

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: P331795-927

Luminaire Tested: **S122RDIW-S485D970U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331795-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDIW-S485D970U927-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 970 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4412.8 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

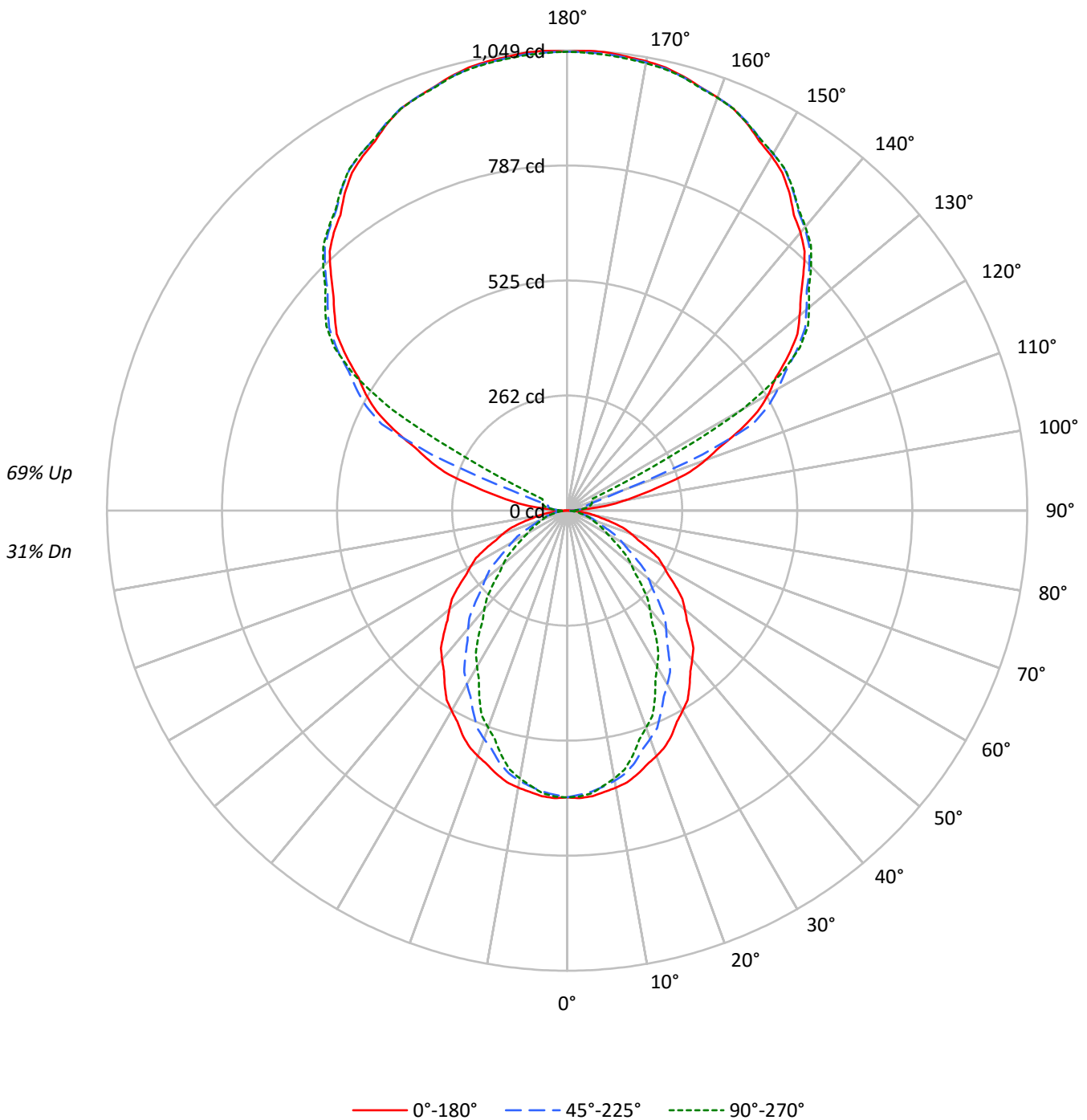
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	0														
RCR																																						
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	38	38	38	31																				
1	94	90	86	83	84	81	78	75	64	62	60	48	47	46	34	33	33	26																				
2	86	79	73	68	77	71	66	62	56	53	50	43	41	39	30	29	28	22																				
3	78	69	62	57	70	63	57	52	50	46	42	38	35	33	27	26	24	19																				
4	72	61	54	48	64	55	49	44	44	40	36	34	31	29	24	23	21	17																				
5	66	55	47	41	59	50	43	38	40	35	31	31	27	25	22	20	19	15																				
6	61	49	41	36	54	44	38	33	36	31	27	28	24	22	20	18	16	13																				
7	56	44	37	31	50	40	34	29	32	28	24	25	22	19	19	16	15	12																				
8	52	40	33	28	47	36	30	26	30	25	21	23	20	17	17	15	13	11																				
9	48	37	29	25	43	33	27	23	27	22	19	21	18	16	16	14	12	10																				
10	45	33	27	22	40	31	24	20	25	20	17	20	16	14	15	12	11	9																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10555	10555	10555
5°	10595	10423	10481
10°	10516	10252	10165
15°	10394	9949	9663
20°	10227	9514	9036
25°	10055	9021	8432
30°	9818	8516	7655
35°	9585	7965	6974
40°	9352	7396	6184
45°	9079	6754	5471
50°	8796	6106	4770
55°	8510	5413	4096
60°	8176	4682	3400
65°	7798	3931	3095
70°	7345	3238	2851
75°	6787	2951	2658
80°	5997	2641	2427
85°	4705	2075	2075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	1.4
10°-20°	168.0	3.8
20°-30°	235.9	5.3
30°-40°	257.3	5.8
40°-50°	236.6	5.4
50°-60°	185.8	4.2
60°-70°	121.1	2.7
70°-80°	62.5	1.4
80°-90°	18.8	0.4
90°-100°	34.9	0.8
100°-110°	128.0	2.9
110°-120°	342.1	7.8
120°-130°	564.7	12.8
130°-140°	600.5	13.6
140°-150°	558.1	12.6
150°-160°	448.7	10.2
160°-170°	289.2	6.6
170°-180°	99.5	2.3
0°-30°	465.2	10.5
0°-40°	722.4	16.4
0°-60°	1144.8	25.9
0°-90°	1347.2	30.5
90°-120°	504.9	11.4
90°-150°	2228.2	50.5
90°-180°	3066.0	69.5
0°-180°	4412.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	654	650	643	648	647	62
