

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: P596830

Luminaire Tested: **MSA-SA1A-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596830
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-835-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: 3421 lumens
Efficiency: N/A
Efficacy: 100.6 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

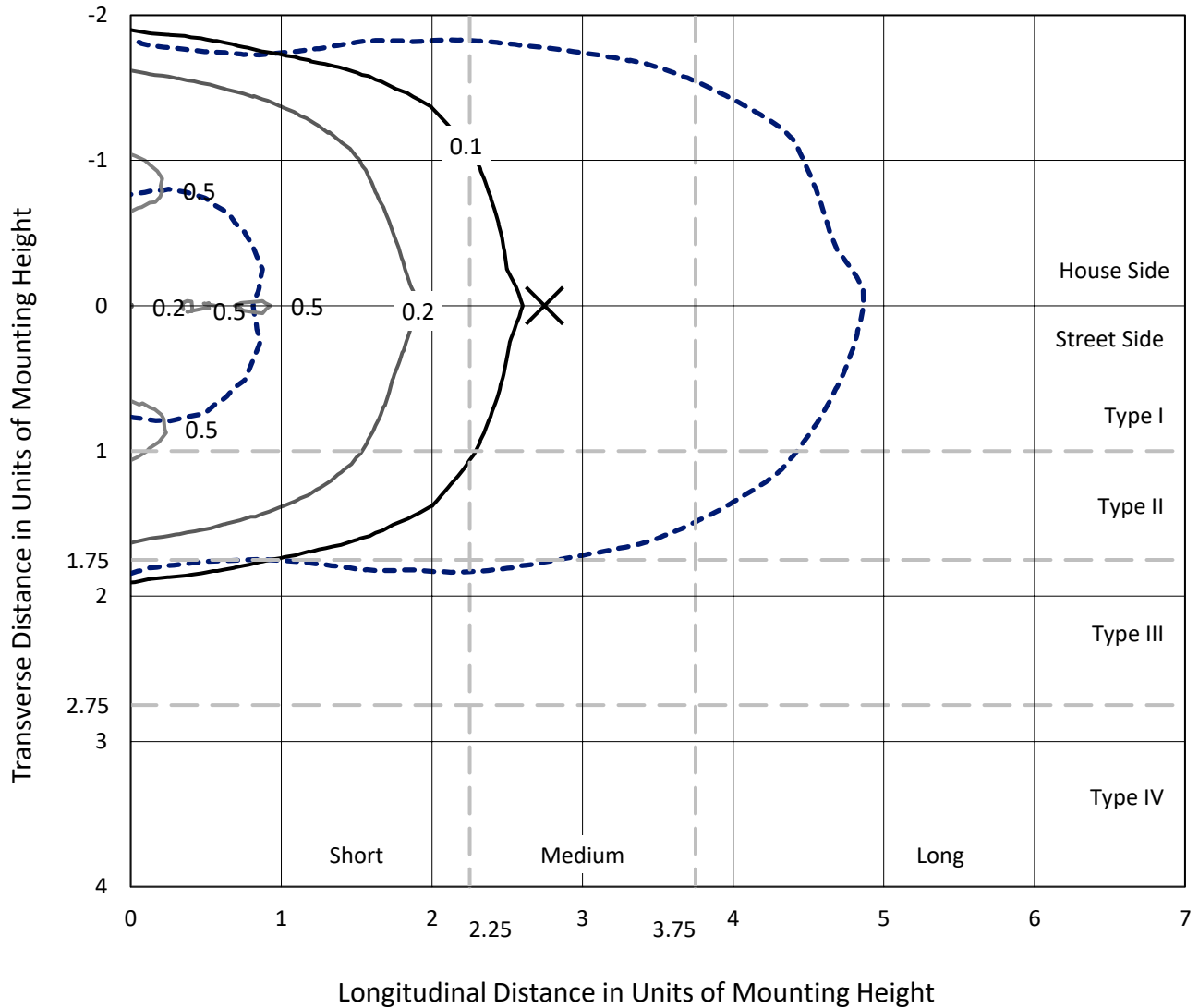
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

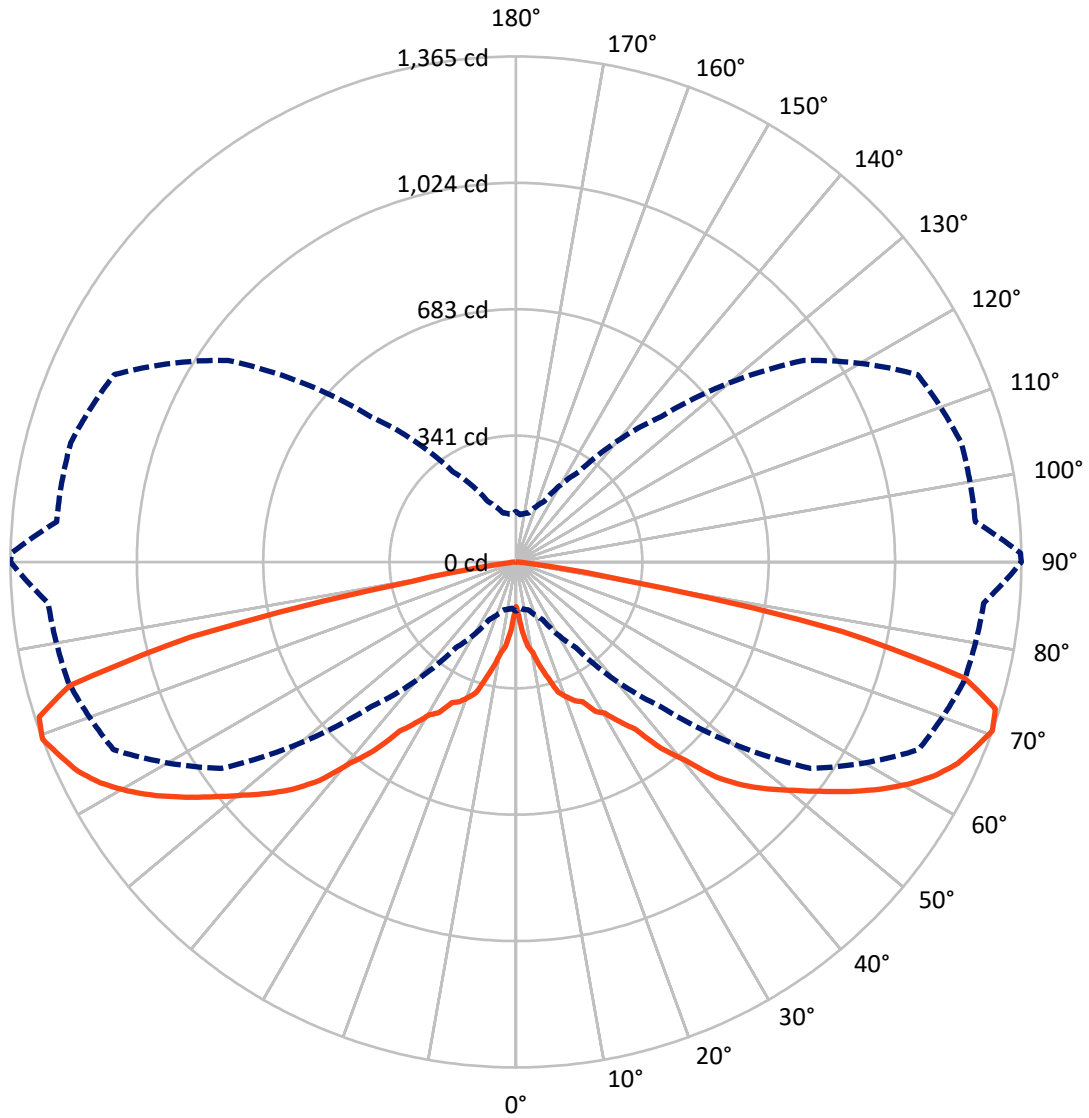
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 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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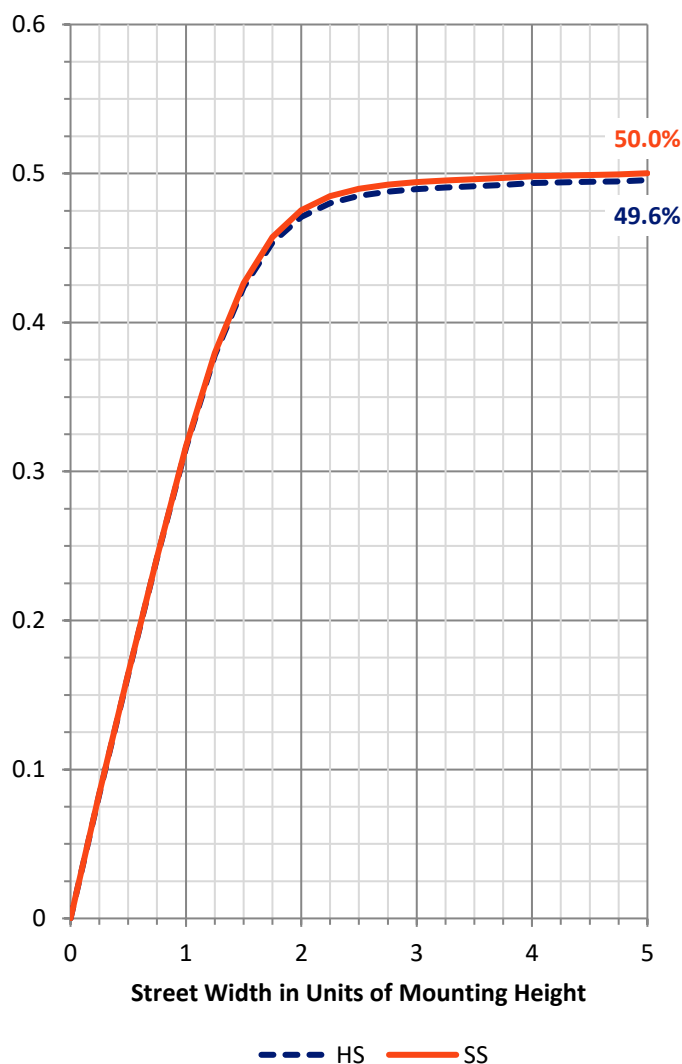
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1704.2	0.0	1704.2
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	1716.8	0.0	1716.8
	% Fixture	50.2	0.0	50.2
Total	Lumens	3421.0	0.0	3421.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.1	0.5
10°-20°	83.0	2.4
20°-30°	179.5	5.2
30°-40°	342.4	10.0
40°-50°	622.1	18.2
50°-60°	873.9	25.5
60°-70°	834.4	24.4
70°-80°	428.2	12.5
