

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: P367034

Luminaire Tested: **MSA-SA1D-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367034
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-730-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6236 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

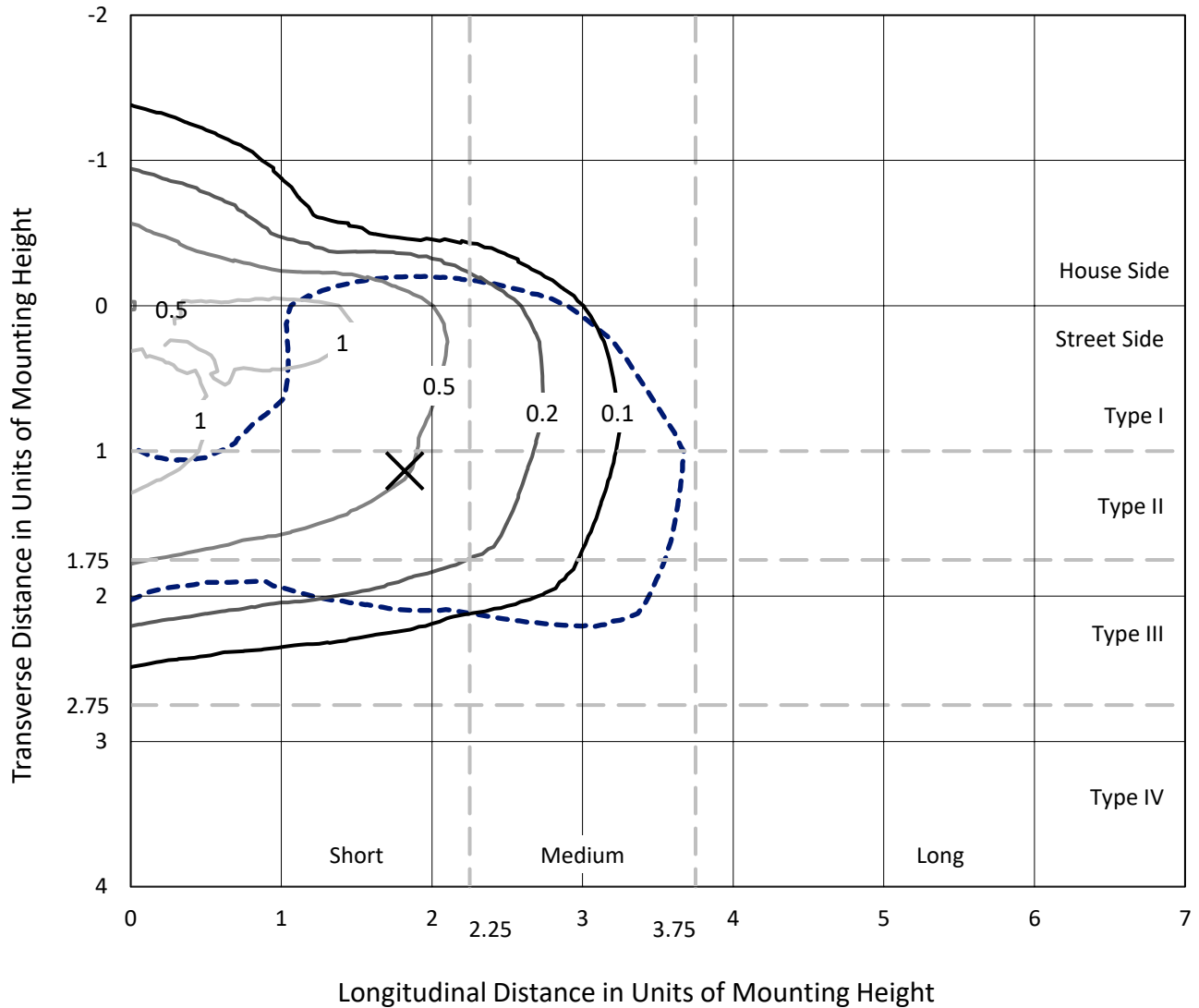
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

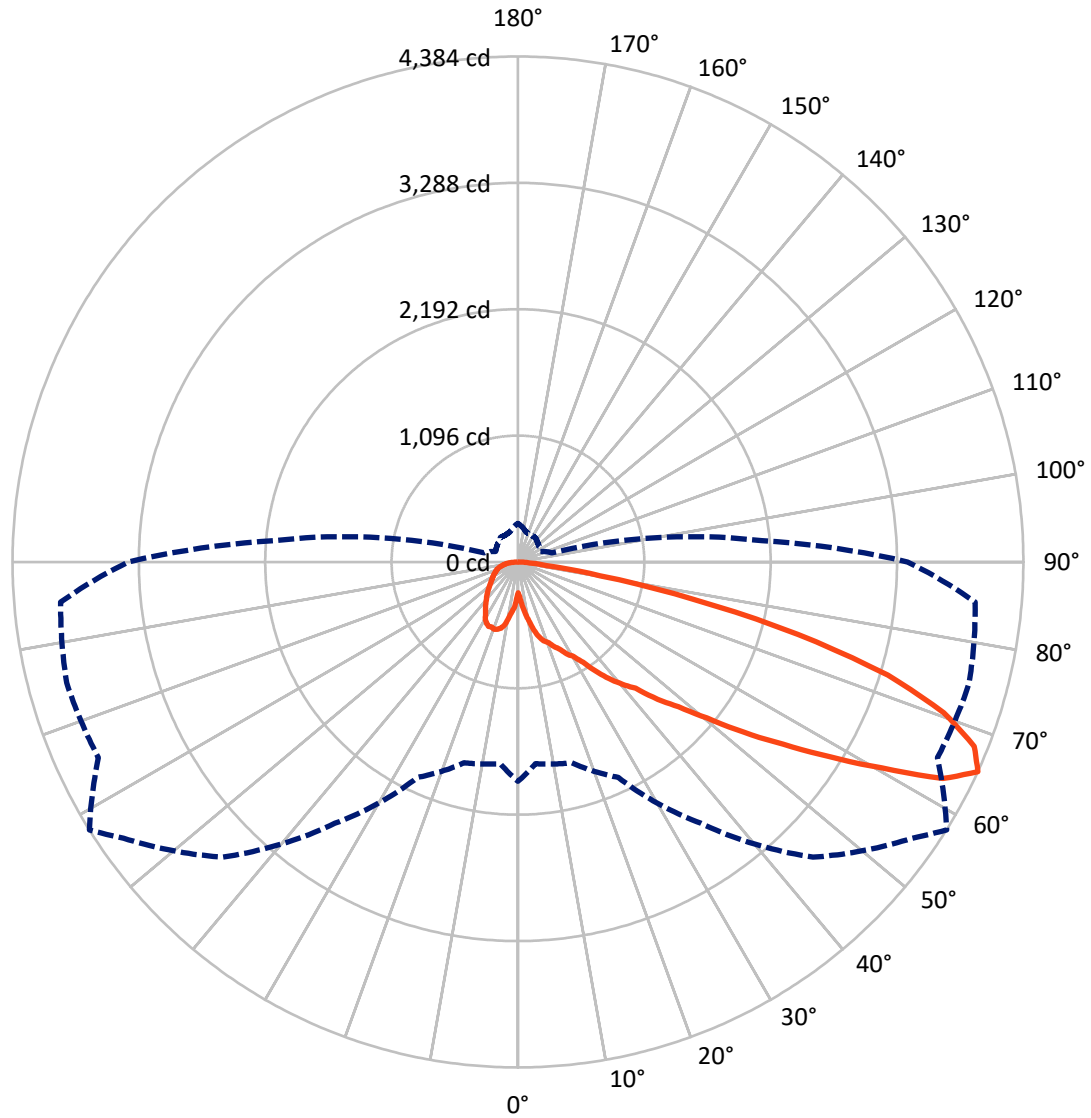
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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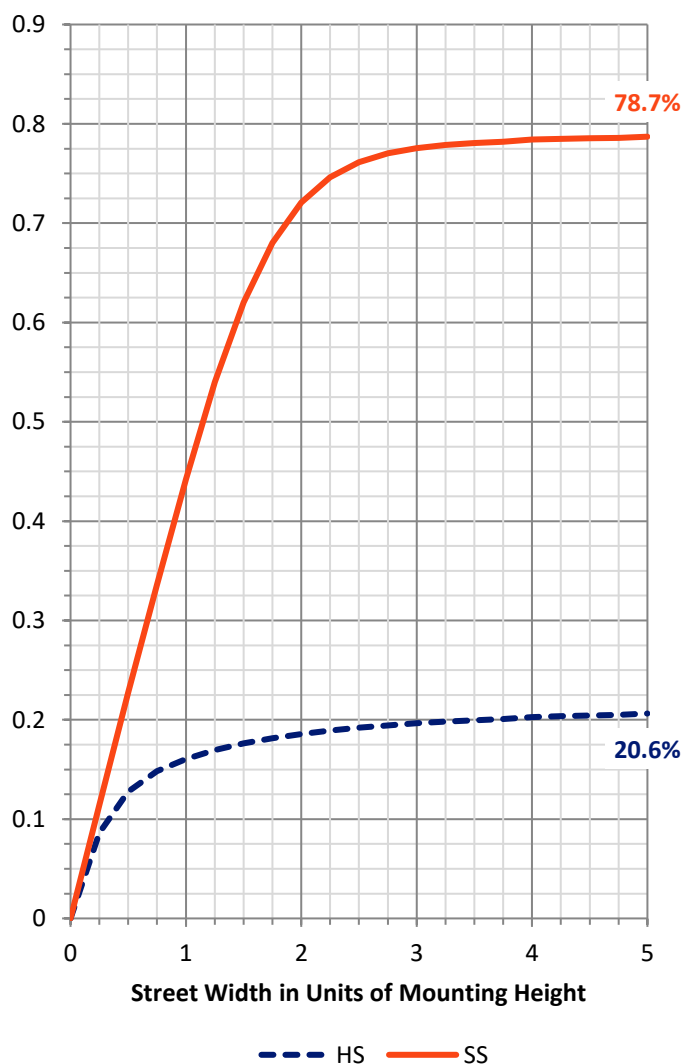
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1313.5	0.0	1313.5
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	4922.5	0.0	4922.5
	% Fixture	78.9	0.0	78.9
Total	Lumens	6236.0	0.0	6236.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	0.7
10°-20°	178.0	2.9
20°-30°	341.5	5.5
30°-40°	563.8	9.0
40°-50°	937.1	15.0
50°-60°	1547.6	24.8
60°-70°	1736.1	27.8
70°-80°	789.4	12.7
80°-90°	101.8	1.6
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°	6236.0	100.0
0°-180°	6236.0	100.0

Coefficient of Utilization



