

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: P367302

Luminaire Tested: **MSA-SA2B-730-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367302
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-730-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9198 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

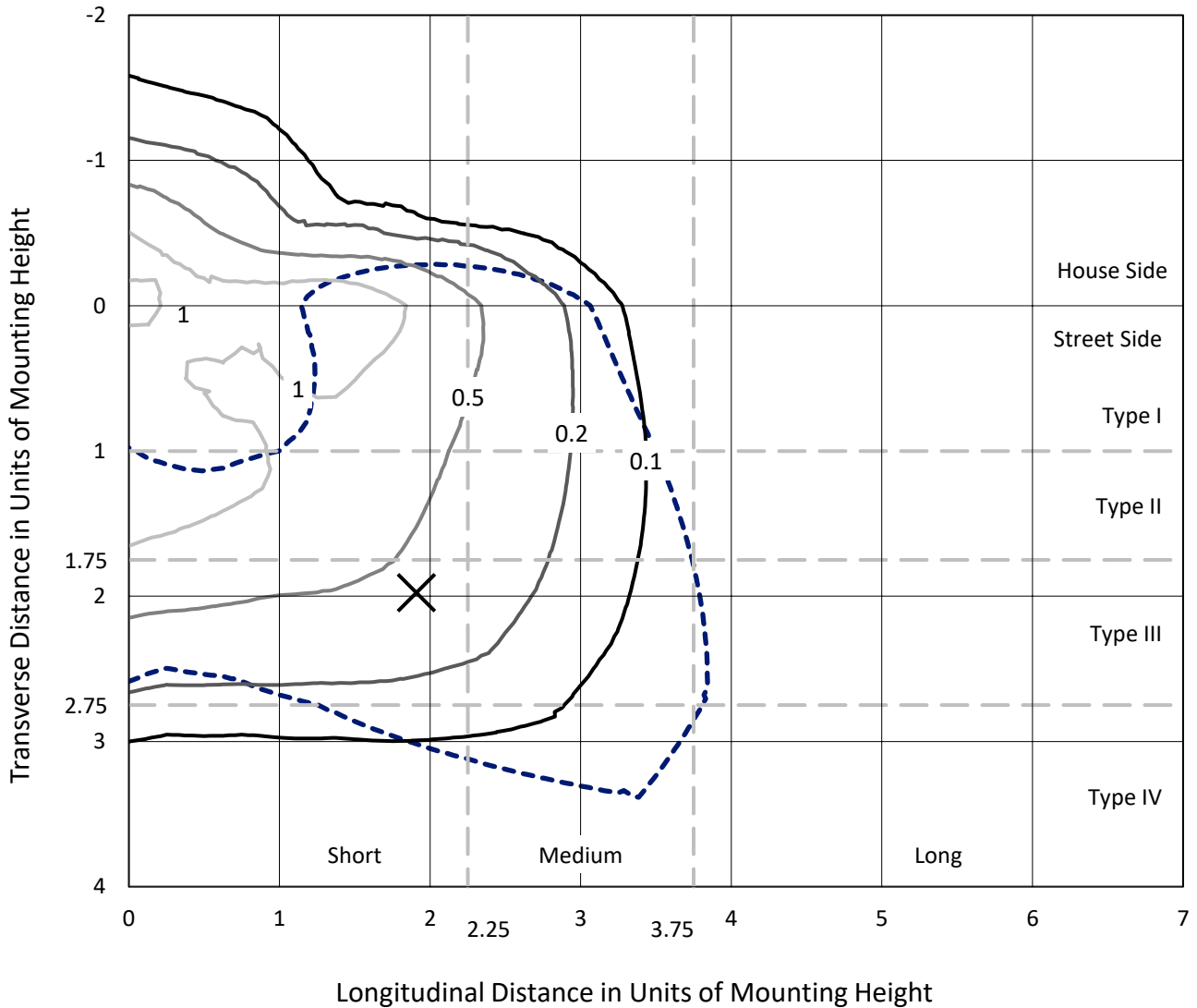
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

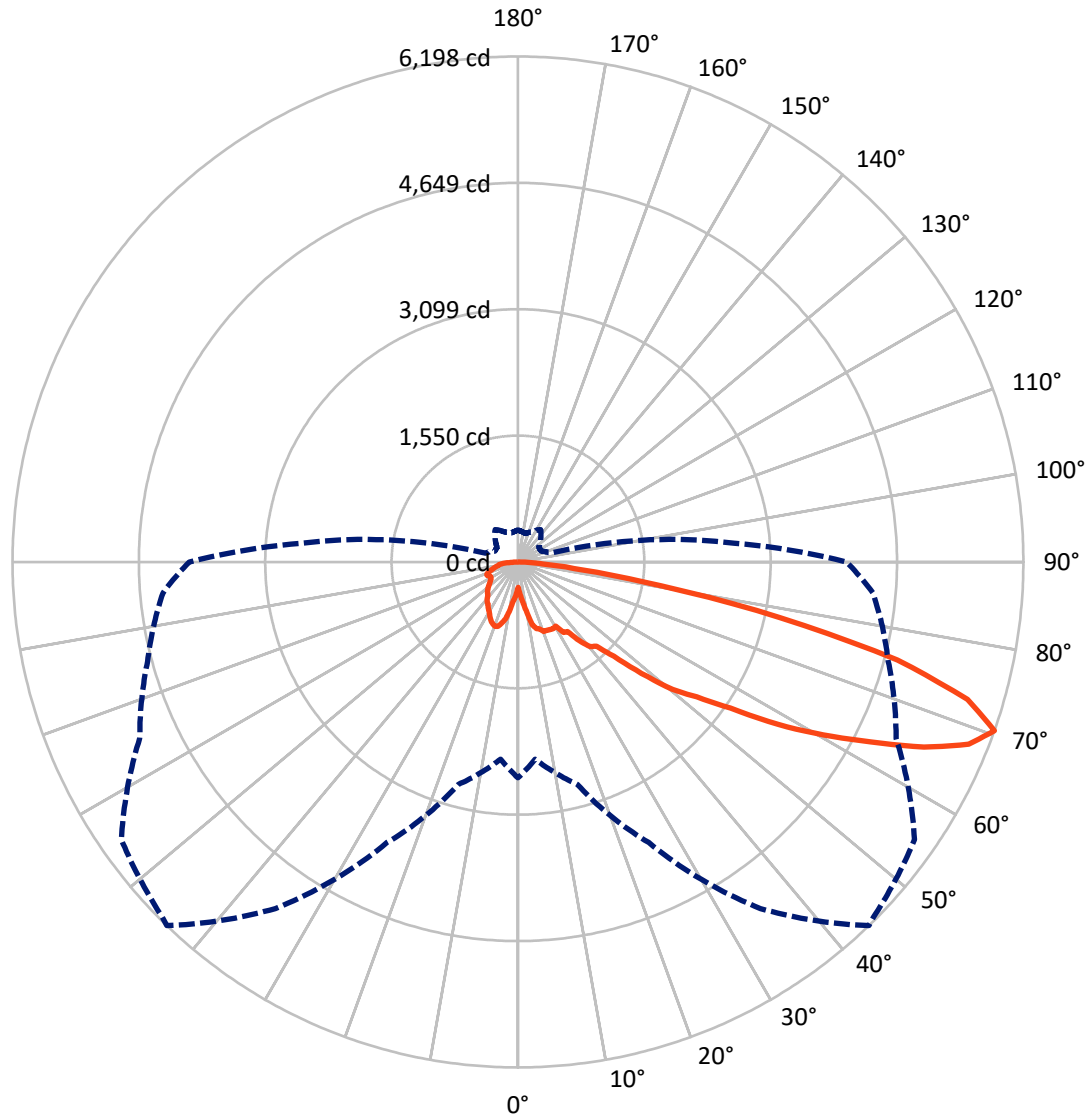
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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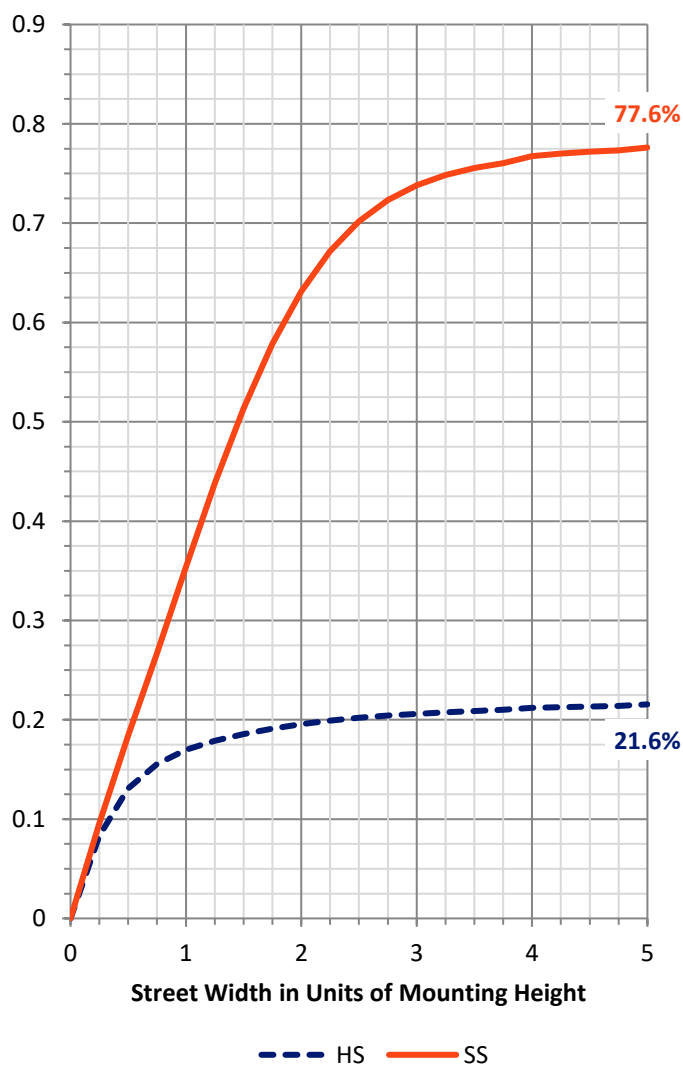
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2029.4	0.0	2029.4
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	7168.6	0.0	7168.6
	% Fixture	77.9	0.0	77.9
Total	Lumens	9198.0	0.0	9198.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	0.5
10°-20°	225.7	2.5
20°-30°	421.8	4.6
30°-40°	677.1	7.4
40°-50°	1142.9	12.4
50°-60°	2036.7	22.1
60°-70°	2785.9	30.3
70°-80°	1638.2	17.8
80°-90°	220.6	2.4
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°	9198.0	100.0
0°-180°	9198.0	100.0

Coefficient of Utilization



