

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: P334643

Luminaire Tested: **S123IP-S1025U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334643
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-S1025U935-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1025 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

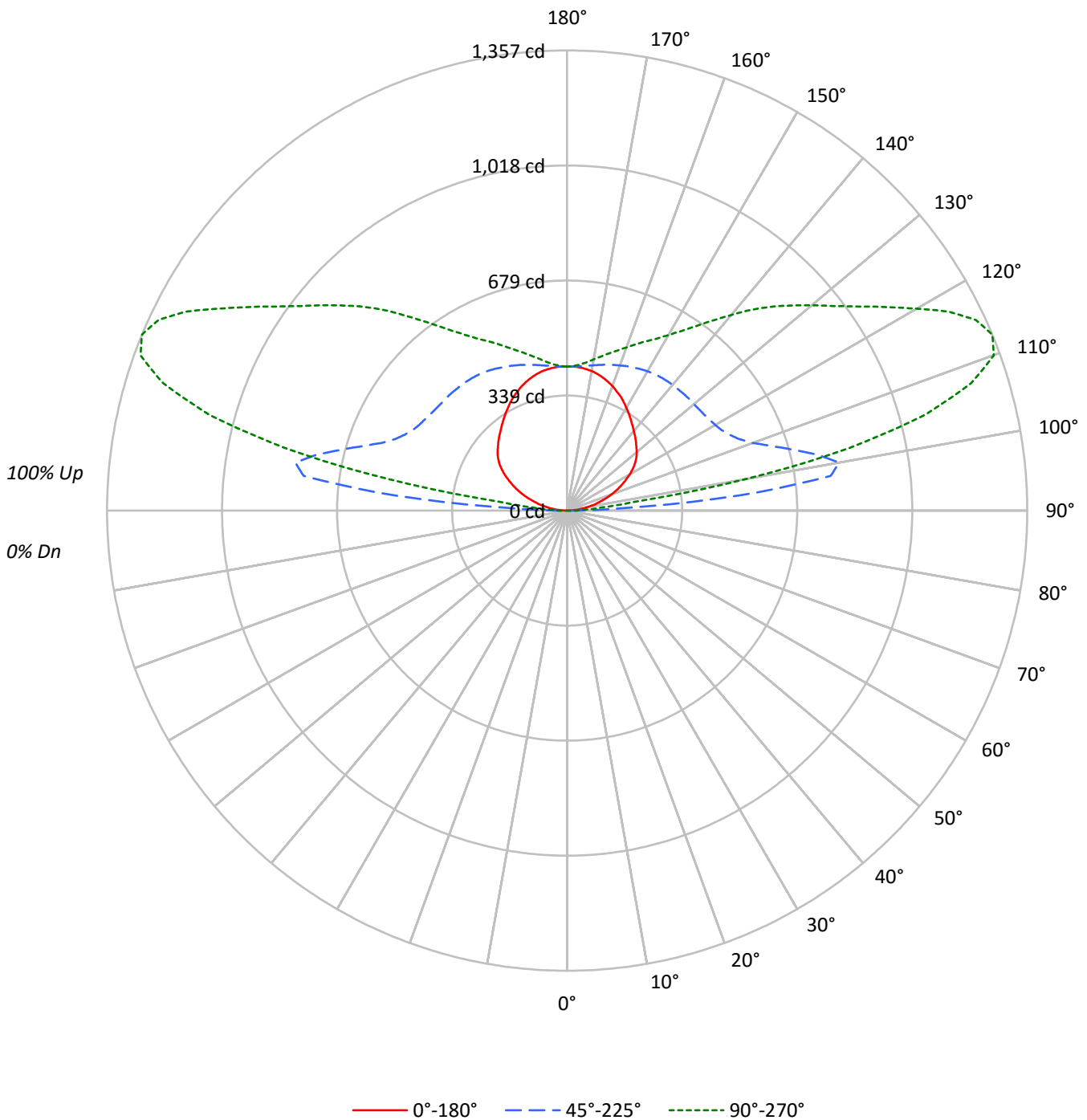
Lumens per Lamp: N/A
Luminaire Lumens: 3195.9 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 35.1
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°	2.3	0.1
90°-100°	230.4	7.2
100°-110°	674.5	21.1
110°-120°	658.7	20.6
120°-130°	524.6	16.4
130°-140°	413.9	12.9
140°-150°	308.7	9.7
150°-160°	215.3	6.7
160°-170°	126.5	4.0
170°-180°	41.1	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.3	0.1
90°-120°	1563.5	48.9
90°-150°	2810.7	87.9
90°-180°	3194.0	99.9
0°-180°	3195.9	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	10	22	24	25	2
95°	29	95	510	149	100	31
105°	100	147	691	1208	1093	106
115°	176	220	529	1159	1330	174
125°	245	289	493	894	1048	218
135°	287	342	486	736	850	222
145°	327	375	480	604	664	205
155°	372	401	465	529	551	171
165°	406	418	445	472	480	115
175°	424	424	427	433	432	40
180°	425	425	425	425	425	



