

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: P596578

Luminaire Tested: **MSA-SA2A-827-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596578
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-827-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5828 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

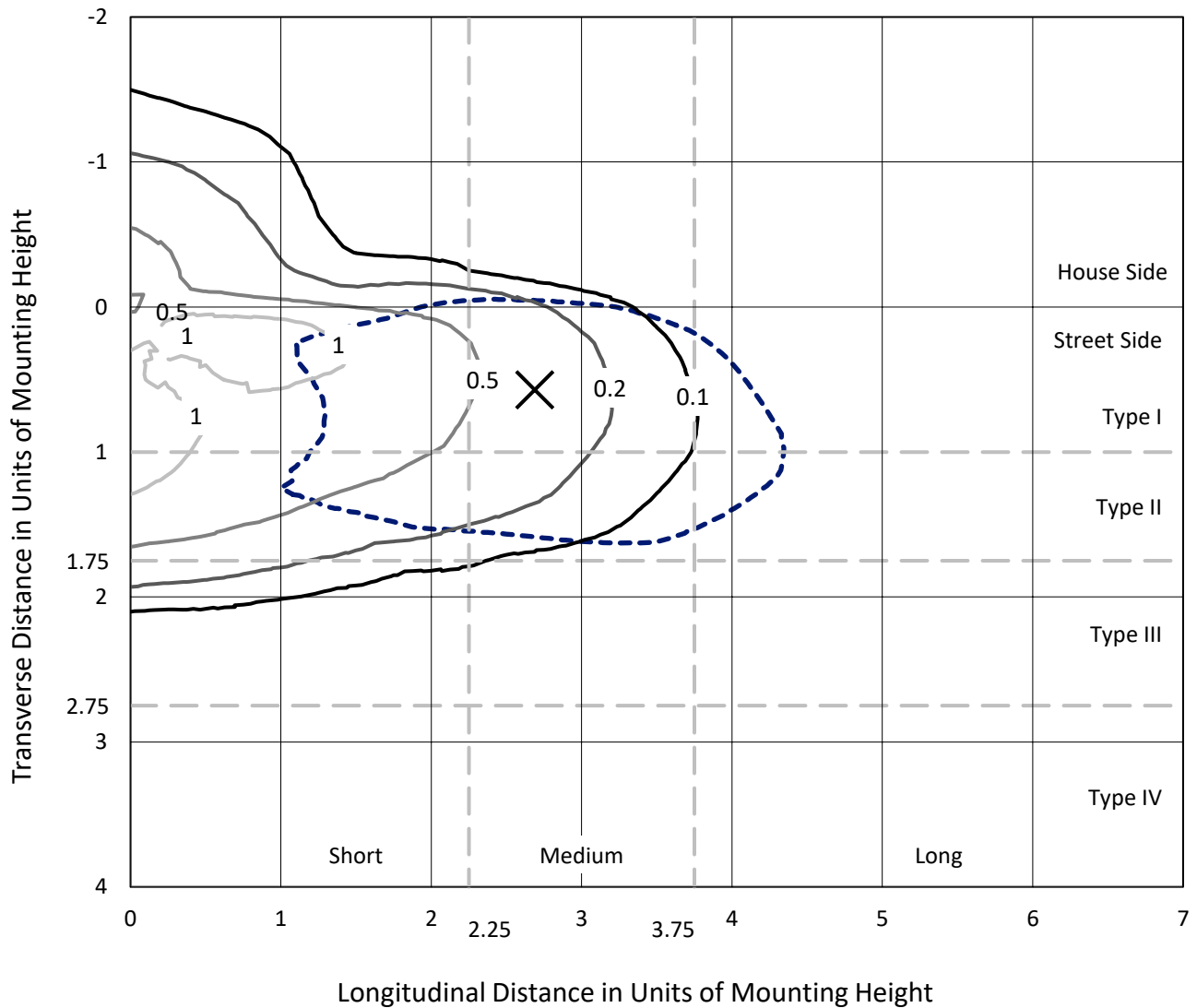
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

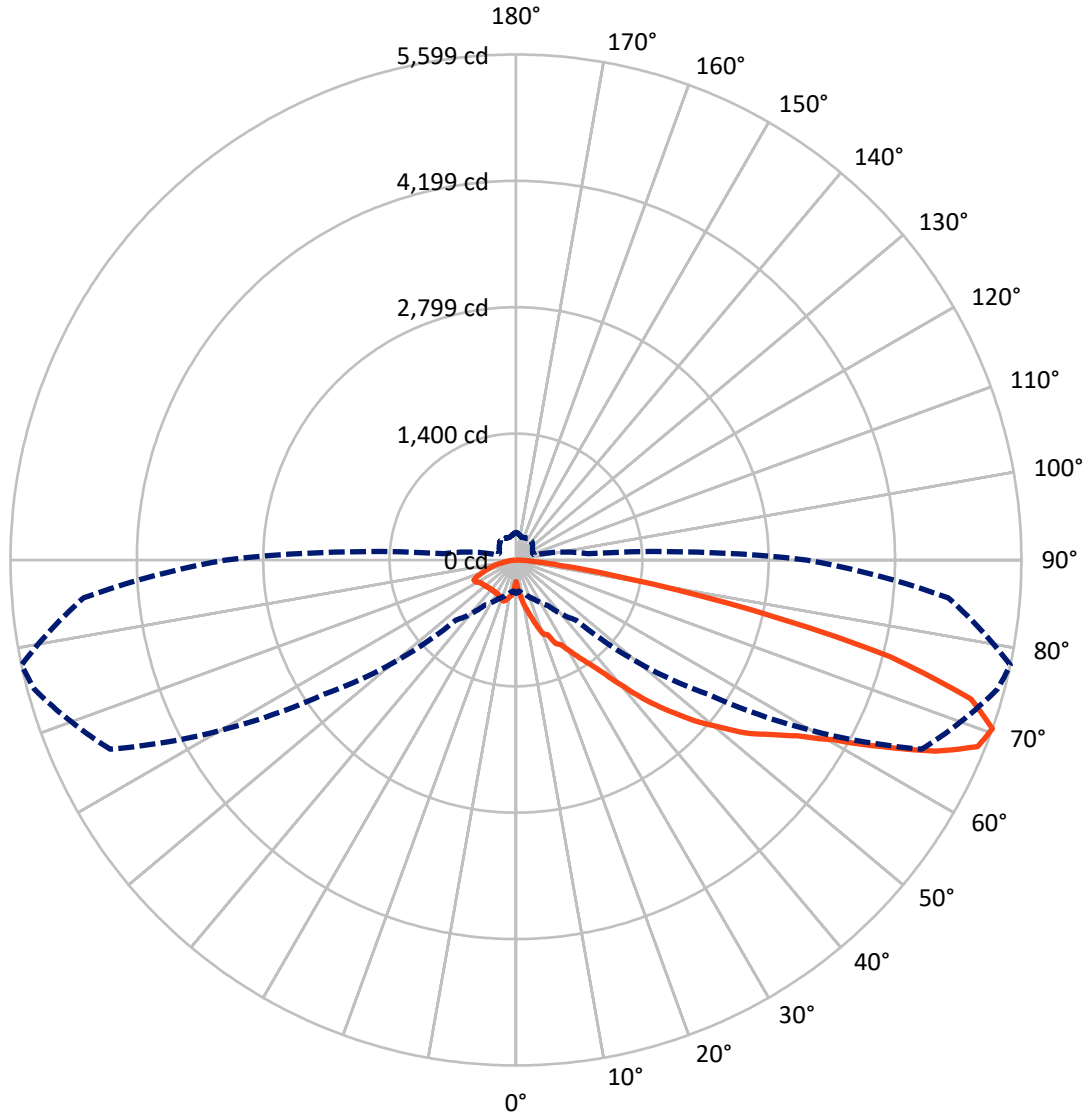
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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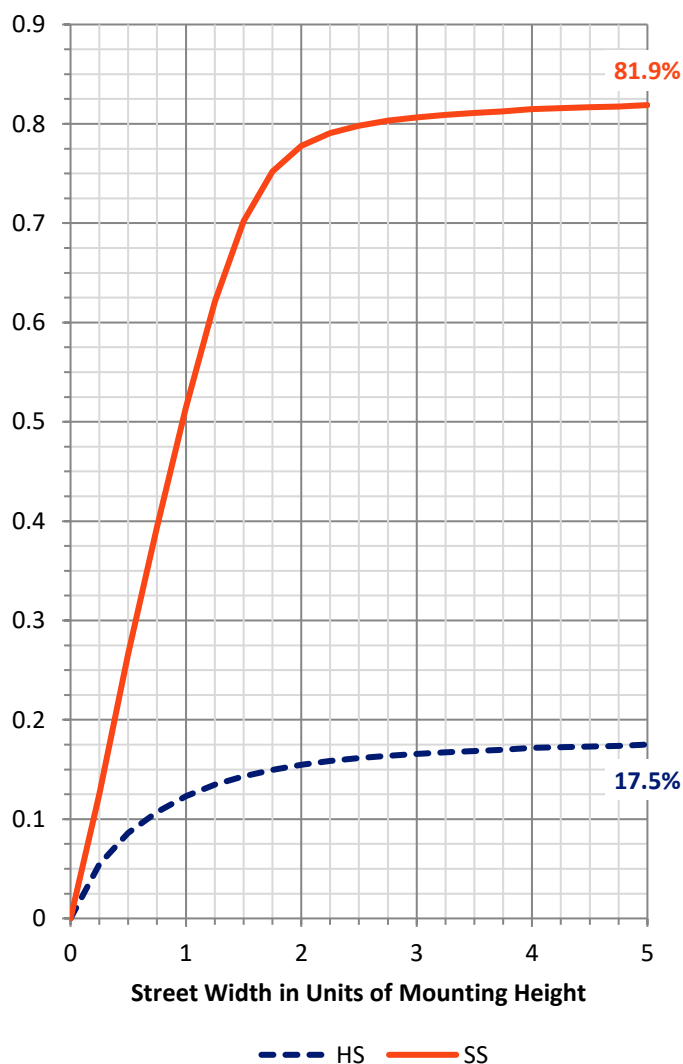
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1040.2	0.0	1040.2
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	4787.8	0.0	4787.8
	% Fixture	82.2	0.0	82.2
Total	Lumens	5828.0	0.0	5828.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	0.6
10°-20°	161.8	2.8
20°-30°	311.4	5.3
30°-40°	524.5	9.0
40°-50°	907.6	15.6
50°-60°	1370.3	23.5
60°-70°	1517.8	26.0
70°-80°	875.1	15.0
80°-90°	122.7	2.1
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°	5828.0	100.0
0°-180°	5828.0	100.0

Coefficient of Utilization

