

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: P459854

Luminaire Tested: **NAV-SA3A-AMB-U-SL4-HSS**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459854
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3A-AMB-U-SL4-HSS
Description: NAVION AREA AND ROADWAY LUMINAIRE
(3) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2418 lumens
Efficiency: N/A
Efficacy: 39.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

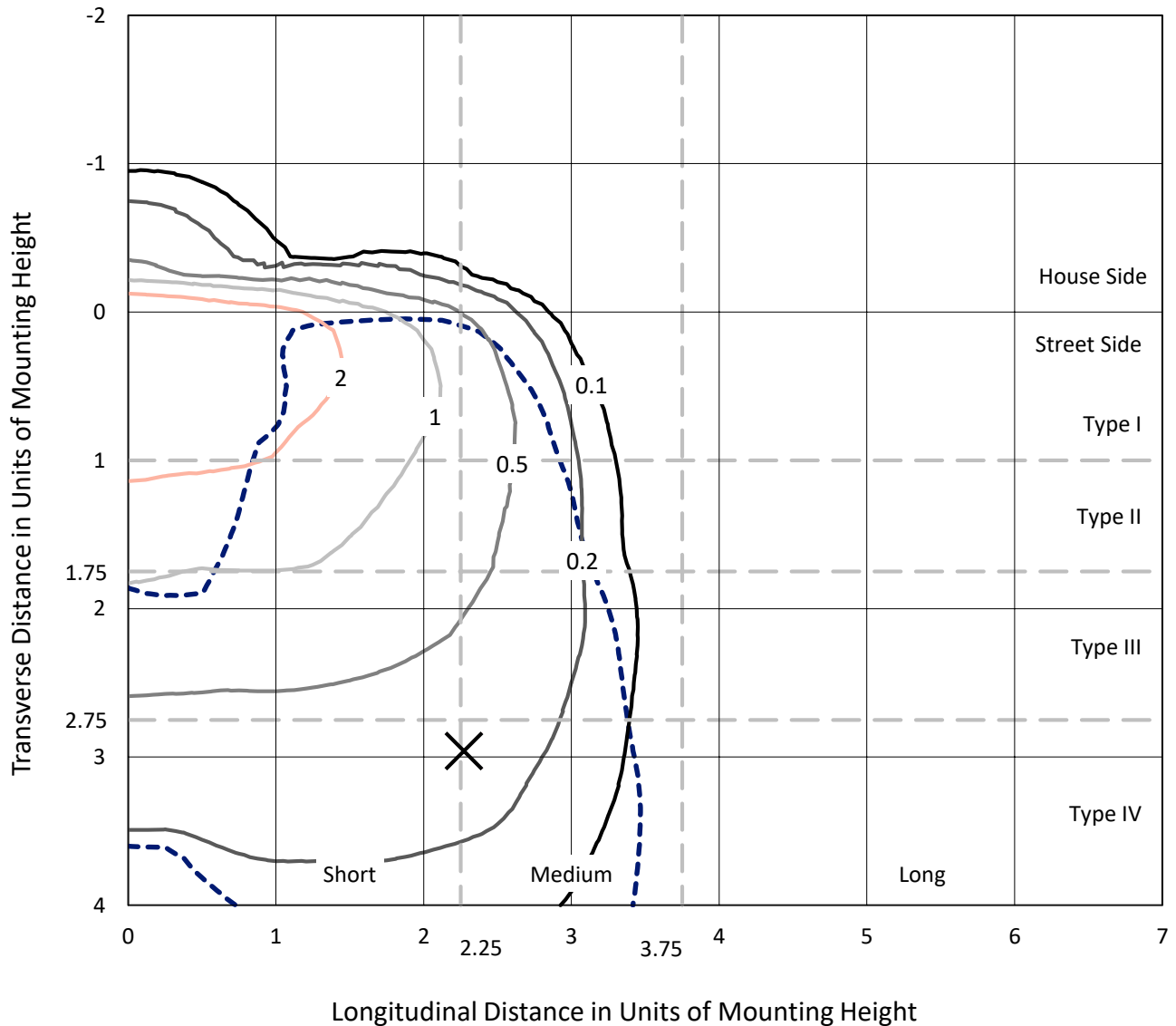
Input Watts (W): 61.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

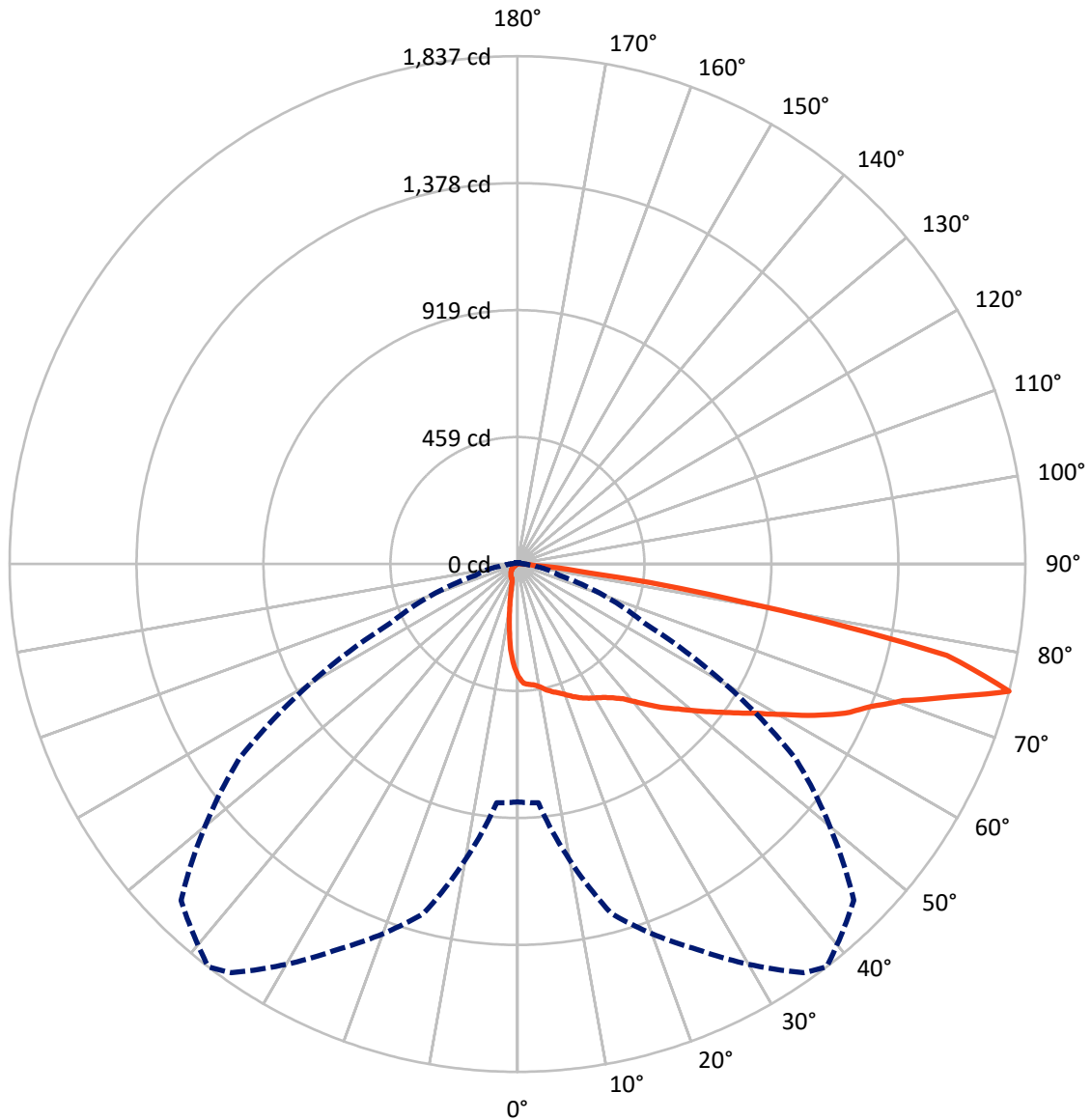


Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 37.5-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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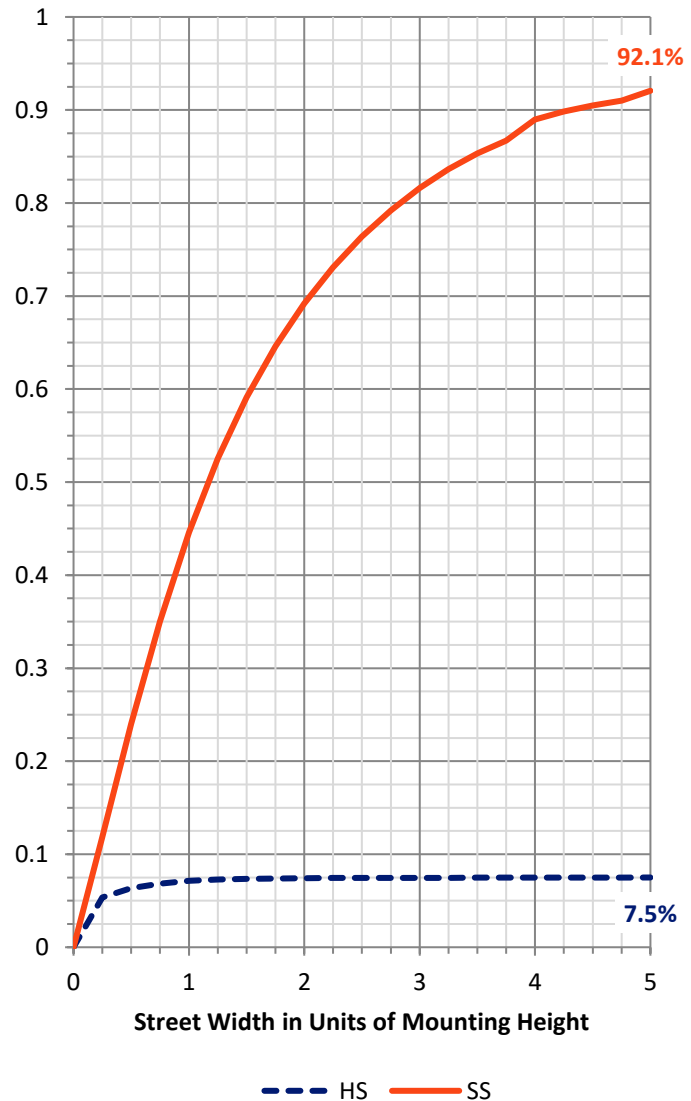
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	182.8	0.0	182.8
	% Fixture	7.6	0.0	7.6
Street Side	Lumens	2235.3	0.0	2235.3
	% Fixture	92.4	0.0	92.4
Total	Lumens	2418.0	0.0	2418.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.5	1.4
10°-20°	87.3	3.6
20°-30°	142.9	5.9
30°-40°	212.4	8.8
