

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: P332568-930

Luminaire Tested: **S124DIP-S575D1035U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332568-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D1035U930-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5401.0 lumens
Efficiency: N/A
Efficacy: 121.4 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: Semi-Indirect

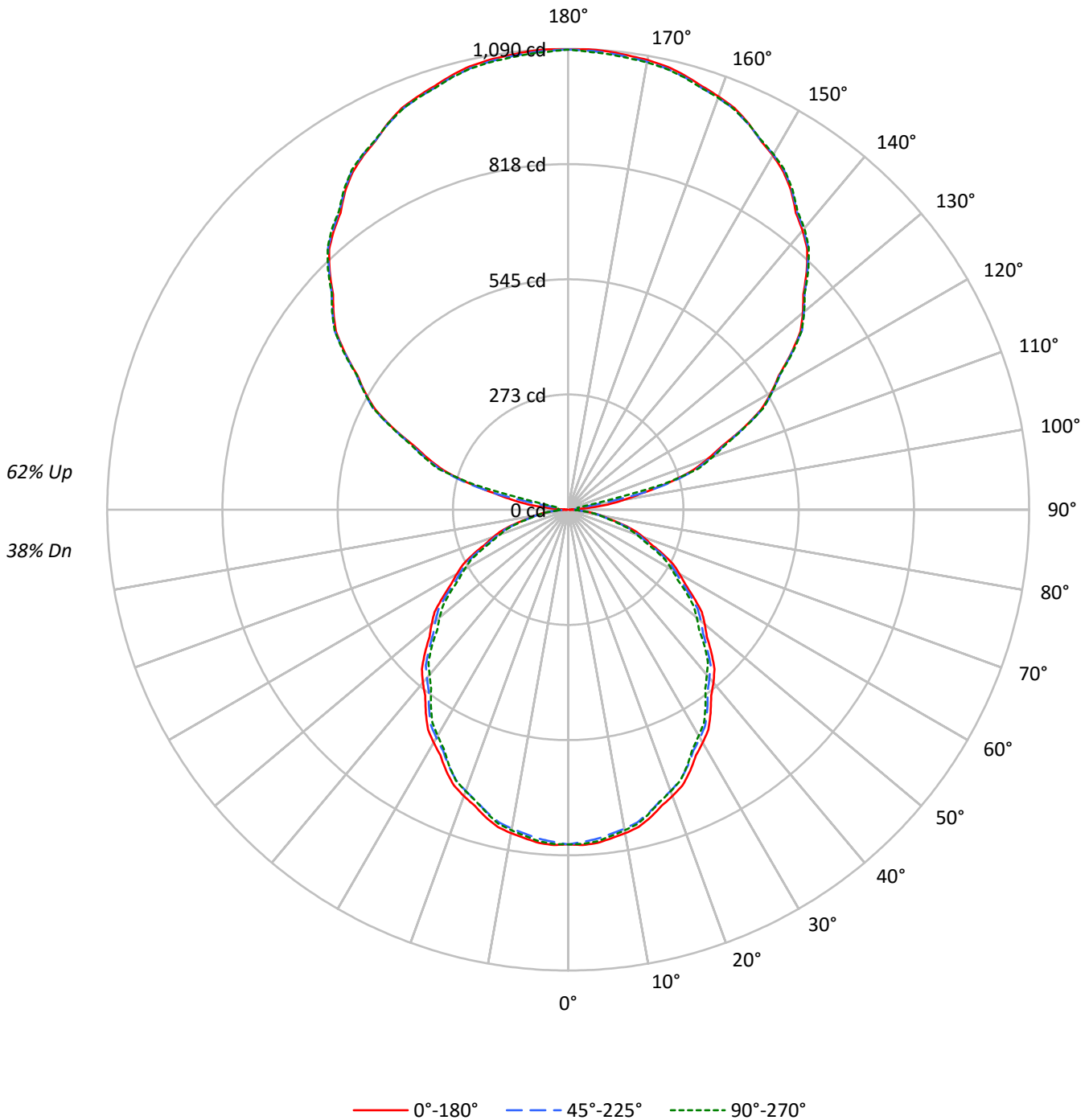
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	95	95	95	95	76	76	76	60	60	60	45	45	45	38
1	95	91	87	83	86	82	79	76	67	65	63	53	51	50	40	39	38	32
2	86	79	73	68	78	72	67	63	59	55	52	46	44	42	35	33	32	26
3	79	70	62	57	71	63	57	52	52	47	43	41	38	35	31	29	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	36	31	51	40	34	29	33	28	24	27	23	20	20	18	16	13
8	52	40	32	27	47	37	30	25	30	25	22	24	21	18	19	16	14	12
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	14	16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6391	6391	6391
5°	6412	6334	6380
10°	6370	6283	6314
15°	6294	6193	6209
20°	6192	6082	6088
25°	6075	5956	5940
30°	5931	5808	5754
35°	5784	5653	5577
40°	5630	5476	5376
45°	5469	5302	5200
50°	5291	5148	4987
55°	5098	4947	4787
60°	4907	4721	4579
65°	4690	4508	4327
70°	4447	4223	4057
75°	4077	3877	3780
80°	3626	3477	3394
85°	3168	3057	3001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	1.4
10°-20°	210.1	3.9
20°-30°	309.2	5.7
30°-40°	359.5	6.7
40°-50°	359.5	6.7
50°-60°	314.5	5.8
60°-70°	233.5	4.3
70°-80°	132.7	2.5
80°-90°	41.4	0.8
90°-100°	37.2	0.7
100°-110°	237.3	4.4
110°-120°	453.9	8.4
120°-130°	576.3	10.7
130°-140°	616.6	11.4
140°-150°	576.6	10.7
150°-160°	464.9	8.6
160°-170°	299.9	5.6
170°-180°	103.4	1.9
0°-30°	593.9	11.0
0°-40°	953.4	17.7
0°-60°	1627.3	30.1
0°-90°	2034.9	37.7
90°-120°	728.5	13.5
90°-150°	2497.9	46.2
90°-180°	3366.0	62.3
0°-180°	5401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	791	788	782	788	787	75
15°	753	750	741	744	743	212
25°	682	677	669	669	667	314
35°	587	582	574	569	566	367
45°	479	474	464	458	456	369
55°	362	360	352	344	340	324
65°	246	242	236	230	226	243
75°	131	128	124	122	121	139
85°	34	34	33	33	32	38
90°	2	11	18	23	24	4
95°	45	19	18	23	24	58
105°	245	250	254	259	232	256
115°	457	460	459	461	461	450
125°	643	646	645	647	648	574
135°	798	797	800	802	803	614
145°	920	922	922	923	924	574
