

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: P334809

Luminaire Tested: **S124IP-S1205U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IP-S1205U927-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1205 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3414.4 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

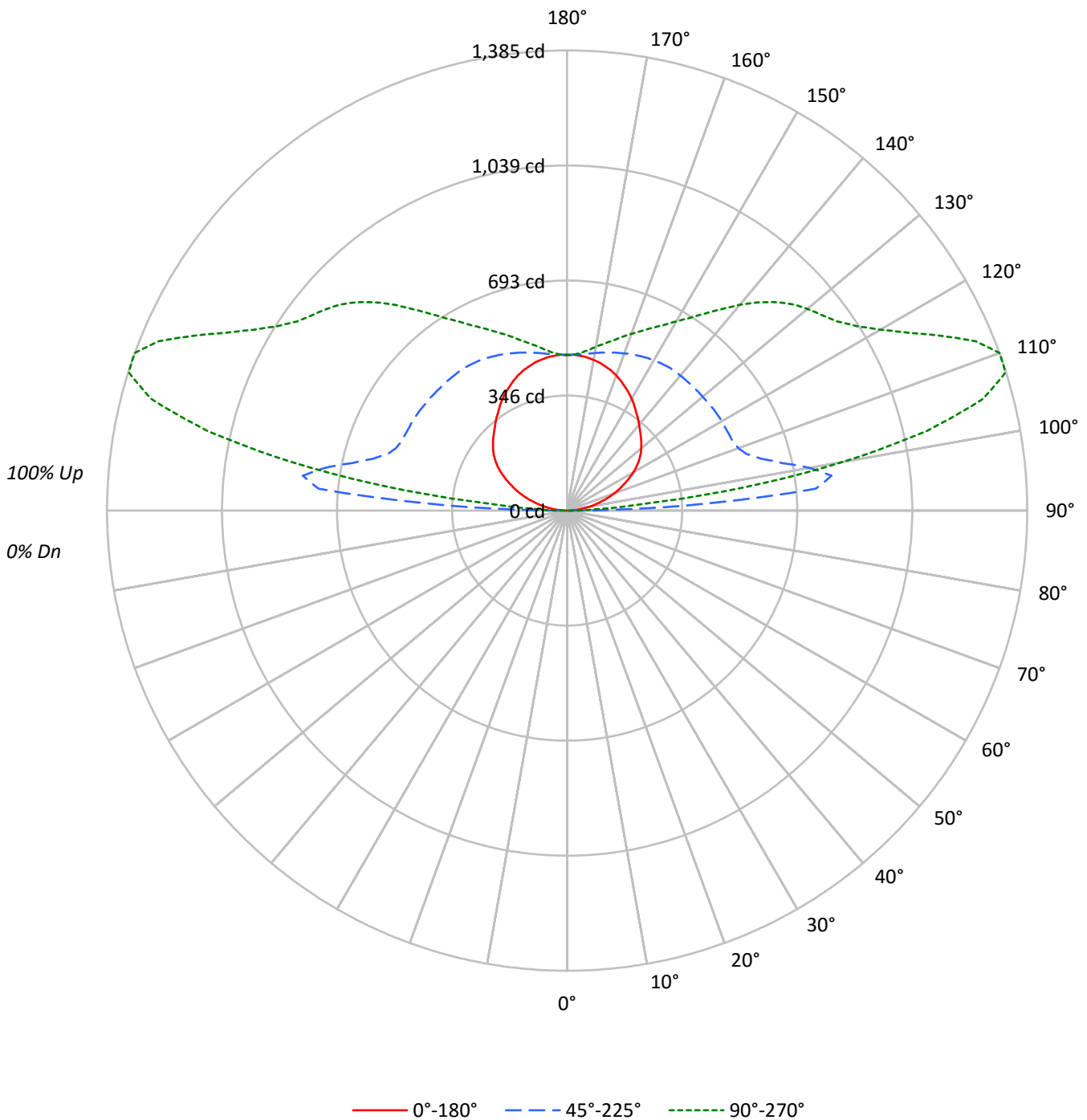
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	1.8	0.1
90°-100°	339.6	9.9
100°-110°	709.0	20.8
110°-120°	630.2	18.5
120°-130°	530.5	15.5
130°-140°	442.6	13.0
140°-150°	337.9	9.9
150°-160°	237.6	7.0
160°-170°	139.7	4.1
170°-180°	45.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.8	0.1
90°-120°	1678.7	49.2
90°-150°	2989.8	87.6
90°-180°	3413.0	100.0
0°-180°	3414.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	7	17	18	19	2
95°	30	96	750	371	225	33
105°	108	156	604	1300	1295	115
115°	190	238	538	1035	1244	188
125°	264	314	536	880	992	235
135°	314	374	531	782	887	243
145°	362	414	528	659	724	227
155°	412	444	514	582	607	190
165°	448	462	492	522	529	127
175°	468	468	472	479	477	44
180°	468	468	468	468	468	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.9	2.8	5.5	6.4	7.4	7.4	12.9	12.9	14.7	16.6	15.6
92.5°	12.9	18.4	28.5	42.3	58.9	82.8	139.9	229.2	315.7	360.8	300.1
95°	30.4	33.1	42.3	54.3	76.4	115.1	195.1	346.1	566.1	750.2	771.4
97.5°	50.6	50.6	58.9	70.0	89.3	122.4	185.9	315.7	542.2	802.7	967.5
100°	70.0	70.0	76.4	87.4	104.9	134.4	188.7	292.7	480.5	740.1	975.7
102.5°	88.4	90.2	95.7	105.9	122.4	150.0	197.9	286.3	439.1	661.9	906.7
105°	107.7	110.5	115.1	126.1	142.7	169.4	213.6	290.0	418.8	603.9	820.2
107.5°	128.9	130.7	135.3	147.3	162.9	189.6	230.1	301.0	413.3	566.1	749.3
110°	150.0	151.9	156.5	167.5	184.1	209.0	249.5	313.9	415.2	548.6	698.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	170.3	172.1	177.7	187.8	204.4	229.2	267.9	327.7	420.7	540.3	670.1
115°	189.6	192.4	198.8	208.0	225.5	250.4	287.2	342.4	428.0	538.5	654.5
