

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: P334469

Luminaire Tested: **S122IP-S1080U935-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334469
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-S1080U935-4F0-1E-UDD-4
Description: DEFINE 2 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1080 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

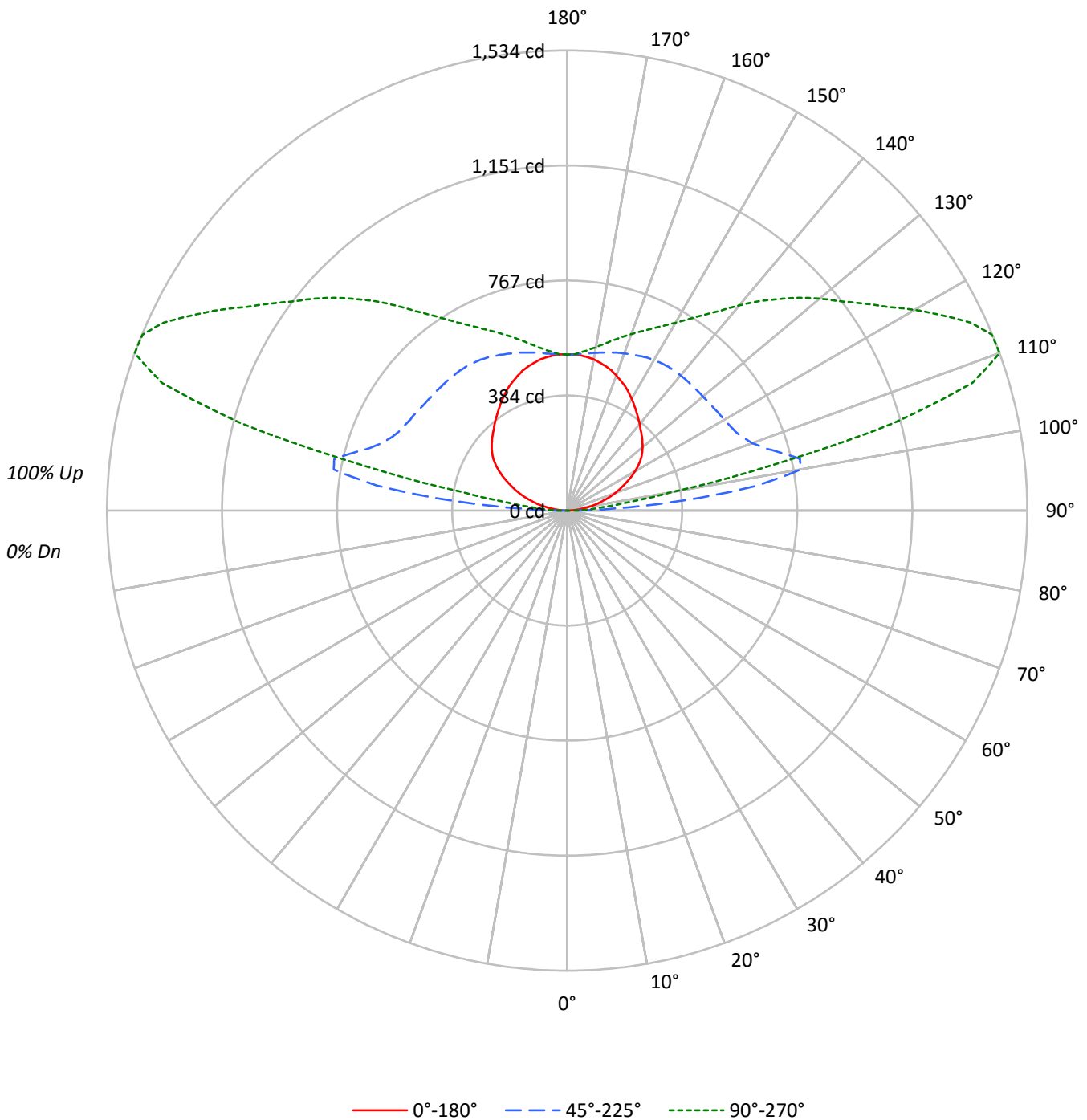
Lumens per Lamp: N/A
Luminaire Lumens: 3625.3 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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°	3.3	0.1
90°-100°	202.7	5.6
100°-110°	714.0	19.7
110°-120°	749.9	20.7
120°-130°	616.9	17.0
130°-140°	495.6	13.7
140°-150°	374.4	10.3
150°-160°	263.2	7.3
160°-170°	154.9	4.3
170°-180°	50.4	1.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.3	0.1
90°-120°	1666.6	46.0
90°-150°	3153.5	87.0
90°-180°	3622.0	99.9
0°-180°	3625.3	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°	1	14	34	32	33	2
95°	35	86	392	148	114	36
105°	122	184	741	1325	1127	130
115°	215	272	620	1280	1483	213
125°	300	355	596	1037	1203	267
135°	352	420	589	871	997	272
145°	402	462	586	728	796	252
155°	457	494	569	644	669	210
165°	498	513	545	578	587	140
175°	519	520	524	531	529	49
180°	520	520	520	520	520	