155°	1008	1009	1007	1010	1008	465
165°	1064	1060	1060	1065	1059	300
175°	1088	1084	1084	1090	1082	104
180°	1088	1088	1088	1088	1088	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7
2.5°	793.8	793.4	793.1	792.8	792.5	791.7	790.4	789.2	787.9	786.7	787.8
5°	791.2	790.6	790.0	789.5	788.9	787.8	786.3	784.7	783.2	781.6	783.2
7.5°	783.7	783.2	782.7	782.1	781.5	780.4	778.7	777.0	775.2	773.5	774.8
10°	777.1	776.7	776.1	775.5	774.9	773.7	771.9	770.1	768.3	766.4	767.5
12.5°	768.6	768.0	767.4	766.9	766.3	765.1	763.1	761.2	759.2	757.2	758.5
15°	753.1	752.5	752.0	751.4	750.8	749.5	747.4	745.3	743.1	741.0	741.8
17.5°	734.4	733.7	733.0	732.3	731.6	730.3	728.2	726.3	724.2	722.3	722.8
20°	720.7	720.0	719.3	718.6	717.9	716.5	714.4	712.2	710.1	708.0	708.4
22.5°	706.0	705.1	704.2	703.2	702.3	700.7	698.6	696.5	694.4	692.3	693.1
25°	682.0	681.0	680.0	679.1	678.1	676.6	674.6	672.6	670.7	668.7	668.9
27.5°	654.6	653.6	652.6	651.6	650.5	649.1	647.3	645.5	643.6	641.8	641.5
30°	636.3	635.2	634.1	632.9	631.9	630.3	628.5	626.6	624.8	623.1	622.5
32.5°	617.0	616.0	615.0	614.0	613.0	611.5	609.6	607.6	605.7	603.7	603.1
35°	586.9	585.9	584.9	583.9	582.9	581.4	579.4	577.5	575.5	573.6	572.5
37.5°	555.0	554.1	553.2	552.3	551.4	549.9	547.8	545.7	543.6	541.4	540.4
40°	534.2	533.0	531.9	530.8	529.7	528.1	525.9	523.8	521.7	519.6	518.2
42.5°	511.8	511.2	510.5	509.8	509.2	507.6	505.3	503.0	500.6	498.3	496.7
45°	479.0	478.0	477.0	476.1	475.1	473.4	471.2	468.9	466.7	464.4	462.8
47.5°	444.6	443.9	443.3	442.5	441.9	440.5	438.5	436.3	434.2	432.2	430.4
50°	421.3	420.7	420.1	419.6	419.0	417.8	415.8	413.8	411.8	409.9	407.9
52.5°	398.4	397.8	397.1	396.4	395.7	394.4	392.2	390.2	388.1	386.0	384.3
55°	362.2	361.8	361.4	361.0	360.6	359.4	357.4	355.4	353.4	351.5	349.8
57.5°	327.8	327.3	326.8	326.3	325.8	324.7	322.7	320.7	318.8	316.8	315.2
60°	303.9	303.2	302.5	301.7	301.1	299.8	298.0	296.1	294.3	292.4	291.2
62.5°	280.5	280.0	279.3	278.8	278.2	276.9	275.0	273.0	271.1	269.1	268.0
65°	245.5	244.8	244.1	243.4	242.7	241.7	240.3	238.8	237.4	236.0	234.6
67.5°	210.3	209.6	209.0	208.3	207.7	206.7	205.3	204.0	202.6	201.2	199.9
70°	188.4	187.4	186.5	185.5	184.5	183.4	182.3	181.2	180.0	178.9	177.8
72.5°	165.1	164.1	163.1	162.1	161.1	160.2	159.3	158.4	157.5	156.5	155.6
75°	130.7	130.0	129.3	128.6	127.8	127.2	126.5	125.7	125.1	124.3	123.8
