

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: P965607

Luminaire Tested: **NAV-SB4A-735-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965607  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-735-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15711.2 lumens  
Efficiency: N/A  
Efficacy: 137.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

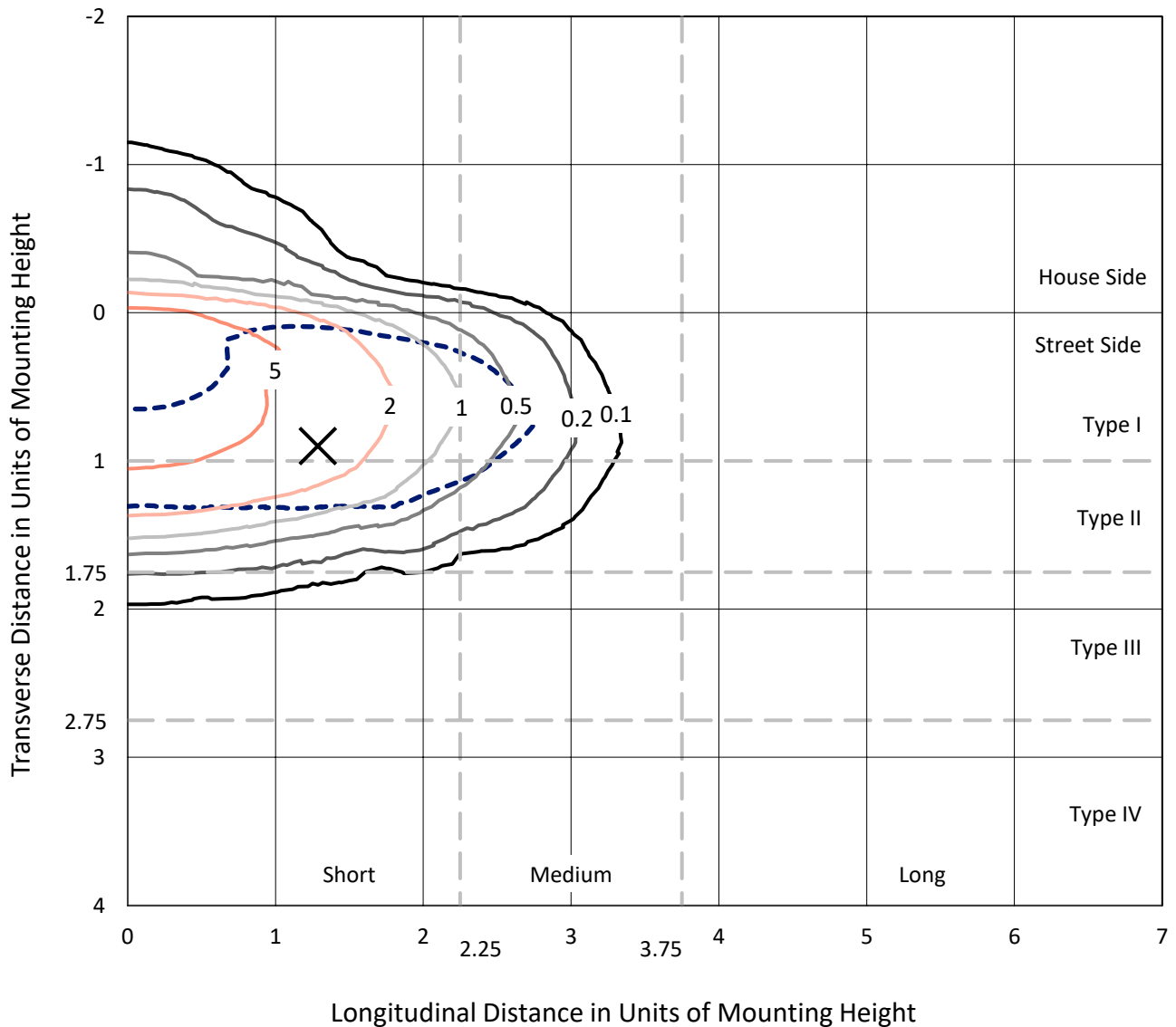
Input Watts (W): 114  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

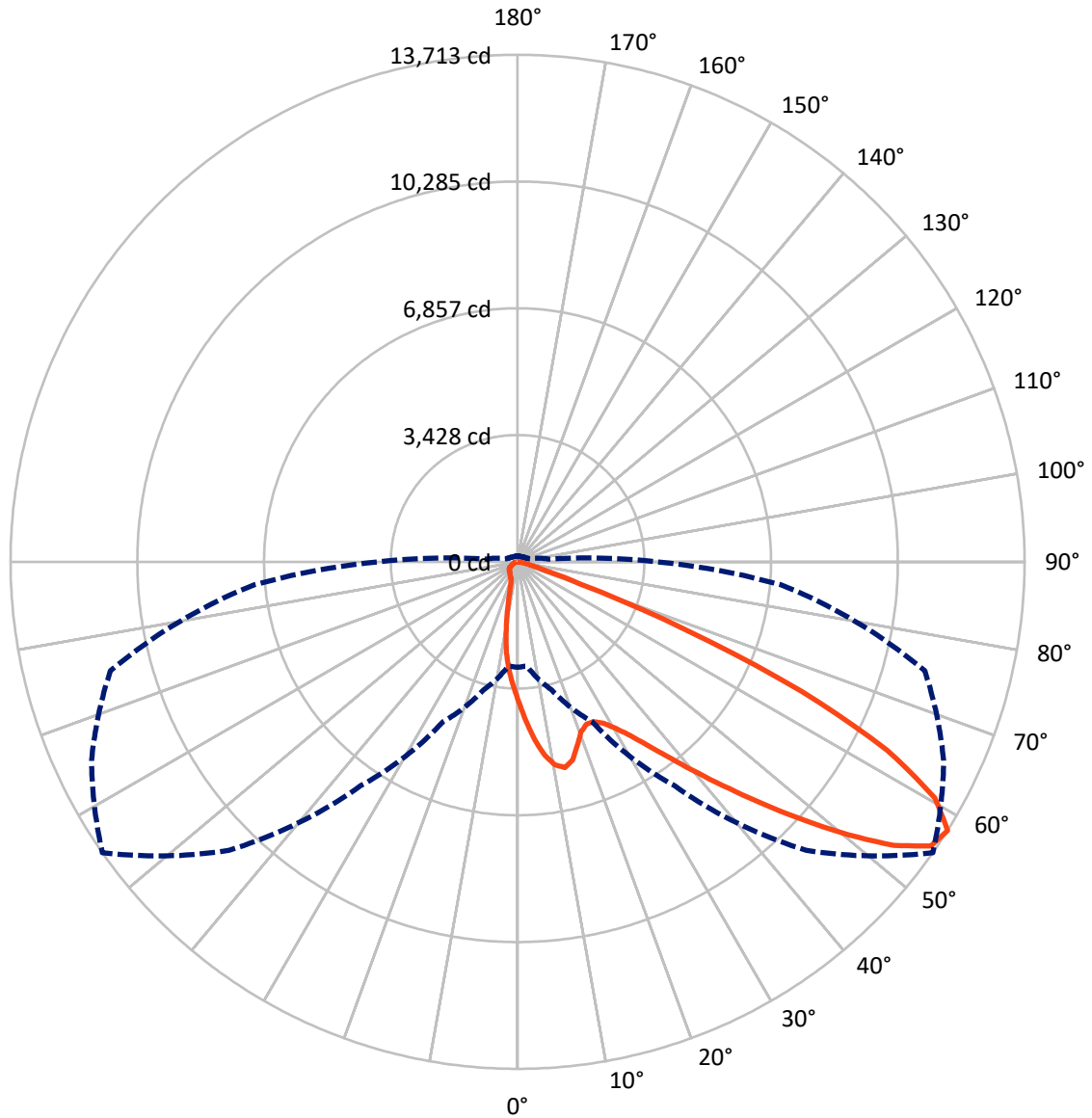
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1227.0	0.0	1227.0
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	14484.2	0.0	14484.2
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	15711.2	0.0	15711.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	352.3	2.2
10°-20°	850.9	5.4
20°-30°	1361.4	8.7
30°-40°	2304.3	14.7
40°-50°	3783.2	24.1
50°-60°	4158.0	26.5
60°-70°	2385.0	15.2
70°-80°	487.3	3.1
80°-90°	28.7	0.2
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°	15711.2	100.0
0°-180°	15711.2	100.0

**Coefficient of Utilization**

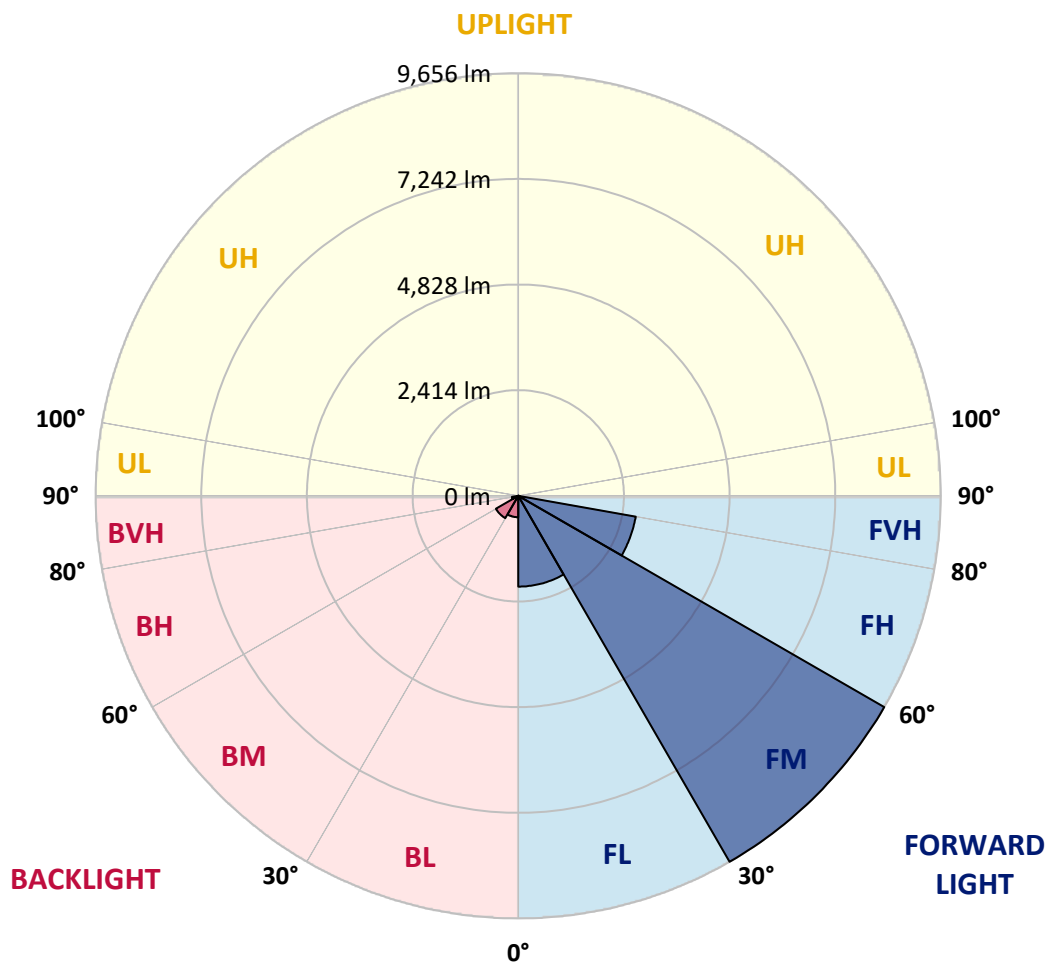


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2074.8	13.2			
FM (30°-60°)	9656.2	61.5			
FH (60°-80°)	2726.4	17.4			G2/5000
FVH (80°-90°)	26.8	0.2			G1/100