117.5°	209.9	212.6	218.2	228.3	244.9	270.6	305.6	357.2	435.4	537.6	646.2
120°	230.1	232.0	238.4	248.5	264.2	290.0	324.9	372.8	443.7	537.6	639.8
122.5°	248.5	250.4	256.8	266.0	283.5	308.4	343.4	387.5	452.0	536.7	632.4
125°	264.2	267.9	273.4	283.5	301.0	326.8	359.9	402.3	460.3	535.7	624.1
127.5°	278.9	281.7	288.1	299.2	317.6	343.4	375.6	415.2	466.7	533.9	613.1
130°	290.9	294.6	301.9	315.7	333.2	359.9	391.2	427.1	474.1	533.0	602.9
132.5°	302.8	305.6	315.7	328.6	348.0	372.8	404.1	439.1	480.5	532.1	593.7
135°	313.9	317.6	326.8	342.4	361.8	385.7	416.1	449.2	487.0	531.1	584.5
137.5°	324.9	328.6	338.7	353.5	373.7	396.7	425.3	456.6	490.6	531.1	576.2
140°	336.9	339.7	349.8	365.4	384.8	406.9	434.5	463.9	495.2	530.2	569.8
142.5°	349.8	352.6	361.8	376.5	394.9	416.1	442.8	469.5	498.9	530.2	564.3
145°	361.8	364.5	373.7	386.6	404.1	424.4	448.3	473.1	499.8	528.4	557.8
147.5°	375.6	376.5	384.8	398.6	413.3	431.7	454.7	476.8	500.8	525.6	552.3
150°	388.5	389.4	396.7	407.8	421.6	439.1	459.3	479.6	500.8	522.9	545.9
152.5°	400.4	400.4	407.8	417.9	429.9	445.5	463.0	481.4	498.9	518.3	538.5
155°	411.5	412.4	417.9	427.1	437.2	451.1	466.7	482.4	497.1	513.6	531.1
157.5°	422.5	422.5	428.0	435.4	444.6	455.7	469.5	482.4	495.2	509.0	523.8
160°	432.6	432.6	436.3	442.8	450.1	460.3	471.3	482.4	492.5	503.5	515.5
162.5°	441.8	440.9	443.7	449.2	455.7	463.0	473.1	482.4	489.7	498.0	508.1
165°	448.3	448.3	450.1	454.7	459.3	464.9	473.1	480.5	486.0	492.5	499.8
167.5°	455.7	454.7	455.7	459.3	462.1	466.7	473.1	478.7	482.4	487.0	492.5
170°	460.3	459.3	460.3	463.0	464.9	467.6	472.2	476.8	478.7	481.4	485.1
172.5°	464.9	463.9	463.9	465.8	466.7	468.5	471.3	475.0	475.0	475.9	478.7
175°	467.6	466.7	466.7	467.6	468.5	468.5	470.4	473.1	472.2	472.2	474.1
177.5°	469.5	468.5	467.6	468.5	468.5	468.5	469.5	471.3	469.5	469.5	470.4
180°	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	16.6	17.5	18.4	18.4	19.3	20.3	19.3	19.3
92.5°	221.8	165.7	130.7	107.7	93.9	87.4	83.8	83.8
95°	682.1	539.4	416.1	326.8	281.7	253.1	236.6	224.6
