

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: INVUE

Report Number: P596478

Luminaire Tested: **MSA-SA1A-827-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-827-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3051 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

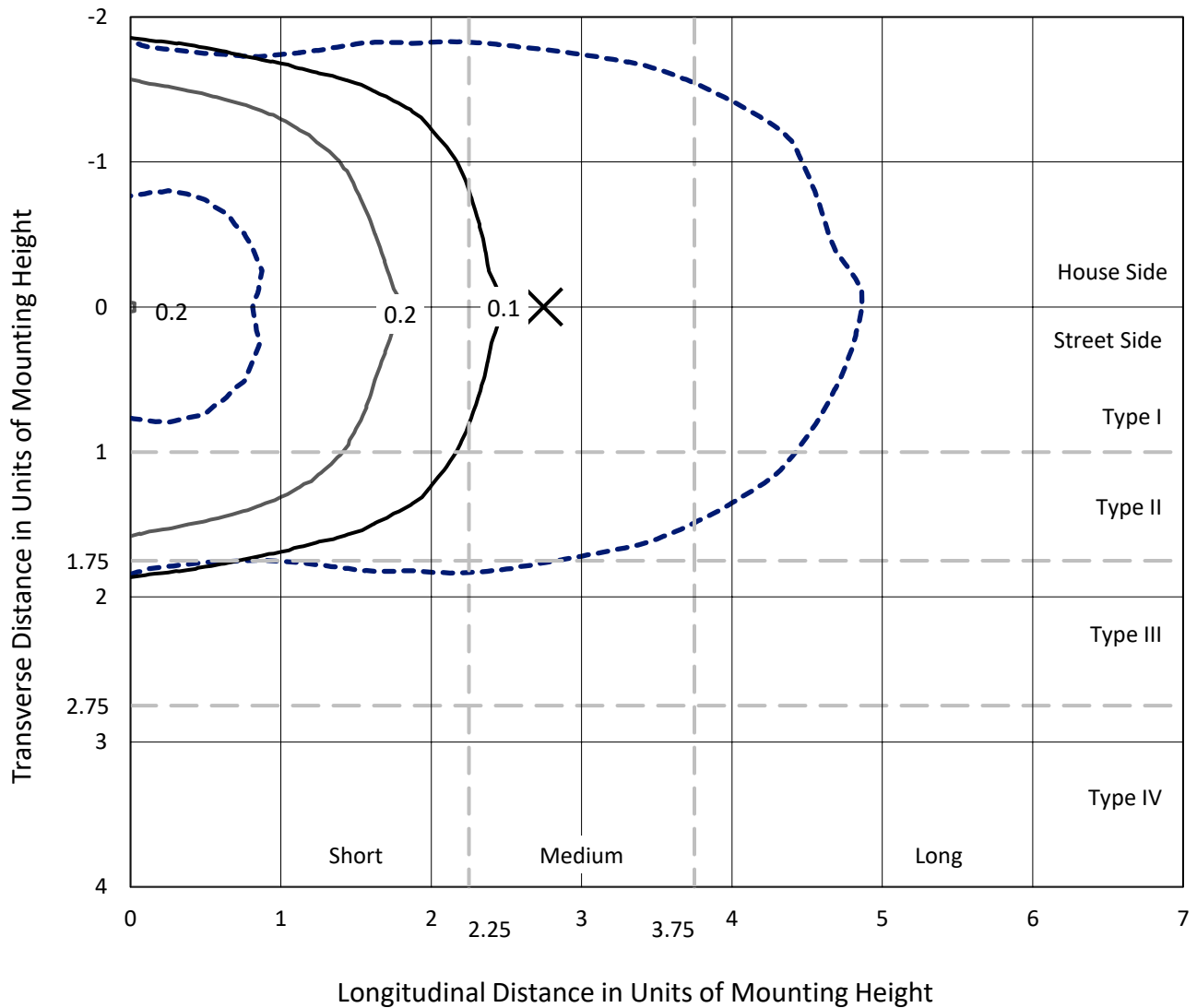
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

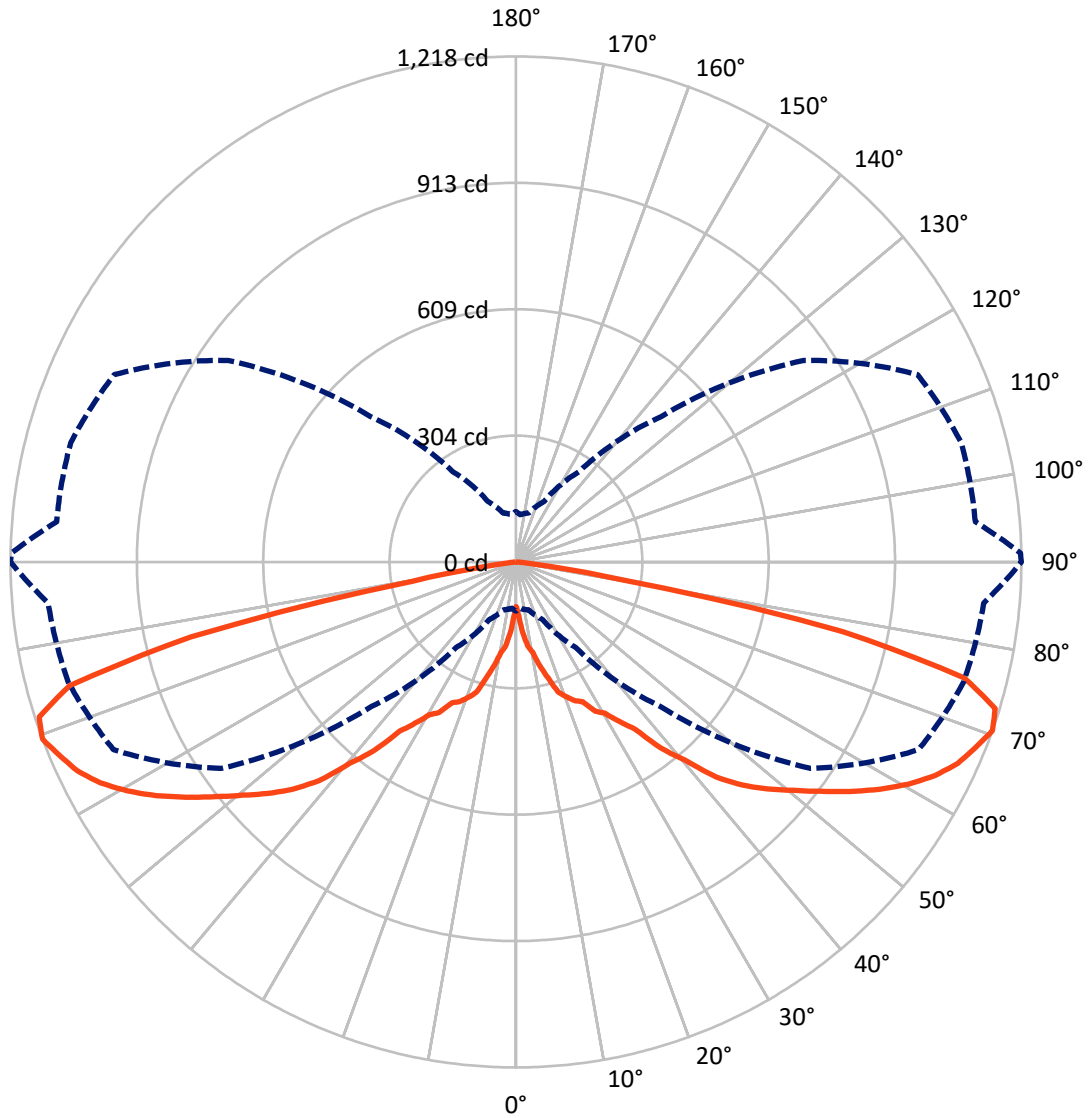
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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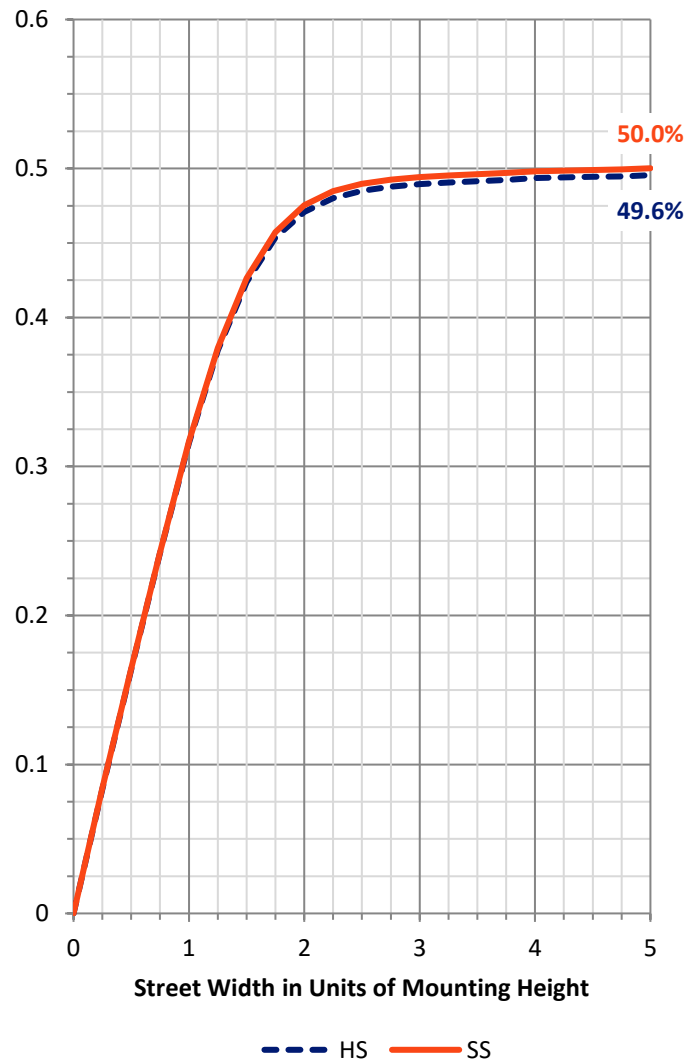
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1519.9	0.0	1519.9
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	1531.2	0.0	1531.2
	% Fixture	50.2	0.0	50.2
Total	Lumens	3051.0	0.0	3051.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.2	0.5
10°-20°	74.0	2.4
20°-30°	160.1	5.2
30°-40°	305.4	10.0
40°-50°	554.8	18.2
50°-60°	779.4	25.5
60°-70°	744.2	24.4
70°-80°	381.9	12.5
80°-90°	35.0	1.1
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°	3051.0	100.0
0°-180°	3051.0	100.0