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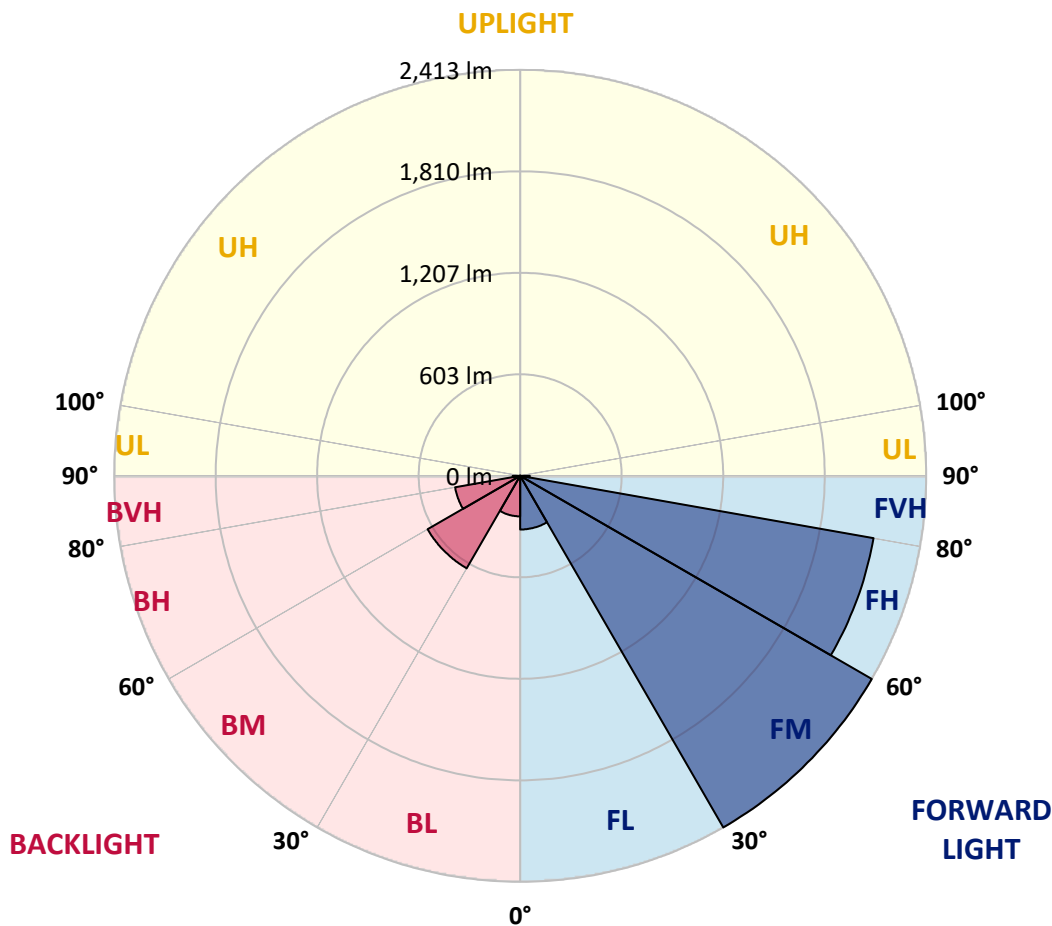
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	319.1	5.1			
FM (30°-60°)	2413.2	38.7			
FH (60°-80°)	2132.8	34.2			G2/5000
FVH (80°-90°)	57.3	0.9			G1/100
BL (0°-30°)	241.1	3.9	B1/500		
BM (30°-60°)	635.2	10.2	B1/1000		
BH (60°-80°)	392.6	6.3	B1/500		G1/500
BVH (80°-90°)	44.5	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7
2.5°	319.7	310.1	294.0	297.9	307.2	312.4	309.3	305.1	299.7	298.6	322.5
5°	414.0	395.5	388.0	384.9	373.4	366.7	378.4	376.8	383.0	394.5	417.8
7.5°	482.8	469.8	457.3	456.0	434.0	426.2	441.7	450.1	461.2	461.5	493.2
10°	519.6	508.5	508.2	496.5	494.7	509.5	509.8	516.0	517.3	530.6	524.3
12.5°	559.6	558.9	573.1	572.9	589.5	613.9	601.7	601.7	605.3	589.2	609.0
15°	655.0	663.3	636.5	640.9	640.9	664.8	664.0	668.7	679.9	675.7	666.9
17.5°	754.2	759.3	729.7	702.2	704.3	699.1	717.8	719.6	709.0	757.3	746.6
20°	818.0	838.3	776.0	741.4	748.2	754.2	754.9	743.8	738.3	812.6	798.0
22.5°	897.0	879.8	822.7	784.5	794.7	786.6	785.1	793.6	801.2	829.2	852.8
25°	949.7	948.4	879.8	838.0	826.9	824.5	840.4	837.0	854.9	905.8	891.0
