

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: P966320

Luminaire Tested: **NAV-SB4B-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966320
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-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 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: 18294.2 lumens
Efficiency: N/A
Efficacy: 124.5 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

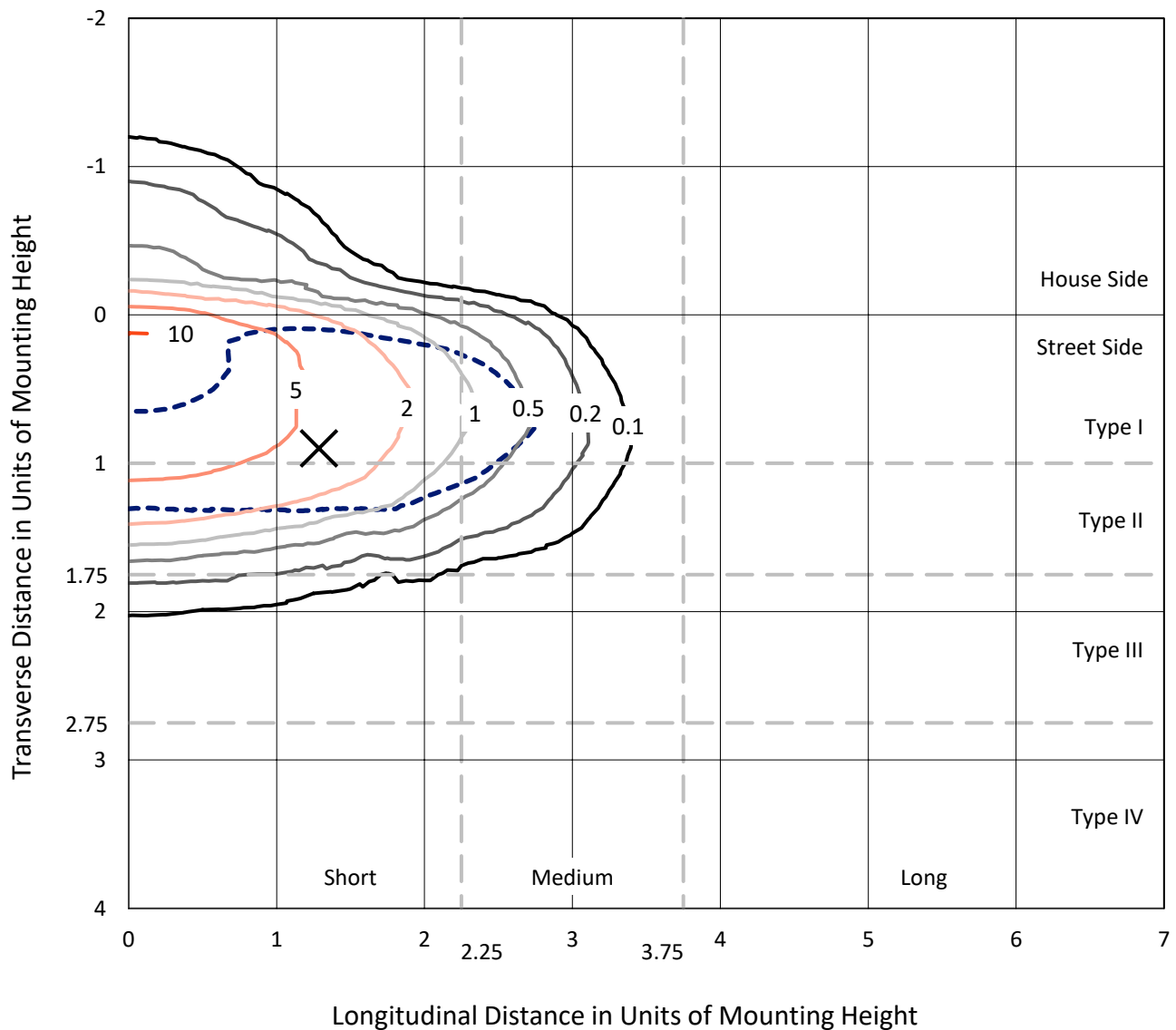


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Iso-Footcandle Lines of Horizontal Illumination

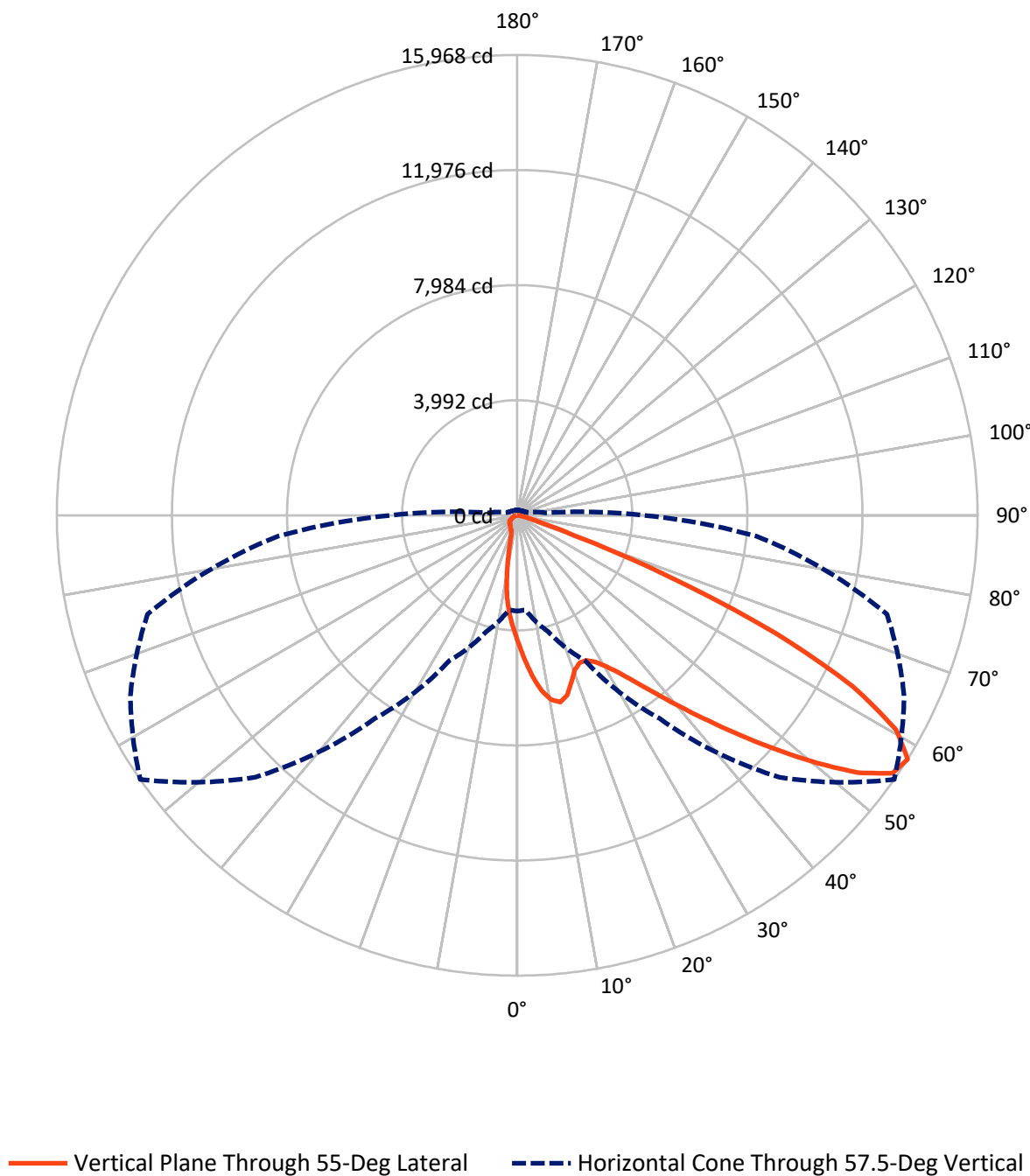
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 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	1428.7	0.0	1428.7
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	16865.5	0.0	16865.5
	% Fixture	92.2	0.0	92.2
Total	Lumens	18294.2	0.0	18294.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.2	2.2
10°-20°	990.8	5.4
20°-30°	1585.3	8.7
30°-40°	2683.2	14.7
40°-50°	4405.2	24.1
50°-60°	4841.6	26.5
60°-70°	2777.1	15.2
70°-80°	567.4	3.1
80°-90°	33.5	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°	18294.2	100.0
0°-180°	18294.2	100.0

Coefficient of Utilization



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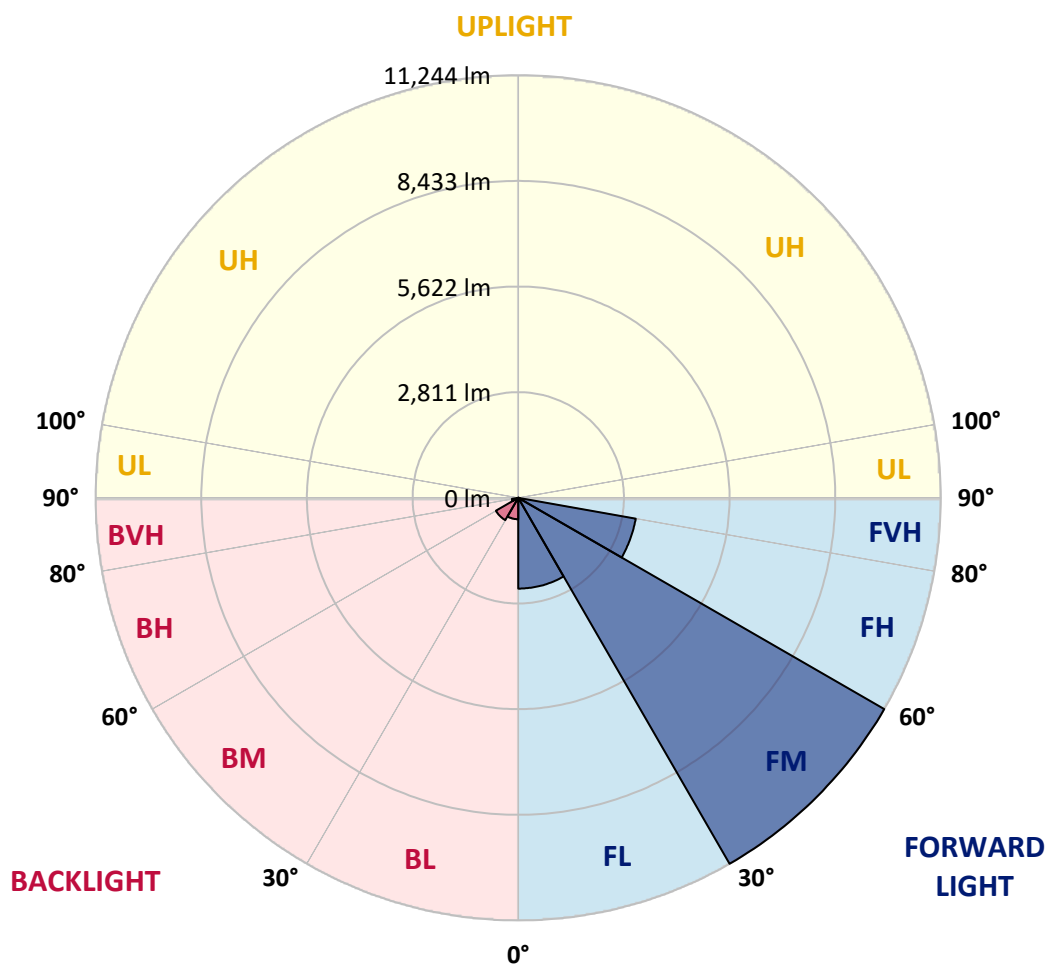
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2415.9	13.2			