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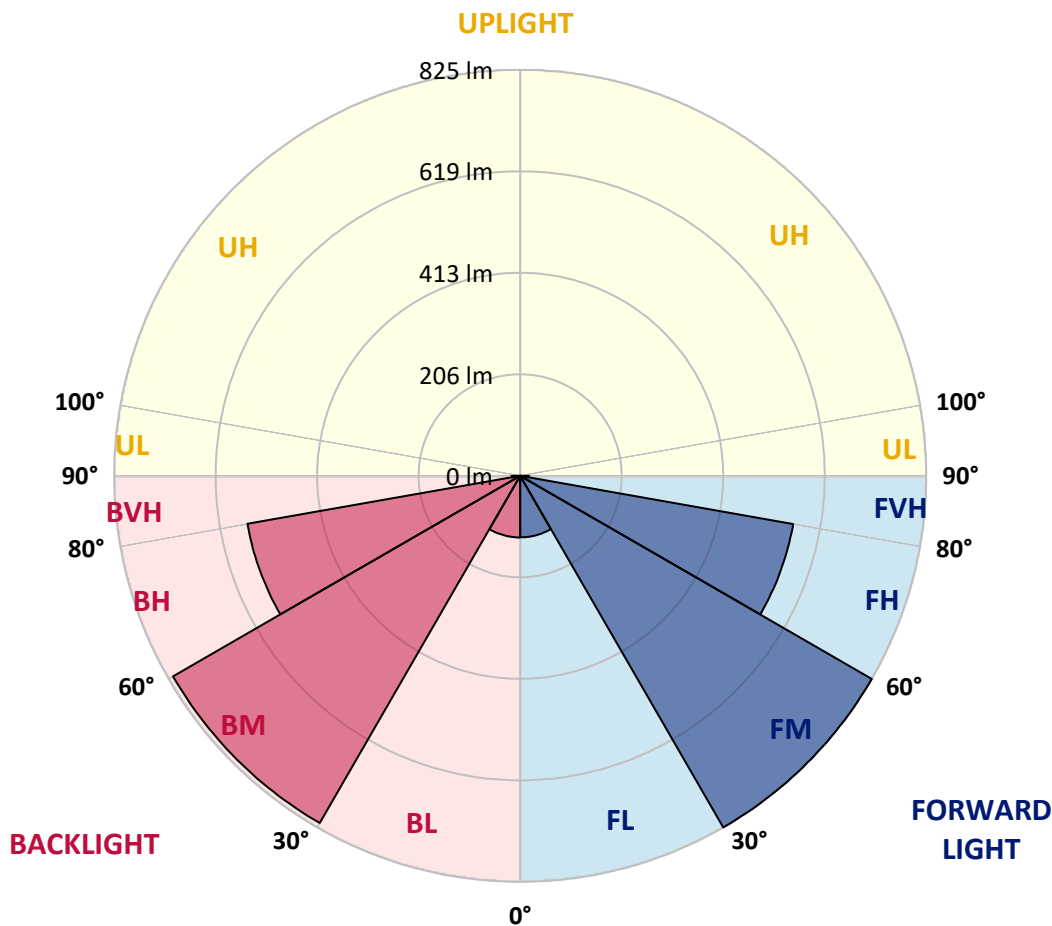
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	125.0	4.1			
FM (30°-60°)	825.0	27.0			
FH (60°-80°)	563.4	18.5			G0/660
FVH (80°-90°)	17.8	0.6			G1/100
BL (0°-30°)	125.3	4.1	B1/500		
BM (30°-60°)	814.6	26.7	B1/1000		
BH (60°-80°)	562.7	18.4	B2/1000		G2/1000
BVH (80°-90°)	17.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1
2.5°	129.7	124.9	118.8	122.4	123.9	126.5	126.1	124.9	119.6	128.5	129.5
5°	162.4	154.7	151.8	151.4	152.1	149.6	157.7	155.3	159.6	167.7	169.5
7.5°	184.9	179.2	173.1	175.0	167.3	166.2	176.6	185.8	188.2	202.9	203.9
10°	195.5	189.9	191.5	190.4	189.6	196.7	201.6	208.4	218.1	219.5	221.6
12.5°	204.5	206.7	213.8	213.5	225.2	237.9	236.1	243.1	244.7	261.8	256.6
15°	227.4	232.0	231.5	235.8	240.9	261.8	261.9	273.9	284.9	291.6	289.8
17.5°	260.9	262.5	255.8	256.1	270.8	279.3	288.9	286.8	315.4	328.5	329.4
20°	280.9	285.0	277.4	267.2	293.3	305.1	310.4	298.1	328.8	346.5	346.5
22.5°	315.9	305.4	293.8	287.0	310.0	322.5	321.9	318.4	334.7	366.0	363.0
25°	335.2	329.3	323.5	325.2	336.8	343.3	351.8	343.8	359.1	382.3	372.6
