

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: P334627

Luminaire Tested: **S123IP-S805U840-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334627
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-S805U840-4F0-1E-UDD-4
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 805 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

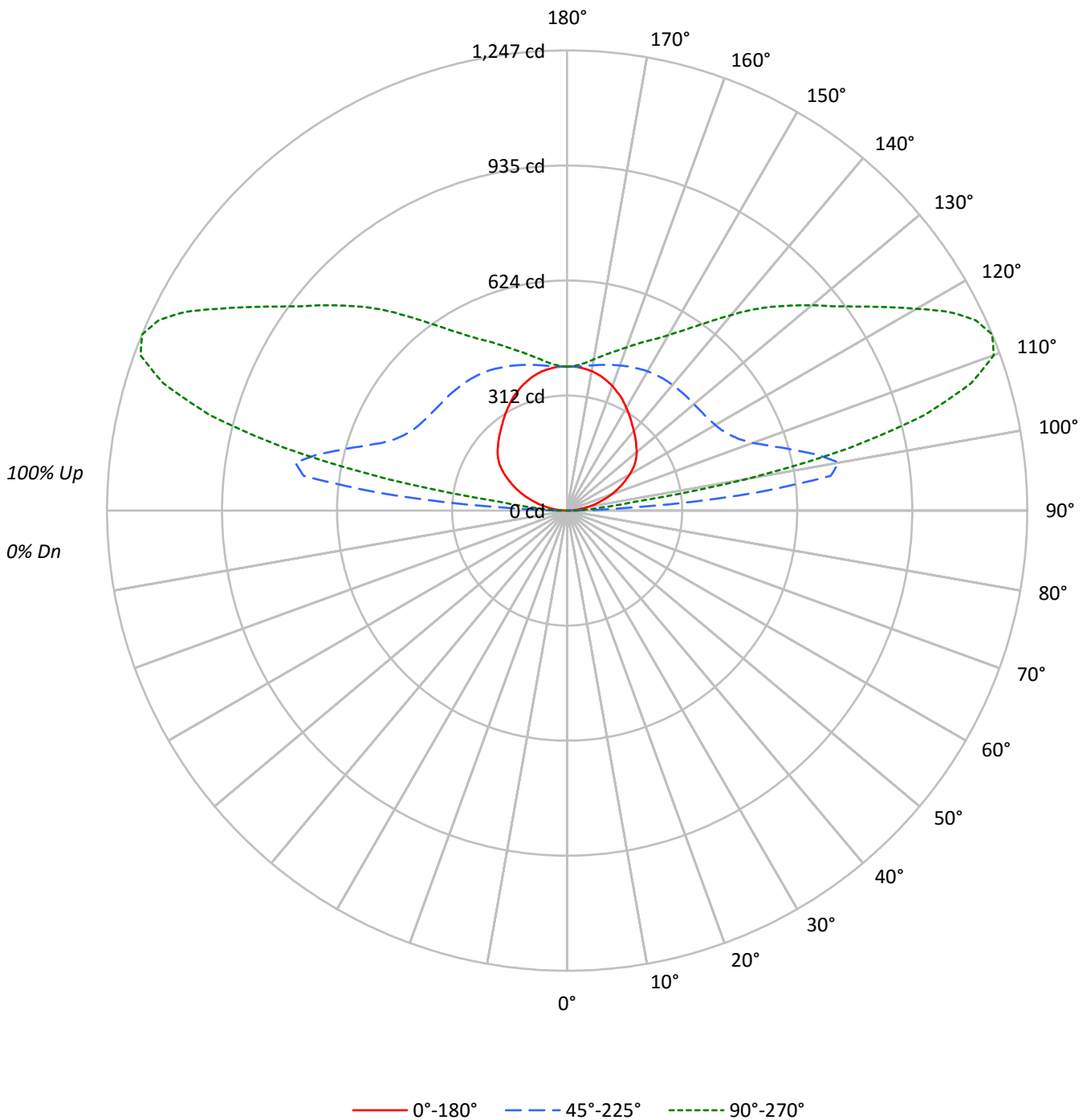
Lumens per Lamp: N/A
Luminaire Lumens: 2936.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 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°	2.2	0.1
90°-100°	211.6	7.2
100°-110°	619.6	21.1
110°-120°	605.1	20.6
120°-130°	481.9	16.4
130°-140°	380.2	12.9
140°-150°	283.6	9.7
150°-160°	197.8	6.7
160°-170°	116.2	4.0
170°-180°	37.8	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°	1436.4	48.9
90°-150°	2582.1	87.9
90°-180°	2934.0	99.9
0°-180°	2936.0	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°	2	10	20	22	23	2
95°	27	87	468	137	92	28
105°	92	135	635	1110	1004	97
115°	162	202	486	1065	1221	160
125°	225	266	453	821	963	200
135°	264	315	447	676	781	204
145°	301	345	441	555	610	189
155°	342	369	427	486	506	157
165°	373	384	409	434	441	105
175°	389	390	392	398	397	37
180°	390	390	390	390	390	



