

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: P459855

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

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459855
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-SA3A-AMB-U-SL4
Description: NAVION AREA AND ROADWAY LUMINAIRE
(3) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3009 lumens
Efficiency: N/A
Efficacy: 49.2 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 - G2

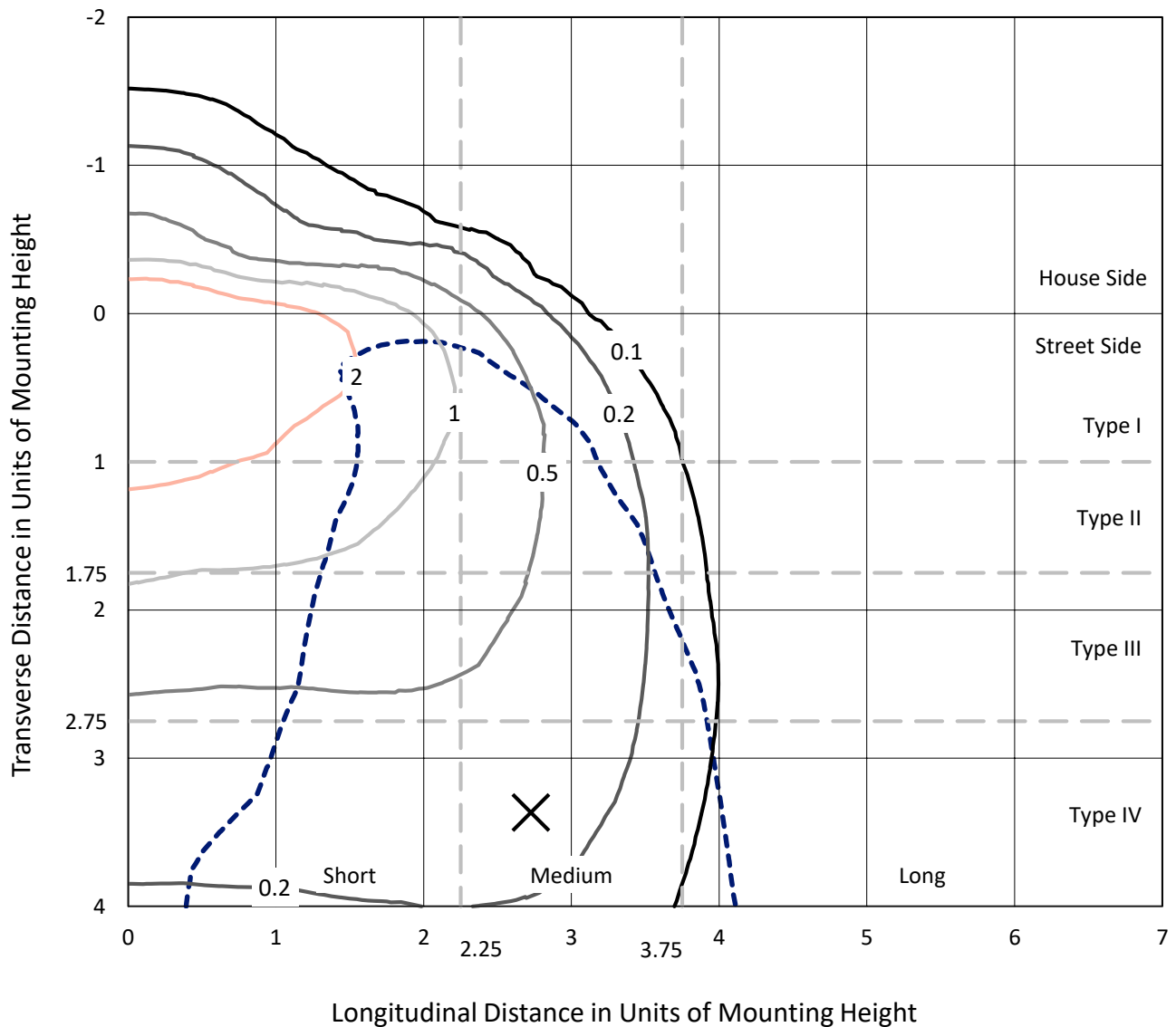
Input Watts (W): 61.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

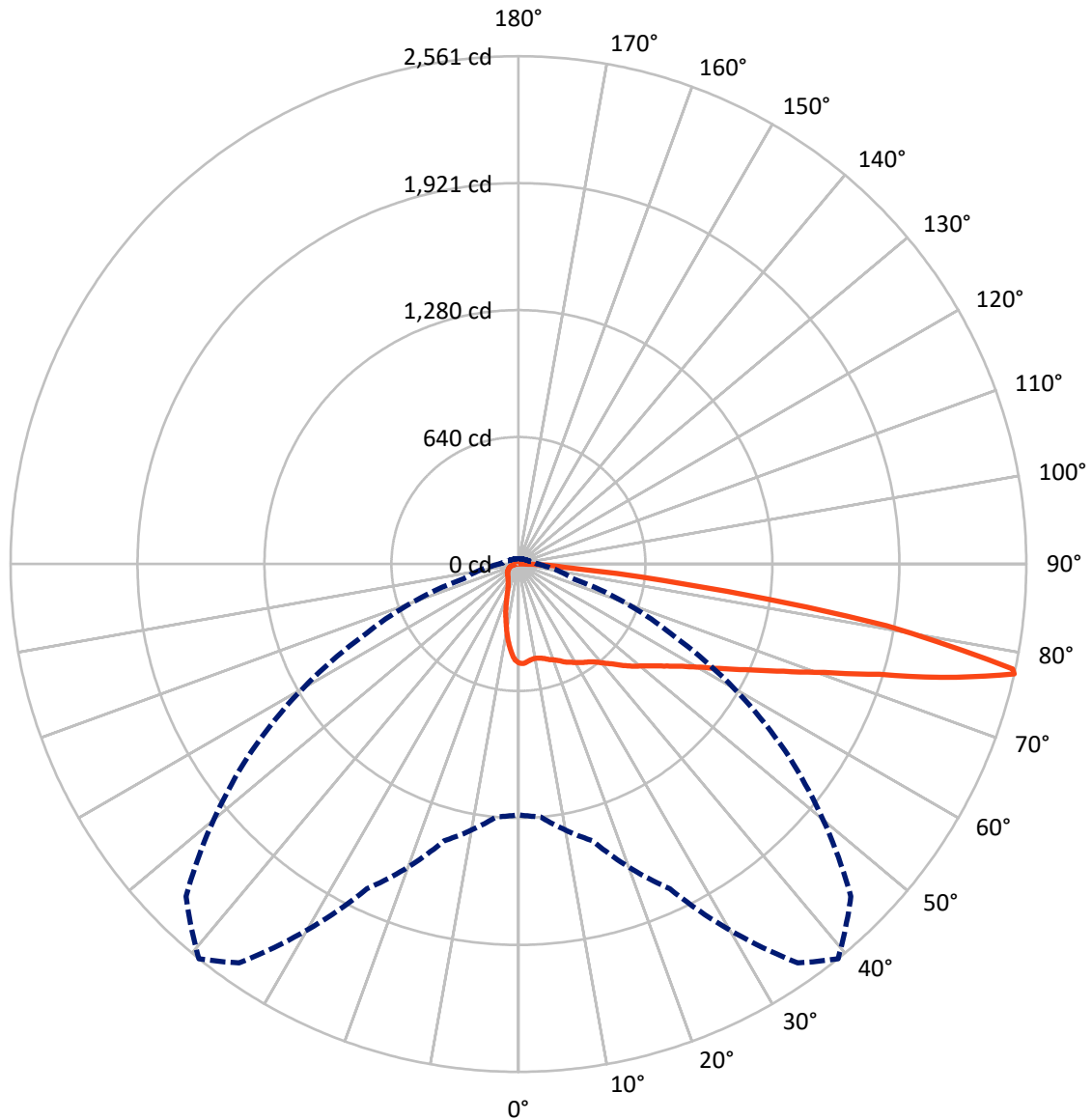
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5 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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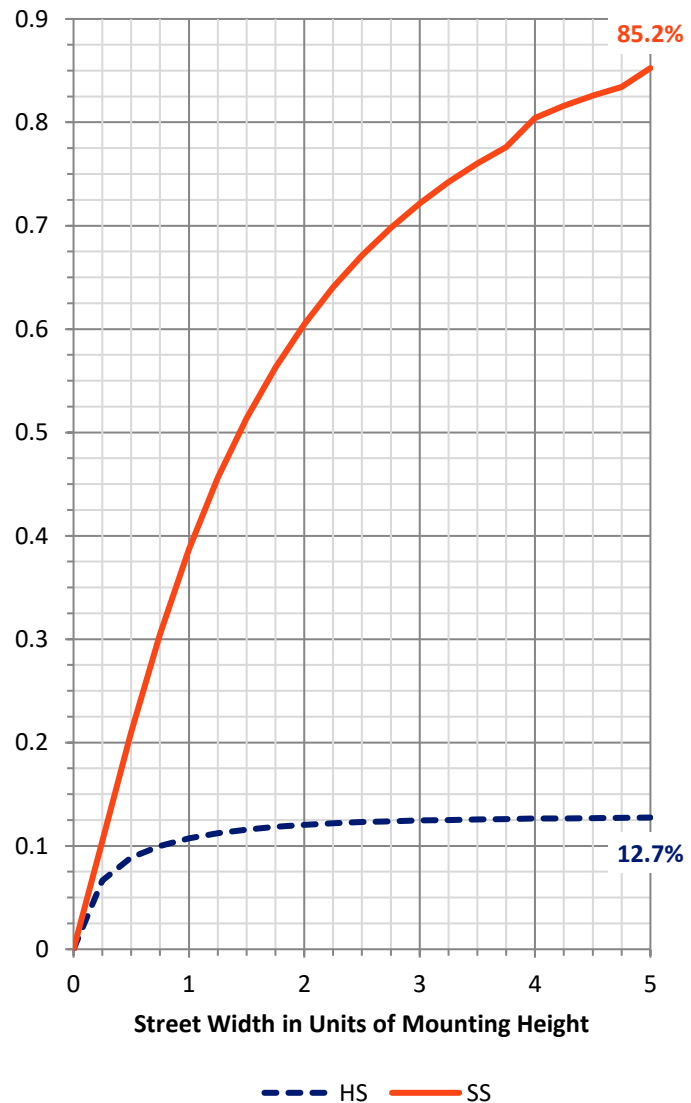
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	388.2	0.0	388.2
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	2620.8	0.0	2620.8
	% Fixture	87.1	0.0	87.1
Total	Lumens	3009.0	0.0	3009.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	1.5
10°-20°	109.6	3.6
20°-30°	167.4	5.6
30°-40°	240.8	8.0
40°-50°	349.6	11.6
50°-60°	501.7	16.7
