

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: P459836

Luminaire Tested: **NAV-SA1A-AMB-U-SL3-HSS**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459836
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1A-AMB-U-SL3-HSS
Description: NAVION AREA AND ROADWAY LUMINAIRE
(1) NARROW BAND AMBER, 500mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 907 lumens
Efficiency: N/A
Efficacy: 40.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

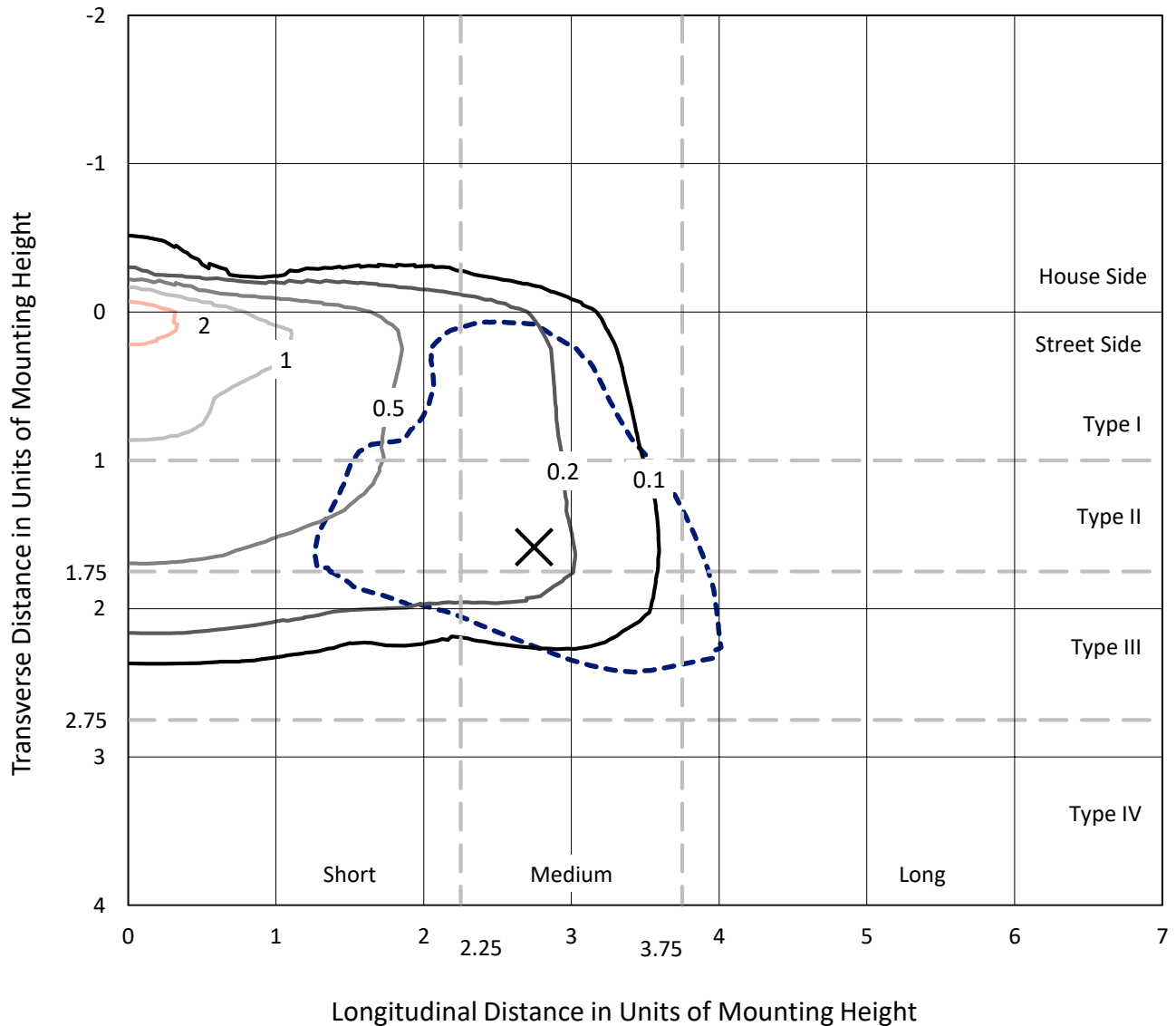
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

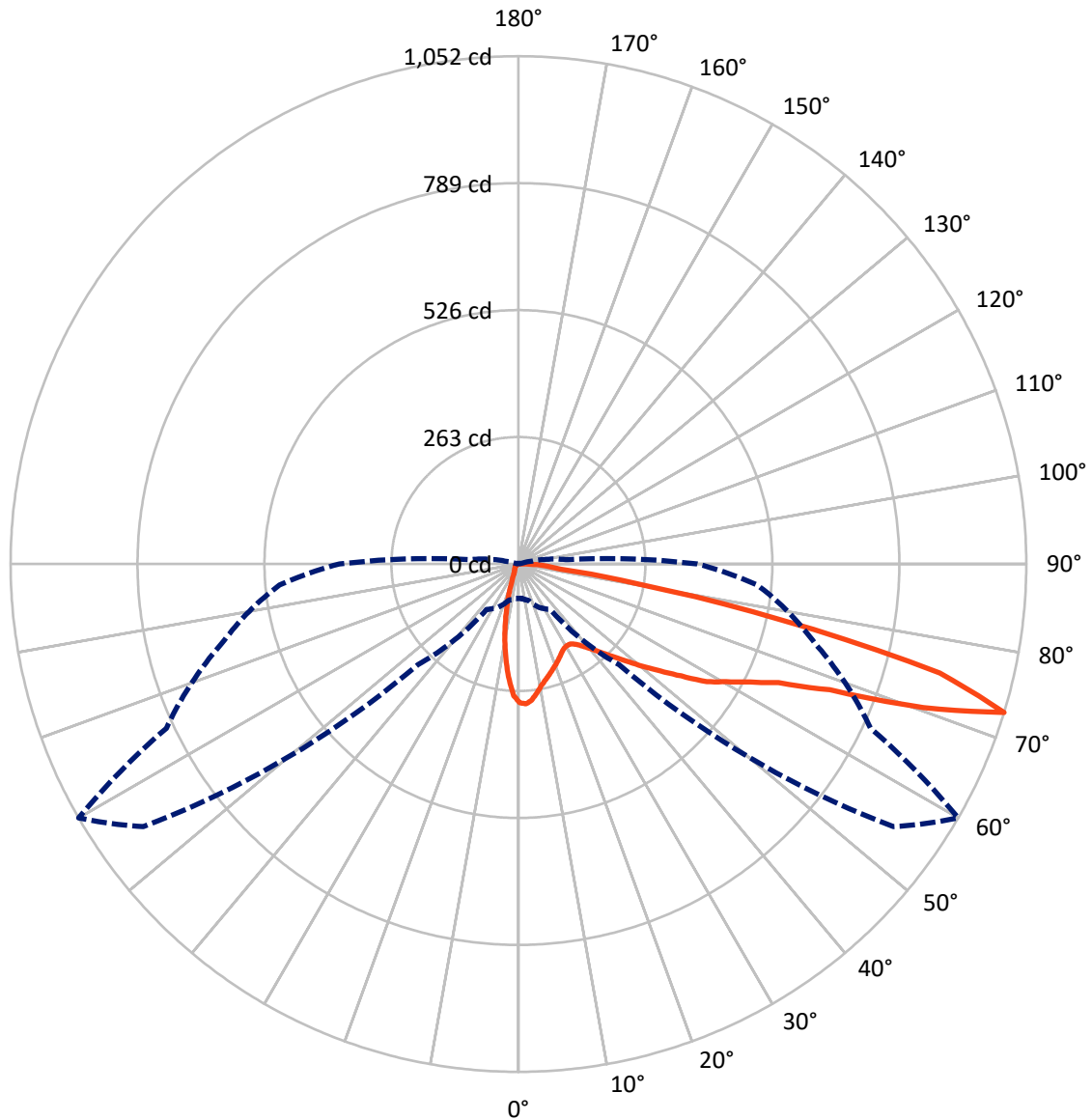
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical



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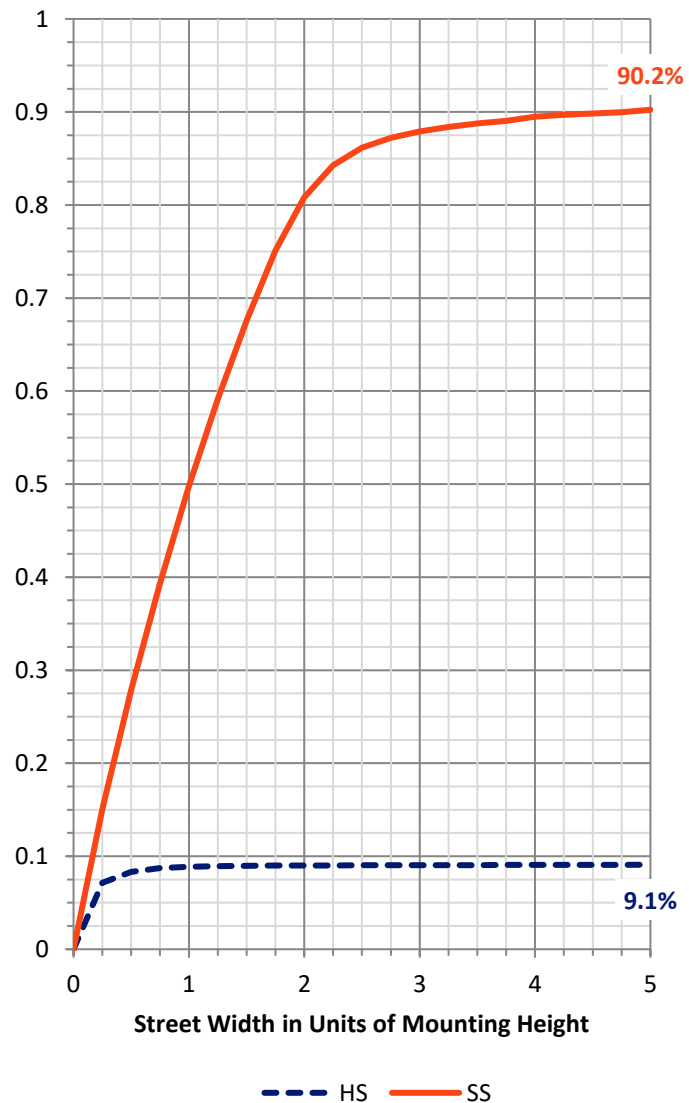
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	83.3	0.0	83.3
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	823.7	0.0	823.7
	% Fixture	90.8	0.0	90.8
Total	Lumens	907.0	0.0	907.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	2.5
10°-20°	43.6	4.8
20°-30°	57.2	6.3
30°-40°	77.1	8.5