BL (0°-30°)	489.8	3.1	B1/500		
BM (30°-60°)	589.3	3.8	B1/1000		
BH (60°-80°)	145.9	0.9	B1/500		G1/500
BVH (80°-90°)	1.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0
2.5°	4697.7	4638.5	4629.8	4618.2	4505.8	4421.5	4299.5	4165.8	4015.6	3862.5	3794.8
5°	5427.2	5380.6	5371.9	5317.7	5189.8	5046.4	4829.4	4555.2	4275.3	3945.8	3804.4
7.5°	5568.6	5559.9	5599.6	5597.6	5580.2	5466.8	5283.8	4957.3	4536.9	4048.5	3829.6
10°	4937.9	4960.2	5078.4	5182.0	5462.0	5624.8	5585.0	5315.8	4806.1	4165.8	3857.7
12.5°	4363.4	4337.3	4421.5	4538.8	4864.2	5348.7	5710.1	5615.1	5114.2	4298.5	3899.4
15°	4003.0	3992.4	4039.8	4094.1	4342.1	4830.3	5564.7	5858.3	5410.7	4455.5	3962.3
17.5°	3887.7	3879.0	3893.6	3907.1	4067.9	4445.7	5218.9	6007.4	5694.5	4634.6	4032.0
20°	3981.7	3970.0	3968.2	3957.5	4024.4	4282.0	4906.0	6018.1	5949.3	4797.4	4092.1
22.5°	4255.9	4242.3	4194.8	4152.2	4158.0	4304.3	4766.5	5911.5	6141.1	4949.5	4129.9
25°	4752.8	4730.6	4631.8	4488.4	4397.4	4459.4	4787.8	5771.1	6324.2	5068.7	4111.5
27.5°	5374.8	5345.8	5218.9	5005.7	4797.4	4721.9	4941.7	5674.2	6476.4	5159.7	4071.8
30°	5984.2	5946.4	5821.4	5655.7	5351.5	5113.2	5219.8	5716.8	6657.5	5254.7	4019.5
32.5°	6642.0	6606.1	6440.5	6235.1	5983.2	5662.5	5600.5	5925.1	6879.4	5387.4	3982.6
35°	7474.2	7418.0	7182.6	6902.6	6635.2	6310.6	6116.0	6284.5	7174.8	5589.9	4003.0
