

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: P332066-830

Luminaire Tested: **S123DIP-S1165D805U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332066-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1165D805U830-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7597.9 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

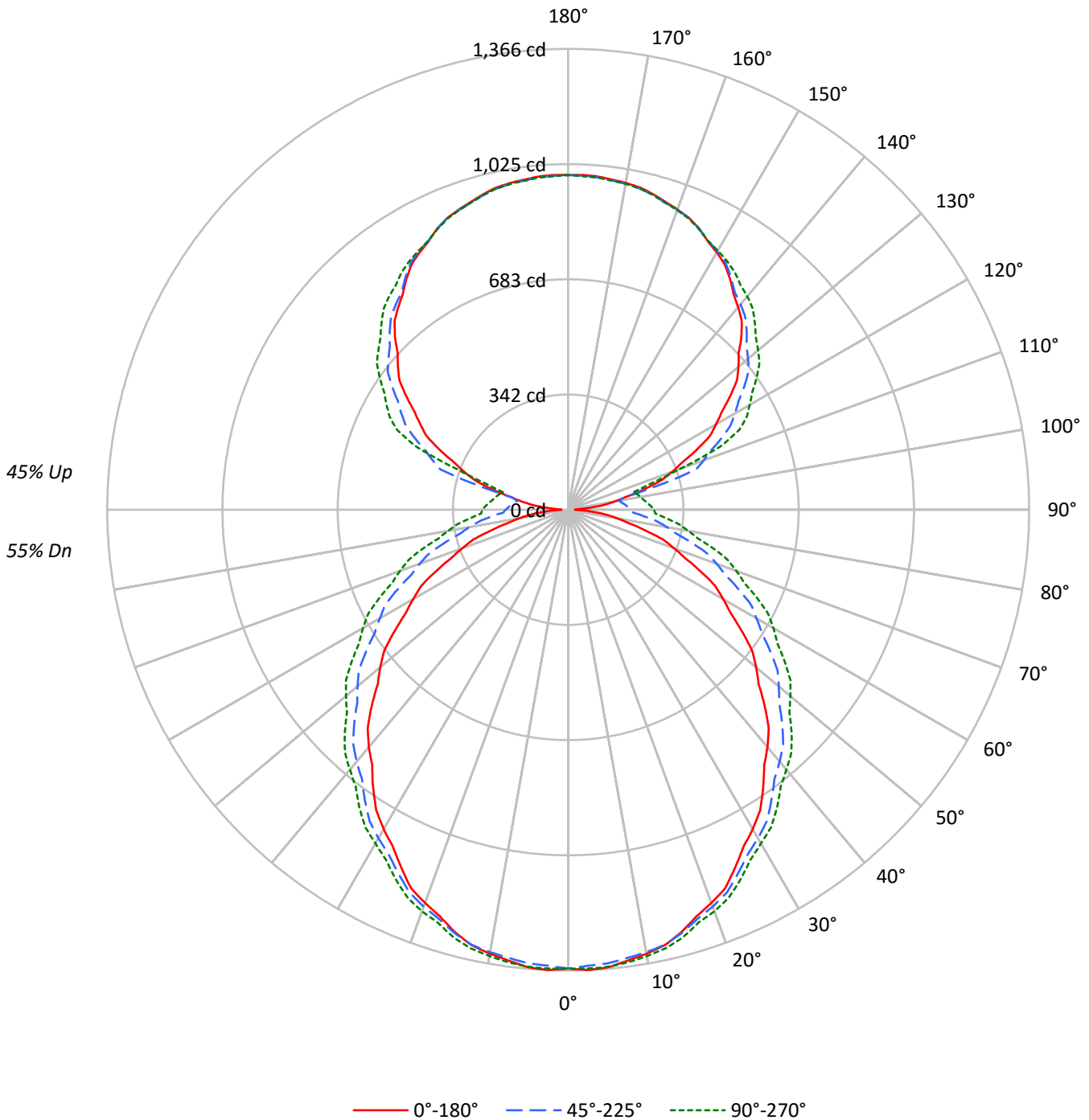
Input Watts (W): 60.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332066-830

CATALOG NUMBER: S123DIP-S1165D805U830-4F0-1E-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	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	90	86	82	79	74	71	68	62	60	58	52	50	49	44
2	89	80	74	68	82	75	69	64	64	60	56	54	51	48	45	43	40	36
3	81	70	63	56	74	65	58	53	56	51	46	48	43	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	40	32	27	49	38	31	25	33	27	23	28	23	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14640	14640	14640
5°	14685	14271	14279
10°	14553	13942	13872
15°	14366	13569	13429
20°	14098	13143	12941
25°	13767	12652	12427
30°	13428	12211	11906
35°	13049	11744	11491
40°	12686	11320	11046
45°	12284	10913	10690
50°	11887	10508	10298
55°	11448	10097	9946
60°	11021	9677	9585
65°	10584	9230	9154
70°	9925	8729	8713
75°	9088	8154	8264
80°	8133	7589	7753
85°	7242	7201	7456



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	1.7
10°-20°	367.5	4.8
20°-30°	549.7	7.2
30°-40°	656.5	8.6
40°-50°	686.9	9.0
50°-60°	644.6	8.5
60°-70°	538.3	7.1
70°-80°	385.2	5.1
80°-90°	232.5	3.1
90°-100°	180.2	2.4
100°-110°	277.8	3.7
110°-120°	483.5	6.4
120°-130°	566.1	7.5
130°-140°	579.8	7.6
140°-150°	529.1	7.0
150°-160°	423.7	5.6
160°-170°	273.4	3.6
170°-180°	94.2	1.2
0°-30°	1046.2	13.8
0°-40°	1702.7	22.4
0°-60°	3034.1	39.9
0°-90°	4190.1	55.1
90°-120°	941.5	12.4
90°-150°	2616.5	34.4
90°-180°	3408.0	44.9
0°-180°	7597.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1360	1360	1360	1360	1360	
5°	1362	1358	1350	1361	1360	129
15°	1296	1300	1299	1313	1313	365
25°	1170	1185	1190	1208	1209	539
35°	1008	1031	1050	1072	1079	630
45°	824	859	896	924	936	635
55°	628	677	730	769	782	562
65°	434	492	557	600	616	429
75°	236	305	379	426	446	252
85°	73	147	225	274	290	76
90°	20	100	185	236	255	15
95°	61	92	170	219	235	68
105°	232	272	272	189	198	245
115°	419	444	502	543	559	414
125°	585	593	637	668	681	523
135°	726	730	748	776	782	559
145°	836	839	841	854	860	523
155°	919	918	918	921	917	423
