

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: P332566-930

Luminaire Tested: **S124DIP-S575D1035U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332566-930
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-S575D1035U930-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4853.7 lumens
Efficiency: N/A
Efficacy: 109.1 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

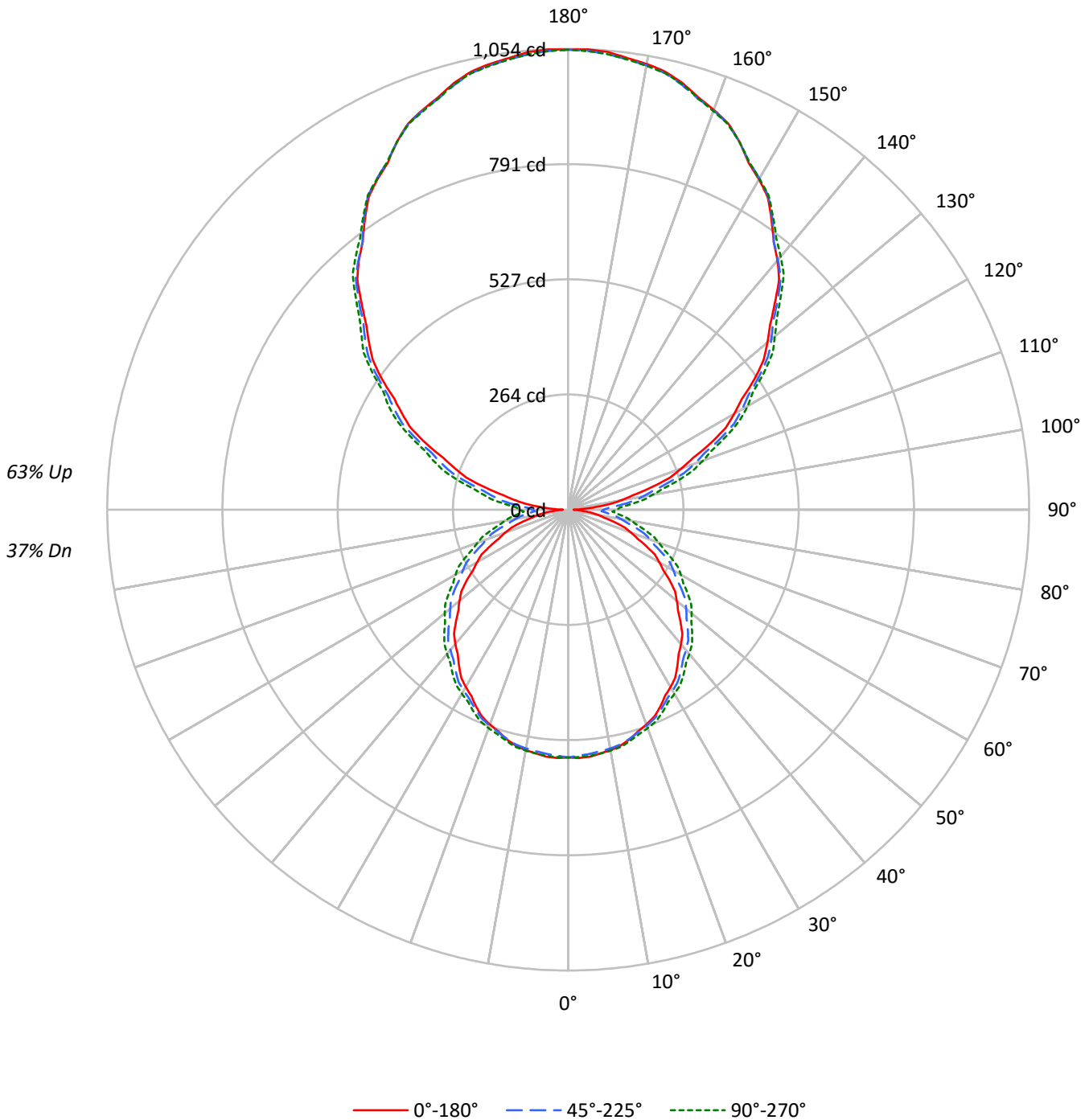
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	94	94	94	76	76	76		59	59	59		44	44	44	37
1	94	90	85	82	85	81	78	74	65	63	61		51	49	48		38	37	36	29
2	85	78	71	66	77	70	65	60	57	53	50		44	42	39		33	31	29	24
3	78	68	61	55	70	62	55	50	50	45	41		39	36	33		29	27	25	20
4	71	60	52	46	64	54	47	42	44	39	35		34	31	28		25	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30		31	27	24		23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26		28	24	21		21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23		25	21	18		19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20		23	19	16		17	14	12	10
9	47	35	28	23	43	32	26	21	26	21	18		21	17	14		16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16		19	16	13		15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4574	4574	4574
5°	4588	4470	4482
10°	4560	4397	4393
15°	4519	4312	4289
20°	4458	4219	4187
25°	4388	4114	4074
30°	4313	4011	3959
35°	4227	3903	3858
40°	4160	3802	3753
45°	4059	3708	3663
50°	3973	3600	3567
55°	3884	3499	3454
60°	3746	3369	3353
65°	3597	3231	3227
70°	3414	3072	3080
75°	3157	2896	2948
80°	2873	2730	2819
85°	2514	2579	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	1.1
10°-20°	153.7	3.2
20°-30°	232.4	4.8
30°-40°	281.2	5.8
40°-50°	297.3	6.1
50°-60°	279.8	5.8
60°-70°	232.1	4.8
70°-80°	163.1	3.4
80°-90°	95.3	2.0
90°-100°	124.1	2.6
100°-110°	246.1	5.1
110°-120°	376.1	7.7
120°-130°	475.5	9.8
130°-140°	523.4	10.8
140°-150°	509.1	10.5
150°-160°	427.1	8.8
160°-170°	284.1	5.9
170°-180°	99.5	2.0
0°-30°	439.8	9.1
0°-40°	721.0	14.9
0°-60°	1298.1	26.7
0°-90°	1788.6	36.9
90°-120°	746.4	15.4
90°-150°	2254.4	46.4
90°-180°	3065.0	63.1
0°-180°	4853.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	561	566	565	54
15°	544	544	542	548	548	153
25°	497	501	503	510	511	229
35°	435	443	449	458	460	272
45°	363	375	387	397	401	280
55°	284	298	317	329	333	253
65°	197	217	239	254	260	195
75°	109	133	159	176	183	116
85°	34	60	89	107	114	36
