

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: P966134

Luminaire Tested: **NAV-SB4B-735-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966134
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-SB4B-735-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA 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: 19723 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 147
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



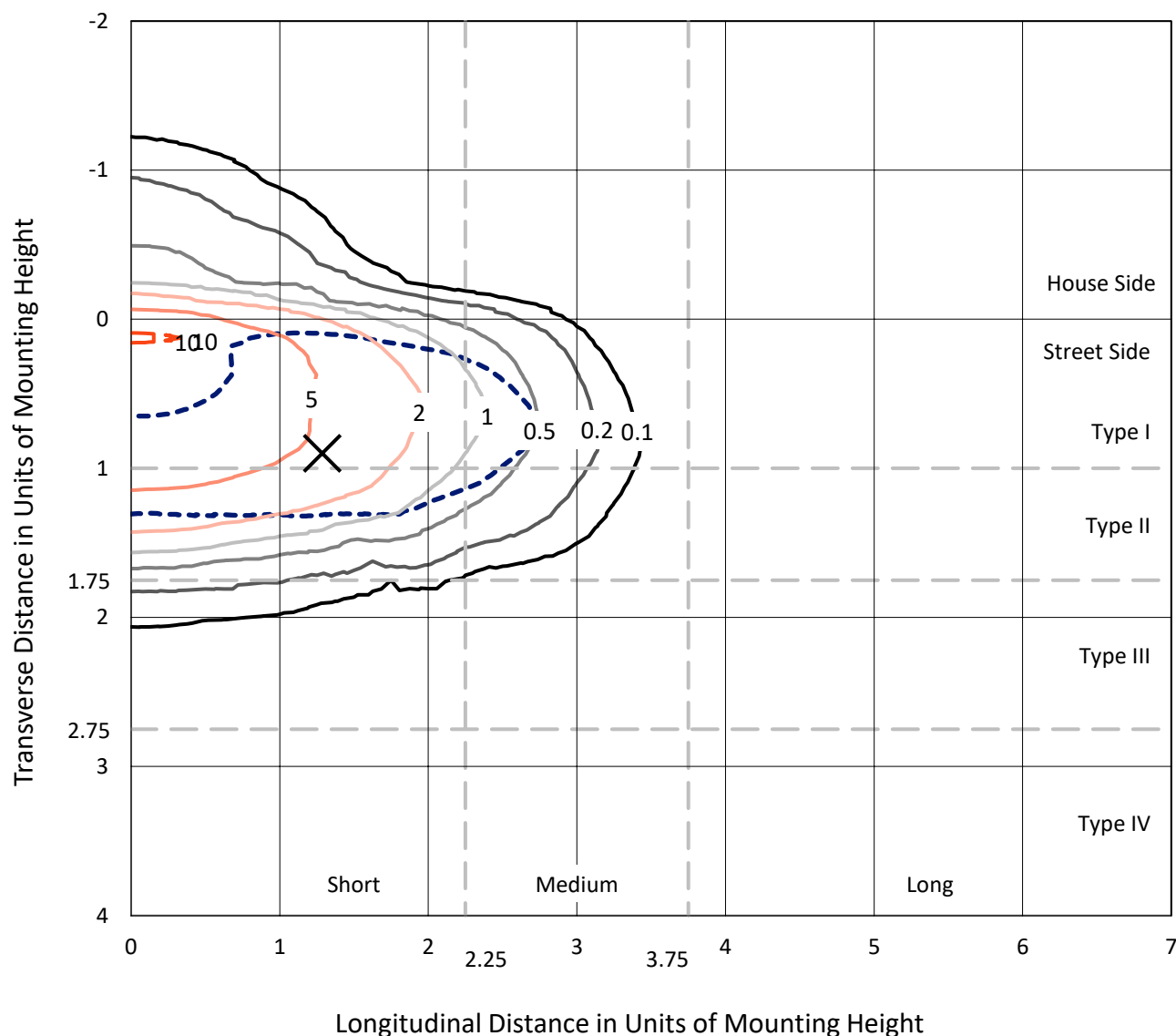
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

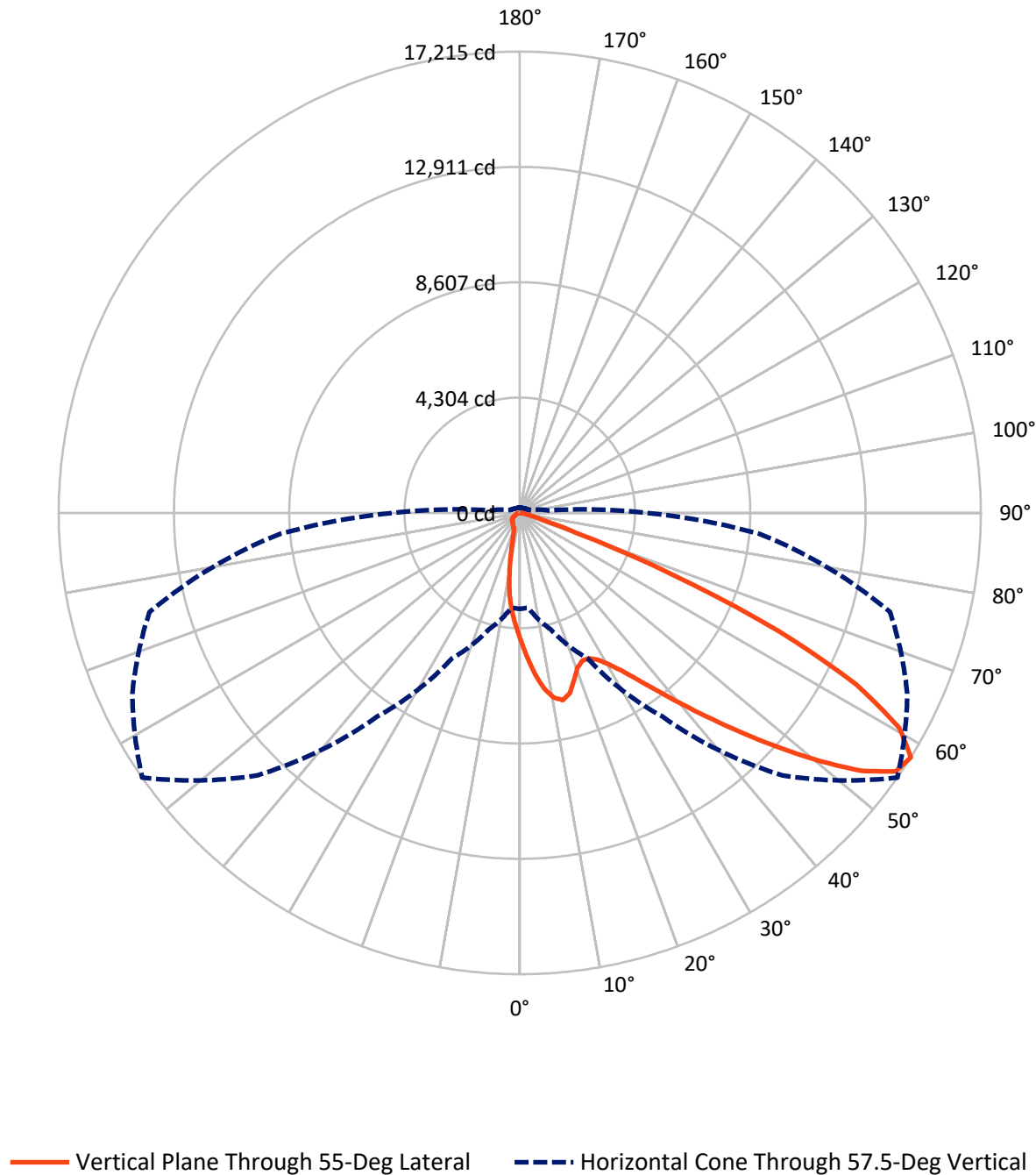


Based on 25 foot mounting height. Maximum calculated value = 10.9 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1540.3	0.0	1540.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	18182.8	0.0	18182.8
	% Fixture	92.2	0.0	92.2
Total	Lumens	19723.0	0.0	19723.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	442.2	2.2
10°-20°	1068.2	5.4
20°-30°	1709.1	8.7
30°-40°	2892.7	14.7
40°-50°	4749.2	24.1
50°-60°	5219.7	26.5
60°-70°	2994.0	15.2
70°-80°	611.8	3.1
80°-90°	36.1	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°	19723.0	100.0
0°-180°	19723.0	100.0

Coefficient of Utilization



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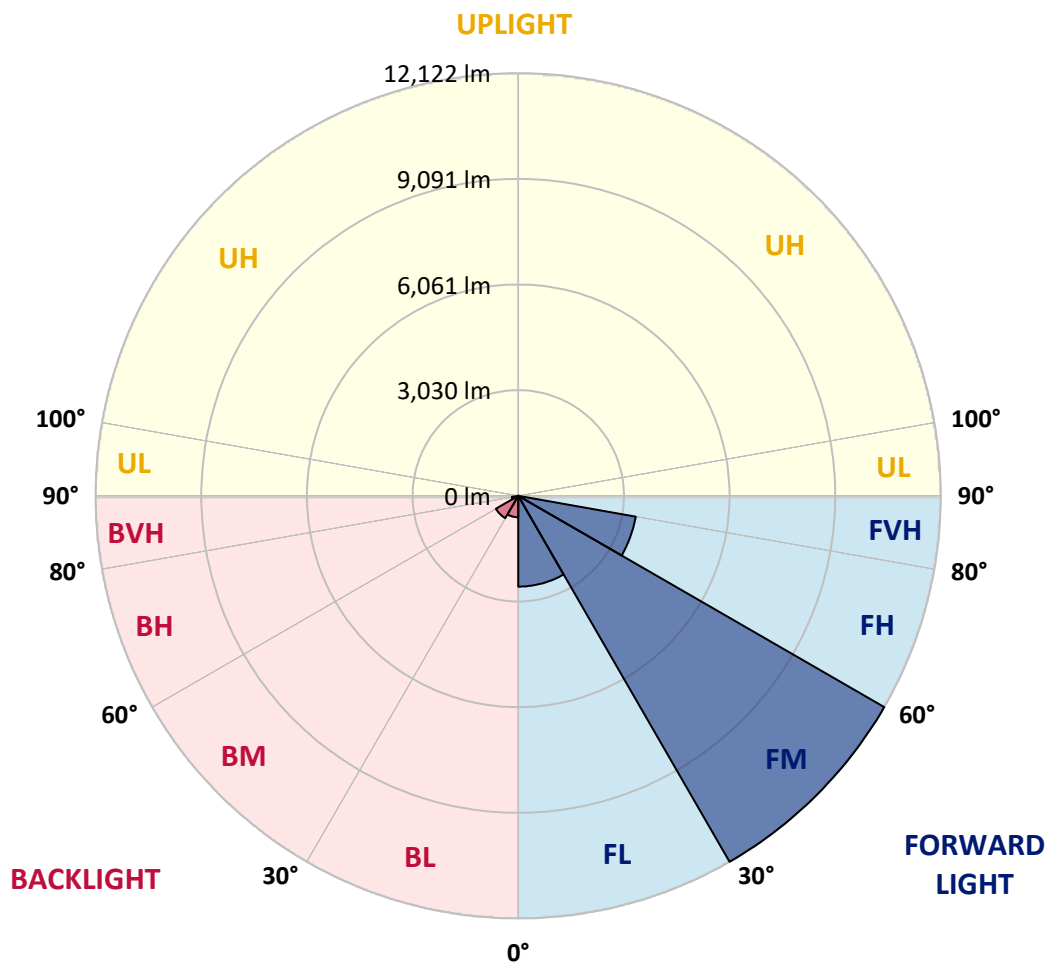
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2604.6	13.2			