77.5°	97.8	97.5	97.2	96.9	96.6	96.1	95.5	94.9	94.2	93.7	93.4
80°	78.0	77.6	77.2	76.8	76.3	76.0	75.7	75.4	75.2	74.8	74.6
82.5°	58.8	58.5	58.4	58.1	58.0	57.8	57.8	57.7	57.6	57.6	57.4
85°	34.2	34.2	34.2	34.2	34.2	34.1	33.8	33.6	33.3	33.0	33.0
87.5°	13.7	13.9	14.3	14.5	14.8	15.1	15.2	15.4	15.6	15.7	16.0
90°	2.4	4.4	6.4	8.4	10.4	12.1	13.5	15.0	16.5	17.9	19.0
92.5°	10.3	10.4	10.4	10.6	10.7	11.5	12.9	14.3	15.8	17.3	18.3
95°	44.8	38.6	32.4	26.3	20.1	17.2	17.4	17.5	17.7	17.9	19.0
97.5°	95.1	98.9	102.7	106.6	110.4	102.2	82.0	61.9	41.7	21.5	21.6
100°	133.5	136.7	140.0	143.2	146.5	135.7	110.7	85.8	60.7	35.8	32.8
102.5°	176.4	178.9	181.2	183.6	186.0	185.6	182.3	179.0	175.8	172.5	139.3
105°	245.0	246.1	247.1	248.3	249.3	250.3	251.2	252.1	253.1	254.0	255.6
107.5°	308.6	309.2	309.7	310.2	310.8	311.7	312.9	314.1	315.4	316.6	317.4
110°	351.6	352.1	352.7	353.2	353.8	354.6	355.6	356.8	357.8	358.9	359.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	393.3	394.3	395.3	396.2	397.2	397.9	398.4	398.9	399.4	399.9	399.9
115°	457.4	458.0	458.5	459.0	459.6	459.7	459.6	459.4	459.2	459.0	459.4
117.5°	515.2	515.9	516.7	517.4	518.1	518.6	519.0	519.4	519.8	520.2	520.2
120°	554.2	555.0	555.7	556.4	557.2	557.4	557.3	557.1	556.8	556.7	557.1
122.5°	590.7	591.2	591.6	592.0	592.5	592.8	593.0	593.3	593.5	593.8	594.0
125°	642.9	643.7	644.4	645.1	645.9	646.0	645.7	645.3	645.0	644.6	645.1
127.5°	692.4	692.6	692.8	693.0	693.2	693.7	694.6	695.4	696.2	697.0	696.9
130°	724.4	724.6	724.7	724.9	725.0	725.5	726.0	726.5	727.1	727.7	727.8
132.5°	753.7	754.0	754.3	754.6	755.0	755.5	756.2	756.8	757.5	758.2	758.4
135°	797.6	797.4	797.3	797.0	796.9	797.1	797.9	798.6	799.3	800.1	800.4
137.5°	836.5	836.6	836.7	836.7	836.8	837.2	838.0	838.9	839.6	840.4	840.8
140°	861.9	862.3	862.7	863.0	863.3	863.7	864.1	864.5	864.8	865.2	865.7
142.5°	884.7	885.3	886.0	886.6	887.3	887.7	887.9	888.2	888.4	888.6	889.0
145°	919.7	920.2	920.8	921.3	921.9	922.1	922.1	922.1	922.1	922.1	922.3
147.5°	947.5	948.5	949.6	950.6	951.6	952.0	951.8	951.6	951.5	951.3	951.5
150°	967.7	968.4	969.1	969.9	970.6	970.9	970.7	970.5	970.4	970.1	970.1
152.5°	984.6	985.2	985.8	986.3	986.9	987.1	986.8	986.4	986.1	985.8	986.1
155°	1008.4	1008.6	1008.8	1008.9	1009.1	1008.9	1008.4	1007.9	1007.3	1006.8	1007.5
157.5°	1028.4	1028.3	1028.2	1028.1	1028.0	1027.6	1027.0	1026.4	1025.8	1025.2	1026.1
