

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: P334470

Luminaire Tested: **S122IP-S330U940-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334470
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-S330U940-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 330 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

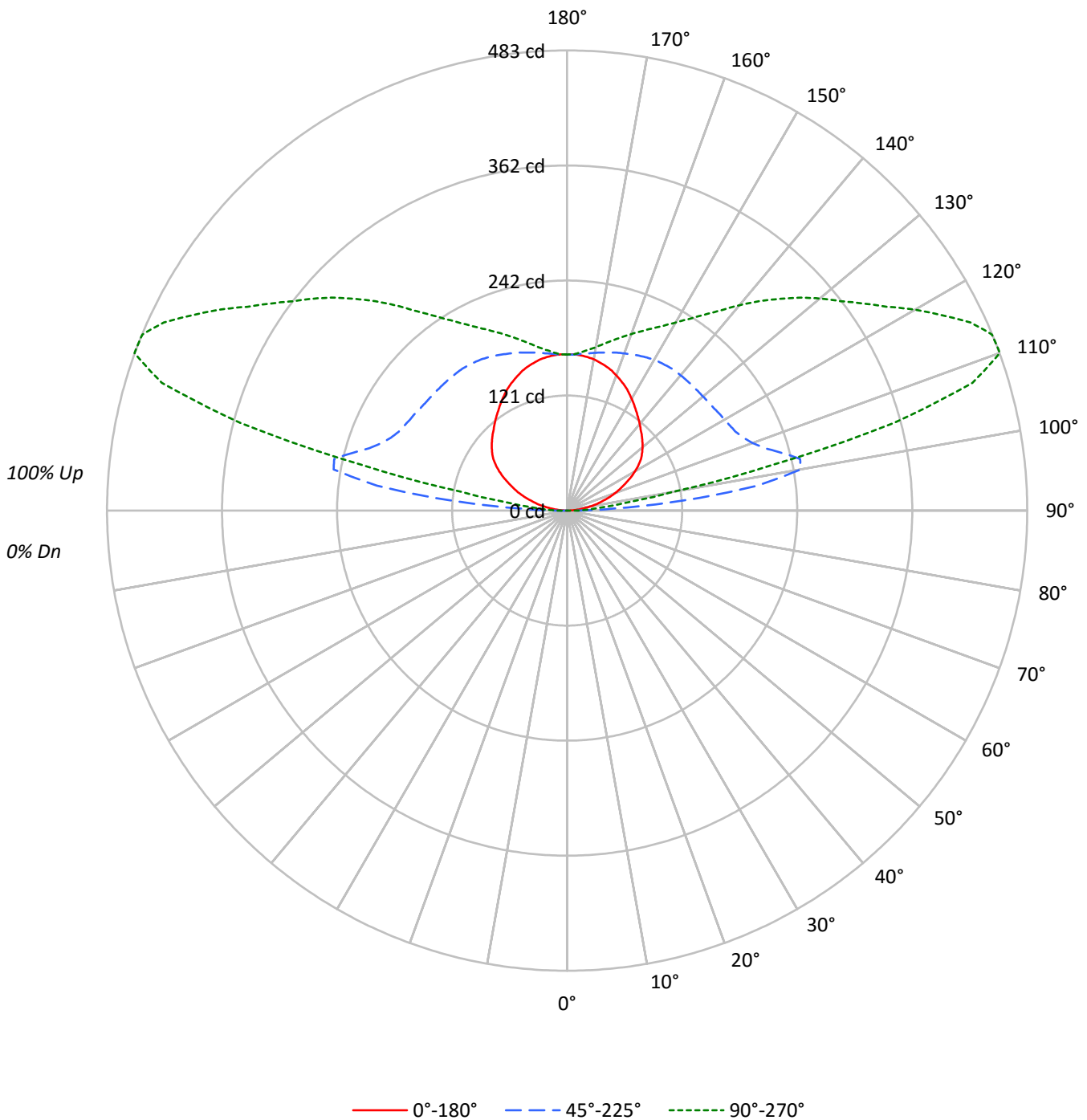
Lumens per Lamp: N/A
Luminaire Lumens: 1142.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 11.4
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°	1.1	0.1
90°-100°	63.9	5.6
100°-110°	224.9	19.7
110°-120°	236.2	20.7
120°-130°	194.3	17.0
130°-140°	156.1	13.7
140°-150°	117.9	10.3
150°-160°	82.9	7.3
160°-170°	48.8	4.3
170°-180°	15.9	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.1	0.1
90°-120°	525.0	46.0
90°-150°	993.4	87.0
90°-180°	1141.0	99.9
0°-180°	1142.0	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°	0	4	11	10	10	1
95°	11	27	124	47	36	11
105°	38	58	234	417	355	41
115°	68	86	195	403	467	67
125°	94	112	188	327	379	84
135°	111	132	186	274	314	86
145°	127	146	185	229	251	79
155°	144	155	179	203	211	66
165°	157	162	172	182	185	44
175°	164	164	165	167	167	16
180°	164	164	164	164	164	