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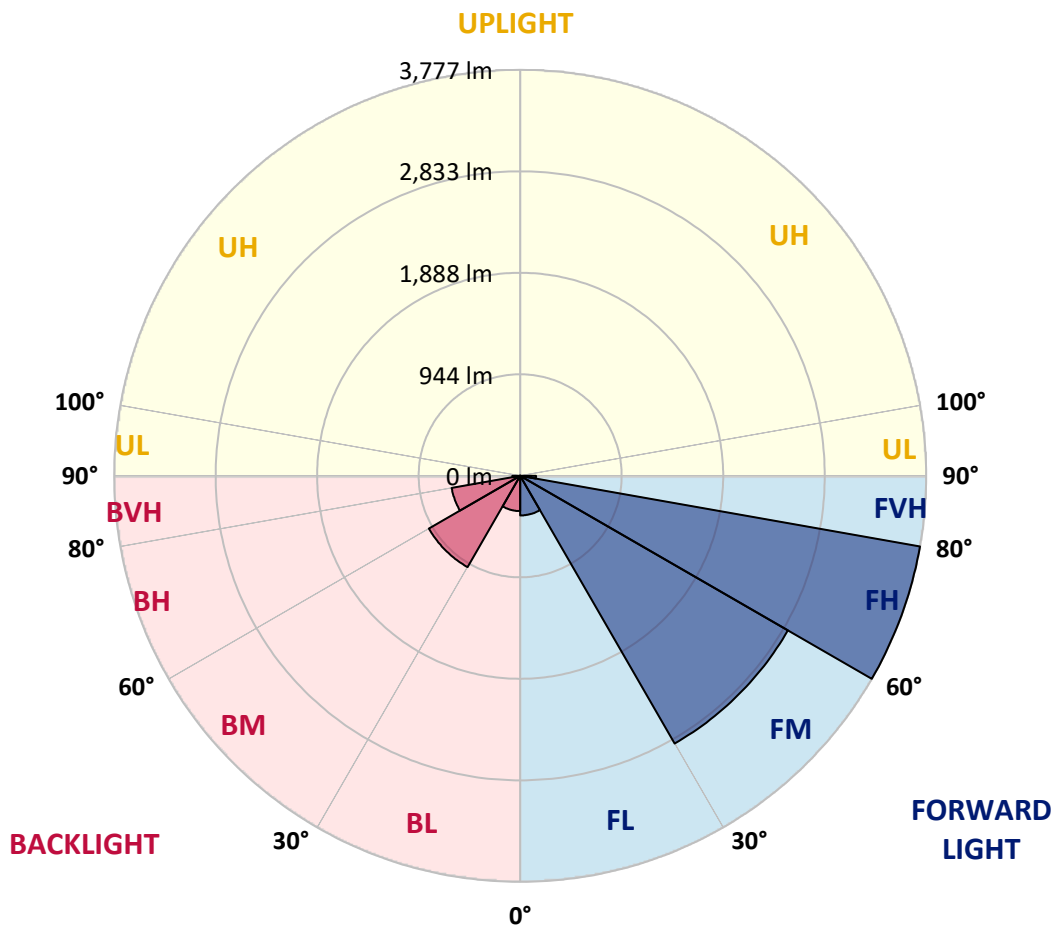
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	368.6	4.0			
FM (30°-60°)	2876.0	31.3			
FH (60°-80°)	3777.0	41.1			G2/5000
FVH (80°-90°)	147.0	1.6			G2/225
BL (0°-30°)	328.0	3.6	B1/500		
BM (30°-60°)	980.7	10.7	B1/1000		
BH (60°-80°)	647.2	7.0	B2/1000		G2/1000
BVH (80°-90°)	73.6	0.8			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7
2.5°	379.4	371.9	353.8	359.8	367.3	370.4	369.6	368.8	357.2	353.0	373.7
5°	515.6	499.0	485.8	480.5	463.1	449.6	441.3	463.1	459.7	465.4	479.7
7.5°	643.8	633.2	603.4	592.9	557.4	534.0	531.4	548.7	553.3	544.2	568.7
10°	726.4	708.3	702.2	677.0	652.5	648.7	646.4	638.5	627.6	626.8	604.9
12.5°	790.5	799.9	804.8	775.8	776.5	790.1	783.0	750.9	732.4	700.0	702.6
15°	905.5	919.1	880.3	861.8	826.3	846.7	844.0	817.3	814.6	793.5	769.0
17.5°	1005.8	1011.9	947.0	904.8	892.7	863.3	871.2	872.0	837.3	875.0	853.1
20°	1014.1	1035.6	961.0	876.9	913.1	909.3	910.4	902.9	857.2	919.5	911.2
22.5°	1054.9	1022.1	954.9	893.5	902.9	908.5	913.8	904.8	902.1	936.8	962.1
25°	1047.3	1036.8	968.9	916.8	918.0	919.1	921.7	948.9	945.9	993.0	1006.2