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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	3.2	4.7	7.1	8.7	10.3	12.6	15.0	17.4	19.7	18.9
92.5°	11.8	17.4	25.3	32.4	40.3	54.5	79.7	121.6	162.6	146.9	109.7
95°	26.8	29.2	37.9	51.3	71.8	102.6	169.7	287.4	416.9	468.2	379.8
97.5°	42.6	43.4	50.5	62.4	82.9	116.9	183.2	319.8	537.7	720.1	744.5
100°	58.4	59.2	64.7	75.8	94.7	125.5	180.8	297.7	505.3	747.7	903.2
102.5°	75.0	76.6	81.3	91.6	108.2	135.8	184.0	278.7	457.9	696.4	911.1
105°	91.6	94.0	98.7	108.2	123.2	147.6	190.3	271.6	420.8	634.8	861.4
107.5°	109.0	111.3	116.1	125.5	139.7	162.6	200.5	270.0	394.0	580.3	790.3
110°	127.9	130.3	134.2	142.9	156.3	178.4	214.0	274.0	379.8	535.3	724.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	145.3	147.6	151.6	160.3	173.7	195.0	227.4	281.9	371.9	505.3	666.4
115°	161.9	165.0	169.7	177.6	191.1	212.4	242.4	290.5	371.1	485.6	622.2
117.5°	178.4	182.4	186.3	193.4	208.4	228.2	258.2	301.6	371.9	472.1	592.9
120°	195.8	198.2	202.1	210.0	225.0	244.8	273.2	314.2	375.0	463.5	570.8
122.5°	210.8	213.2	217.1	225.8	240.0	261.3	289.0	326.1	380.6	457.9	552.7
125°	225.0	226.6	231.3	240.0	255.0	276.3	304.0	338.7	386.1	453.2	537.7
127.5°	236.1	238.4	244.0	252.7	269.2	290.5	317.4	349.0	392.4	450.8	523.5
130°	246.3	248.7	255.8	265.3	281.9	303.2	329.2	359.2	398.7	448.5	512.4
132.5°	254.2	257.4	265.3	277.1	293.7	314.2	339.5	368.7	403.5	447.7	502.1
135°	263.7	266.9	275.5	287.4	304.0	325.3	349.8	376.6	408.2	446.9	493.5
137.5°	272.4	275.5	284.2	296.9	313.4	333.2	356.9	382.9	411.3	445.3	485.6
140°	281.1	285.0	292.9	305.5	321.3	341.1	364.0	387.7	414.5	444.5	478.5
142.5°	290.5	293.7	302.4	313.4	329.2	347.4	369.5	392.4	416.9	442.9	472.1
145°	300.8	303.2	310.3	322.1	335.6	353.7	374.2	395.6	417.7	441.3	466.6
147.5°	311.1	312.7	319.8	330.0	343.4	359.2	378.2	397.9	417.7	439.0	461.1
150°	321.3	322.1	328.4	338.7	349.8	364.0	382.1	398.7	417.7	435.8	455.6
152.5°	331.6	331.6	337.9	346.6	356.1	369.5	384.5	400.3	415.3	431.9	449.2
155°	341.9	341.9	346.6	354.5	363.2	374.2	387.7	400.3	413.7	427.1	442.9
157.5°	349.8	350.6	354.5	361.6	369.5	378.2	389.2	401.1	411.3	423.2	435.8
160°	359.2	359.2	362.4	368.7	374.2	382.1	391.6	401.1	409.8	418.5	428.7
162.5°	366.3	366.3	368.7	373.4	378.2	384.5	392.4	400.3	406.6	413.7	421.6
165°	373.4	372.7	374.2	378.2	381.3	386.9	393.2	398.7	403.5	409.0	415.3
167.5°	379.0	378.2	379.0	382.1	384.5	388.4	393.2	397.9	400.3	404.2	409.0
170°	383.7	382.1	382.9	385.3	386.9	388.4	392.4	395.6	397.1	399.5	403.5
172.5°	386.9	386.1	386.1	387.7	388.4	389.2	392.4	394.8	394.8	395.6	397.9
175°	389.2	388.4	387.7	389.2	389.2	390.0	391.6	393.2	392.4	392.4	394.0
177.5°	390.8	390.0	389.2	390.0	390.0	390.0	390.8	392.4	390.8	390.0	390.8
180°	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0