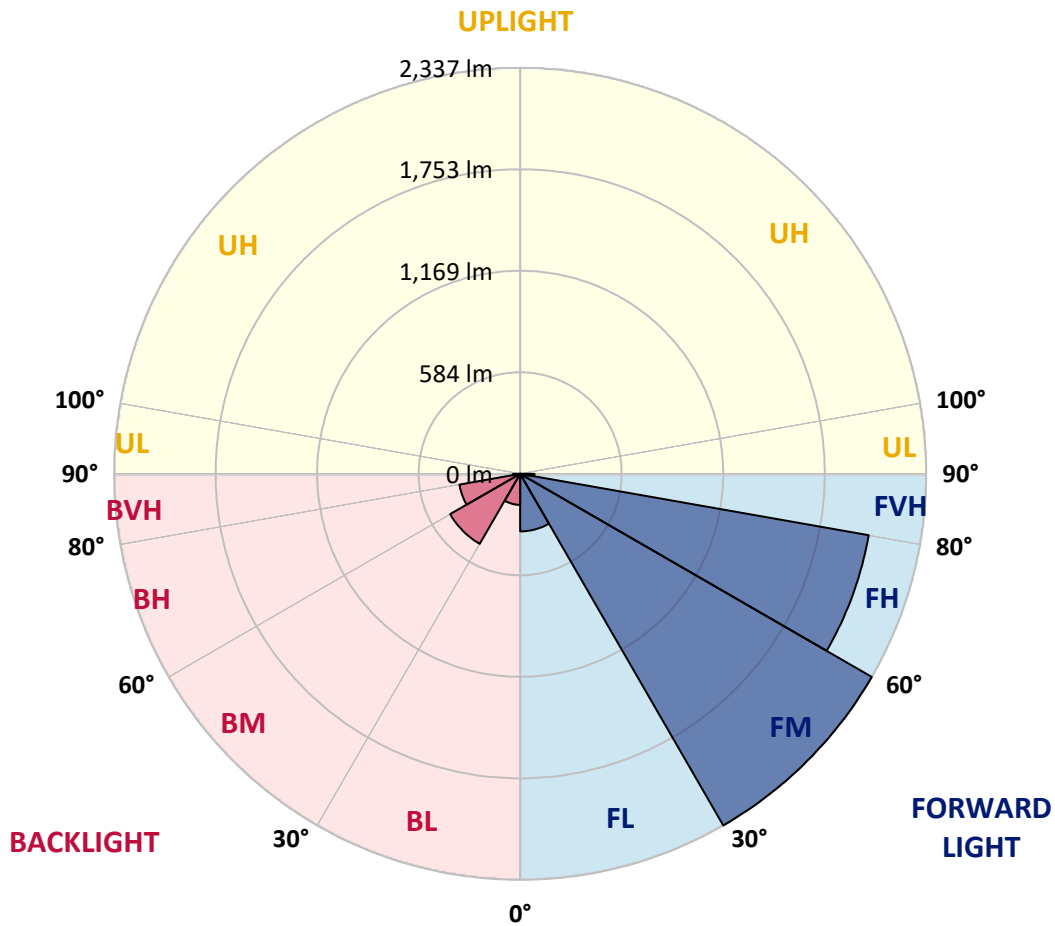


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	331.3	5.7			
FM (30°-60°)	2337.2	40.1			
FH (60°-80°)	2037.4	35.0			G2/5000
FVH (80°-90°)	81.9	1.4			G1/100
BL (0°-30°)	178.6	3.1	B1/500		
BM (30°-60°)	465.3	8.0	B1/1000		
BH (60°-80°)	355.5	6.1	B1/500		G1/500
BVH (80°-90°)	40.9	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6
2.5°	305.9	294.9	278.4	285.2	293.5	294.5	291.8	276.7	271.6	283.0	286.4
5°	428.6	410.1	398.9	395.3	382.9	357.1	375.6	366.1	368.1	362.5	373.4
7.5°	531.8	519.4	502.9	498.3	469.9	449.7	462.3	458.2	438.3	430.5	442.9
10°	584.3	570.7	571.4	561.5	553.9	555.9	549.6	531.3	516.5	506.1	476.2
12.5°	615.9	619.3	637.5	632.4	660.8	684.2	666.4	639.5	592.6	583.1	553.5
15°	691.0	703.6	686.6	694.4	706.5	751.2	743.9	738.1	688.5	670.1	615.4
17.5°	768.2	770.7	744.9	740.8	769.9	792.5	820.9	788.1	794.2	781.3	692.9
20°	784.7	801.5	764.6	739.1	799.1	843.8	879.0	844.3	876.3	879.7	756.8
22.5°	845.2	825.1	776.5	751.5	803.9	858.8	916.2	935.6	925.4	896.7	818.5
25°	887.3	876.6	827.0	799.3	819.2	869.8	970.4	1021.1	1030.1	1026.2	877.3
27.5°	965.3	970.6	868.6	876.3	848.6	853.3	1002.9	1134.6	1078.5	1062.9	950.2
