

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: P332570

Luminaire Tested: **SA4XXDIP-C575D1035U835-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332570
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D1035U835-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

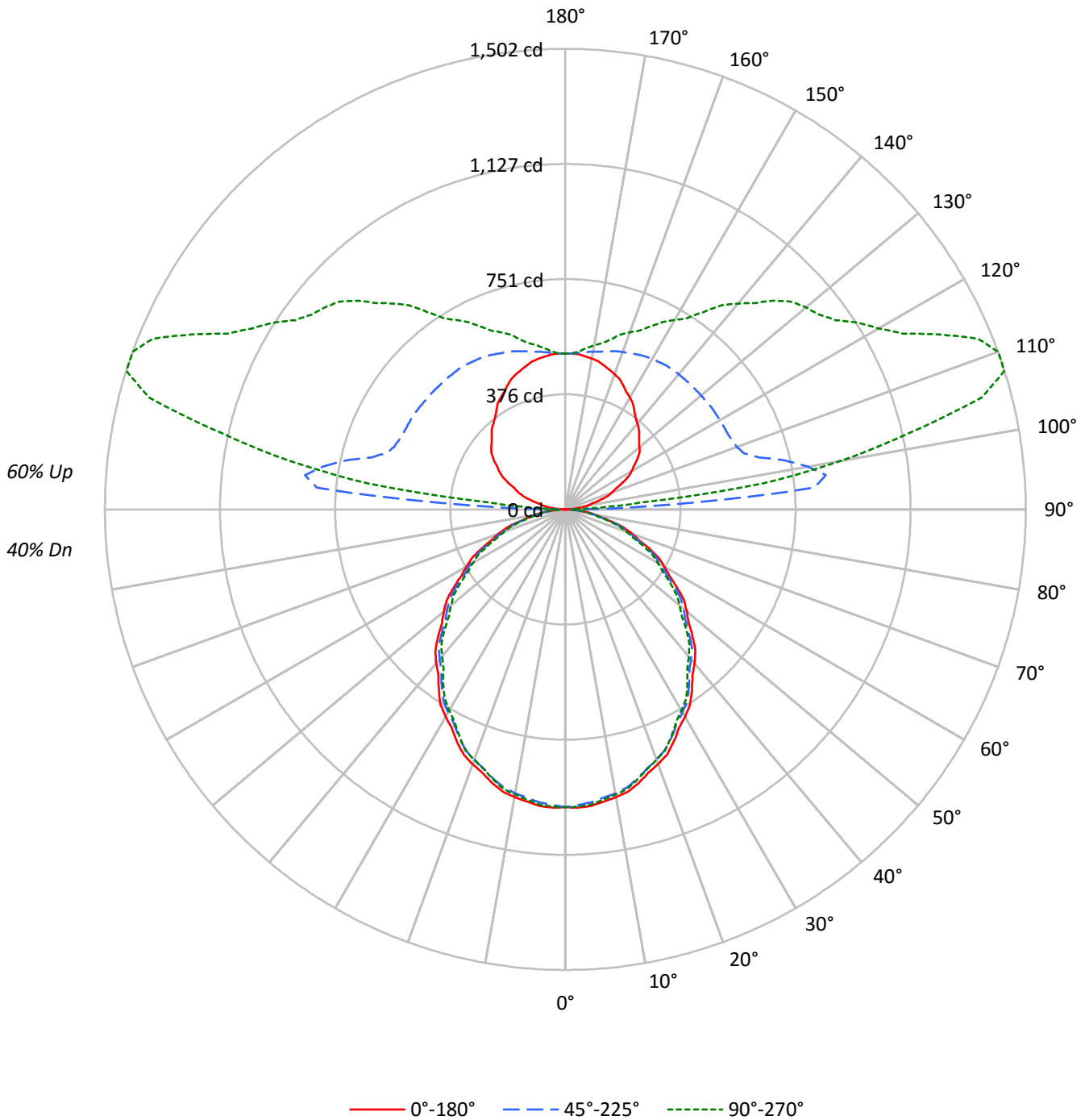
Lumens per Lamp: N/A
Luminaire Lumens: 6190.5 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 44.5
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	96	91	87	84	87	83	80	77	68	66	64	54	53	51	42	41	40	34				
2	87	80	74	69	79	73	68	63	60	56	53	48	45	43	37	35	33	28				
3	79	70	63	57	72	64	58	53	53	48	44	42	39	36	32	30	28	24				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21				
5	67	55	47	41	60	50	43	38	42	37	32	34	30	27	26	23	21	18				
6	61	49	41	36	56	45	38	33	38	32	28	30	26	23	24	21	19	16				
7	57	44	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14				
8	52	40	33	27	48	37	30	26	31	26	22	25	21	18	20	17	15	12				
9	49	37	29	24	44	34	27	23	28	23	20	23	19	17	18	16	13	11				
10	46	34	27	22	41	31	25	20	26	21	18	21	18	15	17	14	12	10				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7840	7840	7840
5°	7864	7769	7826
10°	7814	7706	7744
15°	7720	7596	7616
20°	7594	7460	7467
25°	7451	7306	7285
30°	7276	7124	7058
35°	7094	6933	6841
40°	6905	6716	6593
45°	6707	6503	6379
50°	6489	6314	6118
55°	6253	6068	5871
60°	6018	5792	5616
65°	5752	5530	5307
70°	5455	5179	4978
75°	5000	4757	4635
80°	4449	4268	4161
85°	3890	3751	3677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	1.5
10°-20°	257.7	4.2
20°-30°	379.3	6.1
30°-40°	440.9	7.1
40°-50°	440.9	7.1
50°-60°	385.7	6.2
60°-70°	286.4	4.6
70°-80°	162.7	2.6
80°-90°	49.8	0.8
90°-100°	367.0	5.9
100°-110°	763.9	12.3
110°-120°	684.2	11.1
120°-130°	575.5	9.3
130°-140°	479.9	7.8
140°-150°	366.6	5.9
150°-160°	257.7	4.2
160°-170°	151.6	2.4
170°-180°	49.3	0.8
0°-30°	728.4	11.8
0°-40°	1169.3	18.9
0°-60°	1996.0	32.2
0°-90°	2494.9	40.3
90°-120°	1815.1	29.3
90°-150°	3237.1	52.3
90°-180°	3696.0	59.7
0°-180°	6190.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	970	967	959	967	966	92
15°	924	920	909	913	911	260
25°	836	831	820	821	818	385
35°	720	714	704	698	694	450
45°	588	582	570	561	559	453
55°	444	442	431	422	417	398
65°	301	297	290	282	278	298
75°	160	156	152	150	149	170
85°	42	42	40	40	40	46
90°	1	8	18	20	21	4
