

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: P333687-935

Luminaire Tested: **S125RDIW-S850D770U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333687-935
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: S125RDIW-S850D770U935-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5090.6 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

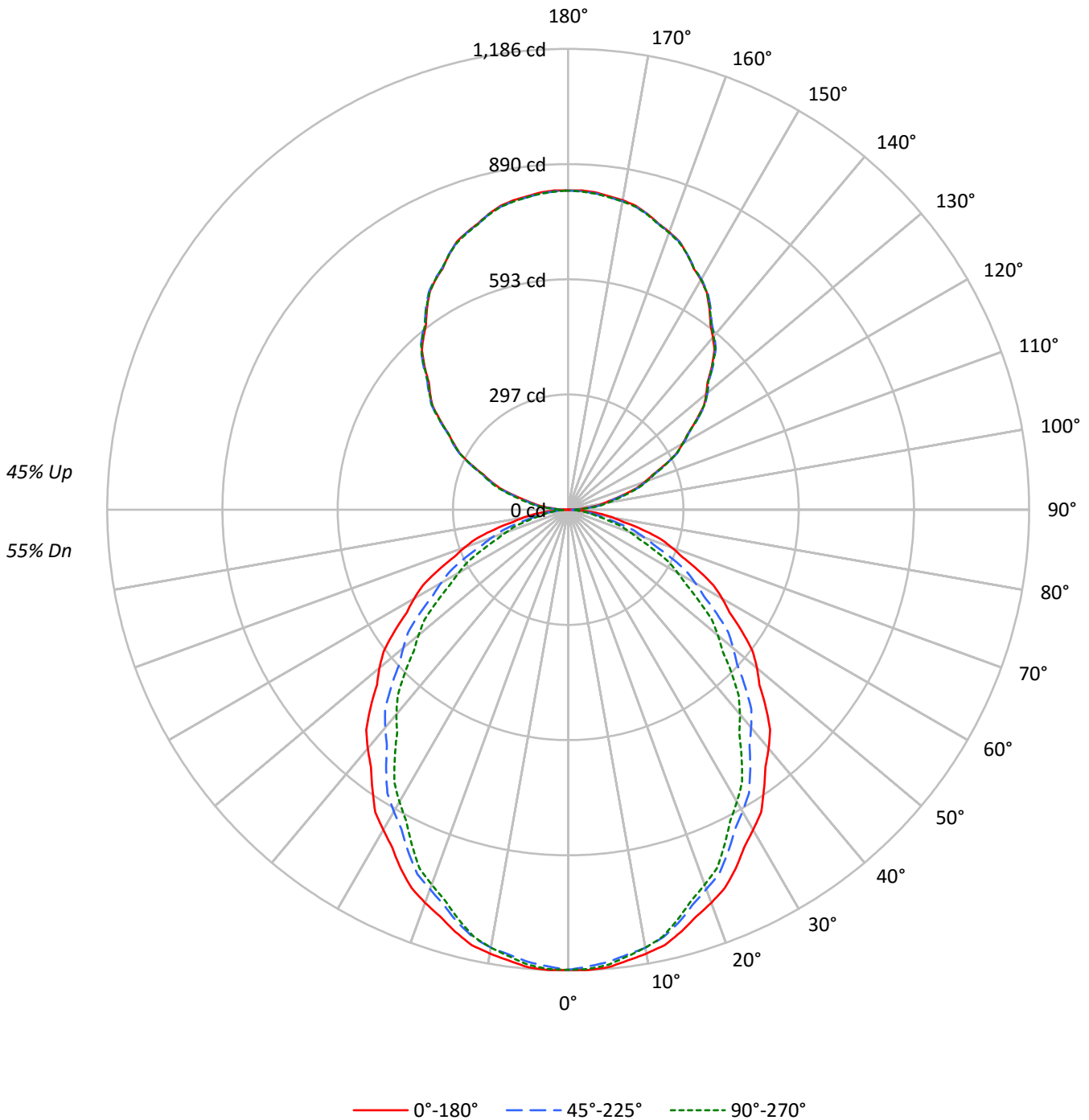
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	88	92	88	85	82	76	73	71	65	63	61	54	53	52	47
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	48	46	44	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	33	29
5	70	58	50	44	64	54	47	42	47	42	37	41	36	33	34	31	29	25
6	64	52	44	38	59	49	42	36	43	37	33	37	32	29	31	28	25	22
7	59	47	39	34	55	44	37	32	39	33	29	34	29	26	29	25	22	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	26	23	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	21	24	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7647	7647	7647
5°	7664	7577	7623
10°	7606	7506	7506
15°	7515	7353	7294
20°	7399	7142	7056
25°	7264	6933	6780
30°	7095	6689	6475
35°	6923	6437	6133
40°	6762	6175	5798
45°	6566	5881	5431
50°	6370	5561	5050
55°	6141	5255	4641
60°	5913	4885	4204
65°	5644	4455	3703
70°	5336	3916	3191
75°	4908	3301	2655
80°	4322	2592	2228
85°	3646	2119	1993



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	2.2
10°-20°	311.1	6.1
20°-30°	451.2	8.9
30°-40°	514.2	10.1
40°-50°	501.2	9.8
50°-60°	421.9	8.3
60°-70°	295.7	5.8
70°-80°	152.0	3.0
80°-90°	40.2	0.8
90°-100°	55.0	1.1
100°-110°	162.4	3.2
110°-120°	275.1	5.4
120°-130°	362.1	7.1
130°-140°	405.7	8.0
140°-150°	397.7	7.8
150°-160°	334.0	6.6
160°-170°	222.0	4.4
170°-180°	77.7	1.5
0°-30°	873.6	17.2
0°-40°	1387.8	27.3
0°-60°	2310.8	45.4
0°-90°	2798.7	55.0
90°-120°	492.6	9.7
90°-150°	1658.1	32.6
90°-180°	2292.0	45.0
0°-180°	5090.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1182	1178	1169	1177	1176	112
15°	1124	1118	1100	1099	1091	317
25°	1019	1005	973	961	951	469
35°	878	856	816	791	778	550
45°	719	692	644	609	595	554
55°	545	516	467	428	412	488
65°	369	338	292	257	242	366
75°	197	169	132	113	106	208
85°	49	34	29	28	27	55
90°	1	6	10	13	15	5
95°	42	43	49	54	55	44
105°	146	149	153	156	158	156
115°	276	278	279	279	278	272
125°	402	406	406	405	405	360
135°	523	526	527	527	525	403
145°	633	636	638	638	636	396
