

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: P332614-830

Luminaire Tested: **S124DIP-S795D1035U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332614-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D1035U830-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH 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: 6589.3 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

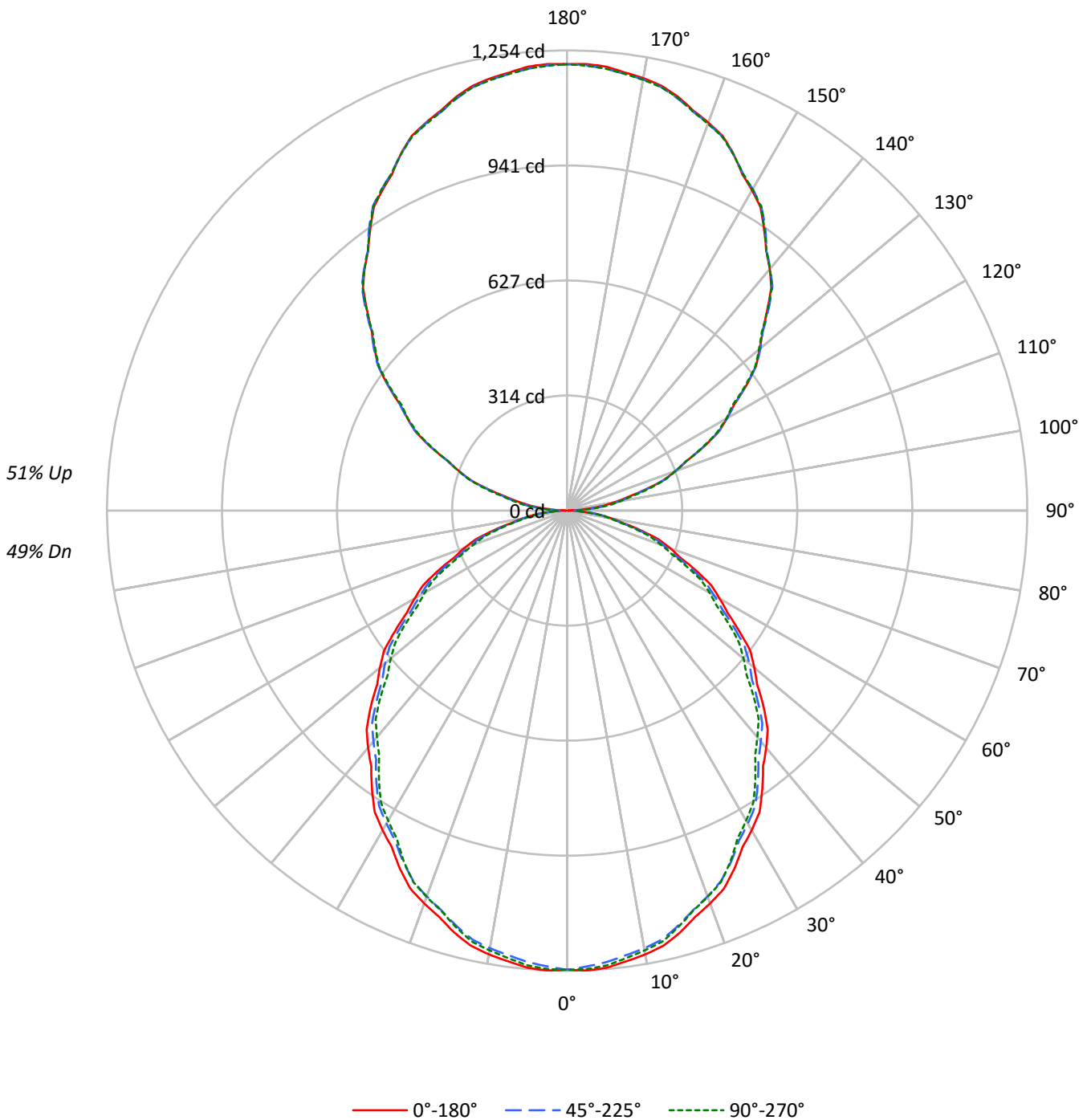
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	49	47	46	41
2	89	81	75	70	81	75	70	65	63	59	56	53	50	47	43	41	39	34
3	81	71	64	58	74	66	60	54	56	51	47	47	43	40	38	35	33	29
4	74	63	55	49	68	59	52	46	50	44	40	41	38	34	34	31	29	25
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	30	27	25	22
6	63	51	42	37	57	47	40	34	40	34	30	34	29	26	28	24	22	19
7	58	46	38	32	53	42	35	30	36	31	27	31	26	23	25	22	20	17
8	54	41	34	28	49	39	32	27	33	28	24	28	24	21	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	14
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10101	10101	10101
5°	10131	10009	10083
10°	10067	9928	9977
15°	9947	9787	9812
20°	9784	9613	9620
25°	9600	9413	9386
30°	9374	9177	9093
35°	9140	8932	8814
40°	8896	8652	8495
45°	8643	8379	8218
50°	8361	8133	7882
55°	8058	7817	7562
60°	7753	7463	7237
65°	7412	7125	6837
70°	7027	6675	6413
75°	6441	6129	5973
80°	5732	5500	5360
85°	5011	4826	4733



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	1.8
10°-20°	332.0	5.0
20°-30°	488.6	7.4
30°-40°	568.1	8.6
40°-50°	568.1	8.6
50°-60°	496.9	7.5
60°-70°	369.0	5.6
70°-80°	209.7	3.2
80°-90°	64.1	1.0
90°-100°	80.2	1.2
100°-110°	237.7	3.6
110°-120°	403.4	6.1
120°-130°	531.9	8.1
130°-140°	597.4	9.1
140°-150°	587.0	8.9
150°-160°	493.7	7.5
160°-170°	328.5	5.0
170°-180°	115.0	1.7
0°-30°	938.5	14.2
0°-40°	1506.5	22.9
0°-60°	2571.5	39.0
0°-90°	3214.4	48.8
90°-120°	721.3	10.9
90°-150°	2437.7	37.0
90°-180°	3375.0	51.2
0°-180°	6589.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1250	1246	1235	1245	1244	119
15°	1190	1185	1171	1176	1174	335
25°	1078	1070	1057	1057	1054	496
35°	927	920	906	899	894	580
45°	757	749	734	723	720	583
55°	572	569	555	544	537	513
65°	388	383	373	363	358	384
75°	206	202	196	193	192	219
85°	54	54	52	52	51	60
90°	3	13	21	26	28	6
95°	56	65	72	74	74	63
105°	219	220	224	227	230	233
115°	410	410	408	407	406	404
125°	597	597	596	595	593	532
135°	770	776	776	774	772	596
145°	936	940	941	940	937	586
155°	1072	1072	1072	1075	1072	493
