

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: P333230-830

Luminaire Tested: **S125DIP-S850D810U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333230-830
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-S850D810U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH 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: 5864.6 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

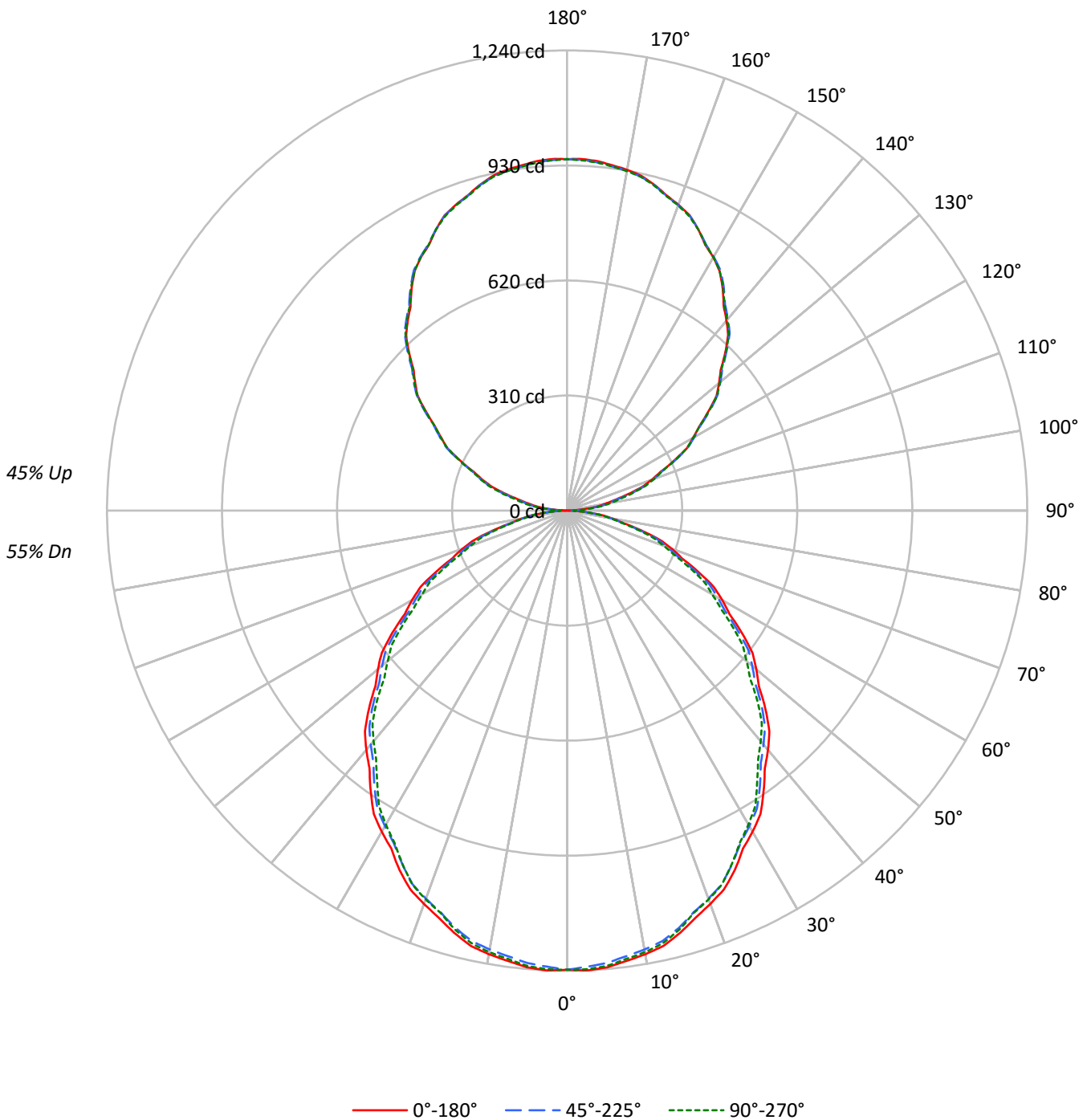
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61
1	99	94	90	87	92	88	84	81	75	73	71	64	62	61	54	52	51
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43
3	82	72	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	31
5	69	57	49	43	64	53	46	41	46	41	36	40	35	32	34	30	27
6	64	51	43	37	59	48	41	35	42	36	31	36	31	28	30	27	24
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	21
8	55	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19
9	51	38	31	26	47	36	29	25	32	26	22	28	23	20	24	20	17
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	2.0
10°-20°	329.6	5.6
20°-30°	486.6	8.3
30°-40°	567.8	9.7
40°-50°	570.3	9.7
50°-60°	500.6	8.5
60°-70°	373.0	6.4
70°-80°	213.3	3.6
80°-90°	64.1	1.1
90°-100°	63.4	1.1
100°-110°	187.3	3.2
110°-120°	317.3	5.4
120°-130°	417.5	7.1
130°-140°	467.9	8.0
140°-150°	458.6	7.8
150°-160°	385.1	6.6
160°-170°	256.0	4.4
170°-180°	89.6	1.5
0°-30°	932.8	15.9
0°-40°	1500.6	25.6
0°-60°	2571.4	43.8
0°-90°	3221.8	54.9
90°-120°	568.0	9.7
90°-150°	1912.0	32.6
90°-180°	2643.0	45.1
0°-180°	5864.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	1	7	12	15	18	6
95°	48	50	57	62	63	51
105°	168	172	176	180	183	180
115°	318	320	322	321	321	314
125°	464	468	469	467	467	415
135°	603	607	608	608	605	465
145°	730	733	736	735	733	456
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°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.3	21.6	21.8	22.1	22.3	22.5	22.5	22.6	22.6	22.7	22.9
90°	0.8	2.1	3.4	4.7	5.9	7.2	8.4	9.5	10.7	11.8	12.6
92.5°	17.8	18.8	19.7	20.5	21.5	22.6	24.0	25.4	26.9	28.3	29.4
95°	47.9	48.3	48.5	48.9	49.2	50.2	51.8	53.4	55.1	56.7	57.9
97.5°	79.6	79.7	79.8	80.0	80.1	81.3	83.6	85.9	88.1	90.4	91.4
100°	103.2	103.2	103.2	103.2	103.2	104.2	106.4	108.5	110.7	112.7	114.2
102.5°	128.6	129.2	129.9	130.5	131.2	132.1	133.1	134.2	135.3	136.4	138.0
105°	168.1	168.9	169.7	170.5	171.4	172.2	173.2	174.2	175.1	176.2	177.1
107.5°	211.7	212.4	213.3	214.1	215.0	215.7	216.5	217.3	218.0	218.8	219.2
110°	241.8	242.6	243.4	244.2	245.1	245.7	246.2	246.7	247.1	247.6	248.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	272.4	272.9	273.2	273.7	274.1	274.7	275.2	275.9	276.5	277.1	277.4
115°	317.6	318.3	319.0	319.6	320.3	320.7	321.1	321.4	321.8	322.1	321.9
117.5°	363.1	363.4	363.6	363.9	364.2	364.6	364.9	365.1	365.4	365.7	365.8
120°	391.3	392.2	393.0	393.8	394.6	395.1	395.3	395.5	395.6	395.8	395.8
122.5°	422.0	422.4	422.6	422.9	423.2	423.6	424.0	424.4	424.8	425.3	425.1
125°	463.5	464.6	465.5	466.6	467.5	468.1	468.3	468.4	468.5	468.7	468.4
127.5°	507.8	508.4	508.9	509.4	510.0	510.4	510.6	510.8	511.0	511.2	511.0
130°	534.3	535.2	536.0	536.8	537.6	538.2	538.5	538.9	539.1	539.5	539.3
132.5°	560.9	562.2	563.5	564.9	566.3	566.8	566.8	566.8	566.7	566.7	566.5
135°	602.9	603.9	604.8	605.9	606.8	607.4	607.6	607.8	607.8	608.0	608.0
137.5°	642.4	643.4	644.3	645.3	646.2	646.9	647.2	647.5	647.9	648.3	648.5
140°	667.8	668.5	669.4	670.2	671.0	671.7	672.1	672.7	673.2	673.6	674.0
142.5°	693.1	693.8	694.5	695.1	695.9	696.5	697.1	697.8	698.3	699.0	699.2
145°	730.4	731.0	731.7	732.4	733.0	733.6	734.1	734.5	735.1	735.6	735.6
147.5°	764.9	765.3	765.6	766.0	766.3	766.7	767.1	767.5	767.9	768.3	768.6
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°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	23.1	23.2	23.4	23.4	23.1	22.8	22.6	22.3
90°	13.4	14.2	15.1	15.7	16.2	16.7	17.2	17.7
92.5°	30.4	31.6	32.6	33.4	33.7	34.0	34.4	34.8
95°	59.0	60.2	61.4	62.1	62.4	62.8	63.1	63.3
97.5°	92.6	93.6	94.7	95.3	95.5	95.7	96.0	96.1
100°	115.7	117.2	118.7	119.6	119.9	120.2	120.6	120.8
102.5°	139.6	141.2	142.8	143.8	144.3	144.7	145.2	145.6
105°	178.1	179.1	180.1	180.8	181.3	181.8	182.3	182.8
107.5°	219.7	220.2	220.7	220.9	220.9	220.8	220.8	220.8
110°	248.6	249.1	249.6	249.8	249.6	249.4	249.3	249.1