155°	725	725	726	728	725	334
165°	788	787	788	790	786	222
175°	819	817	817	820	816	78
180°	821	821	821	821	821	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1186.0	1185.6	1185.1	1184.6	1184.1	1183.1	1181.6	1179.9	1178.4	1176.7	1178.4
5°	1182.2	1181.4	1180.5	1179.7	1179.0	1177.5	1175.3	1173.1	1170.9	1168.7	1170.7
7.5°	1170.5	1169.8	1169.0	1168.2	1167.5	1165.8	1163.2	1160.5	1158.0	1155.3	1156.7
10°	1159.8	1159.2	1158.6	1158.0	1157.4	1155.7	1153.0	1150.1	1147.4	1144.6	1145.1
12.5°	1147.6	1146.9	1146.1	1145.4	1144.6	1142.4	1138.6	1134.9	1131.2	1127.4	1127.8
15°	1124.0	1122.8	1121.6	1120.4	1119.2	1116.5	1112.4	1108.2	1104.1	1099.8	1099.7
17.5°	1097.3	1095.5	1093.7	1091.9	1090.0	1086.5	1081.2	1076.0	1070.7	1065.5	1064.5
20°	1076.6	1074.6	1072.6	1070.7	1068.7	1064.5	1058.2	1051.8	1045.4	1039.1	1038.1
22.5°	1053.7	1051.7	1049.7	1047.8	1045.8	1041.5	1034.7	1028.1	1021.4	1014.8	1012.8
25°	1019.4	1016.4	1013.4	1010.5	1007.5	1002.3	995.0	987.6	980.2	972.9	970.3
27.5°	980.1	976.5	972.8	969.2	965.6	959.8	952.0	944.1	936.3	928.3	924.7
30°	951.4	947.6	943.9	940.1	936.3	930.2	922.0	913.6	905.3	896.9	892.3
32.5°	923.5	919.1	914.7	910.3	905.9	899.4	891.0	882.4	873.9	865.4	860.4
35°	878.1	873.3	868.6	863.8	859.0	852.1	843.3	834.3	825.4	816.4	810.6
37.5°	833.5	827.8	822.0	816.1	810.4	802.9	793.7	784.4	775.2	765.9	759.1
40°	802.1	796.2	790.1	784.2	778.3	770.5	761.0	751.4	741.9	732.4	724.8
42.5°	769.2	763.1	757.0	750.8	744.7	736.8	726.9	717.0	707.1	697.3	690.1
45°	718.9	713.2	707.4	701.6	695.9	687.5	676.6	665.7	654.8	643.9	635.8
47.5°	666.9	660.8	654.7	648.7	642.6	634.0	623.0	612.0	601.0	590.0	581.8
50°	634.0	627.4	620.9	614.3	607.8	598.8	587.5	576.2	564.8	553.5	545.2
52.5°	598.2	591.5	584.8	578.1	571.4	562.7	552.0	541.3	530.5	519.9	510.9
55°	545.4	539.1	532.8	526.4	520.0	511.3	500.2	489.0	477.9	466.7	457.8
57.5°	492.1	485.3	478.5	471.7	465.0	456.2	445.5	434.7	424.0	413.3	404.6
60°	457.8	450.9	443.9	437.0	430.0	421.2	410.4	399.7	389.0	378.2	369.5
62.5°	421.4	414.7	408.1	401.4	394.8	386.1	375.1	364.3	353.4	342.5	334.4
65°	369.3	362.6	355.8	349.0	342.2	333.6	323.1	312.5	302.0	291.5	283.5
67.5°	317.6	310.8	304.1	297.4	290.6	282.1	272.1	262.0	251.9	241.8	234.5
70°	282.6	275.8	269.1	262.3	255.5	247.2	237.3	227.3	217.4	207.4	201.3
72.5°	248.2	241.6	235.1	228.4	221.9	213.9	204.6	195.3	186.0	176.7	171.0
