

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: P333272-830

Luminaire Tested: **S125DIP-S1090D810U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333272-830
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-S1090D810U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6664.6 lumens
Efficiency: N/A
Efficacy: 122.5 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

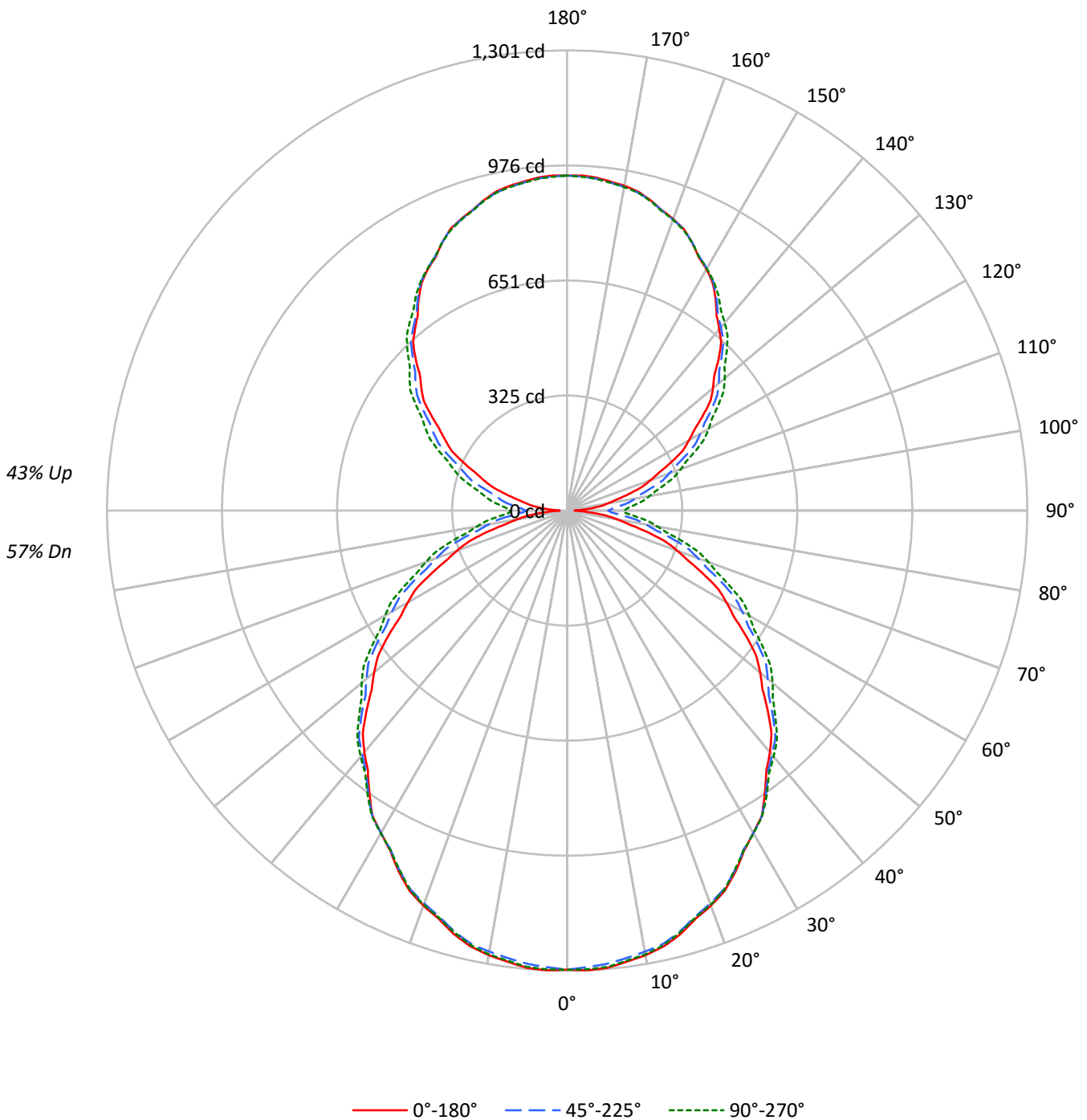
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	50	30	10	0														
RCR																																						
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57																				
1	98	94	89	86	91	87	84	80	75	72	70	64	62	60	54	52	51	46																				
2	89	81	75	69	83	76	70	65	65	61	57	56	52	50	47	44	42	38																				
3	81	71	63	57	75	66	60	54	57	52	48	49	45	42	41	38	36	32																				
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	37	33	30	27																				
5	68	56	48	41	63	52	45	39	45	39	35	39	34	31	33	29	26	23																				
6	63	50	42	36	58	47	39	34	41	35	30	35	30	27	30	26	23	20																				
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	27	23	21	18																				
8	54	41	33	28	50	39	31	26	34	28	24	29	24	21	25	21	18	16																				
9	50	38	30	25	47	35	28	23	31	25	21	27	22	19	23	19	17	14																				
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	21	18	15	13																				