60°-70°	691.1	23.0
70°-80°	745.7	24.8
80°-90°	159.5	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°	3009.0	100.0
0°-180°	3009.0	100.0

Coefficient of Utilization



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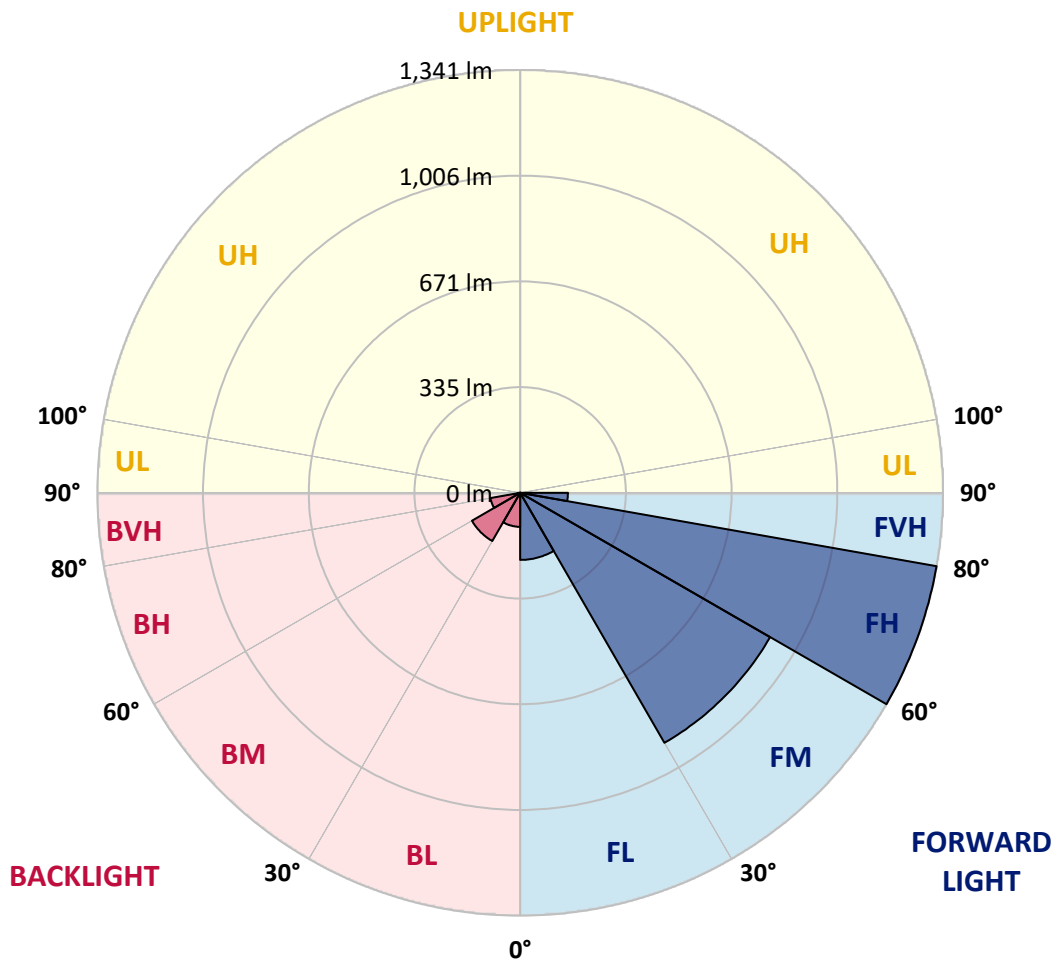
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	212.8	7.1			
FM (30°-60°)	915.4	30.4			
FH (60°-80°)	1341.1	44.6			G1/1800
FVH (80°-90°)	151.5	5.0			G2/225
BL (0°-30°)	107.9	3.6	B0/110		
BM (30°-60°)	176.7	5.9	B0/220		
BH (60°-80°)	95.6	3.2	B0/110		G0/110
BVH (80°-90°)	8.0	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-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
2.5°	505.4	501.4	501.4	505.4	502.7	502.7	500.0	502.7	500.0	497.3	500.0
5°	498.7	496.0	494.6	498.7	496.0	493.3	496.0	494.6	493.3	487.9	487.9
7.5°	486.5	483.8	483.8	487.9	489.2	485.2	486.5	487.9	483.8	478.4	479.8
10°	475.7	474.3	477.1	482.5	485.2	482.5	485.2	483.8	478.4	473.0	471.6
12.5°	467.6	466.2	470.3	481.1	486.5	486.5	487.9	483.8	479.8	473.0	467.6
15°	462.2	462.2	470.3	483.8	491.9	494.6	496.0	493.3	483.8	474.3	467.6
17.5°	464.9	463.5	474.3	490.6	500.0	506.8	506.8	502.7	490.6	478.4	470.3