37.5°	8421.6	8346.1	8092.3	7705.7	7356.9	6993.7	6743.7	6778.6	7607.9	5861.2	4066.0
40°	9314.9	9246.1	9011.6	8647.4	8209.5	7768.7	7502.3	7424.8	8205.6	6191.5	4176.5
42.5°	9850.6	9788.6	9689.8	9535.8	9166.7	8717.1	8380.9	8213.3	8912.8	6586.8	4311.0
45°	9880.6	9826.4	9959.1	10138.4	10065.7	9766.3	9356.5	9049.4	9622.9	6957.8	4450.5
47.5°	9400.2	9363.3	9766.3	10392.2	10704.1	10830.0	10452.2	9815.7	10209.1	7224.2	4507.7
50°	8090.3	8076.8	8906.0	10055.0	10947.3	11762.0	11608.0	10528.8	10663.4	7361.8	4453.5
52.5°	7015.0	6965.6	7449.0	8975.8	10593.7	12252.2	12737.6	11228.3	10981.1	7388.0	4326.6
55°	5320.6	5277.0	5883.4	7170.0	9453.4	12077.9	13563.9	11950.0	11208.9	7321.1	4099.0
57.5°	2854.0	2827.0	3593.2	4772.2	7389.9	11031.6	13713.2	12713.4	11400.7	7143.8	3780.2
60°	1111.2	1106.4	1393.1	2315.4	4491.2	8974.8	12960.4	13171.6	11520.8	6925.8	3513.8
62.5°	672.3	686.9	733.4	1039.6	1984.1	5575.4	11225.3	12650.3	11601.2	6726.3	3293.8
65°	556.1	557.1	562.8	714.0	950.4	2332.8	8450.7	10935.6	11402.6	6370.7	2981.9
67.5°	476.6	485.3	507.7	566.7	670.3	1023.1	4865.3	8471.0	10194.5	5543.4	2495.6
70°	375.9	387.6	415.6	466.0	517.3	640.3	1798.1	5636.4	7788.1	4178.4	1887.2
72.5°	316.8	315.8	330.4	378.8	410.7	450.5	691.7	3158.2	4526.2	1994.8	933.9
75°	245.1	254.8	273.2	316.8	336.2	326.5	374.9	1153.8	1621.8	604.5	317.8
