

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: P882240

Luminaire Tested: **NAV-SB2A-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6922 lumens
Efficiency: N/A
Efficacy: 120.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

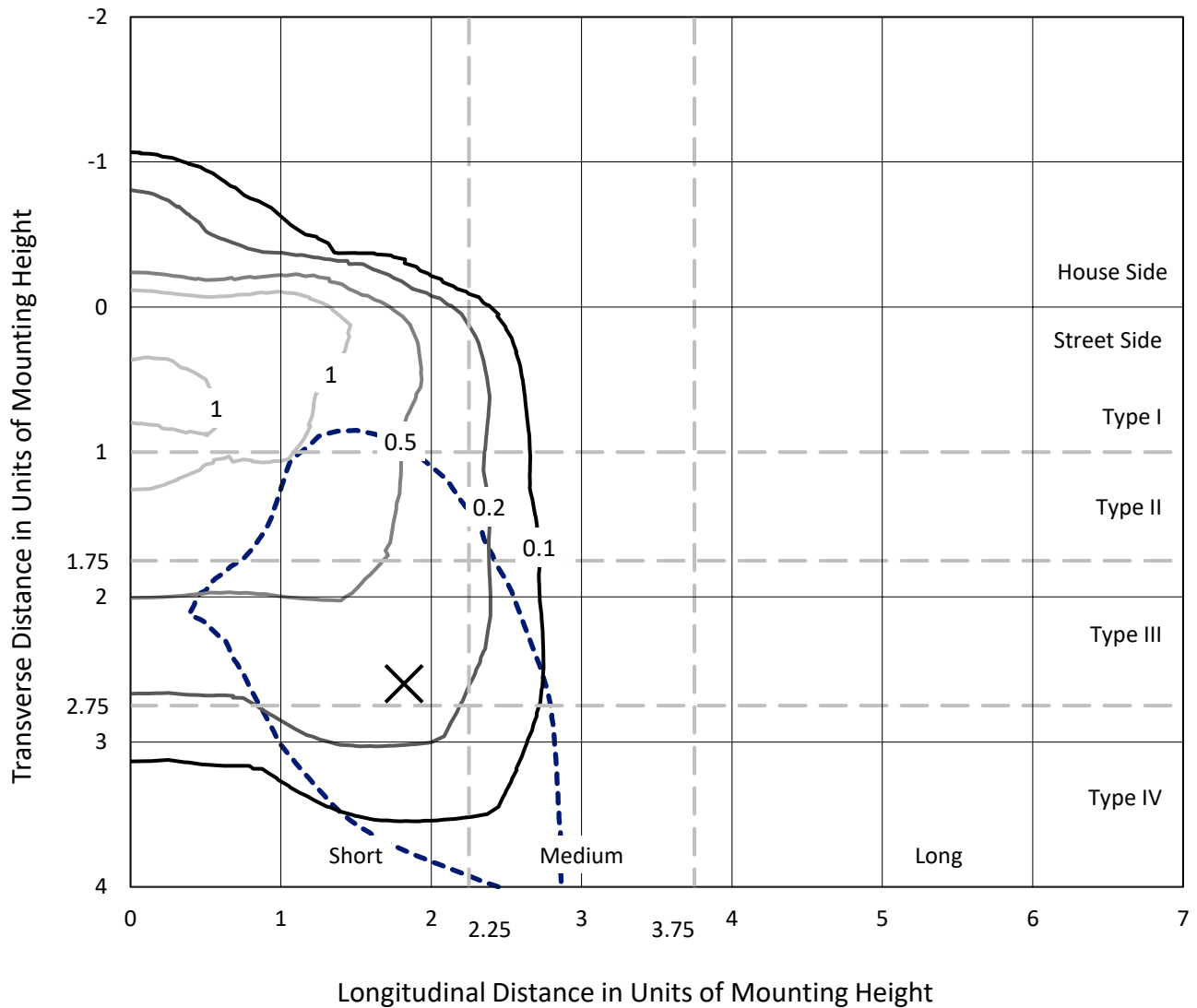
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

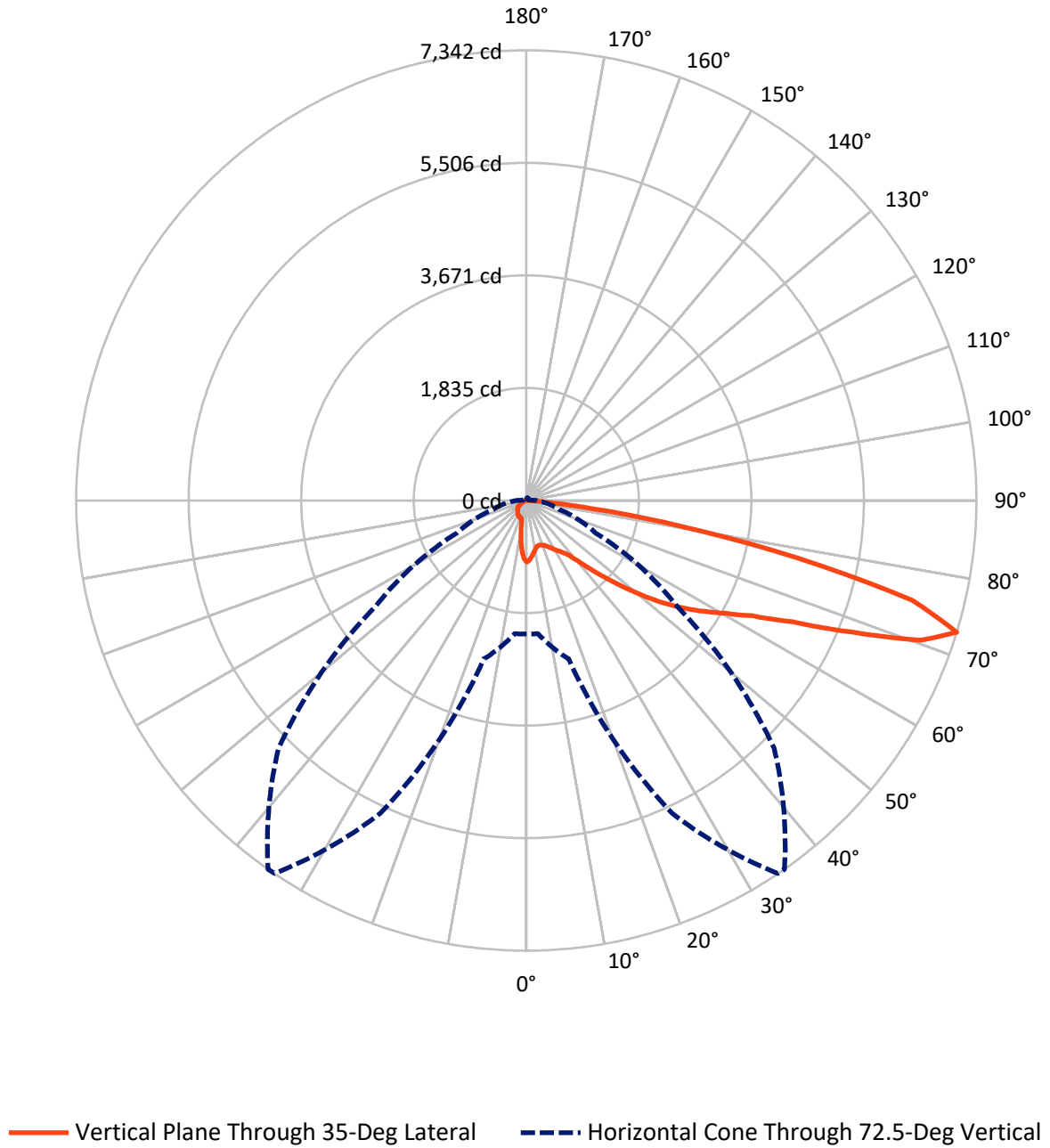
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	779.0	0.0	779.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	6143.0	0.0	6143.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	6922.0	0.0	6922.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	1.2
10°-20°	192.9	2.8
20°-30°	313.3	4.5
30°-40°	522.7	7.6
40°-50°	989.0	14.3
50°-60°	1571.5	22.7
60°-70°	1944.1	28.1
70°-80°	1208.5	17.5
80°-90°	97.7	1.4
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°	6922.0	100.0
0°-180°	6922.0	100.0

Coefficient of Utilization



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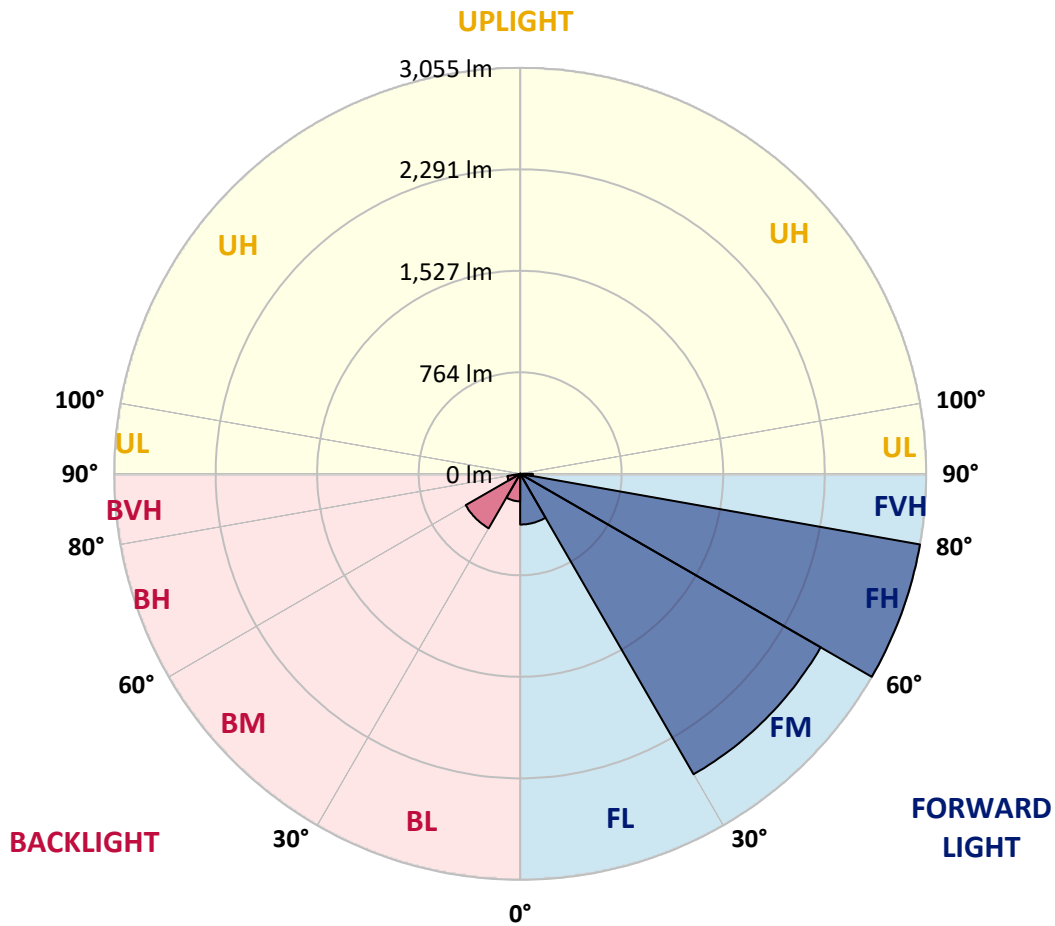
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	381.6	5.5			
FM (30°-60°)	2610.3	37.7			
FH (60°-80°)	3054.8	44.1			G2/5000
FVH (80°-90°)	96.3	1.4			G1/100
BL (0°-30°)	207.0	3.0	B1/500		
BM (30°-60°)	472.9	6.8	B1/1000		
BH (60°-80°)	97.8	1.4	B0/110		G0/110