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	1.8
10°-20°	348.4	5.2
20°-30°	518.1	7.8
30°-40°	613.7	9.2
40°-50°	634.5	9.5
50°-60°	584.5	8.8
60°-70°	472.5	7.1
70°-80°	316.4	4.7
80°-90°	166.2	2.5
90°-100°	155.5	2.3
100°-110°	255.2	3.8
110°-120°	362.8	5.4
120°-130°	443.4	6.7
130°-140°	479.2	7.2
140°-150°	460.8	6.9
150°-160°	385.2	5.8
160°-170°	256.0	3.8
170°-180°	89.6	1.3
0°-30°	989.2	14.8
0°-40°	1602.9	24.1
0°-60°	2821.9	42.3
0°-90°	3777.0	56.7
90°-120°	773.5	11.6
90°-150°	2156.9	32.4
90°-180°	2888.0	43.3
0°-180°	6664.6	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	68	116	148	160	16
95°	64	100	150	182	193	64
105°	180	205	246	275	287	192
115°	325	338	372	393	401	322
125°	469	473	498	516	522	419
135°	605	609	618	634	638	467
145°	732	733	736	742	745	457
155°	836	836	836	839	836	385
165°	909	907	908	911	906	256
175°	945	942	942	946	941	90
180°	947	947	947	947	947	



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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	49.2	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°	36.2	45.4	54.8	64.0	73.3	83.6	94.8	106.0	117.3	128.6	135.9
95°	64.5	72.1	79.8	87.5	95.2	104.6	115.8	127.1	138.4	149.7	157.0
97.5°	94.6	101.3	108.1	114.9	121.6	130.7	142.3	153.8	165.3	176.9	183.9
100°	117.2	123.1	129.0	135.0	140.9	149.5	160.7	171.8	183.0	194.2	201.6
102.5°	141.5	147.7	153.8	159.9	166.1	174.1	184.0	193.9	203.8	213.7	221.0
105°	179.5	184.8	190.2	195.5	200.9	208.3	217.7	227.2	236.7	246.1	252.8
107.5°	221.6	226.3	230.9	235.6	240.3	247.0	255.9	264.9	273.7	282.7	288.7
110°	250.6	254.9	259.1	263.3	267.5	273.8	282.2	290.6	299.1	307.5	313.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	281.3	284.5	287.6	290.8	293.9	299.6	307.9	316.2	324.5	332.8	338.2
115°	325.3	327.9	330.5	333.2	335.8	341.0	348.6	356.4	364.0	371.7	376.6
117.5°	369.4	371.0	372.6	374.2	375.8	380.2	387.5	394.7	402.0	409.3	414.2
120°	397.8	399.4	401.1	402.7	404.4	408.6	415.2	421.9	428.6	435.3	440.1
122.5°	427.3	428.0	428.8	429.4	430.1	433.9	440.5	447.2	453.9	460.6	465.1
125°	468.6	469.4	470.0	470.8	471.5	474.8	480.6	486.4	492.2	498.0	502.2
127.5°	511.6	511.9	512.2	512.5	512.7	515.3	520.1	524.9	529.8	534.6	538.7
130°	538.2	538.7	539.2	539.8	540.3	542.7	547.0	551.3	555.5	559.9	563.6
132.5°	563.6	565.0	566.3	567.5	568.8	571.0	573.9	576.9	579.9	582.9	586.7
135°	605.4	606.1	606.8	607.6	608.2	609.6	611.8	614.0	616.0	618.2	621.9
137.5°	644.7	645.4	646.1	646.9	647.6	648.6	649.9	651.2	652.5	653.8	657.4
140°	669.0	669.9	670.6	671.5	672.3	673.1	673.8	674.7	675.4	676.2	679.7
142.5°	694.4	694.8	695.3	695.8	696.3	696.8	697.5	698.1	698.8	699.5	702.4
145°	731.7	732.1	732.4	732.8	733.1	733.6	734.1	734.5	735.1	735.6	737.0
147.5°	764.9	765.3	765.6	766.0	766.3	766.7	767.1	767.5	767.9	768.3	769.1
150°	787.9	787.7	787.6	787.4	787.2	787.5	788.2	788.8	789.5	790.1	790.1
152.5°	806.7	807.0	807.2	807.5	807.7	807.9	808.1	808.4	808.7	809.0	809.4
155°	835.8	835.8	835.8	835.8	835.8	835.8	836.0	836.2	836.3	836.5	837.2
157.5°	861.8	861.4	861.0	860.6	860.3	860.2	860.4	860.5	860.6	860.8	861.5
160°	877.0	876.6	876.1	875.6	875.1	875.0	875.1	875.2	875.4	875.6	876.3
162.5°	890.6	890.2	889.9	889.6	889.2	889.0	889.0	889.1	889.1	889.2	889.9
165°	908.8	908.4	908.1	907.8	907.5	907.4	907.5	907.7	907.9	908.0	908.7
167.5°	924.1	923.4	922.7	922.1	921.4	921.1	921.1	921.1	921.1	921.1	922.1
170°	932.4	931.7	931.0	930.4	929.7	929.3	929.3	929.3	929.3	929.3	930.4
172.5°	938.2	937.5	936.9	936.2	935.6	935.3	935.3	935.3	935.3	935.3	936.2
175°	944.9	944.2	943.6	942.9	942.3	941.9	941.9	941.9	941.9	941.9	942.9
177.5°	948.3	947.7	947.3	946.7	946.1	945.8	945.7	945.6	945.5	945.3	946.1
180°	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1