40°-50°	114.8	12.7
50°-60°	178.1	19.6
60°-70°	244.4	26.9
70°-80°	154.0	17.0
80°-90°	15.4	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°	907.0	100.0
0°-180°	907.0	100.0



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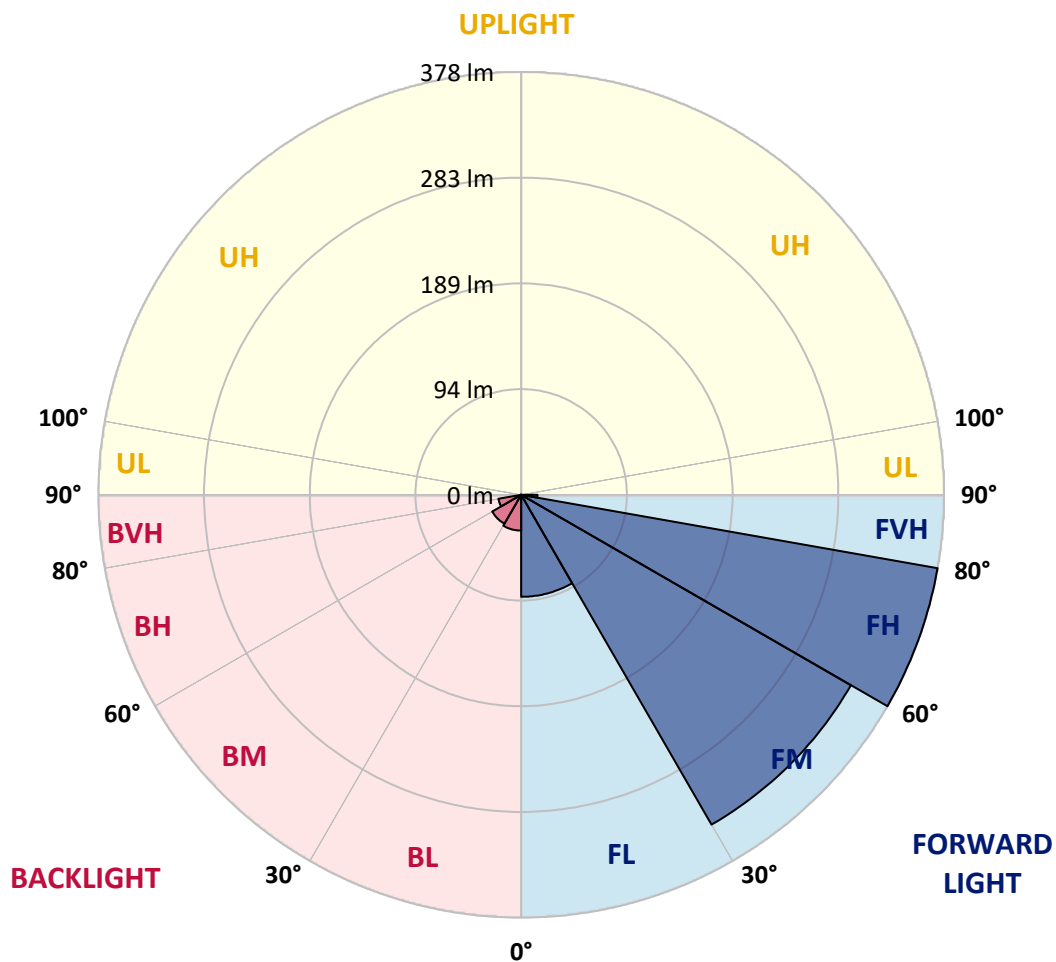
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	91.1	10.0			
FM	(30°-60°)	340.2	37.5			
FH	(60°-80°)	377.8	41.7			G0/660
FVH	(80°-90°)	14.6	1.6			G1/100
BL	(0°-30°)	31.9	3.5	B0/110		
BM	(30°-60°)	29.9	3.3	B0/220		
BH	(60°-80°)	20.6	2.3	B0/110		G0/110
BVH	(80°-90°)	0.8	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°	60°	65°	75°	85°
0°	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8
2.5°	291.7	291.2	291.2	291.7	292.2	290.7	290.7	290.2	288.8	288.3	285.4
5°	273.1	274.6	274.6	276.6	278.5	279.5	283.4	283.4	282.9	282.9	278.5
7.5°	250.7	250.7	254.1	257.5	262.4	263.9	268.3	270.2	271.2	273.6	269.7
10°	230.6	232.1	232.6	237.5	241.9	247.2	254.6	257.0	259.5	264.3	260.4
12.5°	215.5	216.5	217.9	222.3	227.7	233.6	242.4	246.8	249.2	256.0	253.1
