

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: P332575-940

Luminaire Tested: **S124DIP-S575D1205U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332575-940
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-S575D1205U940-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5832.7 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

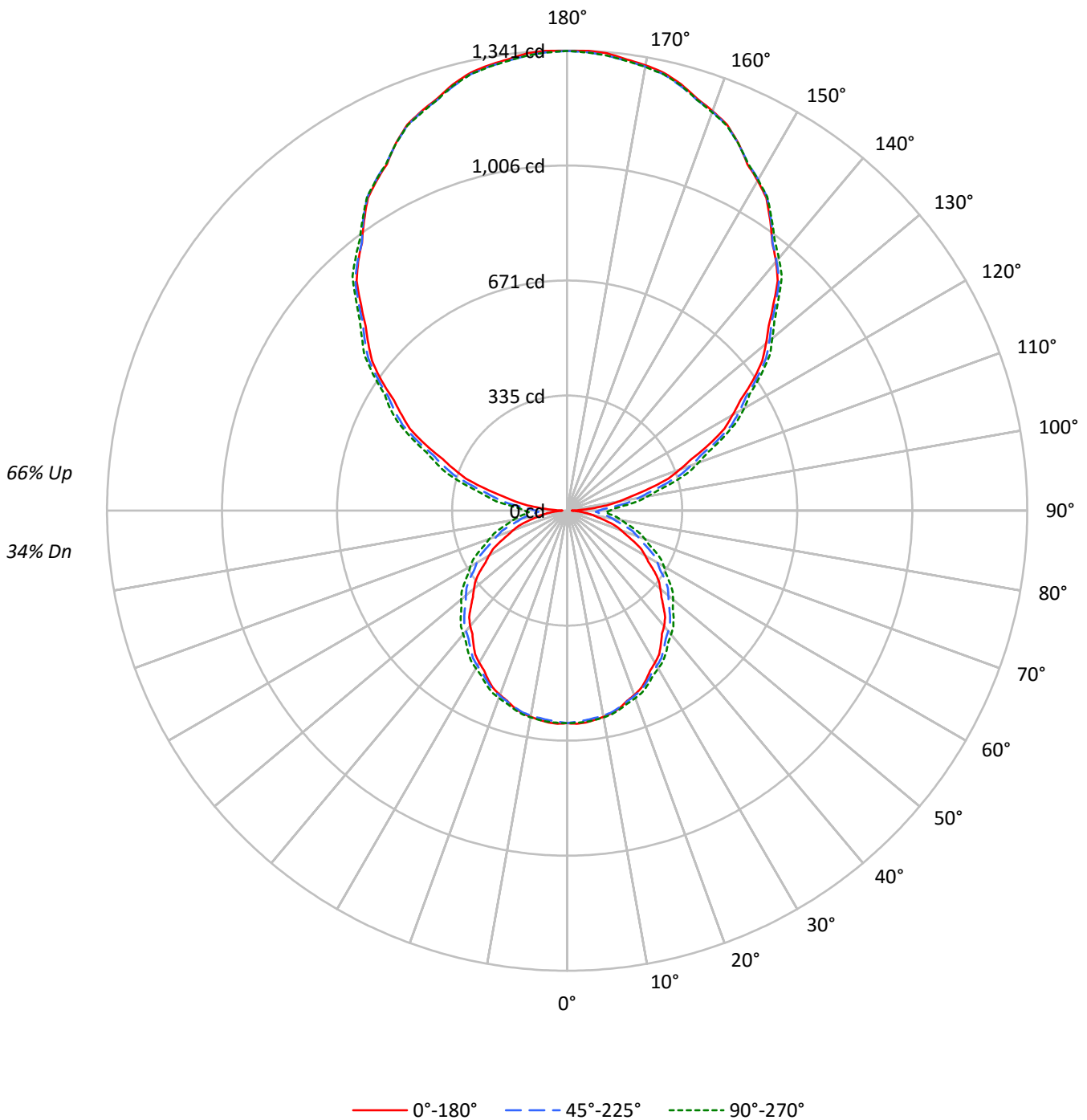
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41
1	93	89	85	81	84	80	77	74	64	61	59	49	47	46	35	34	33
2	85	77	71	66	76	70	64	60	56	52	48	43	40	38	30	29	27
3	77	68	60	54	69	61	55	50	49	44	40	37	34	32	27	25	23
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20
5	64	53	45	39	58	48	41	36	38	33	29	30	26	23	21	19	17
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15
7	55	42	35	29	49	38	32	27	31	26	22	24	20	17	17	15	13
8	51	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	12
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5002	5002	5002
5°	5018	4889	4903
10°	4987	4809	4805
15°	4943	4717	4690
20°	4875	4614	4579
25°	4799	4500	4456
30°	4717	4386	4330
35°	4624	4269	4220
40°	4550	4158	4105
45°	4439	4056	4005
50°	4344	3938	3901
55°	4249	3827	3778
60°	4098	3685	3667
65°	3933	3533	3529
70°	3733	3359	3369
75°	3453	3169	3224
80°	3143	2984	3082
85°	2746	2820	2999



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	1.0
10°-20°	168.1	2.9
20°-30°	254.2	4.4
30°-40°	307.6	5.3
40°-50°	325.2	5.6
50°-60°	306.0	5.2
60°-70°	253.9	4.4
70°-80°	178.3	3.1
80°-90°	104.8	1.8
90°-100°	148.2	2.5
100°-110°	306.0	5.2
110°-120°	474.0	8.1
120°-130°	602.5	10.3
130°-140°	665.1	11.4
140°-150°	647.9	11.1
150°-160°	543.7	9.3
160°-170°	361.7	6.2
170°-180°	126.7	2.2
0°-30°	481.0	8.2
0°-40°	788.6	13.5
0°-60°	1419.8	24.3
0°-90°	1956.9	33.5
90°-120°	928.2	15.9
90°-150°	2843.8	48.8
90°-180°	3876.0	66.5
0°-180°	5832.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	618	613	619	618	59
15°	595	595	593	599	599	167
25°	544	548	550	558	559	250
35°	476	484	491	501	503	298
45°	397	410	423	435	438	307
55°	311	326	346	360	364	277
65°	215	237	261	278	284	213
75°	119	145	174	193	200	127
85°	37	66	97	117	125	39
90°	14	53	92	117	126	11
95°	71	104	139	160	167	76
105°	248	263	292	312	322	263
115°	456	463	482	496	500	450
125°	661	661	676	687	690	589
135°	850	856	861	870	871	657
145°	1032	1035	1036	1039	1039	645
155°	1181	1181	1180	1184	1180	543