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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°	1.0	4.0	8.0	10.0	12.0	15.0	20.0	27.0	33.0	34.0	33.0
92.5°	15.0	21.0	29.0	34.0	42.0	53.0	80.0	118.0	152.0	154.0	129.0
95°	35.0	39.0	49.0	58.0	74.0	98.0	144.0	231.0	347.1	392.1	343.1
97.5°	52.0	58.0	69.0	82.0	100.0	127.0	186.0	307.1	494.1	639.1	644.1
100°	77.0	80.0	89.0	105.0	125.0	153.0	206.0	328.1	544.1	790.2	934.2
102.5°	100.0	102.0	111.0	127.0	148.0	176.0	224.0	329.1	525.1	795.2	1042.2
105°	122.0	126.0	133.0	148.0	170.0	198.0	245.0	334.1	499.1	741.1	1007.2
107.5°	146.0	149.0	156.0	170.0	192.0	220.0	266.1	345.1	485.1	691.1	933.2
110°	170.0	174.0	180.0	193.0	214.0	243.0	287.1	359.1	481.1	657.1	864.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.0	196.0	203.0	215.0	235.0	265.1	307.1	374.1	482.1	635.1	816.2
115°	215.0	220.0	226.0	238.0	258.1	285.1	328.1	389.1	486.1	620.1	778.2
117.5°	239.0	243.0	249.0	260.1	279.1	307.1	347.1	405.1	492.1	612.1	752.1
120°	261.1	265.1	271.1	280.1	300.1	328.1	367.1	421.1	498.1	605.1	732.1
122.5°	282.1	285.1	291.1	301.1	321.1	350.1	386.1	435.1	505.1	601.1	715.1
125°	300.1	303.1	309.1	321.1	341.1	369.1	405.1	450.1	512.1	596.1	699.1
127.5°	315.1	319.1	327.1	340.1	359.1	388.1	423.1	464.1	519.1	593.1	684.1
130°	328.1	332.1	342.1	356.1	376.1	404.1	439.1	477.1	527.1	591.1	669.1
132.5°	340.1	345.1	356.1	371.1	392.1	420.1	453.1	490.1	535.1	590.1	657.1
135°	352.1	356.1	368.1	383.1	406.1	434.1	466.1	501.1	541.1	589.1	646.1
137.5°	363.1	368.1	380.1	396.1	419.1	445.1	477.1	510.1	547.1	589.1	638.1
140°	376.1	380.1	392.1	408.1	430.1	456.1	486.1	517.1	551.1	588.1	631.1
142.5°	389.1	392.1	403.1	419.1	440.1	464.1	493.1	523.1	554.1	588.1	624.1
145°	402.1	406.1	416.1	431.1	451.1	473.1	500.1	528.1	556.1	586.1	618.1
147.5°	416.1	419.1	429.1	443.1	460.1	480.1	506.1	531.1	557.1	583.1	612.1
150°	430.1	433.1	441.1	454.1	469.1	487.1	510.1	533.1	556.1	580.1	604.1
152.5°	444.1	445.1	453.1	464.1	478.1	494.1	514.1	534.1	554.1	575.1	597.1
155°	457.1	458.1	464.1	475.1	486.1	501.1	518.1	535.1	552.1	569.1	588.1
157.5°	468.1	469.1	474.1	484.1	493.1	506.1	521.1	535.1	548.1	563.1	580.1
160°	479.1	480.1	484.1	492.1	500.1	511.1	523.1	535.1	545.1	557.1	571.1
162.5°	490.1	489.1	493.1	499.1	506.1	514.1	524.1	534.1	542.1	552.1	563.1
165°	498.1	497.1	499.1	505.1	510.1	516.1	525.1	532.1	538.1	545.1	554.1
167.5°	505.1	504.1	506.1	510.1	514.1	518.1	525.1	531.1	534.1	539.1	545.1
170°	512.1	510.1	511.1	514.1	516.1	519.1	524.1	529.1	531.1	534.1	538.1
172.5°	516.1	515.1	514.1	517.1	518.1	520.1	523.1	526.1	527.1	528.1	531.1
175°	519.1	518.1	517.1	519.1	519.1	520.1	522.1	524.1	523.1	524.1	525.1
177.5°	521.1	519.1	518.1	520.1	520.1	520.1	521.1	523.1	521.1	520.1	521.1
180°	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1