15°	199.8	200.8	203.8	207.7	215.0	222.3	232.1	238.0	242.4	250.2	247.7
17.5°	189.6	190.1	190.6	194.0	201.3	211.1	223.3	229.2	235.0	244.8	243.8
20°	184.7	185.2	184.7	186.7	191.1	199.4	214.0	221.8	228.2	242.4	240.9
22.5°	183.2	183.7	182.7	182.3	184.2	191.5	204.7	213.5	222.3	241.9	239.9
25°	184.2	184.2	182.7	181.3	181.3	185.2	196.4	205.7	216.5	242.8	238.9
27.5°	188.1	187.6	186.2	183.2	180.8	182.3	191.1	199.4	211.1	244.3	238.9
30°	193.0	192.5	192.0	189.6	185.2	182.3	188.6	196.4	208.2	247.7	239.4
32.5°	198.4	198.9	198.9	196.9	192.0	185.7	190.1	197.4	208.6	252.6	240.9
35°	208.2	207.2	208.6	207.7	202.3	194.0	197.4	203.8	213.5	258.0	244.3
37.5°	217.4	217.4	219.4	219.9	215.0	204.7	209.1	215.5	221.3	266.8	250.7
40°	228.2	227.7	230.6	233.6	229.7	220.9	225.3	230.6	236.0	280.0	261.4
42.5°	237.0	238.0	242.4	247.2	248.7	236.5	243.8	249.7	252.1	294.6	277.5
45°	245.3	246.8	255.1	262.9	267.8	258.0	266.3	272.7	275.1	313.2	297.1
47.5°	254.1	256.0	266.3	278.5	287.3	282.4	291.7	299.5	301.0	336.2	326.4
50°	263.4	265.3	277.1	293.7	308.3	311.3	323.0	332.3	330.8	359.1	356.2
