

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: P332022-930

Luminaire Tested: **S123DIP-S1000D805U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332022-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U930-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

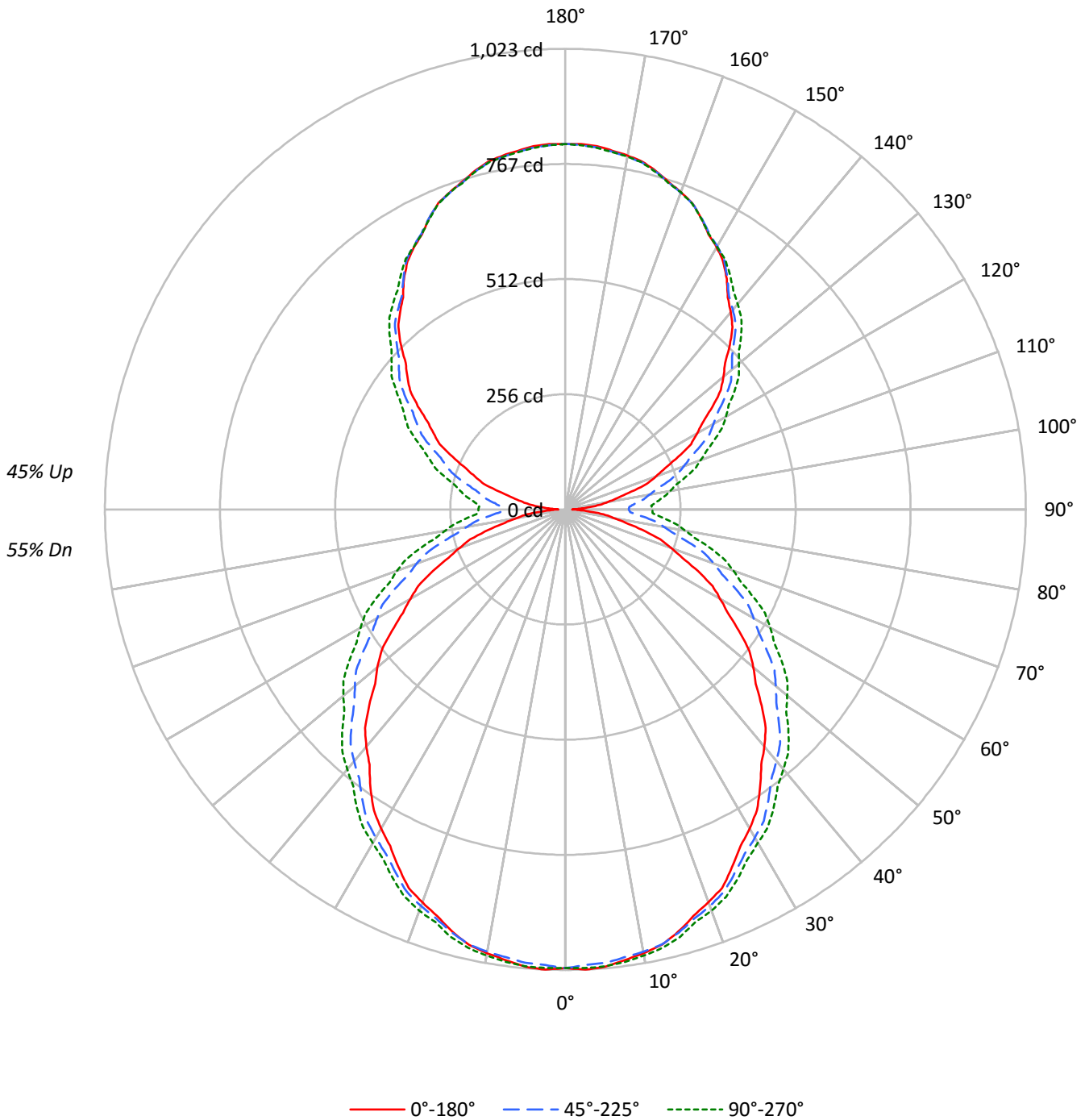
Lumens per Lamp: N/A
Luminaire Lumens: 5673.8 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 54.4
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	0
RCR																		
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	91	86	83	79	74	71	68	63	60	59	52	51	49	44
2	89	81	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41	36
3	81	70	63	56	74	65	59	53	56	51	46	48	44	40	40	37	34	30
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	32	28	25	22
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	19	17
8	53	40	32	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.7
10°-20°	275.3	4.9
20°-30°	411.7	7.3
30°-40°	491.7	8.7
40°-50°	514.4	9.1
50°-60°	482.8	8.5
60°-70°	403.2	7.1
70°-80°	288.5	5.1
80°-90°	174.4	3.1
90°-100°	160.8	2.8
100°-110°	237.5	4.2
110°-120°	322.1	5.7
120°-130°	384.2	6.8
130°-140°	411.4	7.3
140°-150°	394.0	6.9
150°-160°	329.3	5.8
160°-170°	219.2	3.9
170°-180°	76.7	1.4
0°-30°	783.6	13.8
0°-40°	1275.2	22.5
0°-60°	2272.4	40.1
0°-90°	3138.5	55.3
90°-120°	720.4	12.7
90°-150°	1910.1	33.7
90°-180°	2535.0	44.7
0°-180°	5673.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	15	76	141	179	193	12
95°	50	98	157	193	205	52
105°	152	182	234	264	276	163
115°	276	293	330	357	366	274
125°	400	403	433	453	459	357
135°	517	520	531	548	553	398
145°	625	625	627	635	637	390
155°	714	715	715	717	713	329
165°	778	776	776	780	776	219
175°	810	807	807	810	806	77
180°	812	812	812	812	812	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.7	42.2	54.8	67.3	79.9	92.6	105.6	118.5	131.5	144.4	153.0
90°	15.1	28.5	42.1	55.5	69.1	83.0	97.4	111.9	126.3	140.7	149.6
92.5°	28.9	40.8	52.7	64.6	76.4	89.0	102.5	115.9	129.3	142.8	151.4
95°	49.8	60.4	71.0	81.6	92.2	104.2	117.4	130.6	143.8	157.0	165.3
97.5°	77.7	87.1	96.5	105.9	115.4	126.2	138.6	151.0	163.3	175.7	183.7
100°	96.7	105.4	114.1	122.9	131.7	142.0	154.1	166.2	178.2	190.2	197.8
102.5°	118.7	126.4	134.0	141.5	149.2	159.1	171.1	183.2	195.3	207.3	214.7
