

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: P334813

Luminaire Tested: **S124IP-S1035U930-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334813
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IP-S1035U930-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1035 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3019.0 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

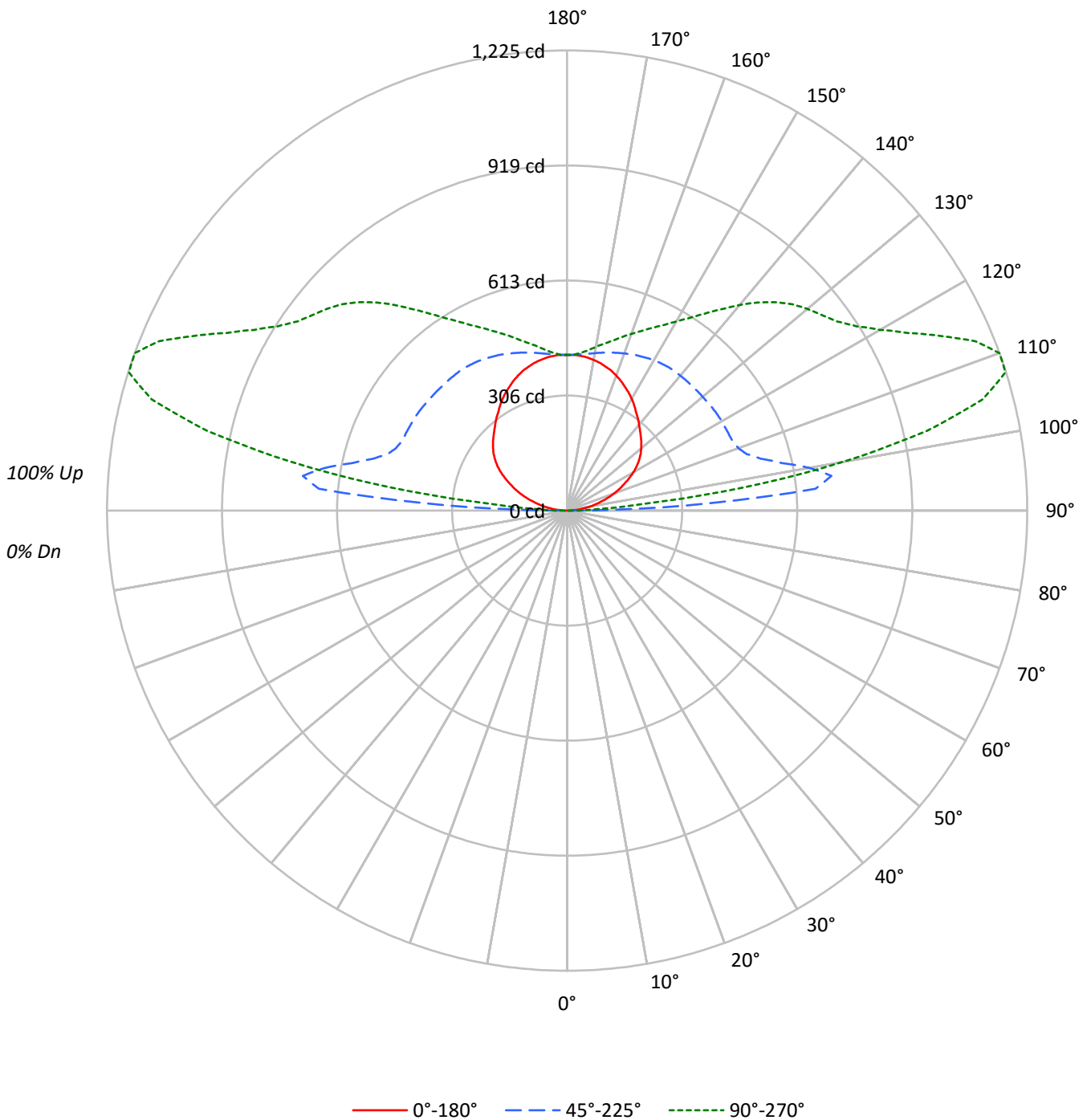
Input Watts (W): 35.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1.6	0.1
90°-100°	300.3	9.9
100°-110°	626.9	20.8
110°-120°	557.2	18.5
120°-130°	469.1	15.5
130°-140°	391.4	13.0
140°-150°	298.8	9.9
150°-160°	210.1	7.0
160°-170°	123.6	4.1
170°-180°	40.2	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.6	0.1
90°-120°	1484.4	49.2
90°-150°	2643.6	87.6
90°-180°	3017.0	99.9
0°-180°	3019.0	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	6	15	16	17	2
95°	27	85	663	328	199	29
105°	95	138	534	1150	1145	101
115°	168	210	476	915	1100	166
125°	234	278	474	778	877	208
135°	278	330	470	691	785	215
145°	320	366	467	583	641	201
155°	364	393	454	514	536	168
165°	396	409	435	461	468	112
175°	414	414	418	423	422	39
180°	414	414	414	414	414	