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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°	1.7	3.4	5.2	7.7	9.5	11.2	13.8	16.3	18.9	21.5	20.6
92.5°	12.9	18.9	27.5	35.2	43.8	59.3	86.8	132.4	177.0	159.9	119.5
95°	29.2	31.8	41.3	55.9	78.2	111.7	184.8	312.8	453.8	509.6	413.4
97.5°	46.4	47.3	55.0	67.9	90.2	127.2	199.4	348.1	585.3	783.8	810.4
100°	63.6	64.5	70.5	82.5	103.1	136.6	196.8	324.0	550.0	813.9	983.2
102.5°	81.6	83.4	88.5	99.7	117.7	147.8	200.2	303.4	498.5	758.0	991.8
105°	99.7	102.3	107.4	117.7	134.1	160.7	207.1	295.6	458.1	691.0	937.6
107.5°	118.6	121.2	126.3	136.6	152.1	177.0	218.3	293.9	428.9	631.7	860.3
110°	139.2	141.8	146.1	155.6	170.2	194.2	232.9	298.2	413.4	582.7	788.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	158.1	160.7	165.0	174.5	189.1	212.3	247.5	306.8	404.8	550.0	725.4
115°	176.2	179.6	184.8	193.4	208.0	231.2	263.8	316.3	403.9	528.6	677.2
117.5°	194.2	198.5	202.8	210.6	226.9	248.4	281.0	328.3	404.8	513.9	645.4
120°	213.1	215.7	220.0	228.6	244.9	266.4	297.4	342.1	408.2	504.5	621.4
122.5°	229.5	232.0	236.3	245.8	261.3	284.5	314.6	354.9	414.2	498.5	601.6
125°	244.9	246.7	251.8	261.3	277.6	300.8	330.9	368.7	420.3	493.3	585.3
127.5°	257.0	259.5	265.6	275.0	293.1	316.3	345.5	379.9	427.1	490.7	569.8
130°	268.1	270.7	278.5	288.8	306.8	330.0	358.4	391.0	434.0	488.2	557.8
132.5°	276.7	280.2	288.8	301.7	319.7	342.1	369.6	401.4	439.2	487.3	546.6
135°	287.1	290.5	299.9	312.8	330.9	354.1	380.7	409.9	444.3	486.4	537.1
137.5°	296.5	299.9	309.4	323.1	341.2	362.7	388.5	416.8	447.8	484.7	528.6
140°	306.0	310.3	318.8	332.6	349.8	371.3	396.2	422.0	451.2	483.9	520.8
142.5°	316.3	319.7	329.2	341.2	358.4	378.2	402.2	427.1	453.8	482.1	513.9
145°	327.4	330.0	337.8	350.6	365.3	385.0	407.4	430.6	454.6	480.4	507.9
147.5°	338.6	340.3	348.1	359.2	373.9	391.0	411.7	433.2	454.6	477.8	501.9
150°	349.8	350.6	357.5	368.7	380.7	396.2	416.0	434.0	454.6	474.4	495.9
152.5°	361.0	361.0	367.8	377.3	387.6	402.2	418.5	435.7	452.1	470.1	489.0
155°	372.1	372.1	377.3	385.9	395.3	407.4	422.0	435.7	450.3	465.0	482.1
157.5°	380.7	381.6	385.9	393.6	402.2	411.7	423.7	436.6	447.8	460.7	474.4
160°	391.0	391.0	394.5	401.4	407.4	416.0	426.3	436.6	446.0	455.5	466.7
162.5°	398.8	398.8	401.4	406.5	411.7	418.5	427.1	435.7	442.6	450.3	458.9
165°	406.5	405.7	407.4	411.7	415.1	421.1	428.0	434.0	439.2	445.2	452.1
167.5°	412.5	411.7	412.5	416.0	418.5	422.8	428.0	433.2	435.7	440.0	445.2
170°	417.7	416.0	416.8	419.4	421.1	422.8	427.1	430.6	432.3	434.9	439.2
172.5°	421.1	420.3	420.3	422.0	422.8	423.7	427.1	429.7	429.7	430.6	433.2
175°	423.7	422.8	422.0	423.7	423.7	424.6	426.3	428.0	427.1	427.1	428.9
177.5°	425.4	424.6	423.7	424.6	424.6	424.6	425.4	427.1	425.4	424.6	425.4
180°	424.6	424.6	424.6	424.6	424.6	424.6	424.6	424.6	424.6	424.6	424.6