105°	152.3	158.5	164.7	170.9	177.1	186.1	198.0	209.9	221.8	233.7	240.6
107.5°	190.2	195.4	200.6	205.9	211.0	218.9	229.5	240.0	250.6	261.2	268.2
110°	213.9	218.6	223.2	228.0	232.7	240.2	250.3	260.4	270.6	280.7	287.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	239.3	243.1	247.0	250.8	254.6	261.3	270.8	280.3	289.8	299.4	306.3
115°	276.5	279.8	283.2	286.6	290.0	296.0	304.6	313.2	321.8	330.4	336.4
117.5°	314.7	316.8	318.9	321.1	323.2	328.2	336.1	344.1	352.1	360.0	365.9
120°	337.8	339.9	342.0	344.1	346.2	350.9	358.3	365.7	373.2	380.6	386.1
122.5°	362.8	364.0	365.3	366.6	367.9	372.2	379.5	386.9	394.3	401.7	406.8
125°	399.8	400.2	400.6	401.1	401.5	405.1	412.1	418.9	425.7	432.6	437.2
127.5°	435.0	435.7	436.3	437.0	437.7	440.8	446.4	452.0	457.6	463.2	467.3
130°	458.4	459.3	460.2	461.1	462.0	464.7	469.2	473.7	478.3	482.7	486.8
132.5°	481.0	482.1	483.2	484.3	485.3	487.7	491.4	495.0	498.6	502.2	506.1
135°	516.7	517.2	517.8	518.4	519.0	520.7	523.2	525.8	528.3	530.9	534.8
137.5°	549.6	550.1	550.6	551.1	551.6	552.8	554.7	556.6	558.5	560.4	563.7
140°	571.6	572.3	573.0	573.7	574.5	575.3	576.1	577.0	577.9	578.8	582.3
142.5°	592.6	593.0	593.5	594.0	594.6	595.0	595.4	595.8	596.2	596.6	599.8
145°	625.2	625.2	625.3	625.3	625.3	625.5	626.0	626.4	626.8	627.2	629.1
147.5°	652.6	653.1	653.6	654.1	654.7	655.1	655.5	655.9	656.3	656.7	657.3
150°	672.5	672.8	673.0	673.4	673.6	673.9	674.2	674.5	674.7	675.1	675.1
152.5°	688.8	689.2	689.6	690.0	690.4	690.7	690.9	691.0	691.2	691.4	691.6
155°	714.5	714.5	714.5	714.5	714.5	714.6	714.8	714.9	715.1	715.2	715.8
157.5°	736.5	736.3	736.1	736.0	735.8	735.8	735.9	736.1	736.1	736.2	736.9
160°	750.2	750.0	749.7	749.4	749.1	749.0	749.0	749.0	749.0	749.0	749.7
162.5°	762.5	762.1	761.7	761.3	760.9	760.8	760.9	761.0	761.1	761.2	761.9
165°	778.3	777.9	777.5	777.1	776.6	776.4	776.4	776.4	776.4	776.4	777.2
167.5°	790.9	790.4	789.8	789.2	788.6	788.5	788.6	788.6	788.8	788.9	789.8
170°	798.1	797.5	797.0	796.4	795.8	795.5	795.5	795.5	795.5	795.5	796.5
172.5°	803.6	803.2	802.6	802.0	801.4	801.1	801.1	801.1	801.1	801.1	802.0
175°	809.5	808.9	808.5	807.9	807.3	807.0	807.0	807.0	807.0	807.0	807.9
177.5°	812.0	811.5	811.1	810.6	810.2	809.9	809.9	809.9	809.9	809.9	810.6