90°	13	47	81	103	111	10
95°	57	86	117	136	142	61
105°	195	210	236	253	261	208
115°	359	365	383	396	400	354
125°	519	520	534	544	546	463
135°	668	673	677	685	687	517
145°	810	813	814	817	817	507
155°	928	928	927	930	927	427
165°	1010	1008	1006	1010	1008	285
175°	1051	1047	1046	1051	1046	100
180°	1052	1052	1052	1052	1052	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	568.6	568.3	567.9	567.5	567.2	566.6	565.7	564.8	563.9	563.0	563.8
5°	567.2	566.8	566.3	565.9	565.5	564.8	563.8	562.8	561.8	560.8	562.0
7.5°	562.4	562.1	561.8	561.6	561.3	560.8	560.0	559.2	558.3	557.5	558.8
10°	558.3	558.2	558.0	557.9	557.7	557.3	556.6	555.9	555.2	554.5	555.8
12.5°	552.7	552.7	552.7	552.6	552.6	552.4	551.9	551.4	550.9	550.4	551.5
15°	543.7	543.9	544.0	544.1	544.3	544.1	543.7	543.3	542.8	542.4	543.7
17.5°	531.4	531.8	532.2	532.6	533.1	533.3	533.2	533.1	533.0	533.0	534.2
20°	522.8	523.2	523.6	524.1	524.5	524.7	524.9	525.1	525.1	525.3	526.7
22.5°	513.1	513.6	514.2	514.7	515.3	515.7	515.9	516.2	516.4	516.7	518.1
25°	497.4	498.2	499.1	499.9	500.8	501.4	501.8	502.2	502.7	503.1	504.7
27.5°	479.9	481.1	482.3	483.6	484.9	485.8	486.4	487.1	487.7	488.4	489.8
30°	468.2	469.4	470.4	471.6	472.7	473.8	474.7	475.7	476.7	477.8	479.3
32.5°	455.5	456.9	458.2	459.6	461.0	462.2	463.3	464.4	465.5	466.6	468.3
35°	435.2	436.9	438.6	440.3	442.0	443.5	444.9	446.4	447.8	449.1	451.2
37.5°	414.8	416.7	418.7	420.6	422.6	424.4	426.2	428.0	429.7	431.4	433.4
40°	401.6	403.4	405.3	407.1	409.0	410.8	412.8	414.7	416.8	418.7	420.9
42.5°	386.4	388.4	390.4	392.6	394.6	396.8	399.1	401.4	403.7	406.0	408.4
45°	362.9	365.6	368.3	371.0	373.6	376.3	379.0	381.6	384.3	387.0	389.4
47.5°	340.5	343.2	345.9	348.7	351.5	354.4	357.5	360.6	363.7	366.8	369.3
50°	324.2	327.3	330.4	333.5	336.6	339.7	342.8	345.9	349.0	352.1	354.9
52.5°	307.9	311.0	314.1	317.2	320.3	323.7	327.3	330.8	334.4	337.9	340.7
55°	284.2	287.1	290.2	293.1	296.0	299.6	303.9	308.1	312.3	316.6	319.4
57.5°	257.7	261.4	265.1	268.7	272.4	276.3	280.5	284.7	288.9	293.1	296.4
60°	240.4	244.1	247.8	251.4	255.1	259.3	263.9	268.6	273.2	277.9	281.1
62.5°	223.7	227.7	231.7	235.7	239.7	244.0	248.7	253.3	258.0	262.7	265.9
65°	196.7	201.2	205.7	210.2	214.7	219.4	224.1	228.9	233.7	238.6	242.1
67.5°	170.6	175.5	180.3	185.1	189.8	194.8	199.9	205.0	210.2	215.3	218.9
70°	152.9	157.7	162.5	167.3	172.1	177.2	182.5	187.8	193.2	198.6	202.4
