

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: P334624

Luminaire Tested: **S123IP-S1195U835-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334624
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123IP-S1195U835-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1195 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

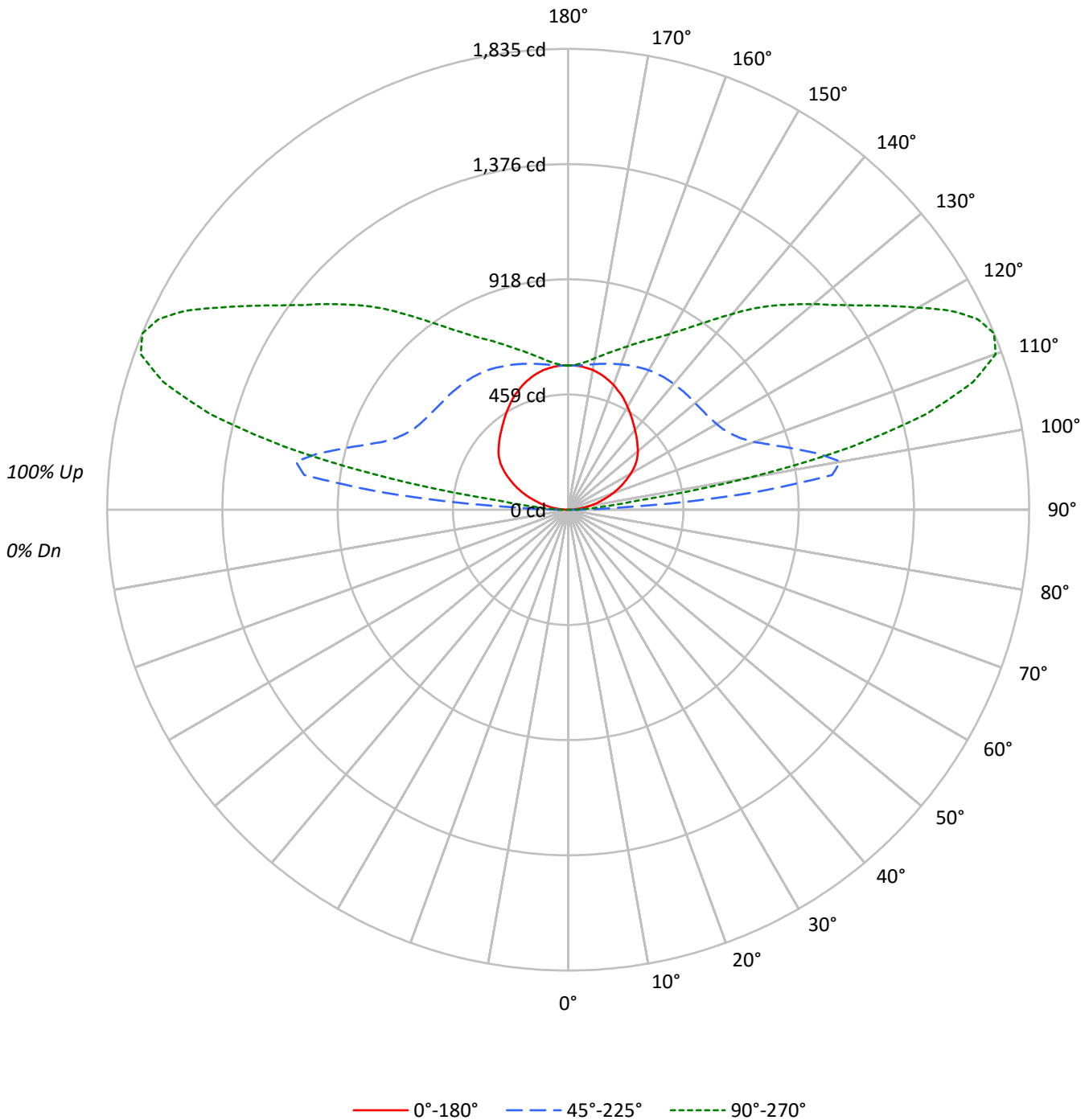
Lumens per Lamp: N/A
Luminaire Lumens: 4320.5 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

