

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: P459852

Luminaire Tested: **NAV-SA3A-AMB-U-SL3-HSS**

Issue Date: 1/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459852  
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-SA3A-AMB-U-SL3-HSS  
Description: NAVION AREA AND ROADWAY LUMINAIRE  
(3) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

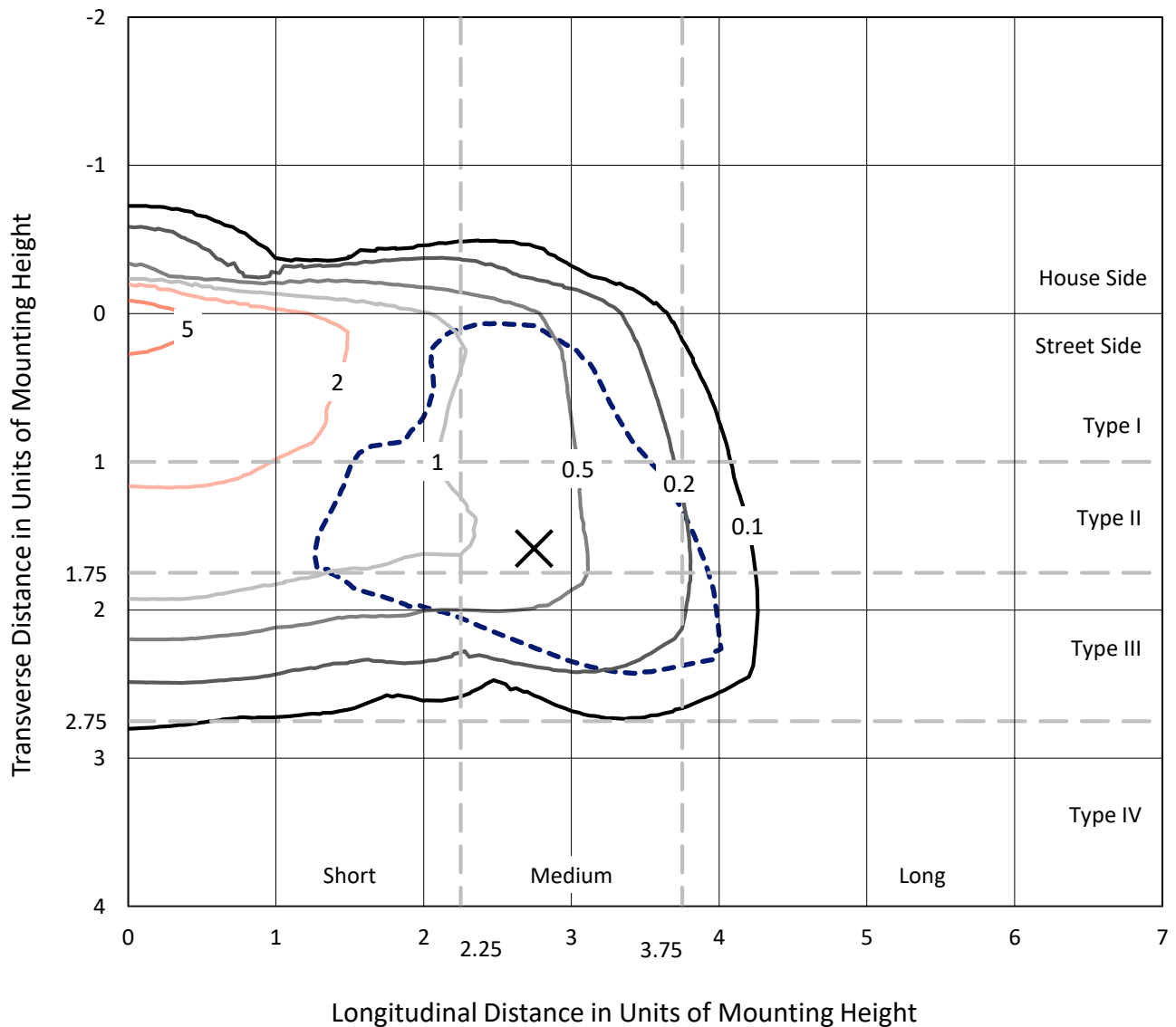
Lumens per Lamp: N/A  
Luminaire Lumens: 2507.1 lumens  
Efficiency: N/A  
Efficacy: 41.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 61.1  
Input Voltage (V): NR  
Input Current (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

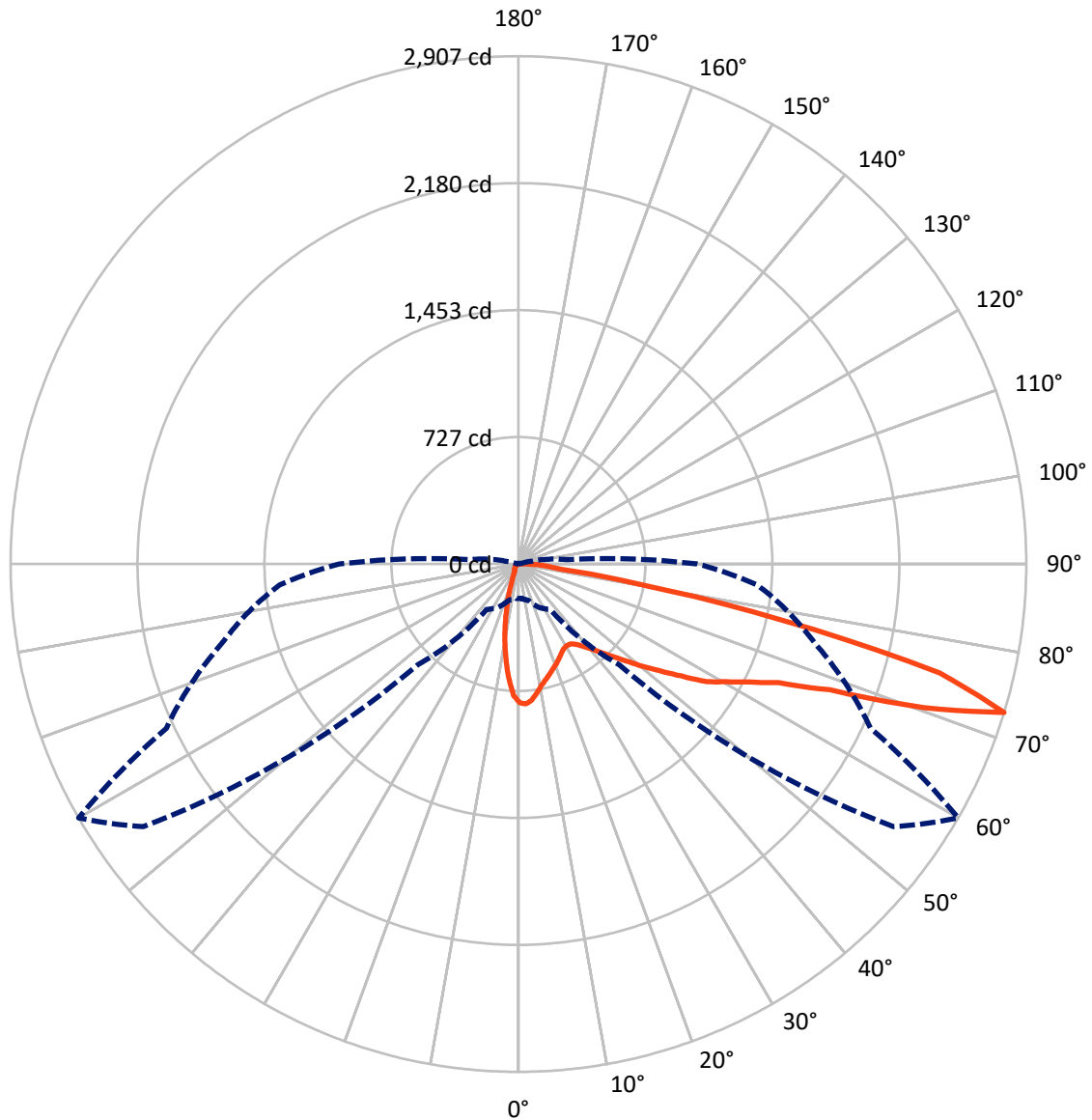


Based on 10 foot mounting height. Maximum calculated value = 7.9 fc  
 Type III - Medium - Non-Cutoff

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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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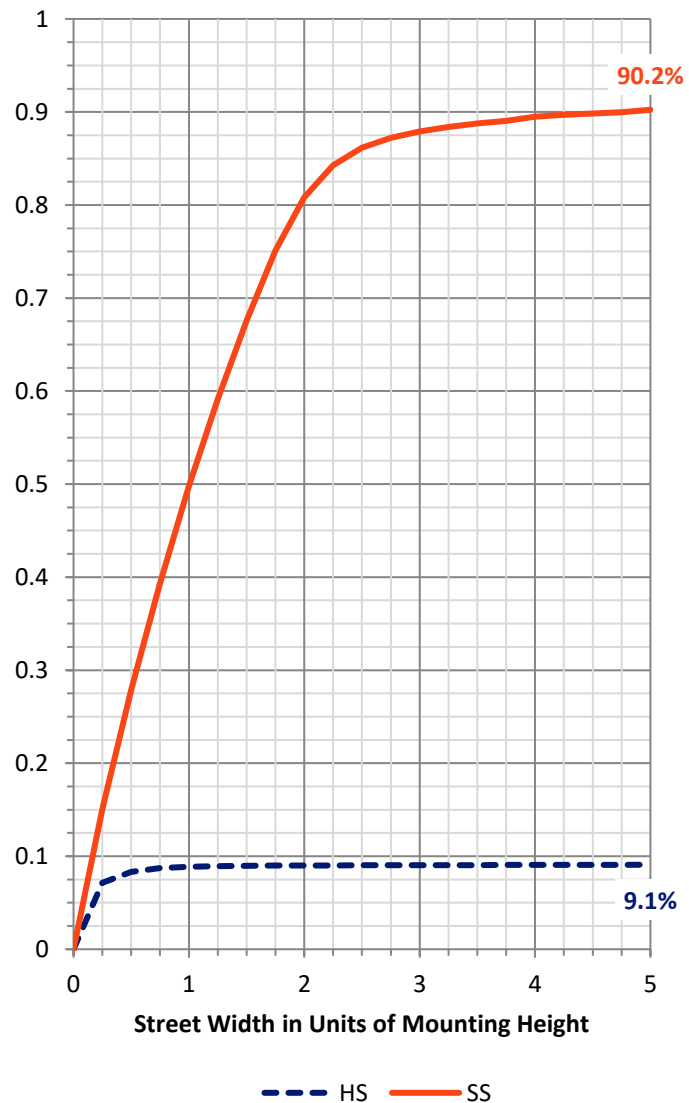
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	230.2	0.0	230.2
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	2276.9	0.0	2276.9
