

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: P963158

Luminaire Tested: **NAV-SB2D-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963158
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-SB2D-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

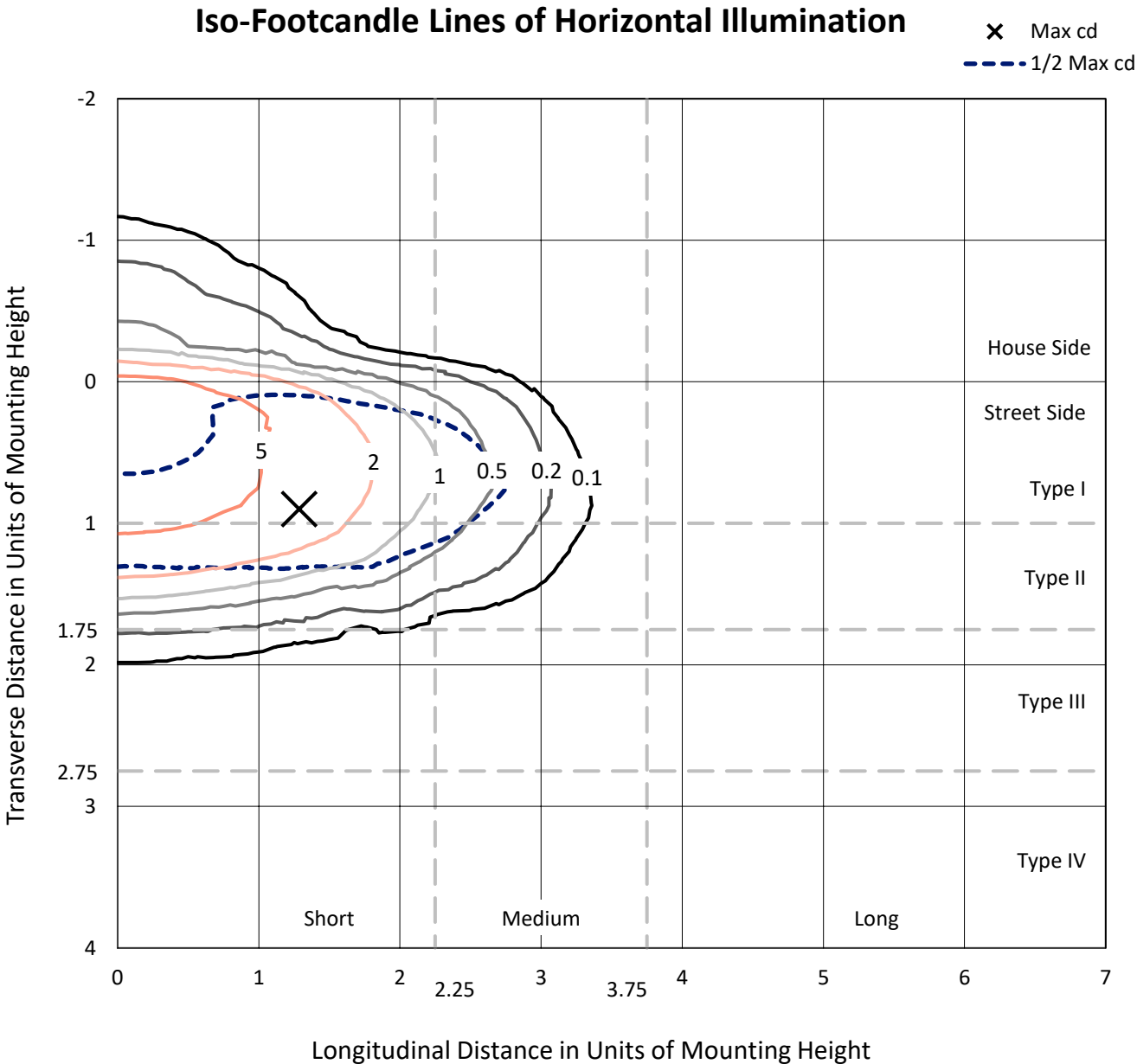
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16496.3 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 147.6
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



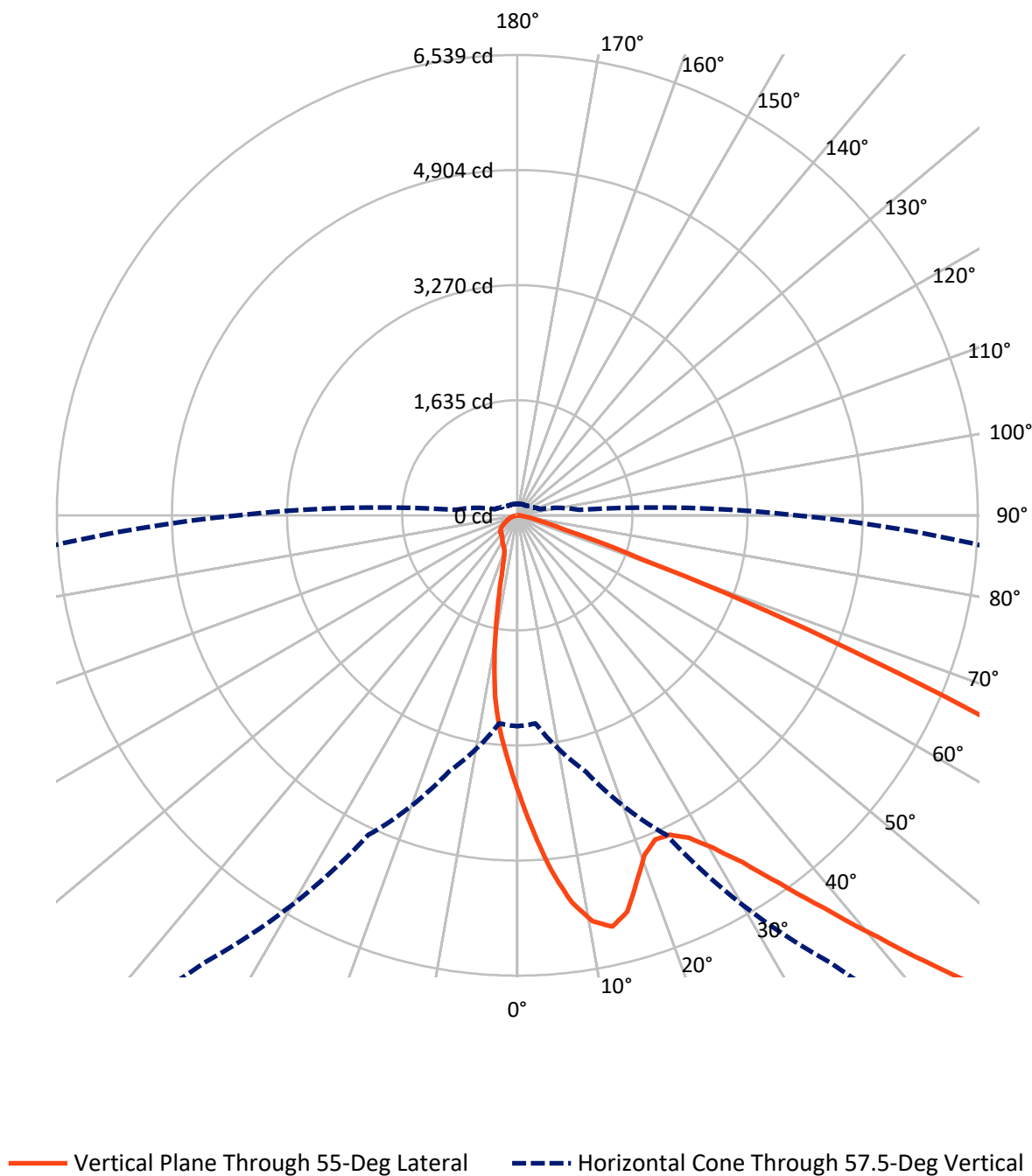
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Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1288.3	0.0	1288.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	15208.0	0.0	15208.0
	% Fixture	92.2	0.0	92.2
Total	Lumens	16496.3	0.0	16496.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.9	2.2
10°-20°	893.4	5.4
20°-30°	1429.5	8.7
30°-40°	2419.5	14.7
40°-50°	3972.2	24.1
50°-60°	4365.8	26.5
60°-70°	2504.2	15.2
70°-80°	511.7	3.1
80°-90°	30.2	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°	16496.3	100.0
0°-180°	16496.3	100.0

Coefficient of Utilization



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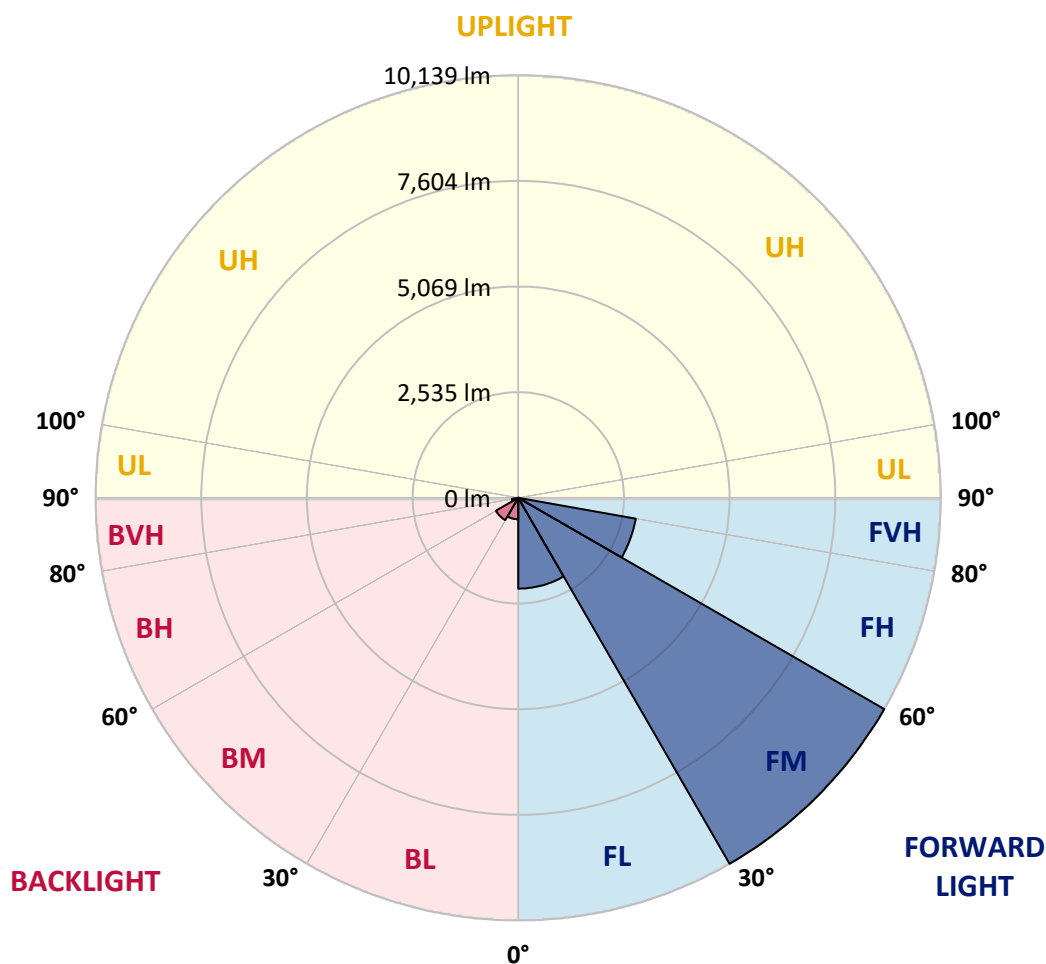
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2178.4	13.2			
FM	(30°-60°)	10138.8	61.5			
FH	(60°-80°)	2862.7	17.4			G2/5000
