

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: P334639

Luminaire Tested: **S123IP-S1195U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334639
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-S1195U930-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1195 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

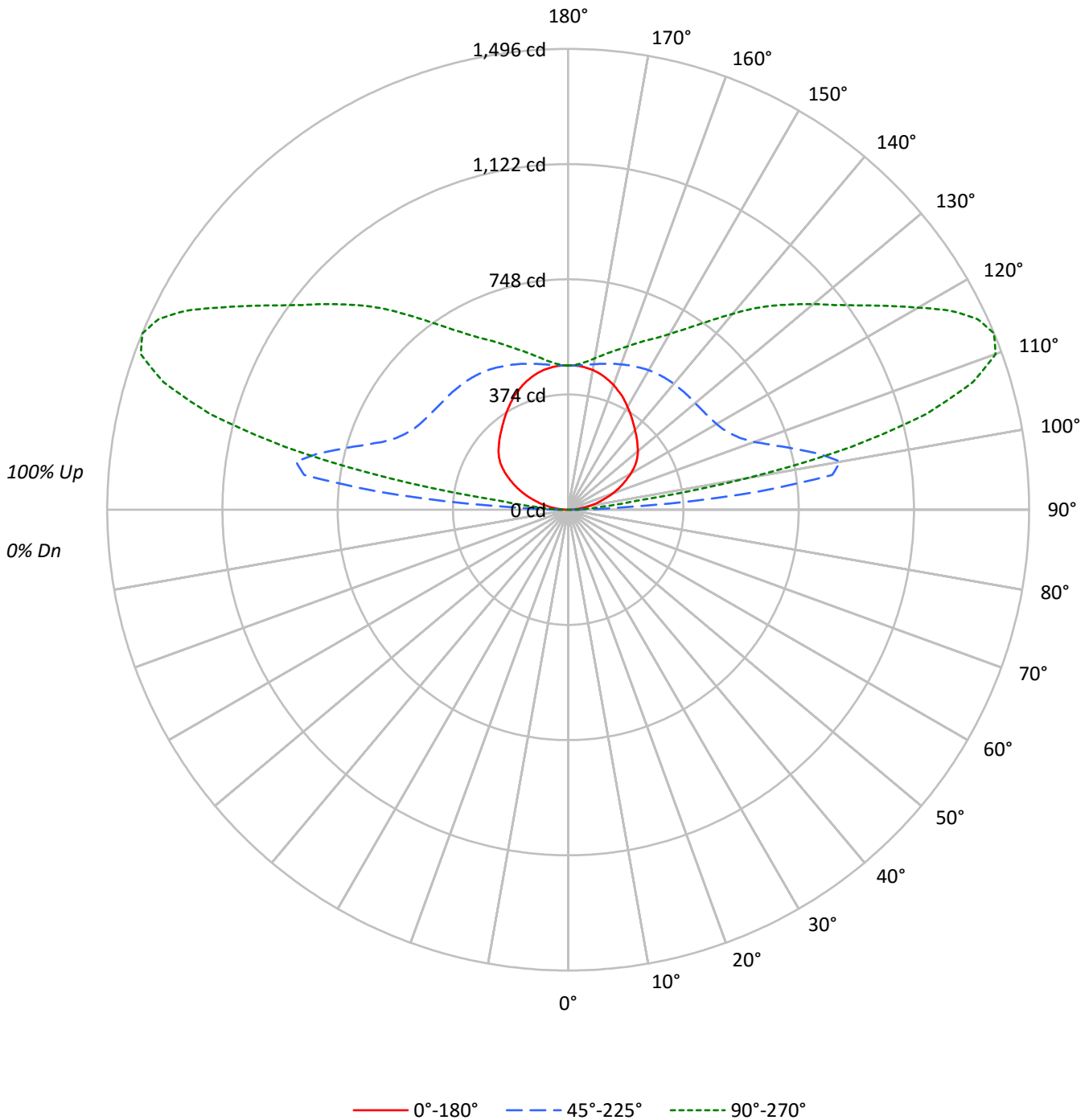
Lumens per Lamp: N/A
Luminaire Lumens: 3522.5 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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°	2.6	0.1
90°-100°	253.9	7.2
100°-110°	743.4	21.1
110°-120°	726.0	20.6
120°-130°	578.2	16.4
130°-140°	456.2	12.9
140°-150°	340.3	9.7
150°-160°	237.3	6.7
160°-170°	139.4	4.0
170°-180°	45.3	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.6	0.1
90°-120°	1723.3	48.9
90°-150°	3097.9	87.9
90°-180°	3520.0	99.9
0°-180°	3522.5	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	11	24	27	28	2
95°	32	105	562	164	110	34
105°	110	162	762	1332	1205	117
115°	194	242	583	1277	1465	192
125°	270	319	544	985	1156	240
135°	316	378	536	811	937	244
145°	361	414	530	665	732	226
155°	410	442	512	583	607	189
165°	448	461	491	520	530	126
175°	467	467	471	477	476	44
180°	468	468	468	468	468	



