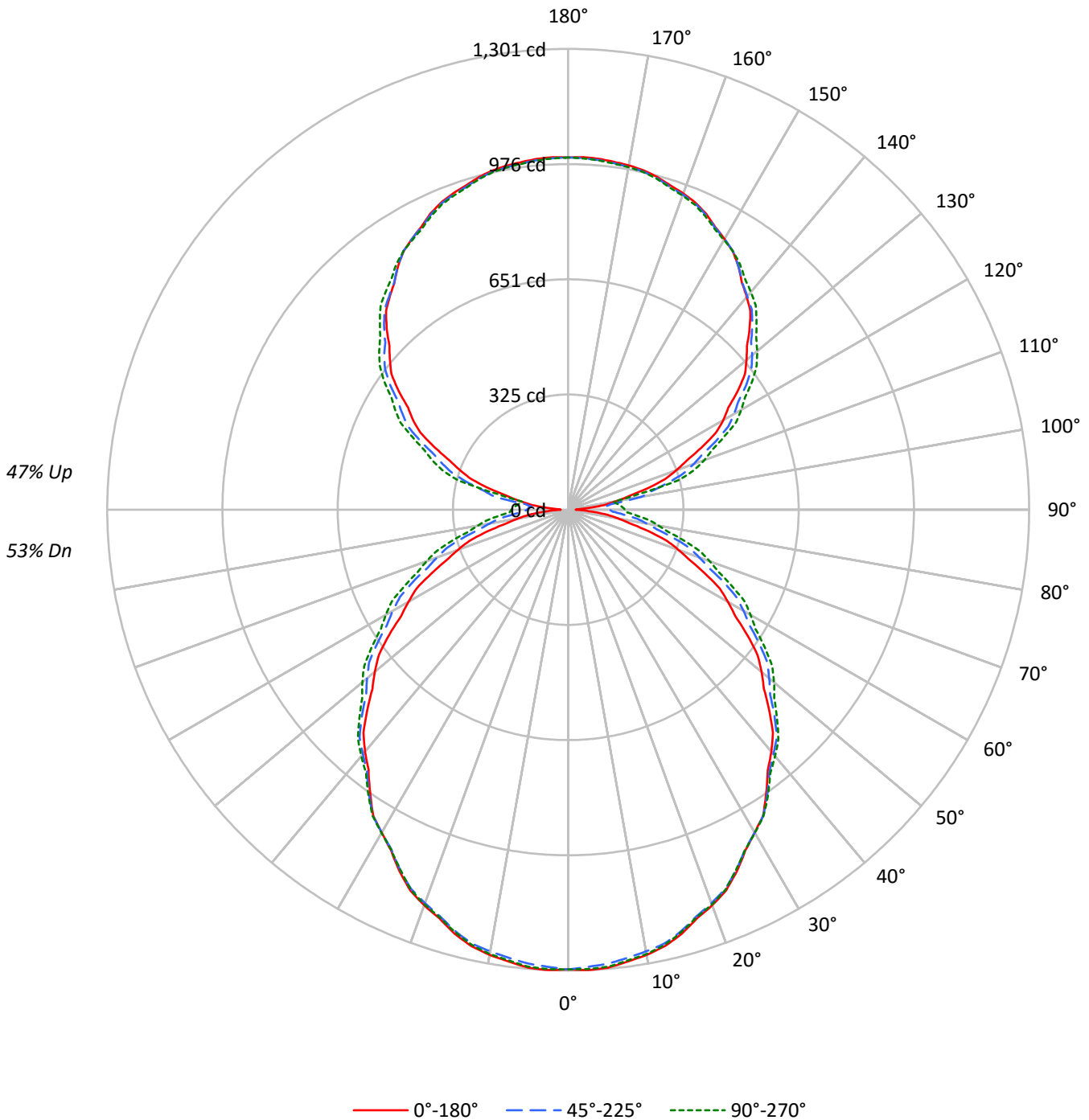
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333271-830