TEST NUMBER: P333230-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	277.6	277.8	278.1	278.1	277.7	277.4	277.1	276.8
115°	321.8	321.6	321.4	321.2	321.1	320.9	320.7	320.7
117.5°	366.0	366.1	366.3	366.0	365.3	364.7	364.0	363.4
120°	395.8	395.8	395.8	395.5	394.8	394.2	393.5	392.9
122.5°	425.0	424.9	424.7	424.4	423.9	423.4	422.8	422.4
125°	468.1	467.8	467.4	467.2	467.0	466.8	466.7	466.6
127.5°	510.9	510.7	510.6	510.3	510.0	509.6	509.3	509.0
130°	539.1	539.0	538.9	538.6	538.3	537.9	537.6	537.2
132.5°	566.3	566.1	566.0	565.6	565.2	564.8	564.3	563.8
135°	608.0	608.0	608.0	607.8	607.1	606.4	605.8	605.1
137.5°	648.7	648.8	649.0	648.8	647.9	647.1	646.3	645.5
140°	674.3	674.6	675.0	674.7	673.9	673.1	672.2	671.5
142.5°	699.4	699.6	699.7	699.5	698.6	697.9	697.0	696.2
145°	735.6	735.6	735.6	735.3	734.8	734.3	733.9	733.3
147.5°	769.0	769.5	769.9	769.5	768.4	767.2	766.2	765.1
150°	790.1	790.1	790.1	789.9	789.6	789.3	788.9	788.6
152.5°	809.7	810.1	810.5	810.4	809.8	809.3	808.7	808.0
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)