

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: P334824

Luminaire Tested: **S124IP-S1205U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334824
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-S1205U940-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1205 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3843.3 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

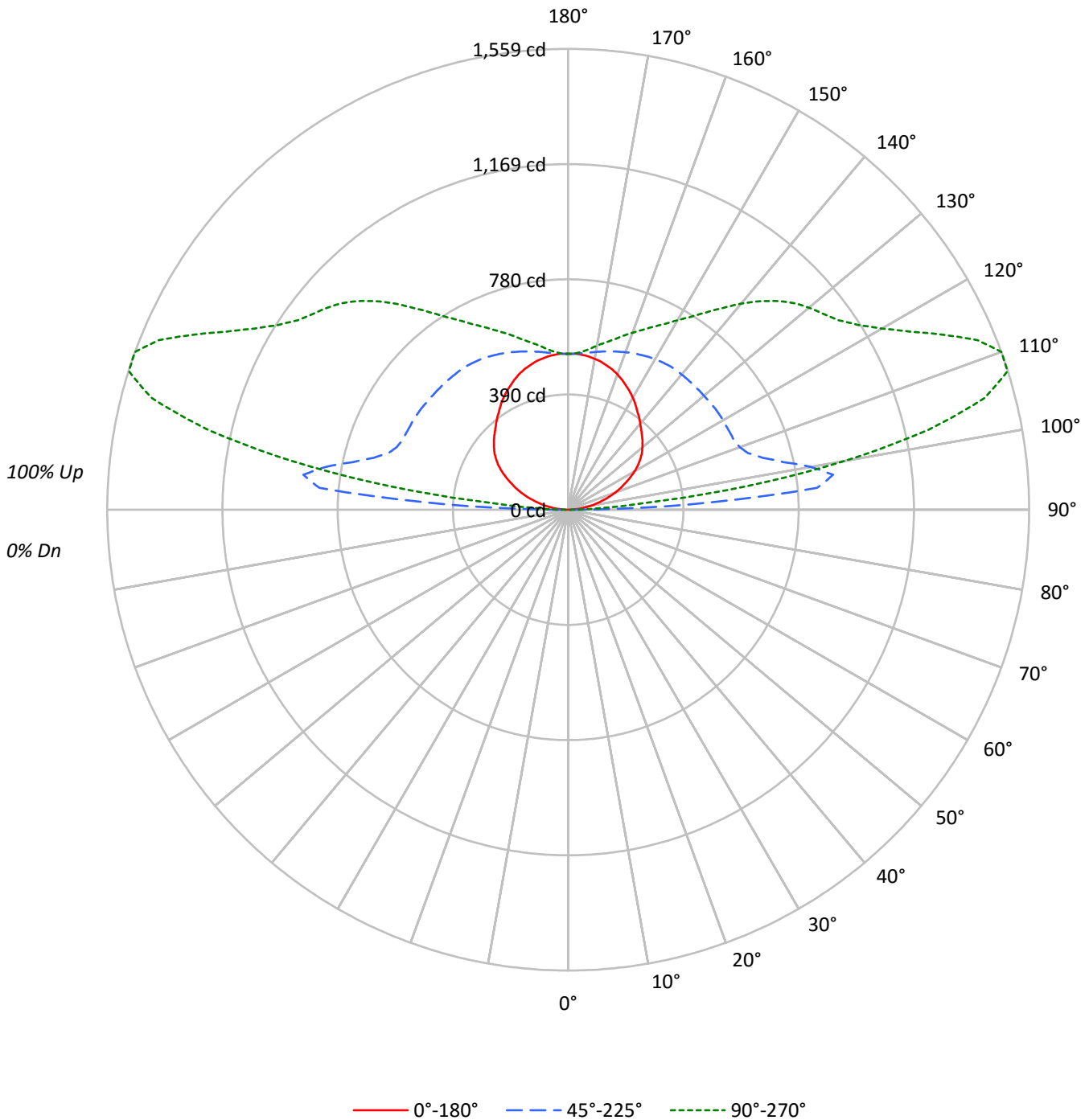
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2.1	0.1
90°-100°	382.2	9.9
100°-110°	798.0	20.8
110°-120°	709.4	18.5
120°-130°	597.1	15.5
130°-140°	498.2	13.0
140°-150°	380.4	9.9
150°-160°	267.4	7.0
160°-170°	157.3	4.1
170°-180°	51.2	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.1	0.1
90°-120°	1889.7	49.2
90°-150°	3365.4	87.6
90°-180°	3841.0	99.9
0°-180°	3843.3	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	19	21	22	2
95°	34	108	844	418	253	37
105°	121	176	680	1464	1458	129
115°	214	268	606	1165	1400	212
125°	297	353	603	991	1117	265
135°	353	421	598	880	999	273
145°	407	466	595	742	816	256
155°	463	500	578	655	683	214
165°	505	520	554	587	596	143
175°	526	527	532	539	537	50
180°	527	527	527	527	527	