80°-90°	39.3	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°	3421.0	100.0
0°-180°	3421.0	100.0

Coefficient of Utilization



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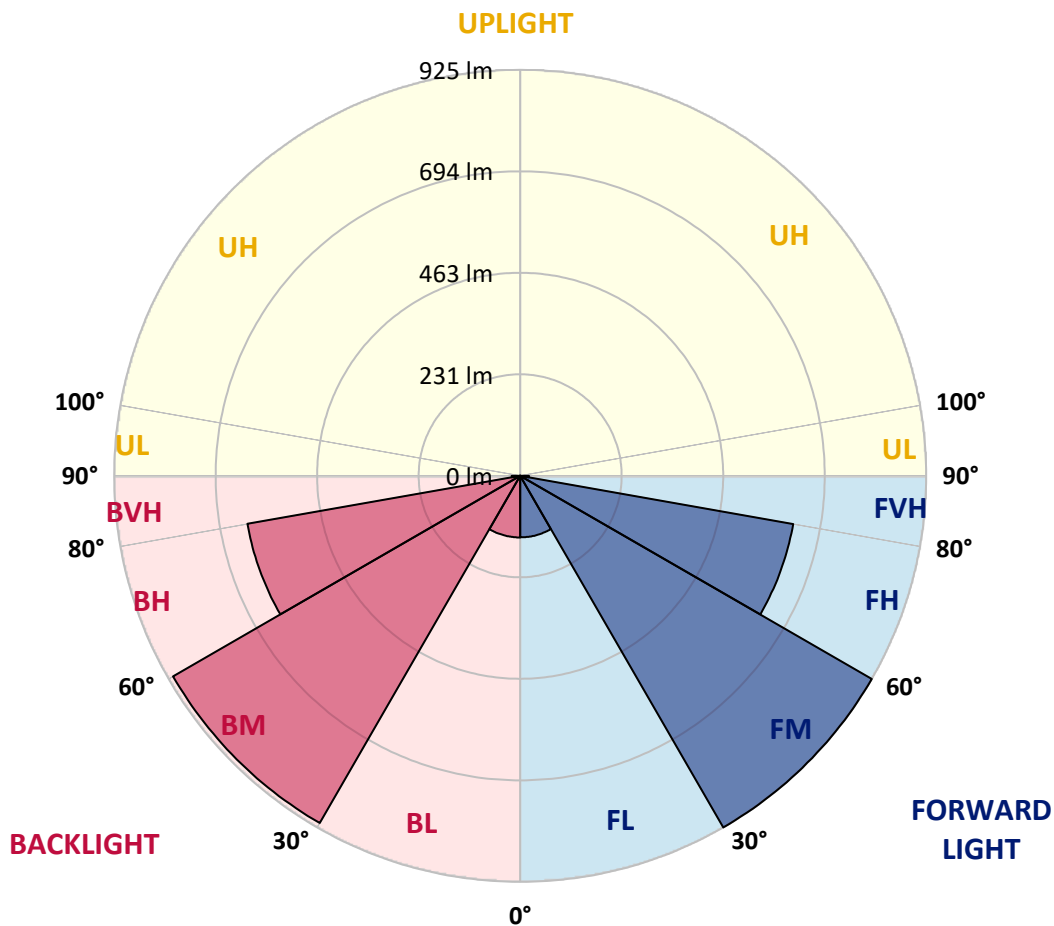
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	140.2	4.1			
FM (30°-60°)	925.1	27.0			
FH (60°-80°)	631.7	18.5			G0/660
FVH (80°-90°)	19.9	0.6			G1/100
BL (0°-30°)	140.4	4.1	B1/500		
BM (30°-60°)	913.4	26.7	B1/1000		
BH (60°-80°)	631.0	18.4	B2/1000		G2/1000
BVH (80°-90°)	19.3	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°	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1
2.5°	145.4	140.0	133.2	137.3	138.9	141.8	141.4	140.0	134.1	144.1	145.2
5°	182.0	173.4	170.3	169.7	170.5	167.8	176.8	174.1	179.0	188.0	190.1
7.5°	207.3	200.9	194.1	196.2	187.6	186.3	198.0	208.4	211.0	227.5	228.6
10°	219.2	213.0	214.8	213.5	212.5	220.6	226.0	233.6	244.6	246.1	248.5
12.5°	229.3	231.8	239.7	239.4	252.5	266.8	264.7	272.6	274.4	293.5	287.7
15°	255.0	260.1	259.5	264.4	270.1	293.5	293.7	307.1	319.4	326.9	325.0
17.5°	292.5	294.4	286.9	287.1	303.6	313.2	323.9	321.5	353.7	368.4	369.4
20°	315.0	319.6	311.0	299.6	328.9	342.0	348.0	334.3	368.7	388.5	388.5