52.5°	275.1	277.5	293.7	312.2	332.3	341.1	359.1	367.4	363.1	388.9	383.6
55°	305.9	306.9	318.1	337.2	357.7	375.3	401.7	409.0	397.7	410.9	411.4
57.5°	358.2	358.2	360.6	366.5	385.5	411.4	453.4	459.8	438.8	433.4	435.9
60°	389.4	394.3	404.6	415.8	424.6	450.5	494.5	494.5	464.7	456.9	457.8
62.5°	381.6	385.5	415.8	441.2	480.8	514.0	539.0	538.0	494.0	478.9	485.7
65°	279.5	286.3	325.4	405.1	502.8	602.0	613.2	591.7	530.2	512.1	539.9
67.5°	150.0	155.4	188.1	259.5	396.8	662.1	765.7	695.3	595.2	580.0	595.2
70°	98.7	97.7	100.2	127.5	217.0	548.7	969.9	889.8	703.1	634.2	595.6
72.5°	71.3	71.3	77.7	98.7	114.8	294.6	947.9	1051.5	804.3	635.7	496.4
75°	47.9	48.9	59.1	79.6	107.0	96.7	737.3	901.0	790.6	477.4	259.0
77.5°	24.9	26.4	39.1	63.0	98.2	86.5	412.9	558.0	464.7	219.4	57.7
80°	11.2	11.7	17.1	47.4	89.9	80.1	134.9	248.7	147.1	26.4	9.8
82.5°	5.4	5.4	7.3	23.5	74.3	68.9	83.1	88.4	34.7	8.3	6.8
85°	2.0	2.0	3.9	13.2	44.0	41.5	70.9	59.1	19.5	5.4	4.9
87.5°	1.0	1.0	1.5	3.9	11.7	33.7	48.9	39.1	8.3	2.0	2.0
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°	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8	286.8