165°	969	967	966	971	967	274
175°	992	988	989	993	988	94
180°	992	992	992	992	992	



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CATALOG NUMBER: S123DIP-S1165D805U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1
2.5°	1366.0	1365.3	1364.4	1363.7	1362.8	1361.4	1359.3	1357.2	1355.1	1353.0	1355.1
5°	1361.6	1360.9	1360.3	1359.6	1359.0	1357.6	1355.7	1353.7	1351.7	1349.7	1352.4
7.5°	1348.2	1348.4	1348.5	1348.7	1348.8	1347.9	1346.0	1344.1	1342.2	1340.2	1343.5
10°	1336.4	1337.1	1337.8	1338.4	1339.1	1338.5	1336.9	1335.2	1333.6	1331.9	1335.2
12.5°	1322.2	1323.0	1324.0	1324.9	1325.9	1325.8	1324.6	1323.5	1322.4	1321.3	1324.3
15°	1296.4	1297.4	1298.4	1299.4	1300.3	1300.7	1300.3	1300.0	1299.7	1299.4	1302.7
17.5°	1263.8	1265.7	1267.7	1269.7	1271.7	1272.6	1272.5	1272.3	1272.2	1272.1	1275.1
20°	1240.1	1242.1	1244.1	1246.0	1248.0	1249.3	1250.0	1250.7	1251.3	1252.0	1254.9
22.5°	1215.2	1217.2	1219.2	1221.2	1223.1	1224.6	1225.5	1226.4	1227.3	1228.2	1232.0
25°	1170.4	1173.7	1177.0	1180.3	1183.6	1185.7	1186.8	1187.7	1188.7	1189.7	1194.0
27.5°	1125.4	1129.2	1132.9	1136.7	1140.4	1143.4	1145.5	1147.5	1149.7	1151.8	1155.5
30°	1093.4	1097.7	1101.9	1106.3	1110.5	1114.0	1116.6	1119.3	1121.9	1124.5	1128.5
32.5°	1057.8	1062.6	1067.4	1072.2	1077.0	1081.2	1084.6	1088.1	1091.5	1094.9	1099.1
35°	1007.5	1012.8	1018.0	1023.3	1028.6	1033.3	1037.6	1041.9	1046.1	1050.5	1055.4
37.5°	954.1	960.1	966.0	971.9	977.9	983.4	988.7	994.0	999.3	1004.6	1010.1
40°	918.6	924.5	930.5	936.3	942.3	948.6	955.2	961.7	968.3	974.9	980.5
42.5°	879.5	886.7	894.0	901.2	908.4	915.5	922.4	929.2	936.0	942.9	949.0
45°	823.8	831.7	839.5	847.4	855.4	863.5	871.7	879.9	888.2	896.4	902.6
47.5°	765.3	774.3	783.3	792.3	801.3	810.4	819.8	829.2	838.7	848.1	855.1
50°	727.5	736.7	745.9	755.1	764.3	774.0	784.3	794.5	804.6	814.8	822.5
52.5°	687.2	696.9	706.6	716.4	726.1	736.7	747.9	759.1	770.4	781.7	789.6
55°	628.2	639.0	649.9	660.8	671.7	683.0	694.8	706.7	718.6	730.5	739.3
57.5°	570.7	582.0	593.3	604.6	616.0	628.2	641.1	654.1	667.0	680.0	689.0
60°	530.4	542.2	554.1	566.0	577.8	590.5	604.0	617.5	631.0	644.5	653.7
62.5°	492.5	504.6	516.7	528.9	540.9	554.1	568.4	582.7	597.0	611.3	620.5
65°	434.1	447.0	459.8	472.6	485.5	499.2	513.6	528.1	542.6	557.0	566.9
67.5°	374.8	388.5	402.1	415.8	429.3	443.6	458.3	473.1	487.8	502.6	513.3
70°	333.4	347.5	361.7	375.8	390.0	405.0	420.8	436.6	452.4	468.2	478.7
72.5°	295.4	309.6	323.8	337.9	352.0	367.3	383.6	399.9	416.3	432.6	443.5