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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°	19.7	20.5	21.3	22.9	22.1	22.9	23.7	22.9
92.5°	78.2	60.8	52.9	47.4	45.8	42.6	43.4	41.8
95°	284.2	192.6	150.8	122.4	107.4	100.3	94.7	91.6
97.5°	652.9	492.7	388.4	298.4	245.5	215.5	196.6	187.9
100°	930.9	866.9	774.5	662.4	582.7	525.0	494.2	495.0
102.5°	1023.2	1036.7	992.4	931.6	874.0	831.4	806.9	784.0
105°	1026.4	1105.3	1120.3	1099.8	1063.5	1033.5	1008.2	1004.3
107.5°	979.0	1103.0	1164.6	1185.9	1181.1	1166.9	1156.7	1148.0
110°	904.8	1050.1	1149.6	1204.8	1226.9	1233.2	1231.7	1230.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	831.4	980.6	1095.1	1170.1	1215.1	1238.0	1245.9	1246.7
115°	768.2	905.6	1021.7	1107.7	1166.9	1201.7	1217.5	1221.4
117.5°	719.3	840.9	947.4	1036.7	1098.2	1136.9	1160.6	1166.1
120°	682.2	788.7	883.5	963.2	1025.6	1069.8	1088.8	1093.5
122.5°	652.9	746.9	833.0	905.6	959.3	998.0	1019.3	1025.6
125°	627.7	713.7	789.5	852.7	903.2	938.0	957.7	963.2
127.5°	604.8	682.9	752.4	810.8	856.6	886.6	904.8	909.5
130°	583.5	654.5	718.5	772.2	814.0	842.4	859.0	865.3
132.5°	563.7	627.7	686.1	736.6	775.3	803.7	818.0	821.9
135°	546.4	602.4	653.7	698.7	737.4	761.1	775.3	780.8
137.5°	529.8	577.1	622.9	663.2	696.4	720.8	732.7	737.4
140°	515.6	555.8	593.7	627.7	657.7	679.8	692.4	691.6
142.5°	502.1	535.3	566.9	595.3	619.8	638.7	649.8	649.0
145°	491.9	517.9	543.2	566.1	585.8	602.4	608.7	610.3
147.5°	483.2	504.5	525.8	542.4	558.2	570.0	576.4	577.1
150°	473.7	491.9	508.5	523.5	535.3	544.0	548.7	548.7
152.5°	465.0	480.0	494.2	506.1	514.8	522.7	525.0	525.0
155°	456.3	469.0	480.8	490.3	497.4	503.7	505.3	506.1
157.5°	446.9	457.9	467.4	475.3	481.6	486.4	487.9	487.9
160°	439.0	447.7	455.6	461.1	466.6	471.4	471.4	470.6
162.5°	429.5	436.6	443.7	448.5	451.6	455.6	455.6	454.8
165°	421.6	426.3	431.9	435.8	439.0	442.1	441.3	441.3
167.5°	414.5	418.5	421.6	424.8	426.3	428.7	427.9	427.9
170°	407.4	409.8	412.9	414.5	415.3	416.9	416.1	416.1
172.5°	401.1	402.7	405.0	405.8	405.8	407.4	405.8	405.0
175°	395.6	396.3	397.9	397.9	397.9	398.7	397.9	397.1
177.5°	391.6	392.4	393.2	393.2	392.4	393.2	391.6	391.6
180°	390.0	390.0	390.0	390.0	390.0	390.0	390.0	390.0

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