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	2507.1	0.0	2507.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.6	2.5
10°-20°	120.5	4.8
20°-30°	158.1	6.3
30°-40°	213.2	8.5
40°-50°	317.4	12.7
50°-60°	492.4	19.6
60°-70°	675.4	26.9
70°-80°	425.8	17.0
80°-90°	42.6	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°	2507.1	100.0
0°-180°	2507.1	100.0



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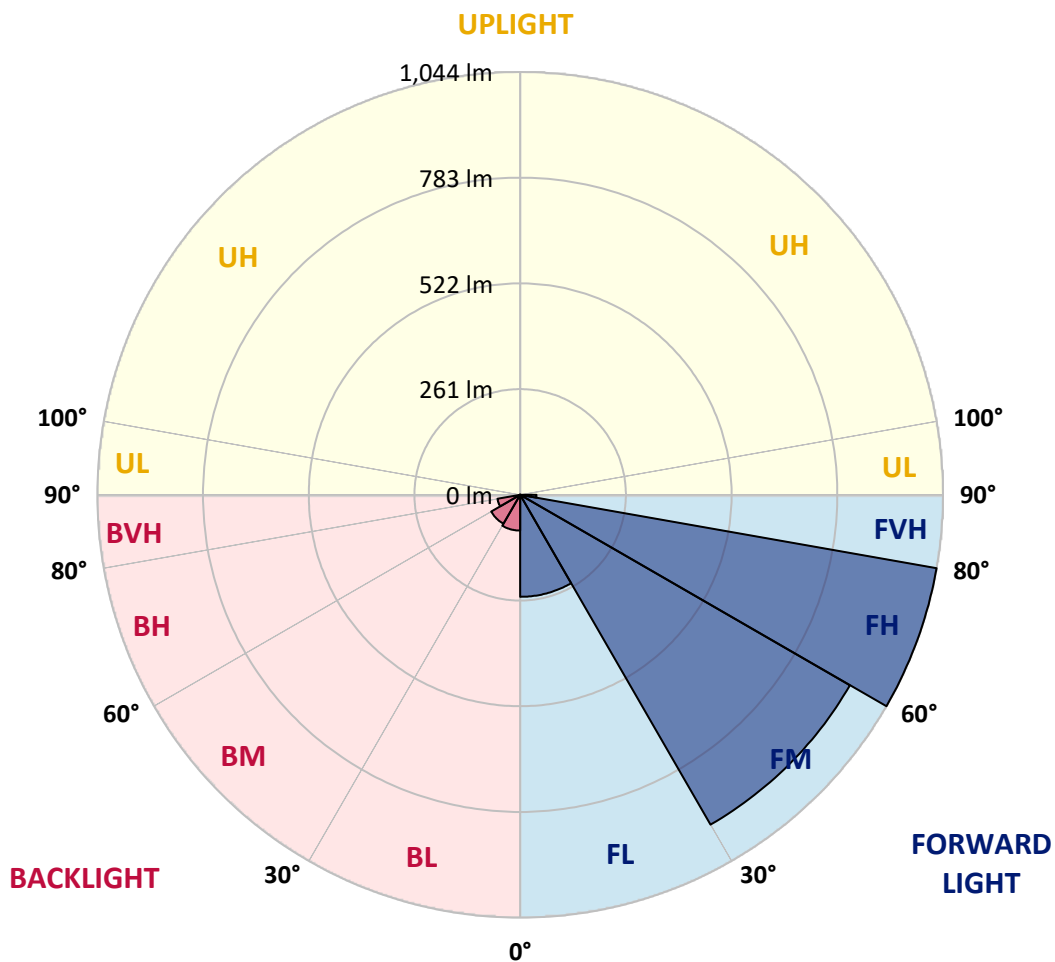
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	251.9	10.0			
FM	(30°-60°)	940.4	37.5			
FH	(60°-80°)	1044.2	41.7			G1/1800
FVH	(80°-90°)	40.3	1.6			G1/100
BL	(0°-30°)	88.3	3.5	B0/110		
BM	(30°-60°)	82.6	3.3	B0/220		
BH	(60°-80°)	57.0	2.3	B0/110		G0/110
BVH	(80°-90°)	2.3	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°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	806.3	805.0	805.0	806.3	807.7	803.6	803.6	802.3	798.2	796.9	788.8
5°	755.0	759.0	759.0	764.4	769.8	772.5	783.3	783.3	782.0	782.0	769.8
7.5°	692.9	692.9	702.3	711.8	725.3	729.3	741.5	746.9	749.6	756.3	745.5
10°	637.5	641.5	642.9	656.4	668.5	683.4	703.7	710.4	717.2	730.7	719.9