40°-50°	317.9	13.1
50°-60°	456.8	18.9
60°-70°	612.2	25.3
70°-80°	495.9	20.5
80°-90°	58.0	2.4
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°	2418.0	100.0
0°-180°	2418.0	100.0

Coefficient of Utilization



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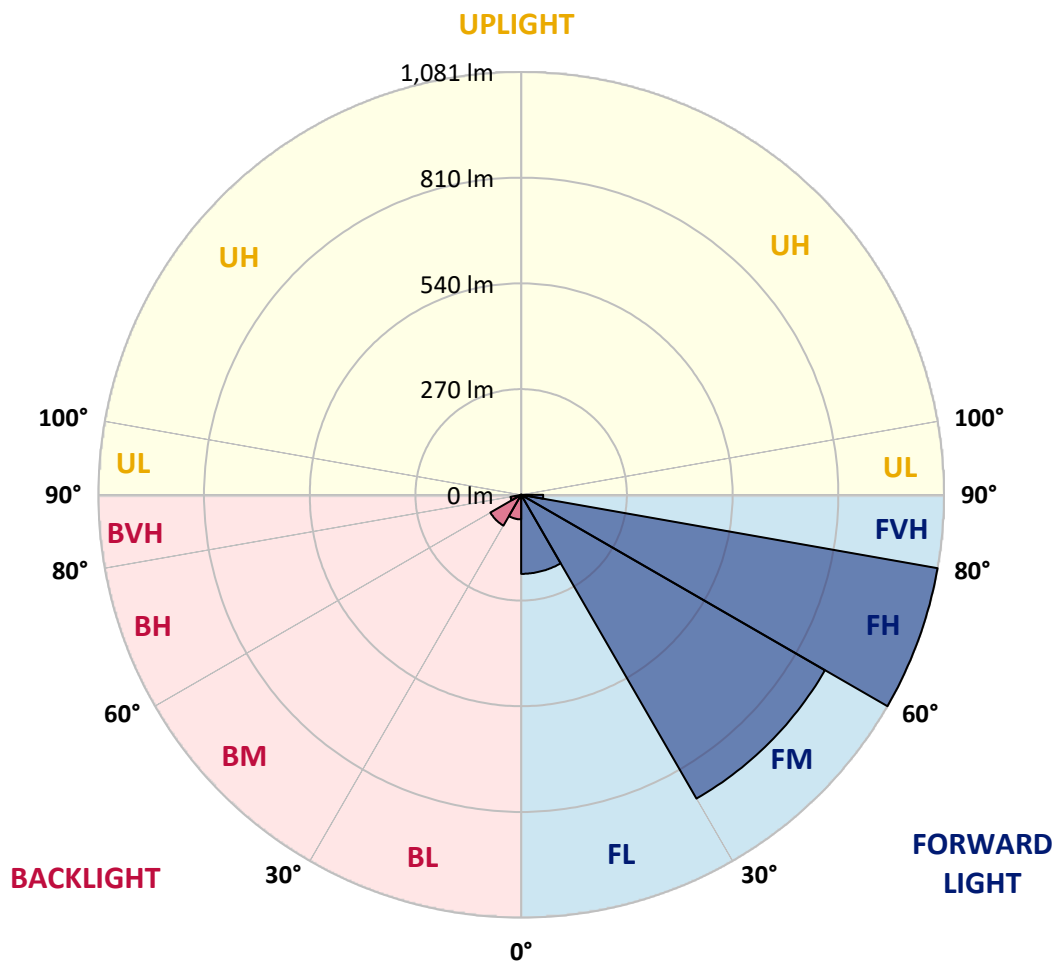
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	202.0	8.4			
FM	(30°-60°)	896.4	37.1			
FH	(60°-80°)	1080.6	44.7			G1/1800
FVH	(80°-90°)	56.3	2.3			G1/100
BL	(0°-30°)	62.8	2.6	B0/110		
BM	(30°-60°)	90.8	3.8	B0/220		
BH	(60°-80°)	27.6	1.1	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	45°	55°	65°	75°	85°
0°	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6
2.5°	437.7	436.3	436.3	433.6	432.3	432.3	426.9	425.5	420.1	414.7	408.0
5°	439.0	439.0	437.7	439.0	437.7	437.7	435.0	433.6	428.2	417.4	405.3
7.5°	447.1	445.8	444.4	444.4	441.7	441.7	435.0	432.3	426.9	420.1	402.6
10°	447.1	447.1	449.8	452.5	452.5	452.5	445.8	437.7	429.6	422.8	402.6
12.5°	445.8	445.8	449.8	459.3	466.0	467.4	463.3	452.5	439.0	426.9	408.0
15°	444.4	445.8	451.2	464.7	476.9	479.6	478.2	470.1	452.5	435.0	414.7