160°	1040.2	1039.6	1039.1	1038.5	1038.0	1037.6	1037.5	1037.2	1037.1	1036.9	1038.0
162.5°	1050.6	1049.9	1049.2	1048.5	1047.8	1047.4	1047.2	1047.0	1046.8	1046.7	1047.7
165°	1063.7	1062.8	1061.9	1061.0	1060.1	1059.6	1059.6	1059.6	1059.6	1059.6	1061.1
167.5°	1074.2	1073.3	1072.3	1071.4	1070.4	1069.9	1069.8	1069.7	1069.6	1069.4	1071.1
170°	1080.0	1079.0	1077.8	1076.8	1075.7	1075.2	1075.4	1075.6	1075.8	1076.0	1077.4
172.5°	1083.9	1082.9	1081.7	1080.7	1079.6	1079.1	1079.3	1079.5	1079.7	1079.9	1081.3
175°	1088.2	1087.1	1086.0	1084.9	1083.9	1083.4	1083.5	1083.8	1083.9	1084.1	1085.7
177.5°	1090.1	1089.1	1088.1	1087.1	1086.1	1085.7	1086.0	1086.3	1086.5	1086.9	1088.0
180°	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	791.7	791.7	791.7	791.7	791.7	791.7	791.7	791.7
2.5°	789.0	790.1	791.2	791.7	791.6	791.5	791.4	791.2
5°	784.7	786.3	787.8	788.5	788.1	787.9	787.6	787.3
7.5°	776.0	777.2	778.4	779.0	778.9	778.7	778.5	778.3
10°	768.7	769.8	770.9	771.4	771.0	770.8	770.5	770.2
12.5°	759.8	761.0	762.2	762.6	762.2	761.8	761.5	761.1
15°	742.7	743.6	744.4	744.6	744.2	743.8	743.3	742.9
17.5°	723.3	723.8	724.4	724.5	724.2	723.9	723.7	723.4
20°	708.9	709.3	709.7	709.8	709.5	709.2	709.0	708.7
22.5°	693.8	694.6	695.4	695.5	695.0	694.5	694.0	693.4
25°	669.0	669.1	669.3	669.0	668.5	667.9	667.3	666.8
27.5°	641.2	640.7	640.4	639.9	639.2	638.5	637.8	637.1
30°	621.9	621.3	620.8	620.1	619.4	618.7	618.0	617.3
32.5°	602.3	601.7	601.0	600.3	599.7	598.9	598.2	597.5
35°	571.5	570.5	569.6	568.8	568.0	567.3	566.6	565.9
37.5°	539.3	538.2	537.1	536.1	535.2	534.3	533.4	532.4
40°	516.8	515.4	514.0	512.9	512.2	511.5	510.8	510.1
42.5°	495.0	493.3	491.7	490.6	490.2	489.8	489.3	488.8
45°	461.3	459.7	458.2	457.2	456.8	456.4	455.9	455.5
47.5°	428.7	426.9	425.2	423.8	422.7	421.6	420.5	419.5
50°	405.9	403.9	401.9	400.6	399.7	398.8	398.0	397.1
52.5°	382.5	380.7	379.0	377.6	376.5	375.4	374.4	373.3
55°	348.1	346.4	344.7	343.4	342.6	341.8	340.9	340.1
57.5°	313.6	312.0	310.4	309.2	308.3	307.5	306.7	305.9
60°	289.9	288.7	287.4	286.4	285.7	285.0	284.3	283.6
62.5°	266.8	265.6	264.5	263.6	262.9	262.2	261.5	260.7
65°	233.2	231.8	230.4	229.3	228.6	227.9	227.2	226.5
67.5°	198.5	197.2	195.8	195.0	194.9	194.7	194.4	194.3
70°	176.7	175.5	174.4	173.7	173.2	172.8	172.4	171.9
72.5°	154.7	153.8	153.0	152.3	151.9	151.5	151.1	150.6
75°	123.2	122.6	122.1	121.7	121.6	121.5	121.3	121.2