27.5°	371.8	360.8	332.3	355.0	355.0	350.2	368.2	372.1	362.1	399.9	407.2
30°	413.2	409.4	369.0	393.1	385.7	372.1	406.7	404.2	387.4	426.0	422.6
32.5°	452.4	465.1	426.7	413.5	424.6	429.8	411.6	419.1	422.3	459.5	457.9
35°	512.5	523.2	472.4	469.0	450.5	445.6	459.5	462.0	462.2	501.4	494.2
37.5°	616.5	601.2	551.0	527.4	529.5	523.7	526.4	506.9	509.6	566.5	570.0
40°	692.6	675.3	619.4	602.4	560.9	585.7	563.7	561.8	556.3	630.0	628.0
42.5°	776.5	752.8	691.0	668.3	624.2	614.1	603.9	626.8	625.3	693.6	708.7
45°	840.0	792.0	759.7	745.6	719.2	694.3	684.7	694.9	690.2	740.9	767.3
47.5°	880.0	838.4	801.3	771.6	746.2	807.2	758.4	744.6	735.1	791.9	817.2
50°	911.9	863.8	820.1	810.2	830.2	884.1	807.1	776.8	788.4	830.2	864.7
52.5°	920.6	869.6	830.3	824.0	878.2	887.9	875.5	824.5	821.4	876.2	917.9
55°	894.1	845.3	826.6	861.1	921.0	912.8	931.8	899.3	877.4	923.2	975.6
57.5°	826.0	777.5	773.1	822.8	898.2	967.7	977.1	951.4	922.7	971.2	1033.0
60°	714.1	669.8	681.1	736.0	849.7	948.7	998.6	975.1	966.2	1014.4	1086.2
62.5°	539.9	505.4	535.4	612.0	761.2	924.1	1028.3	1024.6	1011.7	1060.4	1133.2