75°	235.5	251.1	266.6	282.0	297.5	313.4	329.9	346.4	362.8	379.3	390.1
77.5°	183.4	199.1	214.6	230.3	245.8	261.9	278.5	295.1	311.7	328.3	339.8
80°	146.7	162.8	179.0	195.1	211.2	227.8	245.0	262.1	279.2	296.3	307.6
82.5°	114.7	131.1	147.5	163.9	180.2	197.2	214.5	232.0	249.3	266.6	277.9
85°	72.6	89.1	105.6	122.0	138.5	155.4	172.9	190.3	207.7	225.2	236.4
87.5°	39.6	56.3	73.0	89.7	106.4	123.4	140.6	157.9	175.0	192.3	203.6
90°	20.0	37.8	55.5	73.3	91.0	109.4	128.4	147.2	166.2	185.1	197.0
92.5°	31.8	45.9	59.9	74.1	88.1	104.2	122.4	140.5	158.6	176.8	188.8
95°	61.3	67.4	73.5	79.6	85.8	97.7	115.7	133.7	151.6	169.6	180.9
97.5°	104.9	113.5	122.1	130.6	139.1	145.2	148.9	152.5	156.1	159.8	170.9
100°	137.9	151.7	165.5	179.3	193.1	194.8	184.5	174.0	163.6	153.3	164.1
102.5°	175.6	187.5	199.3	211.1	222.9	222.3	209.3	196.3	183.3	170.3	175.5
105°	231.5	241.1	250.8	260.5	270.2	274.8	274.3	273.6	273.1	272.5	252.7
107.5°	288.9	297.1	305.2	313.4	321.5	333.5	349.2	365.0	380.8	396.5	384.1
110°	327.3	334.4	341.7	348.9	356.2	367.3	382.2	397.2	412.2	427.2	430.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	365.0	371.0	377.0	383.1	389.2	399.4	413.9	428.3	442.7	457.1	465.6
115°	419.3	424.2	429.2	434.1	439.0	448.2	461.5	474.9	488.1	501.5	511.0
117.5°	473.2	476.7	480.4	484.1	487.7	495.5	507.4	519.2	531.1	543.0	552.1
120°	505.5	508.7	511.8	514.9	518.0	525.3	536.6	548.0	559.3	570.7	579.6
122.5°	539.7	541.8	543.8	545.9	548.0	554.5	565.4	576.5	587.4	598.3	606.5
125°	585.1	586.4	587.7	589.0	590.3	596.1	606.3	616.5	626.7	636.9	644.1
127.5°	630.5	631.5	632.4	633.4	634.4	639.2	647.9	656.7	665.3	674.0	681.1
130°	658.7	659.8	660.7	661.8	662.7	666.8	674.1	681.3	688.5	695.8	702.7
132.5°	684.8	686.0	687.2	688.4	689.7	693.2	699.0	704.8	710.6	716.4	723.0
135°	725.9	726.5	727.2	727.8	728.5	730.9	735.2	739.4	743.8	748.0	754.4
137.5°	760.9	761.9	762.9	763.8	764.9	766.6	768.9	771.3	773.7	776.1	782.1
140°	783.3	784.3	785.2	786.3	787.2	788.4	789.9	791.5	792.9	794.4	799.9
142.5°	805.1	805.9	806.5	807.3	807.9	808.7	809.4	810.1	810.8	811.4	816.4
145°	835.7	836.4	837.3	838.1	838.9	839.4	839.8	840.1	840.5	840.7	843.8
147.5°	862.9	863.7	864.4	865.2	865.9	866.5	866.8	867.0	867.4	867.7	868.8
150°	880.5	881.1	881.6	882.0	882.5	883.0	883.3	883.6	883.9	884.3	884.6
152.5°	896.5	896.7	896.9	897.2	897.4	897.6	897.8	898.0	898.2	898.4	899.0
155°	918.9	918.6	918.2	917.9	917.6	917.5	917.7	917.8	917.9	918.1	919.0