77.5°	93.3	93.1	92.9	92.7	92.3	92.0	91.6	91.2
80°	74.3	74.0	73.7	73.5	73.4	73.2	73.1	73.0
82.5°	57.2	57.1	56.9	56.7	56.7	56.5	56.3	56.2
85°	33.0	33.0	33.0	32.9	32.8	32.6	32.5	32.4
87.5°	16.2	16.4	16.6	16.8	16.9	17.0	17.0	17.0
90°	20.1	21.2	22.3	23.0	23.3	23.7	24.1	24.4
92.5°	19.4	20.5	21.6	22.2	22.3	22.3	22.4	22.5
95°	20.1	21.2	22.3	22.9	23.1	23.2	23.4	23.6
97.5°	21.7	21.9	21.9	22.1	22.3	22.4	22.6	22.8
100°	29.7	26.6	23.5	22.1	22.3	22.4	22.6	22.8
102.5°	106.2	73.1	39.9	23.3	23.3	23.4	23.4	23.5
105°	257.2	258.8	260.4	258.0	251.5	245.0	238.5	232.0
107.5°	318.2	319.0	319.8	320.5	321.2	321.9	322.6	323.3
110°	359.6	360.0	360.4	360.9	361.3	361.9	362.5	363.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	399.8	399.7	399.7	400.0	400.6	401.4	402.0	402.7
115°	459.7	460.2	460.5	460.6	460.6	460.6	460.6	460.6
117.5°	520.1	520.0	519.9	519.9	519.8	519.8	519.7	519.6
120°	557.4	557.7	558.2	558.2	557.7	557.4	557.1	556.7
122.5°	594.3	594.4	594.7	594.6	594.3	593.9	593.5	593.1
125°	645.7	646.2	646.8	647.1	647.3	647.5	647.7	647.8
127.5°	696.8	696.7	696.6	696.4	696.3	696.2	696.0	695.9
130°	728.0	728.1	728.3	728.5	728.5	728.5	728.5	728.5
132.5°	758.6	758.8	759.0	759.0	758.8	758.6	758.6	758.4
135°	800.8	801.1	801.5	801.8	802.3	802.6	802.9	803.3
137.5°	841.2	841.6	842.0	842.1	842.0	842.0	841.8	841.7
140°	866.3	866.8	867.3	867.7	867.9	868.0	868.2	868.5
142.5°	889.4	889.8	890.2	890.4	890.5	890.5	890.6	890.6
145°	922.5	922.7	922.8	923.2	923.5	923.8	924.2	924.5
147.5°	951.5	951.7	951.9	952.0	952.2	952.4	952.6	952.8
150°	970.1	970.1	970.1	970.2	970.5	970.6	970.8	970.9
152.5°	986.3	986.7	986.9	987.0	986.9	986.8	986.7	986.6
155°	1008.2	1008.9	1009.7	1009.7	1009.3	1008.7	1008.1	1007.6
157.5°	1027.0	1028.0	1028.9	1028.9	1028.0	1027.0	1026.1	1025.2
160°	1039.1	1040.2	1041.2	1041.2	1040.2	1039.1	1038.0	1036.9
162.5°	1048.8	1049.9	1051.0	1050.9	1049.7	1048.5	1047.3	1046.0
165°	1062.6	1064.0	1065.4	1065.4	1063.7	1062.1	1060.5	1058.8
167.5°	1072.6	1074.2	1075.8	1075.7	1073.9	1072.1	1070.2	1068.4
170°	1078.9	1080.3	1081.7	1081.6	1079.8	1078.0	1076.1	1074.3
172.5°	1082.8	1084.2	1085.7	1085.4	1083.5	1081.5	1079.5	1077.6
175°	1087.4	1089.0	1090.6	1090.3	1088.2	1086.0	1083.9	1081.7
177.5°	1089.2	1090.3	1091.5	1091.2	1089.5	1087.8	1086.0	1084.3
180°	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2	1088.2

(END OF REPORT)