

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: P966692

Luminaire Tested: **NAV-SB4C-740-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966692
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-SB4C-740-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA 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: 27751.9 lumens
Efficiency: N/A
Efficacy: 138.3 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): 200.7
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

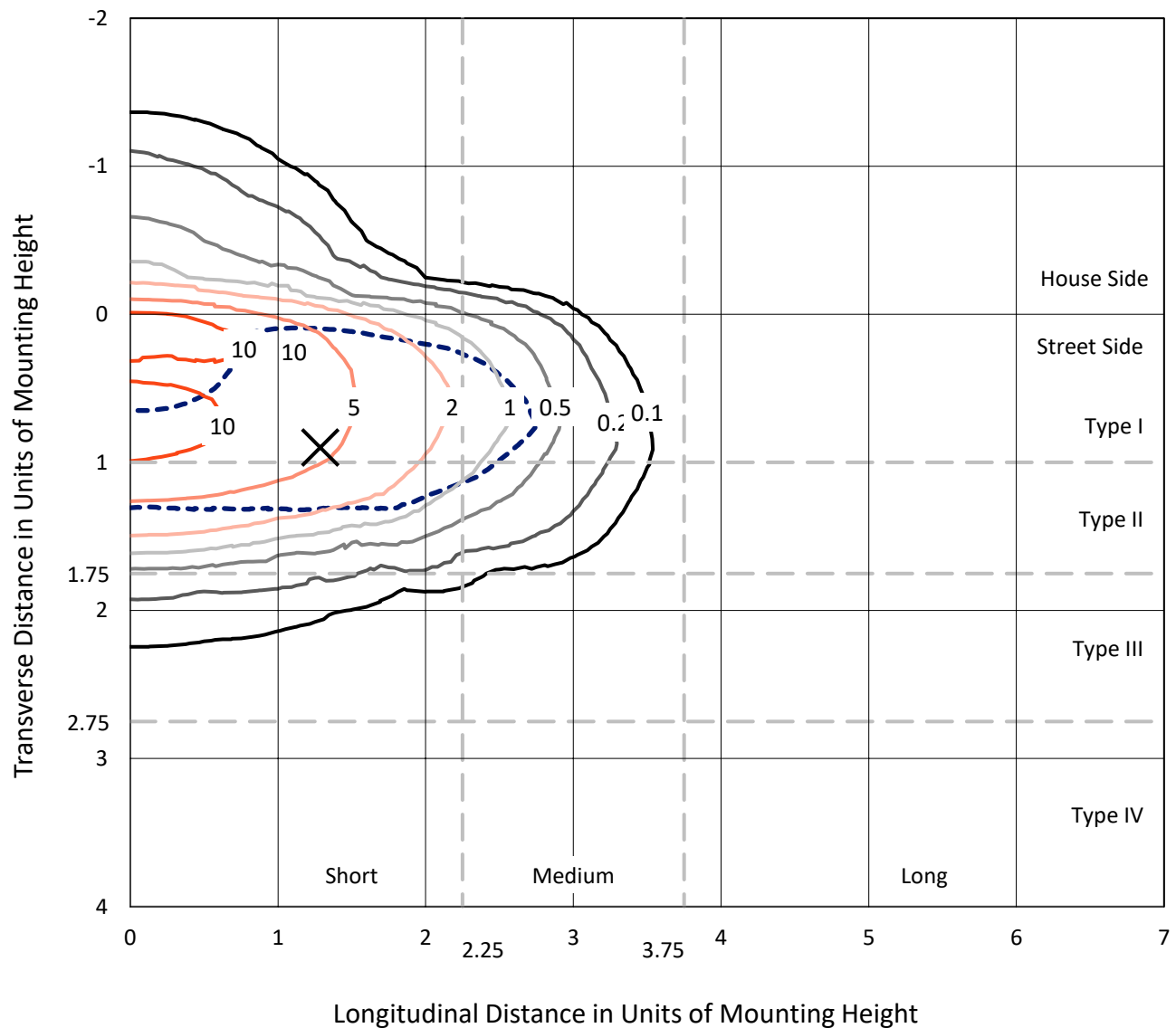


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Iso-Footcandle Lines of Horizontal Illumination

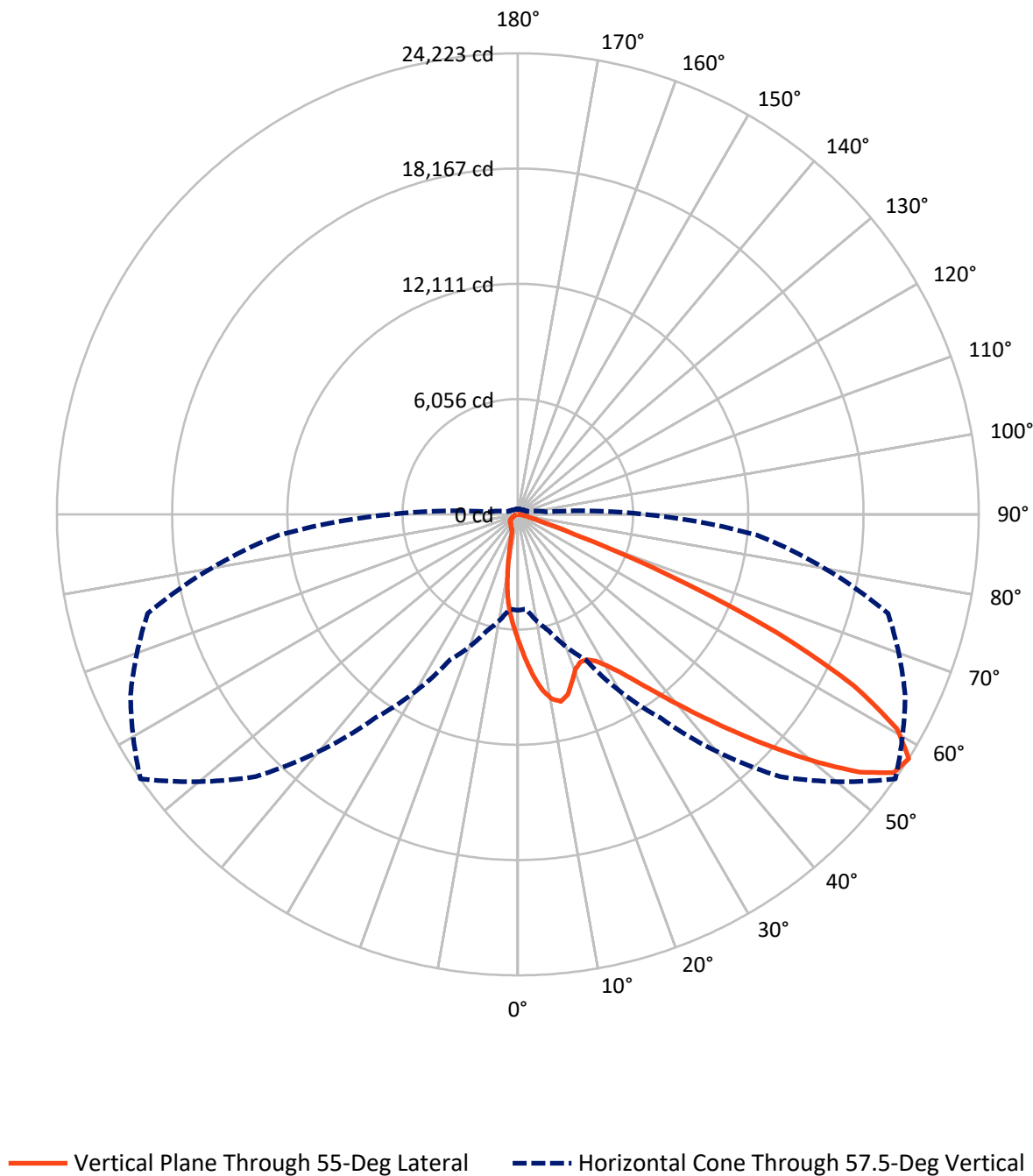
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.3 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	2167.3	0.0	2167.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	25584.6	0.0	25584.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	27751.9	0.0	27751.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	622.2	2.2
10°-20°	1503.0	5.4
20°-30°	2404.8	8.7
30°-40°	4070.3	14.7
40°-50°	6682.5	24.1
50°-60°	7344.6	26.5
60°-70°	4212.9	15.2
70°-80°	860.8	3.1
80°-90°	50.8	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°	27751.9	100.0
0°-180°	27751.9	100.0

Coefficient of Utilization



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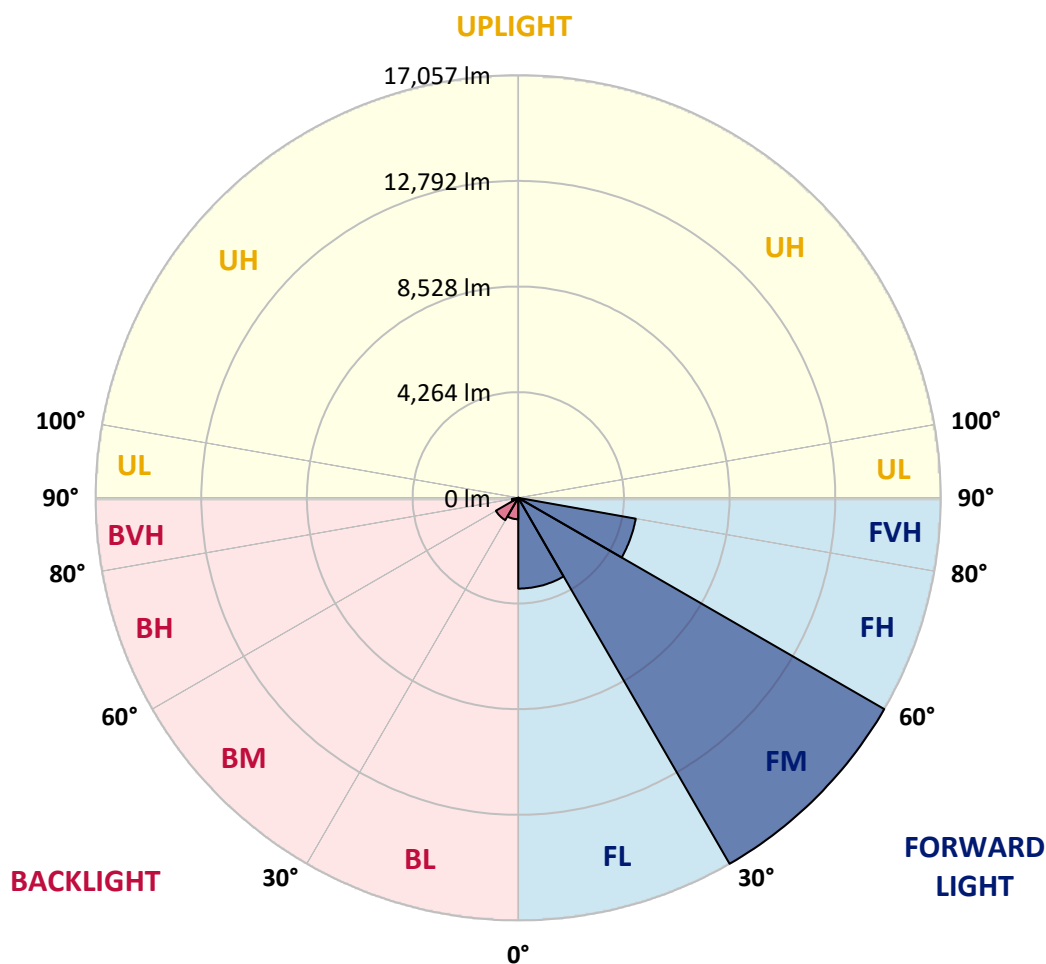
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3664.8	13.2			