30°	1088.4	1064.6	950.2	956.5	910.6	902.8	1071.7	1232.5	1182.2	1163.5	1010.2
32.5°	1217.0	1219.1	1080.2	1026.2	1001.7	993.9	1058.1	1283.8	1313.4	1289.1	1100.8
35°	1398.2	1385.6	1221.1	1150.2	1061.5	1047.9	1155.0	1432.5	1486.9	1418.9	1208.5
37.5°	1674.2	1636.1	1444.6	1280.6	1215.0	1199.5	1293.5	1565.8	1688.3	1603.7	1384.4
40°	1895.8	1818.3	1644.3	1444.6	1333.6	1352.8	1391.9	1727.7	1897.2	1849.6	1547.1
42.5°	2072.4	2003.7	1785.7	1645.3	1494.4	1470.6	1513.4	1928.1	2181.5	2134.8	1750.2
45°	2241.7	2101.8	1944.6	1818.3	1673.2	1702.1	1695.8	2132.7	2530.1	2386.5	1929.8
47.5°	2408.9	2277.5	2113.0	1943.2	1797.1	1977.2	1909.9	2284.8	2765.3	2658.9	2118.8
50°	2623.7	2479.1	2291.8	2121.0	2033.5	2165.2	2052.2	2413.5	3028.7	2903.8	2297.1
52.5°	2766.3	2625.6	2461.4	2339.4	2331.4	2280.6	2251.7	2576.5	3259.5	3183.7	2486.2
55°	2749.5	2614.0	2539.6	2553.0	2652.1	2480.8	2457.2	2817.8	3500.3	3412.5	2690.2
57.5°	2539.4	2391.4	2407.2	2486.4	2752.7	2832.4	2792.3	3075.6	3715.0	3675.2	2942.7
60°	1978.1	1902.1	2030.6	2175.4	2618.1	2935.4	3217.2	3390.0	3979.4	4043.0	3339.2
62.5°	1285.0	1183.4	1386.5	1632.4	2216.5	2867.4	3649.9	3986.2	4412.3	4556.9	3941.7