12.5°	595.6	598.3	602.4	614.5	629.4	645.6	669.9	682.1	688.8	707.7	699.6
15°	552.4	555.1	563.2	574.0	594.3	614.5	641.5	657.7	669.9	691.5	684.8
17.5°	524.0	525.4	526.7	536.2	556.4	583.5	617.2	633.4	649.6	676.7	673.9
20°	510.5	511.9	510.5	515.9	528.1	551.0	591.6	613.2	630.7	669.9	665.8
22.5°	506.5	507.8	505.1	503.8	509.2	529.4	565.9	590.2	614.5	668.5	663.1
25°	509.2	509.2	505.1	501.1	501.1	511.9	542.9	568.6	598.3	671.2	660.4
27.5°	520.0	518.6	514.6	506.5	499.7	503.8	528.1	551.0	583.5	675.3	660.4
30°	533.5	532.1	530.8	524.0	511.9	503.8	521.3	542.9	575.4	684.8	661.8
32.5°	548.3	549.7	549.7	544.3	530.8	513.2	525.4	545.6	576.7	698.3	665.8
35°	575.4	572.7	576.7	574.0	559.1	536.2	545.6	563.2	590.2	713.1	675.3
37.5°	601.0	601.0	606.4	607.8	594.3	565.9	578.1	595.6	611.8	737.4	692.9
40°	630.7	629.4	637.5	645.6	634.8	610.5	622.6	637.5	652.3	773.9	722.6
42.5°	655.0	657.7	669.9	683.4	687.5	653.7	673.9	690.2	696.9	814.4	767.1
45°	678.0	682.1	705.0	726.6	740.1	713.1	736.1	753.6	760.4	865.7	821.2
47.5°	702.3	707.7	736.1	769.8	794.2	780.6	806.3	827.9	832.0	929.2	902.2
50°	728.0	733.4	765.8	811.7	852.2	860.3	892.7	918.4	914.4	992.7	984.6