FM	(30°-60°)	11243.7	61.5			
FH	(60°-80°)	3174.7	17.4			G2/5000
FVH	(80°-90°)	31.2	0.2			G1/100
BL	(0°-30°)	570.4	3.1	B2/1000		
BM	(30°-60°)	686.1	3.8	B1/1000		
BH	(60°-80°)	169.9	0.9	B1/500		G1/500
BVH	(80°-90°)	2.3	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°	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4
2.5°	5469.9	5401.1	5391.0	5377.5	5246.6	5148.5	5006.3	4850.6	4675.8	4497.6	4418.6
5°	6319.4	6265.2	6255.1	6191.9	6043.0	5876.0	5623.4	5304.2	4978.1	4594.6	4429.8
7.5°	6484.0	6473.9	6520.1	6517.9	6497.6	6365.7	6152.5	5772.3	5282.7	4714.2	4459.3
10°	5749.7	5775.7	5913.3	6034.0	6360.0	6549.5	6503.2	6189.7	5596.3	4850.6	4492.0
12.5°	5080.8	5050.3	5148.5	5285.0	5663.9	6228.0	6648.8	6538.3	5955.0	5005.2	4540.4
15°	4661.2	4648.7	4704.0	4767.2	5055.9	5624.5	6479.5	6821.4	6300.2	5187.9	4613.7
17.5°	4526.9	4516.8	4533.7	4549.5	4736.7	5176.7	6076.8	6995.1	6630.7	5396.6	4695.0
20°	4636.3	4622.8	4620.5	4608.1	4686.0	4986.0	5712.5	7007.5	6927.4	5586.1	4764.9
22.5°	4955.6	4939.8	4884.5	4834.8	4841.6	5011.9	5550.1	6883.4	7150.8	5763.3	4808.9
25°	5534.3	5508.3	5393.2	5226.3	5120.3	5192.4	5574.9	6719.8	7364.0	5902.0	4787.5
27.5°	6258.4	6224.6	6076.8	5828.7	5586.1	5498.2	5754.2	6607.0	7541.0	6008.0	4741.2
30°	6968.1	6924.0	6778.5	6585.6	6231.4	5953.9	6077.9	6656.7	7752.0	6118.6	4680.4
32.5°	7733.9	7692.2	7499.3	7260.2	6966.9	6593.5	6521.3	6899.2	8010.4	6273.1	4637.4