27.5°	1117.9	1101.6	973.0	960.2	930.8	924.4	906.3	962.8	1007.0	1005.8	1078.6
30°	1252.1	1235.5	1069.6	1032.2	979.1	913.4	948.1	1023.6	1058.3	1070.0	1162.4
32.5°	1461.8	1489.0	1259.7	1109.2	1043.2	1028.8	1025.1	1017.5	1103.5	1161.2	1245.3
35°	1762.8	1741.3	1483.7	1274.0	1110.7	1049.2	1057.5	1103.5	1205.7	1243.1	1320.8
37.5°	2107.5	2063.0	1770.7	1460.7	1305.3	1228.4	1200.8	1245.3	1268.0	1297.4	1456.2
40°	2457.8	2349.2	2052.4	1706.2	1422.2	1364.1	1340.0	1285.3	1338.5	1398.1	1599.8
42.5°	2796.1	2712.0	2359.0	1999.2	1619.1	1412.0	1398.8	1345.3	1510.1	1573.1	1807.3
45°	3150.7	2955.7	2673.2	2330.0	1906.8	1647.0	1627.4	1531.2	1742.4	1873.7	2099.9
47.5°	3389.0	3208.4	2961.0	2598.5	2147.8	2040.0	2002.6	1838.2	2029.8	2200.3	2552.1
50°	3614.5	3428.6	3168.8	2892.3	2584.2	2460.1	2380.5	2106.7	2387.7	2665.3	3131.8
52.5°	3937.4	3771.1	3410.1	3188.4	3053.0	2747.9	2688.7	2538.2	2806.3	3180.8	3765.4
55°	4282.5	4055.8	3728.8	3605.9	3551.2	3160.5	3112.2	3016.4	3363.7	3708.5	4381.3
57.5°	4434.8	4198.4	4018.1	3944.5	3940.0	3760.1	3704.7	3637.9	3933.6	4161.0	4960.9
60°	4555.9	4302.1	4230.0	4271.2	4420.5	4302.1	4230.0	4171.2	4397.5	4608.3	5433.9