17.5°	447.1	449.8	456.6	475.5	489.0	490.4	491.7	486.3	467.4	445.8	425.5
20°	451.2	452.5	467.4	490.4	503.9	505.2	503.9	495.8	479.6	459.3	437.7
22.5°	457.9	460.6	479.6	505.2	520.1	521.4	517.4	503.9	486.3	470.1	451.2
25°	471.5	474.2	497.1	522.8	533.6	536.3	532.2	516.0	493.1	482.3	466.0
27.5°	487.7	491.7	516.0	540.3	547.1	549.8	545.8	526.8	502.5	498.5	485.0
30°	512.0	514.7	537.6	557.9	560.6	562.0	559.3	537.6	516.0	516.0	503.9
32.5°	541.7	545.8	560.6	575.5	574.1	575.5	574.1	551.2	532.2	543.0	526.8
35°	576.8	572.8	590.3	597.1	591.7	594.4	595.7	572.8	556.6	578.2	557.9
37.5°	603.8	603.8	613.3	620.0	616.0	618.7	622.7	601.1	590.3	628.2	605.2
40°	626.8	626.8	633.6	647.1	648.4	653.8	661.9	636.3	636.3	686.2	660.6
42.5°	644.4	647.1	652.5	670.0	687.6	697.0	705.2	679.5	691.6	760.5	733.5
45°	661.9	664.6	667.3	693.0	728.1	741.6	757.8	733.5	755.1	838.9	809.2
47.5°	683.5	683.5	682.2	722.7	765.9	783.5	811.9	791.6	830.8	934.8	888.9
50°	710.6	707.9	695.7	753.8	811.9	833.5	876.7	856.4	915.9	1034.8	948.3
52.5°	741.6	734.9	716.0	786.2	861.9	888.9	944.3	930.7	1005.0	1114.5	982.1
