

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: P334464

Luminaire Tested: **S122IP-S1080U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122IP-S1080U930-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1080 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3432.9 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

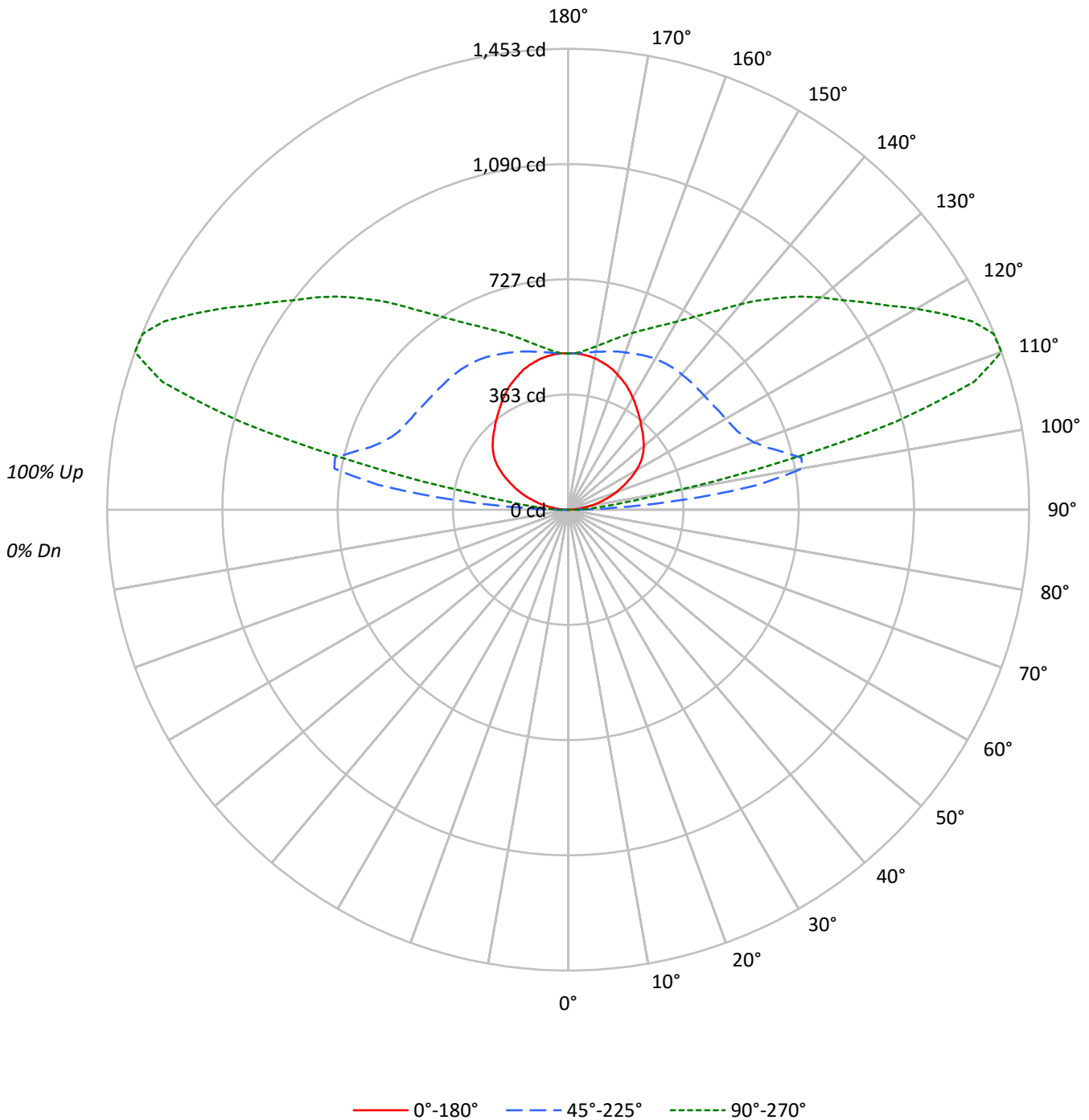
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3.2	0.1
90°-100°	192.0	5.6
100°-110°	676.1	19.7
110°-120°	710.1	20.7
120°-130°	584.2	17.0
130°-140°	469.3	13.7
140°-150°	354.5	10.3
150°-160°	249.2	7.3
160°-170°	146.7	4.3
170°-180°	47.7	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.2	0.1
90°-120°	1578.2	46.0
90°-150°	2986.2	87.0
90°-180°	3430.0	99.9
0°-180°	3432.9	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°	1	13	32	31	31	2
95°	33	81	371	140	108	34
105°	116	174	702	1254	1067	123
115°	204	257	587	1212	1405	202
125°	284	336	564	982	1139	253
135°	333	398	558	825	944	258
145°	381	438	555	689	754	239
155°	433	467	539	610	634	199
165°	472	486	516	547	556	133
175°	492	492	496	502	501	47
180°	492	492	492	492	492	