FVH	(80°-90°)	28.1	0.2			G1/100
BL	(0°-30°)	514.3	3.1	B2/1000		
BM	(30°-60°)	618.7	3.8	B1/1000		
BH	(60°-80°)	153.2	0.9	B1/500		G1/500
BVH	(80°-90°)	2.0	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°	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3
2.5°	4932.4	4870.4	4861.2	4849.0	4731.0	4642.5	4514.3	4374.0	4216.3	4055.6	3984.4
5°	5698.4	5649.5	5640.4	5583.4	5449.1	5298.6	5070.8	4782.9	4488.9	4143.0	3994.5
7.5°	5846.9	5837.7	5879.4	5877.3	5859.1	5740.1	5547.8	5205.1	4763.6	4250.9	4021.0
10°	5184.7	5208.0	5332.2	5441.0	5735.0	5905.8	5864.1	5581.3	5046.3	4374.0	4050.5
12.5°	4581.4	4554.0	4642.5	4765.5	5107.4	5616.0	5995.3	5895.7	5369.8	4513.3	4094.3
15°	4203.1	4191.8	4241.8	4298.6	4559.1	5071.8	5842.8	6151.0	5681.1	4678.1	4160.4
17.5°	4082.1	4072.8	4088.1	4102.4	4271.2	4668.0	5479.6	6307.6	5979.1	4866.3	4233.6
20°	4180.7	4168.5	4166.4	4155.2	4225.5	4496.1	5151.1	6318.8	6246.7	5037.2	4296.7
22.5°	4468.6	4454.3	4404.4	4359.7	4365.8	4519.4	5004.7	6207.0	6448.1	5196.9	4336.4
25°	4990.4	4966.9	4863.2	4712.6	4617.1	4682.2	5027.0	6059.5	6640.3	5322.0	4317.0
27.5°	5643.4	5612.9	5479.6	5255.9	5037.2	4957.8	5188.8	5957.7	6800.0	5417.6	4275.3
30°	6283.2	6243.6	6112.4	5938.4	5619.0	5368.7	5480.7	6002.5	6990.2	5517.3	4220.3
32.5°	6973.9	6936.3	6762.3	6546.7	6282.2	5945.5	5880.4	6221.2	7223.2	5656.7	4181.7