52.5°	760.4	767.1	811.7	863.0	918.4	942.7	992.7	1015.7	1003.5	1075.1	1060.2
55°	845.5	848.2	879.2	931.9	988.6	1037.3	1110.2	1130.5	1099.4	1135.9	1137.2
57.5°	990.0	990.0	996.7	1013.0	1065.6	1137.2	1253.4	1270.9	1212.8	1198.0	1204.7
60°	1076.4	1089.9	1118.3	1149.4	1173.7	1245.3	1366.8	1366.8	1284.4	1262.8	1265.5
62.5°	1054.8	1065.6	1149.4	1219.6	1329.0	1420.8	1489.7	1487.0	1365.5	1323.6	1342.5
65°	772.5	791.5	899.5	1119.6	1389.8	1663.9	1695.0	1635.6	1465.4	1415.4	1492.4
67.5°	414.6	429.5	520.0	717.2	1096.7	1830.1	2116.4	1921.9	1645.0	1603.2	1645.0
70°	272.8	270.1	276.9	352.5	599.7	1516.7	2680.9	2459.4	1943.5	1753.1	1646.4
72.5°	197.2	197.2	214.7	272.8	317.4	814.4	2620.2	2906.5	2223.1	1757.1	1372.2
75°	132.4	135.1	163.4	220.1	295.8	267.4	2038.1	2490.5	2185.3	1319.5	715.8
77.5°	68.9	72.9	108.0	174.2	271.5	239.1	1141.3	1542.4	1284.4	606.4	159.4
80°	31.1	32.4	47.3	131.0	248.5	221.5	372.8	687.5	406.5	72.9	27.0
82.5°	14.9	14.9	20.3	64.8	205.3	190.4	229.6	244.5	95.9	23.0	18.9
85°	5.4	5.4	10.8	36.5	121.6	114.8	195.8	163.4	54.0	14.9	13.5
87.5°	2.7	2.7	4.1	10.8	32.4	93.2	135.1	108.0	23.0	5.4	5.4
