

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: P334634

Luminaire Tested: **S123IP-S1195U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334634
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-S1195U927-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1195 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

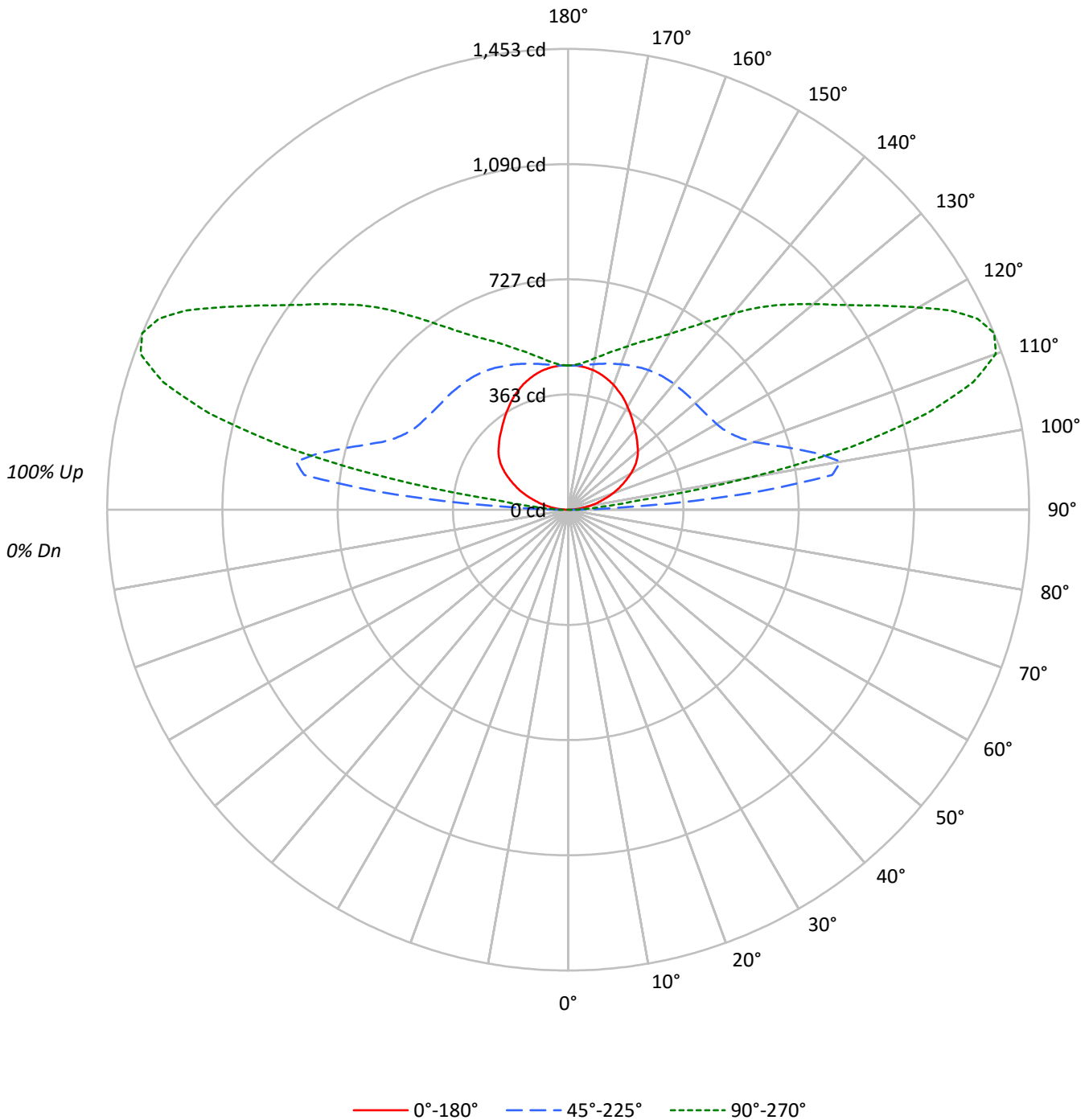
Lumens per Lamp: N/A
Luminaire Lumens: 3422.6 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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°	2.5	0.1
90°-100°	246.7	7.2
100°-110°	722.3	21.1
110°-120°	705.4	20.6
120°-130°	561.8	16.4
130°-140°	443.2	12.9
140°-150°	330.6	9.7
150°-160°	230.5	6.7
160°-170°	135.4	4.0
170°-180°	44.1	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.5	0.1
90°-120°	1674.5	48.9
90°-150°	3010.1	87.9
90°-180°	3420.0	99.9
0°-180°	3422.6	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	11	23	26	27	2
95°	31	102	546	159	107	33
105°	107	158	740	1294	1171	113
115°	189	235	566	1241	1424	187
125°	262	310	528	957	1123	233
135°	307	367	521	788	910	237
145°	351	402	514	647	712	220
155°	398	430	498	566	590	183
165°	435	448	477	506	514	123
175°	454	454	457	464	463	43
180°	455	455	455	455	455	