165°	1168	1165	1163	1168	1165	329
175°	1215	1210	1209	1215	1209	115
180°	1216	1216	1216	1216	1216	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1254.4	1253.9	1253.3	1252.8	1252.3	1251.0	1249.1	1247.1	1245.1	1243.2	1244.9
5°	1250.2	1249.3	1248.4	1247.5	1246.6	1244.9	1242.5	1240.0	1237.6	1235.1	1237.6
7.5°	1238.6	1237.7	1236.8	1235.9	1235.0	1233.2	1230.5	1227.8	1225.0	1222.3	1224.3
10°	1228.1	1227.3	1226.3	1225.5	1224.6	1222.7	1219.7	1216.9	1214.0	1211.1	1212.9
12.5°	1214.5	1213.6	1212.7	1211.8	1211.0	1208.9	1205.9	1202.8	1199.8	1196.7	1198.6
15°	1190.1	1189.1	1188.3	1187.3	1186.5	1184.4	1181.0	1177.7	1174.3	1171.0	1172.3
17.5°	1160.6	1159.4	1158.3	1157.3	1156.1	1154.0	1150.8	1147.6	1144.4	1141.3	1142.2
20°	1138.9	1137.7	1136.7	1135.6	1134.4	1132.2	1128.9	1125.5	1122.2	1118.9	1119.6
22.5°	1115.7	1114.2	1112.7	1111.3	1109.7	1107.4	1104.0	1100.7	1097.3	1094.0	1095.2
25°	1077.7	1076.2	1074.6	1073.1	1071.5	1069.1	1066.0	1062.9	1059.8	1056.7	1056.9
27.5°	1034.4	1032.8	1031.2	1029.6	1028.0	1025.8	1022.8	1020.0	1017.1	1014.2	1013.6
30°	1005.6	1003.8	1002.0	1000.2	998.4	996.1	993.2	990.3	987.4	984.5	983.6
32.5°	975.1	973.5	971.9	970.3	968.7	966.3	963.3	960.2	957.2	954.0	953.0
35°	927.4	925.8	924.3	922.7	921.1	918.8	915.7	912.6	909.5	906.3	904.7
37.5°	877.0	875.6	874.2	872.8	871.3	868.9	865.6	862.2	858.9	855.5	853.8
40°	844.1	842.4	840.6	838.8	837.0	834.4	831.1	827.7	824.4	821.0	818.9
42.5°	808.9	807.8	806.7	805.7	804.6	802.2	798.5	794.8	791.1	787.4	784.9
45°	757.0	755.4	753.8	752.2	750.7	748.1	744.6	741.0	737.4	733.9	731.4
47.5°	702.6	701.5	700.5	699.4	698.3	696.2	692.9	689.6	686.3	683.0	680.1
50°	665.7	664.8	663.9	663.0	662.1	660.2	657.0	653.9	650.7	647.6	644.5
52.5°	629.6	628.6	627.5	626.4	625.3	623.1	619.8	616.5	613.2	609.9	607.2
55°	572.5	571.7	571.1	570.4	569.8	567.9	564.8	561.7	558.6	555.4	552.7
57.5°	517.9	517.2	516.4	515.7	514.9	512.9	509.9	506.8	503.8	500.7	498.1
60°	480.2	479.1	478.0	476.9	475.8	473.7	470.9	468.0	465.1	462.2	460.1
62.5°	443.4	442.4	441.5	440.5	439.6	437.6	434.5	431.4	428.4	425.3	423.5
65°	388.0	386.9	385.8	384.7	383.5	381.8	379.7	377.4	375.1	373.0	370.7
67.5°	332.2	331.2	330.2	329.1	328.2	326.6	324.4	322.3	320.2	318.0	315.8
70°	297.7	296.2	294.6	293.0	291.5	289.8	288.0	286.3	284.5	282.8	281.0
72.5°	260.9	259.3	257.8	256.2	254.6	253.2	251.8	250.2	248.8	247.4	246.0
75°	206.5	205.4	204.3	203.2	202.1	201.0	199.8	198.7	197.7	196.5	195.6