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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°	143.3	150.6	158.0	162.9	165.2	167.5	169.8	172.2
95°	164.4	171.7	179.1	184.0	186.2	188.5	190.9	193.1
97.5°	191.0	197.9	205.0	209.5	211.6	213.8	215.8	218.0
100°	209.1	216.4	223.9	228.6	230.5	232.6	234.6	236.7
102.5°	228.4	235.6	243.0	247.7	249.9	252.0	254.2	256.4
105°	259.4	266.1	272.7	277.2	279.7	282.2	284.6	287.1
107.5°	294.8	300.9	307.0	310.9	312.6	314.3	316.0	317.7
110°	319.1	325.0	330.9	334.7	336.6	338.4	340.2	342.0



TEST NUMBER: P333272-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	343.6	349.0	354.4	357.9	359.6	361.3	363.0	364.6
115°	381.5	386.4	391.4	394.6	396.2	397.7	399.3	400.8
117.5°	419.1	424.0	429.0	432.1	433.4	434.6	435.9	437.2
120°	444.9	449.7	454.5	457.4	458.5	459.5	460.5	461.6
122.5°	469.6	474.0	478.4	481.3	482.4	483.6	484.7	486.0
125°	506.4	510.6	514.8	517.6	518.8	520.0	521.2	522.5
127.5°	542.6	546.7	550.7	553.4	554.7	556.0	557.3	558.6
130°	567.4	571.3	575.0	577.5	578.5	579.7	580.7	581.8
132.5°	590.5	594.3	598.1	600.4	601.1	601.8	602.6	603.2
135°	625.6	629.2	632.9	635.2	635.9	636.7	637.4	638.2
137.5°	660.9	664.5	668.0	670.0	670.2	670.5	670.9	671.2
140°	683.1	686.5	689.9	691.8	692.1	692.4	692.8	693.1
142.5°	705.2	708.0	711.0	712.5	712.8	713.1	713.4	713.8
145°	738.4	739.8	741.2	742.3	742.9	743.5	744.1	744.8
147.5°	770.0	770.8	771.7	771.8	771.2	770.5	770.0	769.4
150°	790.1	790.1	790.1	790.0	790.0	789.9	789.9	789.9
152.5°	809.7	810.1	810.5	810.5	809.9	809.4	808.9	808.3
155°	837.8	838.5	839.1	839.1	838.2	837.4	836.6	835.8
157.5°	862.1	862.8	863.5	863.3	862.1	861.1	860.0	858.9
160°	876.9	877.5	878.2	878.2	877.3	876.5	875.6	874.9
162.5°	890.7	891.6	892.3	892.2	891.3	890.3	889.4	888.4
165°	909.4	910.0	910.6	910.5	909.5	908.5	907.5	906.5
167.5°	923.1	924.1	925.1	925.0	924.1	923.0	922.0	921.0
170°	931.3	932.4	933.3	933.2	932.1	930.9	929.8	928.7
172.5°	937.3	938.2	939.2	939.2	938.2	937.2	936.1	935.1
175°	943.9	944.9	945.8	945.7	944.6	943.5	942.4	941.2
177.5°	946.9	947.6	948.5	948.4	947.4	946.6	945.7	944.7
180°	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1

(END OF REPORT)