35°	8703.0	8637.6	8363.4	8037.4	7726.0	7348.1	7121.4	7317.7	8354.4	6508.9	4661.2
37.5°	9806.2	9718.2	9422.6	8972.5	8566.4	8143.4	7852.4	7893.0	8858.7	6824.8	4734.5
40°	10846.2	10766.2	10493.2	10069.1	9559.2	9045.9	8735.7	8645.5	9554.6	7209.4	4863.0
42.5°	11470.1	11397.9	11282.8	11103.5	10673.7	10150.3	9758.8	9563.7	10378.1	7669.7	5019.8
45°	11505.1	11441.9	11596.4	11805.1	11720.6	11372.0	10894.8	10537.2	11205.0	8101.7	5182.3
47.5°	10945.6	10902.7	11372.0	12100.6	12463.9	12610.6	12170.6	11429.5	11887.4	8412.0	5248.8
50°	9420.4	9404.6	10370.2	11708.2	12747.1	13695.7	13516.4	12259.7	12416.5	8572.1	5185.7
52.5°	8168.2	8110.7	8673.7	10451.4	12335.4	14266.6	14831.7	13074.2	12786.6	8602.6	5037.9
55°	6195.3	6144.6	6850.7	8348.7	11007.6	14063.5	15793.9	13914.6	13051.6	8524.7	4772.8
57.5°	3323.3	3291.7	4183.9	5556.8	8604.9	12845.2	15967.7	14803.5	13275.0	8318.3	4401.7
60°	1293.9	1288.2	1622.2	2696.1	5229.7	10450.3	15091.2	15337.1	13414.9	8064.5	4091.5
62.5°	782.9	799.8	853.9	1210.4	2310.2	6491.9	13070.8	14730.2	13508.5	7832.1	3835.4
65°	647.5	648.6	655.4	831.4	1106.6	2716.4	9840.1	12733.5	13277.2	7418.1	3472.2
67.5°	555.0	565.2	591.1	659.9	780.6	1191.3	5665.1	9863.8	11870.5	6454.7	2905.9
70°	437.7	451.2	483.9	542.6	602.4	745.7	2093.7	6563.1	9068.5	4865.3	2197.5
72.5°	368.9	367.8	384.7	441.1	478.3	524.6	805.4	3677.5	5270.2	2322.6	1087.4
