

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: P334638

Luminaire Tested: **S123IP-S1025U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334638
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-S1025U930-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1025 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

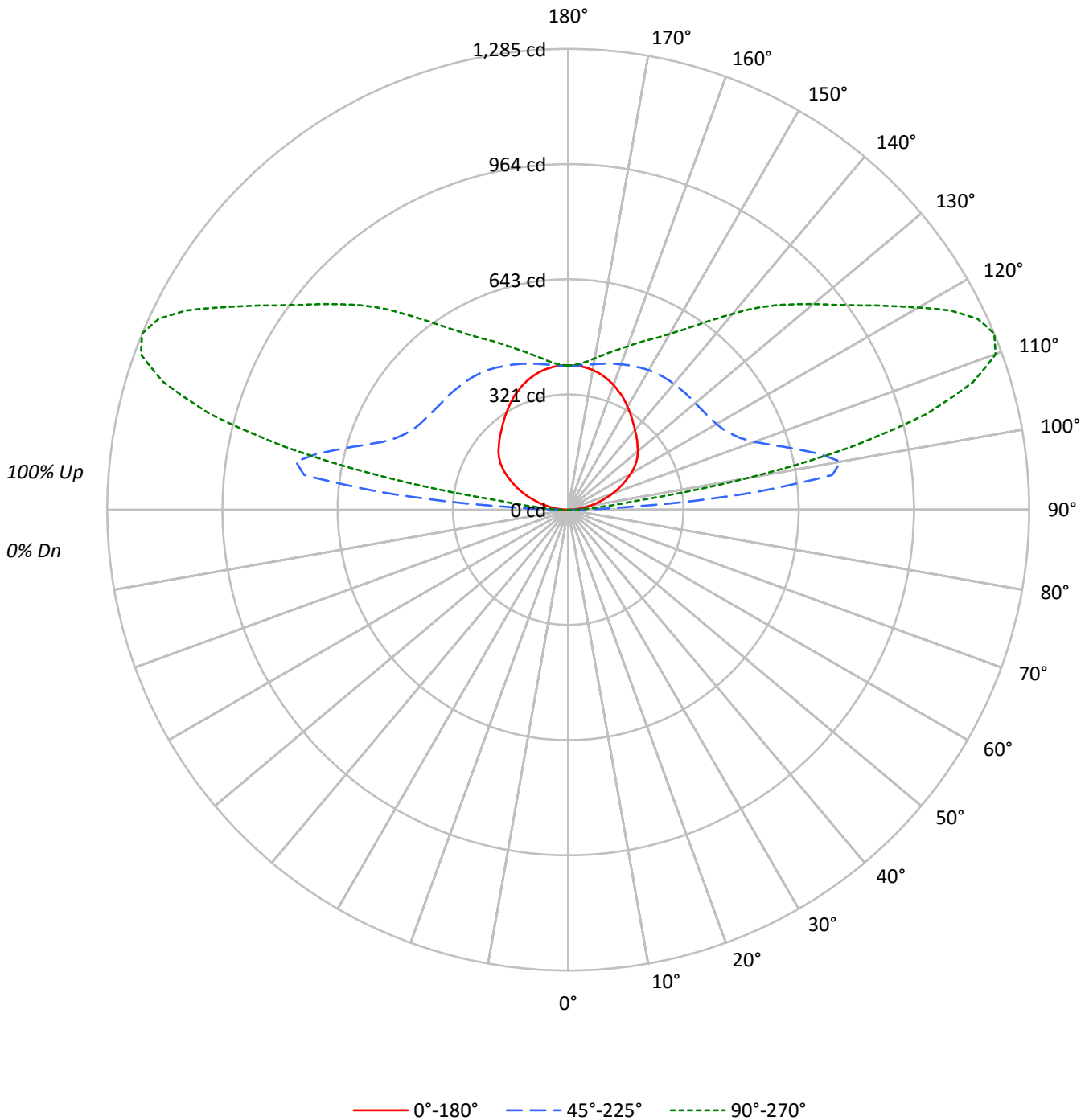
Lumens per Lamp: N/A
Luminaire Lumens: 3026.3 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