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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°	21.5	22.3	23.2	24.9	24.1	24.9	25.8	24.9
92.5°	85.1	66.2	57.6	51.6	49.8	46.4	47.3	45.5
95°	309.4	209.7	164.2	133.2	116.9	109.1	103.1	99.7
97.5°	710.8	536.3	422.8	324.9	267.3	234.6	214.0	204.5
100°	1013.3	943.7	843.1	721.1	634.3	571.5	538.0	538.9
102.5°	1113.8	1128.4	1080.3	1014.1	951.4	905.0	878.3	853.4
105°	1117.3	1203.2	1219.5	1197.2	1157.7	1125.0	1097.5	1093.2
107.5°	1065.7	1200.6	1267.7	1290.9	1285.7	1270.2	1259.1	1249.6
110°	984.9	1143.0	1251.3	1311.5	1335.6	1342.4	1340.7	1339.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	905.0	1067.4	1192.0	1273.7	1322.7	1347.6	1356.2	1357.0
115°	836.2	985.8	1112.1	1205.8	1270.2	1308.1	1325.2	1329.5
117.5°	782.9	915.3	1031.3	1128.4	1195.5	1237.6	1263.4	1269.4
120°	742.5	858.6	961.7	1048.5	1116.4	1164.5	1185.2	1190.3
122.5°	710.8	813.0	906.7	985.8	1044.2	1086.3	1109.5	1116.4
125°	683.2	776.9	859.4	928.2	983.2	1021.0	1042.5	1048.5
127.5°	658.3	743.4	819.0	882.6	932.5	965.1	984.9	990.1
130°	635.1	712.5	782.1	840.5	886.1	917.0	935.1	941.9
132.5°	613.6	683.2	746.8	801.9	844.0	874.9	890.4	894.7
135°	594.7	655.7	711.6	760.6	802.7	828.5	844.0	850.0
137.5°	576.7	628.2	678.1	721.9	758.0	784.7	797.6	802.7
140°	561.2	605.0	646.3	683.2	715.9	740.0	753.7	752.9
142.5°	546.6	582.7	617.1	648.0	674.7	695.3	707.3	706.5
145°	535.4	563.8	591.3	616.2	637.7	655.7	662.6	664.3
147.5°	526.0	549.2	572.4	590.4	607.6	620.5	627.4	628.2
150°	515.7	535.4	553.5	569.8	582.7	592.1	597.3	597.3
152.5°	506.2	522.5	538.0	550.9	560.3	568.9	571.5	571.5
155°	496.8	510.5	523.4	533.7	541.4	548.3	550.0	550.9
157.5°	486.4	498.5	508.8	517.4	524.3	529.4	531.1	531.1
160°	477.8	487.3	495.9	501.9	507.9	513.1	513.1	512.2
162.5°	467.5	475.3	483.0	488.2	491.6	495.9	495.9	495.0
165°	458.9	464.1	470.1	474.4	477.8	481.3	480.4	480.4
167.5°	451.2	455.5	458.9	462.4	464.1	466.7	465.8	465.8
170°	443.5	446.0	449.5	451.2	452.1	453.8	452.9	452.9
172.5°	436.6	438.3	440.9	441.7	441.7	443.5	441.7	440.9
175°	430.6	431.4	433.2	433.2	433.2	434.0	433.2	432.3
177.5°	426.3	427.1	428.0	428.0	427.1	428.0	426.3	426.3
180°	424.6	424.6	424.6	424.6	424.6	424.6	424.6	424.6

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