

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: P967870

Luminaire Tested: **NAV-SB5A-830-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967870
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-SB5A-830-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 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: 17794 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 141.7
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

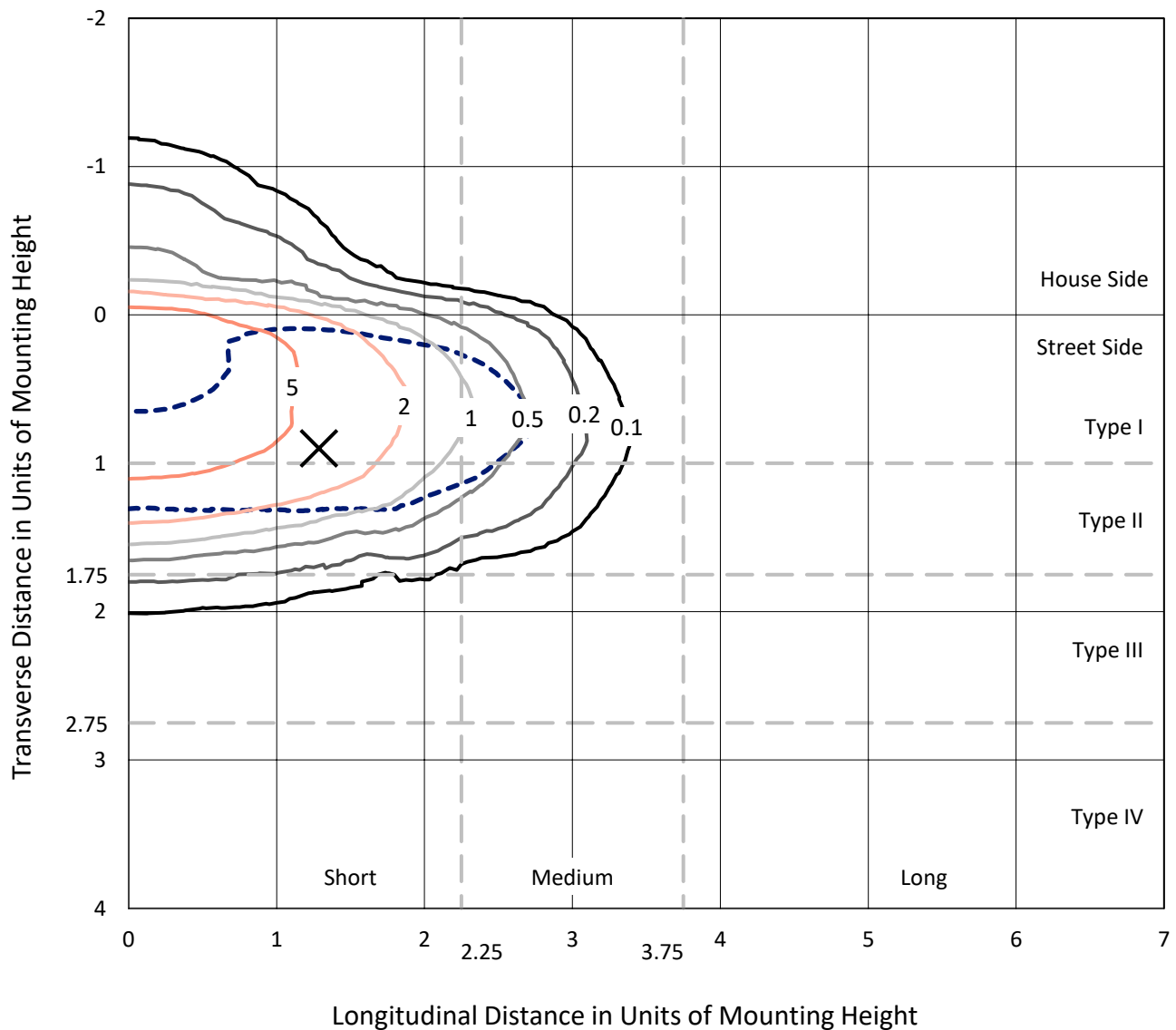


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Iso-Footcandle Lines of Horizontal Illumination

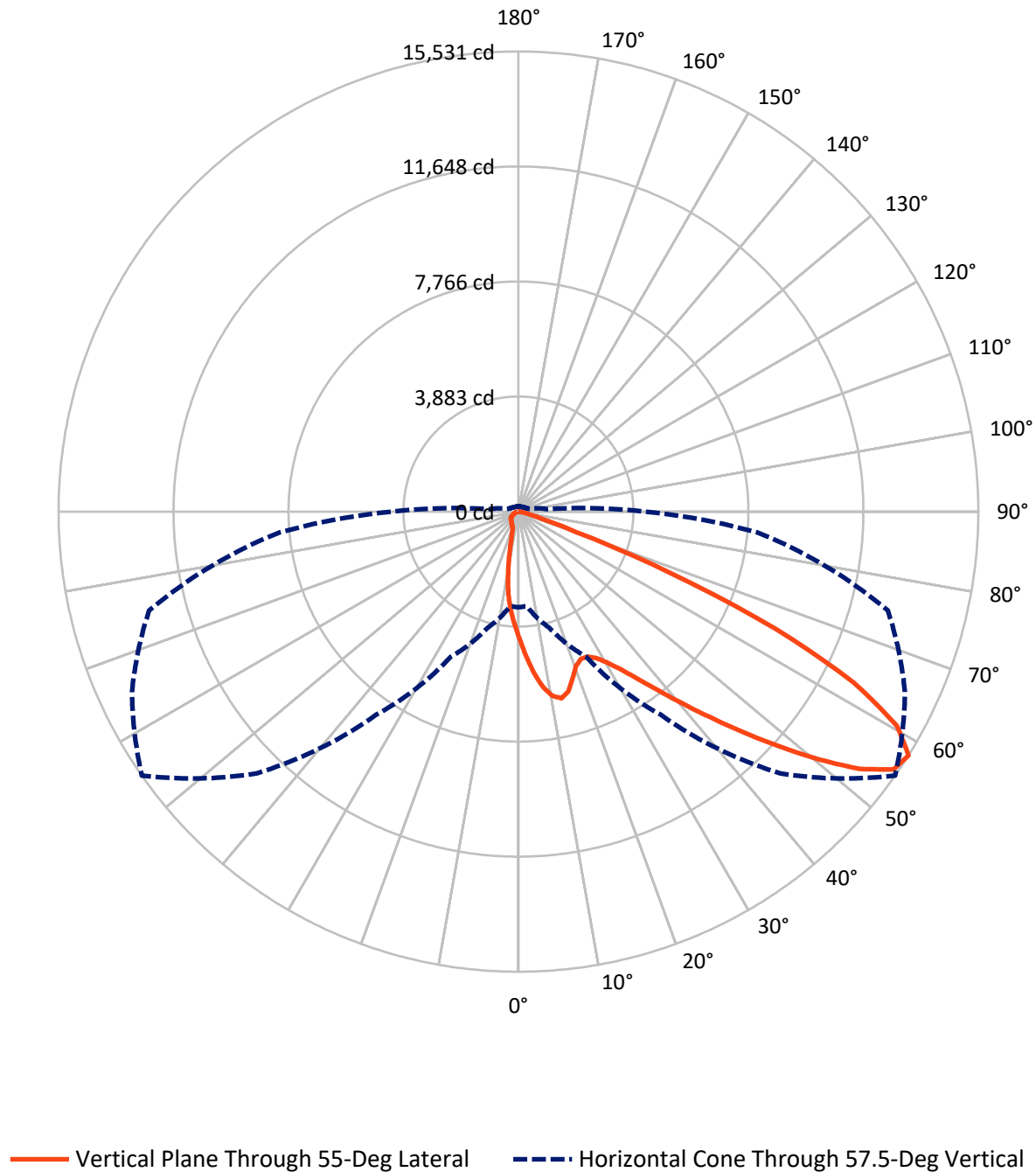
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 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	1389.6	0.0	1389.6
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	16404.4	0.0	16404.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	17794.0	0.0	17794.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.0	2.2
10°-20°	963.7	5.4
20°-30°	1541.9	8.7
30°-40°	2609.8	14.7
40°-50°	4284.7	24.1
50°-60°	4709.2	26.5
60°-70°	2701.2	15.2
70°-80°	551.9	3.1
80°-90°	32.6	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°	17794.0	100.0
0°-180°	17794.0	100.0

Coefficient of Utilization



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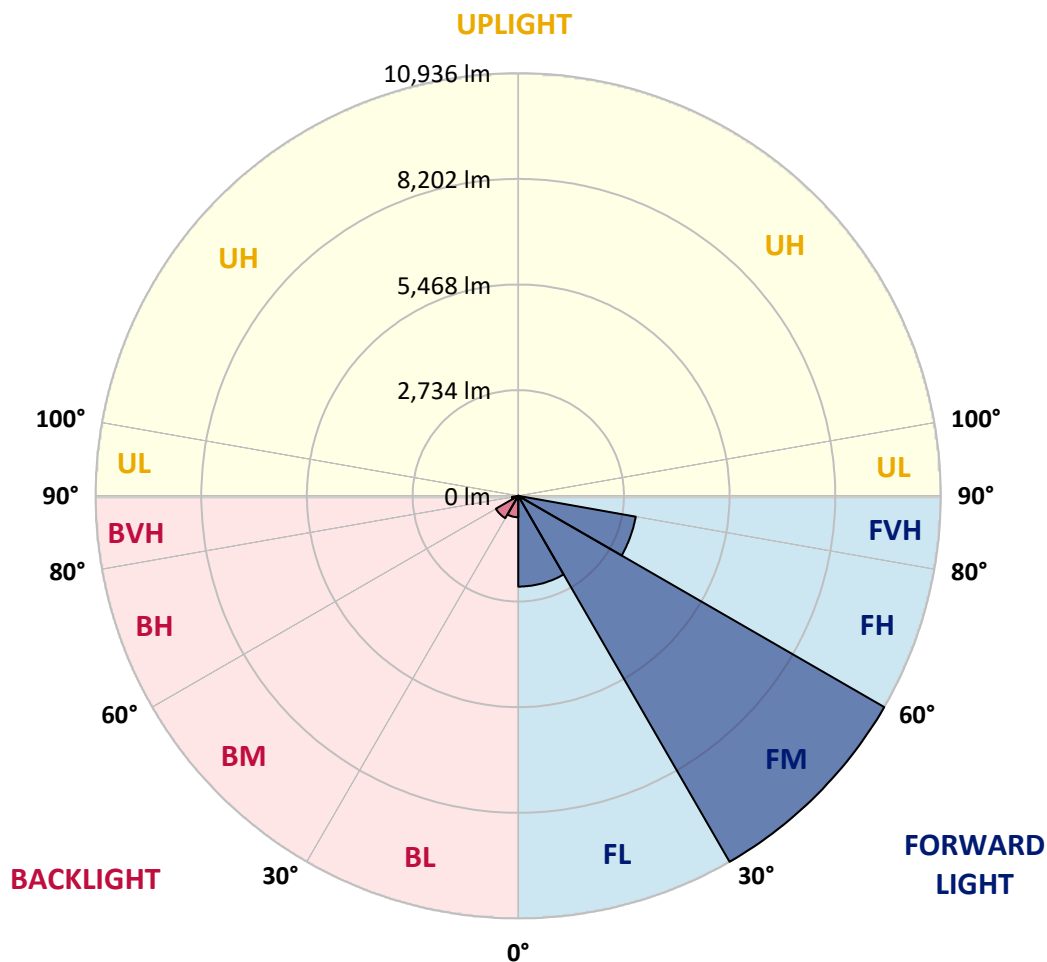
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2349.8	13.2			