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°	2.2	0.1
90°-100°	218.2	7.2
100°-110°	638.7	21.1
110°-120°	623.7	20.6
120°-130°	496.7	16.4
130°-140°	391.9	12.9
140°-150°	292.4	9.7
150°-160°	203.8	6.7
160°-170°	119.7	4.0
170°-180°	38.9	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.2	0.1
90°-120°	1480.6	48.9
90°-150°	2661.5	87.9
90°-180°	3024.0	99.9
0°-180°	3026.3	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°	2	10	20	23	24	2
95°	28	90	483	141	94	29
105°	94	140	654	1144	1035	100
115°	167	208	500	1097	1259	165
125°	232	274	467	846	993	206
135°	272	324	461	697	805	210
145°	310	355	455	572	629	194
155°	352	380	440	500	522	162
165°	385	396	422	447	455	108
175°	401	402	404	410	409	38
180°	402	402	402	402	402	



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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°	1.6	3.3	4.9	7.3	9.0	10.6	13.0	15.5	17.9	20.3	19.5
92.5°	12.2	17.9	26.0	33.4	41.5	56.2	82.2	125.3	167.6	151.4	113.1
95°	27.7	30.1	39.1	52.9	74.1	105.8	175.0	296.2	429.7	482.6	391.4
97.5°	43.9	44.8	52.1	64.3	85.5	120.4	188.8	329.6	554.2	742.2	767.4
100°	60.2	61.0	66.7	78.1	97.7	129.4	186.4	306.8	520.8	770.7	931.0
102.5°	77.3	78.9	83.8	94.4	111.5	140.0	189.6	287.3	472.0	717.8	939.1
105°	94.4	96.8	101.7	111.5	127.0	152.2	196.1	280.0	433.8	654.3	887.9
107.5°	112.3	114.7	119.6	129.4	144.0	167.6	206.7	278.3	406.1	598.2	814.6
110°	131.8	134.3	138.3	147.3	161.1	183.9	220.5	282.4	391.4	551.8	746.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	149.7	152.2	156.3	165.2	179.0	201.0	234.4	290.5	383.3	520.8	686.9
115°	166.8	170.1	175.0	183.1	196.9	218.9	249.8	299.5	382.5	500.5	641.3
117.5°	183.9	188.0	192.1	199.4	214.8	235.2	266.1	310.9	383.3	486.7	611.2
120°	201.8	204.3	208.3	216.5	231.9	252.3	281.6	323.9	386.6	477.7	588.4
122.5°	217.3	219.7	223.8	232.8	247.4	269.4	297.9	336.1	392.3	472.0	569.7
125°	231.9	233.6	238.4	247.4	262.9	284.8	313.3	349.1	398.0	467.1	554.2
127.5°	243.3	245.8	251.5	260.4	277.5	299.5	327.2	359.7	404.5	464.7	539.6
130°	253.9	256.4	263.7	273.4	290.5	312.5	339.4	370.3	411.0	462.2	528.2
132.5°	262.0	265.3	273.4	285.6	302.7	323.9	349.9	380.1	415.9	461.4	517.6
135°	271.8	275.1	284.0	296.2	313.3	335.3	360.5	388.2	420.7	460.6	508.6
137.5°	280.8	284.0	293.0	306.0	323.1	343.4	367.8	394.7	424.0	459.0	500.5
140°	289.7	293.8	301.9	314.9	331.2	351.6	375.2	399.6	427.3	458.2	493.2
142.5°	299.5	302.7	311.7	323.1	339.4	358.1	380.9	404.5	429.7	456.6	486.7
145°	310.1	312.5	319.8	332.0	345.9	364.6	385.7	407.7	430.5	454.9	481.0
147.5°	320.6	322.3	329.6	340.2	354.0	370.3	389.8	410.2	430.5	452.5	475.3
150°	331.2	332.0	338.5	349.1	360.5	375.2	393.9	411.0	430.5	449.2	469.6
152.5°	341.8	341.8	348.3	357.3	367.0	380.9	396.3	412.6	428.1	445.2	463.1
155°	352.4	352.4	357.3	365.4	374.4	385.7	399.6	412.6	426.4	440.3	456.6
157.5°	360.5	361.3	365.4	372.7	380.9	389.8	401.2	413.4	424.0	436.2	449.2
160°	370.3	370.3	373.5	380.1	385.7	393.9	403.7	413.4	422.4	431.3	441.9
162.5°	377.6	377.6	380.1	384.9	389.8	396.3	404.5	412.6	419.1	426.4	434.6
165°	384.9	384.1	385.7	389.8	393.1	398.8	405.3	411.0	415.9	421.6	428.1
167.5°	390.6	389.8	390.6	393.9	396.3	400.4	405.3	410.2	412.6	416.7	421.6
170°	395.5	393.9	394.7	397.1	398.8	400.4	404.5	407.7	409.3	411.8	415.9
172.5°	398.8	398.0	398.0	399.6	400.4	401.2	404.5	406.9	406.9	407.7	410.2
175°	401.2	400.4	399.6	401.2	401.2	402.0	403.7	405.3	404.5	404.5	406.1
177.5°	402.8	402.0	401.2	402.0	402.0	402.0	402.8	404.5	402.8	402.0	402.8
180°	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0