65°	665.7	649.4	791.5	1017.5	1543.0	2444.9	3802.5	4611.5	4938.6	5106.9	4517.3
67.5°	484.0	453.8	519.7	652.6	941.9	1667.2	3513.4	5089.9	5361.1	5515.3	4851.8
70°	368.6	346.2	396.5	478.9	615.2	941.7	2593.5	4959.4	5524.1	5598.9	4807.4
72.5°	276.0	256.8	300.8	377.6	474.0	530.1	1533.0	4077.8	5245.9	5271.4	4314.6
75°	220.4	205.5	224.5	298.1	386.3	360.8	814.4	2954.3	4262.2	4284.0	3295.7
77.5°	180.8	168.1	175.9	223.5	300.5	271.4	404.0	1879.3	2706.0	2672.5	1854.2
80°	147.5	136.5	140.2	161.6	228.9	202.6	226.9	980.3	1290.8	1238.8	771.1
82.5°	113.5	104.2	111.5	118.8	165.7	145.5	132.4	446.1	528.7	492.5	282.8
85°	76.0	67.5	96.9	89.2	108.4	89.4	72.4	177.6	197.0	183.7	99.4
87.5°	20.9	19.7	32.6	44.5	44.5	33.8	26.5	43.0	54.9	48.1	23.3
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°	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6	237.6
2.5°	287.9	282.6	268.5	267.3	270.7	271.1	269.0	263.8	261.2	275.8	273.6
5°	370.7	351.8	340.4	329.9	315.4	304.9	307.6	314.9	317.3	328.2	329.4
7.5°	435.1	410.1	385.1	351.6	329.4	315.4	326.0	333.8	339.9	355.4	361.8
10°	463.1	435.9	400.4	365.2	359.1	361.5	355.4	357.4	366.9	367.6	370.7