FM	(30°-60°)	10936.3	61.5			
FH	(60°-80°)	3087.9	17.4			G2/5000
FVH	(80°-90°)	30.4	0.2			G1/100
BL	(0°-30°)	554.8	3.1	B2/1000		
BM	(30°-60°)	667.4	3.8	B1/1000		
BH	(60°-80°)	165.3	0.9	B1/500		G1/500
BVH	(80°-90°)	2.2	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°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	5320.4	5253.4	5243.6	5230.5	5103.2	5007.6	4869.5	4718.0	4547.9	4374.6	4297.8
5°	6146.6	6093.9	6084.1	6022.6	5877.8	5715.4	5469.6	5159.1	4842.0	4469.0	4308.8
7.5°	6306.8	6296.9	6341.9	6339.7	6319.9	6191.6	5984.3	5614.4	5138.2	4585.2	4337.3
10°	5592.5	5617.7	5751.6	5869.0	6186.1	6370.5	6325.5	6020.4	5443.3	4718.0	4369.1
12.5°	4941.8	4912.2	5007.6	5140.5	5509.1	6057.7	6467.0	6359.4	5792.2	4868.3	4416.3
15°	4533.7	4521.6	4575.4	4636.8	4917.7	5470.7	6302.4	6634.8	6128.0	5046.1	4487.7
17.5°	4403.1	4393.3	4409.8	4425.0	4607.2	5035.1	5910.7	6803.8	6449.4	5249.0	4566.6
20°	4509.6	4496.4	4494.2	4482.1	4557.9	4849.7	5556.3	6815.9	6738.0	5433.4	4634.6
22.5°	4820.1	4804.7	4751.0	4702.7	4709.3	4874.9	5398.3	6695.2	6955.2	5605.6	4677.4
25°	5382.9	5357.7	5245.7	5083.4	4980.3	5050.5	5422.5	6536.1	7162.6	5740.6	4656.6
27.5°	6087.4	6054.5	5910.7	5669.3	5433.4	5347.8	5596.9	6426.3	7334.9	5843.7	4611.6
30°	6777.5	6734.7	6593.2	6405.5	6061.0	5791.1	5911.8	6474.6	7540.1	5951.3	4552.3