72.5°	135.7	140.6	145.4	150.3	155.2	160.5	166.2	171.9	177.7	183.4	187.0
75°	109.1	114.3	119.5	124.7	130.0	135.6	141.5	147.4	153.4	159.2	163.2
77.5°	84.4	89.9	95.5	100.9	106.5	112.3	118.5	124.7	130.9	137.1	141.1
80°	69.1	74.8	80.5	86.1	91.7	97.6	103.9	110.1	116.3	122.5	126.7
82.5°	53.9	59.8	65.6	71.5	77.4	83.4	89.6	95.8	102.0	108.3	112.6
85°	33.6	39.5	45.5	51.4	57.3	63.4	69.8	76.1	82.5	88.8	93.0
87.5°	19.2	25.4	31.6	37.7	43.9	50.1	56.7	63.1	69.5	76.1	80.3
90°	12.6	20.2	27.9	35.5	43.1	50.7	58.2	65.7	73.2	80.7	85.9
92.5°	27.1	34.4	41.7	49.1	56.5	63.7	70.8	77.9	85.0	92.0	96.6
95°	57.1	63.3	69.6	75.9	82.2	88.9	95.9	103.0	110.0	117.1	121.4
97.5°	92.8	98.1	103.4	108.7	114.0	120.3	127.4	134.7	141.9	149.1	153.4
100°	120.9	125.3	129.7	134.0	138.4	144.2	151.3	158.5	165.6	172.8	176.9
102.5°	150.8	154.3	157.8	161.3	164.9	170.1	176.9	183.8	190.7	197.5	201.7
105°	195.3	198.3	201.3	204.3	207.3	211.8	217.8	223.6	229.6	235.5	239.6
107.5°	243.2	245.7	248.3	250.8	253.3	257.1	262.1	267.2	272.2	277.3	281.3
110°	275.2	277.6	279.9	282.3	284.6	288.1	292.9	297.7	302.4	307.1	310.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	308.6	310.4	312.3	314.1	315.8	318.9	323.3	327.8	332.2	336.5	339.6
115°	358.7	359.9	361.2	362.4	363.7	366.4	370.6	374.7	378.9	383.0	385.9
117.5°	406.3	407.2	408.1	409.0	409.9	412.4	416.4	420.3	424.2	428.2	430.5
120°	437.7	438.9	440.0	441.2	442.3	444.7	448.2	451.8	455.3	458.9	460.7
122.5°	470.9	471.3	471.7	472.1	472.5	474.4	478.0	481.7	485.3	488.9	491.1
125°	519.3	519.2	519.0	518.9	518.7	520.3	523.7	527.0	530.4	533.7	536.0
127.5°	563.6	564.0	564.4	564.8	565.2	566.6	569.0	571.4	573.9	576.3	578.5
130°	594.4	594.8	595.2	595.6	595.9	597.3	599.5	601.8	604.1	606.3	608.5
132.5°	626.2	626.5	626.7	627.0	627.3	628.2	629.9	631.5	633.2	634.9	636.9
135°	667.7	668.9	669.9	671.0	672.1	673.1	674.1	675.1	676.1	677.1	679.0
137.5°	713.6	714.0	714.4	714.8	715.1	715.7	716.5	717.2	718.0	718.8	720.3
140°	744.3	744.4	744.7	744.9	745.1	745.3	745.4	745.6	745.8	745.9	747.5
142.5°	771.8	772.1	772.4	772.7	773.1	773.1	772.9	772.7	772.4	772.2	773.8
145°	810.3	810.9	811.5	812.1	812.7	813.0	813.3	813.4	813.6	813.8	814.5
147.5°	848.7	849.5	850.2	850.9	851.7	852.0	851.8	851.7	851.5	851.4	851.3
150°	872.2	872.8	873.3	873.9	874.5	874.8	874.8	874.8	874.8	874.8	874.8
152.5°	893.8	894.2	894.6	895.0	895.4	895.7	895.9	896.0	896.2	896.3	896.7
155°	927.7	927.7	927.7	927.7	927.7	927.6	927.4	927.2	927.1	926.9	927.6