77.5°	191.8	199.6	216.1	258.7	278.1	231.5	216.1	412.7	521.2	217.0	143.4
80°	86.2	93.0	147.3	190.9	226.7	159.9	117.3	211.2	231.5	98.8	72.7
82.5°	15.5	26.1	86.2	100.8	116.2	103.6	61.0	109.5	113.4	39.8	25.2
85°	0.9	1.9	30.0	36.8	46.5	33.9	18.4	43.6	37.8	13.5	9.7
87.5°	0.0	0.0	0.0	0.9	0.9	4.8	5.8	7.8	5.8	4.8	3.9
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0	3786.0
2.5°	3725.0	3587.4	3453.7	3344.3	3280.3	3171.8	3100.1	3088.5	3058.5	3084.6
5°	3653.3	3407.2	3158.2	2935.4	2752.3	2516.0	2339.7	2265.0	2200.1	2222.4
7.5°	3619.4	3230.9	2843.4	2462.7	2071.2	1693.4	1412.4	1295.3	1206.1	1218.7
10°	3573.9	3047.8	2440.3	1859.1	1335.0	962.0	768.2	696.6	656.8	657.8
12.5°	3539.0	2828.9	1972.4	1260.3	812.8	614.2	554.1	536.7	525.1	526.0
15°	3521.5	2571.1	1510.3	840.0	581.3	520.2	505.7	497.9	490.2	489.2
17.5°	3492.5	2284.4	1105.4	613.3	508.6	487.3	474.7	466.0	456.3	454.4
20°	3448.9	1958.9	808.0	518.3	476.6	460.1	442.7	431.1	419.5	417.6
22.5°	3368.5	1615.0	620.9	479.6	453.4	435.0	413.7	400.1	388.5	386.5
25°	3219.3	1292.3	523.2	455.3	433.1	410.7	387.6	369.1	358.4	356.5
27.5°	3030.3	1015.3	474.7	433.1	406.9	386.5	360.4	343.0	333.2	331.3
30°	2807.6	781.8	446.6	407.8	375.9	358.4	335.2	320.6	314.9	314.9
32.5°	2567.3	624.8	435.0	382.6	348.8	329.4	311.0	305.1	303.2	302.3
35°	2341.5	542.5	429.2	362.3	324.5	306.2	298.4	299.4	303.2	303.2