180°	811.5	811.5	811.5	811.5	811.5	811.5	811.5	811.5	811.5	811.5	811.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	161.4	169.9	178.4	183.9	186.5	189.0	191.5	194.0
90°	158.6	167.5	176.5	182.4	185.1	187.8	190.6	193.3
92.5°	160.0	168.7	177.3	182.7	184.8	186.9	189.0	191.1
95°	173.4	181.6	189.9	195.2	197.7	200.2	202.6	205.0
97.5°	191.7	199.7	207.7	212.9	215.3	217.7	220.1	222.5
100°	205.4	213.0	220.5	225.7	228.4	231.2	234.0	236.7
102.5°	222.1	229.5	236.8	241.7	244.2	246.5	249.0	251.4
105°	247.4	254.4	261.3	266.0	268.5	271.0	273.5	276.0
107.5°	275.3	282.4	289.4	294.0	296.0	298.0	299.9	302.0
110°	294.7	301.7	308.7	313.0	314.7	316.3	318.0	319.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	313.2	320.1	326.9	331.4	333.5	335.7	337.8	339.9
115°	342.5	348.5	354.6	358.6	360.4	362.2	364.0	365.9
117.5°	371.8	377.6	383.4	387.1	388.7	390.2	391.7	393.2
120°	391.7	397.2	402.8	406.3	407.6	409.1	410.6	412.0
122.5°	411.9	417.0	422.1	425.3	426.6	428.0	429.3	430.6
125°	441.9	446.5	451.1	454.0	455.1	456.3	457.5	458.6
127.5°	471.4	475.5	479.6	482.1	483.1	484.1	485.2	486.2
130°	491.0	495.0	499.2	501.5	502.0	502.5	503.0	503.4
132.5°	509.9	513.7	517.5	519.8	520.7	521.7	522.6	523.5
135°	538.7	542.5	546.4	548.8	549.8	550.7	551.6	552.6
137.5°	567.0	570.3	573.6	575.6	576.3	577.0	577.6	578.4
140°	585.9	589.5	593.0	594.9	595.2	595.4	595.7	595.9
142.5°	603.0	606.1	609.3	611.1	611.6	612.0	612.5	612.9
145°	630.9	632.8	634.5	635.7	636.1	636.5	636.9	637.4
147.5°	657.9	658.4	659.1	659.3	659.4	659.4	659.5	659.5
150°	675.1	675.1	675.1	674.9	674.5	674.2	673.8	673.4
152.5°	691.8	692.0	692.3	692.0	691.5	690.8	690.2	689.5
155°	716.3	716.9	717.5	717.2	716.2	715.3	714.3	713.3
157.5°	737.4	738.0	738.6	738.5	737.8	736.9	736.1	735.3
160°	750.4	751.1	751.8	751.9	751.3	750.7	750.2	749.6
162.5°	762.6	763.4	764.1	763.9	763.0	762.1	761.2	760.3
165°	778.1	778.9	779.8	779.8	778.8	777.7	776.7	775.8
167.5°	790.7	791.5	792.4	792.4	791.5	790.7	789.8	788.9
170°	797.5	798.5	799.5	799.5	798.5	797.5	796.5	795.5
172.5°	802.9	803.8	804.6	804.6	803.6	802.6	801.6	800.6
175°	808.7	809.5	810.4	810.3	809.3	808.4	807.3	806.3
177.5°	811.3	812.0	812.6	812.6	811.8	811.0	810.2	809.4
180°	811.5	811.5	811.5	811.5	811.5	811.5	811.5	811.5

(END OF REPORT)