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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	3.8	7.6	9.5	11.4	14.2	18.9	25.6	31.3	32.2	31.3
92.5°	14.2	19.9	27.5	32.2	39.8	50.2	75.8	111.8	144.0	145.9	122.2
95°	33.1	36.9	46.4	54.9	70.1	92.8	136.4	218.8	328.6	371.3	324.9
97.5°	49.2	54.9	65.4	77.7	94.7	120.3	176.2	290.8	467.9	605.2	609.9
100°	72.9	75.8	84.3	99.4	118.4	144.9	195.1	310.7	515.2	748.2	884.6
102.5°	94.7	96.6	105.1	120.3	140.2	166.7	212.2	311.6	497.2	753.0	986.9
105°	115.5	119.3	126.0	140.2	161.0	187.5	232.0	316.3	472.6	701.8	953.7
107.5°	138.3	141.1	147.7	161.0	181.8	208.4	251.9	326.8	459.3	654.5	883.7
110°	161.0	164.8	170.5	182.8	202.7	230.1	271.8	340.0	455.6	622.3	818.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.8	185.6	192.3	203.6	222.6	251.0	290.8	354.2	456.5	601.4	772.8
115°	203.6	208.4	214.0	225.4	244.4	269.9	310.7	368.4	460.3	587.2	736.9
117.5°	226.4	230.1	235.8	246.2	264.2	290.8	328.6	383.6	466.0	579.6	712.2
120°	247.2	251.0	256.7	265.2	284.1	310.7	347.6	398.7	471.7	573.0	693.3
122.5°	267.1	269.9	275.6	285.1	304.0	331.5	365.6	412.0	478.3	569.2	677.2
125°	284.1	287.0	292.7	304.0	323.0	349.5	383.6	426.2	484.9	564.5	662.0
127.5°	298.3	302.1	309.7	322.0	340.0	367.5	400.6	439.5	491.6	561.6	647.8
130°	310.7	314.4	323.9	337.2	356.1	382.6	415.8	451.8	499.1	559.7	633.6
132.5°	322.0	326.8	337.2	351.4	371.3	397.8	429.0	464.1	506.7	558.8	622.3
135°	333.4	337.2	348.5	362.7	384.5	411.0	441.4	474.5	512.4	557.8	611.8
137.5°	343.8	348.5	359.9	375.1	396.8	421.5	451.8	483.0	518.1	557.8	604.3
140°	356.1	359.9	371.3	386.4	407.3	431.9	460.3	489.7	521.9	556.9	597.6
142.5°	368.4	371.3	381.7	396.8	416.7	439.5	466.9	495.3	524.7	556.9	591.0
145°	380.7	384.5	394.0	408.2	427.1	448.0	473.6	500.1	526.6	555.0	585.3
147.5°	394.0	396.8	406.3	419.6	435.7	454.6	479.2	502.9	527.5	552.2	579.6
150°	407.3	410.1	417.7	430.0	444.2	461.2	483.0	504.8	526.6	549.3	572.1
152.5°	420.5	421.5	429.0	439.5	452.7	467.9	486.8	505.8	524.7	544.6	565.4
155°	432.8	433.8	439.5	449.9	460.3	474.5	490.6	506.7	522.8	538.9	556.9
157.5°	443.2	444.2	448.9	458.4	466.9	479.2	493.4	506.7	519.0	533.2	549.3
160°	453.7	454.6	458.4	466.0	473.6	484.0	495.3	506.7	516.2	527.5	540.8
162.5°	464.1	463.1	466.9	472.6	479.2	486.8	496.3	505.8	513.3	522.8	533.2
165°	471.7	470.7	472.6	478.3	483.0	488.7	497.2	503.9	509.5	516.2	524.7
167.5°	478.3	477.3	479.2	483.0	486.8	490.6	497.2	502.9	505.8	510.5	516.2
170°	484.9	483.0	484.0	486.8	488.7	491.6	496.3	501.0	502.9	505.8	509.5
172.5°	488.7	487.8	486.8	489.7	490.6	492.5	495.3	498.2	499.1	500.1	502.9
175°	491.6	490.6	489.7	491.6	491.6	492.5	494.4	496.3	495.3	496.3	497.2
177.5°	493.4	491.6	490.6	492.5	492.5	492.5	493.4	495.3	493.4	492.5	493.4
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5