20°	471.6	468.9	482.5	502.7	514.9	516.2	518.9	510.8	498.7	485.2	475.7
22.5°	474.3	481.1	496.0	518.9	525.7	529.8	529.8	521.6	504.1	494.6	483.8
25°	496.0	497.3	514.9	535.2	541.9	547.3	544.6	527.1	512.2	506.8	497.3
27.5°	518.9	520.3	537.9	552.7	556.8	560.8	562.2	537.9	523.0	521.6	509.5
30°	539.2	544.6	562.2	573.0	573.0	577.1	575.7	554.1	537.9	540.6	528.4
32.5°	574.4	573.0	590.6	591.9	585.2	591.9	591.9	567.6	556.8	568.9	550.0
35°	604.1	609.5	617.6	610.8	601.4	606.8	609.5	586.5	581.1	605.4	585.2
37.5°	644.6	640.6	644.6	632.5	619.0	625.7	632.5	612.2	614.9	650.0	624.4
40°	675.7	669.0	671.7	655.4	641.9	655.4	662.2	643.3	655.4	712.2	681.1
42.5°	701.4	696.0	690.6	681.1	670.3	687.9	698.7	683.8	709.5	781.1	751.4
45°	719.0	714.9	706.8	705.4	706.8	728.4	741.9	729.8	764.9	867.6	829.8
47.5°	729.8	725.7	727.1	729.8	740.6	769.0	793.3	781.1	837.9	958.2	904.1
50°	744.6	737.9	739.2	762.2	778.4	808.2	847.3	841.9	916.3	1054.1	985.2
52.5°	763.6	752.7	752.7	793.3	819.0	852.7	902.8	909.5	997.4	1152.8	1067.6
55°	794.6	781.1	771.7	827.1	871.7	908.2	966.3	996.0	1085.2	1255.5	1143.3
57.5°	828.4	814.9	800.0	870.3	929.8	973.0	1039.2	1082.5	1185.2	1347.4	1197.4
