

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: P969203

Luminaire Tested: **NAV-SB5D-722-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969203  
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-SB5D-722-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 900mA 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: 37111.1 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

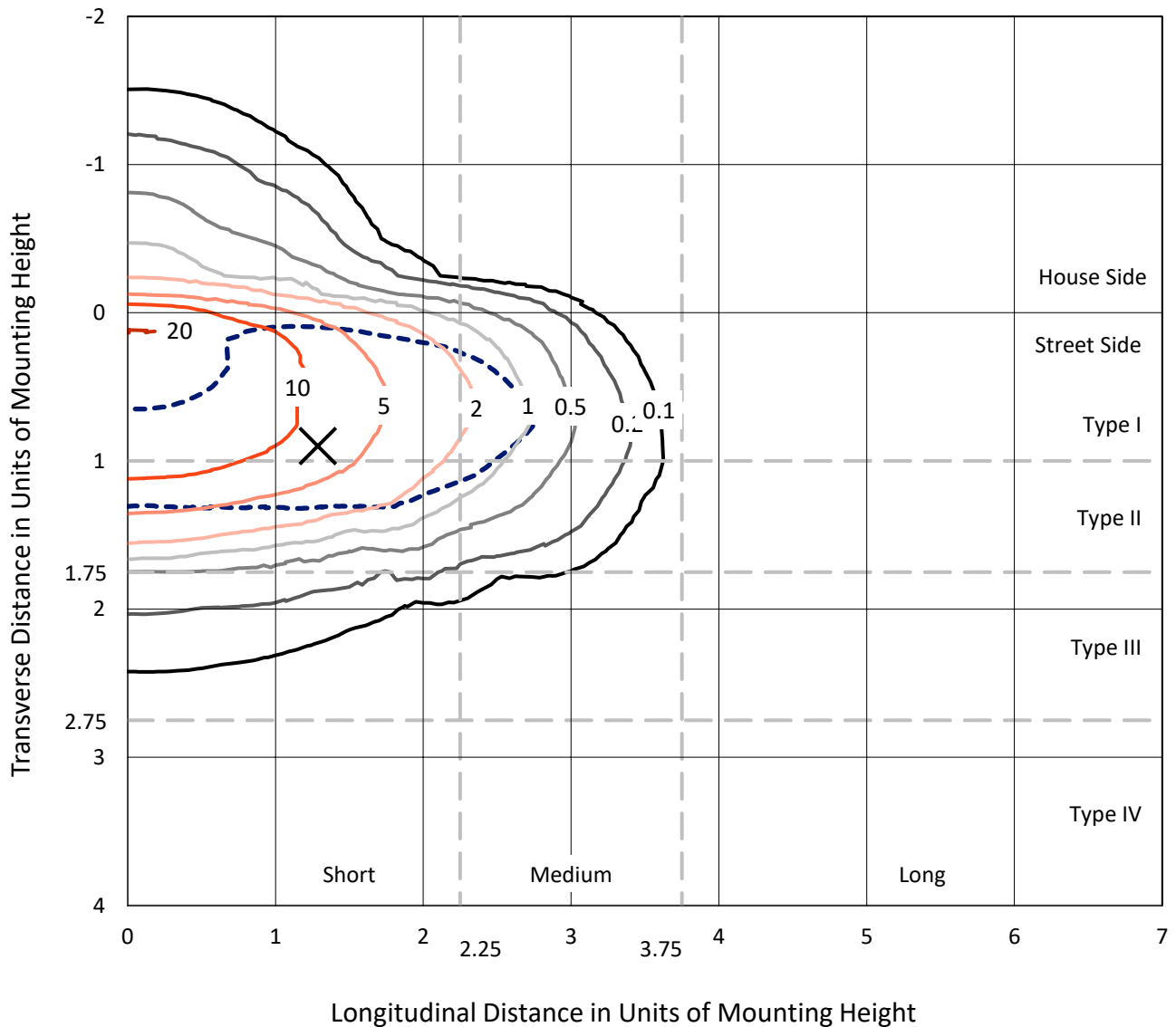
Input Watts (W): 364.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

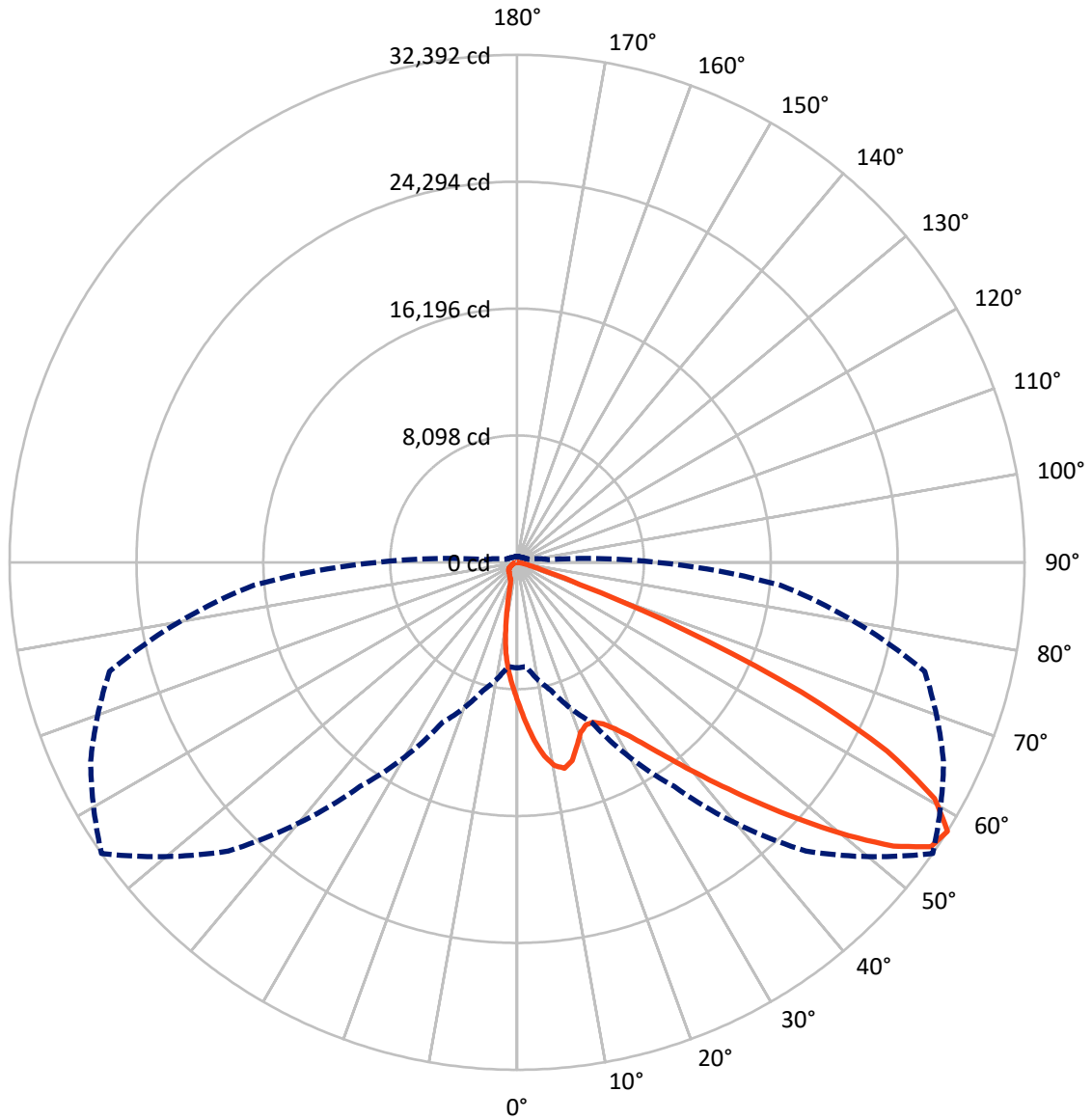
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.5 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	2898.2	0.0	2898.2
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	34212.9	0.0	34212.9
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	37111.1	0.0	37111.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	832.1	2.2
10°-20°	2009.9	5.4
20°-30°	3215.8	8.7
30°-40°	5443.0	14.7
40°-50°	8936.2	24.1
50°-60°	9821.5	26.5
60°-70°	5633.6	15.2
70°-80°	1151.1	3.1
80°-90°	67.9	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°	37111.1	100.0
0°-180°	37111.1	100.0

**Coefficient of Utilization**



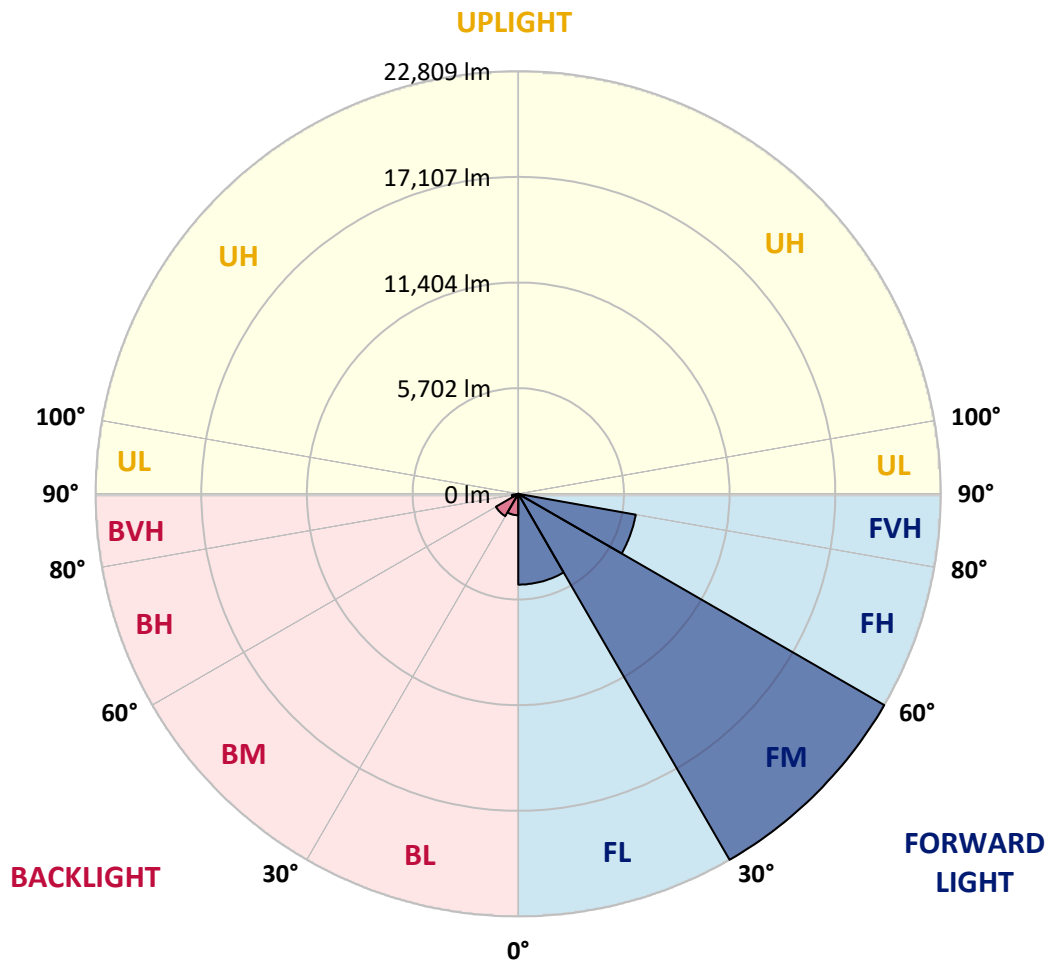
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4900.8	13.2			
FM (30°-60°)	22808.8	61.5			
FH (60°-80°)	6440.1	17.4			G3/7500
FVH (80°-90°)	63.3	0.2			G1/100
BL (0°-30°)	1157.0	3.1	B3/2500		