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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°	30.3	28.4	30.3	31.3	31.3	31.3	31.3	31.3
92.5°	95.7	81.5	71.0	63.5	62.5	58.7	59.7	57.8
95°	248.1	190.4	150.6	129.8	117.4	109.9	107.0	108.0
97.5°	507.7	405.4	309.7	252.9	215.9	197.0	186.6	180.9
100°	864.7	747.3	617.5	502.9	424.3	383.6	356.1	339.1
102.5°	1098.6	1094.9	1008.7	885.5	798.4	721.7	685.7	661.1
105°	1150.7	1257.8	1270.1	1238.8	1180.1	1121.4	1080.7	1067.4
107.5°	1094.9	1254.0	1346.8	1384.7	1383.7	1375.2	1362.9	1341.1
110°	1018.1	1187.7	1308.9	1386.6	1427.3	1445.3	1453.8	1452.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	948.1	1109.1	1240.7	1332.6	1393.2	1426.3	1444.3	1451.0
115°	893.1	1039.0	1163.1	1260.6	1327.8	1371.4	1396.0	1404.6
117.5°	847.7	978.4	1093.9	1186.7	1255.9	1302.3	1327.8	1334.5
120°	815.5	932.9	1033.3	1119.5	1185.8	1230.3	1257.8	1267.2
122.5°	789.9	895.0	988.8	1064.6	1122.3	1165.9	1189.6	1197.1
125°	765.3	862.8	946.2	1017.2	1072.1	1108.1	1131.8	1139.4
127.5°	740.6	830.6	910.2	976.5	1024.8	1058.9	1079.7	1085.4
130°	717.0	798.4	873.2	935.7	982.2	1014.4	1033.3	1040.9
132.5°	694.2	768.1	835.4	893.1	938.6	970.8	987.8	994.5
135°	673.4	735.9	798.4	851.5	892.2	923.4	940.5	944.3
137.5°	656.3	710.3	761.5	808.8	847.7	875.1	890.3	896.0
140°	640.2	685.7	729.3	770.9	801.3	825.9	840.1	845.8
142.5°	627.0	663.9	699.9	733.1	761.5	783.3	795.6	795.6
145°	614.7	645.9	675.3	702.8	725.5	741.6	751.1	753.9
147.5°	605.2	630.8	654.5	675.3	695.2	708.4	715.1	717.0
150°	594.8	615.6	635.5	652.6	666.8	678.1	683.8	684.8
152.5°	584.4	603.3	619.4	633.6	644.0	653.5	657.3	657.3
155°	574.9	590.0	604.3	614.7	625.1	631.7	635.5	633.6
157.5°	563.5	576.8	589.1	597.6	605.2	610.9	612.8	612.8
160°	553.1	563.5	573.9	580.6	587.2	591.9	592.9	592.9
162.5°	542.7	551.2	559.7	564.5	571.1	573.9	574.9	573.9
165°	532.3	538.9	545.5	549.3	553.1	556.9	556.9	556.0
167.5°	521.9	527.5	532.3	536.1	538.0	539.9	539.9	538.9
170°	514.3	517.1	520.9	522.8	523.8	526.6	525.6	523.8
172.5°	505.8	507.7	510.5	511.4	512.4	513.3	512.4	511.4
175°	500.1	501.0	502.0	502.9	502.9	503.9	502.9	501.0
177.5°	495.3	495.3	496.3	496.3	496.3	496.3	495.3	493.4
180°	492.5	492.5	492.5	492.5	492.5	492.5	492.5	492.5

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