62.5°	4533.6	4279.1	4316.0	4441.2	4822.5	4857.2	4801.8	4659.2	4857.2	4974.9	5705.1
65°	4174.6	3939.3	4154.6	4451.8	5196.3	5473.5	5470.5	5097.5	5166.1	5166.1	5676.4
67.5°	3545.5	3301.9	3654.5	4358.7	5454.6	5961.9	5962.6	5562.1	5194.4	5146.9	5232.9
70°	2647.5	2426.9	2823.3	3796.0	5188.0	6198.4	6164.0	5937.0	5116.7	4701.5	4371.1
72.5°	1581.4	1438.8	1803.5	2763.3	4425.4	5763.5	5854.8	5505.2	4684.1	3909.8	3124.6
75°	718.1	656.2	847.4	1587.4	3159.3	4807.5	4906.6	4646.0	3720.5	2812.0	1805.8
77.5°	307.4	290.8	370.0	704.1	1742.0	3287.6	3490.8	3320.4	2520.8	1634.2	798.8
80°	197.6	187.1	227.4	338.7	809.0	1776.3	1951.3	1887.6	1284.2	635.5	281.3
82.5°	118.0	114.7	152.0	212.7	441.3	781.8	881.0	904.4	533.3	285.1	161.0
85°	64.5	65.2	83.3	129.0	264.8	304.4	325.9	354.5	251.2	165.2	78.1
87.5°	21.5	24.9	33.6	52.4	94.3	86.0	86.4	100.3	106.0	68.6	24.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7
2.5°	377.1	370.4	353.0	354.1	360.5	362.1	363.9	353.0	350.7	371.5	373.4
5°	482.0	459.7	449.6	446.2	436.4	433.0	451.1	459.4	467.7	483.9	491.8
7.5°	566.1	541.2	522.7	505.7	491.4	483.1	513.7	537.1	551.4	584.6	599.7
10°	604.6	583.1	576.3	562.7	573.6	598.5	604.2	604.9	636.6	635.9	642.3