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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	3.1	6.2	7.3	8.3	8.3	14.5	14.5	16.6	18.7	17.6
92.5°	14.5	20.7	32.1	47.7	66.3	93.3	157.5	258.0	355.4	406.2	337.8
95°	34.2	37.3	47.7	61.1	86.0	129.5	219.7	389.6	637.2	844.5	868.3
97.5°	57.0	57.0	66.3	78.7	100.5	137.8	209.3	355.4	610.3	903.5	1089.0
100°	78.7	78.7	86.0	98.4	118.1	151.3	212.4	329.5	540.9	833.1	1098.3
102.5°	99.5	101.5	107.8	119.2	137.8	168.9	222.8	322.2	494.3	745.0	1020.6
105°	121.2	124.3	129.5	142.0	160.6	190.7	240.4	326.4	471.5	679.7	923.2
107.5°	145.1	147.1	152.3	165.8	183.4	213.5	259.0	338.8	465.2	637.2	843.4
110°	168.9	171.0	176.1	188.6	207.2	235.2	280.8	353.3	467.3	617.6	786.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	191.7	193.8	200.0	211.4	230.0	258.0	301.5	368.9	473.5	608.2	754.3
115°	213.5	216.6	223.8	234.2	253.9	281.8	323.3	385.5	481.8	606.2	736.7
117.5°	236.2	239.4	245.6	257.0	275.6	304.6	344.0	402.0	490.1	605.1	727.4
120°	259.0	261.1	268.4	279.8	297.4	326.4	365.8	419.6	499.4	605.1	720.1
122.5°	279.8	281.8	289.1	299.5	319.1	347.1	386.5	436.2	508.8	604.1	711.8
125°	297.4	301.5	307.7	319.1	338.8	367.8	405.1	452.8	518.1	603.0	702.5
127.5°	314.0	317.1	324.3	336.8	357.5	386.5	422.8	467.3	525.3	601.0	690.1
130°	327.4	331.6	339.9	355.4	375.1	405.1	440.4	480.8	533.6	599.9	678.7
132.5°	340.9	344.0	355.4	369.9	391.7	419.6	454.9	494.3	540.9	598.9	668.3
135°	353.3	357.5	367.8	385.5	407.2	434.2	468.3	505.7	548.1	597.9	658.0
137.5°	365.8	369.9	381.3	397.9	420.7	446.6	478.7	513.9	552.3	597.9	648.6
140°	379.2	382.3	393.7	411.4	433.1	458.0	489.1	522.2	557.5	596.8	641.4
142.5°	393.7	396.9	407.2	423.8	444.5	468.3	498.4	528.4	561.6	596.8	635.2
145°	407.2	410.3	420.7	435.2	454.9	477.7	504.6	532.6	562.6	594.8	627.9
147.5°	422.8	423.8	433.1	448.7	465.2	486.0	511.9	536.7	563.7	591.7	621.7
150°	437.3	438.3	446.6	459.0	474.6	494.3	517.0	539.8	563.7	588.5	614.4
152.5°	450.7	450.7	459.0	470.4	483.9	501.5	521.2	541.9	561.6	583.4	606.2
155°	463.2	464.2	470.4	480.8	492.2	507.7	525.3	543.0	559.5	578.2	597.9
157.5°	475.6	475.6	481.8	490.1	500.5	512.9	528.4	543.0	557.5	573.0	589.6
160°	487.0	487.0	491.1	498.4	506.7	518.1	530.5	543.0	554.3	566.8	580.3
162.5°	497.4	496.3	499.4	505.7	512.9	521.2	532.6	543.0	551.2	560.6	572.0
165°	504.6	504.6	506.7	511.9	517.0	523.3	532.6	540.9	547.1	554.3	562.6
167.5°	512.9	511.9	512.9	517.0	520.2	525.3	532.6	538.8	543.0	548.1	554.3
170°	518.1	517.0	518.1	521.2	523.3	526.4	531.6	536.7	538.8	541.9	546.1
172.5°	523.3	522.2	522.2	524.3	525.3	527.4	530.5	534.7	534.7	535.7	538.8
175°	526.4	525.3	525.3	526.4	527.4	527.4	529.5	532.6	531.6	531.6	533.6
177.5°	528.4	527.4	526.4	527.4	527.4	527.4	528.4	530.5	528.4	528.4	529.5
180°	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4