157.5°	936.2	936.2	936.2	936.1	936.1	936.0	935.9	935.8	935.6	935.4	936.4
160°	946.9	946.7	946.6	946.4	946.2	946.0	945.9	945.7	945.6	945.4	946.4
162.5°	956.9	956.5	956.0	955.6	955.2	954.9	954.7	954.6	954.4	954.2	955.4
165°	969.0	968.5	968.0	967.5	967.0	966.7	966.6	966.4	966.2	966.0	967.3
167.5°	978.5	977.8	977.1	976.5	975.8	975.4	975.4	975.4	975.4	975.4	976.8
170°	983.7	983.1	982.4	981.8	981.1	980.8	980.8	980.8	980.8	980.8	982.1
172.5°	987.2	986.5	985.7	984.9	984.1	983.8	983.9	984.0	984.2	984.3	985.6
175°	991.8	991.0	990.2	989.4	988.5	988.3	988.4	988.5	988.7	988.9	990.0
177.5°	993.0	992.4	991.7	991.1	990.4	990.1	990.2	990.4	990.5	990.6	991.7
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1	1360.1
2.5°	1357.2	1359.3	1361.4	1362.4	1362.1	1361.8	1361.5	1361.3
5°	1355.0	1357.6	1360.3	1361.4	1361.1	1360.7	1360.5	1360.1
7.5°	1346.8	1350.1	1353.4	1354.9	1354.4	1354.1	1353.7	1353.3
10°	1338.5	1341.8	1345.1	1346.4	1345.8	1345.1	1344.4	1343.8
12.5°	1327.4	1330.4	1333.4	1334.5	1333.9	1333.2	1332.6	1331.9
15°	1305.9	1309.2	1312.5	1314.0	1313.7	1313.3	1313.1	1312.7
17.5°	1278.0	1281.0	1283.9	1285.2	1284.8	1284.3	1283.8	1283.4
20°	1257.8	1260.8	1263.8	1265.5	1265.7	1266.1	1266.4	1266.8
22.5°	1235.8	1239.5	1243.2	1245.0	1244.8	1244.6	1244.4	1244.3
25°	1198.3	1202.6	1206.8	1209.0	1209.0	1209.0	1209.0	1209.0
27.5°	1159.1	1162.8	1166.5	1168.5	1168.8	1169.0	1169.3	1169.6
30°	1132.5	1136.4	1140.3	1142.3	1142.3	1142.3	1142.3	1142.3
32.5°	1103.3	1107.6	1111.7	1114.3	1115.0	1115.9	1116.6	1117.4
35°	1060.4	1065.3	1070.2	1073.4	1074.7	1076.0	1077.3	1078.6
37.5°	1015.7	1021.3	1026.9	1030.2	1031.3	1032.4	1033.4	1034.4
40°	986.1	991.6	997.3	1000.7	1002.0	1003.3	1004.7	1006.0
42.5°	955.2	961.3	967.4	971.4	973.2	975.1	976.9	978.7
45°	908.9	915.1	921.4	925.9	928.5	931.1	933.8	936.3
47.5°	862.1	869.2	876.3	880.8	882.8	884.9	886.9	888.9
50°	830.0	837.6	845.2	850.1	852.4	854.7	857.1	859.3
52.5°	797.4	805.2	813.0	818.4	821.2	824.1	826.9	829.7
55°	748.2	757.1	766.0	771.8	774.4	777.0	779.7	782.3
57.5°	698.0	706.9	715.9	721.9	725.0	728.1	731.2	734.2
60°	662.9	672.1	681.4	687.8	691.4	695.0	698.6	702.3
62.5°	629.7	638.9	648.2	654.5	657.8	661.2	664.6	667.9
65°	576.8	586.7	596.6	603.1	606.4	609.7	613.0	616.3
67.5°	524.1	535.0	545.7	552.5	555.3	558.1	560.8	563.6
70°	489.3	499.8	510.3	517.3	520.6	523.9	527.1	530.4
72.5°	454.2	465.1	475.8	482.9	486.2	489.5	492.8	496.1