95°	33	104	814	403	244	37
105°	117	169	655	1410	1405	125
115°	206	258	584	1122	1349	204
125°	286	340	581	955	1076	255
135°	340	405	576	848	962	263
145°	392	449	573	715	786	246
155°	446	482	557	631	658	206
165°	486	501	534	566	574	137
175°	507	508	512	519	517	48
180°	508	508	508	508	508	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	973.6	973.2	972.8	972.4	972.0	971.0	969.5	968.0	966.4	964.9	966.3
5°	970.4	969.7	969.0	968.3	967.6	966.3	964.4	962.5	960.6	958.7	960.6
7.5°	961.3	960.6	960.0	959.3	958.6	957.2	955.1	953.0	950.8	948.7	950.3
10°	953.2	952.6	951.9	951.2	950.5	949.0	946.8	944.5	942.3	940.0	941.4
12.5°	942.7	942.0	941.3	940.6	939.9	938.4	936.0	933.6	931.2	928.8	930.3
15°	923.7	923.0	922.3	921.6	920.9	919.3	916.7	914.1	911.5	908.9	909.9
17.5°	900.8	899.9	899.1	898.2	897.3	895.7	893.2	890.8	888.3	885.9	886.5
20°	884.0	883.1	882.3	881.4	880.5	878.8	876.2	873.6	871.0	868.4	868.9
22.5°	865.9	864.8	863.7	862.5	861.4	859.5	856.9	854.3	851.7	849.1	850.1
25°	836.5	835.3	834.1	832.9	831.7	829.9	827.4	825.0	822.6	820.2	820.4
27.5°	802.9	801.7	800.4	799.2	797.9	796.2	793.9	791.7	789.4	787.2	786.8
30°	780.5	779.1	777.7	776.3	775.0	773.1	770.9	768.6	766.4	764.2	763.5
32.5°	756.8	755.6	754.3	753.1	751.9	750.0	747.7	745.3	742.9	740.5	739.7
35°	719.8	718.6	717.4	716.2	715.0	713.1	710.7	708.3	705.9	703.5	702.2
37.5°	680.7	679.6	678.5	677.4	676.3	674.5	671.9	669.3	666.7	664.1	662.8
40°	655.2	653.8	652.4	651.1	649.7	647.7	645.1	642.5	639.9	637.3	635.6
42.5°	627.8	627.0	626.2	625.3	624.5	622.6	619.8	616.9	614.0	611.2	609.2
45°	587.5	586.3	585.1	583.9	582.7	580.7	577.9	575.1	572.4	569.6	567.7
47.5°	545.3	544.5	543.7	542.8	542.0	540.3	537.8	535.2	532.6	530.1	527.9
50°	516.7	516.0	515.3	514.6	513.9	512.4	510.0	507.5	505.1	502.7	500.3
52.5°	488.7	487.9	487.0	486.2	485.4	483.7	481.1	478.6	476.0	473.4	471.3
55°	444.3	443.8	443.3	442.8	442.3	440.8	438.4	435.9	433.5	431.1	429.0
57.5°	402.0	401.4	400.8	400.2	399.6	398.2	395.8	393.4	391.0	388.6	386.6
60°	372.7	371.9	371.0	370.1	369.3	367.7	365.5	363.2	361.0	358.7	357.2
62.5°	344.1	343.4	342.6	341.9	341.2	339.6	337.3	334.9	332.5	330.1	328.7
65°	301.1	300.3	299.4	298.6	297.7	296.4	294.7	292.9	291.2	289.5	287.7
67.5°	257.9	257.1	256.3	255.5	254.7	253.5	251.8	250.2	248.5	246.8	245.2
70°	231.1	229.9	228.7	227.5	226.3	225.0	223.6	222.2	220.8	219.4	218.1
