

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: P334819

Luminaire Tested: **S124IP-S1205U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334819
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-S1205U935-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1205 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3711.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

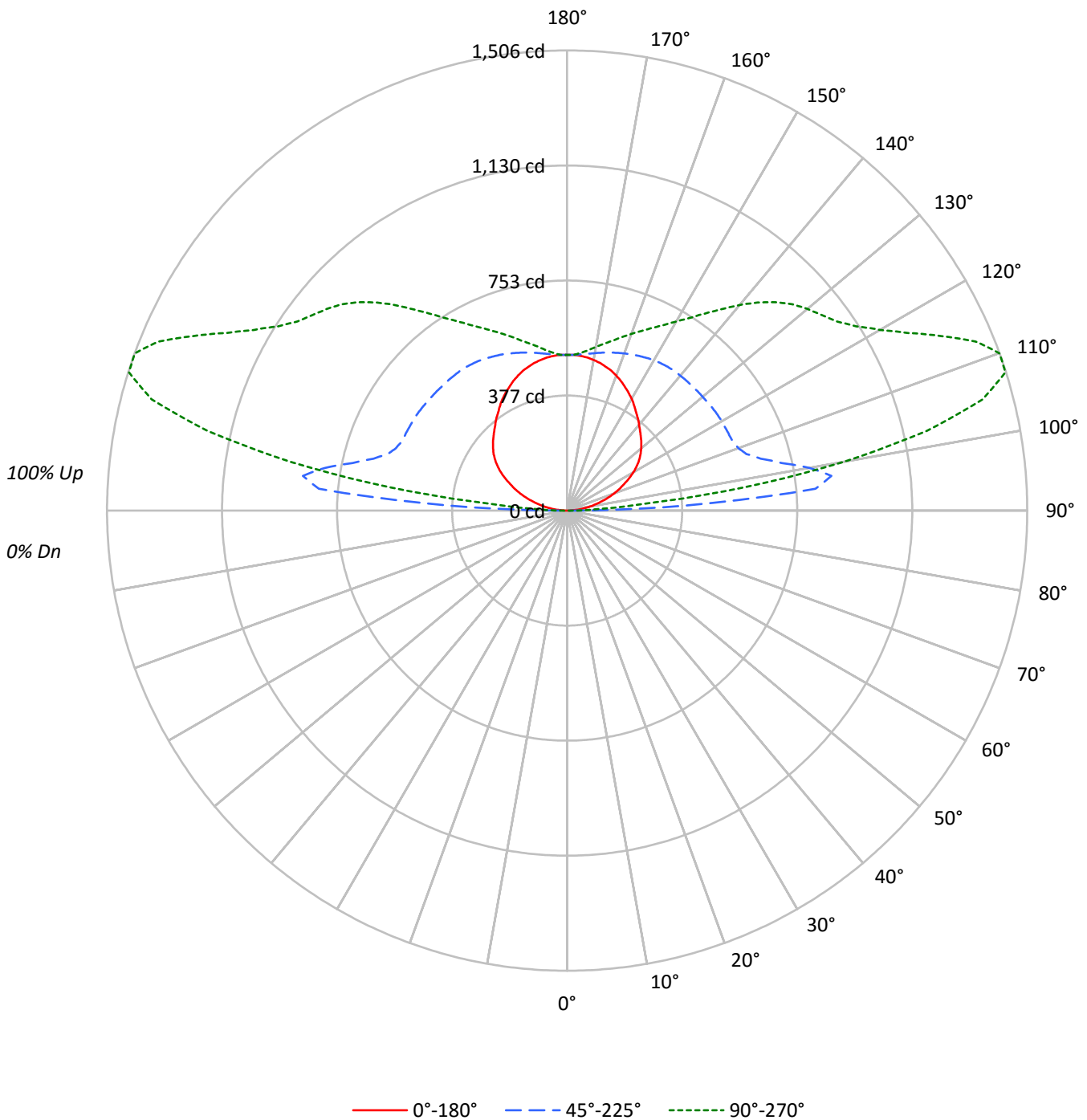
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2.0	0.1
90°-100°	369.1	9.9
100°-110°	770.5	20.8
110°-120°	685.0	18.5
120°-130°	576.6	15.5
130°-140°	481.1	13.0
140°-150°	367.3	9.9
150°-160°	258.2	7.0
160°-170°	151.9	4.1
170°-180°	49.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.0	0.1
90°-120°	1824.6	49.2
90°-150°	3249.5	87.6
90°-180°	3709.0	99.9
0°-180°	3711.0	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	8	18	20	21	2
95°	33	104	815	404	244	36
105°	117	170	656	1413	1408	125
115°	206	259	585	1125	1352	204
125°	287	341	582	957	1078	256
135°	341	406	577	849	964	264
145°	393	450	574	716	787	247
155°	447	483	558	632	659	206
165°	487	502	535	567	575	138
175°	508	509	513	520	518	48
180°	509	509	509	509	509	