35°	7847.7	7788.7	7541.5	7247.6	6966.8	6626.0	6421.6	6598.5	7533.3	5869.3	4203.1
37.5°	8842.5	8763.1	8496.6	8090.8	7724.6	7343.2	7080.7	7117.3	7988.0	6154.1	4269.2
40°	9780.3	9708.2	9462.0	9079.6	8619.7	8156.9	7877.2	7795.8	8615.6	6501.0	4385.2
42.5°	10342.9	10277.8	10174.0	10012.3	9624.8	9152.7	8799.8	8623.8	9358.2	6916.0	4526.5
45°	10374.4	10317.4	10456.8	10645.0	10568.7	10254.4	9824.1	9501.6	10103.8	7305.5	4673.0
47.5°	9869.9	9831.2	10254.4	10911.5	11239.0	11371.2	10974.6	10306.3	10719.2	7585.2	4733.0
50°	8494.6	8480.3	9351.1	10557.5	11494.3	12349.8	12188.1	11054.9	11196.3	7729.7	4676.0
52.5°	7365.5	7313.7	7821.3	9424.4	11123.1	12864.5	13374.1	11789.3	11529.9	7757.2	4542.8
55°	5586.5	5540.6	6177.5	7528.3	9925.8	12681.4	14241.8	12547.1	11768.9	7687.0	4303.8
57.5°	2996.7	2968.2	3772.8	5010.7	7759.1	11582.8	14398.5	13348.7	11970.4	7500.8	3969.1
60°	1166.8	1161.6	1462.8	2431.1	4715.7	9423.3	13608.1	13829.8	12096.5	7272.0	3689.4
62.5°	705.9	721.2	770.0	1091.4	2083.2	5854.0	11786.3	13282.6	12181.0	7062.5	3458.5
65°	583.8	584.9	591.0	749.7	997.8	2449.4	8873.0	11482.2	11972.4	6689.2	3131.0
67.5°	500.5	509.6	533.0	595.0	703.9	1074.2	5108.4	8894.4	10704.0	5820.5	2620.3
70°	394.6	406.9	436.3	489.2	543.1	672.4	1887.9	5918.0	8177.2	4387.2	1981.5
72.5°	332.6	331.6	346.9	397.7	431.3	473.0	726.3	3316.1	4752.3	2094.4	980.6
75°	257.4	267.5	286.9	332.6	353.0	342.8	393.7	1211.4	1702.8	634.8	333.6