12.5°	515.1	484.2	420.3	388.5	386.8	391.9	389.7	398.7	405.2	423.0	415.5
15°	564.9	525.5	435.4	402.8	395.8	406.0	417.9	432.9	447.0	463.8	455.3
17.5°	625.4	566.1	436.1	396.3	397.5	419.3	431.7	440.0	482.0	505.1	493.4
20°	663.5	570.2	419.8	380.0	397.5	417.2	434.4	443.4	490.5	525.3	533.3
22.5°	698.0	571.7	407.2	371.2	382.4	408.4	434.4	454.3	484.5	517.7	519.0
25°	717.0	570.5	390.9	372.0	382.2	395.0	418.1	436.3	458.7	505.1	506.3
27.5°	765.6	554.7	374.9	374.9	380.2	380.7	410.1	420.8	424.0	466.2	473.8
30°	779.6	558.1	372.9	374.4	377.1	372.2	385.1	392.1	396.7	433.2	434.4
32.5°	802.2	530.9	378.8	370.0	366.6	365.9	369.0	375.4	377.3	399.7	403.8
35°	829.7	519.9	380.7	368.8	362.0	358.4	367.8	360.1	366.1	392.4	395.3
37.5°	919.1	504.9	390.7	368.8	360.1	355.9	351.3	355.0	376.6	401.8	417.4
40°	976.2	509.5	388.2	372.5	353.5	349.6	341.8	355.2	388.7	433.4	445.1
42.5°	1076.3	512.1	391.2	370.7	355.7	340.6	345.7	360.3	395.5	421.0	439.0
45°	1179.8	520.4	389.2	365.6	350.8	357.9	350.8	363.9	380.7	381.4	395.0
47.5°	1281.3	553.7	385.1	355.2	349.6	368.1	350.1	352.3	353.5	357.9	373.9
50°	1400.6	589.2	379.3	340.6	351.3	368.6	352.8	342.1	340.9	355.2	373.2