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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°	1.9	3.8	5.7	8.5	10.4	12.3	15.2	18.0	20.8	23.7	22.7
92.5°	14.2	20.8	30.3	38.8	48.3	65.4	95.7	145.9	195.1	176.2	131.7
95°	32.2	35.0	45.5	61.6	86.2	123.1	203.7	344.8	500.1	561.7	455.6
97.5°	51.2	52.1	60.6	74.8	99.5	140.2	219.8	383.6	645.1	863.9	893.3
100°	70.1	71.0	77.7	90.9	113.7	150.6	216.9	357.1	606.2	897.0	1083.7
102.5°	90.0	91.9	97.6	109.9	129.8	162.9	220.7	334.4	549.4	835.5	1093.1
105°	109.9	112.7	118.4	129.8	147.8	177.1	228.3	325.9	504.9	761.6	1033.5
107.5°	130.7	133.6	139.2	150.6	167.7	195.1	240.6	324.0	472.7	696.2	948.2
110°	153.5	156.3	161.0	171.5	187.6	214.1	256.7	328.7	455.6	642.2	868.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	174.3	177.1	181.9	192.3	208.4	234.0	272.8	338.2	446.2	606.2	799.5
115°	194.2	198.0	203.7	213.1	229.2	254.8	290.8	348.6	445.2	582.6	746.4
117.5°	214.1	218.8	223.6	232.1	250.1	273.8	309.8	361.9	446.2	566.5	711.4
120°	234.9	237.8	242.5	252.0	270.0	293.6	327.7	377.0	449.9	556.0	684.9
122.5°	252.9	255.8	260.5	270.9	288.0	313.5	346.7	391.2	456.6	549.4	663.1
125°	270.0	271.9	277.5	288.0	306.0	331.5	364.7	406.4	463.2	543.7	645.1
127.5°	283.2	286.1	292.7	303.1	323.0	348.6	380.8	418.7	470.8	540.9	628.0
130°	295.5	298.4	306.9	318.3	338.2	363.7	395.0	431.0	478.4	538.0	614.8
132.5°	305.0	308.8	318.3	332.5	352.4	377.0	407.3	442.4	484.0	537.1	602.5
135°	316.4	320.2	330.6	344.8	364.7	390.3	419.6	451.8	489.7	536.1	592.0
137.5°	326.8	330.6	341.0	356.2	376.1	399.7	428.2	459.4	493.5	534.3	582.6
140°	337.2	342.0	351.4	366.6	385.5	409.2	436.7	465.1	497.3	533.3	574.0
142.5°	348.6	352.4	362.8	376.1	395.0	416.8	443.3	470.8	500.1	531.4	566.5
145°	360.9	363.7	372.3	386.5	402.6	424.4	449.0	474.6	501.1	529.5	559.8
147.5°	373.2	375.1	383.6	396.0	412.1	431.0	453.7	477.4	501.1	526.7	553.2
150°	385.5	386.5	394.1	406.4	419.6	436.7	458.5	478.4	501.1	522.9	546.6
152.5°	397.8	397.8	405.4	415.8	427.2	443.3	461.3	480.3	498.3	518.1	539.0
155°	410.2	410.2	415.8	425.3	435.7	449.0	465.1	480.3	496.4	512.5	531.4
157.5°	419.6	420.6	425.3	433.8	443.3	453.7	467.0	481.2	493.5	507.7	522.9
160°	431.0	431.0	434.8	442.4	449.0	458.5	469.8	481.2	491.6	502.0	514.4
162.5°	439.5	439.5	442.4	448.1	453.7	461.3	470.8	480.3	487.8	496.4	505.8
165°	448.1	447.1	449.0	453.7	457.5	464.2	471.7	478.4	484.0	490.7	498.3
167.5°	454.7	453.7	454.7	458.5	461.3	466.0	471.7	477.4	480.3	485.0	490.7
170°	460.4	458.5	459.4	462.3	464.2	466.0	470.8	474.6	476.5	479.3	484.0
172.5°	464.2	463.2	463.2	465.1	466.0	467.0	470.8	473.6	473.6	474.6	477.4
175°	467.0	466.0	465.1	467.0	467.0	467.9	469.8	471.7	470.8	470.8	472.7
177.5°	468.9	467.9	467.0	467.9	467.9	467.9	468.9	470.8	468.9	467.9	468.9
180°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9



