

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: P332309-927

Luminaire Tested: **S123RDIP-S775D585U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332309-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S775D585U927-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4166.8 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

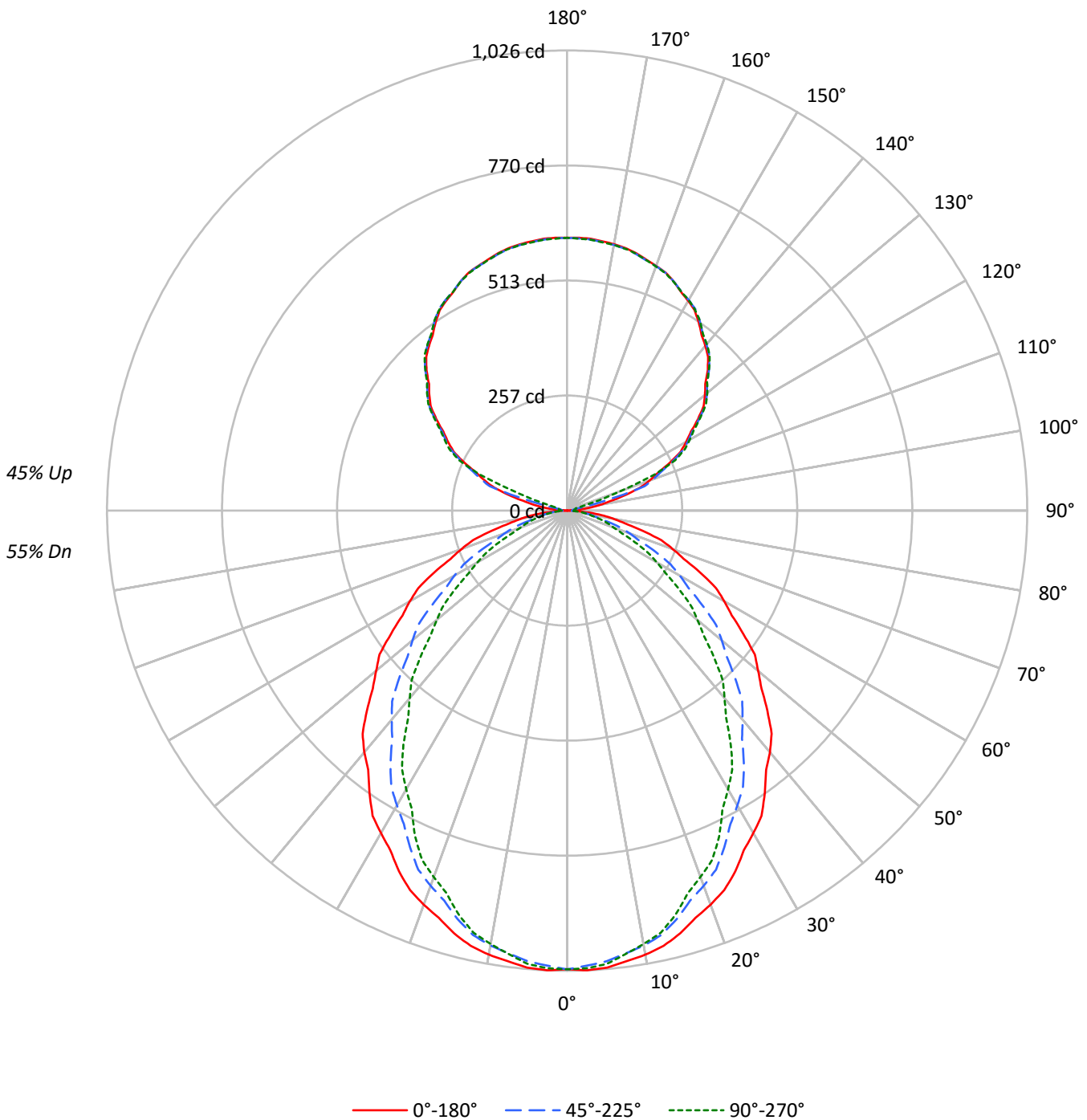
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	88	92	89	85	82	76	74	72	65	63	62	55	53	52	47
2	91	84	77	72	84	78	73	68	67	63	60	58	55	52	49	46	45	40
3	83	74	67	61	77	69	62	57	60	55	51	51	48	44	43	41	38	35
4	76	65	58	52	71	61	54	49	53	48	44	46	42	38	39	36	33	30
5	70	59	50	45	65	55	48	42	48	42	38	41	37	34	35	32	29	26
6	65	53	45	39	60	49	42	37	43	37	33	37	33	30	32	29	26	23
7	60	48	40	34	56	45	38	33	39	34	29	34	30	26	29	26	23	21
8	56	43	36	30	52	41	34	29	36	30	26	31	27	24	27	23	21	19
9	52	40	32	27	48	37	31	26	33	27	24	29	24	21	25	21	19	17
10	49	36	29	25	45	34	28	23	30	25	21	27	22	19	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11009	11009	11009
5°	11051	10899	10962
10°	10989	10762	10726
15°	10871	10510	10399
20°	10709	10195	9958
25°	10542	9841	9526
30°	10320	9434	8918
35°	10093	9025	8360
40°	9884	8543	7669
45°	9608	8068	7046
50°	9306	7529	6348
55°	8997	6912	5697
60°	8714	6250	4982
65°	8344	5535	4266
70°	7884	4648	3446
75°	7207	3656	3244
80°	6428	3242	2982
85°	5434	2865	2655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	2.3
10°-20°	267.2	6.4
20°-30°	384.8	9.2
30°-40°	433.4	10.4
40°-50°	414.6	10.0
50°-60°	339.6	8.1
60°-70°	229.1	5.5
70°-80°	115.3	2.8
80°-90°	32.2	0.8
90°-100°	22.1	0.5
100°-110°	105.4	2.5
110°-120°	253.1	6.1
120°-130°	322.3	7.7
130°-140°	344.4	8.3
140°-150°	322.0	7.7
150°-160°	259.8	6.2
160°-170°	167.7	4.0
170°-180°	57.8	1.4
0°-30°	748.0	18.0
0°-40°	1181.5	28.4
0°-60°	1935.6	46.5
0°-90°	2312.2	55.5
90°-120°	380.6	9.1
90°-150°	1369.4	32.9
90°-180°	1855.0	44.5
0°-180°	4166.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1023	1023	1023	1023	1023	
5°	1023	1018	1009	1016	1014	97
15°	976	966	943	939	933	275
25°	888	866	829	812	802	408
35°	768	737	687	652	636	481
45°	631	592	530	484	463	487
55°	479	437	368	322	304	430
65°	328	281	217	178	168	324
75°	173	133	88	80	78	185
85°	44	27	23	22	22	49
90°	0	5	11	13	14	3
95°	28	10	14	17	17	34