55°	780.8	770.0	744.3	825.4	922.6	949.7	1014.5	1022.6	1090.1	1160.4	1017.2
57.5°	830.8	810.5	782.2	874.0	992.9	1018.6	1094.2	1111.8	1146.9	1205.0	1061.8
60°	880.8	859.2	833.5	940.2	1069.9	1105.0	1179.3	1186.1	1192.8	1267.1	1110.4
62.5°	925.3	913.2	898.3	1014.5	1175.3	1206.3	1252.3	1242.8	1250.9	1340.1	1149.6
65°	982.1	969.9	967.2	1099.6	1275.2	1302.2	1307.6	1311.7	1341.4	1411.7	1169.9
67.5°	1030.7	1026.7	1051.0	1200.9	1365.7	1376.5	1396.8	1419.8	1436.0	1444.1	1034.8
70°	1099.6	1092.9	1146.9	1302.2	1456.2	1479.2	1550.8	1573.8	1461.6	1183.4	633.6
72.5°	1106.4	1118.5	1265.8	1407.6	1591.3	1641.3	1730.5	1607.5	1136.1	634.9	197.2
75°	860.5	867.3	1307.6	1538.6	1804.8	1837.2	1721.0	1229.3	507.9	156.7	44.6
77.5°	479.6	505.2	874.0	1427.9	1640.0	1588.6	1176.6	543.0	131.0	35.1	23.0
80°	351.2	363.4	421.5	817.3	928.0	815.9	490.4	206.7	71.6	24.3	16.2
82.5°	104.0	112.1	217.5	263.4	328.3	260.7	147.2	158.1	45.9	17.6	13.5
85°	28.4	29.7	74.3	104.0	94.6	60.8	54.0	136.4	18.9	12.2	10.8
87.5°	13.5	13.5	23.0	45.9	39.2	32.4	44.6	79.7	4.1	4.1	2.7
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°	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6