22.5°	354.2	342.5	329.4	321.8	347.6	361.6	360.9	357.0	375.3	410.4	407.1
25°	375.9	369.2	362.7	364.6	377.7	384.9	394.5	385.4	402.6	428.7	417.7
27.5°	416.9	404.6	372.5	398.1	398.1	392.7	412.9	417.2	406.0	448.4	456.6
30°	463.4	459.1	413.7	440.8	432.4	417.2	456.0	453.2	434.4	477.6	473.9
32.5°	507.3	521.5	478.5	463.6	476.1	481.9	461.6	469.9	473.5	515.2	513.4
35°	574.7	586.6	529.6	525.9	505.1	499.7	515.2	518.0	518.3	562.2	554.2
37.5°	691.3	674.1	617.8	591.3	593.7	587.2	590.2	568.3	571.4	635.1	639.2
40°	776.6	757.2	694.5	675.5	628.9	656.8	632.1	629.9	623.8	706.4	704.2
42.5°	870.7	844.1	774.8	749.4	699.9	688.5	677.2	702.8	701.1	777.7	794.6
45°	941.8	888.0	851.9	836.0	806.4	778.5	767.7	779.2	773.9	830.8	860.3
47.5°	986.8	940.0	898.4	865.2	836.7	905.1	850.3	834.9	824.3	887.9	916.3
50°	1022.5	968.6	919.5	908.4	930.9	991.3	905.0	871.0	884.0	930.9	969.6
52.5°	1032.2	975.1	931.0	924.0	984.7	995.6	981.6	924.5	921.0	982.5	1029.2
55°	1002.6	947.8	926.9	965.5	1032.7	1023.5	1044.9	1008.4	983.8	1035.1	1093.9
57.5°	926.2	871.8	866.8	922.6	1007.1	1085.1	1095.6	1066.8	1034.6	1088.9	1158.3