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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°	0.3	1.3	2.5	3.2	3.8	4.7	6.3	8.5	10.4	10.7	10.4
92.5°	4.7	6.6	9.1	10.7	13.2	16.7	25.2	37.2	47.9	48.5	40.6
95°	11.0	12.3	15.4	18.3	23.3	30.9	45.4	72.8	109.3	123.5	108.1
97.5°	16.4	18.3	21.7	25.8	31.5	40.0	58.6	96.7	155.6	201.3	202.9
100°	24.3	25.2	28.0	33.1	39.4	48.2	64.9	103.3	171.4	248.9	294.3
102.5°	31.5	32.1	35.0	40.0	46.6	55.5	70.6	103.7	165.4	250.5	328.3
105°	38.4	39.7	41.9	46.6	53.6	62.4	77.2	105.2	157.2	233.5	317.3
107.5°	46.0	46.9	49.2	53.6	60.5	69.3	83.8	108.7	152.8	217.7	294.0
110°	53.6	54.8	56.7	60.8	67.4	76.6	90.4	113.1	151.5	207.0	272.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	60.5	61.8	64.0	67.7	74.0	83.5	96.7	117.8	151.9	200.1	257.1
115°	67.7	69.3	71.2	75.0	81.3	89.8	103.3	122.6	153.1	195.3	245.1
117.5°	75.3	76.6	78.5	81.9	87.9	96.7	109.3	127.6	155.0	192.8	236.9
120°	82.2	83.5	85.4	88.2	94.5	103.3	115.6	132.6	156.9	190.6	230.6
122.5°	88.8	89.8	91.7	94.8	101.1	110.3	121.6	137.1	159.1	189.4	225.3
125°	94.5	95.5	97.4	101.1	107.4	116.3	127.6	141.8	161.3	187.8	220.2
127.5°	99.2	100.5	103.0	107.1	113.1	122.2	133.3	146.2	163.5	186.8	215.5
130°	103.3	104.6	107.8	112.2	118.5	127.3	138.3	150.3	166.0	186.2	210.8
132.5°	107.1	108.7	112.2	116.9	123.5	132.3	142.7	154.4	168.6	185.9	207.0
135°	110.9	112.2	115.9	120.7	127.9	136.7	146.8	157.8	170.5	185.6	203.5
137.5°	114.4	115.9	119.7	124.8	132.0	140.2	150.3	160.7	172.3	185.6	201.0
140°	118.5	119.7	123.5	128.5	135.5	143.7	153.1	162.9	173.6	185.3	198.8
142.5°	122.6	123.5	127.0	132.0	138.6	146.2	155.3	164.8	174.5	185.3	196.6
145°	126.7	127.9	131.1	135.8	142.1	149.0	157.5	166.4	175.2	184.6	194.7
147.5°	131.1	132.0	135.2	139.6	144.9	151.2	159.4	167.3	175.5	183.7	192.8
150°	135.5	136.4	138.9	143.0	147.8	153.4	160.7	167.9	175.2	182.7	190.3
152.5°	139.9	140.2	142.7	146.2	150.6	155.6	161.9	168.2	174.5	181.2	188.1
155°	144.0	144.3	146.2	149.7	153.1	157.8	163.2	168.6	173.9	179.3	185.3
157.5°	147.5	147.8	149.3	152.5	155.3	159.4	164.1	168.6	172.7	177.4	182.7
160°	150.9	151.2	152.5	155.0	157.5	161.0	164.8	168.6	171.7	175.5	179.9
162.5°	154.4	154.1	155.3	157.2	159.4	161.9	165.1	168.2	170.8	173.9	177.4
165°	156.9	156.6	157.2	159.1	160.7	162.6	165.4	167.6	169.5	171.7	174.5
167.5°	159.1	158.8	159.4	160.7	161.9	163.2	165.4	167.3	168.2	169.8	171.7
170°	161.3	160.7	161.0	161.9	162.6	163.5	165.1	166.7	167.3	168.2	169.5
172.5°	162.6	162.3	161.9	162.9	163.2	163.8	164.8	165.7	166.0	166.4	167.3
175°	163.5	163.2	162.9	163.5	163.5	163.8	164.5	165.1	164.8	165.1	165.4
177.5°	164.1	163.5	163.2	163.8	163.8	163.8	164.1	164.8	164.1	163.8	164.1
180°	163.8	163.8	163.8	163.8	163.8	163.8	163.8	163.8	163.8	163.8	163.8



