

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: P459839

Luminaire Tested: **NAV-SA1A-AMB-U-SL4**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1A-AMB-U-SL4
Description: NAVION AREA AND ROADWAY LUMINAIRE
(1) NARROW BAND AMBER, 500mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1088 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 22.6
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

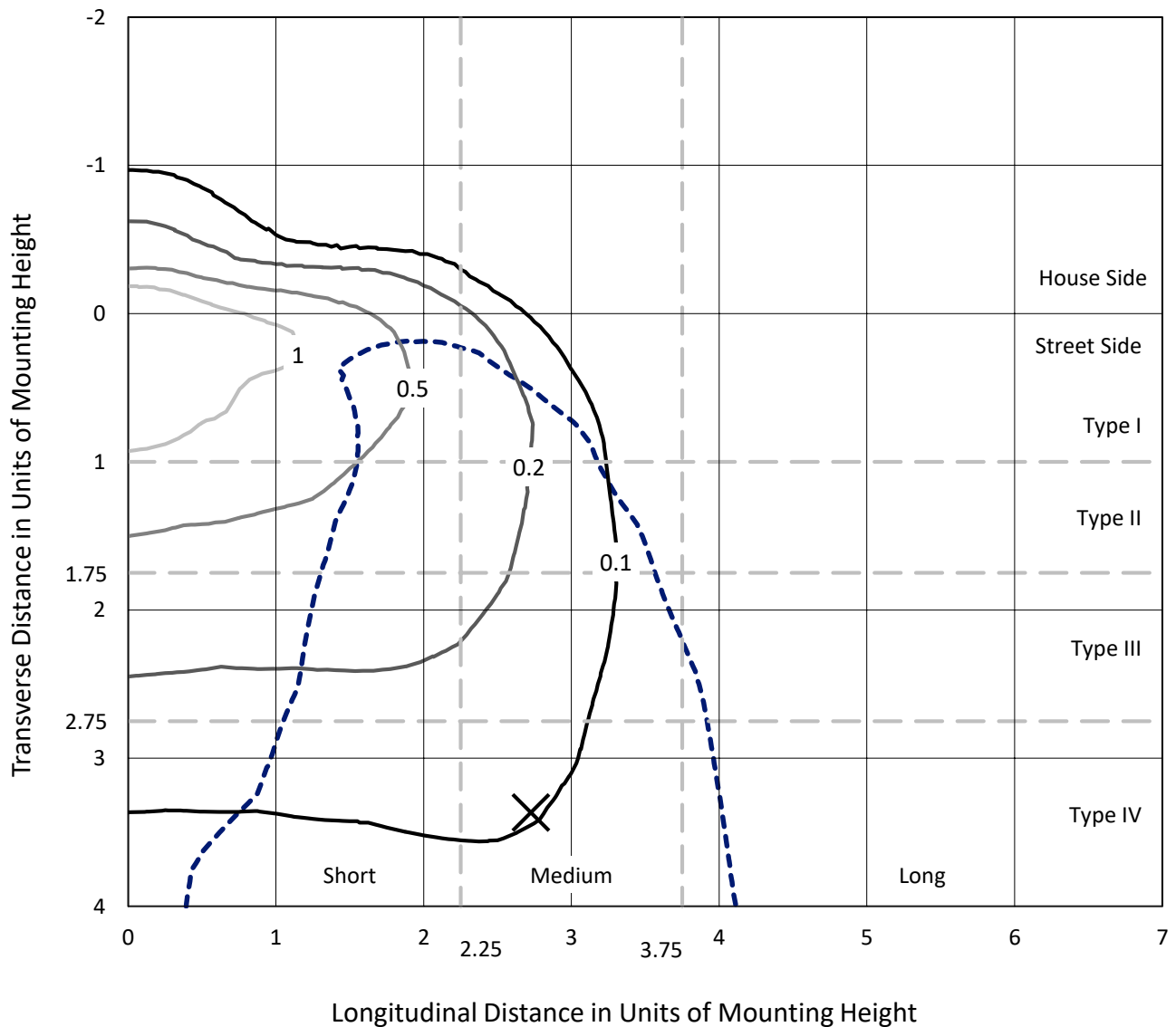


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

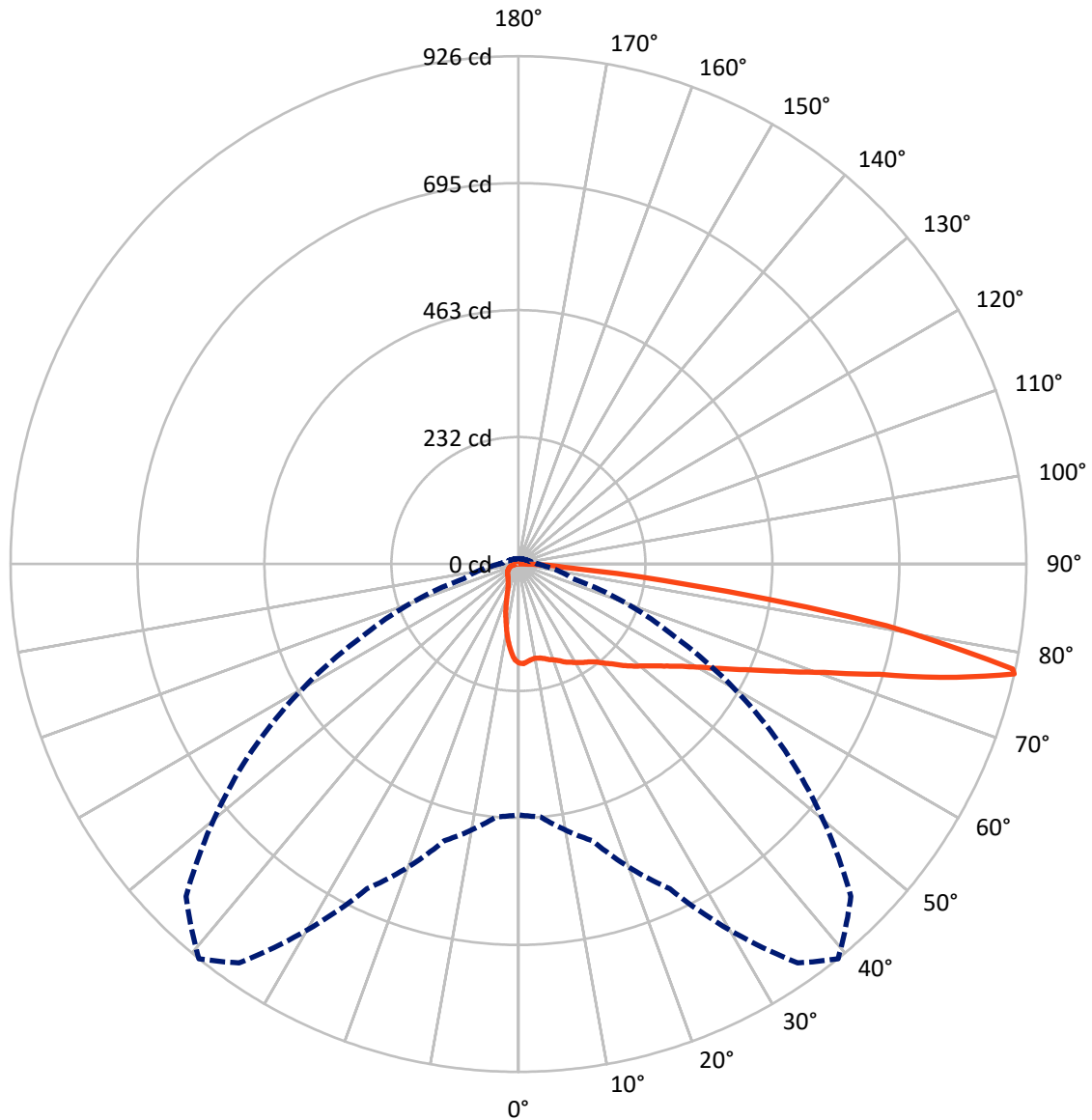


Based on 10 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 77-Deg Vertical



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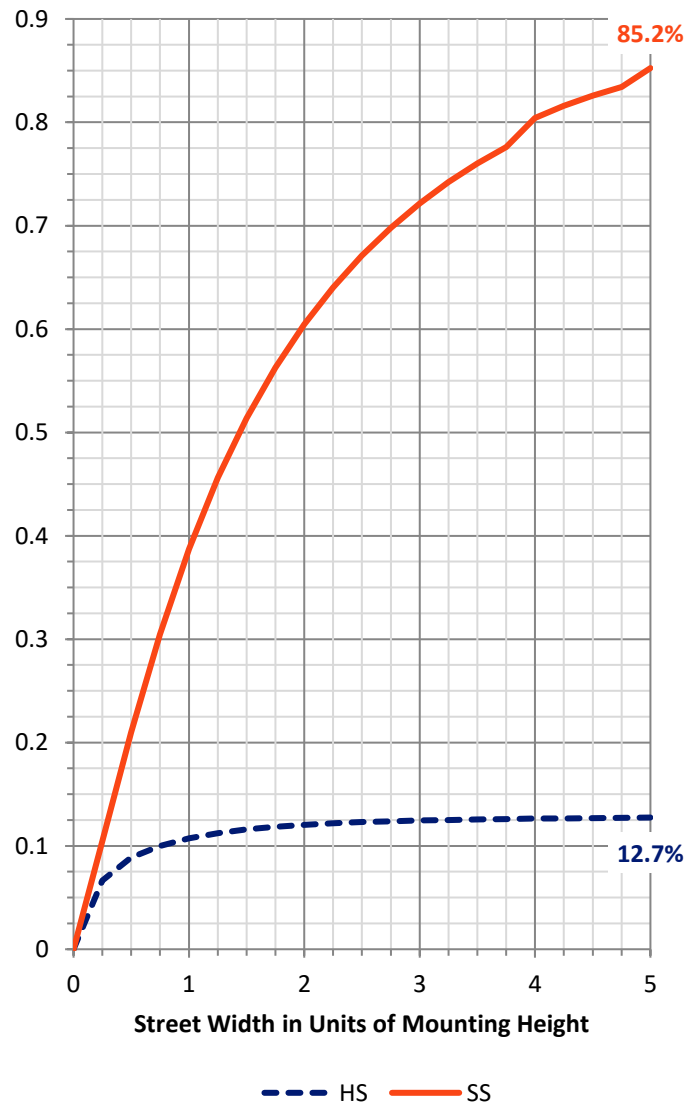
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	140.4	0.0	140.4
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	947.6	0.0	947.6
	% Fixture	87.1	0.0	87.1
Total	Lumens	1088.0	0.0	1088.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.8	1.5
10°-20°	39.6	3.6
20°-30°	60.5	5.6
30°-40°	87.1	8.0
40°-50°	126.4	11.6
50°-60°	181.4	16.7
60°-70°	249.9	23.0