BM (30°-60°)	1391.9	3.8	B2/2500		
BH (60°-80°)	344.7	0.9	B1/500		G1/500
BVH (80°-90°)	4.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9
2.5°	11096.2	10956.6	10936.0	10908.6	10643.1	10444.0	10155.7	9839.9	9485.2	9123.6	8963.4
5°	12819.4	12709.5	12688.9	12560.8	12258.7	11920.0	11407.4	10759.8	10098.5	9320.4	8986.4
7.5°	13153.4	13132.8	13226.7	13222.1	13180.9	12913.2	12480.7	11709.5	10716.4	9563.0	9045.8
10°	11663.7	11716.4	11995.6	12240.3	12901.7	13286.2	13192.4	12556.1	11352.5	9839.9	9112.2
12.5°	10306.7	10245.0	10444.0	10720.9	11489.8	12633.9	13487.6	13263.3	12080.2	10153.4	9210.6
15°	9455.4	9430.3	9542.4	9670.6	10256.4	11409.7	13144.3	13837.6	12780.4	10524.1	9359.4
17.5°	9183.2	9162.6	9196.9	9228.9	9608.8	10501.2	12327.4	14190.1	13451.0	10947.5	9524.1
20°	9405.1	9377.6	9373.1	9347.9	9505.8	10114.5	11588.2	14215.2	14052.7	11331.9	9666.0
22.5°	10052.7	10020.7	9908.6	9807.9	9821.6	10167.2	11258.7	13963.5	14505.9	11691.2	9755.2
25°	11226.6	11174.0	10940.6	10601.9	10386.8	10533.3	11309.0	13631.7	14938.4	11972.6	9711.8
27.5°	12695.8	12627.1	12327.4	11823.9	11331.9	11153.4	11672.9	13402.9	15297.6	12187.8	9618.0
30°	14135.2	14045.9	13750.7	13359.3	12640.8	12077.9	12329.6	13503.6	15725.6	12412.0	9494.4
32.5°	15689.0	15604.3	15212.9	14727.8	14132.8	13375.4	13229.0	13995.6	16249.5	12725.5	9407.4
35°	17654.6	17521.9	16965.8	16304.5	15672.9	14906.3	14446.4	14844.6	16947.6	13203.7	9455.4