FM	(30°-60°)	17056.5	61.5			
FH	(60°-80°)	4815.9	17.4			G2/5000
FVH	(80°-90°)	47.3	0.2			G1/100
BL	(0°-30°)	865.3	3.1	B2/1000		
BM	(30°-60°)	1040.9	3.8	B2/2500		
BH	(60°-80°)	257.8	0.9	B1/500		G1/500
BVH	(80°-90°)	3.4	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°	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5
2.5°	8297.8	8193.4	8178.0	8157.5	7958.9	7810.1	7594.4	7358.4	7093.1	6822.7	6702.9
5°	9586.3	9504.2	9488.8	9393.0	9167.1	8913.8	8530.6	8046.2	7551.7	6969.9	6720.0
7.5°	9836.2	9820.8	9890.9	9887.6	9856.7	9656.5	9333.1	8756.4	8013.8	7151.2	6764.5
10°	8722.1	8761.5	8970.3	9153.5	9647.9	9935.4	9865.3	9389.5	8489.5	7358.4	6814.2
12.5°	7707.4	7661.3	7810.1	8017.1	8592.2	9447.7	10086.0	9918.3	9033.6	7592.8	6887.7
15°	7070.9	7052.0	7135.8	7231.7	7669.8	8532.2	9829.3	10347.9	9557.3	7869.9	6999.0
17.5°	6867.2	6851.8	6877.4	6901.4	7185.5	7852.8	9218.4	10611.4	10058.6	8186.6	7122.2
20°	7033.1	7012.6	7009.3	6990.4	7108.5	7563.7	8665.8	10630.2	10508.7	8474.1	7228.3
22.5°	7517.5	7493.5	7409.6	7334.4	7344.6	7603.0	8419.2	10442.0	10847.6	8742.7	7295.0
25°	8395.4	8356.0	8181.4	7928.2	7767.3	7876.8	8457.0	10193.8	11171.0	8953.2	7262.5
27.5°	9494.0	9442.6	9218.4	8842.0	8474.1	8340.5	8729.0	10022.8	11439.6	9114.1	7192.3
30°	10570.3	10503.6	10282.8	9990.2	9452.9	9031.9	9220.2	10098.0	11759.6	9281.8	7100.0
32.5°	11732.3	11668.9	11376.3	11013.5	10568.6	10002.2	9892.7	10466.0	12151.5	9516.2	7034.9
