

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: LUMARK

Report Number: P459842

Luminaire Tested: **NAV-SA2A-AMB-U-SL2-HSS**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459842
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA2A-AMB-U-SL2-HSS
Description: NAVION AREA AND ROADWAY LUMINAIRE
(2) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1659 lumens
Efficiency: N/A
Efficacy: 39.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

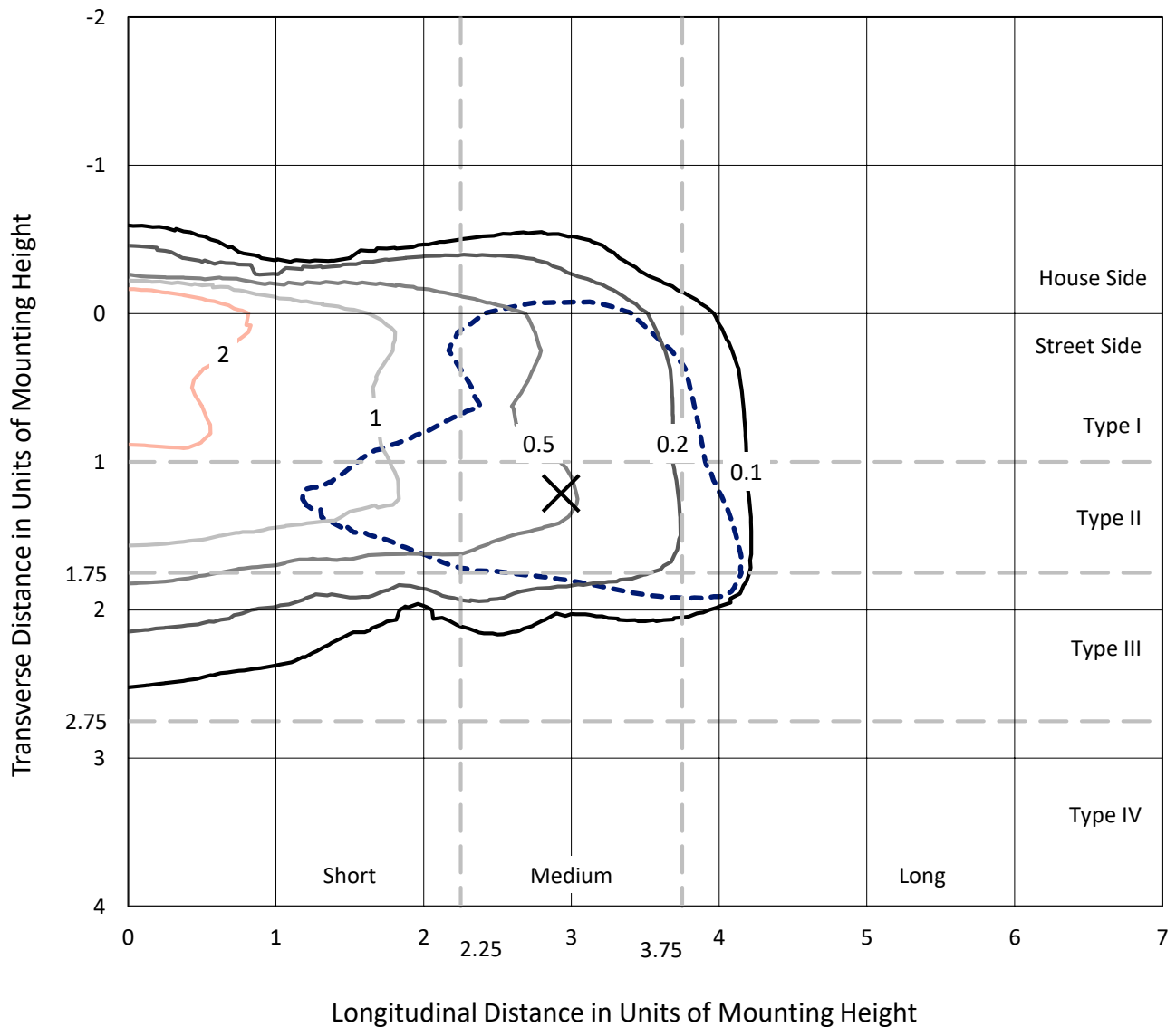
Input Watts (W): 41.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

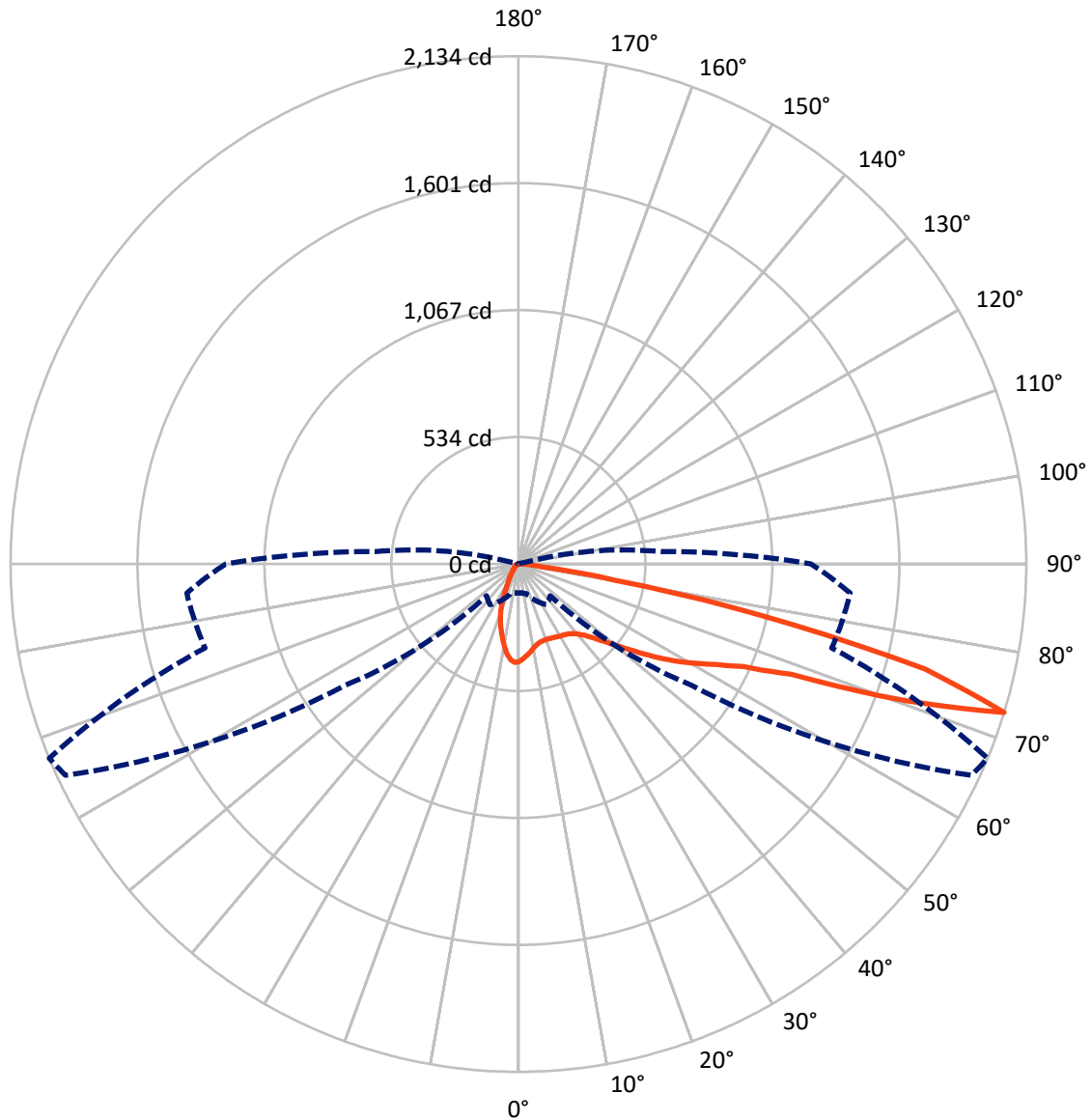
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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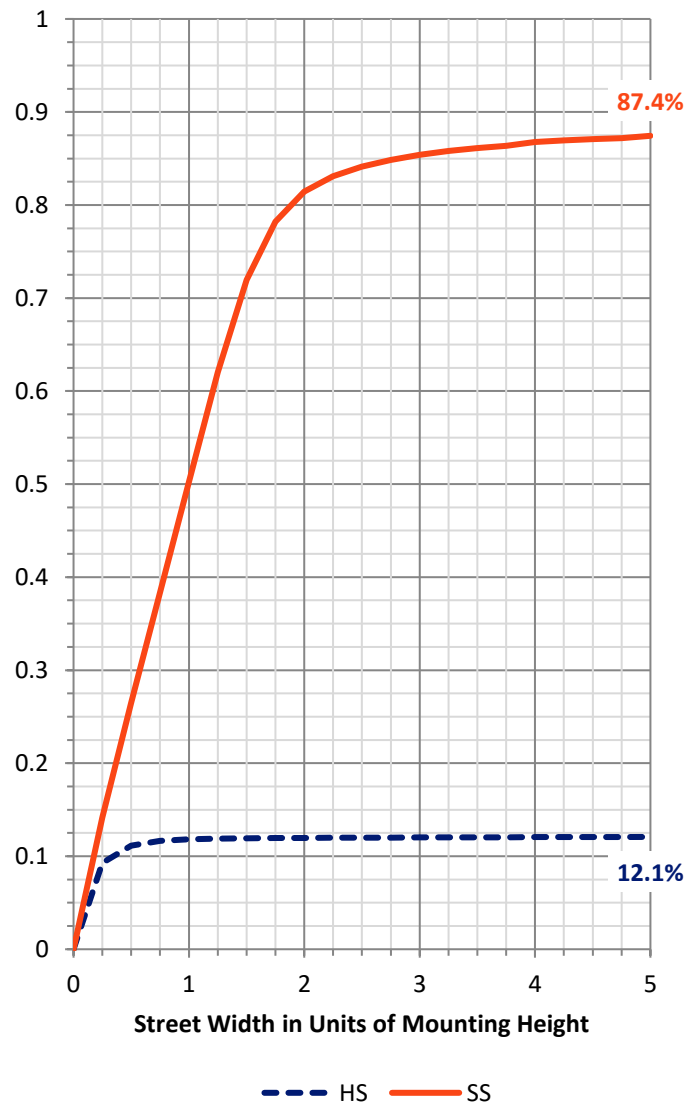
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	202.4	0.0	202.4
	% Fixture	12.2	0.0	12.2
Street Side	Lumens	1456.6	0.0	1456.6
	% Fixture	87.8	0.0	87.8
Total	Lumens	1659.0	0.0	1659.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.8	2.0
10°-20°	71.3	4.3
20°-30°	100.7	6.1