105°	135	137	99	24	20	143
115°	252	255	259	264	266	249
125°	356	360	362	362	363	318
135°	443	446	448	449	448	341
145°	511	515	516	516	516	320
155°	563	563	563	565	562	259
165°	594	593	592	596	593	168
175°	608	606	606	609	606	58
180°	608	608	608	608	608	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8
2.5°	1026.0	1025.5	1024.8	1024.3	1023.7	1022.5	1020.7	1019.0	1017.2	1015.4	1017.1
5°	1022.8	1021.8	1020.9	1020.0	1019.1	1017.5	1015.3	1013.0	1010.8	1008.7	1010.3
7.5°	1013.3	1012.3	1011.3	1010.3	1009.3	1007.3	1004.5	1001.6	998.8	995.9	996.8
10°	1005.4	1004.0	1002.7	1001.5	1000.1	997.8	994.5	991.3	987.9	984.6	984.8
12.5°	994.0	992.6	991.2	989.8	988.3	985.6	981.5	977.5	973.4	969.3	969.2
15°	975.5	973.4	971.4	969.4	967.3	963.8	958.6	953.5	948.2	943.1	942.2
17.5°	952.0	949.7	947.4	945.0	942.6	938.2	931.6	925.0	918.5	912.0	910.0
20°	934.9	931.8	928.9	926.0	923.1	918.1	911.0	904.0	897.1	890.0	887.6
22.5°	915.6	912.2	908.8	905.4	902.0	896.6	889.1	881.7	874.3	866.8	863.8
25°	887.6	883.0	878.3	873.7	869.1	862.5	854.1	845.6	837.1	828.6	824.7
27.5°	853.5	848.4	843.4	838.3	833.2	825.9	816.5	807.1	797.6	788.1	782.8
30°	830.3	824.7	819.3	813.7	808.2	800.3	790.0	779.6	769.3	759.0	752.7
32.5°	807.1	800.8	794.6	788.3	782.0	773.4	762.5	751.6	740.7	729.8	722.9
35°	768.1	761.4	754.8	748.2	741.6	732.5	721.1	709.6	698.2	686.8	678.9
37.5°	728.6	721.2	713.8	706.5	699.1	689.4	677.2	665.0	652.8	640.6	631.5
40°	703.4	695.3	687.1	679.1	671.0	660.4	647.3	634.2	621.1	608.0	598.4
42.5°	674.9	666.8	658.6	650.5	642.5	631.6	618.1	604.5	591.0	577.5	567.0
45°	631.2	623.0	614.7	606.3	598.0	586.8	572.6	558.4	544.2	530.0	519.5
47.5°	587.6	578.5	569.4	560.3	551.2	539.6	525.4	511.1	496.9	482.8	471.3
50°	555.7	547.1	538.4	529.7	521.1	509.3	494.4	479.4	464.5	449.6	438.2
52.5°	527.2	517.8	508.4	499.0	489.6	477.5	462.7	448.0	433.2	418.4	406.5
55°	479.4	470.4	461.4	452.3	443.3	430.9	415.3	399.7	384.0	368.3	357.6
57.5°	435.3	425.5	415.7	405.8	395.9	383.2	367.4	351.6	335.9	320.2	310.1
60°	404.8	394.7	384.5	374.4	364.2	351.5	336.2	320.9	305.6	290.3	280.4
62.5°	374.2	364.1	353.9	343.8	333.7	321.0	305.7	290.4	275.1	259.8	250.4
65°	327.6	317.5	307.4	297.2	287.1	274.8	260.5	246.1	231.7	217.3	208.3
67.5°	281.1	270.8	260.5	250.3	240.0	228.0	214.2	200.4	186.6	172.9	166.1
70°	250.5	240.6	230.6	220.6	210.7	199.2	186.3	173.5	160.6	147.7	141.2