65°	344.2	326.1	356.7	434.5	623.8	879.3	1042.5	1047.5	1059.3	1095.9	1169.5
67.5°	200.1	190.4	209.1	272.8	444.3	722.0	1016.1	1087.0	1093.2	1114.2	1193.4
70°	118.3	112.0	119.7	153.2	251.5	491.9	866.7	1069.7	1116.5	1131.1	1217.5
72.5°	90.3	84.3	81.0	90.6	131.3	254.1	586.0	906.7	1097.8	1119.9	1207.3
75°	78.0	72.3	68.4	69.2	78.1	120.7	317.7	648.6	935.4	1019.8	1115.2
77.5°	67.0	61.9	59.1	58.9	60.0	66.3	132.8	351.7	585.9	733.0	804.0
80°	53.7	49.7	49.1	49.1	47.5	47.0	66.0	133.8	222.9	264.4	253.5
82.5°	39.2	35.2	39.2	38.7	36.2	34.3	42.0	57.9	68.8	54.3	42.9
85°	26.5	22.9	25.8	26.3	24.0	17.8	25.2	28.9	29.7	18.5	15.3
87.5°	9.3	9.0	14.6	12.7	10.4	6.1	9.3	10.0	10.5	6.6	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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1
2.5°	129.8	128.4	120.9	122.0	124.9	126.2	127.6	122.0	119.3	128.0	127.1
5°	170.0	164.6	158.5	157.7	158.0	152.7	155.8	154.4	155.1	160.6	161.7
7.5°	203.7	197.1	189.1	182.8	171.9	163.2	170.5	174.2	175.3	185.2	188.9
10°	221.8	216.3	213.9	202.0	198.5	197.3	195.6	189.7	196.2	193.9	195.7