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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°	32.0	30.0	32.0	33.0	33.0	33.0	33.0	33.0
92.5°	101.0	86.0	75.0	67.0	66.0	62.0	63.0	61.0
95°	262.1	201.0	159.0	137.0	124.0	116.0	113.0	114.0
97.5°	536.1	428.1	327.1	267.1	228.0	208.0	197.0	191.0
100°	913.2	789.2	652.1	531.1	448.1	405.1	376.1	358.1
102.5°	1160.2	1156.2	1065.2	935.2	843.2	762.2	724.1	698.1
105°	1215.2	1328.3	1341.3	1308.3	1246.2	1184.2	1141.2	1127.2
107.5°	1156.2	1324.3	1422.3	1462.3	1461.3	1452.3	1439.3	1416.3
110°	1075.2	1254.2	1382.3	1464.3	1507.3	1526.3	1535.3	1534.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1001.2	1171.2	1310.3	1407.3	1471.3	1506.3	1525.3	1532.3
115°	943.2	1097.2	1228.2	1331.3	1402.3	1448.3	1474.3	1483.3
117.5°	895.2	1033.2	1155.2	1253.2	1326.3	1375.3	1402.3	1409.3
120°	861.2	985.2	1091.2	1182.2	1252.2	1299.3	1328.3	1338.3
122.5°	834.2	945.2	1044.2	1124.2	1185.2	1231.2	1256.3	1264.3
125°	808.2	911.2	999.2	1074.2	1132.2	1170.2	1195.2	1203.2
127.5°	782.2	877.2	961.2	1031.2	1082.2	1118.2	1140.2	1146.2
130°	757.2	843.2	922.2	988.2	1037.2	1071.2	1091.2	1099.2
132.5°	733.1	811.2	882.2	943.2	991.2	1025.2	1043.2	1050.2
135°	711.1	777.2	843.2	899.2	942.2	975.2	993.2	997.2
137.5°	693.1	750.1	804.2	854.2	895.2	924.2	940.2	946.2
140°	676.1	724.1	770.2	814.2	846.2	872.2	887.2	893.2
142.5°	662.1	701.1	739.1	774.2	804.2	827.2	840.2	840.2
145°	649.1	682.1	713.1	742.1	766.2	783.2	793.2	796.2
147.5°	639.1	666.1	691.1	713.1	734.1	748.1	755.2	757.2
150°	628.1	650.1	671.1	689.1	704.1	716.1	722.1	723.1
152.5°	617.1	637.1	654.1	669.1	680.1	690.1	694.1	694.1
155°	607.1	623.1	638.1	649.1	660.1	667.1	671.1	669.1
157.5°	595.1	609.1	622.1	631.1	639.1	645.1	647.1	647.1
160°	584.1	595.1	606.1	613.1	620.1	625.1	626.1	626.1
162.5°	573.1	582.1	591.1	596.1	603.1	606.1	607.1	606.1
165°	562.1	569.1	576.1	580.1	584.1	588.1	588.1	587.1
167.5°	551.1	557.1	562.1	566.1	568.1	570.1	570.1	569.1
170°	543.1	546.1	550.1	552.1	553.1	556.1	555.1	553.1
172.5°	534.1	536.1	539.1	540.1	541.1	542.1	541.1	540.1
175°	528.1	529.1	530.1	531.1	531.1	532.1	531.1	529.1
177.5°	523.1	523.1	524.1	524.1	524.1	524.1	523.1	521.1
180°	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1

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