15°	622	615	595	584	578	175
25°	564	544	506	483	473	259
35°	486	455	404	368	354	304
45°	398	357	296	255	240	307
55°	302	255	192	158	146	270
65°	204	156	103	84	81	202
75°	109	69	47	43	43	115
85°	25	14	11	11	11	30
90°	1	9	15	19	20	3
95°	49	26	30	33	33	60
105°	230	240	46	54	58	246
115°	435	448	467	133	62	428
125°	615	626	640	645	647	549
135°	762	773	780	787	786	588
145°	883	883	896	900	897	552
155°	973	967	975	979	973	448
165°	1025	1021	1023	1027	1023	289
175°	1048	1043	1045	1049	1042	100
180°	1046	1046	1046	1046	1046	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	656.1	655.6	655.1	654.5	654.0	653.2	652.0	650.9	649.7	648.6	649.6
5°	653.7	653.1	652.4	651.8	651.1	649.9	648.2	646.5	644.8	643.1	644.3
7.5°	647.0	646.2	645.4	644.5	643.7	642.3	640.3	638.3	636.4	634.4	634.7
10°	641.4	640.4	639.4	638.6	637.6	635.9	633.3	630.6	628.0	625.3	625.0
12.5°	634.2	633.1	631.9	630.8	629.7	627.5	624.1	620.8	617.3	614.0	613.3
15°	621.8	620.4	618.9	617.4	616.0	613.1	608.6	604.1	599.7	595.2	592.7
17.5°	606.6	604.4	602.1	599.9	597.7	593.7	588.0	582.3	576.6	570.8	567.8
20°	595.2	592.6	589.9	587.3	584.6	580.0	573.5	566.9	560.3	553.7	550.5
22.5°	582.9	580.0	576.9	574.0	571.1	565.9	558.5	551.0	543.7	536.2	532.0
25°	564.4	560.2	556.0	551.8	547.6	541.1	532.4	523.8	515.1	506.4	501.1
27.5°	542.2	537.6	533.0	528.5	523.9	516.7	506.9	497.1	487.4	477.5	471.3
30°	526.6	521.6	516.6	511.6	506.6	498.8	488.3	477.8	467.2	456.8	450.0
32.5°	511.4	505.6	499.7	493.9	488.1	479.7	469.1	458.3	447.6	436.9	429.2
35°	486.3	479.6	472.9	466.2	459.5	450.4	438.8	427.2	415.7	404.1	395.8
37.5°	461.2	453.8	446.5	439.1	431.8	421.9	409.6	397.3	384.9	372.6	363.5
40°	443.7	435.9	427.9	420.1	412.2	401.9	389.1	376.4	363.6	350.9	341.5
42.5°	425.7	417.4	409.1	400.8	392.5	381.8	368.6	355.4	342.2	329.1	319.4
45°	397.6	388.8	379.9	371.1	362.3	351.0	337.2	323.4	309.6	295.8	286.5
47.5°	370.1	360.8	351.5	342.1	332.8	321.0	306.7	292.5	278.2	264.0	254.7
50°	350.2	340.9	331.6	322.3	312.9	301.0	286.5	272.1	257.6	243.1	234.1
52.5°	330.8	321.1	311.3	301.6	291.8	279.9	265.7	251.6	237.4	223.3	214.5
55°	302.3	292.1	281.8	271.6	261.3	249.1	234.9	220.7	206.4	192.3	184.4
57.5°	273.1	262.6	252.1	241.5	231.0	219.0	205.3	191.6	178.0	164.4	157.1
60°	253.2	242.7	232.2	221.7	211.1	199.2	185.6	172.1	158.5	145.0	138.2
62.5°	233.8	223.3	212.8	202.2	191.7	180.1	167.2	154.2	141.3	128.4	122.0