2.5°	283.9	282.4	278.5	275.1	270.7	264.8	263.9	258.0	253.1	252.6	251.2
5°	276.1	271.7	261.9	247.7	234.5	223.8	212.1	204.7	200.8	196.4	199.4
7.5°	265.3	258.0	238.5	216.5	195.0	176.4	158.3	145.1	139.7	131.9	133.4
10°	254.1	243.8	215.5	182.3	154.4	127.0	103.6	84.0	73.8	70.4	70.4
12.5°	246.3	231.6	192.0	150.5	113.9	78.7	57.2	41.5	31.3	27.9	27.9
15°	238.5	220.4	170.5	120.2	75.2	45.4	27.4	23.5	23.0	23.0	23.0
17.5°	231.6	207.2	148.1	91.9	49.4	25.4	22.5	22.0	21.5	21.5	21.5
20°	224.8	195.5	129.0	66.0	27.4	21.5	20.5	20.5	20.5	20.5	20.0
22.5°	218.4	185.2	108.5	45.4	21.0	19.5	19.1	19.1	19.1	18.6	18.6
25°	213.5	175.9	89.9	28.8	18.6	18.1	17.6	17.1	16.6	16.6	16.6
27.5°	208.6	167.1	70.4	20.0	17.1	16.1	15.6	15.1	14.2	14.2	13.7
30°	205.2	158.3	56.2	17.1	15.6	14.7	13.7	12.7	11.7	11.2	11.2
32.5°	203.3	151.5	42.0	15.6	14.2	12.7	11.7	10.7	9.8	8.8	8.8
35°	201.8	144.6	28.8	14.2	12.7	11.2	10.3	8.8	7.3	6.8	6.8
37.5°	204.2	139.7	19.5	13.2	11.7	10.3	8.3	7.3	6.4	5.9	5.9
40°	209.6	135.8	15.6	12.2	10.7	8.8	7.3	5.9	4.9	4.4	4.4