165°	1286	1283	1280	1286	1282	362
175°	1338	1332	1331	1338	1331	127
180°	1340	1340	1340	1340	1340	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	621.9	621.5	621.2	620.7	620.4	619.7	618.8	617.8	616.7	615.7	616.6
5°	620.4	619.9	619.4	618.9	618.5	617.7	616.6	615.5	614.5	613.4	614.7
7.5°	615.1	614.7	614.5	614.2	613.9	613.4	612.5	611.6	610.6	609.8	611.2
10°	610.6	610.5	610.3	610.2	610.0	609.6	608.8	608.0	607.3	606.5	607.9
12.5°	604.5	604.5	604.5	604.4	604.4	604.1	603.6	603.1	602.5	602.0	603.2
15°	594.7	594.9	594.9	595.1	595.3	595.1	594.7	594.2	593.7	593.3	594.7
17.5°	581.2	581.7	582.1	582.6	583.1	583.3	583.2	583.1	583.0	582.9	584.2
20°	571.8	572.2	572.7	573.2	573.6	573.9	574.1	574.3	574.4	574.5	576.0
22.5°	561.2	561.8	562.4	562.9	563.6	564.0	564.3	564.5	564.8	565.1	566.7
25°	544.0	544.9	545.9	546.8	547.7	548.4	548.8	549.3	549.8	550.3	552.0
27.5°	524.9	526.2	527.5	529.0	530.3	531.3	532.0	532.7	533.4	534.1	535.7
30°	512.1	513.4	514.5	515.8	517.0	518.2	519.2	520.3	521.4	522.5	524.2
32.5°	498.2	499.7	501.1	502.7	504.2	505.5	506.7	507.9	509.1	510.3	512.2
35°	476.0	477.9	479.7	481.5	483.4	485.1	486.6	488.2	489.7	491.2	493.5
37.5°	453.7	455.8	457.9	460.0	462.2	464.2	466.1	468.1	469.9	471.8	474.0
40°	439.3	441.2	443.3	445.2	447.3	449.3	451.5	453.6	455.8	458.0	460.3
42.5°	422.6	424.8	427.0	429.4	431.6	434.0	436.5	439.0	441.6	444.1	446.7
45°	396.9	399.8	402.8	405.7	408.6	411.5	414.5	417.4	420.4	423.3	425.9
47.5°	372.4	375.3	378.4	381.4	384.4	387.6	391.0	394.4	397.8	401.2	403.9
50°	354.5	357.9	361.3	364.8	368.2	371.6	375.0	378.4	381.7	385.1	388.2
52.5°	336.8	340.2	343.6	347.0	350.4	354.0	357.9	361.8	365.7	369.5	372.6
55°	310.9	314.1	317.4	320.6	323.8	327.7	332.3	337.0	341.6	346.3	349.4
57.5°	281.9	285.9	289.9	293.9	297.9	302.2	306.7	311.4	316.0	320.6	324.2
60°	263.0	267.0	271.0	275.0	279.0	283.6	288.6	293.7	298.8	303.9	307.5
62.5°	244.7	249.1	253.4	257.8	262.2	266.9	272.0	277.1	282.2	287.3	290.8
65°	215.1	220.1	225.0	229.9	234.9	240.0	245.1	250.4	255.7	260.9	264.7
67.5°	186.6	191.9	197.2	202.4	207.6	213.0	218.6	224.3	229.9	235.5	239.4
70°	167.2	172.5	177.7	183.0	188.2	193.8	199.6	205.5	211.3	217.2	221.3
72.5°	148.4	153.7	159.1	164.4	169.8	175.6	181.8	188.1	194.3	200.5	204.6
75°	119.3	125.0	130.7	136.4	142.1	148.3	154.7	161.2	167.7	174.2	178.5
77.5°	92.3	98.4	104.4	110.4	116.5	122.9	129.7	136.4	143.2	150.0	154.4