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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°	0.8	2.4	4.9	5.7	6.5	6.5	11.4	11.4	13.0	14.7	13.8
92.5°	11.4	16.3	25.2	37.4	52.1	73.3	123.7	202.7	279.2	319.1	265.3
95°	26.9	29.3	37.4	48.0	67.6	101.7	172.6	306.0	500.6	663.3	682.1
97.5°	44.8	44.8	52.1	61.9	79.0	108.3	164.4	279.2	479.4	709.7	855.4
100°	61.9	61.9	67.6	77.3	92.8	118.8	166.9	258.8	424.9	654.4	862.8
102.5°	78.1	79.8	84.6	93.6	108.3	132.7	175.0	253.1	388.2	585.2	801.7
105°	95.2	97.7	101.7	111.5	126.2	149.8	188.8	256.4	370.3	533.9	725.2
107.5°	113.9	115.6	119.6	130.2	144.1	167.7	203.5	266.2	365.5	500.6	662.5
110°	132.7	134.3	138.4	148.1	162.8	184.8	220.6	277.5	367.1	485.1	617.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.6	152.2	157.1	166.0	180.7	202.7	236.9	289.8	372.0	477.8	592.5
115°	167.7	170.1	175.8	183.9	199.4	221.4	253.9	302.8	378.5	476.1	578.7
117.5°	185.6	188.0	192.9	201.9	216.5	239.3	270.2	315.8	385.0	475.3	571.4
120°	203.5	205.1	210.8	219.8	233.6	256.4	287.3	329.6	392.3	475.3	565.7
122.5°	219.8	221.4	227.1	235.2	250.7	272.7	303.6	342.7	399.6	474.5	559.2
125°	233.6	236.9	241.7	250.7	266.2	288.9	318.2	355.7	407.0	473.7	551.8
127.5°	246.6	249.1	254.8	264.5	280.8	303.6	332.1	367.1	412.7	472.1	542.1
130°	257.2	260.5	267.0	279.2	294.6	318.2	345.9	377.7	419.2	471.3	533.1
132.5°	267.8	270.2	279.2	290.6	307.7	329.6	357.3	388.2	424.9	470.4	525.0
135°	277.5	280.8	288.9	302.8	319.9	341.0	367.9	397.2	430.6	469.6	516.8
137.5°	287.3	290.6	299.5	312.5	330.5	350.8	376.0	403.7	433.8	469.6	509.5
140°	297.9	300.3	309.3	323.1	340.2	359.8	384.2	410.2	437.9	468.8	503.8
142.5°	309.3	311.7	319.9	332.9	349.2	367.9	391.5	415.1	441.1	468.8	498.9
145°	319.9	322.3	330.5	341.8	357.3	375.2	396.4	418.4	442.0	467.2	493.2
147.5°	332.1	332.9	340.2	352.4	365.5	381.7	402.1	421.6	442.8	464.7	488.4
150°	343.5	344.3	350.8	360.6	372.8	388.2	406.1	424.1	442.8	462.3	482.7
152.5°	354.1	354.1	360.6	369.5	380.1	393.9	409.4	425.7	441.1	458.2	476.1
155°	363.8	364.6	369.5	377.7	386.6	398.8	412.7	426.5	439.5	454.2	469.6
157.5°	373.6	373.6	378.5	385.0	393.1	402.9	415.1	426.5	437.9	450.1	463.1
160°	382.5	382.5	385.8	391.5	398.0	407.0	416.7	426.5	435.4	445.2	455.8
162.5°	390.7	389.9	392.3	397.2	402.9	409.4	418.4	426.5	433.0	440.3	449.3
165°	396.4	396.4	398.0	402.1	406.1	411.0	418.4	424.9	429.8	435.4	442.0
167.5°	402.9	402.1	402.9	406.1	408.6	412.7	418.4	423.2	426.5	430.6	435.4
170°	407.0	406.1	407.0	409.4	411.0	413.5	417.5	421.6	423.2	425.7	428.9
172.5°	411.0	410.2	410.2	411.8	412.7	414.3	416.7	420.0	420.0	420.8	423.2
175°	413.5	412.7	412.7	413.5	414.3	414.3	415.9	418.4	417.5	417.5	419.2
177.5°	415.1	414.3	413.5	414.3	414.3	414.3	415.1	416.7	415.1	415.1	415.9
180°	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3