60°	800.7	751.1	763.7	825.2	952.8	1063.7	1119.7	1093.4	1083.4	1137.5	1217.9
62.5°	605.3	566.7	600.3	686.2	853.5	1036.1	1153.0	1148.8	1134.4	1189.0	1270.6
65°	386.0	365.6	400.0	487.2	699.5	985.9	1168.9	1174.5	1187.8	1228.8	1311.3
67.5°	224.3	213.5	234.5	305.9	498.2	809.6	1139.3	1218.9	1225.8	1249.4	1338.1
70°	132.7	125.6	134.2	171.8	282.0	551.5	971.8	1199.4	1251.9	1268.2	1365.1
72.5°	101.2	94.6	90.8	101.6	147.2	284.9	657.1	1016.7	1230.9	1255.7	1353.8
75°	87.5	81.1	76.7	77.6	87.6	135.3	356.2	727.2	1048.9	1143.4	1250.5
77.5°	75.1	69.5	66.3	66.0	67.2	74.3	148.9	394.3	656.9	821.9	901.5
80°	60.2	55.7	55.0	55.0	53.2	52.7	74.0	150.0	250.0	296.4	284.2
82.5°	44.0	39.5	44.0	43.4	40.6	38.4	47.1	64.9	77.1	60.9	48.1
85°	29.7	25.6	29.0	29.5	26.9	20.0	28.3	32.4	33.3	20.8	17.2
87.5°	10.4	10.1	16.4	14.3	11.6	6.8	10.4	11.2	11.8	7.3	5.0
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1
2.5°	145.6	143.9	135.6	136.8	140.0	141.6	143.1	136.8	133.8	143.5	142.5
5°	190.6	184.5	177.7	176.8	177.2	171.2	174.7	173.2	173.9	180.1	181.4
7.5°	228.4	221.0	212.0	204.9	192.7	183.0	191.2	195.4	196.6	207.7	211.9
10°	248.7	242.5	239.9	226.6	222.5	221.3	219.3	212.7	220.0	217.4	219.5