2.5°	403.9	401.2	390.4	385.0	379.6	370.1	364.7	360.7	359.3	356.6	358.0
5°	397.2	387.7	370.1	355.3	337.7	318.8	308.0	295.8	283.7	281.0	279.6
7.5°	391.8	378.2	351.2	322.9	293.1	260.7	231.0	212.1	193.2	190.5	189.1
10°	389.0	370.1	331.0	289.1	240.5	195.9	163.5	141.8	128.3	121.6	118.9
12.5°	389.0	366.1	314.8	255.3	193.2	144.5	112.1	90.5	81.1	77.0	75.6
15°	391.8	363.4	295.8	216.1	151.3	102.7	78.4	67.5	63.5	62.1	63.5
17.5°	398.5	363.4	278.3	182.4	114.8	75.6	62.1	60.8	59.4	59.4	59.4
20°	408.0	366.1	259.4	152.6	85.1	62.1	58.1	58.1	58.1	58.1	58.1
22.5°	418.8	367.4	237.8	124.3	68.9	56.7	55.4	55.4	55.4	55.4	55.4
25°	429.6	370.1	214.8	97.3	56.7	54.0	52.7	54.0	54.0	54.0	54.0
27.5°	443.1	372.8	191.8	77.0	52.7	51.3	51.3	51.3	51.3	51.3	51.3
30°	455.2	372.8	170.2	63.5	50.0	48.6	48.6	48.6	48.6	48.6	48.6
32.5°	470.1	371.5	147.2	52.7	47.3	45.9	44.6	45.9	45.9	45.9	44.6
35°	491.7	371.5	121.6	48.6	44.6	43.2	41.9	41.9	41.9	41.9	41.9
37.5°	520.1	376.9	95.9	44.6	40.5	39.2	39.2	39.2	37.8	37.8	37.8
40°	562.0	386.3	77.0	41.9	37.8	36.5	35.1	35.1	33.8	32.4	32.4