75°	285.4	296.6	318.2	368.9	391.4	380.2	436.5	1343.5	1888.4	703.9	370.0
77.5°	223.3	232.4	251.5	301.1	323.8	269.6	251.5	480.5	606.9	252.7	167.0
80°	100.3	108.3	171.5	222.2	263.9	186.1	136.5	245.9	269.6	115.1	84.6
82.5°	18.0	30.4	100.3	117.4	135.4	120.7	71.0	127.5	132.0	46.2	29.3
85°	1.1	2.3	35.0	42.8	54.1	39.5	21.4	50.7	44.0	15.8	11.3
87.5°	0.0	0.0	0.0	1.1	1.1	5.6	6.8	9.0	6.8	5.6	4.5
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°	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4	4408.4
2.5°	4337.4	4177.2	4021.5	3894.1	3819.6	3693.3	3609.7	3596.2	3561.3	3591.7
5°	4254.0	3967.4	3677.5	3418.1	3204.8	2929.6	2724.2	2637.4	2561.8	2587.7
7.5°	4214.4	3762.1	3310.9	2867.5	2411.8	1971.9	1644.7	1508.2	1404.5	1419.1
10°	4161.4	3548.9	2841.6	2164.7	1554.5	1120.1	894.5	811.1	764.9	766.0
12.5°	4120.8	3293.9	2296.7	1467.6	946.5	715.1	645.2	624.9	611.4	612.5
15°	4100.5	2993.8	1758.6	978.1	676.8	605.8	588.9	579.8	570.8	569.7
17.5°	4066.7	2660.0	1287.1	714.0	592.2	567.4	552.8	542.6	531.4	529.1
20°	4015.8	2280.9	940.8	603.5	555.0	535.9	515.5	501.9	488.4	486.2
22.5°	3922.3	1880.5	723.0	558.4	528.0	506.5	481.6	465.9	452.3	450.1
25°	3748.5	1504.8	609.2	530.2	504.2	478.3	451.2	429.8	417.4	415.1
27.5°	3528.6	1182.2	552.8	504.2	473.8	450.1	419.6	399.3	388.1	385.8
30°	3269.1	910.3	520.1	474.9	437.7	417.4	390.3	373.4	366.6	366.6