77.5°	154.6	154.1	153.6	153.2	152.6	151.9	150.9	150.0	148.9	148.0	147.7
80°	123.3	122.6	122.0	121.3	120.6	120.1	119.6	119.2	118.8	118.3	117.8
82.5°	92.8	92.6	92.2	91.9	91.6	91.4	91.3	91.2	91.1	91.0	90.8
85°	54.1	54.1	54.1	54.1	54.1	53.9	53.4	53.1	52.6	52.1	52.1
87.5°	21.4	21.7	22.0	22.2	22.5	22.8	22.9	23.1	23.2	23.4	23.7
90°	2.8	5.1	7.4	9.7	12.1	14.0	15.6	17.3	19.0	20.7	22.0
92.5°	20.2	22.8	25.4	28.0	30.6	32.6	33.7	34.9	36.1	37.2	38.0
95°	56.5	58.3	60.2	62.1	64.0	65.6	67.1	68.6	70.0	71.5	72.1
97.5°	98.6	100.1	101.6	103.1	104.6	106.2	107.9	109.6	111.4	113.1	113.9
100°	131.7	132.5	133.4	134.2	135.1	136.4	138.3	140.2	142.0	143.9	144.4
102.5°	166.4	166.6	167.0	167.3	167.7	168.7	170.4	172.1	173.8	175.6	176.2
105°	219.2	219.4	219.6	219.8	220.1	220.6	221.4	222.3	223.1	223.9	224.5
107.5°	274.8	274.9	275.2	275.5	275.7	275.9	276.1	276.2	276.3	276.4	277.0
110°	312.4	312.7	313.2	313.6	314.1	314.1	313.9	313.7	313.5	313.3	312.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	351.5	351.6	351.7	351.8	351.9	351.7	351.3	350.9	350.5	350.2	350.1
115°	410.2	410.2	410.2	410.2	410.2	410.0	409.5	409.2	408.7	408.3	408.1
117.5°	465.5	465.7	465.8	466.0	466.2	466.1	465.8	465.5	465.2	465.0	464.2
120°	502.4	503.2	504.1	504.9	505.8	505.9	505.2	504.5	504.0	503.3	502.3
122.5°	540.7	541.1	541.4	541.8	542.1	542.2	541.9	541.5	541.2	540.9	540.3
125°	597.4	597.4	597.4	597.4	597.4	597.3	597.1	596.9	596.6	596.4	596.1
127.5°	648.8	649.4	650.0	650.6	651.3	651.4	651.1	650.7	650.4	650.1	649.7
130°	684.9	685.5	686.2	686.7	687.4	687.7	687.7	687.7	687.7	687.7	687.3
132.5°	721.8	722.3	722.6	723.1	723.6	723.8	723.6	723.4	723.2	723.1	722.6
135°	770.5	771.8	773.0	774.3	775.5	776.2	776.2	776.2	776.2	776.2	775.7
137.5°	823.6	824.2	824.7	825.3	826.0	826.3	826.7	827.1	827.4	827.7	827.2
140°	858.9	859.3	859.8	860.2	860.6	860.8	860.8	860.8	860.8	860.8	860.6
142.5°	891.3	891.7	892.1	892.6	893.0	893.1	893.0	892.8	892.6	892.4	892.4
145°	936.0	936.9	937.7	938.6	939.4	939.9	940.2	940.4	940.6	940.8	940.6
147.5°	980.5	981.5	982.5	983.5	984.5	985.0	984.8	984.6	984.4	984.3	984.1
150°	1007.6	1008.4	1009.3	1010.1	1011.0	1011.3	1011.3	1011.3	1011.3	1011.3	1011.3
152.5°	1033.2	1033.7	1034.2	1034.7	1035.2	1035.5	1035.7	1035.9	1036.0	1036.1	1036.7
155°	1072.5	1072.5	1072.5	1072.5	1072.5	1072.4	1072.1	1072.0	1071.8	1071.6	1072.4
157.5°	1105.6	1105.2	1104.8	1104.5	1104.1	1103.9	1103.8	1103.8	1103.8	1103.7	1104.4