65°	204.1	193.5	182.8	172.1	161.5	150.3	138.5	126.6	114.8	102.9	98.5
67.5°	175.5	164.9	154.3	143.8	133.2	122.6	111.9	101.3	90.6	80.0	78.0
70°	155.6	145.4	135.1	124.8	114.5	104.9	95.9	86.7	77.7	68.6	67.3
72.5°	136.7	126.8	117.0	107.2	97.4	88.8	81.5	74.2	66.9	59.7	58.5
75°	108.8	99.7	90.5	81.3	72.0	65.2	60.8	56.2	51.8	47.3	46.4
77.5°	81.5	73.4	65.4	57.3	49.3	44.1	42.0	39.8	37.6	35.5	34.9
80°	64.5	57.8	51.1	44.4	37.6	33.7	32.3	31.1	29.7	28.4	27.9
82.5°	48.9	43.6	38.4	33.2	28.0	24.9	24.0	23.1	22.2	21.3	21.0
85°	25.4	22.7	19.9	17.2	14.4	12.8	12.4	12.0	11.6	11.2	11.2
87.5°	7.8	7.3	6.8	6.3	5.9	5.7	6.0	6.3	6.6	6.8	6.9
90°	0.8	2.6	4.4	6.3	8.2	9.7	11.1	12.4	13.8	15.1	16.0
92.5°	15.3	15.1	15.0	14.8	14.7	14.9	15.5	16.2	16.9	17.6	18.0
95°	49.2	43.6	38.1	32.6	27.0	24.8	26.0	27.2	28.4	29.5	30.3
97.5°	97.7	82.0	66.4	50.7	35.1	28.6	31.4	34.1	36.8	39.5	40.2
100°	134.0	110.9	87.9	64.9	41.8	31.7	34.5	37.4	40.3	43.2	44.5
102.5°	174.0	169.1	164.2	159.3	154.4	140.1	116.1	92.2	68.3	44.4	46.1
105°	230.1	235.2	240.2	245.3	250.3	229.9	183.9	138.0	92.1	46.2	48.0
107.5°	294.1	298.3	302.3	306.3	310.5	284.9	229.9	174.8	119.7	64.6	62.7
110°	335.3	338.9	342.4	345.9	349.4	326.9	278.3	229.7	181.1	132.5	115.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	374.1	377.2	380.3	383.5	386.6	382.1	370.2	358.1	346.1	334.1	272.7
115°	435.2	438.1	441.0	443.9	446.7	450.2	454.4	458.6	462.9	467.1	389.1
117.5°	489.9	493.1	496.3	499.5	502.7	505.7	508.7	511.5	514.4	517.3	498.4
120°	529.9	532.4	534.9	537.4	540.0	542.7	545.7	548.8	551.8	554.8	556.9
122.5°	563.8	566.4	569.1	571.7	574.4	577.4	580.7	584.0	587.2	590.6	591.8
125°	615.4	617.6	619.8	621.9	624.2	626.9	630.0	633.3	636.4	639.6	640.8
127.5°	662.2	664.6	667.0	669.5	671.8	674.3	676.7	679.1	681.4	683.8	685.6
130°	691.9	694.6	697.3	699.9	702.6	704.9	706.7	708.6	710.4	712.3	714.2
132.5°	722.2	724.5	726.7	729.0	731.3	733.3	735.2	737.0	738.9	740.8	742.4
135°	761.5	764.2	766.9	769.6	772.3	774.4	775.9	777.4	778.9	780.5	782.1
137.5°	801.3	803.2	805.1	807.0	808.8	810.6	812.4	814.0	815.8	817.5	819.2
140°	827.4	828.7	830.0	831.4	832.7	834.3	836.1	838.0	839.9	841.8	843.3
142.5°	849.1	850.3	851.6	852.8	854.0	855.6	857.8	859.9	862.1	864.1	865.5
145°	883.4	883.2	883.0	882.9	882.7	884.1	886.9	889.8	892.6	895.5	896.7
147.5°	913.2	912.5	911.9	911.2	910.6	911.7	914.6	917.3	920.2	923.1	923.9
150°	932.6	931.4	930.2	929.1	927.9	928.6	931.3	934.0	936.7	939.4	940.4
