

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: P332575-935

Luminaire Tested: **S124DIP-S575D1205U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332575-935
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-S575D1205U935-4F0-1E-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: 5631.8 lumens
Efficiency: N/A
Efficacy: 114.0 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

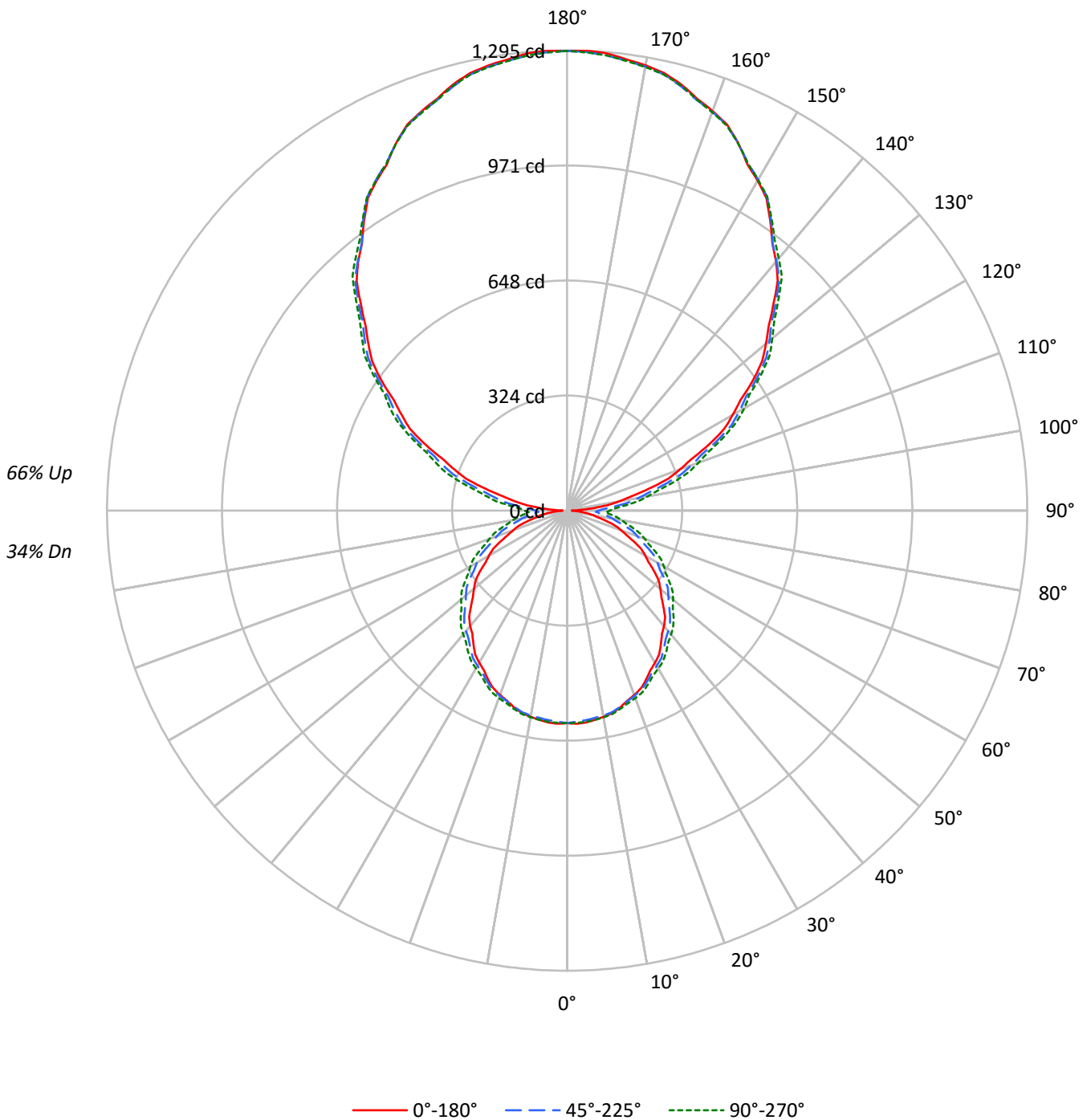
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.0
10°-20°	162.3	2.9
20°-30°	245.5	4.4
30°-40°	297.0	5.3
40°-50°	314.0	5.6
50°-60°	295.5	5.2
60°-70°	245.2	4.4
70°-80°	172.2	3.1
80°-90°	101.2	1.8
90°-100°	143.1	2.5
100°-110°	295.5	5.2
110°-120°	457.6	8.1
120°-130°	581.8	10.3
130°-140°	642.2	11.4
140°-150°	625.6	11.1
150°-160°	525.0	9.3
160°-170°	349.3	6.2
170°-180°	122.3	2.2
0°-30°	464.5	8.2
0°-40°	761.4	13.5
0°-60°	1370.9	24.3
0°-90°	1889.4	33.5
90°-120°	896.3	15.9
90°-150°	2745.8	48.8
90°-180°	3742.0	66.4
0°-180°	5631.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	14	52	88	113	121	11
95°	69	100	134	155	161	74
105°	239	254	282	301	310	254
115°	440	447	466	479	483	434
125°	638	638	653	663	666	568
135°	821	827	831	840	841	635
145°	996	999	1000	1003	1003	623
155°	1140	1140	1139	1143	1139	525
165°	1241	1238	1236	1242	1238	350
175°	1291	1287	1285	1292	1285	123
180°	1293	1293	1293	1293	1293	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.4	27.0	33.6	40.1	46.7	53.4	60.3	67.2	74.0	80.9	85.5
90°	13.7	22.1	30.5	38.9	47.4	55.6	63.8	72.0	80.2	88.3	94.0
92.5°	31.6	39.8	47.9	56.1	64.2	72.2	79.8	87.4	95.1	102.7	107.7
95°	68.7	75.7	82.6	89.5	96.3	103.7	111.3	119.0	126.7	134.3	139.0
97.5°	112.7	118.6	124.4	130.2	136.0	142.9	150.8	158.6	166.5	174.4	179.1
100°	147.4	152.1	157.0	161.7	166.4	172.7	180.6	188.4	196.1	204.0	208.4
102.5°	184.3	188.0	191.7	195.4	199.2	204.8	212.4	219.9	227.4	234.9	239.4
105°	239.1	242.3	245.5	248.7	251.9	256.7	263.1	269.5	275.9	282.3	286.7
107.5°	298.0	300.7	303.4	306.1	308.8	312.9	318.2	323.6	328.9	334.2	338.5
110°	337.4	340.0	342.5	345.1	347.6	351.4	356.4	361.3	366.3	371.3	374.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	378.6	380.5	382.4	384.4	386.2	389.5	394.1	398.6	403.3	407.9	411.0