37.5°	2141.0	516.4	426.3	347.8	303.2	286.8	291.6	300.3	296.4	296.4
40°	1959.9	519.3	424.4	337.1	285.8	276.1	285.8	279.0	269.4	268.3
42.5°	1821.3	543.5	420.5	328.4	275.1	268.3	264.4	253.8	252.9	254.8
45°	1720.6	564.8	419.5	324.5	263.5	250.9	246.1	235.4	254.8	259.6
47.5°	1601.4	564.8	419.5	311.0	244.2	239.3	231.5	220.0	239.3	244.2
50°	1447.4	529.0	403.0	295.5	228.7	225.7	212.2	197.6	193.7	196.7
52.5°	1252.7	464.0	361.3	274.2	213.1	207.4	190.9	180.2	177.3	177.3
55°	1030.7	388.5	305.1	243.1	196.7	186.0	174.4	169.5	166.7	164.7
57.5°	838.0	318.8	245.1	216.1	181.1	167.6	163.7	158.0	153.0	150.2
60°	687.9	250.9	202.4	191.8	165.6	153.0	152.1	144.3	131.7	129.9
62.5°	530.8	184.1	170.5	166.7	150.2	139.5	137.6	122.1	102.7	98.8
65°	374.9	143.4	137.6	146.3	133.7	124.0	119.2	95.9	75.5	72.7
67.5°	263.5	120.1	108.5	127.9	116.2	103.6	100.8	81.4	62.9	61.0
70°	188.0	97.9	89.2	109.5	93.0	91.0	85.3	67.9	51.4	49.4
72.5°	132.7	74.6	68.8	94.9	64.0	78.5	69.8	52.3	38.7	36.8
75°	97.9	53.3	48.5	55.2	46.5	59.1	49.4	34.8	24.2	23.3
77.5°	71.6	33.9	29.1	27.2	27.2	36.8	27.2	14.6	10.7	9.7
80°	50.3	15.5	13.5	11.6	10.7	8.7	3.9	1.9	0.9	0.9
82.5°	30.0	6.8	6.8	4.8	2.9	0.0	0.0	0.0	0.0	0.0
85°	6.8	2.9	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	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

(END OF REPORT)