152.5°	949.0	947.6	946.3	945.0	943.6	944.3	946.8	949.4	952.0	954.5	955.5
155°	972.7	971.1	969.6	968.1	966.6	966.9	968.9	970.9	973.0	974.9	976.0
157.5°	991.3	990.1	988.7	987.5	986.2	986.3	987.7	989.1	990.5	991.9	993.1
160°	1002.2	1001.2	1000.2	999.2	998.1	998.1	999.2	1000.2	1001.2	1002.2	1003.2
162.5°	1011.9	1010.9	1009.9	1008.8	1007.9	1007.8	1008.7	1009.6	1010.4	1011.3	1012.4
165°	1024.9	1023.9	1022.9	1021.9	1020.9	1020.6	1021.1	1021.6	1022.2	1022.6	1023.8
167.5°	1034.6	1033.6	1032.6	1031.6	1030.5	1030.3	1030.8	1031.3	1031.7	1032.2	1033.3
170°	1040.1	1039.0	1038.1	1037.0	1036.0	1035.7	1036.0	1036.3	1036.7	1037.0	1038.2
172.5°	1043.7	1042.7	1041.6	1040.7	1039.7	1039.3	1039.7	1040.0	1040.3	1040.7	1041.9
175°	1048.4	1047.2	1046.0	1044.9	1043.7	1043.2	1043.6	1043.9	1044.3	1044.6	1045.8
177.5°	1049.2	1048.2	1047.3	1046.3	1045.4	1045.0	1045.1	1045.2	1045.4	1045.5	1046.5
180°	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7
2.5°	650.6	651.7	652.8	653.2	653.0	652.8	652.5	652.4
5°	645.5	646.7	647.8	648.2	647.8	647.5	647.1	646.7
7.5°	635.0	635.3	635.7	635.6	634.9	634.1	633.5	632.8
10°	624.6	624.2	623.8	623.2	622.4	621.6	620.8	620.0
12.5°	612.6	611.9	611.2	610.1	608.8	607.5	606.2	604.9
15°	590.2	587.7	585.2	583.3	581.9	580.7	579.3	578.1
17.5°	564.8	561.9	558.9	556.3	554.1	551.8	549.5	547.2
20°	547.2	543.9	540.6	537.5	534.6	531.7	528.9	525.9
22.5°	527.8	523.6	519.4	516.1	514.0	511.8	509.7	507.5
25°	495.7	490.3	484.9	481.2	479.2	477.2	475.3	473.3
27.5°	465.0	458.7	452.4	447.7	444.6	441.5	438.3	435.2
30°	443.3	436.7	429.9	424.8	421.2	417.7	414.2	410.6
32.5°	421.5	413.9	406.2	400.8	397.4	394.1	390.7	387.4
35°	387.5	379.2	371.0	365.4	362.5	359.6	356.7	353.8
37.5°	354.3	345.2	336.1	329.9	326.6	323.3	320.0	316.6
40°	332.2	322.8	313.5	307.1	303.7	300.3	296.8	293.4
42.5°	309.7	300.1	290.5	284.0	280.7	277.3	274.0	270.7
45°	277.1	267.8	258.5	252.2	249.1	245.9	242.7	239.6
47.5°	245.4	236.1	226.9	220.8	217.9	215.1	212.1	209.3
50°	225.0	215.9	206.8	201.0	198.2	195.4	192.7	189.9
52.5°	205.7	197.0	188.2	182.6	180.1	177.5	174.9	172.4
55°	176.5	168.6	160.7	155.5	153.0	150.5	148.1	145.5
57.5°	149.9	142.7	135.5	130.8	128.7	126.6	124.5	122.3
60°	131.5	124.8	118.1	113.8	111.6	109.5	107.4	105.3
62.5°	115.6	109.2	102.8	99.0	97.8	96.5	95.2	94.0
65°	94.0	89.5	85.1	82.6	82.2	81.8	81.4	81.0
67.5°	75.9	73.8	71.8	70.6	70.1	69.7	69.3	68.8
70°	66.0	64.7	63.4	62.4	61.9	61.4	60.8	60.4