FM	(30°-60°)	12121.9	61.5			
FH	(60°-80°)	3422.6	17.4			G2/5000
FVH	(80°-90°)	33.7	0.2			G1/100
BL	(0°-30°)	614.9	3.1	B2/1000		
BM	(30°-60°)	739.7	3.8	B1/1000		
BH	(60°-80°)	183.2	0.9	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7
2.5°	5897.1	5823.0	5812.1	5797.5	5656.4	5550.6	5397.3	5229.5	5041.0	4848.9	4763.7
5°	6813.0	6754.5	6743.7	6675.5	6515.0	6335.0	6062.6	5718.4	5366.9	4953.4	4775.9
7.5°	6990.5	6979.5	7029.4	7027.0	7005.1	6862.8	6633.0	6223.1	5695.3	5082.4	4807.5
10°	6198.8	6226.8	6375.1	6505.3	6856.7	7061.0	7011.2	6673.1	6033.4	5229.5	4842.7
12.5°	5477.6	5444.8	5550.6	5697.8	6106.3	6714.5	7168.0	7048.9	6420.1	5396.1	4895.1
15°	5025.2	5011.8	5071.4	5139.6	5450.8	6063.8	6985.7	7354.2	6792.3	5593.1	4974.1
17.5°	4880.4	4869.6	4887.7	4904.8	5106.7	5581.0	6551.5	7541.4	7148.7	5818.1	5061.7
20°	4998.4	4983.9	4981.4	4968.1	5051.9	5375.4	6158.6	7554.8	7468.5	6022.5	5137.1
22.5°	5342.6	5325.6	5266.0	5212.4	5219.8	5403.4	5983.5	7421.0	7709.2	6213.3	5184.6
25°	5966.5	5938.5	5814.5	5634.5	5520.1	5598.0	6010.3	7244.7	7939.1	6363.0	5161.4
27.5°	6747.3	6710.8	6551.5	6284.0	6022.5	5927.6	6203.6	7123.0	8130.1	6477.3	5111.6
30°	7512.2	7464.8	7307.9	7100.0	6718.1	6419.0	6552.7	7176.5	8357.4	6596.5	5045.9
32.5°	8338.1	8293.1	8085.1	7827.2	7511.0	7108.5	7030.7	7438.0	8635.9	6763.1	4999.6
35°	9382.7	9312.1	9016.6	8665.1	8329.5	7922.1	7677.7	7889.2	9006.9	7017.3	5025.2