115°	440.1	441.5	442.8	444.2	445.5	448.3	452.6	457.0	461.3	465.6	468.6
117.5°	498.9	499.8	500.8	501.8	502.7	505.3	509.5	513.6	517.7	521.9	524.2
120°	537.5	538.8	540.2	541.5	542.9	545.4	549.0	552.7	556.3	560.0	561.8
122.5°	578.3	578.8	579.2	579.6	580.1	582.2	586.0	589.8	593.5	597.3	599.5
125°	637.9	637.7	637.6	637.4	637.3	638.9	642.5	645.9	649.5	653.0	655.3
127.5°	692.3	692.8	693.4	693.9	694.4	695.9	698.4	700.9	703.4	705.9	708.2
130°	730.2	730.7	731.2	731.8	732.3	733.7	736.2	738.5	740.9	743.3	745.5
132.5°	769.5	769.8	770.2	770.5	770.8	771.8	773.6	775.3	777.1	778.8	780.8
135°	820.6	821.9	823.3	824.6	826.0	827.1	828.2	829.2	830.3	831.3	833.2
137.5°	877.0	877.4	878.0	878.4	878.9	879.6	880.5	881.3	882.2	883.0	884.6
140°	914.6	914.9	915.2	915.5	915.8	916.0	916.2	916.4	916.4	916.6	918.3
142.5°	948.5	948.9	949.3	949.8	950.1	950.2	949.9	949.7	949.4	949.2	950.8
145°	996.0	996.7	997.5	998.2	998.9	999.4	999.6	999.9	1000.1	1000.3	1001.0
147.5°	1043.2	1044.1	1045.0	1045.9	1046.9	1047.2	1047.1	1046.9	1046.7	1046.5	1046.5
150°	1072.0	1072.7	1073.5	1074.2	1075.0	1075.3	1075.3	1075.3	1075.3	1075.3	1075.3
152.5°	1098.6	1099.2	1099.7	1100.2	1100.7	1101.0	1101.2	1101.4	1101.6	1101.7	1102.3
155°	1140.3	1140.3	1140.3	1140.3	1140.3	1140.2	1140.1	1139.8	1139.5	1139.4	1140.2
157.5°	1175.5	1175.2	1174.7	1174.4	1174.0	1173.7	1173.7	1173.6	1173.6	1173.5	1174.2
160°	1196.4	1196.2	1195.9	1195.7	1195.5	1195.2	1195.1	1194.8	1194.6	1194.4	1195.1
162.5°	1215.6	1215.0	1214.4	1213.8	1213.2	1212.9	1212.6	1212.5	1212.2	1211.9	1213.1
165°	1241.4	1240.7	1240.0	1239.4	1238.7	1238.1	1237.7	1237.3	1236.8	1236.4	1237.7
167.5°	1261.2	1260.2	1259.3	1258.4	1257.5	1257.0	1257.1	1257.1	1257.1	1257.1	1258.5
170°	1272.4	1271.3	1270.1	1269.0	1267.9	1267.5	1267.7	1267.9	1268.2	1268.4	1269.7
172.5°	1280.4	1279.4	1278.5	1277.6	1276.7	1276.2	1276.3	1276.3	1276.3	1276.4	1277.9
175°	1291.4	1290.3	1289.2	1288.1	1286.9	1286.2	1286.1	1285.8	1285.6	1285.4	1286.9
177.5°	1295.0	1294.1	1293.2	1292.4	1291.4	1291.0	1291.0	1291.0	1291.0	1291.0	1292.3
180°	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	90.1	94.7	99.3	102.3	103.7	105.0	106.4	107.9