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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°	14.7	15.5	16.3	16.3	17.1	17.9	17.1	17.1
92.5°	196.2	146.5	115.6	95.2	83.0	77.3	74.1	74.1
95°	603.1	477.0	367.9	288.9	249.1	223.8	209.2	198.6
97.5°	868.5	805.8	716.3	625.1	569.7	520.9	496.5	477.0
100°	981.6	997.9	958.0	897.8	826.9	777.3	752.9	746.4
102.5°	975.9	1072.7	1097.2	1080.9	1044.3	1011.7	985.7	980.8
105°	911.6	1052.4	1133.0	1166.3	1168.0	1161.5	1150.1	1145.2
107.5°	832.6	984.8	1097.2	1165.5	1201.3	1216.0	1222.5	1223.3
110°	762.6	903.5	1021.5	1111.0	1168.8	1203.0	1217.6	1225.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	711.4	831.8	941.7	1031.2	1098.8	1141.9	1163.9	1176.9
115°	680.4	780.6	875.8	953.9	1018.2	1067.1	1093.1	1099.6
117.5°	662.5	747.2	824.5	892.9	949.8	992.2	1019.8	1023.9
120°	651.1	726.8	791.9	849.7	896.1	931.9	953.1	962.1
122.5°	641.4	713.8	771.6	820.4	857.9	887.2	904.3	913.2
125°	630.0	700.0	756.1	800.9	833.5	857.1	872.5	877.4
127.5°	617.0	684.5	740.7	783.0	815.5	836.7	849.7	854.6
130°	600.7	665.0	720.3	763.5	796.8	817.2	830.2	835.1
132.5°	583.6	643.0	696.7	739.9	772.4	796.0	808.2	813.1
135°	568.1	621.0	670.7	711.4	743.9	766.7	779.7	784.6
137.5°	553.5	599.9	643.0	680.4	711.4	735.0	745.6	751.2
140°	541.3	579.5	616.1	650.3	678.8	696.7	708.1	714.6
142.5°	529.9	562.4	592.5	621.0	645.4	661.7	671.5	675.6
145°	519.3	547.0	571.4	594.2	614.5	628.3	636.5	640.6
147.5°	510.3	533.1	553.5	572.2	587.7	599.9	606.4	608.0
150°	502.2	520.9	537.2	551.8	564.9	575.4	580.3	581.1
152.5°	493.2	508.7	523.4	534.7	545.3	553.5	555.9	556.7
155°	484.3	497.3	509.5	519.3	527.4	533.9	536.4	536.4
157.5°	474.5	485.9	496.5	504.6	511.1	516.0	517.7	517.7
160°	465.6	474.5	483.5	490.0	494.9	499.7	500.6	500.6
162.5°	456.6	463.9	470.4	476.1	479.4	484.3	485.1	484.3
165°	448.5	453.4	459.1	463.1	466.4	469.6	468.8	468.0
167.5°	440.3	444.4	449.3	451.7	453.4	455.8	455.8	455.0
170°	433.0	435.4	438.7	441.1	442.8	443.6	442.8	442.8
172.5°	426.5	428.1	429.8	431.4	432.2	433.0	432.2	430.6
175°	420.8	421.6	423.2	423.2	423.2	424.9	423.2	421.6
177.5°	416.7	417.5	417.5	418.4	417.5	418.4	416.7	415.1
180°	414.3	414.3	414.3	414.3	414.3	414.3	414.3	414.3

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