77.5°	201.4	209.5	226.8	271.6	291.9	243.1	226.8	433.4	547.2	227.9	150.6
80°	90.5	97.7	154.6	200.4	238.0	167.8	123.1	221.7	243.1	103.7	76.3
82.5°	16.3	27.5	90.5	105.8	122.1	108.9	64.1	114.9	119.0	41.7	26.4
85°	1.0	2.0	31.6	38.6	48.8	35.6	19.4	45.8	39.7	14.2	10.1
87.5°	0.0	0.0	0.0	1.0	1.0	5.1	6.1	8.1	6.1	5.1	4.1
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°	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3	3975.3
2.5°	3911.1	3766.7	3626.3	3511.3	3444.2	3330.3	3255.0	3242.8	3211.3	3238.8
5°	3835.9	3577.5	3316.1	3082.1	2889.9	2641.6	2456.5	2378.2	2310.0	2333.4
7.5°	3800.3	3392.3	2985.5	2585.8	2174.7	1778.1	1483.1	1360.0	1266.4	1279.6
10°	3752.4	3200.2	2562.3	1952.0	1401.7	1010.0	806.7	731.3	689.6	690.6
12.5°	3715.8	2970.2	2071.0	1323.4	853.4	644.9	581.8	563.5	551.3	552.4
15°	3697.5	2699.6	1585.8	881.9	610.3	546.2	530.9	522.9	514.7	513.7
17.5°	3667.0	2398.6	1160.6	643.9	534.0	511.7	498.5	489.2	479.1	477.0
20°	3621.2	2056.8	848.4	544.2	500.5	483.2	464.8	452.6	440.4	438.4
22.5°	3536.8	1695.7	652.0	503.5	476.0	456.7	434.4	420.1	407.8	405.9
25°	3380.1	1356.9	549.3	478.1	454.7	431.3	406.9	387.6	376.4	374.3
27.5°	3181.8	1066.0	498.5	454.7	427.2	405.9	378.4	360.1	349.9	347.9
30°	2947.8	820.9	468.9	428.2	394.6	376.4	352.0	336.7	330.6	330.6
32.5°	2695.5	656.1	456.7	401.8	366.2	345.8	326.6	320.4	318.4	317.3