CATALOG NUMBER: S125DIP-S1090D810U830-4F0-1E-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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	98	93	89	85	90	86	83	79	74	71	68	62	60	58	51	50	48	43
2	89	81	74	69	82	75	69	64	64	60	56	54	51	48	45	42	40	36
3	81	71	63	57	74	66	59	53	56	51	47	47	43	40	39	36	34	30
4	74	62	54	48	68	58	51	45	50	44	40	42	38	34	35	32	29	25
5	68	56	47	41	62	52	44	39	44	39	34	38	33	30	31	28	25	22
6	62	50	41	35	57	46	39	33	40	34	30	34	29	26	28	25	22	19
7	58	45	37	31	53	42	35	29	36	30	26	31	26	23	26	22	20	17
8	53	41	33	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	30	24	46	35	28	23	30	25	21	26	21	18	22	18	16	14
10	46	34	27	22	43	32	25	21	28	22	19	24	20	16	20	17	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	4.9
20°-30°	518.1	7.3
30°-40°	613.7	8.7
40°-50°	634.5	9.0
50°-60°	584.5	8.3
60°-70°	472.5	6.7
70°-80°	316.4	4.5
80°-90°	166.2	2.3
90°-100°	128.2	1.8
100°-110°	290.6	4.1
110°-120°	449.4	6.4
120°-130°	544.2	7.7
130°-140°	568.8	8.0
140°-150°	525.6	7.4
150°-160°	423.4	6.0
160°-170°	273.8	3.9
170°-180°	94.4	1.3
0°-30°	989.2	14.0
0°-40°	1602.9	22.7
0°-60°	2821.9	39.9
0°-90°	3777.0	53.4
90°-120°	868.2	12.3
90°-150°	2506.8	35.4
90°-180°	3298.0	46.6
0°-180°	7075.4	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	68	116	148	160	15
95°	58	89	105	135	145	67
105°	228	252	290	314	323	242
115°	414	428	461	480	484	411
125°	584	589	613	630	635	521
135°	724	728	735	749	752	558
145°	838	838	838	845	846	524
155°	921	917	918	920	915	424
165°	972	968	969	972	967	275
175°	994	990	991	996	990	95
180°	994	994	994	994	994	



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CATALOG NUMBER: S125DIP-S1090D810U830-4F0-1E-UDD-D

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	49.2	58.4	67.8	77.1	86.6	96.5	106.3	116.2	126.0	132.7
90°	21.1	31.5	41.8	52.2	62.5	73.0	83.9	94.6	105.4	116.1	123.5
92.5°	29.7	37.1	44.6	52.0	59.5	68.6	79.5	90.4	101.2	112.1	119.1
95°	58.5	65.4	72.3	79.2	86.0	91.1	94.5	97.9	101.3	104.7	111.7
97.5°	102.7	110.3	117.7	125.3	132.7	135.0	132.0	128.8	125.8	122.8	124.1
100°	137.1	143.5	150.0	156.4	162.8	170.9	180.6	190.3	200.0	209.7	191.2
102.5°	172.0	178.1	184.3	190.4	196.5	204.2	213.4	222.5	231.8	241.0	242.1
105°	228.2	233.4	238.6	243.7	248.9	255.7	264.2	272.7	281.2	289.6	295.3
107.5°	286.5	290.3	294.2	298.0	301.9	308.0	316.5	325.0	333.5	342.0	347.5
110°	324.4	327.8	331.2	334.6	338.0	343.7	352.0	360.2	368.5	376.7	381.6



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CATALOG NUMBER: S125DIP-S1090D810U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	361.0	364.1	367.1	370.2	373.3	378.9	386.7	394.6	402.6	410.4	414.9
115°	414.5	417.4	420.1	422.9	425.7	430.8	438.4	445.9	453.5	460.9	465.3
117.5°	470.0	471.3	472.5	473.8	475.0	479.5	487.1	494.6	502.3	509.8	513.8
120°	505.4	506.1	506.7	507.5	508.1	512.0	519.0	525.9	532.9	540.0	544.4
122.5°	535.6	536.7	537.6	538.7	539.7	543.5	550.0	556.5	563.0	569.5	573.7
125°	583.7	584.6	585.4	586.4	587.2	590.4	596.1	601.7	607.4	613.0	616.9
127.5°	628.6	629.1	629.6	630.2	630.7	633.3	637.8	642.3	646.9	651.4	655.3
130°	656.9	657.4	658.0	658.5	659.0	661.4	665.5	669.6	673.7	677.9	681.4
132.5°	684.2	685.0	686.0	686.8	687.8	689.6	692.2	694.9	697.7	700.3	704.2
135°	724.2	724.9	725.6	726.3	727.0	728.1	729.8	731.4	733.1	734.8	738.1
137.5°	760.9	761.6	762.1	762.8	763.5	764.1	764.8	765.4	766.1	766.8	770.2
140°	784.1	784.4	784.8	785.0	785.4	785.6	785.7	785.9	786.0	786.1	789.6
142.5°	805.9	805.9	805.9	805.8	805.8	805.9	806.2	806.4	806.8	807.1	809.7
145°	837.9	837.9	838.0	838.0	838.1	838.1	838.1	838.1	838.1	838.1	839.7
147.5°	864.6	864.6	864.5	864.4	864.4	864.4	864.6	864.8	865.1	865.3	865.9
150°	882.3	882.0	881.7	881.4	881.0	881.0	881.4	881.7	882.0	882.3	882.7
152.5°	899.5	898.7	898.0	897.3	896.5	896.4	896.6	897.0	897.3	897.7	898.0
155°	921.4	920.4	919.5	918.4	917.5	917.1	917.5	917.8	918.1	918.4	918.9
157.5°	938.3	937.7	937.2	936.6	935.9	935.7	935.8	935.8	935.8	935.9	936.3
160°	950.2	949.1	948.2	947.2	946.2	945.8	945.9	946.1	946.3	946.4	947.1
162.5°	959.6	958.6	957.6	956.6	955.6	955.3	955.4	955.5	955.7	955.9	956.8
165°	972.2	971.3	970.3	969.3	968.3	967.9	968.1	968.3	968.4	968.6	969.6
167.5°	981.7	980.7	979.7	978.6	977.6	977.2	977.3	977.5	977.7	977.9	979.0
170°	987.0	985.8	984.7	983.5	982.4	981.9	982.0	982.2	982.4	982.6	983.9
172.5°	990.5	989.4	988.3	987.1	985.9	985.5	985.8	986.1	986.4	986.7	987.9
175°	994.4	993.3	992.4	991.5	990.4	990.0	990.1	990.3	990.5	990.7	992.0
177.5°	996.2	995.3	994.6	993.8	993.0	992.7	992.8	992.9	993.1	993.2	994.1
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4