37.5°	10572.2	10477.2	10158.6	9673.3	9235.6	8779.5	8465.7	8509.6	9550.5	7357.8	5104.2
40°	11693.4	11607.1	11312.7	10855.5	10305.8	9752.5	9418.0	9320.6	10300.9	7772.5	5242.9
42.5°	12365.9	12288.1	12164.1	11970.7	11507.4	10943.0	10521.0	10310.7	11188.7	8268.7	5411.9
45°	12403.6	12335.6	12502.1	12727.1	12636.0	12260.1	11745.7	11360.2	12080.1	8734.5	5587.1
47.5°	11800.4	11754.2	12260.1	13045.8	13437.4	13595.5	13121.2	12322.1	12816.0	9068.9	5658.8
50°	10156.2	10139.2	11180.2	12622.6	13742.7	14765.4	14572.1	13217.3	13386.3	9241.6	5590.7
52.5°	8806.3	8744.2	9351.1	11267.7	13298.8	15380.8	15990.1	14095.4	13785.2	9274.5	5431.4
55°	6679.2	6624.5	7385.7	9000.8	11867.3	15161.9	17027.5	15001.4	14071.0	9190.6	5145.6
57.5°	3582.8	3548.8	4510.7	5990.8	9276.9	13848.5	17214.8	15959.8	14311.8	8968.0	4745.4
60°	1394.9	1388.9	1748.9	2906.6	5638.1	11266.5	16269.8	16535.0	14462.6	8694.4	4411.0
62.5°	844.0	862.2	920.7	1304.9	2490.8	6999.0	14091.7	15880.6	14563.6	8443.8	4135.0
65°	698.1	699.3	706.6	896.4	1193.1	2928.5	10608.6	13728.0	14314.2	7997.5	3743.4
67.5°	598.4	609.3	637.2	711.5	841.6	1284.2	6107.6	10634.2	12797.7	6958.9	3132.8
70°	471.9	486.5	521.7	585.0	649.4	803.9	2257.2	7075.7	9776.8	5245.3	2369.1
72.5°	397.7	396.5	414.7	475.5	515.7	565.5	868.4	3964.7	5681.9	2504.1	1172.4
75°	307.7	319.8	343.0	397.7	422.0	409.9	470.7	1448.4	2035.9	758.9	398.9