80°	75.6	81.8	88.0	94.2	100.3	106.7	113.6	120.4	127.2	133.9	138.6
82.5°	58.9	65.4	71.8	78.2	84.6	91.2	98.0	104.8	111.6	118.4	123.1
85°	36.7	43.2	49.8	56.2	62.7	69.4	76.3	83.3	90.2	97.1	101.7
87.5°	21.1	28.0	34.8	41.6	48.3	55.3	62.4	69.6	76.7	83.8	88.5
90°	14.2	22.9	31.6	40.3	49.0	57.6	66.1	74.5	83.0	91.5	97.4
92.5°	32.7	41.2	49.6	58.1	66.5	74.7	82.7	90.5	98.4	106.4	111.6
95°	71.2	78.4	85.5	92.6	99.8	107.4	115.3	123.2	131.2	139.1	143.9
97.5°	116.7	122.8	128.9	134.8	140.9	148.0	156.1	164.3	172.5	180.6	185.5
100°	152.7	157.6	162.6	167.5	172.4	178.9	187.0	195.1	203.1	211.2	215.9
102.5°	190.8	194.7	198.6	202.4	206.3	212.1	220.0	227.7	235.5	243.3	248.0
105°	247.6	250.9	254.2	257.6	260.9	265.8	272.5	279.1	285.7	292.4	296.9
107.5°	308.6	311.4	314.2	317.0	319.9	324.0	329.6	335.1	340.6	346.2	350.6
110°	349.5	352.1	354.7	357.4	360.0	363.9	369.1	374.2	379.3	384.5	387.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	392.1	394.0	396.0	398.1	400.0	403.4	408.1	412.9	417.7	422.4	425.7
115°	455.8	457.3	458.6	460.0	461.4	464.3	468.8	473.3	477.8	482.2	485.4
117.5°	516.7	517.6	518.7	519.7	520.7	523.3	527.6	531.9	536.2	540.5	542.9
120°	556.7	558.0	559.5	560.8	562.2	564.8	568.6	572.4	576.1	580.0	581.8
122.5°	599.0	599.4	599.9	600.3	600.8	603.0	606.9	610.8	614.7	618.6	620.9
125°	660.7	660.5	660.3	660.1	660.0	661.7	665.4	669.0	672.6	676.3	678.7
127.5°	717.0	717.6	718.1	718.6	719.2	720.8	723.4	725.9	728.5	731.1	733.4
130°	756.3	756.8	757.3	757.9	758.4	759.9	762.4	764.8	767.3	769.8	772.1
132.5°	796.9	797.3	797.6	798.0	798.3	799.3	801.2	803.0	804.8	806.6	808.7
135°	849.9	851.2	852.7	854.0	855.4	856.6	857.7	858.8	859.9	860.9	862.9
137.5°	908.3	908.7	909.3	909.7	910.3	911.0	911.9	912.8	913.6	914.5	916.1
140°	947.3	947.5	947.9	948.2	948.5	948.7	948.9	949.0	949.1	949.3	951.1
142.5°	982.3	982.8	983.2	983.6	984.0	984.1	983.8	983.6	983.3	983.0	984.7
145°	1031.5	1032.2	1033.0	1033.8	1034.6	1035.1	1035.3	1035.5	1035.7	1036.0	1036.7
147.5°	1080.4	1081.4	1082.3	1083.3	1084.2	1084.6	1084.4	1084.2	1084.1	1083.9	1083.8
150°	1110.3	1111.0	1111.8	1112.5	1113.3	1113.7	1113.7	1113.7	1113.7	1113.7	1113.7
152.5°	1137.8	1138.4	1138.9	1139.4	1140.0	1140.3	1140.5	1140.7	1140.9	1141.0	1141.6
155°	1181.0	1181.0	1181.0	1181.0	1181.0	1180.9	1180.7	1180.4	1180.2	1180.0	1180.9
157.5°	1217.5	1217.1	1216.7	1216.3	1215.8	1215.6	1215.6	1215.5	1215.5	1215.4	1216.1