75°	196.7	190.8	184.8	178.8	172.9	165.7	157.4	149.0	140.7	132.3	127.9
77.5°	145.6	140.8	136.0	131.3	126.5	120.8	114.1	107.5	100.7	94.1	91.0
80°	116.2	111.5	106.7	101.9	97.2	92.0	86.4	80.8	75.3	69.7	67.9
82.5°	87.6	83.3	79.0	74.7	70.4	66.4	62.6	58.8	54.9	51.1	50.3
85°	49.2	45.6	42.0	38.5	34.9	32.5	31.6	30.6	29.6	28.6	28.4
87.5°	16.6	15.7	14.8	13.9	13.0	12.7	12.7	12.7	12.7	12.7	12.9
90°	0.6	1.8	2.9	4.0	5.2	6.3	7.2	8.3	9.2	10.2	10.9
92.5°	15.5	16.3	17.0	17.8	18.7	19.6	20.9	22.1	23.3	24.5	25.5
95°	41.6	41.8	42.1	42.4	42.7	43.6	44.9	46.4	47.8	49.2	50.2
97.5°	69.1	69.1	69.2	69.4	69.5	70.5	72.5	74.5	76.4	78.4	79.3
100°	89.5	89.5	89.5	89.5	89.5	90.4	92.2	94.1	95.9	97.8	99.1
102.5°	111.5	112.0	112.6	113.1	113.7	114.5	115.5	116.4	117.3	118.2	119.7
105°	145.8	146.5	147.1	147.8	148.6	149.4	150.2	151.0	151.9	152.7	153.6
107.5°	183.6	184.3	185.0	185.7	186.4	187.1	187.8	188.4	189.1	189.7	190.1
110°	209.7	210.3	211.0	211.8	212.5	213.0	213.4	213.9	214.3	214.7	215.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	236.3	236.6	236.9	237.4	237.7	238.2	238.7	239.3	239.8	240.3	240.6
115°	275.5	276.0	276.6	277.2	277.8	278.2	278.4	278.7	279.1	279.3	279.1
117.5°	314.9	315.1	315.4	315.6	315.9	316.2	316.4	316.7	316.9	317.2	317.3
120°	339.4	340.1	340.8	341.6	342.2	342.7	342.8	342.9	343.1	343.2	343.2
122.5°	366.0	366.3	366.5	366.8	367.0	367.3	367.6	368.1	368.4	368.8	368.7
125°	402.0	402.9	403.7	404.6	405.4	406.0	406.0	406.2	406.4	406.5	406.2
127.5°	440.4	440.8	441.3	441.9	442.3	442.6	442.8	443.0	443.2	443.3	443.2
130°	463.4	464.1	464.9	465.5	466.2	466.7	467.0	467.3	467.6	467.9	467.7
132.5°	486.4	487.6	488.7	489.9	491.0	491.6	491.5	491.5	491.5	491.4	491.3
135°	522.8	523.7	524.5	525.4	526.2	526.8	526.8	527.0	527.2	527.3	527.3
137.5°	557.1	557.9	558.7	559.6	560.4	560.9	561.3	561.5	561.9	562.2	562.4
140°	579.1	579.8	580.5	581.2	581.9	582.5	582.9	583.3	583.8	584.2	584.4
142.5°	601.1	601.7	602.3	602.9	603.5	604.0	604.6	605.1	605.6	606.1	606.3
145°	633.4	634.0	634.6	635.1	635.7	636.2	636.6	637.1	637.5	637.9	637.9
147.5°	663.3	663.7	663.9	664.3	664.6	664.9	665.2	665.6	665.9	666.2	666.6
150°	683.3	683.1	682.9	682.9	682.7	682.9	683.5	684.1	684.6	685.2	685.2
152.5°	699.6	699.8	700.0	700.3	700.4	700.6	700.9	701.1	701.3	701.5	701.9
155°	724.8	724.8	724.8	724.8	724.8	724.9	725.0	725.1	725.3	725.5	726.0