77.5°	240.8	250.5	271.2	324.7	349.0	290.7	271.2	518.0	654.3	272.4	180.0
80°	108.2	116.7	184.8	239.5	284.5	200.7	147.2	265.2	290.7	124.0	91.2
82.5°	19.5	32.8	108.2	126.5	146.0	130.2	76.6	137.5	142.3	49.8	31.6
85°	1.2	2.5	37.7	46.2	58.4	42.5	23.1	54.7	47.5	17.0	12.2
87.5°	0.0	0.0	0.0	1.2	1.2	6.0	7.3	9.7	7.3	6.0	4.8
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°	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7	4752.7
2.5°	4676.2	4503.4	4335.6	4198.2	4117.9	3981.7	3891.7	3877.2	3839.4	3872.2
5°	4586.2	4277.2	3964.7	3685.0	3455.2	3158.3	2937.0	2843.4	2761.9	2789.8
7.5°	4543.6	4055.9	3569.5	3091.5	2600.1	2125.8	1773.1	1626.1	1514.1	1529.9
10°	4486.4	3826.0	3063.5	2333.8	1675.9	1207.7	964.4	874.4	824.5	825.7
12.5°	4442.7	3551.2	2476.1	1582.2	1020.4	771.0	695.7	673.7	659.2	660.4
15°	4420.7	3227.7	1896.0	1054.4	729.7	653.1	634.9	625.1	615.4	614.2
17.5°	4384.2	2867.7	1387.6	769.9	638.5	611.7	595.9	585.0	572.8	570.4
20°	4329.5	2459.1	1014.2	650.7	598.4	577.7	555.8	541.2	526.6	524.2
22.5°	4228.6	2027.3	779.5	602.0	569.2	546.0	519.3	502.2	487.7	485.2
25°	4041.3	1622.4	656.7	571.6	543.7	515.7	486.5	463.4	450.0	447.5
27.5°	3804.2	1274.6	595.9	543.7	510.8	485.2	452.4	430.5	418.4	415.9
30°	3524.5	981.4	560.7	512.0	471.9	450.0	420.8	402.5	395.2	395.2
32.5°	3222.8	784.4	546.0	480.4	437.8	413.5	390.4	383.0	380.7	379.5