35°	2458.6	569.6	450.6	380.5	340.8	321.4	313.3	314.3	318.4	318.4
37.5°	2248.0	542.1	447.6	365.2	318.4	301.0	306.2	315.3	311.3	311.3
40°	2057.8	545.2	445.6	354.0	300.1	289.9	300.1	292.9	282.8	281.8
42.5°	1912.3	570.6	441.5	344.8	288.8	281.8	277.7	266.5	265.5	267.5
45°	1806.6	593.1	440.4	340.8	276.6	263.4	258.4	247.2	267.5	272.6
47.5°	1681.4	593.1	440.4	326.6	256.4	251.2	243.1	230.9	251.2	256.4
50°	1519.7	555.3	423.1	310.3	240.1	237.0	222.7	207.5	203.5	206.5
52.5°	1315.3	487.3	379.5	287.8	223.8	217.7	200.4	189.2	186.1	186.1
55°	1082.3	407.8	320.4	255.3	206.5	195.3	183.1	178.0	175.0	172.9
57.5°	879.9	334.7	257.4	226.8	190.2	176.0	171.9	165.8	160.7	157.6
60°	722.2	263.4	212.6	201.4	173.9	160.7	159.7	151.6	138.4	136.3
62.5°	557.4	193.3	179.1	175.0	157.6	146.5	144.4	128.1	107.8	103.7
65°	393.7	150.6	144.4	153.6	140.3	130.2	125.2	100.7	79.3	76.3
67.5°	276.6	126.2	113.9	134.3	122.1	108.9	105.8	85.5	66.1	64.1
70°	197.3	102.7	93.6	114.9	97.7	95.6	89.5	71.2	53.9	51.9
72.5°	139.4	78.3	72.3	99.7	67.1	82.4	73.3	54.9	40.7	38.6
75°	102.7	56.0	50.8	58.0	48.8	62.0	51.9	36.6	25.4	24.4
77.5°	75.2	35.6	30.5	28.5	28.5	38.6	28.5	15.3	11.2	10.1
80°	52.9	16.3	14.2	12.2	11.2	9.1	4.1	2.0	1.0	1.0
82.5°	31.6	7.1	7.1	5.1	3.1	0.0	0.0	0.0	0.0	0.0
85°	7.1	3.1	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	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)