12.5°	288.7	287.4	273.7	265.0	265.8	268.1	255.9	249.3	239.7	254.7	249.3
15°	322.6	328.0	314.3	298.4	290.5	294.5	285.2	275.5	266.9	271.5	265.6
17.5°	366.0	365.9	339.1	322.1	321.4	321.1	307.4	286.0	296.3	293.1	293.4
20°	389.0	385.3	352.0	332.3	349.1	343.2	330.8	303.4	315.3	319.2	321.7
22.5°	408.3	406.2	365.9	351.5	362.3	362.4	350.1	335.7	334.1	346.2	339.7
25°	421.8	430.1	392.1	388.6	393.3	388.6	376.6	367.1	361.0	379.1	361.0
27.5°	453.7	441.9	396.1	415.8	418.7	395.0	410.1	399.0	382.1	404.4	411.8
30°	476.4	483.3	424.4	454.1	450.6	428.7	434.9	434.5	414.3	457.8	452.7
32.5°	515.5	507.2	470.6	468.2	476.5	475.6	465.0	470.2	475.1	506.8	514.4
35°	555.6	564.4	500.1	516.0	513.7	498.7	526.3	523.1	538.0	602.8	581.4
37.5°	646.0	603.7	566.4	564.3	580.1	582.5	573.6	587.6	619.6	669.5	692.5
40°	705.2	685.9	622.5	625.0	603.1	640.8	615.9	660.9	685.3	769.5	761.3
42.5°	794.7	747.7	686.9	695.2	690.7	672.6	705.4	728.6	763.5	827.7	869.2
45°	861.4	796.9	768.1	763.0	762.4	794.0	789.9	826.9	839.4	887.6	922.0
47.5°	912.0	857.3	814.6	820.4	803.5	893.7	845.6	857.1	882.4	927.8	967.9
50°	972.1	911.1	862.5	876.9	918.1	952.8	909.3	889.6	901.9	955.6	1000.2