35°	13202.2	13103.0	12687.1	12192.6	11720.3	11147.0	10803.1	11100.7	12673.4	9873.8	7070.9
37.5°	14875.8	14742.3	14293.9	13611.2	12995.2	12353.4	11911.9	11973.5	13438.4	10353.0	7182.1
40°	16453.5	16332.0	15917.9	15274.6	14501.0	13722.4	13251.8	13115.0	14494.2	10936.5	7377.1
42.5°	17399.9	17290.3	17115.8	16843.7	16191.7	15397.8	14803.9	14507.8	15743.4	11634.7	7615.0
45°	17452.9	17357.0	17591.6	17908.1	17779.8	17251.0	16527.1	15984.7	16997.7	12290.2	7861.4
47.5°	16604.2	16539.1	17251.0	18356.4	18907.5	19129.9	18462.5	17338.3	18033.0	12760.7	7962.4
50°	14290.6	14266.6	15731.4	17760.9	19337.0	20776.1	20504.1	18597.7	18835.6	13003.7	7866.6
52.5°	12391.1	12303.8	13157.7	15854.6	18712.4	21642.1	22499.4	19833.2	19396.9	13049.9	7642.4
55°	9398.1	9321.1	10392.4	12664.9	16698.3	21334.0	23959.1	21108.1	19799.0	12931.8	7240.3
57.5°	5041.3	4993.4	6347.0	8429.6	13053.3	19485.9	24222.6	22456.6	20137.9	12618.7	6677.3
60°	1962.8	1954.3	2460.7	4089.9	7933.3	15853.0	22893.0	23266.0	20350.0	12233.7	6206.7
62.5°	1187.6	1213.3	1295.4	1836.2	3504.6	9848.2	19828.1	22345.3	20492.1	11881.1	5818.2
65°	982.3	984.0	994.2	1261.2	1678.7	4120.7	14927.2	19316.4	20141.2	11253.1	5267.2
67.5°	841.9	857.3	896.7	1001.1	1184.2	1807.1	8593.8	14963.1	18007.4	9791.7	4408.1
70°	664.0	684.5	734.1	823.1	913.8	1131.1	3176.1	9956.0	13756.6	7380.6	3333.5
72.5°	559.5	557.9	583.5	669.1	725.6	795.7	1221.8	5578.7	7994.9	3523.4	1649.6
