

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: P334814

Luminaire Tested: **S124IP-S1205U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334814
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-S1205U930-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1205 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3514.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

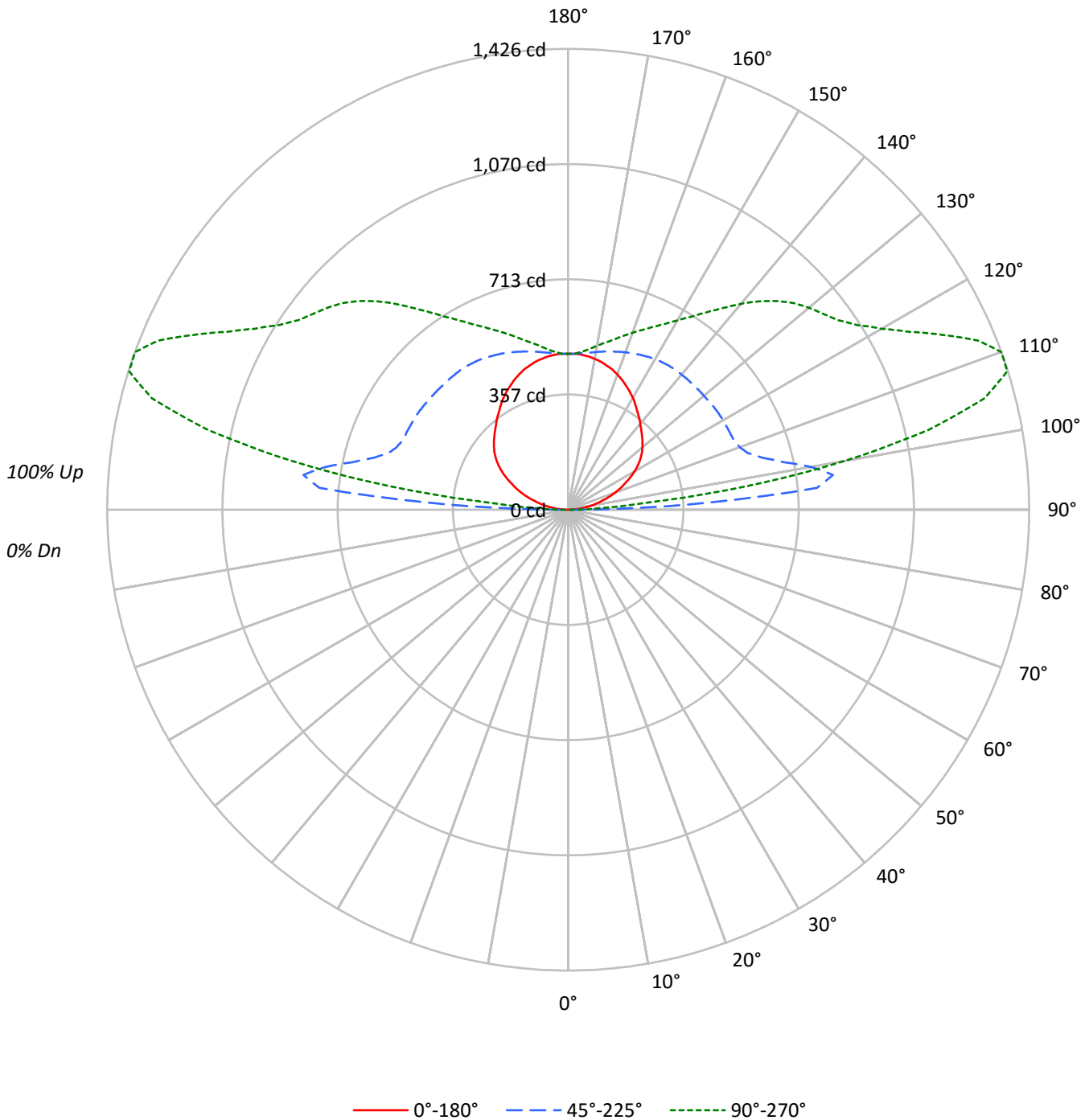
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1.9	0.1
90°-100°	349.5	9.9
100°-110°	729.6	20.8
110°-120°	648.6	18.5
120°-130°	546.0	15.5
130°-140°	455.5	13.0
140°-150°	347.8	9.9
150°-160°	244.5	7.0
160°-170°	143.8	4.1
170°-180°	46.8	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.9	0.1
90°-120°	1727.7	49.2
90°-150°	3077.0	87.6
90°-180°	3512.0	99.9
0°-180°	3514.0	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	17	19	20	2
95°	31	98	772	382	231	34
105°	111	161	622	1338	1333	118
115°	195	245	554	1065	1280	194
125°	272	323	551	906	1021	242
135°	323	385	547	804	913	250
145°	372	426	544	678	746	234
155°	424	457	529	599	624	195
165°	461	476	507	537	545	130
175°	481	482	486	493	491	46
180°	482	482	482	482	482	