BVH (80°-90°)	1.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2
2.5°	958.6	966.7	968.2	970.8	970.8	973.8	978.9	986.0	997.7	1003.7	1007.8
5°	883.5	889.6	897.2	903.3	915.0	916.5	936.3	955.6	982.4	1002.7	1016.9
7.5°	808.0	815.1	825.2	839.9	855.1	859.7	889.6	922.1	964.7	1002.7	1026.6
10°	754.7	755.2	764.3	779.1	803.4	809.0	845.5	891.6	944.9	996.6	1035.7
12.5°	724.8	728.3	732.4	743.5	766.9	770.4	809.5	863.8	925.1	993.1	1046.3
15°	724.8	727.3	729.9	735.4	754.2	757.2	791.7	846.0	915.0	994.6	1063.6
17.5°	732.4	736.4	734.4	741.0	760.8	762.8	793.3	840.9	914.5	1004.2	1090.0
20°	750.6	753.7	749.6	753.7	773.5	777.5	809.0	850.6	923.1	1021.0	1122.9
22.5°	779.6	781.1	771.4	774.5	794.8	799.8	836.4	878.0	943.9	1047.9	1167.1
25°	816.1	819.1	804.4	808.0	827.2	833.3	875.4	919.0	976.9	1084.9	1223.4
27.5°	858.2	859.7	847.0	846.5	871.4	880.0	922.6	969.8	1021.0	1131.5	1294.4
30°	906.4	910.9	898.7	896.7	928.2	935.3	977.4	1032.1	1085.9	1201.5	1395.3
32.5°	944.4	947.9	940.8	945.9	977.9	983.4	1043.8	1120.4	1187.8	1301.0	1532.7
35°	999.2	1001.2	985.0	994.1	1030.6	1044.8	1134.6	1244.1	1316.2	1425.7	1712.3
37.5°	1197.5	1197.5	1128.5	1083.4	1118.4	1131.0	1258.9	1399.9	1474.4	1593.1	1938.5
40°	1471.9	1467.3	1366.4	1274.1	1269.5	1294.4	1435.9	1596.1	1678.8	1793.9	2193.1
42.5°	1764.5	1757.4	1620.0	1528.7	1513.5	1522.1	1640.3	1838.1	1922.3	2038.9	2467.0