37.5°	19892.6	19714.1	19114.6	18201.5	17377.7	16519.6	15929.2	16011.6	17970.4	13844.5	9604.2
40°	22002.4	21840.0	21286.3	20425.8	19391.5	18350.3	17721.0	17538.0	19382.3	14624.8	9865.1
42.5°	23267.9	23121.5	22888.0	22524.3	21652.4	20590.6	19796.5	19400.6	21052.8	15558.5	10183.2
45°	23338.8	23210.7	23524.3	23947.6	23776.0	23068.9	22100.8	21375.5	22730.2	16435.0	10512.7
47.5°	22203.9	22116.9	23068.9	24547.1	25284.0	25581.4	24689.0	23185.6	24114.7	17064.2	10647.7
50°	19110.0	19078.0	21036.8	23750.8	25858.4	27782.8	27419.1	24869.8	25187.8	17389.1	10519.6
52.5°	16569.9	16453.2	17595.1	21201.6	25023.1	28940.8	30087.2	26522.0	25938.4	17450.9	10219.8
55°	12567.6	12464.6	13897.2	16936.1	22329.7	28528.8	32039.1	28226.8	26476.3	17293.1	9682.0
57.5°	6741.5	6677.4	8487.5	11272.4	17455.5	26057.4	32391.6	30030.0	26929.3	16874.3	8929.2
60°	2624.7	2613.3	3290.7	5469.2	10608.7	21199.3	30613.6	31112.4	27213.0	16359.4	8299.8
62.5°	1588.1	1622.5	1732.2	2455.4	4686.5	13169.4	26515.1	29881.3	27403.0	15888.0	7780.4
65°	1313.5	1315.8	1329.5	1686.5	2244.9	5510.3	19961.3	25830.9	26933.9	15048.2	7043.5
67.5°	1125.9	1146.5	1199.0	1338.6	1583.5	2416.5	11492.1	20009.3	24080.3	13094.0	5894.8
70°	887.9	915.3	981.7	1100.7	1222.0	1512.6	4247.2	13313.6	18396.1	9869.6	4457.7
72.5°	748.2	746.0	780.3	894.7	970.3	1064.1	1633.8	7460.1	10691.2	4711.7	2206.0
75°	578.9	601.9	645.3	748.2	794.1	771.2	885.6	2725.5	3830.7	1427.9	750.6