42.5°	218.9	134.4	13.7	11.7	9.8	7.8	5.9	4.9	4.4	3.9	3.9
45°	236.0	133.9	12.7	10.7	8.8	6.4	4.9	3.9	3.4	2.9	2.9
47.5°	255.1	134.9	12.2	10.3	7.8	5.9	4.4	3.4	2.9	2.4	2.4
50°	278.5	138.8	11.2	9.3	7.3	4.9	3.4	2.9	2.0	2.0	2.0
52.5°	301.0	142.7	10.7	8.8	6.4	4.4	2.9	2.0	2.0	1.5	1.5
55°	323.0	151.5	9.8	8.8	5.9	3.4	2.4	2.0	1.5	1.0	1.0
57.5°	345.0	157.8	9.3	7.8	4.9	2.9	2.0	1.5	1.0	1.0	1.0
60°	367.4	163.7	8.3	6.8	3.9	2.4	1.5	1.0	1.0	1.0	1.0
62.5°	395.8	173.5	7.3	5.9	3.4	2.0	1.5	1.0	0.5	0.5	0.5
65°	449.1	190.1	6.4	4.9	2.4	2.0	1.5	1.0	0.5	0.5	0.5
67.5°	483.3	187.6	5.4	3.9	2.4	1.5	1.0	1.0	0.5	0.5	0.5
70°	476.4	169.6	4.4	3.4	2.0	1.5	1.0	1.0	0.5	0.5	0.5
72.5°	370.4	103.1	3.9	2.9	2.0	1.5	1.0	1.0	0.5	0.5	0.5
75°	169.1	23.0	3.4	2.4	1.5	1.5	1.0	1.0	0.5	0.5	0.5
77.5°	29.8	5.9	2.9	2.0	2.0	1.5	1.5	1.0	0.5	0.5	0.5
80°	7.8	3.9	2.9	2.0	2.0	2.4	2.0	1.5	0.5	0.5	0.5
82.5°	5.4	2.9	2.9	2.4	2.4	2.9	2.4	1.5	0.5	0.5	0.5
85°	3.9	2.4	2.9	2.9	2.0	2.4	2.4	1.5	0.5	0.5	0.5
87.5°	2.0	1.0	1.0	1.0	1.0	1.5	1.5	0.5	0.5	0.5	0.5
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)