12.5°	681.1	667.2	644.9	649.8	678.5	704.1	697.0	707.9	719.2	746.4	733.9
15°	750.9	747.1	726.4	729.8	735.4	767.5	771.6	782.6	799.9	821.4	806.7
17.5°	836.9	835.4	784.8	780.3	793.5	824.8	815.0	795.8	853.1	876.1	870.1
20°	895.3	884.0	819.2	799.9	833.5	837.6	826.3	795.8	845.6	895.7	909.3
22.5°	944.0	930.8	864.0	826.3	819.5	821.4	821.4	815.8	840.3	881.4	881.0
25°	983.2	995.7	910.8	874.6	838.4	793.1	787.5	792.4	806.3	885.5	882.9
27.5°	1081.6	1047.3	926.6	899.5	825.2	753.9	769.4	776.9	781.4	868.2	882.5
30°	1145.8	1156.3	983.2	914.2	806.0	710.2	715.4	737.3	763.7	866.3	870.4
32.5°	1232.1	1209.5	1071.5	889.7	754.7	683.8	674.0	703.4	742.6	835.8	847.1
35°	1312.5	1339.2	1108.8	885.2	718.8	644.2	654.7	664.9	705.6	801.8	815.0
37.5°	1501.0	1439.9	1213.6	863.3	689.0	624.2	612.9	628.3	663.0	737.3	767.9
40°	1644.3	1648.1	1236.3	835.8	632.1	595.5	571.4	586.8	601.5	660.8	674.0
42.5°	1913.3	1831.0	1291.7	775.4	596.3	552.5	538.9	545.7	548.0	572.9	594.8
45°	2255.3	2062.6	1313.6	694.3	549.1	534.8	507.3	503.9	491.4	494.8	514.0
47.5°	2728.6	2423.9	1297.8	608.0	507.3	511.8	472.2	456.7	439.4	443.5	461.6
50°	3340.7	2885.5	1296.6	534.8	478.6	481.6	449.2	421.3	403.9	412.6	428.4