72.5°	57.4	56.3	55.2	54.5	54.2	53.9	53.6	53.2
75°	45.5	44.6	43.6	43.1	43.0	42.9	42.7	42.6
77.5°	34.5	33.9	33.4	33.0	32.8	32.6	32.4	32.2
80°	27.3	26.9	26.3	26.1	26.1	26.1	26.1	26.1
82.5°	20.7	20.4	20.0	19.9	19.9	19.9	19.9	19.9
85°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
87.5°	7.0	7.0	7.1	7.1	7.2	7.3	7.4	7.4
90°	16.8	17.7	18.5	19.1	19.4	19.7	20.1	20.4
92.5°	18.5	18.9	19.3	19.6	19.8	20.0	20.2	20.4
95°	31.2	32.1	32.9	33.2	33.0	32.9	32.7	32.6
97.5°	40.9	41.5	42.2	42.6	42.9	43.0	43.3	43.4
100°	45.9	47.2	48.6	49.4	49.7	50.1	50.4	50.7
102.5°	47.8	49.6	51.3	52.4	52.9	53.4	53.9	54.3
105°	49.9	51.7	53.6	54.8	55.5	56.2	56.9	57.5
107.5°	60.8	59.0	57.1	56.5	57.2	57.8	58.5	59.2
110°	98.8	82.0	65.2	57.1	57.8	58.5	59.1	59.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	211.4	150.0	88.6	58.2	58.8	59.3	59.9	60.4
115°	311.2	233.4	155.5	110.5	98.4	86.3	74.1	62.1
117.5°	479.6	460.8	442.0	412.6	372.8	333.0	293.3	253.4
120°	558.9	560.9	562.9	552.5	529.9	507.2	484.4	461.8
122.5°	593.0	594.2	595.4	593.8	589.4	585.0	580.6	576.2
125°	642.0	643.2	644.4	645.2	645.7	646.2	646.7	647.2
127.5°	687.3	689.0	690.7	691.6	691.7	691.8	691.9	692.0
130°	716.0	717.9	719.7	720.6	720.3	720.2	720.0	719.9
132.5°	743.9	745.5	747.1	747.8	747.6	747.4	747.3	747.1
135°	783.8	785.4	787.1	787.8	787.5	787.1	786.8	786.5
137.5°	820.8	822.4	824.1	824.7	824.1	823.5	822.9	822.4
140°	844.8	846.3	847.8	848.1	847.3	846.4	845.6	844.8
142.5°	866.9	868.3	869.7	869.9	869.1	868.2	867.4	866.6
145°	897.9	899.0	900.2	900.4	899.5	898.7	897.9	897.0
147.5°	924.8	925.7	926.5	926.6	925.9	925.2	924.5	923.8
150°	941.4	942.4	943.4	943.5	942.7	941.8	941.0	940.2
152.5°	956.6	957.5	958.5	958.5	957.4	956.3	955.2	954.1
155°	977.0	977.9	979.0	978.8	977.5	976.1	974.8	973.4
157.5°	994.2	995.4	996.5	996.4	995.1	993.8	992.4	991.2
160°	1004.2	1005.2	1006.2	1006.2	1005.0	1003.8	1002.7	1001.5
162.5°	1013.6	1014.7	1015.9	1015.7	1014.2	1012.8	1011.4	1010.0
165°	1025.0	1026.2	1027.4	1027.4	1026.2	1025.0	1023.8	1022.6
167.5°	1034.5	1035.7	1036.9	1036.7	1035.2	1033.7	1032.2	1030.7
170°	1039.4	1040.5	1041.7	1041.6	1040.1	1038.6	1037.0	1035.5
172.5°	1043.0	1044.2	1045.4	1045.2	1043.7	1042.2	1040.7	1039.2
175°	1046.9	1048.1	1049.3	1049.1	1047.3	1045.7	1044.0	1042.4
177.5°	1047.4	1048.3	1049.2	1049.2	1047.9	1046.7	1045.5	1044.3
180°	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1	1046.1

(END OF REPORT)