12.5°	257.4	256.3	244.1	236.3	237.0	239.1	228.3	222.3	213.8	227.1	222.3
15°	287.7	292.6	280.3	266.1	259.1	262.6	254.4	245.7	238.0	242.1	236.9
17.5°	326.4	326.3	302.5	287.2	286.6	286.4	274.1	255.1	264.2	261.4	261.6
20°	347.0	343.6	314.0	296.4	311.4	306.0	295.0	270.6	281.2	284.6	286.9
22.5°	364.2	362.3	326.3	313.5	323.1	323.2	312.2	299.4	298.0	308.8	302.9
25°	376.2	383.6	349.7	346.6	350.8	346.6	335.8	327.4	322.0	338.1	322.0
27.5°	404.6	394.1	353.3	370.8	373.4	352.3	365.8	355.9	340.8	360.7	367.2
30°	424.9	431.1	378.5	405.0	401.9	382.3	387.9	387.5	369.5	408.3	403.7
32.5°	459.7	452.3	419.7	417.6	425.0	424.1	414.7	419.3	423.8	452.0	458.8
35°	495.5	503.4	446.0	460.2	458.1	444.8	469.4	466.5	479.8	537.6	518.5
37.5°	576.1	538.4	505.1	503.3	517.4	519.5	511.6	524.0	552.6	597.1	617.6
40°	628.9	611.7	555.2	557.4	537.9	571.5	549.3	589.5	611.2	686.3	679.0
42.5°	708.8	666.9	612.6	620.0	616.0	599.8	629.1	649.8	681.0	738.2	775.2
45°	768.3	710.8	685.0	680.5	680.0	708.2	704.4	737.5	748.6	791.6	822.3
47.5°	813.4	764.5	726.5	731.7	716.6	797.1	754.2	764.4	786.9	827.5	863.2
50°	866.9	812.5	769.2	782.1	818.8	849.7	810.9	793.4	804.4	852.2	892.0