157.5°	747.3	747.0	746.7	746.4	746.1	746.0	746.1	746.2	746.4	746.6	747.1
160°	760.6	760.2	759.7	759.3	758.9	758.7	758.9	759.1	759.1	759.3	759.9
162.5°	772.4	772.1	771.7	771.5	771.1	770.9	771.0	771.0	771.0	771.1	771.8
165°	788.1	787.8	787.6	787.2	787.0	786.9	787.0	787.1	787.3	787.5	788.0
167.5°	801.4	800.8	800.2	799.7	799.1	798.8	798.8	798.8	798.8	798.8	799.7
170°	808.6	808.0	807.4	806.8	806.2	806.0	806.0	806.0	806.0	806.0	806.8
172.5°	813.6	813.0	812.5	811.9	811.4	811.1	811.1	811.1	811.1	811.1	811.9
175°	819.4	818.8	818.3	817.7	817.1	816.8	816.8	816.8	816.8	816.8	817.7
177.5°	822.3	821.9	821.4	821.0	820.5	820.3	820.1	820.0	819.9	819.8	820.4
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1179.9	1181.6	1183.1	1183.9	1183.7	1183.5	1183.4	1183.2
5°	1172.7	1174.7	1176.6	1177.5	1177.1	1176.6	1176.3	1175.9
7.5°	1158.1	1159.5	1160.9	1161.3	1160.9	1160.5	1160.0	1159.6
10°	1145.7	1146.3	1146.9	1146.9	1146.3	1145.7	1145.1	1144.6
12.5°	1128.3	1128.7	1129.1	1128.9	1128.0	1127.0	1126.2	1125.2
15°	1099.5	1099.2	1099.1	1098.1	1096.3	1094.5	1092.7	1090.9
17.5°	1063.5	1062.6	1061.5	1060.3	1058.9	1057.4	1055.9	1054.5
20°	1037.1	1036.0	1035.1	1033.7	1031.9	1030.1	1028.3	1026.6
22.5°	1010.8	1008.9	1006.9	1005.2	1003.8	1002.3	1000.8	999.4
25°	967.8	965.2	962.6	960.2	957.9	955.8	953.6	951.4
27.5°	921.1	917.5	913.9	911.0	909.0	906.8	904.7	902.6
30°	887.8	883.2	878.6	875.5	873.7	871.8	870.0	868.2
32.5°	855.3	850.2	845.2	841.5	839.3	837.1	834.7	832.5
35°	804.9	799.1	793.3	789.1	786.3	783.5	780.8	777.9
37.5°	752.2	745.2	738.3	733.5	730.8	728.1	725.4	722.7
40°	717.2	709.7	702.1	697.2	694.8	692.4	690.0	687.7
42.5°	682.9	675.6	668.4	663.0	659.5	656.0	652.5	649.0
45°	627.9	620.0	612.0	606.6	603.6	600.6	597.6	594.6
47.5°	573.6	565.4	557.2	551.5	548.2	544.9	541.6	538.3
50°	536.8	528.5	520.1	514.4	511.5	508.5	505.5	502.6
52.5°	502.0	492.9	484.0	477.9	475.0	472.0	469.1	466.1
55°	448.9	440.0	431.0	424.9	421.8	418.6	415.4	412.2
57.5°	395.8	387.1	378.3	372.6	369.7	366.9	364.1	361.3
60°	360.8	352.0	343.3	337.4	334.4	331.5	328.5	325.5
62.5°	326.2	318.1	310.0	304.5	301.5	298.5	295.6	292.6
65°	275.6	267.7	259.7	254.3	251.2	248.3	245.3	242.3
67.5°	227.2	220.0	212.7	207.8	205.5	203.1	200.7	198.4
70°	195.1	189.0	182.8	178.6	176.2	173.7	171.4	169.0
72.5°	165.3	159.6	153.9	150.3	148.7	147.1	145.6	144.0