70°-80°	269.6	24.8
80°-90°	57.7	5.3
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°	1088.0	100.0
0°-180°	1088.0	100.0

Coefficient of Utilization



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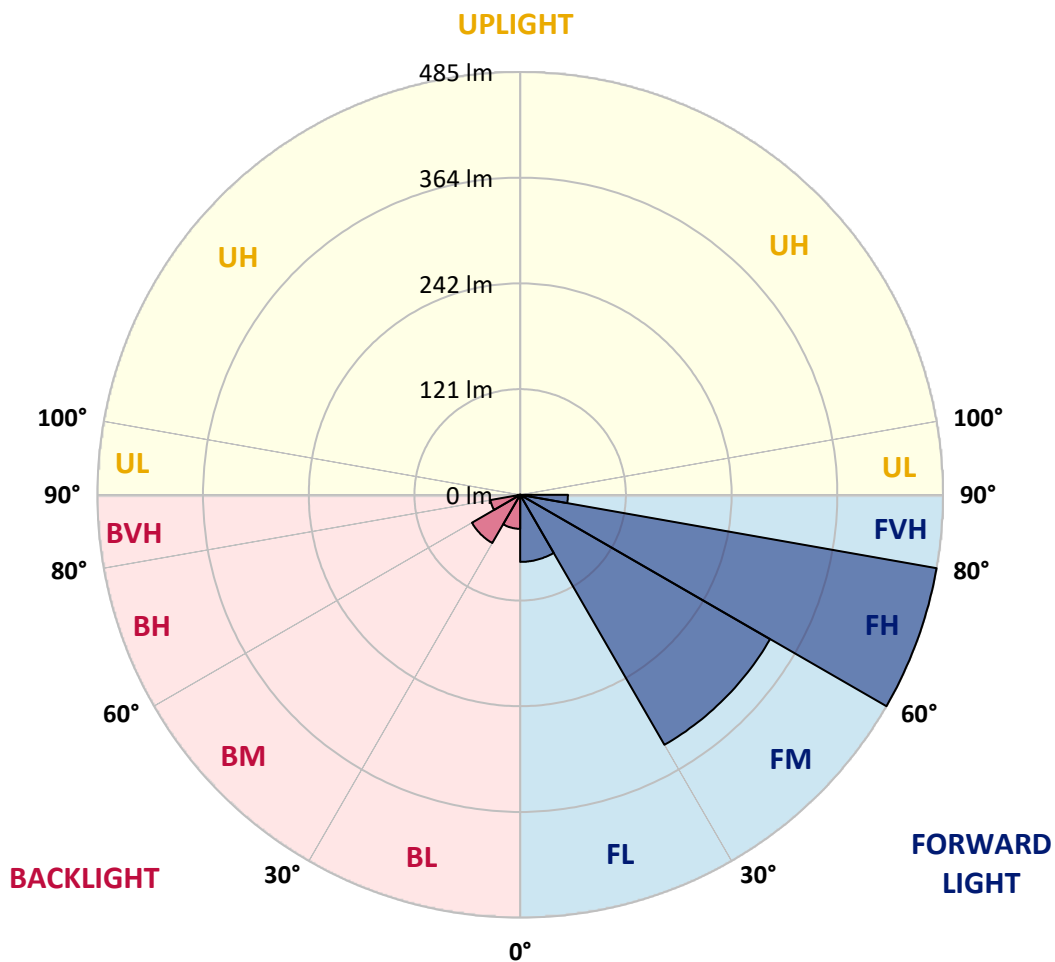
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	76.9	7.1			
FM	(30°-60°)	331.0	30.4			
FH	(60°-80°)	484.9	44.6			G0/660
FVH	(80°-90°)	54.8	5.0			G1/100
BL	(0°-30°)	39.0	3.6	B0/110		
BM	(30°-60°)	63.9	5.9	B0/220		
BH	(60°-80°)	34.6	3.2	B0/110		G0/110
BVH	(80°-90°)	2.9	0.3			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8
2.5°	182.8	181.3	181.3	182.8	181.8	181.8	180.8	181.8	180.8	179.8	180.8
5°	180.3	179.3	178.8	180.3	179.3	179.3	179.3	178.8	178.4	176.4	176.4
7.5°	175.9	174.9	174.9	176.4	176.9	175.4	175.9	176.4	174.9	173.0	173.5
10°	172.0	171.5	172.5	174.4	175.4	174.4	175.4	174.9	173.0	171.0	170.5
12.5°	169.1	168.6	170.1	174.0	175.9	175.9	176.4	174.9	173.5	171.0	169.1
15°	167.1	167.1	170.1	174.9	177.9	178.8	179.3	178.4	174.9	171.5	169.1
17.5°	168.1	167.6	171.5	177.4	180.8	183.2	183.2	181.8	177.4	173.0	170.1