45°	2024.2	2022.2	1896.4	1773.7	1746.3	1773.7	1895.4	2121.1	2181.4	2304.2	2740.4
47.5°	2241.8	2241.8	2150.0	2069.9	2055.7	2071.9	2240.8	2435.0	2429.5	2586.7	3006.6
50°	2492.4	2490.3	2403.1	2368.6	2383.3	2406.1	2638.4	2765.7	2686.1	2864.1	3244.5
52.5°	2667.8	2680.0	2650.1	2644.5	2719.6	2759.1	3042.2	3089.3	2915.9	3127.4	3422.5
55°	2806.8	2821.0	2855.5	2894.6	3039.1	3090.8	3433.2	3396.2	3108.1	3355.6	3525.0
57.5°	3003.6	2983.3	3036.6	3113.7	3347.5	3409.9	3812.1	3685.8	3262.8	3540.7	3536.2
60°	3242.5	3245.5	3254.7	3352.0	3655.3	3735.5	4185.4	3959.7	3362.2	3654.3	3412.4
62.5°	3529.6	3534.1	3552.9	3702.5	4068.7	4144.3	4583.0	4183.8	3407.8	3622.4	3092.9
65°	3509.8	3529.1	3738.5	4250.3	4697.1	4771.7	5047.1	4341.1	3338.9	3330.2	2518.2
67.5°	3197.4	3228.8	3579.3	4904.6	5644.6	5727.7	5608.0	4372.0	3041.1	2589.7	1642.8
70°	2787.5	2798.7	3220.2	5492.9	6741.6	6825.8	6110.2	4031.7	2307.7	1444.5	735.9
72.5°	2176.9	2179.4	2673.9	5629.3	7337.1	7341.6	5716.1	2993.0	1241.1	554.9	255.6
75°	1555.1	1539.8	1790.9	4565.3	6455.1	6506.8	4285.3	1403.9	474.2	262.2	127.3
77.5°	833.8	850.6	1013.4	2707.4	4459.3	4547.5	2338.2	404.7	241.4	178.5	84.2
80°	257.7	271.9	415.4	1239.6	2525.8	2579.1	866.8	180.1	168.4	127.3	55.3
82.5°	81.2	84.2	193.7	520.9	1048.4	1072.7	251.1	101.9	115.1	84.2	32.5