52.5°	916.5	859.3	811.7	822.4	882.4	868.3	864.1	819.7	818.3	856.8	902.0
55°	974.5	910.0	867.9	902.0	923.3	905.9	899.2	845.2	811.8	833.2	875.8
57.5°	1031.4	960.2	918.4	925.4	952.4	935.1	885.0	801.8	760.1	764.3	807.5
60°	1084.7	1006.3	971.8	965.0	986.5	918.6	830.9	722.3	667.0	656.8	694.2
62.5°	1130.3	1044.9	1012.2	993.7	1014.2	919.2	746.7	594.6	533.9	499.6	528.6
65°	1166.5	1076.9	1053.6	1044.0	1051.4	863.3	615.5	436.6	362.2	324.1	341.0
67.5°	1190.7	1094.8	1084.2	1096.8	997.9	719.0	456.0	279.5	210.6	189.8	200.4
70°	1215.6	1110.6	1110.3	1067.4	846.2	495.7	266.3	161.1	122.5	114.5	121.2
72.5°	1207.2	1091.9	1097.4	933.5	586.4	265.0	140.6	91.1	83.0	85.8	91.8
75°	1117.9	992.7	965.9	671.1	332.6	123.2	81.0	69.0	68.5	72.8	78.6
77.5°	810.9	691.3	620.4	380.4	142.6	66.6	59.6	57.6	57.6	61.1	66.3
80°	267.3	231.4	241.1	147.1	67.4	46.0	46.5	47.4	47.1	48.0	52.3
82.5°	43.9	45.5	70.4	60.1	40.7	31.4	35.1	36.8	37.3	33.4	38.0
85°	15.6	17.6	29.9	27.8	23.5	15.8	23.1	25.8	25.5	22.3	24.6
87.5°	4.8	6.2	10.9	8.4	7.0	4.3	8.7	10.1	12.7	5.2	4.7
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)