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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°	20.3	21.2	22.0	23.6	22.8	23.6	24.4	23.6
92.5°	80.6	62.7	54.5	48.8	47.2	43.9	44.8	43.1
95°	293.0	198.6	155.4	126.1	110.7	103.4	97.7	94.4
97.5°	673.0	507.8	400.4	307.6	253.1	222.2	202.6	193.7
100°	959.5	893.6	798.4	682.8	600.6	541.2	509.4	510.3
102.5°	1054.7	1068.5	1023.0	960.3	900.9	856.9	831.7	808.1
105°	1058.0	1139.3	1154.8	1133.6	1096.2	1065.3	1039.2	1035.2
107.5°	1009.1	1136.9	1200.4	1222.3	1217.5	1202.8	1192.2	1183.3
110°	932.6	1082.4	1184.9	1241.9	1264.7	1271.2	1269.6	1267.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	856.9	1010.8	1128.8	1206.1	1252.5	1276.1	1284.2	1285.0
115°	791.8	933.4	1053.1	1141.8	1202.8	1238.6	1254.9	1259.0
117.5°	741.4	866.7	976.6	1068.5	1132.0	1171.9	1196.3	1202.0
120°	703.1	813.0	910.7	992.9	1057.1	1102.7	1122.3	1127.1
122.5°	673.0	769.9	858.6	933.4	988.8	1028.7	1050.6	1057.1
125°	647.0	735.7	813.8	878.9	931.0	966.8	987.2	992.9
127.5°	623.4	703.9	775.6	835.8	883.0	913.9	932.6	937.5
130°	601.4	674.7	740.6	795.9	839.0	868.3	885.4	891.9
132.5°	581.1	647.0	707.2	759.3	799.2	828.5	843.1	847.2
135°	563.2	620.9	673.8	720.2	760.1	784.5	799.2	804.9
137.5°	546.1	594.9	642.1	683.6	717.8	743.0	755.2	760.1
140°	531.4	572.9	612.0	647.0	677.9	700.7	713.7	712.9
142.5°	517.6	551.8	584.3	613.6	638.8	658.4	669.8	669.0
145°	507.0	533.9	559.9	583.5	603.9	620.9	627.5	629.1
147.5°	498.1	520.0	542.0	559.1	575.4	587.6	594.1	594.9
150°	488.3	507.0	524.1	539.6	551.8	560.7	565.6	565.6
152.5°	479.3	494.8	509.4	521.7	530.6	538.7	541.2	541.2
155°	470.4	483.4	495.6	505.4	512.7	519.2	520.8	521.7
157.5°	460.6	472.0	481.8	489.9	496.4	501.3	502.9	502.9
160°	452.5	461.4	469.6	475.3	481.0	485.8	485.8	485.0
162.5°	442.7	450.0	457.4	462.2	465.5	469.6	469.6	468.8
165°	434.6	439.5	445.2	449.2	452.5	455.7	454.9	454.9
167.5°	427.3	431.3	434.6	437.8	439.5	441.9	441.1	441.1
170°	419.9	422.4	425.6	427.3	428.1	429.7	428.9	428.9
172.5°	413.4	415.0	417.5	418.3	418.3	419.9	418.3	417.5
175°	407.7	408.5	410.2	410.2	410.2	411.0	410.2	409.3
177.5°	403.7	404.5	405.3	405.3	404.5	405.3	403.7	403.7
180°	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0

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