20°	170.5	169.6	174.4	181.8	186.2	186.7	187.6	184.7	180.3	175.4	172.0
22.5°	171.5	174.0	179.3	187.6	190.1	191.6	191.6	188.6	182.3	178.8	174.9
25°	179.3	179.8	186.2	193.5	195.9	197.9	196.9	190.6	185.2	183.2	179.8
27.5°	187.6	188.1	194.5	199.9	201.3	202.8	203.3	194.5	189.1	188.6	184.2
30°	195.0	196.9	203.3	207.2	207.2	208.7	208.2	200.3	194.5	195.5	191.1
32.5°	207.7	207.2	213.5	214.0	211.6	214.0	214.0	205.2	201.3	205.7	198.9
35°	218.4	220.4	223.3	220.9	217.4	219.4	220.4	212.1	210.1	218.9	211.6
37.5°	233.1	231.6	233.1	228.7	223.8	226.2	228.7	221.4	222.3	235.0	225.8
40°	244.3	241.9	242.9	237.0	232.1	237.0	239.4	232.6	237.0	257.5	246.3
42.5°	253.6	251.7	249.7	246.3	242.4	248.7	252.6	247.3	256.5	282.4	271.7
45°	260.0	258.5	255.6	255.1	255.6	263.4	268.3	263.9	276.6	313.7	300.0
47.5°	263.9	262.4	262.9	263.9	267.8	278.0	286.8	282.4	303.0	346.5	326.9
50°	269.2	266.8	267.3	275.6	281.5	292.2	306.4	304.4	331.3	381.1	356.2
52.5°	276.1	272.2	272.2	286.8	296.1	308.3	326.4	328.9	360.6	416.8	386.0
55°	287.3	282.4	279.0	299.1	315.2	328.4	349.4	360.1	392.4	454.0	413.4
57.5°	299.5	294.7	289.3	314.7	336.2	351.8	375.8	391.4	428.5	487.2	432.9