27.5°	1026.3	1050.2	928.7	939.1	890.0	838.3	889.2	904.5	936.7	928.4	961.4
30°	1174.9	1156.9	1029.9	1027.1	971.5	928.1	963.5	950.5	1008.4	1006.6	1031.0
32.5°	1296.1	1308.6	1148.9	1119.0	1077.7	1025.5	1002.2	1038.3	1069.4	1120.6	1134.3
35°	1424.4	1421.6	1270.7	1210.4	1142.1	1120.6	1149.4	1164.5	1230.7	1277.7	1245.0
37.5°	1623.9	1601.3	1428.6	1314.6	1263.4	1255.6	1305.0	1283.2	1354.8	1366.0	1384.4
40°	1809.3	1741.3	1573.0	1442.3	1361.1	1390.1	1391.7	1394.6	1433.0	1463.4	1554.5
42.5°	1985.6	1937.8	1719.7	1621.5	1501.8	1473.5	1491.2	1497.1	1594.3	1656.3	1782.5
45°	2226.6	2098.6	1930.6	1829.8	1695.8	1659.7	1647.2	1698.7	1792.4	1933.7	2042.0
47.5°	2430.5	2314.9	2154.7	2022.0	1872.1	1975.2	1904.6	1875.8	2001.7	2176.8	2349.2
50°	2599.5	2472.3	2315.2	2238.6	2214.7	2306.6	2123.3	2126.6	2241.9	2488.9	2686.5
52.5°	2730.4	2594.6	2455.4	2416.5	2549.9	2602.9	2470.5	2450.5	2534.6	2826.5	3063.9
55°	2852.7	2708.6	2601.1	2680.6	2905.5	2911.4	2902.1	2791.2	2892.5	3188.3	3454.5
57.5°	2884.2	2728.9	2657.5	2771.5	3075.6	3312.1	3405.1	3187.5	3290.6	3517.3	3788.9
60°	2722.4	2589.4	2560.9	2715.6	3167.5	3513.4	3756.2	3626.1	3587.4	3781.4	4023.2