35°	2939.5	681.0	538.7	454.9	407.4	384.3	374.5	375.8	380.7	380.7
37.5°	2687.8	648.2	535.2	436.6	380.7	360.0	366.0	377.0	372.2	372.2
40°	2460.3	651.9	532.7	423.2	358.7	346.7	358.7	350.2	338.0	336.9
42.5°	2286.4	682.2	527.8	412.3	345.4	336.9	332.0	318.7	317.4	319.8
45°	2159.9	709.0	526.6	407.4	330.8	315.0	308.9	295.5	319.8	326.0
47.5°	2010.3	709.0	526.6	390.4	306.5	300.4	290.7	276.0	300.4	306.5
50°	1816.9	664.0	505.9	370.9	287.0	283.4	266.3	248.0	243.2	246.9
52.5°	1572.5	582.5	453.7	344.2	267.5	260.2	239.5	226.2	222.5	222.5
55°	1294.0	487.7	383.0	305.2	246.9	233.5	218.9	212.8	209.2	206.7
57.5°	1052.0	400.2	307.7	271.2	227.4	210.4	205.5	198.2	192.2	188.5
60°	863.5	315.0	254.2	240.8	208.0	192.2	191.0	181.2	165.4	163.0
62.5°	666.5	231.0	214.0	209.2	188.5	175.2	172.7	153.2	128.9	124.0
65°	470.7	180.0	172.7	183.7	167.8	155.7	149.5	120.4	94.8	91.2
67.5°	330.8	150.8	136.2	160.5	146.0	130.2	126.5	102.2	79.0	76.6
70°	236.0	122.8	111.9	137.5	116.7	114.3	107.0	85.2	64.5	62.0
72.5°	166.7	93.7	86.3	119.2	80.3	98.5	87.5	65.7	48.7	46.2
75°	122.8	66.9	60.8	69.3	58.4	74.2	62.0	43.8	30.4	29.2
77.5°	90.0	42.5	36.5	34.0	34.0	46.2	34.0	18.2	13.4	12.2
80°	63.2	19.5	17.0	14.6	13.4	11.0	4.8	2.5	1.2	1.2
82.5°	37.7	8.5	8.5	6.0	3.7	0.0	0.0	0.0	0.0	0.0
85°	8.5	3.7	3.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	1.2	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)