60°	318.6	309.8	304.4	334.7	365.5	381.6	411.0	431.0	466.7	517.5	450.5
62.5°	332.3	325.4	324.0	360.1	401.7	420.2	448.1	469.1	501.8	546.8	465.7
65°	346.5	342.5	343.0	387.5	444.7	465.2	495.5	518.0	547.3	573.7	467.1
67.5°	366.5	362.6	370.9	420.7	494.5	521.4	552.2	571.7	590.3	578.1	440.8
70°	392.9	388.0	403.1	460.8	556.6	591.3	626.4	647.5	611.3	562.9	356.2
72.5°	420.2	416.8	441.7	518.0	643.6	688.0	728.1	716.4	621.6	482.8	232.1
75°	453.5	454.4	494.5	591.8	782.3	824.8	858.6	742.7	524.8	285.4	88.4
77°	457.4	462.8	522.4	653.3	887.9	926.0	857.1	593.2	315.7	102.1	49.8
77.5°	441.3	446.1	516.0	662.1	900.6	921.6	830.2	554.1	253.1	82.1	44.0
80°	328.9	324.0	400.2	552.2	723.7	680.7	497.0	215.0	73.8	42.5	26.9
82.5°	130.0	138.8	187.2	272.2	353.8	310.8	186.2	93.8	44.5	23.0	11.2
85°	60.1	64.5	70.4	72.3	91.4	94.3	69.9	87.0	32.3	10.8	6.8
87.5°	44.0	45.9	51.8	45.9	44.5	42.0	51.3	94.8	16.1	6.4	3.4
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°	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8	180.8
2.5°	179.3	177.9	178.4	177.9	176.9	175.9	174.9	174.0	174.4	174.4	173.0