52.5°	1536.2	629.3	371.7	326.5	341.4	363.9	362.0	342.8	332.4	346.2	364.2
55°	1695.8	674.9	363.0	312.4	330.4	364.4	367.1	337.7	332.6	347.7	366.9
57.5°	1907.9	741.0	346.0	292.0	317.1	356.9	354.0	331.9	327.0	343.1	363.0
60°	2269.9	868.1	321.7	271.9	302.7	338.4	343.3	321.4	316.6	334.3	355.2
62.5°	2754.6	1020.9	292.3	252.2	285.2	318.5	329.9	306.4	305.9	328.5	350.3
65°	3205.8	1107.6	261.9	234.2	267.3	300.0	314.9	292.3	293.2	321.7	343.5
67.5°	3393.4	1005.6	234.7	218.2	246.6	278.9	302.5	281.3	278.2	312.4	332.6
70°	3217.2	798.8	211.1	201.2	223.3	256.1	285.2	266.8	259.5	290.6	306.4
72.5°	2846.7	665.9	189.0	181.2	202.9	232.0	261.9	247.1	237.6	261.4	275.5
75°	2225.2	546.4	163.8	161.6	179.5	210.2	237.6	227.4	215.3	230.3	244.4
77.5°	1267.0	345.7	137.5	139.0	151.8	184.2	208.5	200.4	188.0	194.4	210.6
80°	507.0	174.4	110.5	111.5	122.4	151.4	172.7	169.8	156.9	162.1	173.2
82.5°	189.5	95.7	81.6	82.1	93.1	119.8	147.5	146.0	133.9	130.2	136.5
85°	75.3	47.4	50.0	52.2	62.7	86.2	118.3	105.0	90.6	79.4	83.3
87.5°	18.0	15.1	17.5	18.5	20.4	27.0	43.2	34.7	35.7	28.7	21.4
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)