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°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	784.7	780.6	769.8	760.4	748.2	732.0	729.3	713.1	699.6	698.3	694.2
5°	763.1	750.9	723.9	684.8	648.3	618.6	586.2	565.9	555.1	542.9	551.0
7.5°	733.4	713.1	659.1	598.3	538.9	487.6	437.6	401.1	386.3	364.7	368.7
10°	702.3	673.9	595.6	503.8	426.8	351.2	286.3	232.3	203.9	194.5	194.5
12.5°	680.7	640.2	530.8	416.0	314.7	217.4	158.0	114.8	86.4	77.0	77.0
15°	659.1	609.1	471.4	332.2	208.0	125.6	75.6	64.8	63.5	63.5	63.5
17.5°	640.2	572.7	409.2	253.9	136.4	70.2	62.1	60.8	59.4	59.4	59.4
20°	621.3	540.2	356.6	182.3	75.6	59.4	56.7	56.7	56.7	56.7	55.4
22.5°	603.7	511.9	299.8	125.6	58.1	54.0	52.7	52.7	52.7	51.3	51.3
25°	590.2	486.2	248.5	79.7	51.3	50.0	48.6	47.3	45.9	45.9	45.9
27.5°	576.7	461.9	194.5	55.4	47.3	44.6	43.2	41.9	39.2	39.2	37.8
30°	567.3	437.6	155.3	47.3	43.2	40.5	37.8	35.1	32.4	31.1	31.1
32.5°	561.8	418.7	116.2	43.2	39.2	35.1	32.4	29.7	27.0	24.3	24.3
35°	557.8	399.8	79.7	39.2	35.1	31.1	28.4	24.3	20.3	18.9	18.9
37.5°	564.6	386.3	54.0	36.5	32.4	28.4	23.0	20.3	17.6	16.2	16.2
40°	579.4	375.5	43.2	33.8	29.7	24.3	20.3	16.2	13.5	12.2	12.2