77.5°	453.0	471.4	510.3	611.0	656.7	546.9	510.3	974.9	1231.1	512.6	338.7
80°	203.7	219.7	347.8	450.8	535.5	377.6	276.9	498.9	546.9	233.4	171.6
82.5°	36.6	61.8	203.7	238.0	274.6	244.9	144.1	258.6	267.7	93.8	59.4
85°	2.3	4.6	70.9	86.9	109.9	80.1	43.5	103.0	89.3	32.1	22.9
87.5°	0.0	0.0	0.0	2.3	2.3	11.5	13.7	18.3	13.7	11.5	9.1
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°	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9	8942.9
2.5°	8798.7	8473.8	8158.0	7899.4	7748.4	7492.0	7322.7	7295.2	7224.3	7286.1
5°	8629.4	8048.1	7460.1	6933.7	6501.2	5942.8	5526.4	5350.2	5196.9	5249.4
7.5°	8549.3	7631.6	6716.3	5817.0	4892.5	4000.1	3336.4	3059.5	2849.0	2878.7
10°	8441.7	7199.2	5764.4	4391.3	3153.3	2272.3	1814.7	1645.3	1551.5	1553.8
12.5°	8359.4	6682.0	4659.0	2977.1	1919.9	1450.8	1308.9	1267.7	1240.2	1242.6
15°	8318.2	6073.3	3567.5	1984.0	1373.0	1228.9	1194.5	1176.2	1157.9	1155.6
17.5°	8249.5	5395.9	2611.0	1448.5	1201.4	1151.1	1121.2	1100.7	1077.8	1073.3
20°	8146.5	4627.1	1908.4	1224.3	1125.9	1087.0	1045.8	1018.3	990.9	986.3
22.5°	7956.6	3814.6	1466.9	1132.7	1070.9	1027.5	977.1	945.0	917.6	913.1
25°	7604.2	3052.7	1235.7	1075.5	1022.8	970.3	915.3	871.9	846.6	842.1
27.5°	7158.0	2398.2	1121.2	1022.8	961.1	913.1	851.3	810.1	787.2	782.6
30°	6631.6	1846.7	1054.9	963.4	887.9	846.6	791.8	757.5	743.7	743.7
32.5°	6064.1	1476.0	1027.5	903.9	823.8	778.1	734.5	720.8	716.3	714.0
