

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: P334617

Luminaire Tested: **S123IP-S805U830-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334617
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-S805U830-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 805 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

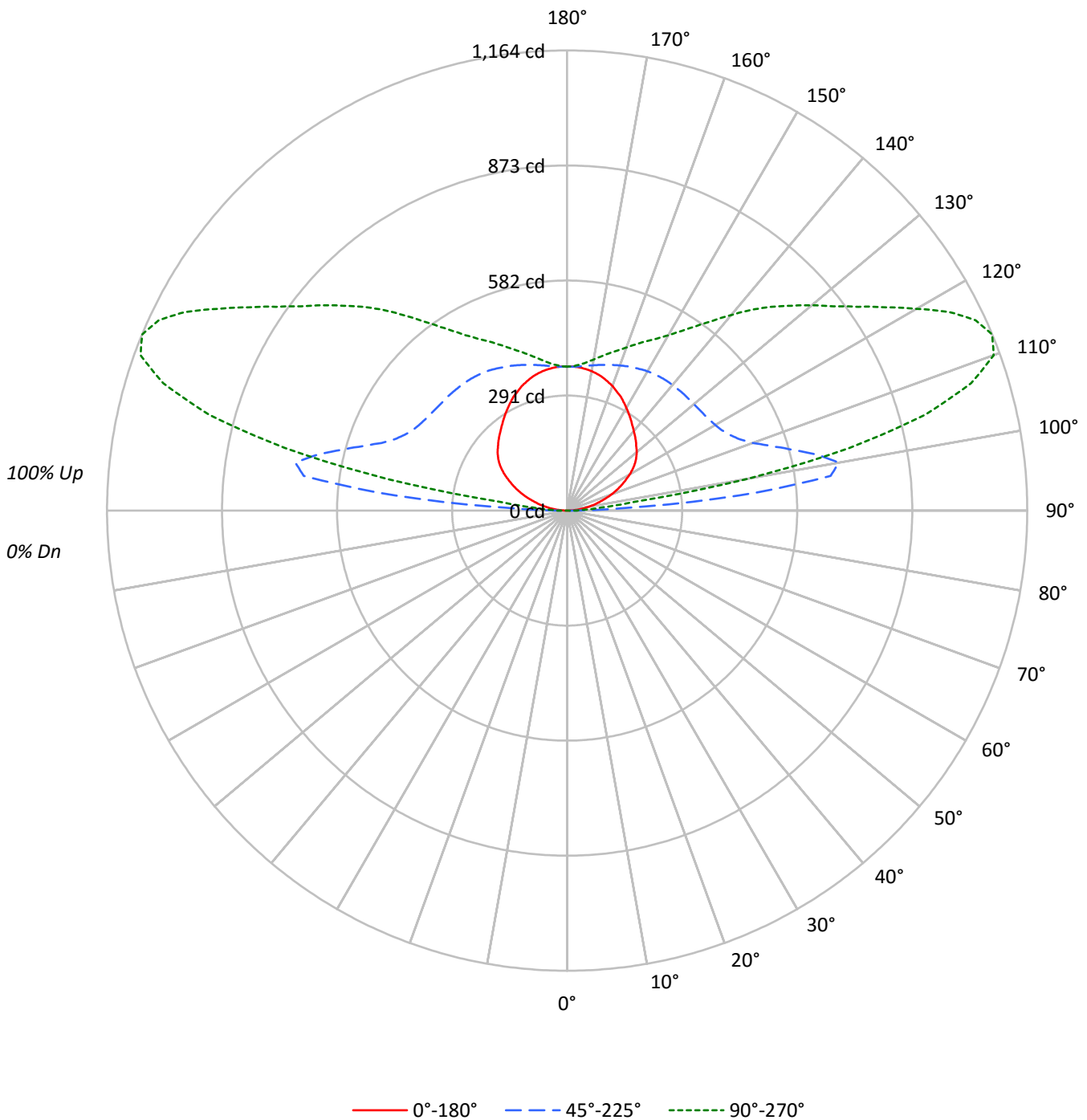
Lumens per Lamp: N/A
Luminaire Lumens: 2740.3 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 26.4
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°	2.0	0.1
90°-100°	197.5	7.2
100°-110°	578.3	21.1
110°-120°	564.8	20.6
120°-130°	449.8	16.4
130°-140°	354.9	13.0
140°-150°	264.7	9.7
150°-160°	184.6	6.7
160°-170°	108.4	4.0
170°-180°	35.3	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.0	0.1
90°-120°	1340.6	48.9
90°-150°	2410.0	87.9
90°-180°	2738.0	99.9
0°-180°	2740.3	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	9	18	21	21	2
95°	25	81	437	127	86	27
105°	86	126	592	1036	937	91
115°	151	188	453	994	1140	150
125°	210	248	423	766	899	187
135°	246	294	417	631	729	190
145°	281	322	412	518	570	176
155°	319	344	399	453	472	147
165°	349	358	382	405	412	98
175°	363	364	366	371	371	35
180°	364	364	364	364	364	