160°	1239.0	1238.9	1238.6	1238.3	1238.1	1237.9	1237.7	1237.4	1237.2	1237.0	1237.7
162.5°	1258.9	1258.3	1257.8	1257.1	1256.5	1256.2	1255.9	1255.7	1255.4	1255.2	1256.4
165°	1285.7	1285.0	1284.2	1283.6	1282.9	1282.3	1281.8	1281.4	1280.9	1280.5	1281.8
167.5°	1306.2	1305.2	1304.2	1303.2	1302.3	1301.8	1301.9	1301.9	1302.0	1302.0	1303.4
170°	1317.8	1316.6	1315.5	1314.3	1313.1	1312.7	1313.0	1313.1	1313.4	1313.7	1315.0
172.5°	1326.1	1325.1	1324.1	1323.1	1322.2	1321.7	1321.8	1321.9	1321.9	1322.0	1323.5
175°	1337.5	1336.3	1335.2	1334.0	1332.8	1332.1	1331.9	1331.7	1331.5	1331.2	1332.8
177.5°	1341.2	1340.2	1339.3	1338.5	1337.5	1337.0	1337.0	1337.0	1337.0	1337.0	1338.4
180°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	617.5	618.3	619.2	619.6	619.5	619.3	619.2	619.1
5°	615.9	617.1	618.3	618.8	618.8	618.6	618.4	618.2
7.5°	612.6	613.9	615.4	616.0	615.8	615.6	615.5	615.4
10°	609.2	610.6	612.0	612.6	612.5	612.3	612.2	612.0
12.5°	604.6	605.8	607.1	607.7	607.7	607.6	607.6	607.6
15°	596.0	597.4	598.8	599.4	599.3	599.1	599.0	598.8
17.5°	585.7	587.1	588.5	589.2	589.1	589.0	588.8	588.7
20°	577.7	579.2	580.7	581.5	581.5	581.5	581.5	581.5
22.5°	568.2	569.7	571.2	572.2	572.4	572.7	572.9	573.2
25°	553.7	555.4	557.1	557.9	558.1	558.3	558.4	558.6
27.5°	537.3	538.9	540.5	541.4	541.5	541.7	541.9	542.1
30°	525.9	527.6	529.3	530.3	530.6	530.9	531.2	531.5
32.5°	514.2	516.1	518.1	519.2	519.5	519.8	520.1	520.4
35°	495.6	497.8	499.9	501.2	501.7	502.1	502.6	503.1
37.5°	476.3	478.4	480.6	482.0	482.4	483.0	483.4	483.9
40°	462.6	464.9	467.3	468.7	469.3	469.9	470.6	471.2
42.5°	449.2	451.7	454.3	455.8	456.4	456.8	457.4	457.8
45°	428.6	431.1	433.7	435.4	436.2	437.0	437.7	438.5
47.5°	406.6	409.4	412.1	413.8	414.8	415.7	416.7	417.6
50°	391.3	394.4	397.4	399.5	400.4	401.3	402.3	403.1
52.5°	375.8	378.8	381.9	383.9	384.9	385.8	386.6	387.6
55°	352.4	355.5	358.6	360.6	361.5	362.5	363.4	364.3
57.5°	327.9	331.6	335.3	337.5	338.4	339.2	340.1	341.0
60°	311.0	314.6	318.1	320.5	321.7	323.0	324.2	325.5
62.5°	294.4	297.9	301.5	303.8	305.1	306.3	307.6	308.8
65°	268.6	272.5	276.3	278.8	280.1	281.3	282.6	283.8
67.5°	243.3	247.3	251.2	253.7	254.9	256.1	257.3	258.5
70°	225.5	229.7	233.8	236.5	237.6	238.6	239.7	240.8
72.5°	208.6	212.7	216.7	219.3	220.5	221.7	222.9	224.1
75°	182.8	187.1	191.5	194.3	195.6	197.1	198.5	199.8
77.5°	158.8	163.2	167.6	170.5	171.9	173.4	174.9	176.4
80°	143.2	147.8	152.4	155.3	156.6	157.8	159.1	160.3