30°-40°	144.3	8.7
40°-50°	217.7	13.1
50°-60°	349.1	21.0
60°-70°	412.7	24.9
70°-80°	301.4	18.2
80°-90°	27.9	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	1659.0	100.0
0°-180°	1659.0	100.0



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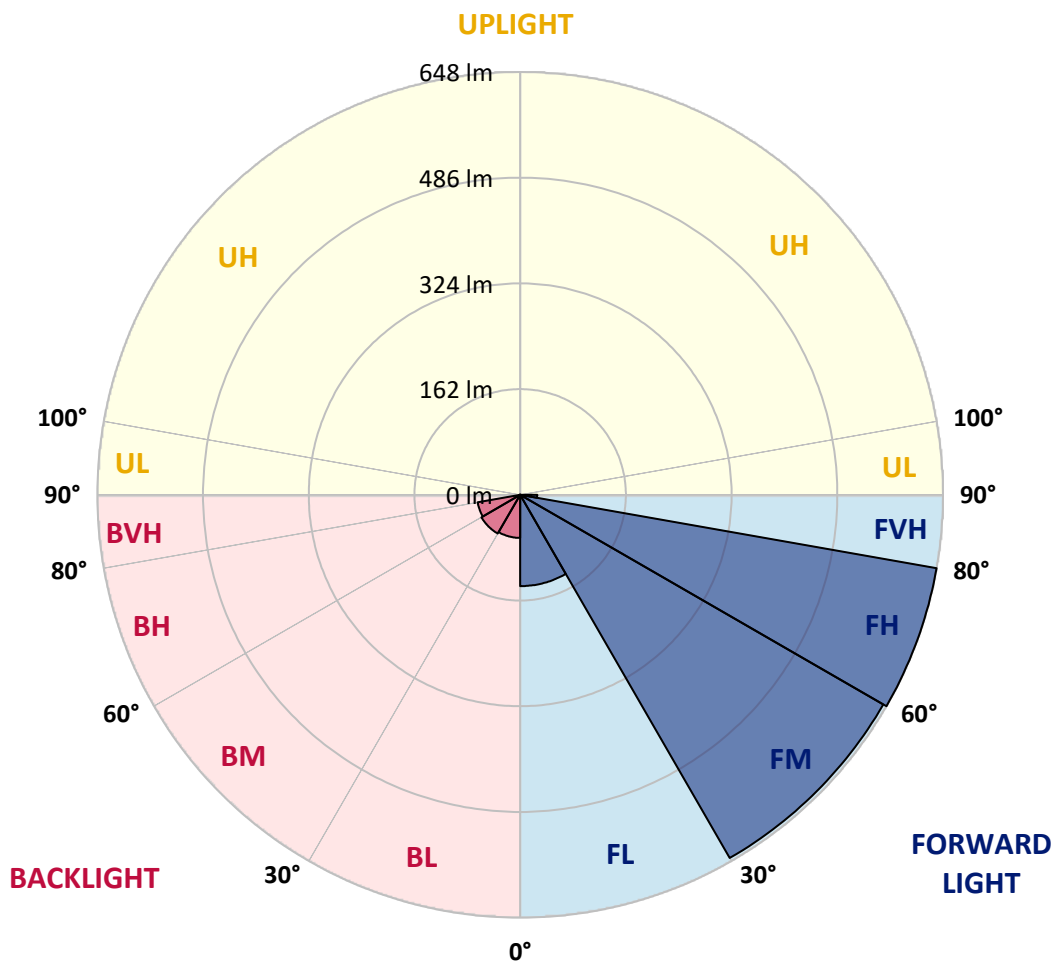
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	139.9	8.4			
FM (30°-60°)	642.6	38.7			
FH (60°-80°)	648.0	39.1			G0/660
FVH (80°-90°)	26.1	1.6			G1/100
BL (0°-30°)	66.0	4.0	B0/110		
BM (30°-60°)	68.5	4.1	B0/220		
BH (60°-80°)	66.1	4.0	B0/110		G0/110
BVH (80°-90°)	1.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67.5°	75°	85°
0°	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0
2.5°	384.4	386.3	386.3	389.0	389.9	390.8	396.3	398.1	397.2	402.7	406.3
5°	358.9	358.9	360.7	365.2	368.9	371.6	378.0	383.5	384.4	390.8	400.9
7.5°	337.9	339.7	339.7	342.4	347.9	352.5	360.7	369.8	371.6	379.9	391.7
10°	321.4	320.5	323.2	326.0	330.5	335.1	344.2	354.3	357.9	367.1	380.8
12.5°	305.9	306.8	307.7	312.3	317.8	322.3	331.5	343.3	347.0	358.9	375.3