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°	3.2	0.1
90°-100°	311.5	7.2
100°-110°	911.8	21.1
110°-120°	890.4	20.6
120°-130°	709.1	16.4
130°-140°	559.5	13.0
140°-150°	417.4	9.7
150°-160°	291.0	6.7
160°-170°	171.0	4.0
170°-180°	55.6	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.2	0.1
90°-120°	2113.7	48.9
90°-150°	3799.8	87.9
90°-180°	4317.0	99.9
0°-180°	4320.5	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°	2	14	29	33	34	3
95°	40	128	689	201	135	42
105°	135	199	934	1634	1478	143
115°	238	297	714	1567	1797	236
125°	331	391	667	1208	1418	294
135°	388	463	658	995	1149	300
145°	443	507	650	816	898	277
155°	503	543	629	715	745	231
165°	550	565	602	638	650	155
175°	573	573	577	586	584	54
180°	574	574	574	574	574	



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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°	2.3	4.6	7.0	10.5	12.8	15.1	18.6	22.1	25.6	29.0	27.9
92.5°	17.4	25.6	37.2	47.6	59.3	80.2	117.3	178.9	239.3	216.1	161.5
95°	39.5	43.0	55.8	75.5	105.7	151.0	249.8	422.9	613.5	689.0	558.8
97.5°	62.7	63.9	74.4	91.8	122.0	172.0	269.5	470.5	791.2	1059.6	1095.6
100°	86.0	87.1	95.3	111.5	139.4	184.7	266.1	438.0	743.6	1100.3	1329.2
102.5°	110.4	112.7	119.7	134.8	159.2	199.8	270.7	410.1	673.9	1024.7	1340.8
105°	134.8	138.3	145.2	159.2	181.2	217.3	280.0	399.7	619.3	934.1	1267.6
107.5°	160.3	163.8	170.8	184.7	205.6	239.3	295.1	397.4	579.8	854.0	1163.0
110°	188.2	191.7	197.5	210.3	230.0	262.6	314.9	403.2	558.8	787.7	1065.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	213.8	217.3	223.1	235.9	255.6	287.0	334.6	414.8	547.2	743.6	980.6
115°	238.2	242.8	249.8	261.4	281.2	312.5	356.7	427.6	546.1	714.5	915.5
117.5°	262.6	268.4	274.2	284.7	306.7	335.8	379.9	443.8	547.2	694.8	872.5
120°	288.1	291.6	297.4	309.1	331.1	360.2	402.0	462.4	551.9	682.0	840.0
122.5°	310.2	313.7	319.5	332.3	353.2	384.6	425.2	479.8	560.0	673.9	813.3
125°	331.1	333.5	340.4	353.2	375.3	406.6	447.3	498.4	568.1	666.9	791.2
127.5°	347.4	350.9	359.0	371.8	396.2	427.6	467.1	513.5	577.4	663.4	770.3
130°	362.5	366.0	376.4	390.4	414.8	446.1	484.5	528.6	586.7	659.9	754.0
132.5°	374.1	378.8	390.4	407.8	432.2	462.4	499.6	542.6	593.7	658.8	738.9
135°	388.1	392.7	405.5	422.9	447.3	478.7	514.7	554.2	600.7	657.6	726.2
137.5°	400.8	405.5	418.3	436.9	461.3	490.3	525.2	563.5	605.3	655.3	714.5
140°	413.6	419.4	431.0	449.6	472.9	501.9	535.6	570.5	610.0	654.1	704.1
142.5°	427.6	432.2	445.0	461.3	484.5	511.2	543.7	577.4	613.5	651.8	694.8
145°	442.7	446.1	456.6	474.0	493.8	520.5	550.7	582.1	614.6	649.5	686.7
147.5°	457.8	460.1	470.5	485.7	505.4	528.6	556.5	585.6	614.6	646.0	678.5
150°	472.9	474.0	483.3	498.4	514.7	535.6	562.3	586.7	614.6	641.3	670.4
152.5°	488.0	488.0	497.3	510.1	524.0	543.7	565.8	589.1	611.1	635.5	661.1
155°	503.1	503.1	510.1	521.7	534.4	550.7	570.5	589.1	608.8	628.6	651.8
157.5°	514.7	515.9	521.7	532.1	543.7	556.5	572.8	590.2	605.3	622.8	641.3
160°	528.6	528.6	533.3	542.6	550.7	562.3	576.3	590.2	603.0	615.8	630.9
162.5°	539.1	539.1	542.6	549.6	556.5	565.8	577.4	589.1	598.4	608.8	620.4
165°	549.6	548.4	550.7	556.5	561.2	569.3	578.6	586.7	593.7	601.8	611.1
167.5°	557.7	556.5	557.7	562.3	565.8	571.6	578.6	585.6	589.1	594.9	601.8
170°	564.7	562.3	563.5	567.0	569.3	571.6	577.4	582.1	584.4	587.9	593.7
172.5°	569.3	568.1	568.1	570.5	571.6	572.8	577.4	580.9	580.9	582.1	585.6
175°	572.8	571.6	570.5	572.8	572.8	574.0	576.3	578.6	577.4	577.4	579.8
177.5°	575.1	574.0	572.8	574.0	574.0	574.0	575.1	577.4	575.1	574.0	575.1
180°	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0