32.5°	7522.5	7481.9	7294.3	7061.6	6776.4	6413.2	6343.0	6710.6	7791.3	6101.6	4510.6
35°	8465.0	8401.4	8134.7	7817.7	7514.8	7147.2	6926.7	7117.6	8126.0	6330.9	4533.7
37.5°	9538.1	9452.6	9165.0	8727.3	8332.2	7920.8	7637.7	7677.2	8616.5	6638.1	4605.0
40°	10549.7	10471.8	10206.3	9793.8	9297.8	8798.6	8496.8	8409.1	9293.4	7012.3	4730.1
42.5°	11156.5	11086.3	10974.4	10799.9	10381.8	9872.7	9492.0	9302.2	10094.4	7459.9	4882.6
45°	11190.5	11129.0	11279.4	11482.4	11400.0	11061.0	10596.9	10249.1	10898.6	7880.2	5040.6
47.5°	10646.3	10604.5	11061.0	11769.9	12123.1	12265.8	11837.8	11116.9	11562.4	8182.0	5105.3
50°	9162.9	9147.5	10086.7	11388.0	12398.5	13321.3	13146.9	11924.5	12077.1	8337.8	5043.9
52.5°	7945.0	7889.0	8436.5	10165.7	11998.0	13876.4	14426.2	12716.8	12436.9	8367.4	4900.1
55°	6025.9	5976.6	6663.4	8120.5	10706.6	13678.9	15362.1	13534.1	12694.7	8291.6	4642.3
57.5°	3232.4	3201.7	4069.6	5404.9	8369.5	12494.0	15531.1	14398.8	12912.0	8090.8	4281.3
60°	1258.5	1253.1	1577.8	2622.4	5086.7	10164.6	14678.5	14917.7	13048.0	7844.0	3979.6
62.5°	761.5	778.0	830.6	1177.3	2247.1	6314.5	12713.4	14327.4	13139.2	7618.0	3730.5
65°	629.8	630.9	637.4	808.6	1076.4	2642.1	9571.0	12385.4	12914.2	7215.3	3377.3
67.5°	539.9	549.7	574.9	641.9	759.3	1158.7	5510.2	9594.0	11546.0	6278.2	2826.4
70°	425.7	438.9	470.7	527.8	585.9	725.3	2036.5	6383.6	8820.5	4732.3	2137.3
72.5°	358.7	357.7	374.1	429.0	465.2	510.2	783.4	3576.9	5126.2	2259.2	1057.7