160°	1125.2	1124.9	1124.7	1124.5	1124.4	1124.2	1123.9	1123.7	1123.5	1123.3	1123.9
162.5°	1143.2	1142.7	1142.2	1141.6	1141.0	1140.7	1140.5	1140.3	1140.1	1139.8	1140.9
165°	1167.5	1166.9	1166.3	1165.6	1165.0	1164.5	1164.0	1163.7	1163.2	1162.8	1164.0
167.5°	1186.2	1185.2	1184.4	1183.6	1182.6	1182.2	1182.2	1182.3	1182.3	1182.4	1183.6
170°	1196.7	1195.6	1194.6	1193.5	1192.5	1192.0	1192.3	1192.5	1192.7	1192.9	1194.2
172.5°	1204.2	1203.3	1202.5	1201.6	1200.7	1200.2	1200.3	1200.3	1200.4	1200.4	1201.8
175°	1214.6	1213.5	1212.5	1211.4	1210.4	1209.8	1209.6	1209.3	1209.1	1208.9	1210.4
177.5°	1218.0	1217.1	1216.3	1215.4	1214.6	1214.2	1214.2	1214.2	1214.2	1214.2	1215.3
180°	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1246.7	1248.5	1250.3	1251.1	1250.9	1250.8	1250.6	1250.4
5°	1240.0	1242.5	1244.9	1245.9	1245.5	1245.1	1244.6	1244.2
7.5°	1226.2	1228.2	1230.1	1231.0	1230.8	1230.5	1230.2	1229.9
10°	1214.7	1216.4	1218.2	1218.9	1218.4	1218.0	1217.6	1217.1
12.5°	1200.6	1202.5	1204.5	1205.1	1204.6	1203.9	1203.2	1202.7
15°	1173.7	1175.0	1176.3	1176.7	1176.0	1175.4	1174.7	1174.0
17.5°	1143.0	1143.9	1144.7	1144.9	1144.4	1144.0	1143.6	1143.1
20°	1120.2	1120.9	1121.5	1121.6	1121.2	1120.8	1120.3	1119.8
22.5°	1096.4	1097.6	1098.8	1099.0	1098.2	1097.4	1096.6	1095.8
25°	1057.2	1057.3	1057.6	1057.2	1056.4	1055.5	1054.6	1053.7
27.5°	1013.1	1012.6	1012.0	1011.3	1010.1	1009.0	1007.9	1006.7
30°	982.7	981.8	980.9	980.0	978.8	977.7	976.6	975.5
32.5°	951.9	950.8	949.8	948.7	947.5	946.4	945.3	944.2
35°	903.2	901.6	900.0	898.7	897.6	896.5	895.4	894.3
37.5°	852.2	850.5	848.9	847.3	845.7	844.3	842.8	841.3
40°	816.6	814.5	812.2	810.5	809.4	808.3	807.2	806.1
42.5°	782.2	779.7	777.0	775.4	774.7	773.9	773.2	772.4
45°	729.0	726.5	724.1	722.6	721.8	721.1	720.5	719.8
47.5°	677.4	674.7	671.8	669.7	668.0	666.3	664.6	662.9
50°	641.4	638.3	635.2	632.9	631.6	630.3	629.0	627.6
52.5°	604.5	601.6	598.9	596.7	595.0	593.3	591.6	589.9
55°	550.1	547.4	544.7	542.7	541.4	540.1	538.7	537.3
57.5°	495.6	493.0	490.5	488.6	487.3	486.0	484.7	483.4
60°	458.2	456.2	454.1	452.6	451.5	450.3	449.2	448.2
62.5°	421.6	419.8	418.0	416.5	415.4	414.2	413.2	412.1
65°	368.5	366.3	364.0	362.4	361.3	360.1	359.0	357.9
67.5°	313.8	311.6	309.4	308.2	307.9	307.6	307.3	307.0
70°	279.2	277.4	275.6	274.4	273.7	273.1	272.4	271.7
72.5°	244.6	243.2	241.8	240.7	240.0	239.3	238.7	238.0
75°	194.7	193.8	192.9	192.4	192.2	191.9	191.7	191.5