15°	296.8	296.8	297.7	300.4	305.9	312.3	323.2	336.0	340.6	354.3	373.5
17.5°	294.0	294.0	293.1	294.0	298.6	305.0	317.8	333.3	337.9	352.5	376.2
20°	294.9	294.9	293.1	292.2	294.9	301.3	315.9	332.4	337.9	355.2	383.5
22.5°	300.4	299.5	297.7	294.9	294.9	301.3	316.9	334.2	339.7	358.9	389.9
25°	314.1	310.5	308.6	303.2	299.5	302.2	317.8	336.9	342.4	361.6	399.0
27.5°	326.9	326.0	326.0	320.5	308.6	305.9	321.4	341.5	346.1	365.2	410.9
30°	348.8	347.0	347.0	340.6	326.0	313.2	325.1	345.2	350.6	368.0	422.8
32.5°	376.2	377.1	375.3	367.1	348.8	326.9	331.5	349.7	354.3	369.8	434.6
35°	406.3	407.3	411.8	402.7	378.9	347.9	341.5	357.9	360.7	373.5	443.8
37.5°	431.0	431.0	442.9	444.7	415.5	373.5	357.9	371.6	370.7	378.0	452.9
40°	458.4	458.4	472.1	483.0	462.0	408.2	378.9	388.1	386.3	388.1	465.7
42.5°	487.6	489.4	504.0	523.2	512.3	452.9	409.1	413.6	410.0	404.5	479.4
45°	515.9	520.5	540.6	566.1	565.2	505.9	448.3	449.3	442.9	431.9	507.7
47.5°	548.8	552.4	580.7	612.7	620.9	566.1	498.6	494.9	486.7	469.3	546.0
50°	604.5	606.3	626.4	663.8	679.4	632.8	555.2	548.8	539.7	517.7	598.1