75°	277.6	288.5	309.4	358.7	380.7	369.7	424.7	1306.8	1836.7	684.7	359.9
77.5°	217.2	226.0	244.7	292.9	314.9	262.2	244.7	467.4	590.3	245.8	162.4
80°	97.7	105.4	166.8	216.2	256.8	181.0	132.7	239.2	262.2	111.9	82.3
82.5°	17.5	29.6	97.7	114.1	131.7	117.4	69.1	124.0	128.3	45.0	28.5
85°	1.1	2.2	34.0	41.7	52.7	38.4	20.8	49.4	42.7	15.4	11.0
87.5°	0.0	0.0	0.0	1.1	1.1	5.5	6.6	8.8	6.6	5.5	4.4
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9	4287.9
2.5°	4218.8	4063.0	3911.6	3787.6	3715.2	3592.3	3511.1	3497.9	3463.9	3493.5
5°	4137.6	3858.9	3576.9	3324.6	3117.2	2849.5	2649.7	2565.3	2491.8	2517.0
7.5°	4099.2	3659.2	3220.3	2789.1	2345.8	1918.0	1599.7	1467.0	1366.0	1380.3
10°	4047.6	3451.8	2763.9	2105.6	1512.0	1089.6	870.1	788.9	743.9	745.0
12.5°	4008.2	3203.8	2233.9	1427.5	920.6	695.7	627.6	607.8	594.7	595.8
15°	3988.4	2912.0	1710.5	951.3	658.4	589.2	572.8	564.0	555.1	554.1
17.5°	3955.5	2587.2	1251.9	694.5	576.0	551.9	537.6	527.8	516.8	514.6
20°	3906.1	2218.6	915.1	587.0	539.9	521.2	501.4	488.3	475.1	472.9
22.5°	3815.0	1829.0	703.4	543.1	513.5	492.6	468.5	453.2	440.0	437.8
25°	3646.0	1463.7	592.4	515.7	490.5	465.2	438.9	418.0	406.0	403.7
27.5°	3432.1	1149.8	537.6	490.5	460.8	437.8	408.2	388.4	377.4	375.3
30°	3179.8	885.5	505.8	462.0	425.7	406.0	379.7	363.2	356.6	356.6
32.5°	2907.6	707.7	492.6	433.4	395.0	373.1	352.2	345.6	343.5	342.3