75°	433.0	450.1	482.6	559.5	593.8	576.7	662.3	2038.1	2864.6	1067.8	561.3
77.5°	338.9	352.5	381.6	456.9	491.1	409.0	381.6	729.0	920.7	383.3	253.3
80°	152.3	164.3	260.1	337.1	400.5	282.4	207.0	373.1	409.0	174.6	128.3
82.5°	27.4	46.2	152.3	177.9	205.3	183.1	107.8	193.4	200.2	70.1	44.5
85°	1.7	3.4	53.1	65.0	82.1	59.9	32.5	77.0	66.7	24.0	17.1
87.5°	0.0	0.0	0.0	1.7	1.7	8.5	10.2	13.7	10.2	8.5	6.9
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°	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5	6687.5
2.5°	6579.7	6336.8	6100.6	5907.2	5794.2	5602.5	5476.0	5455.5	5402.4	5448.6
5°	6453.1	6018.4	5578.7	5185.1	4861.7	4444.1	4132.6	4000.9	3886.2	3925.5
7.5°	6393.2	5707.0	5022.5	4350.0	3658.6	2991.3	2495.0	2287.9	2130.5	2152.7
10°	6312.8	5383.5	4310.6	3283.9	2358.1	1699.2	1357.0	1230.4	1160.2	1161.9
12.5°	6251.2	4996.8	3484.1	2226.3	1435.7	1085.0	978.9	948.0	927.5	929.2
15°	6220.3	4541.7	2667.9	1483.7	1026.7	918.9	893.3	879.6	865.9	864.2
17.5°	6169.0	4035.1	1952.5	1083.2	898.4	860.8	838.6	823.1	806.0	802.6
20°	6092.0	3460.1	1427.2	915.5	841.9	812.8	782.1	761.5	741.0	737.6
22.5°	5950.0	2852.7	1096.9	847.1	800.8	768.3	730.7	706.7	686.2	682.8
25°	5686.4	2282.8	924.0	804.3	765.0	725.6	684.5	652.0	633.1	629.8
27.5°	5352.8	1793.3	838.6	765.0	718.7	682.8	636.6	605.8	588.7	585.3
30°	4959.2	1381.0	788.8	720.5	664.0	633.1	592.0	566.4	556.2	556.2
32.5°	4534.8	1103.7	768.3	676.0	616.0	581.8	549.3	539.0	535.7	533.9