60°	881.1	856.8	841.9	925.7	1010.9	1055.5	1136.5	1192.0	1290.6	1431.2	1246.0
62.5°	919.0	900.0	896.0	996.0	1110.9	1162.2	1239.3	1297.4	1387.9	1512.2	1287.9
65°	958.2	947.3	948.7	1071.7	1229.8	1286.6	1370.3	1432.5	1513.6	1586.6	1292.0
67.5°	1013.6	1002.8	1025.7	1163.6	1367.6	1442.0	1527.1	1581.2	1632.5	1598.7	1219.0
70°	1086.5	1073.0	1114.9	1274.4	1539.3	1635.2	1732.5	1790.6	1690.6	1556.8	985.2
72.5°	1162.2	1152.8	1221.7	1432.5	1779.8	1902.8	2013.6	1981.2	1719.0	1335.2	641.9
75°	1254.1	1256.8	1367.6	1636.6	2163.6	2281.2	2374.5	2054.2	1451.4	789.2	244.6
77°	1264.9	1279.8	1444.7	1806.9	2455.5	2560.9	2370.4	1640.6	873.0	282.4	137.8
77.5°	1220.3	1233.9	1427.1	1831.2	2490.7	2548.8	2296.1	1532.5	700.0	227.0	121.6
80°	909.5	896.0	1106.8	1527.1	2001.5	1882.5	1374.4	594.6	204.1	117.6	74.3
82.5°	359.5	383.8	517.6	752.7	978.4	859.5	514.9	259.5	123.0	63.5	31.1
85°	166.2	178.4	194.6	200.0	252.7	260.8	193.3	240.6	89.2	29.7	18.9
87.5°	121.6	127.0	143.3	127.0	123.0	116.2	141.9	262.2	44.6	17.6	9.5
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°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
2.5°	496.0	491.9	493.3	491.9	489.2	486.5	483.8	481.1	482.5	482.5	478.4