75°	123.6	119.2	114.9	112.0	110.6	109.2	107.8	106.4
77.5°	87.9	84.9	81.8	79.8	78.8	77.7	76.7	75.7
80°	66.2	64.4	62.6	61.5	61.1	60.7	60.3	59.9
82.5°	49.5	48.6	47.8	47.3	47.0	46.8	46.6	46.3
85°	28.2	28.0	27.8	27.6	27.4	27.2	27.0	26.9
87.5°	13.1	13.2	13.3	13.3	13.3	13.3	13.2	13.1
90°	11.6	12.4	13.1	13.6	14.0	14.5	14.9	15.3
92.5°	26.4	27.4	28.3	28.9	29.3	29.5	29.9	30.1
95°	51.2	52.2	53.2	53.8	54.2	54.4	54.7	54.9
97.5°	80.2	81.2	82.1	82.7	82.8	83.0	83.2	83.3
100°	100.3	101.6	102.9	103.7	104.0	104.3	104.5	104.8
102.5°	121.1	122.4	123.8	124.7	125.1	125.5	125.9	126.3
105°	154.5	155.3	156.2	156.8	157.2	157.6	158.1	158.5
107.5°	190.5	191.0	191.4	191.6	191.6	191.6	191.5	191.5
110°	215.6	216.0	216.5	216.6	216.5	216.3	216.2	216.0



TEST NUMBER: P333687-935

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.7	240.9	241.1	241.1	240.8	240.6	240.3	240.0
115°	279.1	278.9	278.7	278.6	278.4	278.4	278.2	278.0
117.5°	317.4	317.5	317.6	317.4	316.8	316.2	315.6	315.1
120°	343.2	343.2	343.2	342.9	342.4	341.8	341.2	340.7
122.5°	368.6	368.4	368.3	368.1	367.6	367.1	366.7	366.3
125°	406.0	405.6	405.4	405.2	405.0	404.8	404.8	404.6
127.5°	443.1	442.9	442.7	442.6	442.3	442.0	441.7	441.4
130°	467.6	467.4	467.3	467.1	466.8	466.5	466.2	466.0
132.5°	491.1	490.9	490.9	490.5	490.2	489.7	489.4	489.0
135°	527.3	527.3	527.3	527.0	526.4	525.9	525.3	524.8
137.5°	562.6	562.7	562.9	562.6	561.9	561.2	560.5	559.7
140°	584.8	585.0	585.3	585.1	584.4	583.7	583.0	582.3
142.5°	606.5	606.7	606.8	606.6	605.9	605.2	604.4	603.7
145°	637.9	637.9	637.9	637.7	637.2	636.8	636.4	635.9
147.5°	666.9	667.3	667.6	667.3	666.3	665.4	664.4	663.5
150°	685.2	685.2	685.2	685.0	684.8	684.5	684.2	683.9
152.5°	702.2	702.6	702.9	702.8	702.3	701.8	701.3	700.8
155°	726.6	727.1	727.7	727.6	726.9	726.3	725.5	724.8
157.5°	747.7	748.2	748.8	748.6	747.7	746.7	745.8	744.9
160°	760.4	761.0	761.6	761.6	760.8	760.1	759.4	758.7
162.5°	772.5	773.1	773.8	773.8	772.9	772.1	771.3	770.4
165°	788.6	789.2	789.7	789.5	788.8	787.9	787.0	786.2
167.5°	800.6	801.4	802.2	802.2	801.3	800.5	799.6	798.7
170°	807.7	808.6	809.4	809.3	808.3	807.4	806.3	805.4
172.5°	812.8	813.6	814.5	814.5	813.6	812.7	811.8	811.0
175°	818.6	819.4	820.3	820.2	819.2	818.2	817.2	816.2
177.5°	821.1	821.8	822.5	822.4	821.7	820.9	820.1	819.2
180°	821.3	821.3	821.3	821.3	821.3	821.3	821.3	821.3

(END OF REPORT)