82.5°	127.9	132.6	137.4	140.4	141.8	143.1	144.5	145.9
85°	106.4	111.0	115.7	118.8	120.3	121.8	123.3	124.9
87.5°	93.3	98.1	102.8	105.9	107.4	108.8	110.2	111.7
90°	103.2	109.1	114.9	118.7	120.4	122.1	123.8	125.5
92.5°	116.7	121.9	127.1	130.5	132.0	133.5	135.0	136.5
95°	148.8	153.6	158.5	161.7	163.0	164.4	165.8	167.2
97.5°	190.3	195.2	200.1	203.1	204.5	205.8	207.1	208.5
100°	220.5	225.2	229.7	232.6	233.6	234.8	235.9	236.9
102.5°	252.6	257.3	262.0	265.0	266.4	267.8	269.2	270.6
105°	301.5	306.0	310.6	313.8	315.7	317.6	319.6	321.5
107.5°	355.0	359.4	363.9	366.7	367.7	368.8	369.9	370.9
110°	390.7	393.8	396.9	399.4	401.3	403.2	405.2	407.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	429.0	432.4	435.7	438.0	439.4	440.8	442.2	443.5
115°	488.6	491.7	494.9	496.9	497.8	498.6	499.4	500.2
117.5°	545.3	547.7	550.1	551.7	552.5	553.3	554.0	554.8
120°	583.8	585.8	587.6	589.5	591.2	592.9	594.6	596.3
122.5°	623.2	625.5	627.8	629.1	629.4	629.6	629.9	630.2
125°	681.2	683.7	686.1	687.6	688.0	688.5	689.0	689.5
127.5°	735.8	738.1	740.4	741.9	742.5	743.2	744.0	744.6
130°	774.5	776.8	779.1	780.2	780.2	780.2	780.2	780.2
132.5°	810.9	813.1	815.3	816.6	817.3	817.8	818.3	818.9
135°	865.0	866.9	869.0	870.0	870.3	870.6	870.8	871.0
137.5°	917.8	919.4	921.1	922.4	923.3	924.3	925.1	926.0
140°	952.9	954.7	956.4	957.6	958.1	958.7	959.2	959.7
142.5°	986.4	988.2	989.9	991.0	991.6	992.2	992.8	993.5
145°	1037.4	1038.0	1038.8	1039.1	1039.0	1038.9	1038.8	1038.8
147.5°	1083.7	1083.7	1083.6	1083.7	1084.0	1084.2	1084.5	1084.8
150°	1113.7	1113.7	1113.7	1113.6	1113.3	1113.1	1112.9	1112.7
152.5°	1142.1	1142.7	1143.3	1143.3	1142.6	1142.0	1141.4	1140.9
155°	1181.9	1182.8	1183.7	1183.7	1182.8	1181.9	1180.9	1180.0
157.5°	1216.8	1217.5	1218.2	1218.2	1217.4	1216.6	1215.8	1215.0
160°	1238.3	1239.0	1239.7	1239.5	1238.3	1237.2	1236.1	1234.9
162.5°	1257.7	1258.9	1260.2	1260.3	1259.1	1257.9	1256.8	1255.6
165°	1283.3	1284.6	1286.0	1286.2	1285.3	1284.4	1283.4	1282.5
167.5°	1304.8	1306.2	1307.5	1307.5	1306.1	1304.7	1303.2	1301.8
170°	1316.4	1317.8	1319.2	1319.0	1317.4	1315.8	1314.2	1312.6
172.5°	1325.1	1326.6	1328.2	1328.2	1326.5	1324.9	1323.3	1321.7
175°	1334.4	1336.1	1337.7	1337.7	1336.1	1334.4	1332.8	1331.2
177.5°	1339.6	1341.0	1342.2	1342.1	1340.6	1339.2	1337.7	1336.2
180°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5

(END OF REPORT)