72.5°	220.0	210.2	200.3	190.5	180.8	170.0	158.3	146.6	134.8	123.1	117.8
75°	173.3	164.5	155.7	146.8	138.0	128.5	118.4	108.2	98.1	87.9	86.1
77.5°	130.9	122.9	114.9	106.9	98.9	91.7	85.1	78.6	72.1	65.5	64.6
80°	103.7	96.1	88.6	81.0	73.4	67.7	63.8	60.0	56.2	52.3	51.7
82.5°	77.8	71.3	64.7	58.2	51.7	47.5	45.7	43.9	42.1	40.3	39.8
85°	44.0	39.9	35.9	31.8	27.7	25.4	24.9	24.3	23.8	23.2	22.9
87.5°	16.0	14.6	13.2	11.7	10.3	9.7	10.0	10.3	10.5	10.8	10.7
90°	0.5	1.4	2.5	3.5	4.4	5.6	6.9	8.2	9.5	10.9	11.2
92.5°	8.4	8.2	7.8	7.5	7.3	7.6	8.6	9.6	10.6	11.6	12.2
95°	27.6	23.4	19.3	15.2	11.1	9.6	10.7	11.8	12.9	14.0	14.7
97.5°	55.4	53.6	51.7	49.8	48.0	43.5	36.2	29.0	21.8	14.6	15.4
100°	76.4	78.3	80.4	82.4	84.4	77.6	61.9	46.3	30.6	14.9	15.7
102.5°	100.2	101.6	103.1	104.6	106.0	98.2	81.0	63.9	46.8	29.7	27.3
105°	134.7	135.8	136.9	137.9	139.0	135.1	126.0	117.0	108.0	98.9	81.2
107.5°	171.0	171.8	172.8	173.6	174.5	175.6	177.1	178.5	179.9	181.3	168.3
110°	195.2	196.0	196.8	197.6	198.4	199.4	200.4	201.5	202.6	203.7	200.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	218.3	219.0	219.8	220.5	221.2	222.1	223.2	224.3	225.5	226.6	226.6
115°	252.5	253.2	253.7	254.4	255.0	255.7	256.7	257.5	258.4	259.4	260.4
117.5°	285.7	286.5	287.2	288.0	288.7	289.3	289.8	290.3	290.7	291.1	292.0
120°	306.3	307.2	308.2	309.0	310.0	310.5	310.9	311.2	311.5	311.7	312.6
122.5°	327.3	328.0	328.8	329.5	330.3	330.8	331.2	331.6	332.0	332.4	333.0
125°	356.0	356.9	357.7	358.5	359.3	359.9	360.3	360.7	361.1	361.5	361.6
127.5°	383.9	384.7	385.5	386.3	387.1	387.7	388.2	388.7	389.2	389.7	390.0
130°	401.2	402.0	402.8	403.6	404.4	405.0	405.4	405.8	406.2	406.6	407.0
132.5°	417.9	418.7	419.5	420.3	421.0	421.6	421.9	422.2	422.6	422.9	423.3
135°	443.2	443.9	444.4	445.0	445.7	446.2	446.6	446.9	447.3	447.7	448.1
137.5°	464.9	465.7	466.4	467.2	467.9	468.5	468.7	468.9	469.1	469.4	469.8
140°	479.3	480.0	480.6	481.2	481.8	482.3	482.5	482.8	483.2	483.5	483.9
142.5°	492.7	493.4	494.0	494.6	495.2	495.6	495.9	496.2	496.5	496.9	497.2
145°	511.4	512.1	512.9	513.6	514.3	514.8	514.9	515.2	515.3	515.6	515.7
147.5°	529.1	529.6	530.0	530.4	530.9	531.2	531.5	531.6	531.9	532.1	532.3
150°	540.0	540.3	540.5	540.8	541.1	541.4	541.6	541.8	542.0	542.2	542.4
152.5°	549.7	549.9	549.9	550.1	550.2	550.4	550.5	550.6	550.7	550.9	551.2