5°	175.4	173.5	172.5	170.1	167.1	164.2	160.8	158.3	156.4	155.4	156.4
7.5°	171.5	169.1	167.1	161.3	156.4	148.1	142.7	135.4	134.4	133.4	132.4
10°	168.6	166.6	161.7	153.9	143.7	133.9	121.7	113.9	109.0	106.0	107.0
12.5°	166.6	164.2	156.4	144.2	131.0	116.3	102.6	92.4	86.5	82.6	81.6
15°	166.1	161.7	150.5	134.4	116.8	100.2	86.5	74.3	65.0	62.1	61.1
17.5°	166.1	160.3	145.1	124.1	103.6	85.0	69.9	58.6	50.8	47.9	46.9
20°	167.1	159.8	138.8	113.9	90.4	69.9	56.7	47.4	43.0	41.0	41.0
22.5°	168.6	159.3	131.9	102.6	77.7	58.6	46.9	41.5	39.6	38.1	38.1
25°	171.5	158.8	126.1	92.4	66.5	50.3	42.0	38.6	36.6	36.2	36.2
27.5°	175.4	159.3	120.2	82.6	56.2	44.5	38.6	36.6	35.7	35.2	35.2
30°	179.3	160.3	113.9	71.8	48.9	40.1	36.2	34.7	34.2	33.7	33.7
32.5°	183.7	161.3	106.5	63.0	43.5	36.6	34.2	33.2	33.2	32.7	32.3
35°	191.1	163.2	98.2	54.7	39.1	34.2	32.7	31.8	31.8	31.3	31.3
37.5°	201.3	165.7	89.9	48.9	36.2	32.3	30.8	30.8	30.3	30.3	29.8
40°	216.5	172.5	83.1	44.0	33.7	30.8	29.8	29.3	29.3	28.8	28.8
42.5°	233.6	180.8	76.7	40.6	32.3	29.3	28.3	28.3	28.3	27.9	27.4
45°	253.6	188.6	70.9	38.1	30.8	28.3	27.4	27.4	26.9	26.4	26.4