35°	5530.9	1281.5	1013.7	855.9	766.6	723.1	704.8	707.1	716.3	716.3
37.5°	5057.2	1219.6	1006.9	821.5	716.3	677.3	688.8	709.4	700.3	700.3
40°	4629.3	1226.5	1002.3	796.3	675.1	652.2	675.1	659.1	636.1	633.9
42.5°	4302.1	1283.8	993.1	775.7	649.8	633.9	624.7	599.5	597.3	601.9
45°	4064.1	1334.1	990.9	766.6	622.5	592.7	581.3	556.1	601.9	613.3
47.5°	3782.7	1334.1	990.9	734.5	576.7	565.2	546.9	519.5	565.2	576.7
50°	3418.8	1249.5	951.9	697.9	540.1	533.2	501.1	466.8	457.7	464.5
52.5°	2958.9	1096.1	853.5	647.6	503.5	489.7	450.8	425.7	418.8	418.8
55°	2434.8	917.6	720.8	574.4	464.5	439.3	411.9	400.5	393.6	389.0
57.5°	1979.4	752.9	578.9	510.3	427.9	395.9	386.7	373.0	361.5	354.6
60°	1624.7	592.7	478.3	453.0	391.3	361.5	359.3	340.9	311.2	306.7
62.5°	1254.0	434.8	402.7	393.6	354.6	329.5	324.9	288.3	242.5	233.4
65°	885.6	338.7	324.9	345.5	315.8	292.9	281.5	226.5	178.5	171.6
67.5°	622.5	283.7	256.2	302.1	274.6	244.9	238.0	192.2	148.7	144.1
70°	443.9	231.1	210.5	258.6	219.7	215.1	201.4	160.2	121.3	116.7
72.5°	313.5	176.2	162.5	224.3	151.0	185.3	164.7	123.6	91.5	86.9
75°	231.1	125.9	114.4	130.5	109.9	139.6	116.7	82.4	57.2	54.9
77.5°	169.3	80.1	68.7	64.1	64.1	86.9	64.1	34.3	25.2	22.9
80°	119.0	36.6	32.1	27.5	25.2	20.6	9.1	4.6	2.3	2.3
82.5°	70.9	16.0	16.0	11.5	6.9	0.0	0.0	0.0	0.0	0.0
85°	16.0	6.9	6.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.3	2.3	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)