77.5°	147.4	147.1	146.9	146.5	145.9	145.3	144.8	144.2
80°	117.4	117.0	116.5	116.2	115.9	115.7	115.6	115.3
82.5°	90.5	90.2	89.9	89.7	89.5	89.3	89.1	88.8
85°	52.1	52.1	52.1	52.0	51.8	51.6	51.4	51.1
87.5°	23.8	24.1	24.4	24.6	24.6	24.7	24.8	24.9
90°	23.2	24.5	25.7	26.6	27.0	27.4	27.8	28.2
92.5°	38.7	39.5	40.2	40.8	41.0	41.3	41.6	41.8
95°	72.8	73.4	74.0	74.4	74.4	74.4	74.4	74.4
97.5°	114.6	115.4	116.1	116.5	116.5	116.5	116.5	116.5
100°	144.8	145.2	145.6	145.8	145.8	145.8	145.8	145.8
102.5°	176.7	177.3	177.9	178.2	178.4	178.6	178.8	178.9
105°	225.2	225.8	226.4	227.1	227.6	228.3	228.9	229.5
107.5°	277.6	278.1	278.7	279.0	279.0	278.9	278.9	278.8
110°	312.5	312.0	311.6	311.7	312.4	312.9	313.6	314.2



TEST NUMBER: P332614-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	350.0	349.9	349.9	349.9	350.0	350.1	350.2	350.3
115°	407.8	407.6	407.5	407.3	407.1	406.8	406.6	406.4
117.5°	463.5	462.8	462.1	461.6	461.1	460.7	460.2	459.9
120°	501.2	500.2	499.2	498.8	499.3	499.6	500.1	500.5
122.5°	539.5	538.9	538.1	537.3	536.6	535.8	535.1	534.3
125°	595.6	595.2	594.7	594.4	594.0	593.5	593.1	592.7
127.5°	649.2	648.8	648.4	648.0	647.7	647.3	647.1	646.7
130°	686.9	686.5	686.1	685.4	684.6	683.7	682.9	682.0
132.5°	722.3	721.8	721.4	721.0	720.7	720.4	720.0	719.7
135°	775.3	774.9	774.5	773.9	773.4	772.7	772.0	771.5
137.5°	826.6	826.0	825.6	825.3	825.5	825.6	825.7	825.9
140°	860.4	860.2	860.0	859.8	859.6	859.3	859.1	858.9
142.5°	892.3	892.3	892.3	892.2	892.2	892.1	892.1	892.0
145°	940.4	940.2	939.9	939.5	938.9	938.3	937.6	937.0
147.5°	983.9	983.7	983.5	983.4	983.2	983.0	982.8	982.6
150°	1011.3	1011.3	1011.3	1011.3	1011.1	1010.8	1010.6	1010.4
152.5°	1037.2	1037.6	1038.2	1038.2	1037.6	1037.1	1036.5	1035.9
155°	1073.3	1074.0	1074.9	1074.9	1074.0	1073.3	1072.4	1071.6
157.5°	1104.9	1105.6	1106.3	1106.2	1105.5	1104.8	1104.1	1103.3
160°	1124.5	1125.2	1125.8	1125.6	1124.5	1123.5	1122.5	1121.4
162.5°	1142.1	1143.2	1144.3	1144.4	1143.4	1142.4	1141.3	1140.2
165°	1165.4	1166.6	1167.8	1168.0	1167.2	1166.4	1165.5	1164.7
167.5°	1184.9	1186.2	1187.4	1187.4	1186.1	1184.8	1183.5	1182.2
170°	1195.4	1196.7	1198.0	1197.8	1196.4	1194.9	1193.4	1191.9
172.5°	1203.2	1204.7	1206.2	1206.1	1204.7	1203.2	1201.7	1200.2
175°	1211.8	1213.3	1214.7	1214.7	1213.3	1211.8	1210.4	1208.9
177.5°	1216.5	1217.7	1218.9	1218.8	1217.5	1216.1	1214.7	1213.4
180°	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4	1216.4

(END OF REPORT)