157.5°	956.3	956.0	955.7	955.4	955.0	954.9	954.8	954.8	954.8	954.7	955.3
160°	973.3	973.1	972.9	972.7	972.6	972.4	972.2	972.0	971.8	971.7	972.2
162.5°	988.9	988.5	988.0	987.5	987.0	986.7	986.5	986.3	986.2	985.9	986.9
165°	1009.9	1009.3	1008.9	1008.3	1007.7	1007.3	1006.9	1006.6	1006.2	1005.8	1006.9
167.5°	1026.1	1025.2	1024.5	1023.8	1023.0	1022.6	1022.6	1022.7	1022.7	1022.8	1023.9
170°	1035.1	1034.2	1033.3	1032.4	1031.5	1031.1	1031.4	1031.5	1031.7	1031.8	1033.0
172.5°	1041.6	1040.9	1040.2	1039.3	1038.6	1038.2	1038.3	1038.3	1038.4	1038.4	1039.6
175°	1050.6	1049.7	1048.8	1047.9	1047.0	1046.4	1046.3	1046.0	1045.9	1045.7	1047.0
177.5°	1053.5	1052.8	1052.1	1051.3	1050.6	1050.3	1050.3	1050.3	1050.3	1050.3	1051.2
180°	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	564.6	565.3	566.1	566.5	566.4	566.2	566.1	566.1
5°	563.1	564.2	565.3	565.8	565.7	565.6	565.4	565.2
7.5°	560.1	561.3	562.6	563.2	563.0	562.9	562.7	562.6
10°	557.0	558.3	559.5	560.1	560.0	559.9	559.7	559.5
12.5°	552.8	553.9	555.1	555.6	555.6	555.5	555.5	555.5
15°	544.9	546.3	547.5	548.0	548.0	547.8	547.6	547.5
17.5°	535.5	536.8	538.1	538.7	538.6	538.5	538.3	538.3
20°	528.2	529.5	530.9	531.7	531.7	531.7	531.7	531.7
22.5°	519.5	520.9	522.3	523.2	523.3	523.6	523.8	524.1
25°	506.2	507.8	509.3	510.1	510.3	510.5	510.5	510.7
27.5°	491.3	492.7	494.2	495.0	495.1	495.3	495.5	495.6
30°	480.9	482.4	484.0	484.9	485.1	485.4	485.7	486.0
32.5°	470.1	471.9	473.7	474.7	475.0	475.2	475.6	475.8
35°	453.1	455.1	457.1	458.3	458.7	459.1	459.5	460.0
37.5°	435.5	437.4	439.4	440.7	441.1	441.6	442.0	442.5
40°	423.0	425.1	427.2	428.5	429.1	429.7	430.2	430.8
42.5°	410.7	413.0	415.4	416.8	417.3	417.7	418.2	418.6
45°	391.8	394.2	396.6	398.1	398.8	399.6	400.2	401.0
47.5°	371.8	374.3	376.7	378.4	379.3	380.1	381.0	381.8
50°	357.8	360.6	363.4	365.3	366.1	366.9	367.8	368.6
52.5°	343.6	346.3	349.2	351.0	351.9	352.7	353.5	354.4
55°	322.2	325.1	327.8	329.7	330.5	331.4	332.2	333.0
57.5°	299.8	303.2	306.6	308.6	309.4	310.1	311.0	311.8
60°	284.4	287.6	290.8	293.0	294.2	295.3	296.4	297.6
62.5°	269.1	272.4	275.7	277.8	278.9	280.1	281.2	282.3
65°	245.6	249.2	252.7	254.9	256.1	257.2	258.4	259.5
67.5°	222.5	226.1	229.7	232.0	233.1	234.2	235.3	236.4
70°	206.2	210.0	213.8	216.2	217.2	218.2	219.2	220.1
72.5°	190.7	194.4	198.1	200.5	201.6	202.7	203.8	204.9
75°	167.1	171.0	175.0	177.7	178.9	180.2	181.5	182.7