35°	2652.0	614.5	486.1	410.3	367.6	346.8	337.9	339.1	343.5	343.5
37.5°	2424.8	584.9	482.8	393.9	343.5	324.8	330.3	340.1	335.8	335.8
40°	2219.6	588.1	480.6	381.8	323.7	312.7	323.7	316.0	305.0	303.9
42.5°	2062.8	615.5	476.2	372.0	311.6	303.9	299.5	287.5	286.4	288.5
45°	1948.6	639.7	475.1	367.6	298.5	284.1	278.7	266.6	288.5	294.1
47.5°	1813.7	639.7	475.1	352.2	276.5	271.0	262.2	249.1	271.0	276.5
50°	1639.3	599.1	456.4	334.7	258.9	255.6	240.3	223.9	219.5	222.7
52.5°	1418.7	525.5	409.3	310.5	241.4	234.8	216.2	204.1	200.8	200.8
55°	1167.5	440.0	345.6	275.4	222.7	210.6	197.5	192.0	188.7	186.5
57.5°	949.0	361.0	277.6	244.7	205.2	189.8	185.4	178.9	173.3	170.0
60°	779.0	284.1	229.3	217.2	187.6	173.3	172.3	163.5	149.2	147.0
62.5°	601.3	208.5	193.1	188.7	170.0	158.0	155.8	138.3	116.3	111.9
65°	424.7	162.4	155.8	165.6	151.4	140.4	135.0	108.6	85.6	82.3
67.5°	298.5	136.0	122.9	144.8	131.7	117.4	114.1	92.1	71.3	69.1
70°	212.9	110.8	101.0	124.0	105.4	103.1	96.6	76.8	58.1	56.0
72.5°	150.4	84.5	77.9	107.5	72.4	88.9	79.0	59.2	43.9	41.7
75°	110.8	60.4	54.8	62.5	52.7	66.9	56.0	39.5	27.5	26.3
77.5°	81.2	38.4	32.9	30.7	30.7	41.7	30.7	16.5	12.1	11.0
80°	57.1	17.5	15.4	13.1	12.1	9.8	4.4	2.2	1.1	1.1
82.5°	34.0	7.7	7.7	5.5	3.3	0.0	0.0	0.0	0.0	0.0
85°	7.7	3.3	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	1.1	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)