155°	563.4	563.2	563.0	562.8	562.6	562.6	562.7	562.8	562.8	563.0	563.5
157.5°	574.1	574.1	574.0	574.0	574.0	573.9	573.9	573.8	573.6	573.5	574.2
160°	580.6	580.5	580.4	580.3	580.2	580.1	580.0	579.9	579.8	579.7	580.3
162.5°	586.8	586.5	586.2	586.0	585.7	585.5	585.4	585.3	585.2	585.1	585.8
165°	594.1	593.8	593.6	593.3	592.9	592.7	592.6	592.6	592.5	592.3	593.2
167.5°	599.9	599.5	599.1	598.7	598.3	598.1	598.1	598.1	598.1	598.1	599.0
170°	603.2	602.8	602.4	602.0	601.6	601.3	601.3	601.3	601.3	601.3	602.2
172.5°	605.4	604.9	604.4	603.9	603.4	603.2	603.3	603.4	603.5	603.6	604.4
175°	608.2	607.7	607.1	606.7	606.2	605.9	606.0	606.2	606.3	606.3	607.0
177.5°	608.9	608.5	608.1	607.7	607.3	607.1	607.2	607.3	607.4	607.4	608.1
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8
2.5°	1018.7	1020.3	1021.9	1022.6	1022.3	1022.0	1021.7	1021.4
5°	1011.9	1013.6	1015.3	1015.9	1015.6	1015.2	1014.8	1014.5
7.5°	997.8	998.6	999.6	999.7	999.1	998.5	997.8	997.2
10°	985.0	985.2	985.3	985.0	984.0	983.1	982.2	981.3
12.5°	969.1	969.0	968.9	968.3	967.3	966.1	965.1	964.0
15°	941.3	940.3	939.4	938.3	937.1	935.7	934.5	933.2
17.5°	908.0	906.1	904.1	902.2	900.2	898.3	896.4	894.5
20°	885.3	882.8	880.4	878.1	875.9	873.7	871.5	869.3
22.5°	860.9	857.9	854.8	852.3	850.2	848.2	846.1	844.1
25°	820.9	817.1	813.2	810.2	808.2	806.1	804.1	802.1
27.5°	777.4	772.1	766.7	762.4	759.3	756.2	753.1	750.0
30°	746.5	740.1	733.9	729.3	726.4	723.4	720.4	717.5
32.5°	716.1	709.2	702.3	697.4	694.3	691.2	688.1	685.0
35°	671.0	663.1	655.1	649.5	646.2	642.9	639.5	636.2
37.5°	622.5	613.5	604.5	598.0	593.9	589.8	585.7	581.6
40°	588.8	579.2	569.7	562.8	558.5	554.3	550.0	545.8
42.5°	556.5	546.1	535.6	528.5	524.7	520.9	517.1	513.3
45°	509.1	498.5	488.0	480.5	476.1	471.7	467.3	462.9
47.5°	459.9	448.5	437.0	429.4	425.4	421.4	417.6	413.6
50°	426.7	415.3	403.9	396.0	391.8	387.5	383.3	379.1
52.5°	394.7	382.8	370.9	363.1	359.3	355.5	351.6	347.8
55°	346.9	336.2	325.5	318.3	314.7	310.9	307.3	303.6
57.5°	300.0	289.9	279.8	273.1	270.1	266.9	263.7	260.6
60°	270.4	260.5	250.5	244.0	240.8	237.7	234.6	231.4
62.5°	241.1	231.7	222.4	216.0	212.7	209.5	206.2	202.9
65°	199.2	190.2	181.2	175.6	173.6	171.6	169.6	167.5
67.5°	159.4	152.7	145.8	141.4	139.3	137.0	134.9	132.7
70°	134.8	128.3	121.8	117.6	115.6	113.5	111.5	109.5