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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	5.7	6.6	7.6	7.6	13.3	13.3	15.2	17.1	16.1
92.5°	13.3	18.9	29.4	43.6	60.6	85.3	144.0	235.9	325.0	371.4	308.8
95°	31.3	34.1	43.6	55.9	78.6	118.4	200.8	356.2	582.6	772.1	793.9
97.5°	52.1	52.1	60.6	72.0	91.9	126.0	191.4	325.0	558.0	826.1	995.7
100°	72.0	72.0	78.6	90.0	108.0	138.3	194.2	301.3	494.5	761.7	1004.2
102.5°	90.9	92.8	98.5	108.9	126.0	154.4	203.7	294.6	451.9	681.2	933.2
105°	110.8	113.7	118.4	129.8	146.8	174.3	219.8	298.4	431.1	621.5	844.1
107.5°	132.6	134.5	139.3	151.6	167.7	195.2	236.8	309.8	425.4	582.6	771.2
110°	154.4	156.3	161.1	172.4	189.5	215.1	256.7	323.1	427.3	564.6	719.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	175.3	177.2	182.8	193.3	210.3	235.9	275.7	337.3	433.0	556.1	689.7
115°	195.2	198.0	204.6	214.1	232.1	257.7	295.6	352.4	440.5	554.2	673.6
117.5°	216.0	218.8	224.5	234.9	252.0	278.5	314.5	367.6	448.1	553.3	665.1
120°	236.8	238.7	245.4	255.8	271.9	298.4	334.4	383.7	456.6	553.3	658.4
122.5°	255.8	257.7	264.3	273.8	291.8	317.4	353.4	398.8	465.2	552.3	650.8
125°	271.9	275.7	281.4	291.8	309.8	336.3	370.4	414.0	473.7	551.4	642.3
127.5°	287.1	289.9	296.5	307.9	326.8	353.4	386.5	427.3	480.3	549.5	631.0
130°	299.4	303.2	310.7	325.0	343.0	370.4	402.6	439.6	487.9	548.5	620.5
132.5°	311.7	314.5	325.0	338.2	358.1	383.7	415.9	451.9	494.5	547.6	611.1
135°	323.1	326.8	336.3	352.4	372.3	397.0	428.2	462.3	501.2	546.6	601.6
137.5°	334.4	338.2	348.6	363.8	384.6	408.3	437.7	469.9	505.0	546.6	593.1
140°	346.7	349.6	360.0	376.1	396.0	418.7	447.2	477.5	509.7	545.7	586.4
142.5°	360.0	362.8	372.3	387.5	406.4	428.2	455.7	483.2	513.5	545.7	580.7
145°	372.3	375.2	384.6	397.9	415.9	436.7	461.4	487.0	514.4	543.8	574.1
147.5°	386.5	387.5	396.0	410.2	425.4	444.3	468.0	490.7	515.4	541.0	568.4
150°	399.8	400.7	408.3	419.7	433.9	451.9	472.7	493.6	515.4	538.1	561.8
152.5°	412.1	412.1	419.7	430.1	442.4	458.5	476.5	495.5	513.5	533.4	554.2
155°	423.5	424.4	430.1	439.6	450.0	464.2	480.3	496.4	511.6	528.6	546.6
157.5°	434.8	434.8	440.5	448.1	457.6	469.0	483.2	496.4	509.7	523.9	539.1
160°	445.3	445.3	449.1	455.7	463.3	473.7	485.1	496.4	506.8	518.2	530.5
162.5°	454.7	453.8	456.6	462.3	469.0	476.5	487.0	496.4	504.0	512.5	523.0
165°	461.4	461.4	463.3	468.0	472.7	478.4	487.0	494.5	500.2	506.8	514.4
167.5°	469.0	468.0	469.0	472.7	475.6	480.3	487.0	492.6	496.4	501.2	506.8
170°	473.7	472.7	473.7	476.5	478.4	481.3	486.0	490.7	492.6	495.5	499.3
172.5°	478.4	477.5	477.5	479.4	480.3	482.2	485.1	488.8	488.8	489.8	492.6
175°	481.3	480.3	480.3	481.3	482.2	482.2	484.1	487.0	486.0	486.0	487.9
177.5°	483.2	482.2	481.3	482.2	482.2	482.2	483.2	485.1	483.2	483.2	484.1
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2