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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°	23.7	24.6	25.6	27.5	26.5	27.5	28.4	27.5
92.5°	93.8	72.9	63.5	56.8	54.9	51.2	52.1	50.2
95°	341.0	231.1	180.9	146.8	128.8	120.3	113.7	109.9
97.5°	783.4	591.1	466.0	358.1	294.6	258.6	235.9	225.4
100°	1116.8	1040.1	929.3	794.7	699.1	629.9	593.0	593.9
102.5°	1227.6	1243.7	1190.7	1117.8	1048.6	997.5	968.1	940.6
105°	1231.4	1326.2	1344.2	1319.5	1276.0	1240.0	1209.6	1204.9
107.5°	1174.6	1323.3	1397.2	1422.8	1417.1	1400.0	1387.7	1377.3
110°	1085.6	1259.8	1379.2	1445.5	1472.0	1479.6	1477.7	1475.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	997.5	1176.5	1313.8	1403.8	1457.8	1485.3	1494.8	1495.7
115°	921.7	1086.5	1225.7	1329.0	1400.0	1441.7	1460.7	1465.4
117.5°	862.9	1008.8	1136.7	1243.7	1317.6	1364.0	1392.5	1399.1
120°	818.4	946.3	1060.0	1155.6	1230.5	1283.5	1306.3	1311.9
122.5°	783.4	896.1	999.4	1086.5	1150.9	1197.3	1222.9	1230.5
125°	753.1	856.3	947.3	1023.0	1083.7	1125.3	1149.0	1155.6
127.5°	725.6	819.4	902.7	972.8	1027.8	1063.8	1085.6	1091.2
130°	700.0	785.3	862.0	926.4	976.6	1010.7	1030.6	1038.2
132.5°	676.3	753.1	823.2	883.8	930.2	964.3	981.4	986.1
135°	655.5	722.8	784.3	838.3	884.7	913.2	930.2	936.8
137.5°	635.6	692.4	747.4	795.7	835.5	864.8	879.1	884.7
140°	618.6	666.9	712.3	753.1	789.1	815.6	830.7	829.8
142.5°	602.5	642.2	680.1	714.2	743.6	766.3	779.6	778.6
145°	590.1	621.4	651.7	679.2	702.9	722.8	730.3	732.2
147.5°	579.7	605.3	630.9	650.8	669.7	683.9	691.5	692.4
150°	568.4	590.1	610.0	628.0	642.2	652.7	658.3	658.3
152.5°	557.9	575.9	593.0	607.2	617.6	627.1	629.9	629.9
155°	547.5	562.7	576.9	588.2	596.8	604.3	606.2	607.2
157.5°	536.1	549.4	560.8	570.2	577.8	583.5	585.4	585.4
160°	526.7	537.1	546.6	553.2	559.8	565.5	565.5	564.6
162.5°	515.3	523.8	532.4	538.0	541.8	546.6	546.6	545.6
165°	505.8	511.5	518.1	522.9	526.7	530.5	529.5	529.5
167.5°	497.3	502.0	505.8	509.6	511.5	514.4	513.4	513.4
170°	488.8	491.6	495.4	497.3	498.3	500.1	499.2	499.2
172.5°	481.2	483.1	485.9	486.9	486.9	488.8	486.9	485.9
175°	474.6	475.5	477.4	477.4	477.4	478.4	477.4	476.5
177.5°	469.8	470.8	471.7	471.7	470.8	471.7	469.8	469.8
180°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9

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