72.5°	112.6	107.3	102.0	98.9	98.1	97.3	96.4	95.5
75°	84.2	82.4	80.6	79.5	79.1	78.7	78.3	78.0
77.5°	63.5	62.5	61.6	60.8	60.5	60.1	59.7	59.4
80°	51.2	50.6	50.1	49.6	49.2	48.9	48.5	48.1
82.5°	39.2	38.7	38.1	37.8	37.7	37.6	37.5	37.5
85°	22.5	22.1	21.8	21.5	21.5	21.5	21.5	21.5
87.5°	10.7	10.6	10.5	10.5	10.3	10.2	10.1	10.0
90°	11.6	12.0	12.4	12.8	13.0	13.2	13.4	13.5
92.5°	12.8	13.5	14.1	14.5	14.7	14.7	14.9	15.0
95°	15.4	16.1	16.8	17.2	17.2	17.2	17.2	17.2
97.5°	16.2	17.0	17.7	18.2	18.3	18.4	18.5	18.6
100°	16.5	17.3	18.1	18.5	18.7	18.8	18.9	19.0
102.5°	24.7	22.3	19.8	18.6	18.8	19.0	19.2	19.3
105°	63.4	45.6	27.9	19.1	19.3	19.5	19.6	19.9
107.5°	155.3	142.3	129.2	116.1	102.6	89.2	75.8	62.4
110°	197.2	193.8	190.5	181.6	167.3	153.0	138.6	124.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	226.6	226.7	226.8	225.3	222.3	219.2	216.2	213.2
115°	261.3	262.4	263.4	264.0	264.4	264.9	265.3	265.7
117.5°	292.8	293.6	294.4	294.9	294.9	295.0	295.1	295.2
120°	313.4	314.2	315.0	315.4	315.4	315.4	315.4	315.4
122.5°	333.5	334.1	334.6	334.9	335.0	335.1	335.2	335.3
125°	361.9	362.0	362.3	362.5	362.7	362.9	363.1	363.3
127.5°	390.3	390.6	390.9	391.0	390.8	390.6	390.4	390.2
130°	407.4	407.8	408.2	408.4	408.1	408.0	407.7	407.6
132.5°	423.7	424.1	424.5	424.6	424.3	424.0	423.7	423.4
135°	448.4	448.7	448.9	448.9	448.7	448.4	448.1	447.7
137.5°	470.3	470.8	471.3	471.4	471.2	471.0	470.8	470.6
140°	484.3	484.7	485.1	485.1	485.0	484.7	484.6	484.3
142.5°	497.5	497.8	498.1	498.1	497.9	497.6	497.3	497.0
145°	515.9	516.1	516.3	516.4	516.4	516.4	516.4	516.4
147.5°	532.5	532.7	532.9	532.7	532.3	531.8	531.4	530.9
150°	542.6	542.8	543.0	543.0	542.6	542.3	542.0	541.8
152.5°	551.6	551.9	552.3	552.2	551.8	551.4	550.9	550.4
155°	564.0	564.5	565.0	564.9	564.4	563.7	563.2	562.5
157.5°	574.7	575.4	576.0	575.8	575.0	574.3	573.5	572.7
160°	580.9	581.5	582.1	582.0	581.4	580.7	580.0	579.2
162.5°	586.5	587.2	587.9	587.9	587.2	586.6	586.0	585.4
165°	594.0	594.8	595.6	595.6	594.9	594.2	593.5	592.8
167.5°	599.8	600.6	601.3	601.3	600.6	599.8	599.0	598.1
170°	603.0	603.8	604.6	604.6	603.8	603.0	602.2	601.3
172.5°	605.1	605.9	606.7	606.7	605.9	605.0	604.0	603.2
175°	607.8	608.5	609.2	609.1	608.3	607.5	606.7	605.9
177.5°	608.7	609.3	610.0	609.9	609.1	608.3	607.5	606.7
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2

(END OF REPORT)