62.5°	2391.0	2236.8	2259.9	2474.9	3070.6	3593.1	4033.6	4135.1	3900.9	3991.5	4125.5
65°	1903.0	1755.8	1802.5	2061.2	2766.5	3619.6	4175.4	4383.6	4014.1	4051.0	3980.6
67.5°	1342.1	1208.4	1267.3	1601.8	2301.4	3280.5	4199.8	4267.8	3893.6	3881.4	3584.8
70°	760.4	676.5	740.4	1019.3	1624.4	2613.3	4008.4	3918.8	3677.5	3504.6	2999.5
72.5°	348.8	319.9	350.6	518.9	935.2	1738.9	3272.4	3353.7	3168.8	2952.5	2281.9
75°	185.4	175.3	188.3	259.2	437.6	946.1	2325.0	2507.9	2409.4	2239.3	1488.6
77.5°	137.9	130.1	136.3	168.0	233.7	370.1	1321.1	1551.7	1589.1	1432.5	826.6
80°	105.7	99.5	105.7	127.0	161.8	175.8	564.8	723.3	823.8	665.6	328.5
82.5°	78.4	74.3	83.9	95.3	113.7	109.9	200.5	249.6	321.8	220.0	128.0
85°	62.3	57.1	60.8	64.7	72.7	60.2	91.7	102.6	108.6	90.9	47.3
87.5°	24.4	22.6	44.1	34.8	29.6	18.2	27.5	31.2	31.9	30.6	13.8
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°	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7	267.7
2.5°	325.1	322.5	307.2	312.2	320.2	321.8	325.1	315.8	311.1	328.3	329.0
5°	419.9	405.9	398.6	399.4	394.2	386.2	398.4	406.4	409.5	422.3	426.9
7.5°	493.4	476.5	464.3	450.3	430.6	417.8	439.1	454.7	463.0	489.5	499.9
10°	526.1	512.6	510.0	492.4	491.9	491.6	490.6	485.1	503.0	500.4	507.7