52.5°	671.1	670.2	679.4	718.6	760.6	710.4	629.1	620.0	605.4	577.1	662.0
55°	700.4	703.1	716.8	764.3	845.6	823.6	712.2	699.5	683.9	647.4	727.8
57.5°	649.2	649.2	676.6	751.5	893.0	973.4	805.4	785.3	766.1	719.5	802.6
60°	519.6	518.7	551.5	641.9	857.4	1104.0	935.0	874.8	845.6	783.5	877.5
62.5°	364.3	357.0	371.6	447.4	702.2	1105.8	1177.0	967.9	928.6	849.2	957.0
65°	261.2	256.6	259.3	280.3	402.7	999.9	1444.6	1109.4	1039.1	918.6	1052.8
67.5°	213.7	208.2	207.3	232.8	231.9	662.0	1524.9	1388.9	1235.5	1020.0	1161.5
70°	170.8	168.0	167.1	203.6	214.6	215.5	1421.7	1986.0	1713.9	1170.6	1306.7
72.5°	121.4	121.4	128.8	168.9	208.2	189.0	889.4	2100.2	2134.0	1363.3	1398.9
75°	73.0	72.1	90.4	134.2	200.9	182.6	274.8	1733.1	1764.2	1276.5	1082.0
77.5°	34.7	34.7	50.2	90.4	178.1	171.7	157.1	1036.4	1043.7	775.2	548.8
80°	13.7	13.7	21.9	55.7	135.1	169.8	146.1	427.3	411.8	213.7	75.8
82.5°	5.5	5.5	9.1	31.0	84.0	139.7	129.7	141.5	105.9	24.7	20.1
85°	0.9	1.8	3.7	18.3	47.5	74.0	105.0	87.7	55.7	14.6	14.6
87.5°	0.0	0.9	1.8	5.5	13.7	31.0	53.0	40.2	25.6	4.6	6.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0	410.0