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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°	139.4	146.0	152.7	157.1	159.2	161.3	163.3	165.4
90°	130.7	138.1	145.4	150.3	152.8	155.2	157.7	160.2
92.5°	126.2	133.4	140.4	145.1	147.3	149.5	151.7	153.9
95°	118.8	125.8	132.8	137.3	139.3	141.3	143.3	145.2
97.5°	125.5	126.8	128.1	129.7	131.6	133.6	135.4	137.3
100°	172.8	154.3	135.8	127.1	128.2	129.2	130.3	131.3
102.5°	243.2	244.3	245.3	241.2	231.8	222.3	212.8	203.4
105°	301.0	306.6	312.3	316.0	317.8	319.6	321.4	323.3
107.5°	353.2	358.8	364.5	367.9	369.1	370.4	371.6	373.0
110°	386.5	391.4	396.2	399.8	401.9	404.1	406.2	408.4



TEST NUMBER: P333271-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	419.4	424.0	428.5	431.7	433.4	435.2	436.9	438.7
115°	469.8	474.2	478.6	481.3	481.9	482.7	483.4	484.1
117.5°	517.7	521.7	525.7	528.4	529.9	531.3	532.8	534.3
120°	548.9	553.4	557.9	560.5	561.4	562.3	563.2	564.0
122.5°	578.0	582.2	586.4	589.0	589.7	590.5	591.3	592.0
125°	620.8	624.6	628.5	630.9	631.9	632.7	633.7	634.6
127.5°	659.1	662.9	666.8	668.8	669.3	669.7	670.1	670.5
130°	684.8	688.2	691.7	693.8	694.4	694.9	695.5	696.2
132.5°	708.0	711.9	715.8	717.8	718.2	718.6	719.0	719.3
135°	741.5	744.8	748.2	750.1	750.5	750.9	751.3	751.8
137.5°	773.5	776.9	780.3	782.2	782.5	782.8	783.1	783.3
140°	793.0	796.4	799.8	801.6	801.8	801.9	802.1	802.2
142.5°	812.5	815.2	817.9	819.4	819.5	819.6	819.8	820.0
145°	841.2	842.8	844.4	845.3	845.5	845.6	845.7	845.8
147.5°	866.5	867.1	867.8	867.8	867.1	866.5	865.8	865.2
150°	883.0	883.4	883.6	883.3	882.2	881.2	880.2	879.2
152.5°	898.3	898.6	899.0	898.5	897.5	896.4	895.2	894.1
155°	919.5	919.9	920.4	920.0	918.7	917.4	916.1	914.7
157.5°	936.9	937.5	937.9	937.5	936.2	934.9	933.6	932.3
160°	947.7	948.4	949.0	948.8	947.4	946.1	944.8	943.5
162.5°	957.7	958.7	959.5	959.3	957.8	956.4	955.0	953.6
165°	970.5	971.5	972.5	972.3	971.0	969.7	968.4	967.0
167.5°	980.2	981.4	982.6	982.4	980.9	979.5	978.0	976.6
170°	985.1	986.5	987.8	987.7	986.3	984.8	983.3	981.8
172.5°	989.0	990.2	991.5	991.3	989.8	988.4	986.8	985.3
175°	993.3	994.6	995.9	995.8	994.4	992.9	991.5	990.0
177.5°	995.0	995.9	996.8	996.8	995.7	994.7	993.6	992.6
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4

(END OF REPORT)