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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°	17.1	18.0	18.9	18.9	19.9	20.8	19.9	19.9
92.5°	228.3	170.5	134.5	110.8	96.6	90.0	86.2	86.2
95°	702.0	555.2	428.2	336.3	289.9	260.5	243.5	231.2
97.5°	1010.9	937.9	833.7	727.6	663.2	606.3	577.9	555.2
100°	1142.5	1161.5	1115.1	1045.0	962.5	904.7	876.3	868.7
102.5°	1135.9	1248.6	1277.1	1258.1	1215.5	1177.6	1147.3	1141.6
105°	1061.1	1225.0	1318.8	1357.6	1359.5	1351.9	1338.6	1333.0
107.5°	969.2	1146.3	1277.1	1356.6	1398.3	1415.4	1423.0	1423.9
110°	887.7	1051.6	1189.0	1293.2	1360.4	1400.2	1417.3	1425.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	828.0	968.2	1096.1	1200.3	1279.0	1329.2	1354.8	1369.9
115°	792.0	908.5	1019.4	1110.3	1185.2	1242.0	1272.3	1279.9
117.5°	771.2	869.7	959.7	1039.3	1105.6	1154.9	1187.1	1191.8
120°	757.9	846.0	921.8	989.1	1043.1	1084.7	1109.4	1119.8
122.5°	746.5	830.9	898.1	955.0	998.5	1032.6	1052.5	1063.0
125°	733.3	814.7	880.1	932.2	970.1	997.6	1015.6	1021.3
127.5°	718.1	796.7	862.1	911.4	949.3	973.9	989.1	994.7
130°	699.2	774.0	838.4	888.6	927.5	951.2	966.3	972.0
132.5°	679.3	748.4	811.0	861.2	899.1	926.5	940.7	946.4
135°	661.3	722.8	780.6	828.0	865.9	892.4	907.6	913.3
137.5°	644.2	698.2	748.4	792.0	828.0	855.5	867.8	874.4
140°	630.0	674.5	717.2	757.0	790.1	811.0	824.2	831.8
142.5°	616.7	654.6	689.7	722.8	751.3	770.2	781.6	786.3
145°	604.4	636.6	665.1	691.6	715.3	731.4	740.8	745.6
147.5°	594.0	620.5	644.2	666.0	684.0	698.2	705.8	707.7
150°	584.5	606.3	625.3	642.3	657.5	669.8	675.5	676.4
152.5°	574.1	592.1	609.2	622.4	634.7	644.2	647.1	648.0
155°	563.7	578.8	593.1	604.4	613.9	621.5	624.3	624.3
157.5°	552.3	565.6	577.9	587.4	595.0	600.6	602.5	602.5
160°	541.9	552.3	562.7	570.3	576.0	581.7	582.6	582.6
162.5°	531.5	540.0	547.6	554.2	558.0	563.7	564.6	563.7
165°	522.0	527.7	534.3	539.1	542.8	546.6	545.7	544.7
167.5°	512.5	517.3	523.0	525.8	527.7	530.5	530.5	529.6
170°	504.0	506.8	510.6	513.5	515.4	516.3	515.4	515.4
172.5°	496.4	498.3	500.2	502.1	503.1	504.0	503.1	501.2
175°	489.8	490.7	492.6	492.6	492.6	494.5	492.6	490.7
177.5°	485.1	486.0	486.0	487.0	486.0	487.0	485.1	483.2
180°	482.2	482.2	482.2	482.2	482.2	482.2	482.2	482.2

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