72.5°	202.5	201.3	200.1	198.8	197.6	196.5	195.4	194.3	193.2	192.0	190.9
75°	160.3	159.4	158.6	157.7	156.8	156.0	155.1	154.2	153.4	152.5	151.8
77.5°	120.0	119.6	119.2	118.9	118.5	117.9	117.1	116.4	115.6	114.9	114.6
80°	95.7	95.2	94.7	94.2	93.6	93.2	92.9	92.5	92.2	91.8	91.5
82.5°	72.1	71.8	71.6	71.3	71.1	70.9	70.9	70.8	70.7	70.7	70.4
85°	42.0	42.0	42.0	42.0	42.0	41.8	41.5	41.2	40.8	40.5	40.5
87.5°	16.4	16.6	17.1	17.2	17.2	17.1	18.2	18.0	18.3	18.5	18.3
90°	1.0	3.0	6.0	7.0	8.0	8.0	14.0	14.0	16.0	18.0	17.0
92.5°	11.4	16.6	26.0	38.1	52.7	73.5	124.2	201.7	277.1	316.7	263.8
95°	32.9	35.9	45.9	58.9	82.9	124.8	211.6	375.4	614.0	813.6	836.6
97.5°	59.1	59.1	67.7	79.7	100.2	135.4	202.3	337.4	574.6	856.9	1051.0
100°	75.9	75.9	82.9	94.8	113.8	145.8	204.7	317.5	521.1	802.6	1058.2
102.5°	91.8	93.4	99.6	110.8	129.0	159.3	212.6	311.9	485.2	734.8	998.3
105°	116.8	119.8	124.8	136.8	154.7	183.7	231.6	314.5	454.2	654.9	889.5
107.5°	144.4	146.4	151.3	164.1	181.3	209.8	253.8	329.2	448.6	610.2	801.6
110°	162.7	164.7	169.7	181.7	199.7	226.6	270.5	340.4	450.2	595.0	757.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.3	182.3	188.1	199.3	217.2	244.2	286.5	352.4	455.0	587.8	733.0
115°	205.7	208.6	215.6	225.6	244.6	271.5	311.5	371.4	464.2	584.0	709.8
117.5°	232.0	234.8	241.0	252.0	269.7	297.7	335.6	390.7	474.0	583.0	699.4
120°	249.6	251.6	258.6	269.5	286.5	314.5	352.4	404.3	481.2	583.0	693.8
122.5°	265.6	267.5	274.5	284.7	303.3	330.4	368.4	417.1	488.4	582.2	687.4
125°	286.5	290.5	296.5	307.5	326.4	354.4	390.3	436.3	499.2	581.0	676.9
127.5°	305.1	308.3	315.5	328.0	347.8	376.0	410.7	452.8	507.7	578.8	662.7
130°	315.5	319.5	327.4	342.4	361.4	390.3	424.3	463.2	514.1	578.0	653.9
132.5°	325.8	329.0	339.4	353.6	374.2	401.5	435.5	473.6	519.7	577.2	645.9
135°	340.4	344.4	354.4	371.4	392.3	418.3	451.2	487.2	528.1	576.0	633.9
137.5°	355.0	358.8	369.8	385.9	407.7	432.5	463.2	496.8	533.1	575.8	623.5
140°	365.4	368.4	379.4	396.3	417.3	441.3	471.2	503.1	537.1	575.0	618.0
142.5°	376.6	379.6	389.7	405.9	426.1	449.2	478.4	507.9	540.3	575.0	613.2
145°	392.3	395.3	405.3	419.3	438.3	460.2	486.2	513.1	542.1	573.0	605.0
147.5°	410.1	411.1	419.9	434.3	450.0	469.8	494.2	517.7	543.1	569.4	597.6
150°	421.3	422.3	430.3	442.3	457.2	476.2	498.2	520.1	543.1	567.0	592.0
152.5°	431.7	431.9	439.9	451.0	464.4	481.8	501.4	521.7	541.5	563.0	585.6
155°	446.2	447.2	453.2	463.2	474.2	489.2	506.1	523.1	539.1	557.1	576.0