47.5°	275.1	198.4	66.9	36.6	30.3	27.9	26.9	25.9	25.9	25.4	25.4
50°	296.6	206.7	63.5	35.7	29.8	26.9	25.9	25.4	24.9	23.9	23.9
52.5°	317.1	215.5	62.5	34.7	28.8	26.4	24.9	24.4	23.9	23.0	23.0
55°	334.7	225.8	63.5	34.2	28.3	25.4	23.9	23.5	23.0	22.0	22.0
57.5°	347.4	231.1	64.0	34.2	27.9	23.9	22.5	23.0	22.0	21.5	21.5
60°	360.6	236.0	63.5	34.2	27.4	22.5	21.0	22.0	21.5	21.0	21.0
62.5°	369.4	234.1	61.1	34.2	26.9	21.5	20.0	21.5	22.0	21.0	21.5
65°	356.7	212.1	53.8	33.2	26.9	20.5	18.6	21.0	22.5	22.0	22.0
67.5°	310.8	160.3	45.0	31.3	25.9	20.0	17.1	19.1	21.0	20.5	21.0
70°	220.4	96.8	37.1	27.9	23.5	19.1	16.1	16.1	16.6	17.1	17.6
72.5°	114.3	52.8	30.3	24.4	20.5	17.1	14.7	13.7	13.7	13.7	14.2
75°	50.3	34.7	24.9	20.0	17.1	14.7	13.2	11.7	11.7	11.2	11.2
77°	35.2	27.4	20.5	16.6	14.2	12.2	11.7	10.3	10.3	9.8	9.8
77.5°	31.8	25.4	20.0	15.6	13.7	11.7	11.2	9.8	9.8	9.8	9.8
80°	21.5	20.0	15.1	11.7	10.8	9.3	8.8	8.3	7.8	7.8	7.8
82.5°	12.7	14.7	10.8	8.3	7.8	6.8	6.4	6.4	6.4	5.9	5.4
85°	7.8	10.8	6.8	5.4	5.4	4.4	4.4	3.9	3.9	3.4	3.4
87.5°	3.4	6.8	3.9	2.4	2.0	1.5	2.0	1.5	1.5	1.0	1.5
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)