2.5°	407.3	409.1	412.7	414.6	415.5	411.8	411.8	408.2	407.3	407.3	407.3
5°	402.7	406.3	409.1	402.7	392.6	379.9	365.2	356.1	347.0	348.8	345.2
7.5°	397.2	401.8	398.1	377.1	351.6	327.8	302.2	287.6	270.3	268.5	263.9
10°	389.0	393.6	379.9	343.3	304.1	269.4	231.9	209.1	190.8	176.2	172.6
12.5°	387.2	389.9	357.9	307.7	256.6	207.3	158.9	116.0	90.4	77.6	77.6
15°	388.1	388.1	337.9	272.1	205.5	137.0	76.7	55.7	46.6	45.7	44.7
17.5°	392.6	387.2	317.8	237.4	150.7	71.2	45.7	42.0	40.2	40.2	40.2
20°	400.9	387.2	300.4	200.9	95.0	44.7	39.3	37.4	36.5	35.6	35.6
22.5°	409.1	383.5	278.5	158.9	54.8	37.4	34.7	33.8	32.0	31.0	31.0
25°	418.2	379.9	257.5	114.1	38.4	32.9	30.1	28.3	26.5	25.6	25.6
27.5°	426.4	376.2	232.8	72.1	33.8	29.2	26.5	23.7	21.0	20.1	20.1
30°	431.9	369.8	209.1	45.7	30.1	26.5	22.8	19.2	16.4	15.5	15.5
32.5°	432.8	361.6	179.9	33.8	27.4	22.8	18.3	15.5	13.7	12.8	12.8
35°	430.1	351.6	147.9	30.1	24.7	20.1	15.5	12.8	11.0	11.0	11.0
37.5°	426.4	341.5	115.1	27.4	21.9	17.3	12.8	11.0	10.0	9.1	9.1
40°	425.5	331.5	76.7	25.6	20.1	14.6	11.0	9.1	8.2	7.3	7.3