157.5°	460.4	460.4	466.0	473.8	483.4	495.2	509.5	523.1	536.5	550.9	566.2
160°	469.2	469.2	473.2	480.2	488.2	499.2	511.1	523.1	534.1	546.1	559.1
162.5°	477.2	476.4	479.6	485.8	493.0	501.6	512.7	523.1	531.7	541.3	552.7
165°	486.2	486.2	488.2	493.2	498.2	504.1	513.1	521.1	527.1	534.1	542.1
167.5°	495.2	494.2	495.2	499.0	501.8	506.3	512.9	518.7	522.3	526.9	532.5
170°	499.2	498.2	499.2	502.2	504.1	507.1	512.1	517.1	519.1	522.1	526.1
172.5°	503.1	502.2	502.3	504.5	505.7	507.9	511.3	515.5	515.9	517.3	520.5
175°	507.1	506.1	506.1	507.1	508.1	508.1	510.1	513.1	512.1	512.1	514.1
177.5°	508.9	508.1	507.3	508.1	508.1	508.1	508.9	510.5	508.9	508.9	509.7
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	967.7	969.1	970.5	971.1	970.9	970.8	970.7	970.5
5°	962.5	964.4	966.3	967.1	966.7	966.4	966.0	965.7
7.5°	951.8	953.3	954.8	955.5	955.3	955.1	954.9	954.6
10°	942.8	944.2	945.6	946.1	945.7	945.4	945.0	944.7
12.5°	931.9	933.4	934.9	935.4	934.9	934.4	934.0	933.5
15°	911.0	912.0	913.0	913.3	912.8	912.3	911.7	911.2
17.5°	887.2	887.8	888.5	888.6	888.3	887.9	887.6	887.3
20°	869.5	870.0	870.5	870.6	870.2	869.9	869.6	869.2
22.5°	851.0	851.9	852.9	853.0	852.4	851.8	851.2	850.5
25°	820.5	820.7	820.9	820.6	819.9	819.2	818.5	817.8
27.5°	786.4	785.9	785.5	784.9	784.0	783.2	782.3	781.4
30°	762.8	762.1	761.4	760.6	759.7	758.9	758.0	757.1
32.5°	738.8	738.0	737.2	736.3	735.5	734.6	733.7	732.9
35°	701.0	699.8	698.6	697.6	696.7	695.8	695.0	694.1
37.5°	661.5	660.1	658.8	657.6	656.5	655.3	654.2	653.0
40°	633.9	632.1	630.4	629.1	628.2	627.4	626.5	625.6
42.5°	607.2	605.1	603.1	601.8	601.3	600.7	600.1	599.5
45°	565.8	563.9	562.0	560.8	560.3	559.8	559.2	558.7
47.5°	525.8	523.6	521.5	519.8	518.5	517.1	515.8	514.5
50°	497.8	495.4	493.0	491.3	490.2	489.2	488.2	487.1
52.5°	469.1	467.0	464.9	463.1	461.8	460.5	459.2	457.9
55°	427.0	424.9	422.8	421.2	420.2	419.2	418.1	417.1
57.5°	384.7	382.7	380.7	379.2	378.2	377.2	376.2	375.2
60°	355.6	354.1	352.5	351.3	350.4	349.6	348.7	347.8
62.5°	327.3	325.8	324.4	323.3	322.4	321.6	320.7	319.8
65°	286.0	284.3	282.6	281.3	280.4	279.5	278.7	277.8
67.5°	243.5	241.9	240.2	239.2	239.0	238.8	238.5	238.3
70°	216.7	215.3	213.9	213.0	212.4	211.9	211.4	210.9
72.5°	189.8	188.7	187.6	186.8	186.3	185.8	185.3	184.7
75°	151.1	150.4	149.8	149.3	149.1	149.0	148.8	148.6