12.5°	593.7	590.8	566.1	559.1	559.9	559.1	537.3	536.3	536.5	560.4	551.9
15°	656.5	657.0	634.4	609.0	586.1	579.1	570.5	566.7	572.4	585.9	577.6
17.5°	734.2	736.8	672.1	631.8	601.7	600.9	580.4	556.3	591.1	599.4	590.3
20°	784.3	773.4	693.9	626.4	617.8	594.4	569.0	535.8	565.9	586.1	591.8
22.5°	831.8	812.8	714.2	636.0	595.0	567.2	542.5	520.9	530.6	553.2	549.5
25°	864.0	858.8	742.2	659.1	594.2	532.4	499.1	485.4	490.3	525.4	522.0
27.5°	940.9	884.8	737.3	665.1	569.3	484.9	468.2	453.4	448.5	486.4	496.8
30°	992.3	969.2	770.3	655.7	537.8	445.9	421.5	418.4	419.9	463.0	465.9
32.5°	1079.6	1019.6	824.3	619.9	492.1	417.1	389.0	390.3	397.3	428.8	435.2
35°	1170.4	1134.6	831.5	594.2	455.0	386.4	375.0	365.9	369.8	397.3	398.6
37.5°	1339.2	1215.4	876.2	554.4	427.7	374.7	352.9	344.9	347.0	362.5	373.7
40°	1487.8	1377.7	855.4	516.0	394.0	359.2	331.9	325.9	319.7	335.0	342.0
42.5°	1725.9	1493.5	848.4	473.7	378.1	338.1	319.4	303.6	297.6	310.6	323.3
45°	1964.1	1616.3	810.2	430.8	355.8	336.6	301.2	286.2	287.7	299.4	312.4
47.5°	2229.5	1781.2	745.6	389.3	331.4	329.0	283.1	276.6	281.2	294.2	307.2
50°	2543.2	1956.3	692.1	351.9	314.0	306.4	280.7	272.9	277.4	292.7	305.4