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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°	1.0	3.0	6.0	7.0	8.0	8.0	14.0	14.0	16.0	18.0	17.0
92.5°	14.0	20.0	31.0	46.0	64.0	90.0	152.1	249.1	343.2	392.2	326.2
95°	33.0	36.0	46.0	59.0	83.0	125.1	212.1	376.2	615.3	815.4	838.4
97.5°	55.0	55.0	64.0	76.0	97.0	133.1	202.1	343.2	589.3	872.4	1051.5
100°	76.0	76.0	83.0	95.0	114.1	146.1	205.1	318.2	522.3	804.4	1060.5
102.5°	96.0	98.0	104.1	115.1	133.1	163.1	215.1	311.1	477.2	719.3	985.5
105°	117.1	120.1	125.1	137.1	155.1	184.1	232.1	315.2	455.2	656.3	891.4
107.5°	140.1	142.1	147.1	160.1	177.1	206.1	250.1	327.2	449.2	615.3	814.4
110°	163.1	165.1	170.1	182.1	200.1	227.1	271.1	341.2	451.2	596.3	759.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	185.1	187.1	193.1	204.1	222.1	249.1	291.1	356.2	457.2	587.3	728.4
115°	206.1	209.1	216.1	226.1	245.1	272.1	312.2	372.2	465.2	585.3	711.3
117.5°	228.1	231.1	237.1	248.1	266.1	294.1	332.2	388.2	473.2	584.3	702.3
120°	250.1	252.1	259.1	270.1	287.1	315.2	353.2	405.2	482.2	584.3	695.3
122.5°	270.1	272.1	279.1	289.1	308.1	335.2	373.2	421.2	491.2	583.3	687.3
125°	287.1	291.1	297.1	308.1	327.2	355.2	391.2	437.2	500.2	582.3	678.3
127.5°	303.1	306.1	313.2	325.2	345.2	373.2	408.2	451.2	507.2	580.3	666.3
130°	316.2	320.2	328.2	343.2	362.2	391.2	425.2	464.2	515.2	579.3	655.3
132.5°	329.2	332.2	343.2	357.2	378.2	405.2	439.2	477.2	522.3	578.3	645.3
135°	341.2	345.2	355.2	372.2	393.2	419.2	452.2	488.2	529.3	577.3	635.3
137.5°	353.2	357.2	368.2	384.2	406.2	431.2	462.2	496.2	533.3	577.3	626.3
140°	366.2	369.2	380.2	397.2	418.2	442.2	472.2	504.2	538.3	576.3	619.3
142.5°	380.2	383.2	393.2	409.2	429.2	452.2	481.2	510.2	542.3	576.3	613.3
145°	393.2	396.2	406.2	420.2	439.2	461.2	487.2	514.2	543.3	574.3	606.3
147.5°	408.2	409.2	418.2	433.2	449.2	469.2	494.2	518.2	544.3	571.3	600.3
150°	422.2	423.2	431.2	443.2	458.2	477.2	499.2	521.3	544.3	568.3	593.3
152.5°	435.2	435.2	443.2	454.2	467.2	484.2	503.2	523.3	542.3	563.3	585.3
155°	447.2	448.2	454.2	464.2	475.2	490.2	507.2	524.3	540.3	558.3	577.3
157.5°	459.2	459.2	465.2	473.2	483.2	495.2	510.2	524.3	538.3	553.3	569.3
160°	470.2	470.2	474.2	481.2	489.2	500.2	512.2	524.3	535.3	547.3	560.3
162.5°	480.2	479.2	482.2	488.2	495.2	503.2	514.2	524.3	532.3	541.3	552.3
165°	487.2	487.2	489.2	494.2	499.2	505.2	514.2	522.3	528.3	535.3	543.3
167.5°	495.2	494.2	495.2	499.2	502.2	507.2	514.2	520.3	524.3	529.3	535.3
170°	500.2	499.2	500.2	503.2	505.2	508.2	513.2	518.2	520.3	523.3	527.3
172.5°	505.2	504.2	504.2	506.2	507.2	509.2	512.2	516.2	516.2	517.2	520.3
175°	508.2	507.2	507.2	508.2	509.2	509.2	511.2	514.2	513.2	513.2	515.2
177.5°	510.2	509.2	508.2	509.2	509.2	509.2	510.2	512.2	510.2	510.2	511.2
180°	509.2	509.2	509.2	509.2	509.2	509.2	509.2	509.2	509.2	509.2	509.2