32.5°	2989.3	727.6	506.5	445.6	406.1	383.6	362.1	355.4	353.1	352.0
35°	2726.5	631.7	499.7	421.9	377.9	356.5	347.5	348.6	353.1	353.1
37.5°	2493.0	601.3	496.3	405.0	353.1	333.9	339.6	349.7	345.2	345.2
40°	2282.1	604.6	494.0	392.6	332.8	321.5	332.8	324.9	313.6	312.5
42.5°	2120.7	632.8	489.5	382.4	320.4	312.5	307.9	295.5	294.4	296.6
45°	2003.5	657.6	488.4	377.9	306.8	292.1	286.5	274.1	296.6	302.3
47.5°	1864.7	657.6	488.4	362.1	284.2	278.6	269.6	256.0	278.6	284.2
50°	1685.3	615.9	469.2	344.1	266.2	262.8	247.0	230.1	225.6	229.0
52.5°	1458.6	540.4	420.8	319.3	248.2	241.4	222.2	209.8	206.4	206.4
55°	1200.3	452.3	355.4	283.1	229.0	216.6	203.1	197.4	194.0	191.8
57.5°	975.8	371.2	285.4	251.5	210.9	195.2	190.6	183.9	178.2	174.9
60°	800.9	292.1	235.7	223.3	192.9	178.2	177.1	168.1	153.4	151.2
62.5°	618.2	214.3	198.5	194.0	174.9	162.5	160.2	142.2	119.6	115.1
65°	436.5	167.0	160.2	170.4	155.7	144.4	138.8	111.7	87.9	84.6
67.5°	306.8	139.9	126.4	148.9	135.4	120.7	117.4	94.7	73.3	71.0
70°	218.8	114.0	103.8	127.5	108.3	106.1	99.2	78.9	59.8	57.5
72.5°	154.6	86.8	80.1	110.6	74.4	91.3	81.2	60.9	45.1	42.8
75°	114.0	62.0	56.4	64.3	54.1	68.8	57.5	40.6	28.2	27.1
77.5°	83.4	39.5	33.8	31.6	31.6	42.8	31.6	16.9	12.4	11.3
80°	58.6	18.0	15.8	13.5	12.4	10.1	4.5	2.3	1.1	1.1
82.5°	35.0	7.9	7.9	5.6	3.4	0.0	0.0	0.0	0.0	0.0
85°	7.9	3.4	3.4	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)