42.5°	605.1	371.4	37.8	32.4	27.0	21.6	16.2	13.5	12.2	10.8	10.8
45°	652.3	370.1	35.1	29.7	24.3	17.6	13.5	10.8	9.5	8.1	8.1
47.5°	705.0	372.8	33.8	28.4	21.6	16.2	12.2	9.5	8.1	6.8	6.8
50°	769.8	383.6	31.1	25.7	20.3	13.5	9.5	8.1	5.4	5.4	5.4
52.5°	832.0	394.4	29.7	24.3	17.6	12.2	8.1	5.4	5.4	4.1	4.1
55°	892.7	418.7	27.0	24.3	16.2	9.5	6.8	5.4	4.1	2.7	2.7
57.5°	953.5	436.2	25.7	21.6	13.5	8.1	5.4	4.1	2.7	2.7	2.7
60°	1015.7	452.5	23.0	18.9	10.8	6.8	4.1	2.7	2.7	2.7	2.7
62.5°	1094.0	479.5	20.3	16.2	9.5	5.4	4.1	2.7	1.4	1.4	1.4
65°	1241.2	525.4	17.6	13.5	6.8	5.4	4.1	2.7	1.4	1.4	1.4
67.5°	1335.7	518.6	14.9	10.8	6.8	4.1	2.7	2.7	1.4	1.4	1.4
70°	1316.8	468.7	12.2	9.5	5.4	4.1	2.7	2.7	1.4	1.4	1.4
72.5°	1023.8	285.0	10.8	8.1	5.4	4.1	2.7	2.7	1.4	1.4	1.4
75°	467.3	63.5	9.5	6.8	4.1	4.1	2.7	2.7	1.4	1.4	1.4
77.5°	82.4	16.2	8.1	5.4	5.4	4.1	4.1	2.7	1.4	1.4	1.4
80°	21.6	10.8	8.1	5.4	5.4	6.8	5.4	4.1	1.4	1.4	1.4
82.5°	14.9	8.1	8.1	6.8	6.8	8.1	6.8	4.1	1.4	1.4	1.4
85°	10.8	6.8	8.1	8.1	5.4	6.8	6.8	4.1	1.4	1.4	1.4
87.5°	5.4	2.7	2.7	2.7	2.7	4.1	4.1	1.4	1.4	1.4	1.4
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)