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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°	1.5	2.9	4.4	6.6	8.1	9.6	11.8	14.0	16.2	18.4	17.7
92.5°	11.1	16.2	23.6	30.2	37.6	50.8	74.4	113.5	151.8	137.1	102.4
95°	25.1	27.3	35.4	47.9	67.1	95.8	158.4	268.2	389.1	437.0	354.4
97.5°	39.8	40.5	47.2	58.2	77.4	109.1	171.0	298.4	501.8	672.1	694.9
100°	54.5	55.3	60.4	70.7	88.4	117.2	168.7	277.8	471.6	697.8	843.0
102.5°	70.0	71.5	75.9	85.5	101.0	126.7	171.7	260.1	427.4	649.9	850.4
105°	85.5	87.7	92.1	101.0	115.0	137.8	177.6	253.5	392.8	592.5	804.0
107.5°	101.7	103.9	108.3	117.2	130.4	151.8	187.2	252.0	367.7	541.6	737.6
110°	119.4	121.6	125.3	133.4	145.9	166.5	199.7	255.7	354.4	499.6	675.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	135.6	137.8	141.5	149.6	162.1	182.0	212.2	263.1	347.1	471.6	621.9
115°	151.1	154.0	158.4	165.8	178.3	198.2	226.2	271.2	346.3	453.2	580.7
117.5°	166.5	170.2	173.9	180.5	194.5	213.0	241.0	281.5	347.1	440.7	553.4
120°	182.8	185.0	188.6	196.0	210.0	228.4	255.0	293.3	350.0	432.6	532.8
122.5°	196.8	199.0	202.6	210.8	224.0	243.9	269.7	304.3	355.2	427.4	515.8
125°	210.0	211.5	215.9	224.0	238.0	257.9	283.7	316.1	360.3	423.0	501.8
127.5°	220.3	222.5	227.7	235.8	251.3	271.2	296.2	325.7	366.2	420.8	488.6
130°	229.9	232.1	238.8	247.6	263.1	283.0	307.3	335.3	372.1	418.6	478.2
132.5°	237.3	240.2	247.6	258.7	274.1	293.3	316.9	344.1	376.6	417.8	468.7
135°	246.1	249.1	257.2	268.2	283.7	303.6	326.4	351.5	381.0	417.1	460.6
137.5°	254.2	257.2	265.3	277.1	292.5	311.0	333.1	357.4	383.9	415.6	453.2
140°	262.3	266.0	273.4	285.2	299.9	318.3	339.7	361.8	386.9	414.9	446.6
142.5°	271.2	274.1	282.2	292.5	307.3	324.2	344.9	366.2	389.1	413.4	440.7
145°	280.8	283.0	289.6	300.7	313.2	330.1	349.3	369.2	389.8	411.9	435.5
147.5°	290.3	291.8	298.4	308.0	320.6	335.3	353.0	371.4	389.8	409.7	430.3
150°	299.9	300.7	306.5	316.1	326.4	339.7	356.7	372.1	389.8	406.8	425.2
152.5°	309.5	309.5	315.4	323.5	332.3	344.9	358.9	373.6	387.6	403.1	419.3
155°	319.1	319.1	323.5	330.9	339.0	349.3	361.8	373.6	386.1	398.7	413.4
157.5°	326.4	327.2	330.9	337.5	344.9	353.0	363.3	374.3	383.9	395.0	406.8
160°	335.3	335.3	338.2	344.1	349.3	356.7	365.5	374.3	382.5	390.6	400.1
162.5°	341.9	341.9	344.1	348.6	353.0	358.9	366.2	373.6	379.5	386.1	393.5
165°	348.6	347.8	349.3	353.0	355.9	361.1	367.0	372.1	376.6	381.7	387.6
167.5°	353.7	353.0	353.7	356.7	358.9	362.6	367.0	371.4	373.6	377.3	381.7
170°	358.1	356.7	357.4	359.6	361.1	362.6	366.2	369.2	370.7	372.9	376.6
172.5°	361.1	360.3	360.3	361.8	362.6	363.3	366.2	368.4	368.4	369.2	371.4
175°	363.3	362.6	361.8	363.3	363.3	364.0	365.5	367.0	366.2	366.2	367.7
177.5°	364.8	364.0	363.3	364.0	364.0	364.0	364.8	366.2	364.8	364.0	364.8
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