85°	23.3	23.8	86.2	194.3	259.2	264.2	70.5	39.6	65.9	52.2	16.7
87.5°	2.5	8.1	32.5	32.5	22.8	22.3	7.6	8.6	18.8	6.6	3.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2	1003.2
2.5°	1005.3	1005.8	999.2	988.0	975.8	965.7	953.0	942.9	935.8	933.7	937.3
5°	1012.4	1008.8	990.0	956.1	915.5	880.5	841.4	810.5	790.2	781.6	784.6
7.5°	1023.0	1012.9	971.8	904.8	827.2	758.3	688.3	634.0	599.5	582.3	584.8
10°	1032.1	1011.9	941.4	830.8	712.1	607.6	513.3	447.9	411.3	394.1	394.6
12.5°	1040.8	1011.3	901.8	743.0	582.3	454.4	366.7	334.2	324.1	320.5	319.5
15°	1057.0	1012.9	852.1	642.6	452.9	343.4	311.4	310.9	312.9	311.9	311.4
17.5°	1079.3	1014.4	795.8	536.1	349.5	302.8	301.3	305.8	308.9	307.4	306.9
20°	1108.2	1020.5	735.9	430.6	300.3	292.7	296.2	300.3	302.8	300.3	299.8
22.5°	1148.8	1031.1	670.5	345.9	284.5	286.6	289.6	294.2	296.7	293.2	292.7
25°	1198.5	1047.9	606.1	300.8	276.9	279.5	284.0	289.1	292.1	288.6	288.1
27.5°	1262.9	1074.7	546.8	290.6	269.3	270.8	277.4	285.0	289.1	284.5	284.5
30°	1356.2	1118.9	495.5	295.2	264.8	261.2	270.3	281.0	285.6	281.5	281.0
32.5°	1480.0	1181.3	464.1	302.3	262.7	250.0	258.7	272.4	280.0	277.4	277.4
35°	1642.3	1276.1	451.9	310.4	261.2	238.4	244.5	259.2	272.4	274.9	274.9
37.5°	1839.1	1408.0	455.5	314.0	256.6	228.7	231.8	244.5	261.7	269.8	271.9