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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°	29.0	30.2	31.4	33.7	32.5	33.7	34.9	33.7
92.5°	115.0	89.5	77.8	69.7	67.4	62.7	63.9	61.6
95°	418.3	283.5	221.9	180.1	158.0	147.6	139.4	134.8
97.5°	960.8	725.0	571.6	439.2	361.3	317.2	289.3	276.5
100°	1369.8	1275.7	1139.8	974.8	857.4	772.6	727.3	728.5
102.5°	1505.8	1525.5	1460.4	1371.0	1286.2	1223.4	1187.4	1153.7
105°	1510.4	1626.6	1648.7	1618.5	1565.0	1520.9	1483.7	1477.9
107.5°	1440.7	1623.1	1713.7	1745.1	1738.1	1717.2	1702.1	1689.3
110°	1331.5	1545.3	1691.7	1773.0	1805.5	1814.8	1812.5	1810.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1223.4	1443.0	1611.5	1721.9	1788.1	1821.8	1833.4	1834.6
115°	1130.5	1332.6	1503.4	1630.1	1717.2	1768.3	1791.6	1797.4
117.5°	1058.4	1237.4	1394.2	1525.5	1616.1	1673.1	1707.9	1716.0
120°	1003.8	1160.7	1300.1	1417.5	1509.2	1574.3	1602.2	1609.2
122.5°	960.8	1099.1	1225.7	1332.6	1411.6	1468.6	1499.9	1509.2
125°	923.7	1050.3	1161.8	1254.8	1329.2	1380.3	1409.3	1417.5
127.5°	890.0	1005.0	1107.2	1193.2	1260.6	1304.8	1331.5	1338.4
130°	858.6	963.2	1057.3	1136.3	1197.9	1239.7	1264.1	1273.4
132.5°	829.6	923.7	1009.6	1084.0	1140.9	1182.8	1203.7	1209.5
135°	804.0	886.5	962.0	1028.2	1085.2	1120.0	1140.9	1149.1
137.5°	779.6	849.3	916.7	976.0	1024.7	1060.8	1078.2	1085.2
140°	758.7	817.9	873.7	923.7	967.8	1000.4	1018.9	1017.8
142.5°	738.9	787.7	834.2	876.0	912.1	939.9	956.2	955.0
145°	723.8	762.2	799.4	833.0	862.1	886.5	895.8	898.1
147.5°	711.1	742.4	773.8	798.2	821.4	838.9	848.1	849.3
150°	697.1	723.8	748.2	770.3	787.7	800.5	807.5	807.5
152.5°	684.3	706.4	727.3	744.7	757.5	769.1	772.6	772.6
155°	671.5	690.1	707.6	721.5	732.0	741.3	743.6	744.7
157.5°	657.6	673.9	687.8	699.4	708.7	715.7	718.0	718.0
160°	646.0	658.8	670.4	678.5	686.7	693.6	693.6	692.5
162.5°	632.0	642.5	653.0	659.9	664.6	670.4	670.4	669.2
165°	620.4	627.4	635.5	641.3	646.0	650.6	649.5	649.5
167.5°	610.0	615.8	620.4	625.1	627.4	630.9	629.7	629.7
170°	599.5	603.0	607.6	610.0	611.1	613.5	612.3	612.3
172.5°	590.2	592.5	596.0	597.2	597.2	599.5	597.2	596.0
175°	582.1	583.2	585.6	585.6	585.6	586.7	585.6	584.4
177.5°	576.3	577.4	578.6	578.6	577.4	578.6	576.3	576.3
180°	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0

(END OF REPORT)