77.5°	145.2	149.2	153.2	155.9	157.2	158.6	159.9	161.3
80°	130.9	135.1	139.3	142.0	143.2	144.3	145.4	146.6
82.5°	116.9	121.2	125.6	128.4	129.6	130.9	132.1	133.4
85°	97.3	101.5	105.7	108.6	110.0	111.4	112.8	114.2
87.5°	84.6	88.9	93.3	96.0	97.3	98.7	100.0	101.3
90°	91.1	96.2	101.4	104.8	106.2	107.7	109.2	110.7
92.5°	101.3	105.9	110.5	113.5	114.8	116.2	117.5	118.9
95°	125.7	130.1	134.4	137.2	138.5	139.8	141.0	142.4
97.5°	157.8	162.1	166.5	169.3	170.5	171.7	172.8	174.1
100°	181.1	185.2	189.4	192.0	193.0	194.0	194.9	195.9
102.5°	205.9	210.1	214.3	217.0	218.3	219.6	220.8	222.0
105°	243.7	247.8	251.8	254.7	256.3	258.0	259.7	261.4
107.5°	285.2	289.2	293.2	295.6	296.6	297.6	298.6	299.5
110°	312.9	315.8	318.7	321.0	322.6	324.3	326.0	327.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	342.6	345.7	348.7	350.9	352.1	353.4	354.6	355.8
115°	388.8	391.8	394.7	396.6	397.4	398.2	398.9	399.7
117.5°	432.8	435.1	437.5	439.0	439.8	440.5	441.3	442.1
120°	462.7	464.6	466.5	468.2	469.7	471.2	472.7	474.2
122.5°	493.3	495.5	497.7	499.0	499.3	499.7	500.0	500.4
125°	538.3	540.6	543.0	544.4	544.9	545.4	545.8	546.3
127.5°	580.7	582.8	585.0	586.4	587.1	587.7	588.4	589.1
130°	610.7	612.9	615.0	616.1	616.3	616.4	616.5	616.6
132.5°	639.0	641.1	643.1	644.4	645.0	645.6	646.1	646.6
135°	680.9	682.7	684.7	685.7	686.1	686.4	686.6	687.0
137.5°	721.9	723.5	725.1	726.3	727.1	727.9	728.7	729.5
140°	749.2	750.8	752.5	753.6	754.1	754.6	755.1	755.7
142.5°	775.3	776.9	778.5	779.6	780.1	780.6	781.2	781.8
145°	815.1	815.8	816.4	816.8	816.8	816.8	816.8	816.8
147.5°	851.3	851.3	851.3	851.3	851.7	851.9	852.2	852.5
150°	874.8	874.8	874.8	874.7	874.6	874.3	874.2	874.0
152.5°	897.2	897.6	898.1	898.1	897.6	897.1	896.6	896.1
155°	928.4	929.0	929.8	929.8	929.0	928.4	927.6	926.9
157.5°	955.8	956.3	956.9	956.8	956.3	955.6	955.0	954.4
160°	972.7	973.3	973.8	973.6	972.7	971.8	970.9	970.0
162.5°	987.9	988.9	989.9	989.9	989.0	988.1	987.2	986.3
165°	1008.0	1009.1	1010.2	1010.3	1009.7	1008.9	1008.2	1007.5
167.5°	1024.9	1026.1	1027.1	1027.1	1026.0	1024.8	1023.7	1022.6
170°	1034.0	1035.1	1036.2	1036.1	1034.9	1033.6	1032.3	1031.0
172.5°	1040.8	1042.0	1043.3	1043.3	1042.0	1040.7	1039.5	1038.2
175°	1048.2	1049.5	1050.8	1050.8	1049.5	1048.2	1047.0	1045.7
177.5°	1052.3	1053.3	1054.3	1054.3	1053.1	1051.9	1050.8	1049.6
180°	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2	1052.2

(END OF REPORT)