40°	2062.8	1561.7	475.7	310.4	251.6	220.6	221.1	230.8	246.0	258.2	262.2
42.5°	2293.5	1741.2	513.3	297.2	247.0	213.5	212.0	218.6	228.7	237.4	240.9
45°	2513.1	1925.8	550.3	279.0	241.4	206.4	202.9	205.4	207.4	211.0	213.0
47.5°	2704.9	2055.7	539.7	262.2	233.8	198.3	192.2	191.2	185.1	184.6	184.1
50°	2837.2	2084.1	479.3	245.5	222.7	189.2	179.5	173.5	162.8	157.7	158.2
52.5°	2879.3	1972.0	391.6	228.7	204.4	177.0	163.3	153.7	140.5	135.9	135.4
55°	2823.5	1752.4	312.9	208.5	179.0	160.8	145.6	132.9	122.2	116.7	116.7
57.5°	2687.1	1472.9	247.5	184.6	152.2	142.5	127.3	114.6	105.5	99.9	98.9
60°	2460.9	1169.6	195.8	156.2	129.8	122.7	107.0	98.9	90.8	84.2	82.7
62.5°	2117.5	834.8	153.7	123.8	108.5	100.4	91.3	85.2	75.6	66.4	64.9
65°	1652.4	510.7	118.7	90.8	87.2	83.2	77.6	72.0	60.4	51.2	49.7
67.5°	1042.3	241.9	84.7	68.5	69.0	66.9	64.4	59.8	51.2	43.1	42.1
70°	459.0	117.2	55.8	52.2	51.2	51.2	53.3	51.7	43.6	36.0	34.5
72.5°	156.2	62.9	41.6	39.6	37.0	36.5	44.6	43.1	35.0	27.9	26.4
75°	81.7	42.1	30.4	28.4	22.3	26.9	35.5	33.5	24.9	18.3	16.7
77.5°	53.3	29.9	20.8	18.3	12.7	17.8	26.4	23.3	14.7	9.1	8.1
80°	33.5	19.8	12.2	8.6	6.1	9.6	14.2	10.1	5.6	2.0	1.5
82.5°	17.8	10.1	4.6	3.0	2.5	3.0	3.6	2.5	1.0	0.0	0.0
85°	7.1	3.6	1.5	1.0	0.5	0.0	1.0	0.5	0.0	0.0	0.0
87.5°	2.5	0.5	0.0	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	0.0

(END OF REPORT)