5°	485.2	479.8	477.1	470.3	462.2	454.1	444.6	437.9	432.5	429.8	432.5
7.5°	474.3	467.6	462.2	446.0	432.5	409.5	394.6	374.3	371.6	368.9	366.2
10°	466.2	460.8	447.3	425.7	397.3	370.3	336.5	314.9	301.4	293.3	296.0
12.5°	460.8	454.1	432.5	398.7	362.2	321.6	283.8	255.4	239.2	228.4	225.7
15°	459.5	447.3	416.2	371.6	323.0	277.0	239.2	205.4	179.7	171.6	168.9
17.5°	459.5	443.3	401.4	343.3	286.5	235.1	193.3	162.2	140.5	132.4	129.7
20°	462.2	441.9	383.8	314.9	250.0	193.3	156.8	131.1	118.9	113.5	113.5
22.5°	466.2	440.6	364.9	283.8	214.9	162.2	129.7	114.9	109.5	105.4	105.4
25°	474.3	439.2	348.7	255.4	183.8	139.2	116.2	106.8	101.4	100.0	100.0
27.5°	485.2	440.6	332.5	228.4	155.4	123.0	106.8	101.4	98.7	97.3	97.3
30°	496.0	443.3	314.9	198.7	135.1	110.8	100.0	96.0	94.6	93.2	93.2
32.5°	508.1	446.0	294.6	174.3	120.3	101.4	94.6	91.9	91.9	90.5	89.2
35°	528.4	451.4	271.6	151.4	108.1	94.6	90.5	87.8	87.8	86.5	86.5
37.5°	556.8	458.1	248.7	135.1	100.0	89.2	85.1	85.1	83.8	83.8	82.4
40°	598.7	477.1	229.7	121.6	93.2	85.1	82.4	81.1	81.1	79.7	79.7
42.5°	646.0	500.0	212.2	112.2	89.2	81.1	78.4	78.4	78.4	77.0	75.7
45°	701.4	521.6	196.0	105.4	85.1	78.4	75.7	75.7	74.3	73.0	73.0