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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°	1.8	3.7	5.5	8.3	10.1	12.0	14.7	17.5	20.2	23.0	22.1
92.5°	13.8	20.2	29.5	37.7	46.9	63.5	93.0	141.7	189.6	171.2	127.9
95°	31.3	34.1	44.2	59.8	83.8	119.7	197.9	335.0	486.0	545.8	442.7
97.5°	49.7	50.6	58.9	72.7	96.6	136.2	213.5	372.8	626.8	839.4	867.9
100°	68.1	69.0	75.5	88.4	110.4	146.3	210.8	347.0	589.1	871.6	1052.9
102.5°	87.4	89.3	94.8	106.8	126.1	158.3	214.5	324.9	533.8	811.8	1062.1
105°	106.8	109.5	115.0	126.1	143.6	172.1	221.8	316.6	490.6	740.0	1004.2
107.5°	127.0	129.8	135.3	146.3	162.9	189.6	233.8	314.8	459.3	676.5	921.3
110°	149.1	151.9	156.5	166.6	182.2	208.0	249.4	319.4	442.7	624.0	844.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	169.4	172.1	176.7	186.8	202.5	227.3	265.1	328.6	433.5	589.1	776.8
115°	188.7	192.4	197.9	207.1	222.7	247.6	282.6	338.7	432.6	566.0	725.3
117.5°	208.0	212.6	217.2	225.5	243.0	266.0	301.0	351.6	433.5	550.4	691.2
120°	228.3	231.0	235.6	244.8	262.3	285.3	318.5	366.3	437.2	540.3	665.4
122.5°	245.7	248.5	253.1	263.2	279.8	304.7	336.9	380.1	443.6	533.8	644.3
125°	262.3	264.2	269.7	279.8	297.3	322.1	354.4	394.8	450.1	528.3	626.8
127.5°	275.2	278.0	284.4	294.5	313.9	338.7	370.0	406.8	457.4	525.5	610.2
130°	287.2	289.9	298.2	309.3	328.6	353.4	383.8	418.8	464.8	522.8	597.3
132.5°	296.4	300.0	309.3	323.1	342.4	366.3	395.8	429.8	470.3	521.9	585.4
135°	307.4	311.1	321.2	335.0	354.4	379.2	407.7	439.0	475.8	520.9	575.2
137.5°	317.5	321.2	331.3	346.1	365.4	388.4	416.0	446.4	479.5	519.1	566.0
140°	327.7	332.3	341.5	356.2	374.6	397.6	424.3	451.9	483.2	518.2	557.8
142.5°	338.7	342.4	352.5	365.4	383.8	405.0	430.7	457.4	486.0	516.3	550.4
145°	350.7	353.4	361.7	375.5	391.2	412.3	436.3	461.1	486.9	514.5	544.0
147.5°	362.6	364.5	372.8	384.7	400.4	418.8	440.9	463.9	486.9	511.7	537.5
150°	374.6	375.5	382.9	394.8	407.7	424.3	445.5	464.8	486.9	508.1	531.1
152.5°	386.6	386.6	393.9	404.1	415.1	430.7	448.2	466.6	484.1	503.5	523.7
155°	398.5	398.5	404.1	413.3	423.4	436.3	451.9	466.6	482.3	497.9	516.3
157.5°	407.7	408.7	413.3	421.5	430.7	440.9	453.8	467.6	479.5	493.3	508.1
160°	418.8	418.8	422.5	429.8	436.3	445.5	456.5	467.6	477.7	487.8	499.8
162.5°	427.1	427.1	429.8	435.3	440.9	448.2	457.4	466.6	474.0	482.3	491.5
165°	435.3	434.4	436.3	440.9	444.6	451.0	458.4	464.8	470.3	476.8	484.1
167.5°	441.8	440.9	441.8	445.5	448.2	452.8	458.4	463.9	466.6	471.2	476.8
170°	447.3	445.5	446.4	449.2	451.0	452.8	457.4	461.1	463.0	465.7	470.3
172.5°	451.0	450.1	450.1	451.9	452.8	453.8	457.4	460.2	460.2	461.1	463.9
175°	453.8	452.8	451.9	453.8	453.8	454.7	456.5	458.4	457.4	457.4	459.3
177.5°	455.6	454.7	453.8	454.7	454.7	454.7	455.6	457.4	455.6	454.7	455.6
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