42.5°	428.3	324.2	53.9	23.7	17.3	12.8	10.0	8.2	6.4	6.4	5.5
45°	442.0	322.3	39.3	21.9	15.5	11.0	8.2	6.4	5.5	4.6	4.6
47.5°	464.8	326.0	32.0	20.1	13.7	9.1	7.3	5.5	4.6	3.7	3.7
50°	497.7	339.7	29.2	18.3	11.0	8.2	5.5	4.6	3.7	3.7	3.7
52.5°	548.8	361.6	27.4	16.4	9.1	6.4	4.6	3.7	2.7	2.7	2.7
55°	603.6	387.2	26.5	14.6	8.2	5.5	3.7	2.7	2.7	1.8	1.8
57.5°	666.6	420.9	24.7	12.8	7.3	5.5	3.7	2.7	1.8	1.8	1.8
60°	746.0	466.6	21.9	11.0	6.4	4.6	2.7	1.8	1.8	1.8	1.8
62.5°	828.2	514.1	19.2	9.1	5.5	3.7	2.7	1.8	1.8	1.8	1.8
65°	928.6	568.9	16.4	7.3	4.6	3.7	2.7	1.8	1.8	0.9	0.9
67.5°	1050.1	624.6	12.8	6.4	4.6	2.7	2.7	1.8	1.8	0.9	0.9
70°	1205.3	695.8	11.0	5.5	3.7	2.7	2.7	1.8	1.8	0.9	0.9
72.5°	1229.1	600.8	9.1	5.5	3.7	2.7	2.7	1.8	1.8	0.9	0.9
75°	840.1	286.7	8.2	4.6	3.7	3.7	2.7	1.8	1.8	0.9	0.9
77.5°	366.2	67.6	7.3	4.6	3.7	3.7	3.7	2.7	1.8	0.9	0.9
80°	42.9	12.8	6.4	4.6	3.7	4.6	3.7	2.7	1.8	0.9	0.9
82.5°	17.3	8.2	6.4	5.5	4.6	3.7	3.7	2.7	1.8	0.9	0.9
85°	12.8	6.4	6.4	6.4	4.6	2.7	2.7	1.8	1.8	0.9	0.9
87.5°	6.4	2.7	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)