90°	99.6	105.3	111.0	114.6	116.2	117.9	119.5	121.1
92.5°	112.7	117.7	122.7	126.0	127.4	128.9	130.4	131.8
95°	143.7	148.4	153.1	156.1	157.4	158.8	160.1	161.4
97.5°	183.7	188.5	193.2	196.1	197.4	198.7	200.0	201.3
100°	212.9	217.4	221.8	224.5	225.6	226.7	227.7	228.8
102.5°	243.9	248.5	253.0	255.9	257.3	258.6	259.9	261.3
105°	291.1	295.5	299.9	303.0	304.8	306.7	308.6	310.4
107.5°	342.8	347.1	351.4	354.0	355.1	356.1	357.1	358.1
110°	377.3	380.2	383.2	385.6	387.4	389.3	391.2	393.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	414.2	417.5	420.7	422.9	424.3	425.6	427.0	428.3
115°	471.7	474.8	477.9	479.7	480.6	481.4	482.2	483.0
117.5°	526.5	528.8	531.2	532.7	533.5	534.3	534.9	535.7
120°	563.7	565.6	567.4	569.2	570.8	572.5	574.1	575.8
122.5°	601.8	604.0	606.1	607.4	607.7	608.0	608.2	608.5
125°	657.7	660.1	662.5	663.9	664.3	664.8	665.3	665.7
127.5°	710.4	712.6	714.9	716.4	717.0	717.6	718.3	718.9
130°	747.8	750.0	752.3	753.4	753.4	753.4	753.4	753.4
132.5°	783.0	785.1	787.2	788.5	789.1	789.6	790.1	790.7
135°	835.2	837.1	839.0	840.1	840.3	840.6	840.8	841.0
137.5°	886.2	887.8	889.4	890.6	891.5	892.4	893.3	894.1
140°	920.1	921.8	923.5	924.6	925.1	925.7	926.2	926.7
142.5°	952.4	954.2	955.8	956.9	957.4	958.0	958.6	959.2
145°	1001.7	1002.3	1003.0	1003.3	1003.2	1003.2	1003.1	1003.0
147.5°	1046.4	1046.4	1046.3	1046.4	1046.6	1046.9	1047.1	1047.4
150°	1075.3	1075.3	1075.3	1075.2	1075.0	1074.8	1074.5	1074.4
152.5°	1102.8	1103.4	1103.9	1103.9	1103.3	1102.7	1102.1	1101.6
155°	1141.2	1142.0	1142.9	1142.9	1142.0	1141.2	1140.2	1139.4
157.5°	1174.9	1175.5	1176.2	1176.2	1175.4	1174.7	1173.9	1173.2
160°	1195.7	1196.4	1197.0	1196.8	1195.7	1194.6	1193.5	1192.4
162.5°	1214.4	1215.6	1216.8	1216.9	1215.7	1214.6	1213.5	1212.4
165°	1239.1	1240.4	1241.7	1241.9	1241.0	1240.2	1239.2	1238.4
167.5°	1259.8	1261.2	1262.5	1262.5	1261.1	1259.7	1258.4	1257.0
170°	1271.1	1272.4	1273.8	1273.6	1272.0	1270.5	1268.9	1267.4
172.5°	1279.4	1280.9	1282.5	1282.5	1280.8	1279.3	1277.7	1276.2
175°	1288.5	1290.0	1291.6	1291.6	1290.0	1288.5	1286.9	1285.4
177.5°	1293.5	1294.8	1296.0	1295.9	1294.4	1293.0	1291.6	1290.2
180°	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4	1293.4

(END OF REPORT)