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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°	23.0	23.9	24.9	26.7	25.8	26.7	27.6	26.7
92.5°	91.1	70.9	61.7	55.2	53.4	49.7	50.6	48.8
95°	331.3	224.6	175.8	142.7	125.2	116.9	110.4	106.8
97.5°	761.2	574.3	452.8	347.9	286.2	251.3	229.2	219.1
100°	1085.1	1010.6	902.9	772.2	679.3	612.1	576.2	577.1
102.5°	1192.8	1208.5	1156.9	1086.1	1018.9	969.2	940.6	914.0
105°	1196.5	1288.6	1306.0	1282.1	1239.8	1204.8	1175.3	1170.7
107.5°	1141.3	1285.8	1357.6	1382.4	1376.9	1360.3	1348.4	1338.3
110°	1054.8	1224.1	1340.1	1404.5	1430.3	1437.7	1435.8	1434.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	969.2	1143.1	1276.6	1364.0	1416.5	1443.2	1452.4	1453.3
115°	895.5	1055.7	1191.0	1291.3	1360.3	1400.8	1419.2	1423.9
117.5°	838.5	980.2	1104.5	1208.5	1280.3	1325.4	1353.0	1359.4
120°	795.2	919.5	1029.9	1122.9	1195.6	1247.1	1269.2	1274.7
122.5°	761.2	870.7	971.0	1055.7	1118.3	1163.4	1188.2	1195.6
125°	731.7	832.0	920.4	994.0	1052.9	1093.4	1116.4	1122.9
127.5°	705.0	796.1	877.1	945.2	998.6	1033.6	1054.8	1060.3
130°	680.2	763.0	837.6	900.1	948.9	982.1	1001.4	1008.8
132.5°	657.2	731.7	799.8	858.7	903.8	937.0	953.5	958.1
135°	636.9	702.3	762.1	814.5	859.6	887.3	903.8	910.3
137.5°	617.6	672.8	726.2	773.1	811.8	840.3	854.1	859.6
140°	601.0	648.0	692.1	731.7	766.7	792.5	807.2	806.3
142.5°	585.4	624.0	660.8	694.0	722.5	744.6	757.5	756.6
145°	573.4	603.8	633.2	659.9	682.9	702.3	709.6	711.5
147.5°	563.3	588.1	613.0	632.3	650.7	664.5	671.9	672.8
150°	552.2	573.4	592.7	610.2	624.0	634.2	639.7	639.7
152.5°	542.1	559.6	576.2	590.0	600.1	609.3	612.1	612.1
155°	532.0	546.7	560.5	571.6	579.8	587.2	589.1	590.0
157.5°	520.9	533.8	544.9	554.1	561.4	567.0	568.8	568.8
160°	511.7	521.9	531.1	537.5	544.0	549.5	549.5	548.6
162.5°	500.7	509.0	517.3	522.8	526.5	531.1	531.1	530.1
165°	491.5	497.0	503.5	508.1	511.7	515.4	514.5	514.5
167.5°	483.2	487.8	491.5	495.2	497.0	499.8	498.9	498.9
170°	474.9	477.7	481.4	483.2	484.1	486.0	485.0	485.0
172.5°	467.6	469.4	472.2	473.1	473.1	474.9	473.1	472.2
175°	461.1	462.0	463.9	463.9	463.9	464.8	463.9	463.0
177.5°	456.5	457.4	458.4	458.4	457.4	458.4	456.5	456.5
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7

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