42.5°	611.9	397.2	63.5	39.2	35.1	33.8	32.4	31.1	29.7	28.4	28.4
45°	661.9	405.3	50.0	36.5	32.4	31.1	29.7	28.4	25.7	24.3	23.0
47.5°	714.6	405.3	40.5	33.8	31.1	28.4	27.0	24.3	21.6	18.9	18.9
50°	745.7	390.4	36.5	31.1	28.4	25.7	24.3	20.3	17.6	14.9	14.9
52.5°	763.2	370.1	33.8	28.4	27.0	24.3	20.3	17.6	13.5	10.8	10.8
55°	778.1	360.7	31.1	27.0	24.3	21.6	17.6	13.5	9.5	8.1	8.1
57.5°	797.0	345.8	28.4	24.3	21.6	18.9	14.9	10.8	6.8	5.4	5.4
60°	813.2	325.6	25.7	23.0	20.3	16.2	12.2	8.1	4.1	2.7	2.7
62.5°	821.3	294.5	23.0	20.3	17.6	13.5	9.5	5.4	2.7	1.4	1.4
65°	798.4	247.2	21.6	17.6	14.9	10.8	6.8	2.7	1.4	0.0	0.0
67.5°	652.5	159.4	17.6	14.9	12.2	8.1	5.4	2.7	1.4	0.0	0.0
70°	335.0	67.5	14.9	12.2	10.8	6.8	4.1	1.4	0.0	0.0	0.0
72.5°	87.8	24.3	12.2	10.8	9.5	6.8	2.7	1.4	0.0	0.0	0.0
75°	27.0	16.2	9.5	8.1	8.1	5.4	2.7	1.4	0.0	0.0	0.0
77.5°	18.9	12.2	8.1	6.8	6.8	5.4	2.7	1.4	0.0	0.0	0.0
80°	14.9	10.8	6.8	5.4	6.8	6.8	2.7	1.4	0.0	0.0	0.0
82.5°	12.2	9.5	5.4	5.4	6.8	6.8	4.1	1.4	0.0	0.0	0.0
85°	9.5	6.8	5.4	5.4	6.8	5.4	2.7	1.4	0.0	0.0	0.0
87.5°	2.7	2.7	1.4	1.4	1.4	2.7	2.7	1.4	0.0	0.0	0.0
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)