47.5°	760.9	548.7	185.1	101.4	83.8	77.0	74.3	71.6	71.6	70.3	70.3
50°	820.3	571.7	175.7	98.7	82.4	74.3	71.6	70.3	68.9	66.2	66.2
52.5°	877.1	596.0	173.0	96.0	79.7	73.0	68.9	67.6	66.2	63.5	63.5
55°	925.7	624.4	175.7	94.6	78.4	70.3	66.2	64.9	63.5	60.8	60.8
57.5°	960.9	639.2	177.0	94.6	77.0	66.2	62.2	63.5	60.8	59.5	59.5
60°	997.4	652.7	175.7	94.6	75.7	62.2	58.1	60.8	59.5	58.1	58.1
62.5°	1021.7	647.3	168.9	94.6	74.3	59.5	55.4	59.5	60.8	58.1	59.5
65°	986.5	586.5	148.7	91.9	74.3	56.8	51.4	58.1	62.2	60.8	60.8
67.5°	859.5	443.3	124.3	86.5	71.6	55.4	47.3	52.7	58.1	56.8	58.1
70°	609.5	267.6	102.7	77.0	64.9	52.7	44.6	44.6	45.9	47.3	48.7
72.5°	316.2	146.0	83.8	67.6	56.8	47.3	40.5	37.8	37.8	37.8	39.2
75°	139.2	96.0	68.9	55.4	47.3	40.5	36.5	32.4	32.4	31.1	31.1
77°	97.3	75.7	56.8	45.9	39.2	33.8	32.4	28.4	28.4	27.0	27.0
77.5°	87.8	70.3	55.4	43.2	37.8	32.4	31.1	27.0	27.0	27.0	27.0
80°	59.5	55.4	41.9	32.4	29.7	25.7	24.3	23.0	21.6	21.6	21.6
82.5°	35.1	40.5	29.7	23.0	21.6	18.9	17.6	17.6	17.6	16.2	14.9
85°	21.6	29.7	18.9	14.9	14.9	12.2	12.2	10.8	10.8	9.5	9.5
87.5°	9.5	18.9	10.8	6.8	5.4	4.1	5.4	4.1	4.1	2.7	4.1
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)