52.5°	1027.7	963.5	910.1	922.1	989.4	973.6	968.9	919.1	917.6	960.7	1011.4
55°	1092.7	1020.3	973.2	1011.4	1035.3	1015.7	1008.2	947.7	910.2	934.2	982.0
57.5°	1156.5	1076.6	1029.7	1037.6	1067.9	1048.5	992.3	899.0	852.3	857.0	905.4
60°	1216.2	1128.3	1089.6	1082.0	1106.1	1030.0	931.7	809.8	747.9	736.5	778.4
62.5°	1267.4	1171.6	1135.0	1114.2	1137.2	1030.7	837.3	666.8	598.7	560.1	592.7
65°	1308.0	1207.5	1181.4	1170.6	1178.9	968.0	690.2	489.6	406.1	363.4	382.4
67.5°	1335.0	1227.6	1215.7	1229.8	1118.9	806.2	511.3	313.3	236.1	212.8	224.7
70°	1363.1	1245.3	1244.9	1196.8	948.8	555.8	298.6	180.7	137.4	128.4	135.9
72.5°	1353.6	1224.3	1230.5	1046.7	657.5	297.1	157.6	102.2	93.0	96.2	102.9
75°	1253.5	1113.1	1083.0	752.4	373.0	138.1	90.8	77.4	76.8	81.7	88.2
77.5°	909.3	775.2	695.6	426.5	159.9	74.7	66.8	64.6	64.6	68.5	74.3
80°	299.8	259.4	270.4	165.0	75.6	51.6	52.1	53.1	52.8	53.8	58.6
82.5°	49.2	51.0	78.9	67.4	45.6	35.2	39.4	41.3	41.9	37.4	42.6
85°	17.5	19.7	33.6	31.2	26.3	17.7	25.9	29.0	28.6	25.0	27.6
87.5°	5.4	6.9	12.2	9.4	7.9	4.9	9.7	11.4	14.3	5.8	5.3
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)