75°	401.1	411.9	422.7	430.2	434.1	438.1	442.1	445.9
77.5°	351.2	362.7	374.2	381.4	384.5	387.5	390.5	393.5
80°	318.7	329.9	341.1	348.4	351.7	355.0	358.3	361.5
82.5°	289.1	300.3	311.4	318.7	322.0	325.3	328.6	331.9
85°	247.6	258.8	269.9	277.2	280.5	283.8	287.1	290.4
87.5°	214.9	226.3	237.6	245.0	248.3	251.7	255.1	258.4
90°	208.8	220.6	232.5	240.3	243.8	247.5	251.1	254.7
92.5°	200.8	212.7	224.7	232.3	235.5	238.7	242.0	245.2
95°	192.2	203.6	214.9	222.3	225.6	228.8	232.1	235.4
97.5°	182.0	193.1	204.2	211.5	215.0	218.4	221.9	225.4
100°	174.9	185.8	196.6	203.8	207.3	210.8	214.1	217.6
102.5°	180.7	186.0	191.1	195.6	199.2	202.7	206.3	209.9
105°	233.0	213.2	193.4	185.2	188.5	191.8	195.1	198.4
107.5°	371.6	359.2	346.8	331.1	312.2	293.2	274.3	255.3
110°	433.5	436.6	439.8	430.9	410.2	389.4	368.6	347.8



TEST NUMBER: P332066-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	474.0	482.4	490.8	493.9	491.9	489.8	487.8	485.8
115°	520.6	530.1	539.6	546.0	549.3	552.6	555.9	559.2
117.5°	561.3	570.4	579.6	585.5	588.2	590.9	593.6	596.3
120°	588.4	597.3	606.2	611.8	614.1	616.4	618.7	621.0
122.5°	614.8	623.0	631.2	636.6	639.0	641.5	643.9	646.3
125°	651.4	658.6	665.9	670.8	673.4	676.1	678.7	681.4
127.5°	688.1	695.1	702.2	706.6	708.6	710.5	712.4	714.3
130°	709.6	716.5	723.4	727.7	729.3	731.0	732.6	734.3
132.5°	729.7	736.3	743.0	747.2	748.9	750.7	752.5	754.3
135°	760.8	767.2	773.7	777.5	778.6	779.8	780.9	782.1
137.5°	788.2	794.1	800.1	803.7	805.0	806.3	807.7	809.0
140°	805.6	811.2	816.7	820.2	821.5	822.8	824.2	825.5
142.5°	821.3	826.2	831.2	834.2	835.5	836.6	837.8	839.1
145°	846.7	849.7	852.6	854.8	856.1	857.4	858.8	860.1
147.5°	870.0	871.1	872.2	873.0	873.5	873.8	874.3	874.7
150°	884.9	885.2	885.5	885.8	886.0	886.2	886.3	886.5
152.5°	899.6	900.1	900.8	900.7	900.1	899.5	898.9	898.2
155°	919.8	920.6	921.4	921.3	920.4	919.4	918.4	917.4
157.5°	937.4	938.3	939.3	939.1	937.9	936.6	935.4	934.1
160°	947.3	948.4	949.3	949.2	948.1	947.0	945.8	944.7
162.5°	956.5	957.6	958.7	958.8	957.7	956.7	955.7	954.7
165°	968.7	970.0	971.3	971.4	970.3	969.0	967.9	966.8
167.5°	978.1	979.4	980.7	980.7	979.4	978.1	976.8	975.4
170°	983.4	984.7	986.0	986.0	984.7	983.4	982.1	980.8
172.5°	986.9	988.3	989.6	989.5	988.1	986.7	985.1	983.7
175°	991.2	992.3	993.4	993.3	992.1	990.8	989.5	988.2
177.5°	992.8	993.8	994.9	994.8	993.4	992.1	990.8	989.5
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8

(END OF REPORT)