52.5°	4027.5	3348.7	1301.9	484.6	447.3	445.8	434.1	400.1	386.2	395.2	413.3
55°	4684.5	3746.9	1341.1	452.9	414.9	417.5	422.0	393.4	377.9	386.2	405.1
57.5°	5256.3	4061.5	1326.4	419.4	384.7	396.8	408.8	383.9	372.2	384.3	403.2
60°	5656.0	4207.4	1210.3	387.3	362.4	379.0	402.4	382.8	381.3	407.3	429.9
62.5°	5802.0	4153.5	984.0	362.1	349.2	376.8	417.1	407.7	409.2	441.3	472.6
65°	5588.9	3869.9	733.9	345.8	339.1	387.7	451.1	422.4	401.7	428.1	456.7
67.5°	4982.8	3365.6	536.3	331.9	327.4	405.1	482.4	420.9	382.4	409.2	432.6
70°	4031.3	2656.6	415.2	314.2	311.9	393.4	485.4	409.6	361.7	379.0	392.2
72.5°	2762.2	1819.0	344.0	297.2	285.1	348.5	460.9	384.3	336.8	347.0	357.9
75°	1543.6	1020.9	289.3	276.1	249.7	310.4	432.2	369.2	318.3	321.3	336.4
77.5°	692.8	441.6	245.5	248.2	217.6	274.6	394.9	345.1	290.0	283.2	298.3
80°	262.1	215.3	199.1	209.7	182.9	238.0	356.0	323.2	260.2	251.6	260.2
82.5°	152.0	130.5	147.8	161.4	145.2	218.7	339.8	303.2	229.3	207.4	215.0
85°	70.5	67.5	88.6	104.8	101.5	170.5	290.8	228.2	163.3	138.0	152.7
87.5°	18.5	20.7	31.3	37.0	37.7	58.5	112.0	84.9	63.7	48.3	46.4
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)