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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°	18.4	19.2	19.9	21.4	20.6	21.4	22.1	21.4
92.5°	73.0	56.7	49.4	44.2	42.7	39.8	40.5	39.1
95°	265.3	179.8	140.7	114.2	100.2	93.6	88.4	85.5
97.5°	609.4	459.8	362.6	278.5	229.2	201.2	183.5	175.4
100°	868.8	809.1	722.9	618.3	543.8	490.0	461.3	462.0
102.5°	955.0	967.5	926.3	869.5	815.7	776.0	753.1	731.7
105°	958.0	1031.7	1045.7	1026.5	992.6	964.6	941.0	937.3
107.5°	913.8	1029.4	1086.9	1106.8	1102.4	1089.1	1079.6	1071.5
110°	844.5	980.1	1072.9	1124.5	1145.1	1151.0	1149.6	1148.1



TEST NUMBER: P334617

CATALOG NUMBER: S123IP-S805U830-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	776.0	915.2	1022.1	1092.1	1134.1	1155.5	1162.8	1163.6
115°	717.0	845.2	953.5	1033.9	1089.1	1121.6	1136.3	1140.0
117.5°	671.3	784.8	884.3	967.5	1025.0	1061.1	1083.2	1088.4
120°	636.7	736.2	824.6	899.0	957.2	998.5	1016.2	1020.6
122.5°	609.4	697.1	777.4	845.2	895.3	931.4	951.3	957.2
125°	585.8	666.2	736.9	795.9	843.0	875.4	893.9	899.0
127.5°	564.5	637.4	702.3	756.8	799.5	827.5	844.5	848.9
130°	544.6	610.9	670.6	720.7	759.7	786.3	801.7	807.6
132.5°	526.1	585.8	640.4	687.5	723.6	750.2	763.4	767.1
135°	509.9	562.3	610.2	652.2	688.3	710.4	723.6	728.8
137.5°	494.5	538.7	581.4	619.0	649.9	672.8	683.8	688.3
140°	481.2	518.8	554.1	585.8	613.8	634.5	646.3	645.5
142.5°	468.7	499.6	529.1	555.6	578.5	596.2	606.5	605.7
145°	459.1	483.4	507.0	528.4	546.8	562.3	568.1	569.6
147.5°	451.0	470.9	490.8	506.2	521.0	532.0	537.9	538.7
150°	442.1	459.1	474.6	488.6	499.6	507.7	512.1	512.1
152.5°	434.0	448.0	461.3	472.4	480.5	487.8	490.0	490.0
155°	425.9	437.7	448.8	457.6	464.2	470.1	471.6	472.4
157.5°	417.1	427.4	436.2	443.6	449.5	453.9	455.4	455.4
160°	409.7	417.8	425.2	430.3	435.5	439.9	439.9	439.2
162.5°	400.9	407.5	414.1	418.6	421.5	425.2	425.2	424.5
165°	393.5	397.9	403.1	406.8	409.7	412.7	411.9	411.9
167.5°	386.9	390.6	393.5	396.5	397.9	400.1	399.4	399.4
170°	380.2	382.5	385.4	386.9	387.6	389.1	388.3	388.3
172.5°	374.3	375.8	378.0	378.8	378.8	380.2	378.8	378.0
175°	369.2	369.9	371.4	371.4	371.4	372.1	371.4	370.7
177.5°	365.5	366.2	367.0	367.0	366.2	367.0	365.5	365.5
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0

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