35°	4136.1	958.3	758.1	640.0	573.3	540.8	527.1	528.8	535.7	535.7
37.5°	3781.8	912.0	753.0	614.4	535.7	506.6	515.1	530.4	523.7	523.7
40°	3461.8	917.3	749.5	595.5	504.8	487.7	504.8	492.8	475.7	474.1
42.5°	3217.2	960.0	742.7	580.2	486.0	474.1	467.2	448.3	446.6	450.1
45°	3039.1	997.6	741.0	573.3	465.5	443.2	434.7	415.8	450.1	458.6
47.5°	2828.7	997.6	741.0	549.3	431.2	422.7	409.0	388.5	422.7	431.2
50°	2556.6	934.3	711.9	521.9	403.8	398.7	374.7	349.1	342.2	347.4
52.5°	2212.7	819.7	638.3	484.3	376.5	366.2	337.1	318.3	313.1	313.1
55°	1820.7	686.2	539.0	429.5	347.4	328.5	308.0	299.5	294.4	290.9
57.5°	1480.2	563.0	433.0	381.6	320.0	296.0	289.2	278.9	270.4	265.3
60°	1214.9	443.2	357.6	338.9	292.6	270.4	268.7	255.0	232.8	229.3
62.5°	937.8	325.1	301.1	294.4	265.3	246.4	243.0	215.7	181.4	174.6
65°	662.3	253.3	243.0	258.4	236.2	219.0	210.4	169.4	133.5	128.3
67.5°	465.5	212.2	191.7	225.9	205.3	183.1	177.9	143.7	111.2	107.8
70°	332.0	172.8	157.4	193.4	164.3	160.8	150.6	119.8	90.7	87.2
72.5°	234.4	131.8	121.5	167.7	113.0	138.6	123.2	92.5	68.5	65.0
75°	172.8	94.1	85.6	97.6	82.1	104.3	87.2	61.6	42.7	41.1
77.5°	126.6	59.9	51.4	47.9	47.9	65.0	47.9	25.6	18.9	17.1
80°	89.0	27.4	24.0	20.5	18.9	15.4	6.9	3.4	1.7	1.7
82.5°	53.1	12.0	12.0	8.5	5.1	0.0	0.0	0.0	0.0	0.0
85°	12.0	5.1	5.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	1.7	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)