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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°	18.0	19.0	20.0	20.0	21.0	22.0	21.0	21.0
92.5°	241.1	180.1	142.1	117.1	102.0	95.0	91.0	91.0
95°	741.4	586.3	452.2	355.2	306.1	275.1	257.1	244.1
97.5°	1067.5	990.5	880.4	768.4	700.3	640.3	610.3	586.3
100°	1206.6	1226.6	1177.6	1103.5	1016.5	955.5	925.4	917.4
102.5°	1199.6	1318.6	1348.6	1328.6	1283.6	1243.6	1211.6	1205.6
105°	1120.5	1293.6	1392.7	1433.7	1435.7	1427.7	1413.7	1407.7
107.5°	1023.5	1210.6	1348.6	1432.7	1476.7	1494.7	1502.7	1503.7
110°	937.5	1110.5	1255.6	1365.7	1436.7	1478.7	1496.7	1505.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	874.4	1022.5	1157.6	1267.6	1350.7	1403.7	1430.7	1446.7
115°	836.4	959.5	1076.5	1172.6	1251.6	1311.6	1343.6	1351.7
117.5°	814.4	918.4	1013.5	1097.5	1167.6	1219.6	1253.6	1258.6
120°	800.4	893.4	973.5	1044.5	1101.5	1145.6	1171.6	1182.6
122.5°	788.4	877.4	948.5	1008.5	1054.5	1090.5	1111.5	1122.5
125°	774.4	860.4	929.4	984.5	1024.5	1053.5	1072.5	1078.5
127.5°	758.4	841.4	910.4	962.5	1002.5	1028.5	1044.5	1050.5
130°	738.4	817.4	885.4	938.5	979.5	1004.5	1020.5	1026.5
132.5°	717.3	790.4	856.4	909.4	949.5	978.5	993.5	999.5
135°	698.3	763.4	824.4	874.4	914.4	942.5	958.5	964.5
137.5°	680.3	737.4	790.4	836.4	874.4	903.4	916.4	923.4
140°	665.3	712.3	757.4	799.4	834.4	856.4	870.4	878.4
142.5°	651.3	691.3	728.4	763.4	793.4	813.4	825.4	830.4
145°	638.3	672.3	702.3	730.4	755.4	772.4	782.4	787.4
147.5°	627.3	655.3	680.3	703.3	722.3	737.4	745.4	747.4
150°	617.3	640.3	660.3	678.3	694.3	707.3	713.3	714.3
152.5°	606.3	625.3	643.3	657.3	670.3	680.3	683.3	684.3
155°	595.3	611.3	626.3	638.3	648.3	656.3	659.3	659.3
157.5°	583.3	597.3	610.3	620.3	628.3	634.3	636.3	636.3
160°	572.3	583.3	594.3	602.3	608.3	614.3	615.3	615.3
162.5°	561.3	570.3	578.3	585.3	589.3	595.3	596.3	595.3
165°	551.3	557.3	564.3	569.3	573.3	577.3	576.3	575.3
167.5°	541.3	546.3	552.3	555.3	557.3	560.3	560.3	559.3
170°	532.3	535.3	539.3	542.3	544.3	545.3	544.3	544.3
172.5°	524.3	526.3	528.3	530.3	531.3	532.3	531.3	529.3
175°	517.2	518.2	520.3	520.3	520.3	522.3	520.3	518.2
177.5°	512.2	513.2	513.2	514.2	513.2	514.2	512.2	510.2
180°	509.2	509.2	509.2	509.2	509.2	509.2	509.2	509.2

(END OF REPORT)