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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°	18.7	19.7	20.7	20.7	21.8	22.8	21.8	21.8
92.5°	249.7	186.5	147.1	121.2	105.7	98.4	94.3	94.3
95°	767.8	607.2	468.3	367.8	317.1	284.9	266.3	252.8
97.5°	1105.6	1025.8	911.8	795.8	725.3	663.1	632.1	607.2
100°	1249.6	1270.3	1219.6	1142.9	1052.7	989.5	958.5	950.2
102.5°	1242.4	1365.7	1396.8	1376.0	1329.4	1288.0	1254.8	1248.6
105°	1160.5	1339.8	1442.3	1484.8	1486.9	1478.6	1464.1	1457.9
107.5°	1060.0	1253.8	1396.8	1483.8	1529.4	1548.0	1556.3	1557.4
110°	970.9	1150.1	1300.4	1414.4	1487.9	1531.5	1550.1	1559.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	905.6	1059.0	1198.8	1312.8	1398.8	1453.7	1481.7	1498.3
115°	866.2	993.7	1114.9	1214.4	1296.2	1358.4	1391.6	1399.9
117.5°	843.4	951.2	1049.6	1136.7	1209.2	1263.1	1298.3	1303.5
120°	828.9	925.3	1008.2	1081.8	1140.8	1186.4	1213.4	1224.8
122.5°	816.5	908.7	982.3	1044.5	1092.1	1129.4	1151.2	1162.6
125°	802.0	891.1	962.6	1019.6	1061.0	1091.1	1110.8	1117.0
127.5°	785.4	871.4	942.9	996.8	1038.2	1065.2	1081.8	1088.0
130°	764.7	846.5	917.0	971.9	1014.4	1040.3	1056.9	1063.1
132.5°	742.9	818.6	887.0	941.9	983.3	1013.4	1028.9	1035.1
135°	723.2	790.6	853.8	905.6	947.1	976.1	992.6	998.9
137.5°	704.6	763.7	818.6	866.2	905.6	935.7	949.1	956.4
140°	689.1	737.8	784.4	827.9	864.2	887.0	901.5	909.8
142.5°	674.5	716.0	754.3	790.6	821.7	842.4	854.8	860.0
145°	661.1	696.3	727.4	756.4	782.3	799.9	810.3	815.5
147.5°	649.7	678.7	704.6	728.4	748.1	763.7	771.9	774.0
150°	639.3	663.1	683.9	702.5	719.1	732.6	738.8	739.8
152.5°	627.9	647.6	666.3	680.8	694.2	704.6	707.7	708.7
155°	616.5	633.1	648.6	661.1	671.4	679.7	682.8	682.8
157.5°	604.1	618.6	632.1	642.4	650.7	656.9	659.0	659.0
160°	592.7	604.1	615.5	623.8	630.0	636.2	637.2	637.2
162.5°	581.3	590.6	598.9	606.2	610.3	616.5	617.6	616.5
165°	570.9	577.1	584.4	589.6	593.7	597.9	596.8	595.8
167.5°	560.6	565.7	572.0	575.1	577.1	580.3	580.3	579.2
170°	551.2	554.3	558.5	561.6	563.7	564.7	563.7	563.7
172.5°	543.0	545.0	547.1	549.2	550.2	551.2	550.2	548.1
175°	535.7	536.7	538.8	538.8	538.8	540.9	538.8	536.7
177.5°	530.5	531.6	531.6	532.6	531.6	532.6	530.5	528.4
180°	527.4	527.4	527.4	527.4	527.4	527.4	527.4	527.4

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