52.5°	2886.2	2148.2	653.1	317.3	294.2	288.5	283.8	276.3	281.5	294.8	308.0
55°	3227.2	2323.5	626.6	293.7	277.4	281.0	290.3	284.9	287.5	297.4	310.6
57.5°	3480.2	2415.9	573.4	268.5	263.6	276.6	291.1	282.0	283.6	297.4	311.6
60°	3627.2	2433.6	485.9	248.0	252.7	267.7	283.1	271.4	270.3	292.9	310.9
62.5°	3611.1	2331.0	385.4	229.3	240.2	254.5	270.9	259.7	262.6	293.5	312.4
65°	3380.4	2121.4	306.4	213.5	225.2	240.0	260.7	256.3	270.1	314.2	334.7
67.5°	2975.3	1815.3	246.2	198.7	211.1	230.1	267.7	279.4	285.4	335.5	356.6
70°	2411.3	1410.4	205.2	185.7	200.0	234.8	288.0	285.7	280.7	325.4	342.0
72.5°	1742.0	966.8	180.5	173.0	186.2	220.7	288.5	276.1	269.8	297.1	309.0
75°	1089.9	576.8	157.6	156.9	165.2	197.9	275.5	264.4	247.5	261.0	276.6
77.5°	622.5	295.3	132.7	139.7	144.7	171.7	246.7	236.6	221.5	227.2	242.6
80°	237.6	142.8	111.9	124.1	122.8	145.4	209.1	206.7	189.6	191.4	200.7
82.5°	111.9	80.0	93.0	106.7	99.7	115.8	169.8	169.1	154.0	139.5	147.0
85°	41.6	42.6	68.0	81.3	69.3	74.8	122.8	119.5	104.9	88.6	97.9
87.5°	9.3	15.3	33.5	42.3	24.2	23.1	49.6	43.1	41.6	24.7	26.0
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)