97.5°	982.2	911.3	810.1	707.0	644.4	589.1	561.5	539.4
100°	1110.1	1128.6	1083.4	1015.3	935.2	879.1	851.5	844.1
102.5°	1103.7	1213.2	1240.9	1222.4	1181.0	1144.2	1114.7	1109.2
105°	1031.0	1190.2	1281.4	1319.1	1320.9	1313.6	1300.7	1295.2
107.5°	941.7	1113.8	1240.9	1318.2	1358.7	1375.3	1382.6	1383.5
110°	862.5	1021.8	1155.2	1256.5	1321.9	1360.5	1377.1	1385.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	804.5	940.8	1065.0	1166.3	1242.7	1291.5	1316.3	1331.1
115°	769.6	882.8	990.5	1078.8	1151.6	1206.8	1236.3	1243.6
117.5°	749.3	845.0	932.5	1009.8	1074.2	1122.1	1153.4	1158.0
120°	736.4	822.0	895.7	961.0	1013.5	1054.0	1077.9	1088.0
122.5°	725.4	807.3	872.6	927.9	970.2	1003.4	1022.7	1032.8
125°	712.5	791.6	855.2	905.8	942.6	969.3	986.8	992.3
127.5°	697.8	774.2	837.7	885.5	922.4	946.3	961.0	966.5
130°	679.3	752.1	814.7	863.4	901.2	924.2	938.9	944.4
132.5°	660.0	727.2	788.0	836.7	873.6	900.3	914.1	919.6
135°	642.5	702.4	758.5	804.5	841.4	867.1	881.9	887.4
137.5°	626.0	678.4	727.2	769.6	804.5	831.2	843.2	849.6
140°	612.1	655.4	696.8	735.5	767.7	788.0	800.8	808.2
142.5°	599.3	636.1	670.1	702.4	730.0	748.4	759.4	764.0
145°	587.3	618.6	646.2	672.0	695.0	710.6	719.8	724.4
147.5°	577.2	602.9	626.0	647.1	664.6	678.4	685.8	687.6
150°	568.0	589.1	607.5	624.1	638.8	650.8	656.3	657.2
152.5°	557.8	575.3	591.9	604.8	616.7	626.0	628.7	629.6
155°	547.7	562.4	576.2	587.3	596.5	603.9	606.6	606.6
157.5°	536.7	549.5	561.5	570.7	578.1	583.6	585.4	585.4
160°	526.5	536.7	546.8	554.2	559.7	565.2	566.1	566.1
162.5°	516.4	524.7	532.1	538.5	542.2	547.7	548.6	547.7
165°	507.2	512.7	519.2	523.8	527.5	531.1	530.2	529.3
167.5°	498.0	502.6	508.1	510.9	512.7	515.5	515.5	514.6
170°	489.7	492.5	496.2	498.9	500.8	501.7	500.8	500.8
172.5°	482.4	484.2	486.0	487.9	488.8	489.7	488.8	487.0
175°	475.9	476.8	478.7	478.7	478.7	480.5	478.7	476.8
177.5°	471.3	472.2	472.2	473.1	472.2	473.1	471.3	469.5
180°	468.5	468.5	468.5	468.5	468.5	468.5	468.5	468.5

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