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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°	10.1	9.5	10.1	10.4	10.4	10.4	10.4	10.4
92.5°	31.8	27.1	23.6	21.1	20.8	19.5	19.8	19.2
95°	82.5	63.3	50.1	43.2	39.1	36.5	35.6	35.9
97.5°	168.9	134.8	103.0	84.1	71.8	65.5	62.1	60.2
100°	287.7	248.6	205.4	167.3	141.1	127.6	118.5	112.8
102.5°	365.5	364.2	335.5	294.6	265.6	240.1	228.1	219.9
105°	382.8	418.4	422.5	412.1	392.6	373.0	359.5	355.1
107.5°	364.2	417.1	448.0	460.6	460.3	457.5	453.4	446.1
110°	338.7	395.1	435.4	461.3	474.8	480.8	483.6	483.3



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CATALOG NUMBER: S122IP-S330U940-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	315.4	368.9	412.7	443.3	463.5	474.5	480.5	482.7
115°	297.1	345.6	386.9	419.4	441.7	456.2	464.4	467.2
117.5°	282.0	325.5	363.9	394.8	417.8	433.2	441.7	443.9
120°	271.3	310.3	343.7	372.4	394.5	409.3	418.4	421.6
122.5°	262.8	297.7	328.9	354.1	373.4	387.8	395.7	398.2
125°	254.6	287.0	314.8	338.4	356.7	368.6	376.5	379.0
127.5°	246.4	276.3	302.8	324.8	340.9	352.2	359.2	361.1
130°	238.5	265.6	290.5	311.3	326.7	337.4	343.7	346.3
132.5°	230.9	255.5	277.9	297.1	312.2	322.9	328.6	330.8
135°	224.0	244.8	265.6	283.2	296.8	307.2	312.9	314.1
137.5°	218.3	236.3	253.3	269.1	282.0	291.1	296.2	298.1
140°	213.0	228.1	242.6	256.5	266.5	274.7	279.5	281.4
142.5°	208.6	220.9	232.8	243.9	253.3	260.6	264.7	264.7
145°	204.5	214.9	224.6	233.8	241.3	246.7	249.8	250.8
147.5°	201.3	209.8	217.7	224.6	231.3	235.7	237.9	238.5
150°	197.9	204.8	211.4	217.1	221.8	225.6	227.5	227.8
152.5°	194.4	200.7	206.1	210.8	214.2	217.4	218.7	218.7
155°	191.2	196.3	201.0	204.5	207.9	210.1	211.4	210.8
157.5°	187.5	191.9	196.0	198.8	201.3	203.2	203.8	203.8
160°	184.0	187.5	190.9	193.1	195.3	196.9	197.2	197.2
162.5°	180.5	183.4	186.2	187.8	190.0	190.9	191.2	190.9
165°	177.1	179.3	181.5	182.7	184.0	185.3	185.3	184.9
167.5°	173.6	175.5	177.1	178.3	179.0	179.6	179.6	179.3
170°	171.1	172.0	173.3	173.9	174.2	175.2	174.9	174.2
172.5°	168.2	168.9	169.8	170.1	170.5	170.8	170.5	170.1
175°	166.4	166.7	167.0	167.3	167.3	167.6	167.3	166.7
177.5°	164.8	164.8	165.1	165.1	165.1	165.1	164.8	164.1
180°	163.8	163.8	163.8	163.8	163.8	163.8	163.8	163.8

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