77.5°	114.4	114.2	114.0	113.7	113.2	112.8	112.3	111.9
80°	91.1	90.8	90.4	90.2	90.0	89.8	89.7	89.5
82.5°	70.2	70.0	69.8	69.6	69.5	69.3	69.1	68.9
85°	40.5	40.5	40.5	40.4	40.2	40.0	39.9	39.7
87.5°	18.5	18.7	18.9	18.9	19.1	19.3	19.1	19.1
90°	18.0	19.0	20.0	20.0	21.0	22.0	21.0	21.0
92.5°	196.1	147.6	117.4	97.4	85.7	80.3	76.9	76.9
95°	739.7	585.0	451.2	354.4	305.5	274.5	256.6	243.6
97.5°	1093.0	1035.4	937.8	833.6	761.9	701.8	671.9	651.1
100°	1204.0	1223.9	1175.0	1101.1	1014.3	953.4	923.4	915.5
102.5°	1198.4	1297.4	1311.6	1280.8	1227.5	1183.4	1151.9	1145.5
105°	1118.1	1290.8	1389.6	1430.6	1432.6	1424.6	1410.6	1404.6
107.5°	1004.1	1188.0	1327.2	1416.2	1465.5	1488.3	1498.3	1500.9
110°	935.4	1108.1	1252.9	1362.7	1433.6	1475.5	1493.5	1502.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	885.1	1037.8	1174.6	1284.4	1364.9	1415.6	1440.8	1455.3
115°	834.6	957.4	1074.2	1170.0	1248.9	1308.8	1340.7	1348.7
117.5°	809.8	911.5	1003.3	1084.6	1151.9	1202.2	1234.5	1240.7
120°	798.6	891.5	971.4	1042.2	1099.1	1143.1	1169.0	1180.0
122.5°	789.1	878.7	951.4	1013.5	1061.6	1099.1	1121.1	1132.1
125°	772.7	858.5	927.4	982.3	1022.3	1051.2	1070.2	1076.2
127.5°	752.7	834.8	903.5	955.6	995.7	1021.5	1037.4	1043.4
130°	736.8	815.6	883.5	936.4	977.3	1002.3	1018.3	1024.3
132.5°	720.0	794.1	860.3	913.3	953.4	981.5	996.7	1002.7
135°	696.8	761.7	822.6	872.5	912.5	940.4	956.4	962.4
137.5°	675.9	730.8	782.1	827.2	864.5	892.1	905.3	912.5
140°	663.9	710.8	755.7	797.6	832.6	854.6	868.5	876.5
142.5°	652.7	694.0	732.6	768.9	799.8	820.2	832.6	838.2
145°	636.9	670.9	700.8	728.8	753.7	770.7	780.7	785.7
147.5°	623.9	650.9	674.9	696.8	715.2	729.8	737.4	739.1
150°	616.0	638.9	658.9	676.9	692.8	705.8	711.8	712.8
152.5°	607.2	626.9	645.3	660.1	673.7	684.2	687.8	688.8
155°	594.0	610.0	624.9	636.9	646.9	654.9	657.9	657.9
157.5°	579.8	593.2	605.8	615.4	622.9	628.9	630.7	630.7
160°	571.0	582.0	593.0	601.0	607.0	613.0	614.0	614.0
162.5°	562.2	571.6	580.2	587.4	591.8	597.8	598.8	598.0
165°	550.1	556.1	563.0	568.0	572.0	576.0	575.0	574.0
167.5°	538.3	542.9	548.5	551.5	553.5	556.1	555.9	555.1
170°	531.1	534.1	538.1	541.1	543.1	544.1	543.1	543.1
172.5°	524.7	526.9	529.3	531.5	532.7	533.7	532.7	531.1
175°	516.1	517.1	519.1	519.1	519.1	521.1	519.1	517.1
177.5°	510.5	511.3	511.3	512.1	511.3	512.1	510.5	508.9
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1

(END OF REPORT)